Phase 1 Draft EIS Scoping Comment Record Report

July 30, 2015

energize EASTSIDE

EIS

Environmental Impact Statement

Subject: Energize Eastside
From: Danielle Ramos <danielle@cdramos.com>
Date: 5/11/2015 6:18 AM
To: "Scoping@EnergizeEastsideEIS.org" <Scoping@EnergizeEastsideEIS.org>

I live on the power line trail and I have loved the community and neighborhood for over 15 years. I am devastated to know that I may be living next to a horrific and unnecessary set of new power lines that will sizzle and crackle and destroy my peace of mind. I believe these proposed lines are not only ugly but dangerous and it does not matter if PSE employees tell me thousands of times that there is "no conclusive evidence that they are harmful" I don't believe them anymore than I would believe a representative from the tobacco industry telling me tobacco is not dangerous. The fact is that if this happens it will significantly and dramatically impact my emotional well-being and I believe the physical health of all impacted neighbors. There are many other reasons I am against this project and believe CENSE has thoughtfully and consistently represented those points.

I ask, why ruin peoples lives and do such damage to so many communities when it is unnecessary. Look at the alternatives and make better choices for the people instead of only considering corporate profits. How much bonus money in the pockets of a few can justify the damage done to so many.

Look at alternatives, find a way to meet the actual and factual needs of the communities instead of blindly and greedily following the current path. Be mindful and responsible with your power and influence. I ask this as someone who could be your neighbor or your relative or your child.

Sincerely,

Danielle Ramos

Subject: PS E
From: Betty Lou <blk206@earthlink.net>
Date: 5/12/2015 6:02 PM
To: "Scoping@EnergizeEastsideEIS.org" <Scoping@EnergizeEastsideEIS.org>

Dear David,
I am waiting for the 6 o'clock meeting to start here at City Hall on May 12.
My concern is the devaluation of residential land and possibly commercial land through the 18 mile stretch of The city of Bellevue.
Land values will be appraised at a lower rate thereby increasing the rate for all the people whose land has not been devalued ,yet Bellevue still needs the tax revenue to meet their obligations.
I had requested that the city look into the undergrounding of utilities in certain California cities. I have never heard back from that request.
This city council needs to stand up and support the residents that live along this 18 mile path.
The path in bridal Trails is particularly oppressive because of the homeowners.
Pse could use a power line that runs in the middle of the park where there is an open ring .
PSE could underground the powerline through residential neighborhoods like other Power companies have done in California. The cost is double. Not triple not out of sight financially.
Look into changing the tariff law from the 1800s.
. Sincerely,

Betty Lou kapela

BL Kapela 425-246-7282
Sent from my iPhone

Subject: Energize Eastside
From: "Bob Moore" <bmooreii@comcast.net>
Date: 5/13/2015 11:45 AM
To: <scoping@EnergizeEastsideEIS.org>
CC: "Moore, Margaret" <mmooreii@comcast.net>

Thank you for holding the citizen meeting last night regarding PSE's Energize Eastside Project. I have lived in Bellevue for 40 years, and find this project concerning for several Important reasons:

- I would ask you to dig deeper into the motives of PSE to expand capacity on the Eastside. There are many who feel this project is a financial play on the part of a public utility owned by foreign investors who have until 2017 to "flip" this investment, and between now and then want to increase the value of their investment by expanding capacity to be able to sell power to Canadian and perhaps California interests. PSE is guaranteed a 10-15% return on their investment by state regulations, paid for by its customers and then the investors will reap a large capital gain, riding on the backs of their customers.

- Serious, credible concerns have been raised about the accuracy of the demand forecast, and the assertions by PSE should be investigated.

- Finally, even if we need power at some future time, there are many other alternatives to consider that could be less expensive, more environmentally and aesthetically pleasing and safer for the lives of all humans and wildlife living in the affected communities. New technologies are being developed very rapidly and a more reasoned course of action is called for.

- A financial power play by foreign interests should not be allowed to damage the legitimate interests of those who live on the Eastside now and in the future. What a bad legacy to leave behind.

- How can we as citizens of the Eastside organize to develop a coherent, holistic, long term plan that benefits all social and commercial interests for the immediate future and not waste millions on an alternative that will prove to have been a boondoggle for the benefit of a few with no vested interested in our communities?

Thank you for listening,

W. Robert Moore
4707 135th Place SE
Bellevue, WA 98006-3034

Subject: Public Scoping input
From: "Margaret Moore" <mmooreii@comcast.net>
Date: 5/13/2015 9:45 AM
To: <scoping@EnergizeEastsideEIS.org>
CC: <bmooreii@comcast.net>

I attended the public meeting last night at Bellevue City Hall. Thank you very much for allowing public input into the process.

I would like to add a comment via email for consideration.

I was dismayed to learn from talking with Mark Johnson prior to the meeting that the current process doesn't allow professional examination of the original PSE premise that the potential energy deficit is as dire as they state. CENSE has done considerable work with reliable data that tells a different story. At a minimum, the need is much further in the future than PSE indicates.

The public believes that foreign ownership and the structure of its financial requirements is driving the timing of this project without regard to impact on those who must live with the outcome– the local communities. Your final Scoping/EIS report must make clear the PSE ownership arrangements, identify the circumstances under which the project must be sold, note the implications improving the power grid will have on the sale price, and discuss who is going to pay for the improvements that may or may not be needed.

If the final report does not justify the current PSE enhancement request based on irrefutable evidence, does not directly address the CENSE alternate data, and can't offer a reasonable alternative to the current plan, it will lose credibility and undermine the integrity of the final report. So much is currently being done in the field of energy generation that is far more acceptable and less destructive and potentially dangerous than 230 KV power lines on 135 foot poles over large fuel pipelines. Even if the need is accurately projected, it is likely much further in the future and can be met then in newer, better, more environmentally-friendly ways that will improve the legacy we leave future generations.

We're counting on your impartial, thorough examination of all aspects of this proposal.

Thank you,
Margaret R. Moore
4707 135th PL SE
Bellevue, WA 98006
425-747-1388

Subject: Re: Energize Eastside
From: Energize Eastside EIS <info@energizeeastsideeis.org>
Date: 5/14/2015 4:52 PM
To: Danielle Ramos <danielle@cdramos.com>
CC: David Pyle <dpyle@bellevuewa.gov>, Energize Eastside EIS <scoping@energizeeastsideeis.org>

Thank you for your email. We will consider it as a comment on the scope of the EIS and include it in the record. If you have any additional comments on the scope of the EIS, please email them to Scoping@EnergizeEastsideEIS.org. If you have questions about the project or the EIS process, continue to send those to this email address: Info@EnergizeEastsideEIS.org.

Reema Shakra
Energize Eastside EIS Team

On Tue, May 12, 2015 at 5:27 PM, Danielle Ramos <danielle@cdramos.com> wrote:

> My name is Danielle Ramos and I live at 8216 128th Ave SE, Newcastle, WA. 98056. I am opposed to this project on many levels; emotionally due to the blight that could be in my backyard, financially due to the dramatic decrease in home values and physically due to health risks. I have been part of the concerned community members and wish to submit the concerns and findings of CENSE to support my objection as this project just should not move forward.
>
> 1. **PSE has revised their predicted rate of demand growth from 1.7% to 2.4%**.
>   - That's a 41% increase in the rate of growth since their last forecast just 3 years ago! PSE doesn't explain the rationale behind the sudden and dramatic jump in PSE's prediction.
> 2. **PSE expects Eastside demand to grow at twice Seattle's rate.** After repeated requests, PSE has failed to provide any basis for such a prediction. It also contradicts the growth rate estimated by the King County.
> 3. Despite the huge jump in the growth rate, **the "problem" date has now moved forward 3 years from 2017 to 2020**. This should be enough of a reason to stop this process and thoroughly vet alternatives.
> 4. PSE hired a consultant named E3 to do an analysis of usage. **E3 found an opportunity for PSE to save 56 MW of energy which would also save its customers $40M**. PSE has ignored this opportunity because it is not profitable.
> 5. **Diverging growth trends.** USE shows a population and employment graph for the Eastside on page 20. Population is predicted to grow at less than 1% per year, while employment is predicted to grow at 1.7% per year. It's not clear how these trends combine to produce demand growth of 2.4% per year unless residents start using more electricity per person in the coming years. The report doesn't make this claim.
> 6. **Big projects in Bellevue.** On page 30, USE lists 39 major projects that will be built in downtown Bellevue and the Bel-Red corridor in coming years, implying they will require more electricity. No projects are listed for other Eastside cities. Will neighborhoods be required to sacrifice their quality of life to support these aggressive growth plans?
> 7. **No demand map**. USE failed to create a more accurate map of peak electricity usage on the Eastside. This was a major request so we could get a better idea of where opportunities for savings or improved policies might help. We are extremely disappointed that this was not included in the report.
> 8. **Rare outages.** The probability of the kind of outage Energize Eastside is designed to prevent is once in every 3 or 30 years. We will have to live with the new poles and wires every minute of every day for the next 40 years (at **least).**

9. **No local generation.** USE continued PSE's practice of turning off all generation west of the Cascades during their power flow simulations (page 51). We have it on good authority that there is no reason for simulating this condition except to increase stress on the system. PSE's own contractors pointed out that this was an artificial scenario that was without merit.
10. **No oversight.** USE states on page 56 that there is no governmental regulation of ColumbiaGrid, the consortium of utility companies that approved Energize Eastside. This is not correct. The Federal Energy Regulatory Commission is responsible for overseeing the activities of ColumbiaGrid.
11. **Project delay.** USE admits that this project could be delayed by 6 months, so the need isn't as urgent as we've been told. But they don't recommend delay.
12. **Canadian service.** If Canadian service was dropped to zero (and it would be significantly reduced by reconductoring Seattle City Light's line), only one transformer is overloaded. This overload could be solved through other means, such as E3's savings, or by installing an additional transformer at Talbot Hill. These options would cost much less than Energize Eastside and would have much less detrimental impacts to neighborhoods and the environment.
13. CENSE is disappointed that **USE did not gather historical annual peak load for all Eastside substations.** It is the peak load on these substations that is the key to transmission line system studies.
14. CENSE is disappointed that **USE did not consider the alternative of using the Seattle City Line existing 230 KV lines on the east side**. Columbia Grid studied that option in 2010. Columbia Grid states on its web site that "Columbia Grid provides single-utility based transmission planning for the combined network of its participating utilities." Single-utility based transmission planning refers to the concept of the transmission grid being planned as if one utility owned all the transmission lines. That is what FERC insists owners of transmission lines do and is one reason that FERC orchestrated the formation of Columbia Grid.
15. CENSE is disappointed that **USE did not look at installing a third transformer at Talbot Hill**. Since a major outage contingency is the outage of one of the two 230/115 KV banks at Talbot Hill, a logical fix to that problem is installing a third transformer at Talbot Hill so that if one transformer is forced out of service, there is another transformer already in place to carry part of the load and thus eliminate the overload on the remaining transformer.
16. CENSE is disappointed that **USE did not look at demand side actions that can shift load from peak hours to non-peak hours.** The kinds of demand side actions that do this are programs that allow the utility to interrupt home owner water heating demand for short periods of time. These programs are widely used in the industry.
17. CENSE is disappointed that **USE did not provide detailed output reports from their transmission studies and did not provide the standard "one-line" diagrams that show the input/output of these kinds of transmission studies**. http://en.wikipedia.org/wiki/One-line_diagram. Without those, it is not clear exactly what assumptions were included in the transmission studies and what detailed results are and there is no way to provide even a cursory check of the results they provide in their report.

Subject: Re: Eastside Blight
From: Energize Eastside EIS <info@energizeeastsideeis.org>
Date: 5/14/2015 4:46 PM
To: Linda Young <lyry@comcast.net>
CC: David Pyle <dpyle@bellevuewa.gov>, Energize Eastside EIS <scoping@energizeeastsideeis.org>

Thank you for your email. We will consider it as a comment on the scope of the EIS and include it in the record. If you have any additional comments on the scope of the EIS, please email them to Scoping@EnergizeEastsideEIS.org. If you have questions about the project or the EIS process, continue to send those to this email address: Info@EnergizeEastsideEIS.org.

Reema Shakra
Energize Eastside EIS Team

On Tue, May 12, 2015 at 1:14 PM, Linda Young <lyry@comcast.net> wrote:

> I am a homeowner in Olympus, Newcastle, WA.
> The fact that Puget Sound Energy is even considering building high voltage structures on the same land as Olympic Pipe Line has gas lines is BEYOND comprehension.
> The two Olympic Pipe Line gas lines are not sitting very far under ground. One was built in 1960 and the other in 1970.
> In 1999 Olympic Pipe Line had a major explosion in the Bellingham area. Three young boys lost their lives and if you have ever visited a burn unit you would know their deaths were beyond horrendous.
> Olympic Pipe Line settled for two of the young boys for 76 million. As parents we know those families would have handed back every cent to have their children in their arms.
> How can you have the possibility of an explosion on your conscience - I am sure you love your children too.
> There is NO need for Puget Sound Energy to blight the entire Eastside - other alternatives exist and also we the customers get to pay for this!
> Winton Churchill in all his wisdom said “Those who fail to learn from history are doomed to repeat it”.
>
> Linda Young
> 12813 SE 80th Way
> Newcastle, WA 98056
>
> 425 207 8084

Subject: Re: Objection to PSE proposed Project
From: Energize Eastside EIS <info@energizeeastsideeis.org>
Date: 5/14/2015 4:50 PM
To: Patricia Lee <plee1901@gmail.com>
CC: David Pyle <dpyle@bellevuewa.gov>, Energize Eastside EIS <scoping@energizeeastsideeis.org>

Thank you for your email. We will consider it as a comment on the scope of the EIS and include it in the record. If you have any additional comments on the scope of the EIS, please email them to Scoping@EnergizeEastsideEIS.org. If you have questions about the project or the EIS process, continue to send those to this email address: Info@EnergizeEastsideEIS.org.

Reema Shakra
Energize Eastside EIS Team

On Tue, May 12, 2015 at 4:48 PM, Patricia Lee <plee1901@gmail.com> wrote:

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>
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How can I help fight Energize Eastside? Public responses for EI... https://docs.google.com/document/d/19i4fAInTDiAg29CQzh...

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Patricia Lee
10650 NE 9th Pl
Bellevue,WA 98004

Subject: Comments for Scoping file, Energize Eastside EIS
From: KEsayian@aol.com
Date: 5/21/2015 9:30 PM
To: Scoping@EnergizeEastsideEIS.org

The **zoning** laws and guidelines for the cities along the proposed 18 mile route for Energize Eastside need to be taken into consideration. The Generalized Zoning Map for the City of Bellevue illustrates that the PSE proposed route for industrial sized power grid poles and transmission lines will tower over areas primarily zoned as residential; a higher percentage of this route is residential versus commercial. At the May l8, 2015 Bellevue City Council meeting, the CAC for "**Livability Effort**" with respect to land use code and height restrictions was presented and discussed for building in downtown Bellevue and residential areas. One comment stood out: the importance of the view toward Mt. Rainier from Bellevue. I ask you to consider what that view would be if the distance between were cluttered with 130 foot high industrial sized power grid poles.

It is commendable that the City of Bellevue is planning its downtown growth and concentration of growth toward the center of the City. All residents appreciate your considerations and for adding parks and green spaces to compliment the "City within a Park".

But this consideration will be contradicted if the residential neighborhoods are asked to sacrifice their quality of life to subsidize development needs in downtown Bellevue and along the Bel-Red corridor as proposed by PSE with the Energize Eastside project. The visual blight of industrial height power poles contradicts the vision of "A City within a Park".

In the Utilities Element of the **Comprehensive Plan** for Bellevue:

~ on page 95 under Goals, it is stated: "To encourage new technology that improves utility services and reliability while balancing health and safety, economic, aesthetics, and environmental factors".

~ on page 111, under Policy UT-72: it states "Work with Puget Sound Energy to implement the electrical service system serving Bellevue in such a manner that new and expanded transmission and substation facilities are compatible and consistent with the land use pattern established in the Comprehensive Plan. Discussion: Where feasible, electrical facilities should be sited within the area requiring additional service. Electrical facilities primarily serving commercial and mixed use areas should be located in commercial and mixed use areas, and **not** in areas that are primarily residential."

~ on page 103, Non City-Managed utilities, Authority, it is stipulated: "The City of Bellevue has the authority to regulate land use and, under GMA, the requirement to consider the location of existing and proposed utilities and

potential utility corridors in land use planning."

There are multiple, less impactful, means of solving an energy shortfall on the coldest day of the year. If, as part of the Columbia River Treaty, power is needed to flow to Canada - this does NOT have to happen on PSE lines. The utility consortium Columbia Grid previously endorsed a project, less expensive, to upgrade lines on Seattle City Light's 230 kv line that runs through the Eastside. There is also the BPA corridor that could accommodate additional 230 kv lines. In addition, there are non-wire options; central battery storage, diesel backup generators to name only two.

We encourage our City planners and decision makers to keep the stated vision of **"City within a Park"** in mind and support the residential neighborhoods in their commitment to keep parks, not power poles, in their neighborhood.

Karen Esayian

4601 135th Ave SE

Bellevue, WA 98006

Subject: Comments to be added to Scoping file; Energize Eastside
From: KEsayian@aol.com
Date: 5/21/2015 9:49 PM
To: Scoping@EnergizeEastsideEIS.org

Over 80 years ago a narrow easement running through some of the residential properties in the neighborhood of Somerset was granted to the company now know as Puget Sound Energy. The houses on these streets, along this easement, were mostly built in the mid 1970's. The home we have lived in for 40 years was built in 1976 - on 135th Avenue SE. All residents all along these streets have developed and landscaped their properties and in our block of homes have dug a rain creek to accommodate heavy rainfall on the hillside. This has made even this very narrow easement into a habitat for not only family, but for wildlife of all kinds. We have always felt that the City of Bellevue valued residential neighborhoods like ours; the appreciation in property values in Somerset definitely reflect the pride of owning a home here.

The project as proposed by PSE does not belong on an easement granted some 80 years ago. Transmission line poles 130 feet in height and between 3 to 6 feet in diameter at the base are not compatible with a 100 foot easement running through homeowners back and front yards. The Energize Eastside project as proposed by PSE does NOT belong in an easement shared with a pressurized 50 year old jet fuel pipeline. A power grid of the size proposed by PSE belongs on a right of way - away from any residential area; consider the BPA corridor east of Lake Sammamish which already accommodates a 230 kv transmission line.

In the year of 2015 the City of Bellevue should be planning a 21st century infrastructure, not reusing the plans of the past century. If pride is taken that Bellevue attracts high-tech companies that produce cutting edge product - it follows that any proposed power grid should include cutting edge technology such as large scale battery storage systems, a gas fired peaking plant or diesel backup generators for the coldest days. I cannot spell out a plan - but **you** can contact experts who can.

The Energize Eastside proposed project is totally out of scale with Bellevue's Comprehensive Plan which seeks to preserve neighborhood character. Policy UT-72 on page 111 of the current Comprehensive Plan states: "Discussion: where feasible, electrical facilities should be sited within the area requiring additional service. Electrical facilities primarily *serving commercial* and mixed use areas should be located in *commercial* and mixed use areas, and not in areas that are primarily residential."

Karen Esayian

4601 135th Ave SE

Bellevue, WA 98006

Subject: Scoping Period file, Energize Eastside (PSE)
From: KEsayian@aol.com
Date: 5/21/2015 3:15 PM
To: Scoping@EnergizeEastsideEIS.org

City of Bellevue, Development Services Department

Attn: David Pyle

Comments to be entered into Scoping Period file, Energize Eastside (PSE)

Consistently ignored in presentations by PSE regarding the Energize Eastside proposed project: impact on people/residents, quality of life of residents, view property and the effect of industrial sized power transmission line poles on residential lots. Nor have these factors been added to the: Preliminary List of Elements of the Environment: ...to be discussed in the EIS, from Development Services Department, Environmental Coordinator. But, perhaps the intent is that people can be discussed under the "Plants and Animals" section? Or is it suggested that view property and industrial power grid poles could be discussed under "Aesthetics"? The **residents** along the 18 mile stretch identified by the Energize Eastside proposed project are at the heart of this project. IF the suggested need is to serve the residents - the impact of any solution should be considered first and foremost.

The only mention of safety refers to the electric and magnetic fields, in the Preliminary List of Elements of the Environment. But do *not* forget that there are also **two aging pressurized fuel pipelines** along this proposed Energize Eastside route. It has been noted that they are buried only 3-6 feet underground. Please think again of the foolhardiness of excavating and shoving a 130 foot high power pole into the soil around the pipelines.

One more thing - there is nothing mentioned, nor allowance made, to study the impact of what an **earthquake** would do to the stability of these power grid poles. There is this thing called an earthquake fault line running under and alongside I-90, which happens to be in close proximity to residential neighborhoods along the PSE proposed project route.

In addition to these concerns, there are elementary schools and high schools along this 18 mile stretch of the proposed Energize Eastside project. These children are the future residents and support for the communities involved. Their health and safety should be a primary concern - this year and for the future legacy we leave.

There are **alternatives** to PSE suggested resolution.

As early as January of 2012 the reliability of the regional electric grid was studied and discussed between BPA, PSE, Seattle City Light and Snohomish Public Utility District. In a news memo from that date it is acknowledged that BPA delivers energy through the Puget Sound area to Canada to fulfill the **"Canadian Entitlement"** agreed to in the 1964 Columbia River Treaty. It is

understood that BPA proposed a solution for this potential problem, but allowed PSE to take over the project and will be paying them a sum of monies for resolving the Canadian Entitlement power commitment**. IF** this is a regional problem **or if** this is in context of an agreement between Washington State or the U.S. government and Canada - then it should not be resolved on the roofs of the residents from Bridle Trails down through Renton. At the very least, BPA could use their current right of way east of Lake Sammamish and develop Lake Tradition for transmission of energy to Canada.

In addition to this, one recommendation made in the *review* of the **Columbia River Treaty** (from U.S. Entity Regional Recommendation for the Future of the Columbia River Treaty after 2024, dated December 2013) is that the U.S. government "proceed with a renegotiation of the Treaty with Canada in order to modernize the Treaty by incorporation the objectives in this regional recommendation." (page 7) On page 14 of this memo, under Recommendation Details, it is stated: "The United States should pursue rebalancing the power benefits between the two countries to reflect the actual value of coordinated operations. This rebalancing is necessary because the present Treaty power benefits are not equitably shared and Canada is deriving substantially greater value from coordinated power operations than the United States."

If this proposed Energize Eastside project is not specific to the resident home owners, the resident home owners should not bear the burden alone, neither physically nor financially.

Karen Esayian

4601 135th Ave SE

Bellevue, WA 98006

Subject: Scoping comments
From: "Jean Garber" <jgarber11@comcast.net>
Date: 5/23/2015 10:20 PM
To: <Scoping@EnergizeEastsideEIS.org>

Dear PSE and the City of Bellevue,

Following are my comments on the scope of the Phase 1 EIS for Energize Eastside:

- Under each element of the environment, analyze both construction and operation impacts. This allows recognition of the fact that some of the alternatives would have greater construction impacts than others, and provides an opportunity to discuss how those impacts would be mitigated. (I understand that analyses in the Phase 1 environmental review will be programmatic, because no project-specific information is available at this point.)
- Add Earth to the list of elements of the environment, so that construction impacts related to that element can be analyzed -- for example, the potential for erosion from clearing or excavation -- and mitigation measures discussed.
- Under Air, discuss potential construction impacts (such as dust and odor) in addition to greenhouse gas emissions, as well as measures to mitigate dust and odor impacts.
- Add Environmental Health to the list of elements of the environment. This would recognize the fact that, depending on which route is selected, the new transmission line may need to be constructed adjacent to an existing fuel pipeline, posing the risk of explosion or hazardous emission. I believe that even at this Phase 1 stage, it would be useful to discuss in general terms what measures would be implemented to mitigate that risk.

Thank you for the opportunity to comment.

Jean Garber
8346 129th Place SE
Newcastle, WA 98056-1764
425-277-9327 home
425-757-0110 cell

Subject: PSE Energize Eastside
From: Annette Jung <annettejung@me.com>
Date: 5/29/2015 6:22 PM
To: Scoping@EnergizeEastsideEIS.org

I live directly on the current pipeline and power line easement in Bridle Trails and am extremely concerned about the proposal to install high voltage transmission lines in my back yard. I am extremely concerned about how this would impact the value of my property. I have lived here long enough to have enjoyed a significant increase in my property value. I depend on that as I approach retirement and consider downsizing. Moreover I am worried about the impact to my health in the years that I will continue to live here. I believe the potential health hazard of high voltage lines near residential property is a very important aspect that should be considered. This proposal would impact how I enjoy my property. This is not necessary and not a desirable solution.

Please don't spoil a neighborhood that is such a treasure in Bellevue and the Eastside.

Thank you.
Annette Jung
13604 NE 28th St.
Bellevue, WA 98005

Subject: I would like to protest the current proposal
From: Erica Goodman <ericagoodwoman@yahoo.com>
Date: 5/29/2015 6:34 PM
To: "scoping@energizeeastsideeis.org" <scoping@energizeeastsideeis.org>

I live near the current proposed powerline route. At 130 feet tall, this will be an affliction on our beautiful, residential neighborhood. I vehemently oppose this proposal.

Erica Goodman
2640 134th Ave NE
Bellevue, WA

Subject: I am against the current proposal
From: Joshua Goodman <joshua.goodman@gmail.com>
Date: 5/29/2015 6:29 PM
To: scoping@energizeeastsideeis.org

I live near the current proposed powerline route. At 130 feet tall, this will be an enormous blight on our residential neighborhood. I vehemently oppose this proposal.

Joshua Goodman
2640 134th Ave NE
Bellevue, WA

Subject: Questions
From: "JULIUS D" <jbudos@msn.com>
Date: 5/29/2015 3:06 PM
To: <scoping@EnergizeEastsideEIS.org>

There is a large popular movement arguing against the proposed PSE 230 kilovolt transmission-based project. The opposition has presented well-reasoned and substantiated arguments that contradict the information, not substantiated, that PSE has presented for its proposed project. And importantly the opposition convincingly shows the proposed project is not needed at this time. Yet it is not clear if the opposition's information will have any effect of the selection process.

I have read the paper entitled "Notice of Determination of Significance - Notice of Environmental Impact Statement Scoping Periods - Notice of Public Scoping Meetings/Open Houses". It says that the "Environmental Coordinator of the City of Bellevue, serving as lead agency, has determined that this proposal could have a significant adverse impact upon the environment." So, the project is bad for the environment, citizens don't want it, it will be costly, and it is not clear that ii is needed. It seems that only PSE thinks it is a good idea.

The paper defines four alternatives, yet there is no discussion as to what the process is to select the best alternative. If we believe that power consumption by Northwest cities and other cities across the country have slowed the growth of power need, then it follows to try either alternative 2 or even alternative 4. Either of these alternatives would be more acceptable to communities and at a minimum would buy time to confirm that increased power capability really is needed - or not.

Who will ultimately approve or disapprove of the PSE proposal? Is it the City Councils of each city along with state and federal agencies? Does all of this dissent by affected citizens have any effect on the process? I would hate to see Coal Creek Park be ruined by an unnecessary project.

Thank you

Julius Budos

12818 SE 56th St.

Bellevue

Subject: Energize Eastside project
From: Tom Dudler <tom_dudler@yahoo.com>
Date: 5/31/2015 10:48 PM
To: "scoping@energizeeastsideEIS.org" <scoping@energizeeastsideEIS.org>
CC: Pandora Christie <pchristi@u.washington.edu>

Following careful review of the project proposal , here are my comments regarding the “Energize Eastside “ Project

The projet sponsor asserts that, based on their electricity consumption growth projections, existing transmission capacity will not meet future demand. **I reject the sponsor's proposed** solution of a new high voltage transmission lines for the following reasons:

1. PSE attempts to solve a 21st century problem with 20th century mindset. The advent to the information age has enabled us to greatly increase GDP per capita without a corresponding increase in energy consumption relative to GDP. The same applies to population growth. While the eastside population will likely grow dramatically over the coming decades, energy consumption should increase only modestly, provided the appropriate public policies are adopted. Demand is a function of price, and if demand exceeds existing infrastructure capacity, tiered pricing should be introduced to shift consumption from high demand to low demand times. We already do this with our toll road. The same can be done for electicity.

2. PSE proposed to solve a 21st century problem with 20th century technology. While the eastside population will likely grow dramatically over the coming decades, energy consumption should grow only modestly, if the appropriate public policies are adopted. However, should demand exceed supply carrying capacity in spite of best effort, there are novel and creative solutions to this problem.

    a. Energy storage:

Tesla and others companies are building devices for energy storage solutions at a fraction of the cost of a new transmission line capacity. Energy storage further helps alleviate supply/demand imbalances. Local energy storage can be implemented at much lower cost than the new transmission lines

    a. Local energy production

Solutions based on locally produced renewables should be considered. The cost of photovoltaics (solar panels) has decreased dramatically over the last decade. These devices can make meaningful contributions to electricity production in climates less favorable than ours (see Germany) . It stands to reasons that the very same solutions can be applied in Puget Sound – at a fraction of the cost of the proposed PSE project

In short, even if PSE’s optimistic needs projections are correct , there ecologically and economically

better are better solutions for eastside residents than what PSE has proposed.

Thank you

Thomas Dudler

13410 NE 36th Street

Bellevue WA 98005

Subject: FW: Setback requirements and design for energize eastside
From: Reema Shakra <RShakra@esassoc.com>
Date: 6/1/2015 5:36 PM
To: "scoping@energizeeastsideeis.org" <scoping@energizeeastsideeis.org>

-----Original Message-----
From: DPyle@bellevuewa.gov [mailto:DPyle@bellevuewa.gov]
Sent: Thursday, May 28, 2015 9:48 AM
To: brianacalado@yahoo.com
Cc: records@energizeeastsideeis.org; Mark Johnson; Reema Shakra; info@energizeeastsideeis.org
Subject: RE: Setback requirements and design for energize eastside

Brian,

I have forwarded your question to the EIS email box and it will be included with the project record. We will be studying the technical requirements of different types of construction based on facility design, including setbacks and height, at different levels with the phases of the EIS. Phase II will likely be much more detailed in its analysis of these requirements.

David Pyle
Energize Eastside EIS Program Manager
Senior Land Use Planner
City of Bellevue
dpyle@bellevuewa.gov
(425)452-2973 (Office)
(425)452-5225 (Fax)
www.bellevuewa.gov
www.EnergizeEastsideEIS.org

-----Original Message-----
From: Brian Calado [mailto:brianacalado@yahoo.com]
Sent: Thursday, May 28, 2015 6:12 AM
To: Pyle, David
Subject: Setback requirements and design for energize eastside

I live on the 115kv power-lines in bridle trails and object to the energize Eastside proposal.

What are the exact setback requirements for 230kv lines compared to 115kv lines?

What is the proposed line design and configuration? Tower and line height and width and layout?

Since this the EIS - I expect detailed design specs and drawings.

Thanks,
Brian

Sent from my iPhone
.

Subject: FW: Is Bellevue like a third world country or like Paris? Your choice.
From: Reema Shakra <RShakra@esassoc.com>
Date: 6/1/2015 5:39 PM
To: "scoping@energizeeastsideeis.org" <scoping@energizeeastsideeis.org>

From: SJNunnelee@bellevuewa.gov [mailto:SJNunnelee@bellevuewa.gov]
Sent: Friday, May 29, 2015 3:35 PM
To: info@energizeeastsideeis.org
Subject: FW: Is Bellevue like a third world country or like Paris? Your choice.

From: Nunnelee, Sandra J.
Sent: Friday, May 29, 2015 15:34
To: 'Brian Calado'
Cc: 'iinfo@energizeeastsideeis.org'
Subject: RE: Is Bellevue like a third world country or like Paris? Your choice.

Mr. Calado –

Thank you for your comment letter regarding Puget Sound Energy's proposed Energize Eastside project. The City of Bellevue is currently analyzing the proposed project through the Environmental Impact Statement (EIS) process as required by the Washington State Environmental Policy Act (SEPA - Washington Administrative Code section 197-11) and the City of Bellevue Environmental Procedures Code (Bellevue City Code 22.02). As the majority of the project is proposed within Bellevue, the City has taken the lead role in this analysis and the project is being managed by the City's Development Services Department Land Use Division under the direction of the Environmental (SEPA)Coordinator.

The EIS process is anticipated to take approximately 2 years and has only just begun with commencement of the Phase I scoping period. More information on the Energize Eastside EIS process is available at www.EnergizeEastsideEIS.org under the 'Overview' tab. As your comment is valuable, it has been forwarded to the EIS team for inclusion in the project record. To participate directly in the EIS process please visit the project website at www.EnergizeEastsideEIS.org . Within this website you may sign up as an interested party and to receive updates on the EIS process. The website also allows for direct comment entry.

Thank you for your interest in this project. For more information please feel free to email info@EnergizeEastsideEIS.org .

From: Brian Calado [mailto:brianacalado@yahoo.com]
Sent: Friday, May 22, 2015 08:33
To: Council
Subject: Is Bellevue like a third world country or like Paris? Your choice.

Hello,

I know this is a long email and you can stop here if you just want to categorize this as a vote **against** the current Energize Eastside project. Read more if you would like to understand just a part of my thinking and also learn how other countries are addressing power demand issues.

I've recently been traveling to Bali and I was amazed that I could see similarities between Bali and Bellevue. It wasn't the beaches. It wasn't the great restaurants. It wasn't the natural beauty of the rice fields compared to Bellevue parks and woodlands. It was the amazing in your face infrastructure ugliness with power lines everywhere in and around almost everything beautiful. It filled me with more dread over the Energize Eastside project.

Third world countries is an obsolete term, but I would highly recommend Bellevue city council carefully consider the approach proposed in the Energize Eastside project. Power lines do not beautify the city when they strung across the city at over 100 feet high. Obviously - I am not anti development. I live in Bellevue because it is a beautiful place to live. In one moment I can be working in my home office connected to the world by fiber optic Internet and the next I can be riding my 17.1 HH Appaloosa X Percheron horse in the Bridle Trails park. Amazing. I understand a technology based economy requires power infrastructure. We need to be economical and smart on how we take these next steps. The current proposal for Energize Eastside is neither.

The choice becomes how we want to progress as a city. We can be like Bali and grow like crazy and build all kinds of power webs and invest in coal power plants or we can be like other countries and cities who invest in the future and protect the grandeur and beauty of their city. It is your decision and responsibility.

Below is a link to how Bali plans to address their power demand problems. This kind of looks bleak to me since they are just building coal plants and don't even seem to consider the power lines that seem to be more like spider webs all over their cities and countryside. This kind of sounds like a power company I know that has a huge coal plant in Montana and wants to spread power lines all over the city. Pretty third world!

http://www.thejakartapost.com/news/2014/08/14/java-bali-face-power-crisis-soon.html

Below is an example of a project that was completed in the Paris suburbs - I've translated the article below for your benefit if you don't speak French.

I think this is a decent example of where the right decision was made to underground power lines. You can read the article and determine the cost to underground 9KM was around 14 million USD when you subtract out the substation from the project cost. If you work this out to the EE distance of 18 miles, this is just $45 million USD. I understand the costs are probably different, but the voltages are not and I'm presuming the development density is higher in Paris than here. What do they know that we don't? What do they value that we don't?

It seems clear to me Bellevue should be more like Paris than a third world country. Perhaps you disagree?

http://www.rte-france.com/fr/projet/creation-du-poste-boule-225-00020-000-volts-et-creation-de-deux-liaisons-souterraines-225-000

---- COMPUTER TRANSLATION of above URL ---------

At Nanterre, in the Hauts-de-Seine, RTE and ERDF have developed a project to create a new substation to meet increased demand for electricity and to secure the power supply to the western Paris region.

In work

Hauts-de-Seine

Ensuring the quality and safety of power supply

The dynamic development of the Paris west is accompanied by an increase in electricity consumption. In the years ahead, the development of "Seine-Arche" in Nanterre, the revival plan of the Defence business district, major infrastructure such ARENA 92, and ZAC new deployment and housing north of the department Hauts-de-Seine will increase the need for electricity in this sector. The new position of Ball, RTE will supply a third underground line to 225 000 volts between stations Nanterre and Puteaux, is the solution developed by ERDF and RTE to meet this increase in electricity demand and secure supply Electrical this area.

A substation in line with the neighborhood redevelopment project

The area around the Place de la Boule undergone an extensive redevelopment plan. To meet this challenge, a competition has helped to provide the architectural project integrating the best in the urban environment of the neighborhood. Several key points will allow an optimized environmental integration of the substation:
• an architecture integrating into the revival plan of the neighborhood,
• terraced levels to avoid the "block" appearance,
• a distance from homes to the highest structures,
• a widely present vegetation, especially on roofs.

A controlled site

The site has been entrusted to qualified companies and known to RTE and ERDF, which have to respect the measures included in their contracts to minimize impacts, such as:
• keeping clean around the site,
• compliance with the regulations on noise of construction equipment,
• weekly truce
• a separation system to prevent vibration,
• regular monitoring of the site by RTE and ERDF.

The key points

1

Creating a third underground connection to 225 000 volts 9 km between the substations of Nanterre and Puteaux to strengthen the power of western Paris region

2

Creating a new job source 225 000/20 000 volts for optimal security of the defense zone and thus face new consumption needs

47 M €

The overall cost of the joint RTE and ERDF is estimated at € 47 million, including € 28 million for the construction of the substation Nanterre ball.

----- End of Translation ---

Thanks for your attention and consideration of my voice and vote in future elections.

Regards,
Brian Calado
Bellevue Resident and Active Voter

Brian Calado
Cell: 206-419-6819

Subject: Re: Energize Eastside
From: Energize Eastside EIS <info@energizeeastsideeis.org>
Date: 6/1/2015 5:35 PM
To: John Merrill <john@merrillimages.com>
CC: "Bellevue City Council (council@bellevuewa.gov)" <council@bellevuewa.gov>, "Mayor Claudia Balducci (CBalducci@bellevuewa.gov)" <CBalducci@bellevuewa.gov>, "Councilmember Conrad Lee (CLee@bellevuewa.gov)" <CLee@bellevuewa.gov>, "Jennifer Robertson (j.robertson@bellevuewa.gov)" <j.robertson@bellevuewa.gov>, "Councilmember John Chelminiak (JChelminiak@bellevuewa.gov)" <JChelminiak@bellevuewa.gov>, "Councilmember John Stokes (JStokes@bellevuewa.gov)" <JStokes@bellevuewa.gov>, "Deputy Mayor Kevin Wallace (KRWallace@bellevuewa.gov)" <KRWallace@bellevuewa.gov>, Lynne Robinson <LRobinson@bellevuewa.gov>, "don.m.marsh@gmail.com" <don.m.marsh@gmail.com>, "Steve O'Donnell" <sdofour@aol.com>, "David Danner (ddanner@utc.wa.gov)" <ddanner@utc.wa.gov>, "Simon ffitch (simon@atg.wa.gov)" <simon@atg.wa.gov>, "Brad Miyake (bmiyake@bellevuewa.gov)" <bmiyake@bellevuewa.gov>, David Pyle <dpyle@bellevuewa.gov>, Energize Eastside EIS <scoping@energizeeastsideeis.org>

Thank you for your email. We will consider it as a comment on the scope of the EIS and include it in the record. If you have any additional comments on the scope of the EIS, please email them to Scoping@EnergizeEastsideEIS.org. If you have questions about the project or the EIS process, continue to send those to this email address: Info@EnergizeEastsideEIS.org.

Reema Shakra
Energize Eastside EIS Team

On Wed, May 27, 2015 at 1:03 AM, John Merrill <john@merrillimages.com> wrote:

> Dear Bellevue City Council Members,
>
> I sent the below letter to the editor of the Bellevue Reporter, but do not expect him/her to actually print it given the amount of advertising that Puget Sound Energy does in the Reporter. Over the last few weeks I've learned much from a former Vice President of Puget Sound Power & Light about a number of viable and reliable alternatives to Energize Eastside, all of which are both less expensive and less damaging. To name just three:
>
> 1. A high capacity transmission line stands largely unused just west of PSE's preferred route for Energize Eastside. Seattle City Light's letter to Mr. Matz states its "preference" to not share the relatively small portion of its capacity that PSE needs, not its refusal. The City should protect its best interests by researching this obvious solution much more deeply.

2. PSE could simply “fire up” its existing 1400 megawatt peaking generation system which it built just to serve just this purpose.

3. Utility Systems Efficiencies’ report showed that if PSE stopped energizing Canada during our rare, coldest hours, when our demand is highest, we would only have to upgrade one transformer.

None of these alternatives, however, are in the scope of the City of Bellevue’s Environmental Impact Statement process. Please insure that they are included.

Thank you for your consideration.

Dear Editor,

Puget Sound Energy ran an ad in your May 22 issue asking if its 18-mile, 13-story-high Energize Eastside transmission project is needed on the Eastside. The answer is NO because there are much better ways to power our growth. If PSE stopped energizing Canada, for instance, we would have plenty of power with only minor upgrades. And there is already a big, largely-unused transmission line just west of PSE’s route that could power our growth for decades. Or PSE could just fire up the "peaking" generators it built just for this purpose.

So why does PSE ignore obviously less expensive solutions and exaggerate our needs?

An April 20 Wall Street Journal article entitled “Utilities’ Profit Recipe: Spend More” explains PSE’s motivations. The article is subtitled: “To expand regulator-imposed earnings caps, electricity producers splurge on new equipment, boosting customers’ bills”. Bottom line, the ONLY way utilities like PSE make a profit is by building big, expensive new infrastructure and charging us for it. Surprisingly, they don’t make money selling electricity.

If its bid to build Energize Eastside is unsuccessful, PSE may lose money for its foreign owners and executives won't make bonuses. This explains why PSE has gone to great lengths to try to sell us Energize Eastside. And sadly the City of Bellevue has, so far, let the PSE fox guard the City henhouse and hired a biased industry consultant which rubber stamped PSE's self-serving conclusions.

But at what cost to our "City in a Park"? PSE's megatowers will be literally twice the height of our mature tree canopy and visible for miles. And although PSE says it will spend up to $200 million on Energize Eastside, we, PSE's captive customers, will pay over $800 million for it over the life of this classic boondoggle.

Please take a moment to write to the Bellevue City Council (council@bellevuewa.gov) to urge them to protect both our beautiful city and our bank accounts. And come November, vote for City Council candidates who put your best interests above PSE's profits.

John Merrill

25 year Bellevue resident

4800 134th Place SE

Bellevue, WA 98006

Subject: Re: Alternatives for Energize Eastside EIS Scope
From: Energize Eastside EIS <info@energizeeastsideeis.org>
Date: 6/1/2015 5:42 PM
To: John Merrill <john@merrillimages.com>
CC: "Bellevue City Council (council@bellevuewa.gov)" <council@bellevuewa.gov>, "Councilmember Conrad Lee (CLee@bellevuewa.gov)" <CLee@bellevuewa.gov>, Councilmember Jennifer Robertson <jsrobertson@comcast.net>, "Councilmember John Chelminiak (JChelminiak@bellevuewa.gov)" <JChelminiak@bellevuewa.gov>, "Councilmember John Stokes (JStokes@bellevuewa.gov)" <JStokes@bellevuewa.gov>, "Deputy Mayor Kevin Wallace (KRWallace@bellevuewa.gov)" <KRWallace@bellevuewa.gov>, "Mayor Claudia Balducci (CBalducci@bellevuewa.gov)" <CBalducci@bellevuewa.gov>, Lynne Robinson <LRobinson@bellevuewa.gov>, "David Danner (ddanner@utc.wa.gov)" <ddanner@utc.wa.gov>, "Don Marsh (don.m.marsh@gmail.com)" <don.m.marsh@gmail.com>, "Steve O'Donnell" <sdofour@aol.com>, "Deborah Reynolds (dreynold@utc.wa.gov)" <dreynold@utc.wa.gov>, "Simon ffitch (simon@atg.wa.gov)" <simon@atg.wa.gov>, "Brad Miyake (bmiyake@bellevuewa.gov)" <bmiyake@bellevuewa.gov>, David Pyle <dpyle@bellevuewa.gov>, Energize Eastside EIS <scoping@energizeeastsideeis.org>

Thank you for your email. We have included it in the record. If you have any additional comments on the scope of the EIS, please email them to Scoping@EnergizeEastsideEIS.org. If you have questions about the project or the EIS process, continue to send those to this email address: Info@EnergizeEastsideEIS.org.

Reema Shakra
Energize Eastside EIS Team

On Mon, Jun 1, 2015 at 2:08 PM, John Merrill <john@merrillimages.com> wrote:

> Dear Mayor, Deputy Mayor and Bellevue Council Members,
>
> Below are 5 additional, viable, reliable and more prudent alternative ways to power our growth in Bellevue. Each is much less damaging to the environment and our bank accounts than Energize Eastside. Some of these 5 alternatives partially overlap the second and third alternatives already placed in the scope of the EIS by City staff, but are different in material ways. Please ask City staff to include them in the scope of the Energize Eastside EIS.
>
> # Powering Eastside Growth:

Alternatives For Study In The Energize Eastside Environmental Impact Statement

Alternative 5: Use Existing 230kV Transmission Lines (With New Connections To Bellevue)

a. Use one or both of the two existing, parallel and under-utilized 230kV transmission lines already in operation of the Eastside, one of which stands just ¾ mile west and one 7 miles to the east of PSE's route for Energize Eastside. Both have the capacity to become another major source of power to Bellevue during rare peak demand events. Leave PSE's existing, but likely upgraded, Eastside 115kV transmission "backbone" in place. Leave PSE's existing, but likely upgraded, Eastside 115kV transmission in place.

Alternative 6: Local Generation

b. Fully utilize the existing (or an upgraded), PSE-owned "Westside Peaking System" which has approximately 1,400 MW of capacity, during the Eastside's rare peak demand hours. PSE's Westside Peaking System consists of multiple, large, natural gas-fired generators which are designed to operate only during rare peak demand events and are located in Skagit and Whatcom Counties. PSE built, and its customers pay for, the Westside Peaking System specifically for this purpose. To date, PSE has not fully utilized these generators in its analysis of the Eastside's need; and/or

c. Install one or more new "Peaking Generator Stations" on the Eastside itself, as near as possible to the biggest loads; and/or

d. Create a "dispatchable" Backup Generator Network on the Eastside similar

to the 100 MW system in operation in Portland, Oregon. Many Eastside buildings, like hospitals and data centers, already have backup generators which can be networked together and remotely controlled by PSE to run during rare peak demand events. If existing generators do not collectively have enough capacity, add new networked generation capacity. Building owners are incented to participate because the utility takes over responsibility for the generators, including paying for upgrades, operation, maintenance, testing and fuel. For a description of Portland General Electric's existing system, see https://www.portlandgeneral.com/business/medium_large/products_services/dispatchable_standby_generation.aspx

e. Leave PSE's existing, but likely upgraded, Eastside 115kV transmission in place.

Alternative 7: Upgrade Existing System

a. Upgrade PSE's existing Eastside 115kV "backbone" system to increase its capacity and reliability (utilizing existing or new wooden poles) to bring additional power to Bellevue during rare peak demand events; and/or

b. Relieve (hypothetical) stress on PSE's existing 115kV system by eliminating power flows to Canada (or California) during (simulated,) rare peak demand events (but not during non-peak demand time periods). PSE has no legal obligation to deliver power to Canada or California during rare Eastside peak demand hours. Utility Systems Efficiencies' report showed that when Canadian flows are curtailed briefly on cold weekday evenings when we need the power (and Canada does not), only one transformer on PSE's existing system is overloaded. This transformer could relatively easily and quickly be replaced or duplicated for more capacity.

Alternative 8: 21st Century Solutions

a. Install at PSE's expense, proven energy conservation and efficiency systems to reduce the amount of demand during rare peak demand events, including the 56 MW of cost effective peak demand reduction identified by industry expert E3 in its 2012 Reliability Study for the City of Bellevue. A significant additional amount of peak demand reduction can be paid for by PSE to incent customers to participate at a cost which is an order of magnitude less expensive than Energize Eastside and with a positive environmental impact ; and/or

b. Build "dispatchable" battery storage projects on the Eastside of the type installed by AES Energy Corporation and its competitors. There are about 100 utility-scale battery storage systems currently operating in the U.S. and they are falling rapidly in price. And/or install at PSE's expense, distributed/residential battery systems similar to the Tesla Powerwall; and/or

c. Implement modern "Demand Response" program or programs to minimize peak loads during rare peak demand hours using one of many cloud-based control solutions currently available from companies like Opower;

d. Leave PSE's existing, but likely upgraded, Eastside 115kV transmission "backbone" in place.

Alternative 9: **Combination**

Combine two or more of the above alternatives to minimize environmental impact, optimize reliability and reduce economic costs to the Eastside communities, King County taxpayers and all PSE ratepayers. Multiple solutions, particularly non-centralized solutions, are inherently more reliable and less vulnerable than a centralized solution like Energize Eastside.

In addition, please ask City staff to include the below impact criteria in the EIS to compare all alternatives. Unfortunately, the negatives environmental and other impacts of Energize Eastside would be broad and significant, and they all merit thorough study.

(1) Natural environment

(a) Earth

(i) Geology

(ii) Soils

(iii) Topography

(v) Erosion/enlargement of land area (accretion) (steep slopes will be impacted)

(vi) Seismic forces could cause an environmental and human disaster

(b) Air

(i) Air quality (Energize Eastside would perpetuate the use of PSE's Colstrip coal-fired power plant which is one of the biggest polluters in the U.S.)

(iii) Climate (Energize Eastside would perpetuate the use of PSE's Colstrip coal-fired power plant which is one of the biggest sources of carbon pollution in the U.S.)

(iv) Construction impacts

(c) Water

(i) Surface water movement/quantity/quality

(ii) Runoff/absorption

(iii) Floods

(iv) Groundwater movement/quantity/quality

(v) Public water supplies

(d) Plants and animals

(i) Habitat for and numbers or diversity of species of plants, fish, or other wildlife

(ii) Unique species

(iii) Fish or wildlife migration routes

(e) Energy and natural resources

(i) Amount required/rate of use/efficiency

(ii) Source/availability

(iii) Nonrenewable resources

(iv) Conservation and renewable resources

(v) Scenic resources

(2) Built environment

(a) Environmental health

(i) Noise (buzzing during operation and construction noise)

(ii) Risk of explosion (there are highly explosive and flammable fuel lines on the proposed route)

(iii) Releases or potential releases to the environment affecting public health, such as toxic or hazardous materials during construction and EMF during operation

(b) Land and shoreline use

(i) Relationship to existing land use plans and to estimated population

(ii) Housing (hundreds of homes and dozens of neighborhoods will be severally degraded)

(iv) Aesthetics (the towers would degrade aesthetics for miles on either side of the lines)

(v) Recreation (recreational opportunities I proximity to the lines would be reduced by health concerns)

(c) Transportation (during construction)

(i) Transportation systems

(ii) Vehicular traffic

(v) Movement/circulation of people or goods

(vi) Traffic hazards

(d) Safety

I know that you share your constituents concerns for our City and will not let the need of a private corporation to make profits for its owners outweigh the best interests of our community. Thank you very much.

John Merrill

4800 134th Place SE

Bellevue, WA 98006

Subject: FW: CSEE comments re EIS scoping for Energize Eastside
From: Reema Shakra <RShakra@esassoc.com>
Date: 6/1/2015 5:37 PM
To: "scoping@energizeeastsideeis.org" <scoping@energizeeastsideeis.org>

-----Original Message-----
From: DPyle@bellevuewa.gov [mailto:DPyle@bellevuewa.gov]
Sent: Friday, May 29, 2015 7:58 AM
To: info@energizeeastsideeis.org
Subject: FW: CSEE comments re EIS scoping for Energize Eastside

Please add to the record.

-----Original Message-----
From: Larry Johnson [mailto:larry.ede@gmail.com]
Sent: Friday, May 29, 2015 12:46 AM
To: Pyle, David
Cc: Helland, Carol; timm@ci.newcastle.wa.us; MJohnson@esassoc.com; rshakra@esassoc.com; records@energizeeastsideeis.org
Subject: CSEE comments re EIS scoping for Energize Eastside

Mr. Pyle,

Though I had the chance to speak last night at the Newcastle EIS scoping meeting, I failed to deliver to you the printout of prepared remarks I decided not to read lest I not reach the end of the arbitrarily set five minutes I was allowed to speak on behalf of CSEE.

Accordingly, please find attached those prepared remarks which I request be made part of the EIS Scoping record. Please let me know if this email suffices or whether I need to also lodge this document at the Bellevue EIS website as well.

Larry Johnson
Citizens for Sane Eastside Energy (CSEE)

ATT00001.txt

On May 28, 2015, at 7:59 AM, dpyle@bellevuewa.gov wrote:

> Larry,
>
> Thank you for your reply and candor. We will continue to reach out to others and I will include your email in future correspondence to ensure that should you change your mind you will have received notice of the opportunity.

Sounds like we'll see you tonight. Until then, have a good day.

David Pyle
Energize Eastside EIS Program Manager
Senior Land Use Planner
City of Bellevue
dpyle@bellevuewa.gov
(425)452-2973 (Office)
(425)452-5225 (Fax)
www.bellevuewa.gov
www.EnergizeEastsideEIS.org

-----Original Message-----
From: Larry Johnson [mailto:larry.ede@gmail.com]
Sent: Thursday, May 28, 2015 1:54 AM
To: Pyle, David
Cc: records@energizeeastsideeis.org; Steve O'Donnell; Bruce/Cathy Williams; Don Marsh; <pr@cense.org>; <lobby@cense.org>; Todd Andersen; Philipp Schmidt-Pathmann; Sean PSE/McNamara; David PSE/Edmonds; Glenna White; Sue Sander; Sue Stronk; <brianacalado@yahoo.com>; Brandon Macz; Lori/Brian Elworth; Christina Corrales-Toy; Carin Chatterton; Ron Chatterton; A. R.; Cindy/Ken Lee; Keith Hargis; Lynne/Jeff Prevette; boarddistribution; Linda Young; Helen Zoerb; Mayor Steve Buri; Rich Crispo; Tim McHarg
Subject: Re: Request to meet with your community organization as an Energize Eastside stakeholder

Mr. Pyle,

Thank you for your invitation, but I believe CENSE and CSEE will be amply represented by others in the comments they will offer in this process. I also believe comments I plan to make at the Newcastle Elementary School this evening plus documentary supplements I will submit in due time for the record via your website before June 15 shall suffice as far as my own input at this point is concerned.

I should add, lest there be any misunderstanding in the future, that I think the entire "Energize Eastside" EIS process as pursued to date by PSE, its consultants and the City of Bellevue has been fatally flawed legally and will eventually not hold up in court. I don't expect you to agree, but I do want to disabuse you of any notion that through my participation in this charade I thereby endorse it.

Sincerely,

Larry Johnson, J.D.
President, Citizens for Sane Eastside Energy (CSEE) www.sane-eastside-energy.org

On May 27, 2015, at 11:34 AM, dpyle@bellevuewa.gov wrote:

> Larry,
>
> Meant to include you on this last email. My apology.

See email below.

David Pyle
Energize Eastside EIS Program Manager
Senior Land Use Planner
City of Bellevue
dpyle@bellevuewa.gov
(425)452-2973 (Office)
(425)452-5225 (Fax)
www.bellevuewa.gov
www.EnergizeEastsideEIS.org
<image002.jpg>

From: Pyle, David
Sent: Wednesday, May 27, 2015 11:15 AM
To: 'sdofour@aol.com'; 'albert.gary@gmail.com'; 'WHalvrsn1@frontier.com'; '747rwmorris@msn.com'; 'john@merrillimages.com'; 'Hansennp@aol.com'
Cc: 'rshakra@esassoc.com'; Mark Johnson (MJohnson@esassoc.com); records@energizeeastsideeis.org
Subject: Request to meet with your community organization as an Energize Eastside stakeholder

Good morning,

I am writing to solicit feedback/comment regarding the Puget Sound Energy (PSE) 'Energize Eastside' project from your organized community group.

As you are aware, Energize Eastside is PSE's proposal to build a new electric substation and approximately 18 miles of high capacity electric transmission lines from Renton to Redmond. The project is intended to address an electrical transmission capacity deficiency that could begin in 2017. The City of Bellevue has taken a lead role in evaluating PSE's proposed new electrical transmission line and we have commenced an Environmental Impact Statement (EIS) process following Washington State Environmental Policy Act (SEPA) requirements that will run for about two years. More information on the project and the EIS process is available at www.EnergizeEastsideEIS.org .

The EIS project team (myself and the project consultants) are hoping to set up (daytime) stakeholder meetings with specific stakeholders during the first two weeks in June, as the comment period for the scoping process closes on June 15. We will be attempting to schedule several targeted meetings and will try our best to organize meetings by organization interest.

Would you or another representative of your organization be available for a meeting within this timeframe to discuss the Energize Eastside project and the EIS process? If yes, please let me know the name and contact info for the person who may be attending and we will attempt to schedule meetings. Similarly, and regardless of ability to attend a stakeholder meeting, we encourage you to visit the project website and submit comment on the project - www.EnergizeEastsideEIS.org .

Thank you,

David Pyle
Energize Eastside EIS Program Manager
Senior Land Use Planner
City of Bellevue
dpyle@bellevuewa.gov
(425)452-2973 (Office)
(425)452-5225 (Fax)
www.bellevuewa.gov
www.EnergizeEastsideEIS.org

Attachments:

May 28 EIS Scoping submittal.pdf	61.5 kB
ATT00001.txt	5.1 kB

To: David Pyle, Energize Eastside EIS Program Manager, Senior Land Use Planner, City of Bellevue
From: Larry Johnson, President of Citizens for Sane Eastside Energy (CSEE; www.sane-eastside-energy.org); 8505 129th Ave, SE, Newcastle, WA 98056

What can possibly justify this nightmare scenario:

$200 million will be spent to tear up and blight 18 miles of densely populated Eastside residential neighborhoods with huge, dangerous 13-story steel towers that PSE will drop on top of two aging gas pipelines pumping jet fuel under 1000-pounds-per-inch pressure. Those towers will go right on the Seattle Fault where a future earthquake risk is the greatest, and as PSE builds this thing they'll cut down 8,000 trees.

Gee, what could go wrong with that?

PSE has put a lot of money and effort into misleading the public about the problem Energize Eastside is supposed to solve. In its ads and PR materials PSE keeps saying we have a future ***capacity*** problem — they say with all the expected future growth in population and economy on the Eastside, we need to "upgrade" our current system to meet the steady, normal increases in demand for electricity. That is simply not true, yet Mr. Pyle seems to endorse PSE's pitch when he wrote me in an email: "The project is intended to address an electrical transmission capacity deficiency that could begin in 2017."

The problem is not transmission capacity but reliability. Only in its technical discussions with experts and policy makers will PSE focus on that single relevant fact. There are federal laws that require utilities to show they can handle "perfect storm" extreme peak load moments that are rare and of relatively short duration. Reliability is like making sure a cruise ship has enough life boats and crews that know how to use them in an emergency. The idea is to avoid blackouts here on cold mornings or evenings when everybody is using electricity all at the same time. But to sell the project, PSE paints the problem as much bigger than it is. Despite population and economic growth in King County, Seattle, Portland — indeed, in all of the U.S. and Europe, for the last 8 years electricity use has been flat because our appliances are getting more efficient and conservation measures are working.

So now we are supposed to be helping Bellevue as lead EIS agency to figure out what should or should not go into the scope of a proper EIS.

But look at how far off the mark Bellevue already is so soon after leaving the starting gate:

1. In the first meeting in Bellevue on May 12, we who attended got a printout of options Bellevue has already agreed to consider within the EIS scope. One of these is an Alternative #3 which is full of wires going all over the place and maybe one, maybe two more substations being built, and none of it makes any sense. Yet there it is, and Don Marsh rightly calls it a poison pill so that by comparison Energize Eastside can look so much more reasonable. What is really needed to solve the problem PSE says EE is designed to fix is just one more power generation plant close to where the major load is. There are things called peaker plants that can be built within just three months to meet extreme peak load conditions that California has already built in many places, like at Larkspur Energy Facility. One such plant could work the few hours needed to meet peak loads with minimal environmental impacts. It could have on site a oil storage tank to fuel it. Such a plant with 50 MW capacity at $50 million could be placed between the Lakeside substation and the King County Solid Waste transfer station near Factoria, an industrial area with no residential penetration, and that would solve the problem EE is designed to meet: local Eastside reliability. And this 50 MW peaker unit could additionally contribute toward solving PSE's need to acquire another 1500 MW of new generation by the year 2018 just to

show that is entire system is “Resource Adequate.”.

2. Judging from that same handout, Bellevue also appears to believe it can choose which kinds of environmental impacts it will consider in its EIS and which ones it won’t. In that list, “public safety” was conspicuously missing. But that glaring mistake aside, there is a fundamental error at work here. Washington law, as set out in WAC 197-11-444, defines what elements define “environment” that an EIS is supposed to study. These are not optional. These elements are numerous and include the highlighted items included in WAC 197-11-444, as listed here:

WAC197-11-444, “Elements of the environment.”

(1) Natural environment
(a) Earth
(i) Geology
(ii) Soils
(iii) Topography
(iv) Unique physical features
(v) Erosion/enlargement of land area (accretion)
(b) Air
(i) Air quality
(ii) Odor
(iii) Climate
(c) Water
(i) Surface water movement/quantity/quality
(ii) Runoff/absorption
(iii) Floods
(iv) Groundwater movement/quantity/quality
(v) Public water supplies
(d) Plants and animals
(i) Habitat for and numbers or diversity of species of plants, fish, or other wildlife
(ii) Unique species
(iii) Fish or wildlife migration routes
(e) Energy and natural resources
(i) Amount required/rate of use/efficiency
(ii) Source/availability
(iii) Nonrenewable resources
(iv) Conservation and renewable resources
(v) ***Scenic resources***
(2) Built environment
(a) ***Environmental health***
(i) Noise
(ii) ***Risk of explosion***
(iii) ***Releases or potential releases to the environment affecting public health, such as toxic or hazardous materials***
(b) Land and shoreline use
(i) Relationship to existing land use plans and to estimated population
(ii) Housing
(iii) Light and glare
(iv) ***Aesthetics***
(v) Recreation

(vi) Historic and cultural preservation
(vii) Agricultural crops
(c) Transportation
(i) Transportation systems
(ii) Vehicular traffic
(iii) Waterborne, rail, and air traffic
(iv) Parking
(v) Movement/circulation of people or goods
(vi) Traffic hazards
(d) Public services and utilities
(i) Fire
(ii) Police
(iii) Schools
(iv) Parks or other recreational facilities
(v) Maintenance
(vi) Communications
(vii) Water/storm water
(viii) Sewer/solid waste
(ix) Other governmental services or utilities

Subject: Re: Stop the Nonsense
From: Energize Eastside EIS <info@energizeeastsideeis.org>
Date: 6/1/2015 5:26 PM
To: Maureen Slagle <ms1kiwi@gmail.com>
CC: David Pyle <dpyle@bellevuewa.gov>, Energize Eastside EIS <scoping@energizeeastsideeis.org>

Thank you for your email. We will consider it as a comment on the scope of the EIS and include it in the record. If you have any additional comments on the scope of the EIS, please email them to Scoping@EnergizeEastsideEIS.org. If you have questions about the project or the EIS process, continue to send those to this email address: Info@EnergizeEastsideEIS.org.

Reema Shakra
Energize Eastside EIS Team

On Wed, May 20, 2015 at 1:19 PM, Maureen Slagle <ms1kiwi@gmail.com> wrote:

> My husband and I have lived in Bellevue for 50 years and I cannot believe those in the City Council are contemplating this request from PSE. Bellevue is a beautiful city with all the attributes of a healthy environment, good education and a quality lifestyle. Don't spoil it with these ugly towers and loss of beautiful trees.
>
> Maureen Slagle
> 11100 NE 24th Street
> Bellevue, WA 98004

Subject: Re: Power lines on 132nd Ave NE or Ne 60th
From: Energize Eastside EIS <info@energizeeastsideeis.org>
Date: 6/1/2015 5:34 PM
To: Patrick Leewens <pat@leewens.com>
CC: David Pyle <dpyle@bellevuewa.gov>, Energize Eastside EIS <scoping@energizeeastsideeis.org>

Thank you for your email. We will consider it as a comment on the scope of the EIS and include it in the record. If you have any additional comments on the scope of the EIS, please email them to Scoping@EnergizeEastsideEIS.org. If you have questions about the project or the EIS process, continue to send those to this email address: Info@EnergizeEastsideEIS.org.

Reema Shakra
Energize Eastside EIS Team

On Mon, May 25, 2015 at 9:44 PM, Patrick Leewens <pat@leewens.com> wrote:

> Dear Persons,
>
> We most definitely do not want power lines next to the Bridle Trails State Park or near my home on 127th Ave NE by the Tennis Club. We already have them on 124th and that is too close also. Do not burden us with more power lines.
>
> NO POWER LINES ON 60TH AVE NE !!!!!
>
> Thank you,
>
> Patrick Leewens
>
> LEEWENS CORPORATION (425) 827-7667 ext 105 P.O. Box 2549 630 Seventh Ave Kirkland, WA 98083
> pat@leewens.com

Subject: Re: Energize Eastside: An Environmental Disaster Waiting to Happen
From: Energize Eastside EIS <info@energizeeastsideeis.org>
Date: 6/1/2015 5:33 PM
To: Russell Borgmann <rborgmann@hotmail.com>
CC: "dpyle@bellevuewa.gov" <dpyle@bellevuewa.gov>, "mbrennan@bellevuewa.gov" <mbrennan@bellevuewa.gov>, "chelland@bellevuewa.gov" <chelland@bellevuewa.gov>, "nmatz@bellevuewa.gov" <nmatz@bellevuewa.gov>, "cbalducci@bellevuewa.gov" <cbalducci@bellevuewa.gov>, "krwallace@bellevuewa.gov" <krwallace@bellevuewa.gov>, "clee@bellevuewa.gov" <clee@bellevuewa.gov>, "lrobinson@bellevuewa.gov" <lrobinson@bellevuewa.gov>, "j.robertson@bellevuewa.gov" <j.robertson@bellevuewa.gov>, "jstokes@bellevuewa.gov" <jstokes@bellevuewa.gov>, "jchelminiak@bellevuewa.gov" <jchelminiak@bellevuewa.gov>, "bmiyake@bellevuewa.gov" <bmiyake@bellevuewa.gov>, "lriordan@bellevuewa.gov" <lriordan@bellevuewa.gov>, "pandersson@bellevuewa.gov" <pandersson@bellevuewa.gov>, Energize Eastside EIS <scoping@energizeeastsideeis.org>

Thank you for your email. We will consider it as a comment on the scope of the EIS in addition to the email you sent on May 18th (see attached) and include both in the record. If you have any additional comments on the scope of the EIS, please email them to Scoping@EnergizeEastsideEIS.org. If you have questions about the project or the EIS process, continue to send those to this email address: Info@EnergizeEastsideEIS.org.

Reema Shakra
Energize Eastside EIS Team

On Sat, May 23, 2015 at 6:11 PM, Russell Borgmann <rborgmann@hotmail.com> wrote:

> Dear City Staff, City Council, and EIS Participants,
> **The information below are my further EIS comments about "Energize Eastside":**
> **The photo below shows the size of the base of the 12-story tall (130ft) mono-poles:**

What's involved in building a 230kV high-voltage transmission line? Photos are worth a thousand words. The photos below provide insight into the size and amount of equipment needed to install these 12-story mono-poles. This heavy equipment will be rolling over the top of TWO high pressure gas pipelines. Notice in the photos below, *there are no houses within miles*. Energize Eastside will be installed through dense residential neighborhoods with homes in close proximity on both sides of the corridor:


-7000

The link below provides more details describing the effort required to install a 230kV high-voltage transmission line:

https://www.youtube.com/watch?v=WSV3L481mow

What Does the Proposed Corridor for Energize Eastside Look Like?

Here's a look at the existing narrow corridor, through Newcastle, Somerset, College Hill, and Bridle Trails - residential neighborhoods with houses in close proximity on both sides of a corridor that already contains a 115kV line as well as **TWO** gas pipelines (Olympic Gas Pipeline and a Boeing high pressure jet fuel pipeline running from Cherry Point to Seatac Airport). Note that houses are within a short distance on both sides.

The link below provides an excellent summary of the Olympic Gas Pipeline accident in Bellingham in 1999. That accident was triggered by a faulty pipeline valve that exerted pressure on a portion of the pipeline that was clipped by a backhoe during earlier excavation near the pipeline.

https://www.youtube.com/watch?v=AJRwePrctGw

-

-

-

And finally, the link below is an example of a gas pipeline explosion that occurred during the installation of a high-voltage transmission power line in rural Texas in 2010:

-

https://www.youtube.com/watch?v=RSCz-35M9hA

-

~~Attachments:~~

More Energize Eastside EIS Comments.msg 96.5 kB

Subject: Re: EIS Comments
From: Energize Eastside EIS <info@energizeeastsideeis.org>
Date: 6/1/2015 5:37 PM
To: Steve Wagner <shalewagner@gmail.com>
CC: David Pyle <dpyle@bellevuewa.gov>, Energize Eastside EIS <scoping@energizeeastsideeis.org>

Thank you for your email. We will consider it as a comment on the scope of the EIS and include it in the record. If you have any additional comments on the scope of the EIS, please email them to Scoping@EnergizeEastsideEIS.org. If you have questions about the project or the EIS process, continue to send those to this email address: Info@EnergizeEastsideEIS.org.

Reema Shakra
Energize Eastside EIS Team

On Fri, May 29, 2015 at 7:47 AM, Steve Wagner <shalewagner@gmail.com> wrote:

> My name is Stephen Wagner. My wife Suzie and I live at :
>
> 13440 NE 45TH ST
> BELLEVUE, WA 98005-1108
>
> Our property lies alongside the existing gas pipeline and 115-volt power line in the Bridle Trails neighborhood of Bellevue.
>
> **EIS Process**
>
> Both Suzie and I have worked as environmental consultants and written and reviewed EISs in the past.
>
> The purpose of an EIS is to impartially consider all viable alternatives, weighing the pros and cons of impact and cost. In reality, EISs are very unlikely to be unbiased, and this one is no exception. PSE engineers and analysts are paid full time to work on this; the EIS consultants are paid full time to work on this, but don't have the necessary expertise to analyze the alternatives; and of course the public is not even paid to consider these alternatives. The result is a flawed process. We discuss alternatives below, but in brief, we suspect that some of the current alternatives are included primarily because they are not viable. By the same token, viable alternatives have already been rejected by PSE without serious consideration and are not, so far, included in the EIS. The materials provided thus far are insufficient for us to analyze the proposed EIS, starting with the forecasting (which is now three years old), including the lack of safety considerations, and ending with no discussion of costing and funding alternatives.
>
> **Energy and natural resources**
>
> There is no question that many controversies exist regarding energy, especially as regards load forecasting and viability of alternative energy approaches. Funding of conservation measures surely benefits both reduced energy growth and conservation of natural resources, yet this is not quantified in any of PSE's documentation. There is little or no evidence that the threat of global warming, the safety considerations and risks to the environment of a capital project like this, and the impact to existing

customers vs. future customers have even been considered in the materials generated so far.

Public services and utilities

PSE is an out-of-area for-profit entity. This is perfect example of local government inappropriately outsourcing a public service. Like many electric power utilities, PSE benefits from enhancing their transmission lines due to loopholes in the regulatory structure, according to this recent Wall Street Journal article : Utilities' Profit Recipe: Spend More (April 20, 2015, Rebecca Smith at rebecca.smith@wsj.com, http://www.wsj.com/articles/utilities-profit-recipe-spend-more-1429567463). As the article discusses, progressive parts of the country are beginning to close this loophole. Washington State should follow suit.

PSE should not be trusted and must be required to provide a service to Eastside residents rather than to line its own pockets.

We believe in conservation and make every effort to reduce our energy footprint. We have lived at this address for twenty years. In that time, we have :

- done PSE energy audits
- added additional insulation
- replaced our incandescent bulbs with **fluorescents, then** replaced our **fluorescents** with LEDs
- installed energy-efficient windows
- replaced our house and water heating units with more efficient units
- added a generator and transfer switch to deal with the power outages we must endure almost every winter and more frequently at other times of the year

Do our power rates go down ? No. Wearing our engineering and environmental consulting hats, we are well aware of the price elasticity of power demand, since we've reduced partly to avoid paying PSE more as our rates increase. The public utilities commission should look at solutions involving price, as we discuss below. New customers should be required to adopt the most forward-thinking and innovative techniques in their buildings and energy-consuming equipment.

Discussion of alternatives

Alternative 1- New Transformer and Transmission Line (new electric substation and approximately 18 miles of 230 volt transmission lines from Renton to Redmond).

As conscientious Bellevue citizens, we consider Alternative 1 to be grossly unfair, ill advised, and extremely outmoded. We would, if anything, expect to see a project that reduced the impact of, or eliminated, our existing power lines. Reduction or elimination is certainly possible, given modern technology. This alternative is too expensive, unsafe, and does not serve existing residents of the Eastside in any way. It will only serve to increase our rates, but not benefit us. We already suffer outages due to storms that are worse than the outages PSE projects. Any capital project that is pursed should focus on that current condition rather than on boosting power availability to projected customers, Canada, and California.

Alternative 2 – Demand Side Reduction/Non-Wire Technologies.

PSE claims this will not work – this alternative is an example of providing an alternative that is not viable. From PSE Needs Assessment (December 2013) http://www.energizeeastside.com/Media/Default/Library/EastsideNeedsAssessmenReportTransmissionSystem-final_v2.pdf :

> "CONSERVATION HELPS…BUT DOES NOT SOLVE THE PROBLEM PSE has adopted the most stringent conservations method available and investigated all options to serve this expected increase in electrical energy. We have factored in improvements in energy efficiency. These options, however, are not sufficient in and of themselves to satisfy the anticipated need."

My wife and I disagree. There is no question that a combination of these various technologies, along with differential time-of-day and consumer-category rate structures could easily overcome the projected deficit. This could be done with proven technology at much less cost than Alternative 1.

Alternative 3 – New Transformer – Existing Substation (additional new 115kV transmission lines would be required). This alternative is apparently another not-viable approach that is not well thought out. I have heard many concerns about the impact of this approach in our neighborhood because of the large number of additional 115-volt lines that would be required, especially around Bridle Trails Park. Once we understand what is proposed, we are sure we will oppose this approach on environmental, cost, and lack of benefit grounds.

Alternative 4 – Null alternative. In many ways, this is the best alternative, since it combats global warming, is safe, and keeps the Eastside on a course of living within its means. The existing infrastructure may not be perfect, but it is sufficient to satisfy the projected demand from PSE. This alternative should be carefully assessed, in particular by revising the projected power usage numbers.

Other alternatives must be considered in the EIS. No alternative should be thrown out only because of cost. Since PSE automatically gets a 10% plus profit on any project it develops, why worry about cost ? Since costs to ratepayers can only be amortized through the rate structure, even a much higher cost project won't really be felt by rate payers, especially if a capital recovery surcharge is extracted from new consumers as opposed to existing consumers. A higher cost project is warranted if it is safer and less disruptive to residents. Each of these additional alternatives should be analyzed in the EIS :

1. buried lines
2. in-lake 230-volt lines
3. utilization of the Seattle Light 230-volt route
4. expanded differential time-of-day and consumer-type rate structuring, especially for new PSE customers.
5. capital recovery for new PSE customers

Thank you for considering our comments. We look forward to reviewing the next set of materials generated as part of this process.

Stephen & Suzie Wagner

Subject: Re: Would like to oppose to Energize Eastside
From: Energize Eastside EIS <info@energizeeastsideeis.org>
Date: 6/1/2015 5:40 PM
To: Zara Alminova <zymphet@gmail.com>
CC: David Pyle <dpyle@bellevuewa.gov>, Energize Eastside EIS <scoping@energizeeastsideeis.org>

Thank you for your email. We will consider it as a comment on the scope of the EIS and include it in the record. If you have any additional comments on the scope of the EIS, please email them to Scoping@EnergizeEastsideEIS.org. If you have questions about the project or the EIS process, continue to send those to this email address: Info@EnergizeEastsideEIS.org.

Reema Shakra
Energize Eastside EIS Team

On Fri, May 29, 2015 at 9:43 PM, Zara Alminova <zymphet@gmail.com> wrote:

> Please keep our trees. There is no need to build the power lines through our properties, and put our neighborhood to unnecessary risk.
>
> Sincerely,
> Zara Alminova.

Subject: FW: Bellevue Chamber of Commerce comments - Phase 1 Energize Eastside EIS
From: <DPyle@bellevuewa.gov>
Date: 6/2/2015 11:08 AM
To: <scoping@energizeeastsideeis.org>

From: Lincoln Vander Veen [mailto:lvanderveen@bellevuechamber.org]
Sent: Tuesday, June 02, 2015 11:06 AM
To: Pyle, David
Cc: Council; Miyake, Brad
Subject: Bellevue Chamber of Commerce comments - Phase 1 Energize Eastside EIS

Mr Pyle,

Please see attached the Bellevue Chamber's official comments on Phase 1 of the Energize Eastside EIS. A physical copy is in the mail to you as well.

Thank you,

Lincoln Vander Veen | Public Affairs Manager
Bellevue Chamber of Commerce | 330 112th AVE NE, Suite 100 | Bellevue, WA 98004
P: 425.213.1208 | F: 425.462.4660 | E: lvanderveen@bellevuechamber.org
Click here to view the latest issue of the Voice of Business newsletter!

~~Attachments:~~

Phase 1 Energize Eastside EIS.PDF	21.3 kB

Subject: FW: Setback requirements and design for energize eastside
From: <DPyle@bellevuewa.gov>
Date: 6/3/2015 11:45 AM
To: <scoping@energizeeastsideeis.org>

-----Original Message-----
From: Brian Calado [mailto:brianacalado@yahoo.com]
Sent: Thursday, May 28, 2015 6:12 AM
To: Pyle, David
Subject: Setback requirements and design for energize eastside

I live on the 115kv power-lines in bridle trails and object to the energize Eastside proposal.

What are the exact setback requirements for 230kv lines compared to 115kv lines?

What is the proposed line design and configuration? Tower and line height and width and layout?

Since this the EIS - I expect detailed design specs and drawings.

Thanks,
Brian

Sent from my iPhone

Subject: Energize Eastside
From: Jack Hirsch <jackhh1@hotmail.com>
Date: 6/3/2015 2:58 PM
To: "Scoping@EnergizeEastsideEIS.org" <Scoping@EnergizeEastsideEIS.org>

This project should be put on hold as the addition of alternative energy sources and more efficient use can delay its installation.

Sent from my iPhone
Jack Hirsch

Subject: EIS
From: Mike Hubbard <mhubbard@capstone-partners.com>
Date: 6/5/2015 4:02 PM
To: "Scoping@EnergizeEastsideEIS.org" <Scoping@EnergizeEastsideEIS.org>

See attached. Thank you.

Mike Hubbard
Capstone Partners
601 Union #4200
Seattle, WA 98101
206-953-6089 (c)
206-652-3364 (o)

Attachments:

PSE 6 2015.pdf 105 kB

CAPSTONE Partners

June 12, 2015

David Pyle
Energize Eastside EIS Program Manager
City of Bellevue Office of **Planning & Community Development**
PO Box 90012
Bellevue, WA 98009

RE: Scoping Comments for Energize Eastside Phase 1 Draft EIS

Dear Mr. Pyle,

On behalf of Capstone Partners, I am writing to share brief scoping comments for the Energize Eastside Phase 1 Draft EIS.

Capstone Partners plans, finances, implements and manages commercial real estate investments for investors and organizations in the Pacific Northwest from offices in Seattle and Portland.

We are currently constructing a project on the Eastside called Esterra Park. This project will include 3 million square feet with 1.2 million feet of commercial space, over 1400 residential units, a 275 room hotel, all surrounding a new 2.7 acre park. Capstone purchased the land from Group Health Cooperative and demolished a vacant 550,000 square foot hospital to make way for the project. Roads and utilities were completed in 2014. The first 500 units of residential apartments are under construction – occupancy expected in early 2016. A 275 room dual branded Starwood Hotel will break ground in June of 2015. Capstone has permits to construct a 235,000 square foot office building; an additional 400,000 square feet of office can start six months later. Capstone estimates 7,000 - 8,000 people will live and work at Esterra Park. The project is the first phase of Redmond's 170 acre Overlake Village master plan which will house 30,000 - 40,000 people when completed; approximately half the size of South Lake Union.

We share this information because we are representative of the enormous growth the Eastside has seen over the past 50 years and will see in the next 20 years both in population and in jobs. As such, it is imperative that the EIS, while considering all options, move forward only those that are proven to be able to meet our Eastside region's electrical needs (recently re-affirmed in the City of Bellevue's Independent Technical Analysis) for the next 10-20 years. For our company to be able to attract tenants to our development, we must be able to ensure that our electrical infrastructure is proven, reliable and built in a timely manner. This is an urgent issue for our Eastside communities and businesses. As such we request that solutions taken forward be technically feasible in the timeframe indicated by the needs analysis.

CAPSTONE Partners

We appreciate the opportunity to comment on the Phase 1 EIS and we congratulate the five jurisdictions on working together to help solve this urgent community need.

Sincerely,

CAPSTONE PARTNERS

Mike Hubbard
Partner

Subject: Energize Eastside EIS Scoping Comments
From: Stacy Graven <sgraven@meydenbauer.com>
Date: 6/5/2015 3:03 PM
To: "scoping@energizeeastsideEIS.org" <scoping@energizeeastsideEIS.org>

Attached please find a letter regarding the Energize Eastside EIS Scoping Comments from Meydenbauer Center. If you need any further input please contact me at your convenience.

Stacy Graven

Stacy Graven | Executive Director
Meydenbauer Center | Visit Bellevue Washington
P: 425.450.3780 **| F:** 425.637.0166
sgraven@meydenbauer.com
meydenbauer.com | Find us on Facebook
visitbellevuewashington.com

Attachments:

Energize Eastside EIS Scoping Comments.docx	193 kB

MEYDENBAUER CENTER

June 5, 2015

Mr. David Pyle
Energize Eastside EIS Program Manager
City of Bellevue Office of **Planning & Community Development**
450 110th Ave NE
Bellevue, WA 98004

RE: Energize Eastside EIS Scoping Comments

Dear Mr. Pyle:

On behalf of the Meydenbauer Center, thank you for the opportunity to submit scoping comments for the Energize Eastside Phase I EIS.

As I am sure you are aware, Meydenbauer Center serves as the convention center for Bellevue and the Eastside region. Meydenbauer Center opened in 1993 as the Greater Seattle area's second largest convention facility and was built to grow and sustain Bellevue's economic vitality. The Center includes 54,000 square-feet of event space including 36,000 square foot Center Hall, and nine meeting rooms totaling 12,000 square-feet. Also included is a 2,500 square-foot Executive Conference Suite as well as a 410 seat performing arts theatre. In 2014 Meydenbauer Center hosted 289 conventions and events which brought in 131,594 attendees and provided $49.9 million in economic impact to the community. This summer we will be investing $12.5 million to renovate the center including significant technological upgrades.

Our customers – the hotel community on the Eastside, community organizations, corporations and arts groups – rely on us to provide the highest in customer service and quality in the work we do and the events we host. To do that it is essential we have full confidence in our ability to provide reliable power for all of these events.

As you begin the work to study alternatives for meeting the need as defined by both PSE and the City in its most recent Independent Technical Analysis, it is imperative to us that the solutions that are studied meet the immediate need facing the Eastside. Projects like this take a long time to study, permit and build and our business cannot afford any delay that could lead to future blackouts, mandatory shutting off of power, or significant loss of power. We plan years in advance when booking conventions and events and we need to be able to communicate to our customers with 100% certainty that they will have everything they need if they choose our facility – including reliable power. With that in mind, the no action alternative will not in our estimation serve the needs of our facility and our customers.

Additionally, we trust that Phase 1 of the EIS will result in an alternative that is proven to meet our region's needs. This project, unlike the light rail issue we have been involved with over the past 6 years, is not optional. We cannot choose alternatives that are not guaranteed to meet the need we face now. Reliable power is not optional.

We urge the EIS team to complete both phases of the EIS with no delay so that we can be sure to get the project built in a timely manner. The 2017/2018 timeframe is just around the corner and we need to be able to provide our customers with assurances that our facility will be able to serve their needs.

Thank you again for the opportunity to provide comments.

Sincerely,

Stacy Graven
Executive Director

Subject: Stop
From: Maxine Bailey <maxemum@comcast.net>
Date: 6/6/2015 1:00 PM
To: Scoping@EnergizeEastsideEIS.org

As a long time resident I strongly object to this use of our land
This is not to the advantage of the Eastside
My vote is NO DO NOT ALLOW THIS!

Subject: FW: Energize Eastside
From: <DPyle@bellevuewa.gov>
Date: 6/9/2015 1:52 PM
To: <scoping@energizeeastsideeis.org>

From: Isaiah Bier [mailto:bierijd@comcast.net]
Sent: Tuesday, June 02, 2015 22:18
To: Council
Subject: Energize Eastside

Dear sirs/madams,

When will the council come to its senses and do what the citizens of the East-side demand? Will you let PSE, the large corporation, steamroll over your just because they are powerful enough and allow them to develop a project whose sole beneficiary is PSE?

It is well known that this project is intended to boost their profits by collecting profits on their investment and enable them to sell power to Canada via their own lines vs. leased lines (more profits) and not benefit the residents of the East-side who will be footing the bill. We elected you to represent us and not the interests of a large corporation, so, please, act accordingly.

When analyzing the data presented and advertised by PSE it is clear that it is false, they are actually lying to achieve their ends and not benefit their customers.

We all expect you to listen to the public you represent.

Sincerely,

Debbie & Isaiah Bier
4705 125th Ave SE
Bellevue, WA 98006

Subject: RE: Energize Eastside
From: <SJNunnelee@bellevuewa.gov>
Date: 6/9/2015 2:30 PM
To: <heba_bakhach@hotmail.com>
CC: <scoping@energizeeastsideeis.org>

The below email is being sent on behalf of the Energize Eastside team -

Thank you for your comment letter regarding Puget Sound Energy's proposed Energize Eastside project. The City of Bellevue is currently analyzing the proposed project through the Environmental Impact Statement (EIS) process as required by the Washington State Environmental Policy Act (SEPA - Washington Administrative Code section 197-11) and the City of Bellevue Environmental Procedures Code (Bellevue City Code 22.02). As the majority of the project is proposed within Bellevue, the City has taken the lead role in this analysis and the project is being managed by the City's Development Services Department Land Use Division under the direction of the Environmental (SEPA)Coordinator.

The EIS process is anticipated to take approximately 2 years and has only just begun with commencement of the Phase I scoping period. As part of the Phase I study, and consistent with your comment below, alternatives to PSE's proposed 'wired' solution will be analyzed. Your comment is relevant to Phase I of the EIS process and has been submitted into the project record as an EIS scoping comment.

More information on the Energize Eastside EIS process is available at www.EnergizeEastsideEIS.org under the 'Overview' tab. To participate directly in the EIS process please visit the project website at www.EnergizeEastsideEIS.org . Within this website you may sign up as an interested party and to receive updates on the EIS process. The website also allows for direct comment entry.

Thank you for your interest in this project. For more information please feel free to email info@EnergizeEastsideEIS.org

-----Original Message-----
From: Heba Bakhach [mailto:heba_bakhach@hotmail.com]
Sent: Saturday, June 06, 2015 09:07
To: Council
Subject: Energize Eastside

Dear Council Members,

Please consider other cheaper, more efficient alternatives to PSE's Energize Eastside plans. According to the WSJ article, "Utilities' Profit
Recipe: Spend More", companies like PSE are boosting their profits at my expense and yours by egging us on to pour our money into their huge mega towers. New York was gutsy enough to say, " This is unacceptable". Will you not also provide a shining positive example of how city councils care about their constituents?

Thank you for your time,

Heba, Shafik and Mercedes Bakhach

Sent with AquaMail for Android
http://www.aqua-mail.com

Subject: E2 Energize Eastside EIS Phase I Scoping Comment from Jim Sweet
From: <DPyle@bellevuewa.gov>
Date: 6/9/2015 1:49 PM
To: <scoping@energizeeastsideeis.org>
CC: <records@energizeeastsideeis.org>

Please add attached to record.

From: Helland, Carol
Sent: Monday, June 08, 2015 8:39 PM
To: Pyle, David
Cc: Energizeeastside
Subject: Fwd: Meeting request

Thanks, Carol

Begin forwarded message:

> **From:** "jim sweet" <julian52@comcast.net>
> **To:** "Robertson, Jennifer S." <j.robertson@bellevuewa.gov>
> **Cc:** "Helland, Carol" <CHelland@bellevuewa.gov>, "Matz, Nicholas" <NMatz@bellevuewa.gov>, "Brennan, Mike" <MBrennan@bellevuewa.gov>, "Miyake, Brad" <BMiyake@bellevuewa.gov>, "Nunnelee, Sandra J." <SJNunnelee@bellevuewa.gov>
> **Subject: RE: Meeting request**
>
> Hello Jennifer –
>
> Thanks for your time in February when we discussed Energize Eastside and seismic risks.
>
> Attached is a revised copy of my report. This has also been submitted via the Energize Eastside EIS email address for public input.
>
> Let me know if you have any questions about the content.
>
> Sincerely, James Sweet, PE - Bellevue, WA
>
> From: j.robertson@bellevuewa.gov [mailto:j.robertson@bellevuewa.gov]
> Sent: Tuesday, January 20, 2015 4:59 PM
> To: julian52@comcast.net
> Cc: CHelland@bellevuewa.gov; NMatz@bellevuewa.gov; MBrennan@bellevuewa.gov; BMiyake@bellevuewa.gov; SJNunnelee@bellevuewa.gov
> Subject: Re: Meeting request

Dear Mr. Sweet,

Thank you for the detailed information and taking the time to chat with me today. We are scheduled to meet on Thursday, February 26th at 9:15 am.

By this email I am copying the key City staff so that your report can get into their hands and into the record. Please sign up for alerts at the city's website so that you will be informed as the EIS process proceeds.

I look forward to seeing you next month.

Sincerely,

Jennifer Robertson
Bellevue City Councilmember

Sent from my iPad

Begin forwarded message:
From: jim sweet <julian52@comcast.net<mailto:julian52@comcast.net>>
Date: January 20, 2015 at 11:24:46 AM PST
To: <clee@bellevuewa.gov<mailto:clee@bellevuewa.gov>>,
<j.robertson@bellevuewa.gov<mailto:j.robertson@bellevuewa.gov>>
Subject: Meeting request
Hello Jennifer and Conrad –

I want to thank both of you for your community service as Bellevue City Council members.

Like both of you, I am a long-time South Bellevue and Somerset resident. I've been following the "Energize Eastside" project very closely, and attended most of the CAG meetings. As I listened and pondered the project, it became clear to me that there were major safety issues that weren't being discussed in sufficient detail.

So, I started doing some research of my own. What I discovered greatly alarmed me.

Attached is a research paper that I've prepared. I'm asking that both of you read it. Feel free to forward it to others in the City of Bellevue. However, I'm asking that this not leave the City at this point in time.

I'm wondering if I could schedule a short (30 minute) meeting with both of you sometime in late February or early March (I'm headed out of town until then). I have a Powerpoint presentation that outlines these issues in more detail, and which contains information that is not in this paper.

If you could suggest a date after February 25th, and perhaps reserve a conference room, I would be eternally grateful. I promise it won't be a waste of your time.

I will be monitoring email in my absence, so feel free to respond to this email address. You can also call me at 425/941-3258.

Sincerely, James Sweet, PE

ATT00001.htm

Attachments:

Energize Eastside and seismic risks in South Bellevue.pdf	1.2 MB
ATT00001.htm	168 bytes

Hazardous Combination of Risks in South Bellevue: The Seattle Fault, The Olympic Pipeline, and PSE's "Energize Eastside" Power Transmission Line

Rev. 1, 6/2/2015

SUMMARY

The two powerline routes now being considered for PSE's "Energize Eastside" power transmission line ("Oak" and "Willow") share a potentially serious flaw that could increase risk to the public in an already-risky location. Both routes follow the Olympic Pipeline where it crosses the Seattle Fault near I-90 in South Bellevue. The Seattle Fault is an active earthquake fault zone that lies relatively close to the earth's surface. Surface ruptures have occurred in past quakes along the Fault Zone, with the south side of the fault displaced upwards as high as 22 feet relative to the north side. Visual evidence of past surface ruptures has been found within 2 miles of Energize Eastside's proposed route, with indirect evidence even closer.

If surface faulting and ground displacement occur where the Olympic Pipeline crosses the Fault, there is a reasonable likelihood that the pipeline will rupture at that point. With the pipeline moving up to 13 million gallons of gasoline/jet fuel per day at pressures above 1000 PSI, any sizeable break will result in a large fuel spill and probably a major fire. Utility industry guidelines warn against large fires beneath high voltage transmission lines, as the consequences often include line damage, line breakage, and/or "flashover" of current from the pipeline to the ground. Since the Olympic Pipeline is made of steel, a flashover from a 230,000 volt / 1 gigawatt powerline to a 300-mile-long metal pipeline full of gasoline could have catastrophic consequences far beyond Bellevue's city limits.

One mystery remains regarding the routing of the Olympic Pipeline: why does it take two different routes through South Bellevue? The designers of the original pipeline (completed 1965) routed it through Eastgate and Somerset ("Route Segment J"). A second pipeline was completed in 1973, primarily using the same route as the original pipeline. However, for some reason this second line bypassed the original 3-mile pipeline section that passes through Eastgate, Somerset, and the Seattle Fault. Instead, this section of the new line was routed to the west, through Factoria and along Coal Creek Parkway, re-joining the original pipeline route south of Somerset near Coal Creek. As the first indications of the Seattle Fault were noticed in late 1965, the author wonders if the second phase of the pipeline was re-routed to avoid possible fault issues discovered in the Eastgate/Somerset area.

The author recommends that the Energize Eastside EIS study group retain independent consultants with experience in liquid fuel pipelines and seismic zone evaluation to study the following issues in detail:

- **Evaluate the likelihood of a surface rupture of the Seattle Fault where it crosses the Olympic Pipeline(s) in Bellevue.**
- **Determine the vulnerability of the Olympic Pipeline(s) to a surface rupture where it crosses the Fault. This should include a determination of whether the pipeline meets seismic design**

criteria for pipelines that cross surface earthquake faults where surface displacement is known to occur.

- **Engage the Olympic Pipeline Company to determine if they can shed light on why the 1973 pipeline was not co-located with the 1965 pipeline as it passes through the Seattle Fault Zone in Bellevue.**
- **Determine if there are existing regulations that direct utilities to avoid building powerlines in locations where significant risks exist from the presence of existing utilities and/or hazardous geological features.**

BACKGROUND: OLYMPIC PIPELINE

The Olympic Pipeline is operated by BP Pipelines, and is designed to transport up to 13 million gallons of gasoline and jet fuel every day from Blaine and Anacortes, WA, towards Portland, OR[1] (with several delivery points in between). The pipeline consists of two parallel pipes (16" and 20") operating at pressures of around 1000 PSI. The pipeline was completed in 1965 (16" line) and 1973 (20"line)[2], and is buried along most of its route. Where the Olympic Pipeline crosses the Seattle Earthquake Fault Zone in south Bellevue, these two pipelines split to follow separate routes: one crossing Eastgate/Somerset from north to south ("Route Segment J"), and the other diverging from the original pipeline north of I-90, traveling down Factoria Boulevard and Coal Creek Parkway to re-join the main pipeline route near Coal Creek (Route Segments G2, I, K2). **The first phase of the Olympic Pipeline was designed in the early 1960's before the Seattle Fault was discovered.** The author has been unable to determine if any seismic design criteria were incorporated in the design of either of the two Olympic lines.

BACKGROUND: THE SEATTLE FAULT

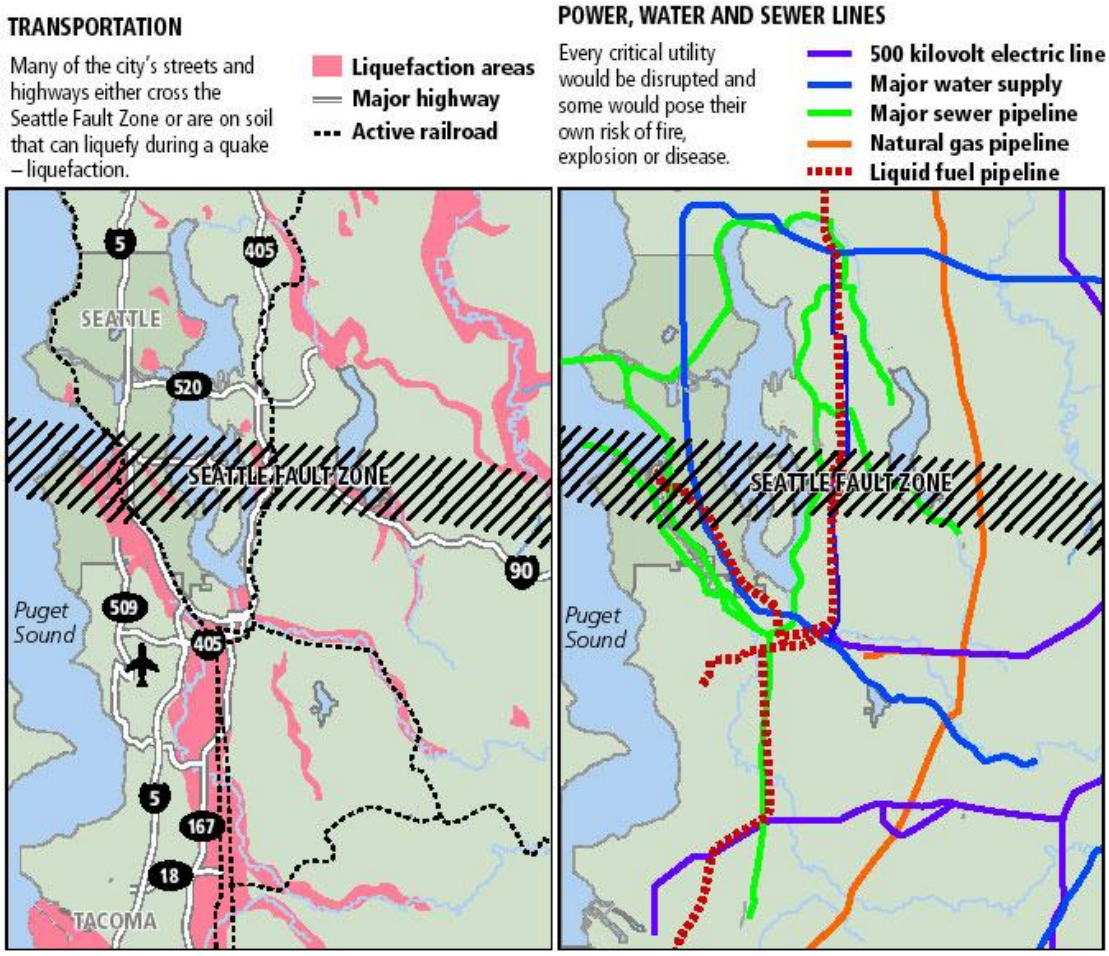
The Seattle Fault is actually a network of several earthquake fault lines that run east to west, from Hood Canal, WA to around Fall City, WA. The first modern indications that the Seattle Fault exists were noticed in 1965, but it was not determined to be a major seismic danger until 1992[3]. In the Bellevue/Issaquah area, the fault zone runs roughly along Interstate 90, then crosses Lake Sammamish. The Seattle Fault is considered by many to be a particularly hazardous earthquake zone due to the fact that it is a shallow, crustal fault, unlike many other local earthquake faults that are located 30+ miles underground. A map of the Seattle Fault Zone can be found in Attachment A.

Geologists estimate the recurrence rate of the Seattle Fault at approximately 1000 years. The last major quake along this fault occurred approximately 1100 years ago, and resulted in several major landslides into Lake Washington[3]. One of these landslides, which occurred at the south end of Mercer Island, carried an entire hillside covered with large fir trees into the lake, which divers can still see today[4].

[1] http://www.olympicpipeline.com/
[2] Bellingham pipeline hearing minutes 3/13/2000
[3] Wikipedia article Seattle Fault
[4] Underwater forest video

Past earthquakes along the Seattle Fault have caused the earth to rupture at the surface in multiple locations. One such rupture can be seen today near Bainbridge Island, where an uplift 22' high was created in the last earthquake 1100 years ago[5]. Another surface rupture can be found in West Seattle. In South Bellevue, **yet another rupture occurred, near Southeast 38th Street in Vasa Park – less than 2 miles away from the pipeline**.[6] Other surface ruptures have likely occurred, but have been obscured over centuries of erosion and vegetation growth.

The US Geological Survey has stated that future earthquakes on the Seattle Fault will occur: "It's a matter of not if, but when." The Fault has been active for an estimated 40 million years, and has an estimated recurrence interval of approximately 1000 years.[7] Due to its location in a heavily urbanized area with major traffic corridors, many geologists believe the Seattle Fault is a candidate for enhanced real-time seismic monitoring to attempt to quantify the risk to the public.



[5] Scenario for a 6.7 magnitude quake on the Seattle Fault
[6] Scenario for a 6.7 magnitude quake on the Seattle Fault
[7] Scenario for a 6.7 magnitude quake on the Seattle Fault

COMBINING RISKS: THE OLYMPIC PIPELINE, THE SEATTLE FAULT, AND POWER TRANSMISSION LINES

Pipelines located over surface earthquake faults have experienced major failures in other locations. Several examples of pipeline ruptures during earthquakes can be found. "On Jan. 17, 1994, the (magnitude 6.7) Northridge earthquake struck the San Fernando Valley in southern California. The shaking began at 4:31 in the morning. Freeways and apartment buildings collapsed, killing 57 people and injuring thousands. Buried out of sight, an old pipeline operated by the Atlantic Richfield Company tore apart at the seams. Welds failed at nine different points along a 56km stretch, including at a pumping station on the banks of the Santa Clara (River).[8]" One could easily envision this scenario unfolding in Bellevue where the Olympic Pipeline crosses the Seattle Fault, particularly if the earth's surface ruptures during a quake.

According to City of Bellevue testimony in a 1998 hearing: "Our consulting engineer with extensive expertise in pipelines tells us that the locations where Olympic pipeline crosses under SR 520 and I-90 are, in fact, the two most vulnerable points of the pipeline within Bellevue. This is because they are the lowest topographical points where gravity exerts the most pressure on the pipe."[9]

According to the Washington State Military Department: "The (Olympic) pipeline crosses the Seattle Fault in an area where the scenario earthquake will create several feet of displacement and where liquefiable soils exist. …If significant ground displacement occurs, pipeline rupture is expected. Consequences could be devastating – a 1999 rupture of the pipeline in Bellingham released nearly a quarter-million gallons of fuel that subsequently caught fire and killed three people."[10]

Many Washington residents remember the disaster that struck in Bellingham, WA, caused by a breach in the Olympic Pipeline which resulted in deaths. On June 10, 1999, a valve failure caused the Olympic Pipeline to rupture, allowing 229,000 gallons of gasoline from the pipeline to flow into Whatcom Creek. The gasoline traveled down the creek for 1.5 miles, ignited, and created a 1.5-mile-long wall of fire 200' high. Three boys playing near the creek were incinerated. The flames from the gasoline reached a temperature of 2000 degrees, with the smoke from the conflagration reaching 30,000 feet.[11]

[8] Frazer River spill article
[9] Bellingham pipeline hearing minutes 3/13/2000
[10] Scenario for a 6.7 magnitude quake on the Seattle Fault
[11] Historylink.org Bellingham Pipeline fire

Olympic Pipeline fire, Bellingham, June 10, 1999
Photo by Bill Pifer

HYPOTHETICAL DISASTER SCENARIO (for illustration purposes only)

In South Bellevue, not only does the Olympic Pipeline pose risks, but the combination of the Seattle Fault (a shallow earthquake fault), the 50-year-old Olympic Pipeline, and an older 115,000 volt PSE transmission line have the potential to compound tragedy (even before considering PSE's proposed Energize Eastside new 1 GW transmission line). For example: At the northern base of Somerset hill, the following can be found in close proximity: the Seattle Fault, the Olympic Pipeline, PSE's existing 115,000 volt transmission line (which uses the same route as the pipeline), Sunset Creek (which runs east-west at the base of Somerset Hill), Tyee Middle School, and Edgebrook Swim and Tennis Club. (See Exhibit B for a map of this area.)

Consider the following scenario at this location:

- During a swim meet at Edgebrook, an earthquake along the Seattle Fault ruptures the Olympic pipeline at the base of Somerset Hill, spilling 250,000 gallons of gasoline into Sunset Creek.
- The old PSE 115,000 volt transmission line breaks due to the earthquake, and falls to the ground near the creek.
- The power line ignites the gasoline, causing a wall of flame to travel down the creek.
- Edgebrook Swim and Tennis Club (which is next to the creek) is engulfed in flames, trapping those inside.
- Another break in the pipeline 100 yards north is ignited directly adjacent to Tyee Middle School, trapping 400 children and their teachers inside.
- A third rupture occurs where the pipeline crosses beneath I-90 (about ¼ mile north of Tyee Middle School) and also ignites, engulfing the freeway in flames, blocking all traffic (including emergency responders). All accesses from Seattle to points east of Bellevue via I-90 are blocked.

"ENERGIZE EASTSIDE" ADDS MORE RISKS

None of the above scenarios involve PSE's proposed "Energize Eastside" transmission line. As currently proposed, this line will be a 1 gigawatt (1,000,000 KW), 230,000 volt line running from Woodinville to Renton, WA. (1 gigawatt is approximately the amount of power produced by a large nuclear power

plant, and is roughly equivalent to Seattle City Light's entire average demand.[12] The average home uses 2 to 5 KW.)

Both of the proposed routes for the new Energize Eastside project are routed above the Olympic Pipeline where it crosses the Seattle Fault. The Olympic Pipeline actually consists of two pipelines. These two pipelines follow two different routes through South Bellevue where they cross the Seattle Fault. By coincidence, PSE has chosen these very two routes as their finalists for Energize Eastside, exposing both of them to the risk of fire from a burning pipeline fractured during a seismic event.

There are at least four potential disaster scenarios that this new Energize Eastside PSE 1,000,000 KW transmission line could add at this already dangerous location:

1.) Scenario #1: The new electrical transmission line breaks during an earthquake and falls to the ground, causing damage and/or injury. (This is probably the least likely of these events.)
2.) Scenario #2: The Olympic Pipeline ruptures during an earthquake. The existing PSE 115,000 volt transmission falls and ignites the spilled fuel. A 200' wall of smoke and 2000 degree flames from the burning pipeline rises to engulf the new Energize Eastside PSE 1,000,000 KW power lines, causing the conductors to heat up, weaken, and break. The falling power line wires land on trees and buildings below, causing damage and/or injury. (A variant of this scenario would involve the powerline becoming damaged but not breaking, which could require deactivation and replacement of the powerline.)
3.) Scenario #3: The 200' wall of smoke and flames from the burning Olympic Pipeline rises to engulf the new Energize Eastside power line and causes it to "flash-over", delivering a massive short circuit to the earth below. "Flashover" is a known phenomenon in the utility industry, and has been known to occur where wildfires cause large amounts of smoke to billow up to overhead high voltage transmission lines. In a flashover incident, the electric current flowing in the power line finds a new path to ground through the smoke and flames, using it to conduct electricity.[13] If anywhere near the 1 gigawatt capacity of the proposed PSE line was delivered to the earth below via flashover, anything in its path could be destroyed. **It may also be possible that this surge of electricity would strike the metal pipeline and travel along it, igniting even more gasoline and jet fuel along the pipeline route.**

According to the Bonneville Power Authority, one of the nations' largest operators of high-voltage transmission lines: "Smoke and hot gases from a large fire can create a conductive path for electricity. When a fire is burning under a power line, electricity could arc from the wire, through the smoke and to the ground, endangering people and objects near the arc……large fires near or around power lines can damages the lines and cause power outages."[14]

[12] Seattle City Light Wikipedia article
[13] BPA Document DOE/BP–3804
[14] BPA Document DOE/BP–3804

Scenario #4: The Olympic Pipeline is damaged during installation of the new Energize Eastside power transmission line, resulting in a leak and fire. (Damage caused by third party construction is by far the leading cause of pipeline leaks.[15]) The fire damages the powerline and causes a flashover event, resulting in damage on the ground.

Perhaps these kind of potential events demonstrate why the Olympic Pipeline Company has expressed their preference for Energize Eastside transmission line routes that do not follow the pipeline route.

A 50-YEAR-OLD MYSTERY

One mystery remains regarding the routing of the Olympic Pipeline: why does it take two different routes through South Bellevue? The designers of the original pipeline (completed in 1965) routed it through Eastgate and Somerset ("Route Segment J"). A second pipeline was completed in 1973, which for most of its length used the same route as the original pipeline. However, this second pipeline for some reason bypassed the 3-mile section that passes through Eastgate, Somerset, and the Seattle Fault. Instead, the new line was routed to the west, through Factoria and along Coal Creek Parkway, re-joining the original pipeline route south of Somerset near Coal Creek. Since the first indications of the Seattle Fault came to light in late 1965, the author wonders if the second phase of the pipeline was re-routed to avoid faults in the Eastgate/Somerset area. The author recommends that the EIS study group engage Olympic Pipeline to determine if their records show why this route choice was made for the second pipeline (which still crosses the Seattle Fault). This information could influence the final selection of the Energize Eastside powerline route.

RISKS TO THE UTILITY

PSE has a vested interest in the reliability of this proposed new powerline, which is being built to add redundancy to the grid in an area where power demand is projected to increase. One event that could threaten the grid in this region is a large regional earthquake that causes local PSE generation assets in the area to trip offline. However, if studies determine that the new powerline is also threatened by this same type of event, it is debatable whether it accomplishes the goal of increasing redundancy in the aftermath of an earthquake.

POTENTIAL REGULATORY ISSUES

It is possible that Federal guidelines or industry regulations exist that would direct the designers of the Energize Eastside transmission line to avoid hazardous locations such as this one. While the author was unable to determine if such rules exist when this document was written, these should be fully explored before a permit is issued.

[15] Bellingham pipeline hearing minutes 3/13/2000

RECOMMENDED ACTIONS

The author recommends that a moratorium on the Olympic Pipeline route be established until the EIS study group is able to retain independent consultants with pipeline and seismic experience to study the following issues in detail:

- **Evaluate the likelihood of a surface rupture of the Seattle Fault where it crosses the Olympic Pipeline(s) in Bellevue when the next quake occurs along the Fault.**
- **Ascertain the vulnerability of the Olympic Pipeline(s) to a surface rupture where it crosses the Fault. This should include a determination of whether the pipeline meets seismic design criteria for pipelines that cross surface earthquake faults where surface displacement is known to occur.**
- **Engage the Olympic Pipeline Company to determine if they can shed light on why the 1973 pipeline was not co-located with the 1965 pipeline as it passes through the Seattle Fault Zone in Bellevue**
- **Determine if there are existing regulations that direct utilities to avoid building powerlines in locations where significant risks exist from the presence of existing utilities and/or hazardous geological features.**

CONCLUSION

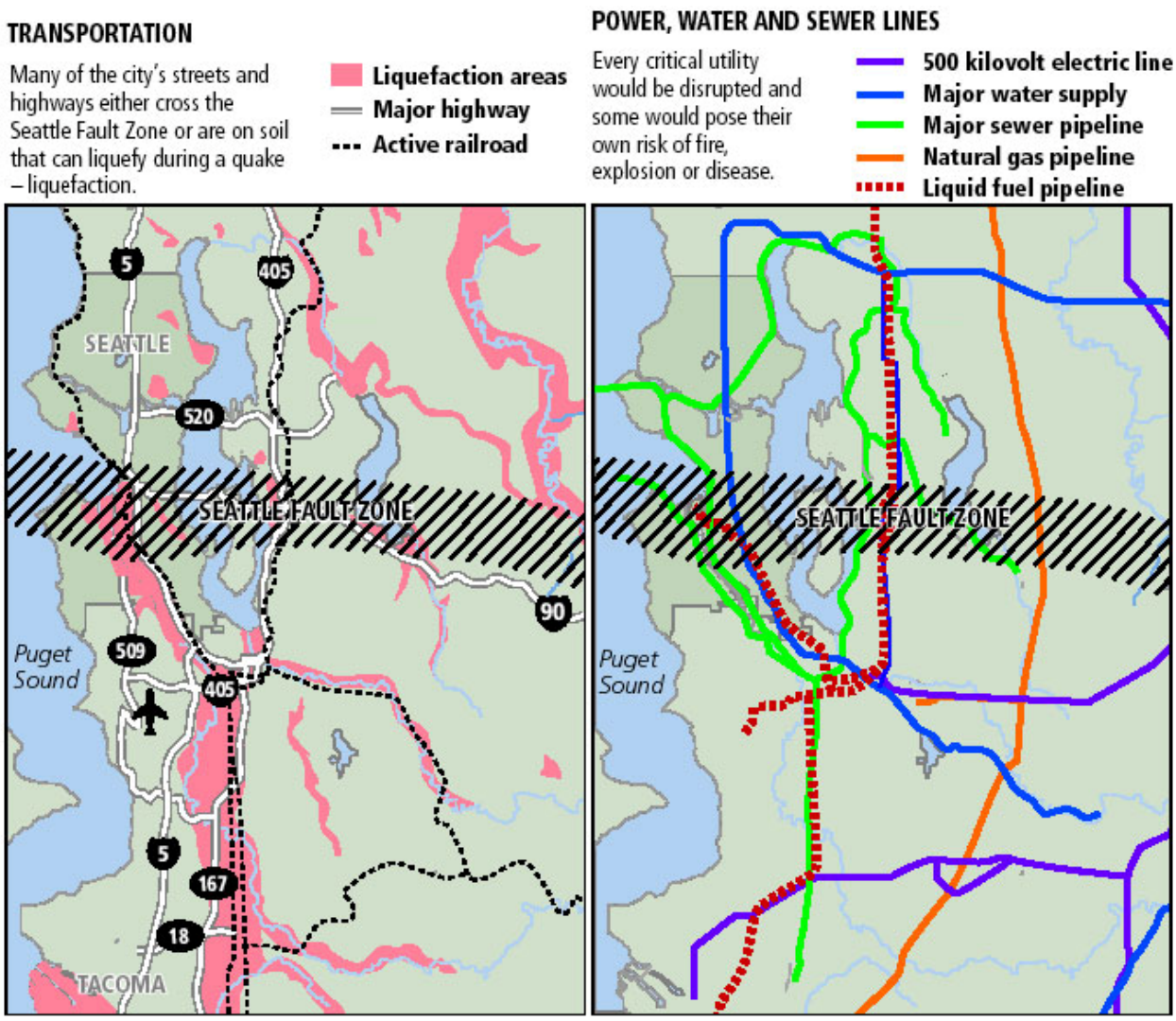
South Bellevue already faces multiple catastrophic risk scenarios due to the presence of the Seattle Fault, the Olympic Pipeline, PSE's existing 115 KV power line, Interstate 90, and other thoroughfares, schools, and creeks in the fault zone. **Locating a new 1 gigawatt power line above an older gasoline pipeline where it crosses a known surface earthquake fault seems like a poor decision when other route options exist.** Prudent disaster mitigation suggests that a different powerline route be used that does not increase the risk to the public, as these routes do. A moratorium on this route should be established until appropriate engineering evaluations are completed to quantify the risk to the public.

The author also encourages the reader to learn more about the Seattle Fault, with the goal of developing a personal disaster survival plan. The State of Washington document titled "Scenario for a Magnitude 6.7 earthquake on the Seattle Fault" provides an excellent overview of the scope of such an event.

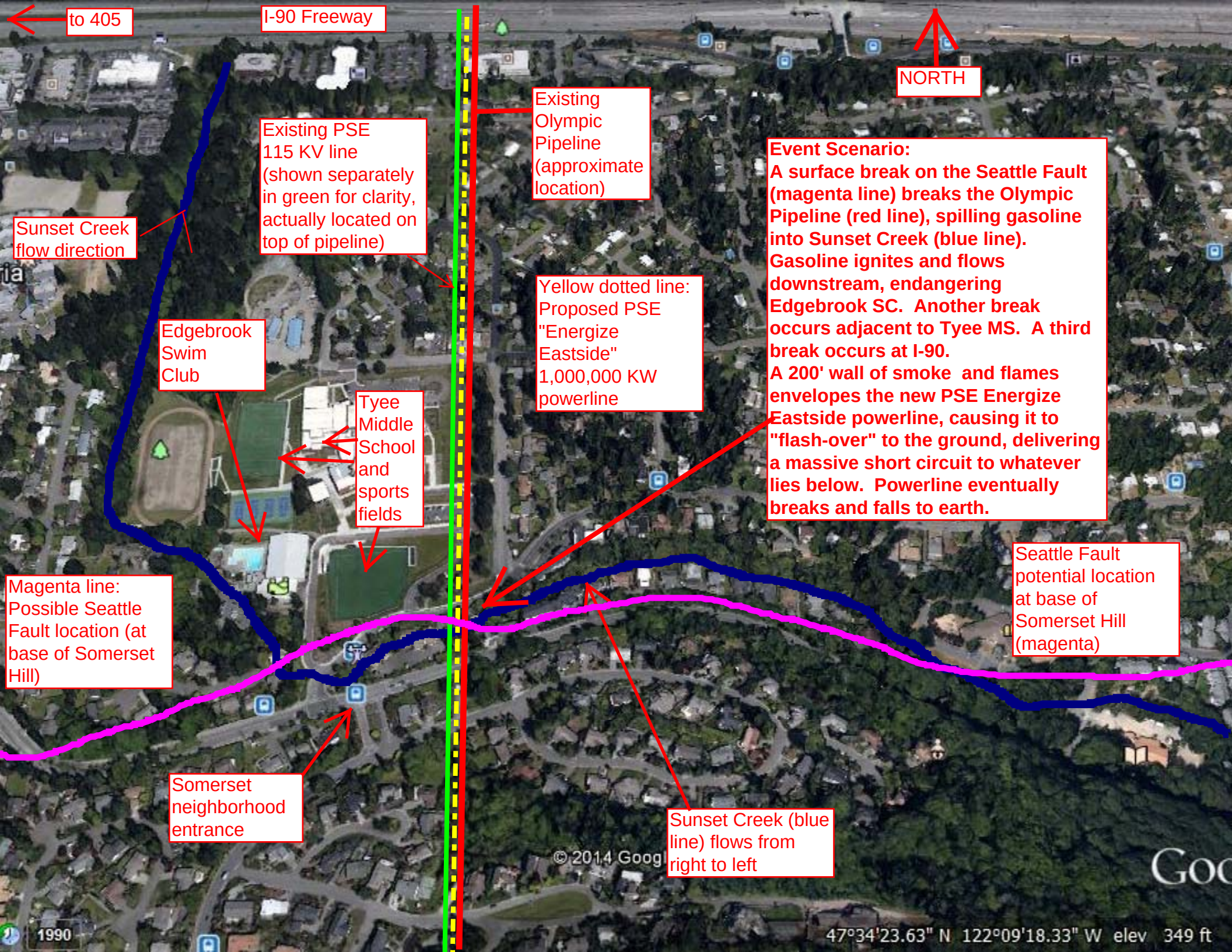
ABOUT THE AUTHOR

James Sweet, PE is a retired engineer who moved to South Bellevue with his family in 1960. Jim grew up in Newport Hills, and attended Newport Hills Elementary, Tyee Middle School, Ringdall Middle School, Newport High School, and the University of Washington, graduating with a degree in Mechanical Engineering. Jim presently lives in South Bellevue, has many friends in the area, and wants them to be aware of the risks lying beneath our feet.

Attachment A - Seattle Fault map
(with utilities shown)



Source: "Scenario for a Magnitude 6.7 Earthquake on the Seattle Fault", by Earthquake Engineering Research Institute and Washington Military Department Emergency Management Division, June 2005


to 405
I-90 Freeway
NORTH
Existing Olympic Pipeline (approximate location)
Existing PSE 115 KV line (shown separately in green for clarity, actually located on top of pipeline)
Sunset Creek flow direction
Yellow dotted line: Proposed PSE "Energize Eastside" 1,000,000 KW powerline
Event Scenario:
A surface break on the Seattle Fault (magenta line) breaks the Olympic Pipeline (red line), spilling gasoline into Sunset Creek (blue line). Gasoline ignites and flows downstream, endangering Edgebrook SC. Another break occurs adjacent to Tyee MS. A third break occurs at I-90.
A 200' wall of smoke and flames envelopes the new PSE Energize Eastside powerline, causing it to "flash-over" to the ground, delivering a massive short circuit to whatever lies below. Powerline eventually breaks and falls to earth.
Edgebrook Swim Club
Tyee Middle School and sports fields
Seattle Fault potential location at base of Somerset Hill (magenta)
Magenta line: Possible Seattle Fault location (at base of Somerset Hill)
Somerset neighborhood entrance
Sunset Creek (blue line) flows from right to left
© 2014 Google
1990
47°34'23.63" N 122°09'18.33" W elev 349 ft

Subject: FW: Alternatives for Energize Eastside EIS Scope
From: <DPyle@bellevuewa.gov>
Date: 6/9/2015 1:52 PM
To: <scoping@energizeeastsideeis.org>

From: John Merrill [mailto:john@merrillimages.com]
Sent: Monday, June 01, 2015 14:08
To: Council; Lee, Conrad; Councilmember Jennifer Robertson; Chelminiak, John; Stokes, John; Wallace, Kevin R; Balducci, Claudia; Robinson, Lynne
Cc: David Danner (ddanner@utc.wa.gov); info@energizeeastsideeis.org; Don Marsh (don.m.marsh@gmail.com); Steve O'Donnell; Deborah Reynolds (dreynold@utc.wa.gov); Simon ffitch (simon@atg.wa.gov); Miyake, Brad; John Merrill
Subject: Alternatives for Energize Eastside EIS Scope

Dear Mayor, Deputy Mayor and Bellevue Council Members,

Below are 5 additional, viable, reliable and more prudent alternative ways to power our growth in Bellevue. Each is much less damaging to the environment and our bank accounts than Energize Eastside. Some of these 5 alternatives partially overlap the second and third alternatives already placed in the scope of the EIS by City staff, but are different in material ways. Please ask City staff to include them in the scope of the Energize Eastside EIS.

Powering Eastside Growth:

Alternatives For Study In The Energize Eastside Environmental Impact Statement

Alternative 5: Use Existing 230kV Transmission Lines (With New Connections To Bellevue)

a. Use one or both of the two existing, parallel and under-utilized 230kV transmission lines already in operation of the Eastside, one of which stands just ¾ mile west and one 7 miles to the east of PSE's route for Energize Eastside. Both have the capacity to become another major source of power to Bellevue during rare peak demand events. Leave PSE's existing, but likely upgraded, Eastside 115kV transmission "backbone" in place. Leave PSE's existing, but likely upgraded, Eastside 115kV transmission in place.

Alternative 6: Local Generation

b. Fully utilize the existing (or an upgraded), PSE-owned "Westside Peaking System" which has approximately 1,400 MW of capacity, during the Eastside's rare peak demand hours. PSE's Westside Peaking System consists of multiple, large, natural gas-fired generators which are designed to operate only during rare peak demand events and are located in Skagit and Whatcom Counties. PSE built, and its customers pay for, the Westside Peaking System specifically for this purpose. To date, PSE has not fully utilized these generators in its analysis of the Eastside's need; and/or

c. Install one or more new "Peaking Generator Stations" on the Eastside itself, as near as

possible to the biggest loads; and/or

d. Create a "dispatchable" Backup Generator Network on the Eastside similar to the 100 MW system in operation in Portland, Oregon. Many Eastside buildings, like hospitals and data centers, already have backup generators which can be networked together and remotely controlled by PSE to run during rare peak demand events. If existing generators do not collectively have enough capacity, add new networked generation capacity. Building owners are incented to participate because the utility takes over responsibility for the generators, including paying for upgrades, operation, maintenance, testing and fuel. For a description of Portland General Electric's existing system, see https://www.portlandgeneral.com/business/medium_large/products_services/dispatchable_standby_generation.aspx

e. Leave PSE's existing, but likely upgraded, Eastside 115kV transmission in place.

Alternative 7: Upgrade Existing System

a. Upgrade PSE's existing Eastside 115kV "backbone" system to increase its capacity and reliability (utilizing existing or new wooden poles) to bring additional power to Bellevue during rare peak demand events; and/or

b. Relieve (hypothetical) stress on PSE's existing 115kV system by eliminating power flows to Canada (or California) during (simulated,) rare peak demand events (but not during non-peak demand time periods). PSE has no legal obligation to deliver power to Canada or California during rare Eastside peak demand hours. Utility Systems Efficiencies' report showed that when Canadian flows are curtailed briefly on cold weekday evenings when we need the power (and Canada does not), only one transformer on PSE's existing system is overloaded. This transformer could relatively easily and quickly be replaced or duplicated for more capacity.

Alternative 8: 21st Century Solutions

a. Install at PSE's expense, proven energy conservation and efficiency systems to reduce the amount of demand during rare peak demand events, including the 56 MW of cost effective peak demand reduction identified by industry expert E3 in its 2012 Reliability Study for the City of Bellevue. A significant additional amount of peak demand reduction can be paid for by PSE to incent customers to participate at a cost which is an order of magnitude less expensive than Energize Eastside and with a positive environmental impact ; and/or

b. Build "dispatchable" battery storage projects on the Eastside of the type installed by AES Energy Corporation and its competitors. There are about 100 utility-scale battery storage systems currently operating in the U.S. and they are falling rapidly in price. And/or install at PSE's expense, distributed/residential battery systems similar to the Tesla Powerwall; and/or

c. Implement modern "Demand Response" program or programs to minimize peak loads during rare peak demand hours using one of many cloud-based control solutions currently available from companies like Opower;

d. Leave PSE's existing, but likely upgraded, Eastside 115kV transmission "backbone" in place.

Alternative 9: **Combination**

Combine two or more of the above alternatives to minimize environmental impact, optimize reliability and reduce economic costs to the Eastside communities, King County taxpayers and all PSE ratepayers. Multiple solutions, particularly non-centralized solutions, are inherently more reliable and less vulnerable than a centralized solution like Energize Eastside.

In addition, please ask City staff to include the below impact criteria in the EIS to compare all alternatives. Unfortunately, the negatives environmental and other impacts of Energize Eastside would be broad and significant, and they all merit thorough study.

(1) Natural environment

(a) Earth
- (i) Geology
- (ii) Soils
- (iii) Topography
- (v) Erosion/enlargement of land area (accretion) (steep slopes will be impacted)
- (vi) Seismic forces could cause an environmental and human disaster

(b) Air
- (i) Air quality (Energize Eastside would perpetuate the use of PSE's Colstrip coal-fired power plant which is one of the biggest polluters in the U.S.)
- (iii) Climate (Energize Eastside would perpetuate the use of PSE's Colstrip coal-fired power plant which is one of the biggest sources of carbon pollution in the U.S.)
- (iv) Construction impacts

(c) Water
- (i) Surface water movement/quantity/quality
- (ii) Runoff/absorption
- (iii) Floods
- (iv) Groundwater movement/quantity/quality
- (v) Public water supplies

(d) Plants and animals
- (i) Habitat for and numbers or diversity of species of plants, fish, or other wildlife
- (ii) Unique species
- (iii) Fish or wildlife migration routes

(e) Energy and natural resources
- (i) Amount required/rate of use/efficiency
- (ii) Source/availability
- (iii) Nonrenewable resources
- (iv) Conservation and renewable resources
- (v) Scenic resources

(2) Built environment

(a) Environmental health
- (i) Noise (buzzing during operation and construction noise)
- (ii) Risk of explosion (there are highly explosive and flammable fuel lines on the proposed route)
- (iii) Releases or potential releases to the environment affecting public health, such as toxic or hazardous materials during construction and EMF during operation

(b) Land and shoreline use

(i) Relationship to existing land use plans and to estimated population
(ii) Housing (hundreds of homes and dozens of neighborhoods will be severally degraded)
(iv) Aesthetics (the towers would degrade aesthetics for miles on either side of the lines)
(v) Recreation (recreational opportunities I proximity to the lines would be reduced by health concerns)

(c) Transportation (during construction)
(i) Transportation systems
(ii) Vehicular traffic
(v) Movement/circulation of people or goods
(vi) Traffic hazards

(d) Safety

I know that you share your constituents concerns for our City and will not let the need of a private corporation to make profits for its owners outweigh the best interests of our community. Thank you very much.

John Merrill
4800 134th Place SE
Bellevue, WA 98006

Subject: Blight
From: Marilee <mkpilk@aol.com>
Date: 6/10/2015 6:15 PM
To: "Scoping@EnergizeEastsideEIS.org" <Scoping@EnergizeEastsideEIS.org>

How could PSE in good conscience
support a plan that unnecessarily desecrates beautiful trees that line our streets. We do not need that much extra power-the towers would be a blight (so tall) and destroy the peace and tranquility that the trees offer. The trees provide shade in the heat that we have recently experienced. We have to protect our environment not destroy it. Property values will go down--this is ridiculous!!!
Listen to reason!

Marilee Pilkey

Sent from my iPhone

Subject: Alt 3 concern
From: Peter Berner-Hays <peterbh@thelittleschool.org>
Date: 6/10/2015 9:03 AM
To: "Scoping@EnergizeEastsideEIS.org" <Scoping@EnergizeEastsideEIS.org>

I am writing on behalf of the 160 children and their families here at The Little School in Bellevue. The Alternative 3 New Transformer proposal for the Energize Eastside power lines project would site high voltage wires directly next to The Little School property line. We have 160 children between the ages of 3 and 12. Their brains are active and developing. Any ambient spill from these wires seems like a significant risk to their long term health and development. I strongly urge you to reconsider and reject this proposal. Thank you for your consideration. Peter

Peter Berner-Hays
Head of School
The Little School
2812 116th Ave NE
Bellevue WA 98004
425-827-4609 *110
Click here to see Where Big Futures Begin

Subject: Energize Eastside EIS Scoping: SEPA vs. NEPA Determination
From: Russell Borgmann <rborgmann@hotmail.com>
Date: 6/10/2015 12:13 PM
To: "chelland@bellevuewa.gov" <chelland@bellevuewa.gov>, "dpyle@bellevuewa.gov" <dpyle@bellevuewa.gov>, "bmiyake@bellevuewa.gov" <bmiyake@bellevuewa.gov>, "lriordan@bellevuewa.gov" <lriordan@bellevuewa.gov>, "info@energizeeastsideEIS.org" <info@energizeeastsideEIS.org>, "scoping@energizeeastsideEIS.org" <scoping@energizeeastsideEIS.org>, "cbalducci@bellevuewa.gov" <cbalducci@bellevuewa.gov>, "krwallace@bellevuewa.gov" <krwallace@bellevuewa.gov>, "clee@bellevuewa.gov" <clee@bellevuewa.gov>, "lrobinson@bellevuewa.gov" <lrobinson@bellevuewa.gov>, "jstokes@bellevuewa.gov" <jstokes@bellevuewa.gov>, "j.robertson@bellevuewa.gov" <j.robertson@bellevuewa.gov>, "jchelminiak@bellevuewa.gov" <jchelminiak@bellevuewa.gov>, "mbrennan@bellevuewa.gov" <mbrennan@bellevuewa.gov>, William Parmer <william.parmer@leg.wa.gov>, "kim.o'farrell@leg.wa.gov" <kim.o'farrell@leg.wa.gov>, "kyle.burleigh@leg.wa.gov" <kyle.burleigh@leg.wa.gov>, "david.postman@gov.wa.gov" <david.postman@gov.wa.gov>, Stephen Uy <stephen.uy@gov.wa.gov>, Patrick Chiarelli <patrick.chiarelli@mail.house.gov>, "nataly_morales@murray.senate.gov" <nataly_morales@murray.senate.gov>, "tommy_bauer@cantwell.senate.gov" <tommy_bauer@cantwell.senate.gov>
CC: "rborgmann@hotmail.com" <rborgmann@hotmail.com>, "mvasconi@utc.wa.gov" <mvasconi@utc.wa.gov>, "rkouchi@utc.wa.gov" <rkouchi@utc.wa.gov>, "simon@atg.wa.gov" <simon@atg.wa.gov>

Dear Bellevue City Staff, City Council, EIS Officials, Honorable Representatives and Senators,
I have provided previous EIS questions/comments that establish facts and clear evidence showing that Energize Eastside, in (large) part, is a transnational grid reinforcement project. While PSE steadfastly maintains that Energize Eastside is solely a local load growth project, it is clearly part of the Bulk Electric System, as defined by FERC. Per the USE report (independent technical analysis of Energize Eastside's need) four out of five - fully 80% - of the overloads modeled in PSE's power flow simulations are attributed to "Canadian Entitlement" electricity. Only 20% of the need for Energize Eastside is attributed to local load growth. Only ONE (1) transformer overload condition exists in power flow simulations when Canadian Entitlement electricity is removed from the power flow simulations. This single overload condition could be addressed via an additional transformer at the Talbot Hill station.

PSE must run REALISTIC power flow studies that are NOT manipulated with the addition of Canadian Entitlement electricity (1,500MW). Additionally, PSE must INCLUDE emergency generation facilities west of the Cascades (their stated purpose is for emergency overload conditions). In PSE's power flow studies, PSE has turned OFF 1,400MW of PSE-owned/controlled natural gas-fired generation facilities located in western Washington, whose specific purpose is to address emergency overload conditions. PSE has manipulated the results in contrived power flow simulations to serve the financial purposes of PSE.

PSE has not articulated HOW PSE intends to route power to support load growth in the Bellevue downtown corridor. PSE has not provided plans for delivering power from Energize Eastside to the designated load in downtown Bellevue. This is a glaring omission, further reinforcing the point that Energize Eastside is less about local load growth and more about long-haul electricity transmission.

PSE is in violation of FERC Order 1000. Energize Eastside is designed for more than one need. Energize Eastside costs

must be fairly allocated across ALL beneficiaries, from California to British Columbia per FERC Order 1000. PSE has not adequately articulated the broader transnational (regional) need for Energize Eastside. PSE has not conducted their own environmental assessment of Energize Eastside. And PSE has manipulated results in contrived power flow simulations that do not meet industry standards. As a result, PSE has abused the City of Bellevue's trust, as well as the public's trust, preventing the discussion of alternatives that can be proven to be less costly, more efficient, and cause less environmental impact.

Ms. Carol Helland, as an attorney and the City of Bellevue's Land Use Director, is the sole authority to render the NEPA/SEPA determination for Energize Eastside. The City of Bellevue is acting as the Lead Agency. Ms. Helland is spread thin on many projects, and since she appreciates facts, here are the facts:

- **The USE report conclusions contradict the power flow studies**. While the USE report concludes that Energize Eastside is needed, that conclusion is NOT supported by the power studies performed. The entire report must be reviewed in detail. A simple perusal of the executive summary will not suffice. This deception manipulates the public's trust, exploits the media's lack of time to properly investigate/report, and deceives the City of Bellevue into quickly moving forward with Energize Eastside.

- **Energize Eastside was cited as the GREATEST THREAT to neighborhood character**. On October 7, 2014 the City of Bellevue hosted a Neighborhood Leadership Gathering. More than 92 community leaders participated in a survey that overwhelmingly indicated Energize Eastside was the GREATEST THREAT to neighborhood character. Energize Eastside is widely recognized to cause significant NEPA environmental impact beyond the SEPA criteria. NEPA environmental impact criteria, including Safety and Economics, must be taken into account in the EIS scope.
- **Mr. Mark Williamson was the consultant and chief architect of the failed PJM Regional Transmission Organization project (Potomac-Appalachian Transmission Highline, PATH) for 13 mid-Atlantic states in 2012.** The PATH project is strikingly similar to Energize Eastside. PATH was challenged and ultimately found to be unnecessary by FERC. PJM was forced to reverse direction and officially kill the PATH project citing, "…analyses showing reliability drivers no longer exist for the project throughout the 15-year planning cycle. The analyses incorporated the continued trends of decreasing customer load growth, increasing participation in demand response programs and the recent commitment of new generating capacity in eastern PJM." Mr. Williamson is also alleged to have had a role in a scandal ($170,000 in illegal campaign donations) surrounding former Wisconsin state Senator Chvala, who plead guilty and was convicted and jailed for misconduct in public office and circumventing election laws. Citizens are deeply troubled that PSE continues to rely on Mr. Williamson as one of their chief consultants for Energize Eastside. City, State, and Federal politicians, officials, and Bellevue City Staff are encouraged to minimize their contact with PSE, a private investor-owned (monopoly) utility, and PSE consultants, if for no other reason, to avoid perceptions of financial and political impropriety. The NEPA/SEPA determination must be based on objective facts and data obtained from verifiable independent sources. The NEPA/SEPA decision cannot be based on contrived propaganda in a brazen PR campaign from a biased company and its paid lobbyists and consultants with ulterior motives.
  http://www.isthmus.com/news/cover-story/atc-has-the-power/
  http://www.stoppathwv.com/1/post/2012/08/why-did-pjm-cancel-path-and-mapp.html
- **Federal EPA regulations must be enforced. PSE possesses multi-state electricity generation facilities. As such, Energize Eastside falls under NEPA review**. PSE's coal-fired generation facilities in Colstrip, Montana must be significantly upgraded or retired to meet federally mandated EPA regulations to comply with climate objectives. PSE has NOT included planning for the inevitable retirement of Colstrip in their IRP. Any significant change (decrease) in electricity generation capacity, like the retirement of Colstrip, must be included in the overall Environmental Impact Study for Energize Eastside. Energize Eastside transmission lines would depend upon PSE's ability to sufficiently generate electricity or buy electricity generation. Where will PSE obtain a new electricity supply to cover peak load with the pending shutdown of Colstrip? In PSE's 2013 IRP, PSE indicates a 1,500MW **generation** shortfall forecast (unmet capacity, Figure G-12 on page G-25). PSE has not presented any plans to deal with not having enough electrons to flow through the Energize Eastside transmission lines.

Building an electricity transmission pipeline the size of Energize Eastside will do no good, if PSE and others cannot produce enough electricity to flow through that transmission line. Energize Eastside does not add a single watt of new electricity generation. In the near-term, does Energize Eastside increase coal-by-wire dependency on coal-fired resources/generation in Montana or elsewhere? Does PSE's proposed Energize Eastside project relieve BPA from the fiscal responsibility of delivering Canadian Entitlement electricity, since BPA declined to build the necessary transmission capabilities to tie into Oliver, B.C.? Since federal EPA regulations must be met, and PSE possesses multi-state generation facilities that will be supplying electricity for transmission over the proposed Energize Eastside transmission lines, Energize Eastside should fall under NEPA review.

- **Bonneville Power Administration documentation states that all Lakeside Transformer 230kV activities fall under NEPA**. Period. Please re-evaluate all documentation from multiple sources, including BPA and FERC, as it appears that the City of Bellevue has overlooked crucial binding documentation. If Energize Eastside moves forward only under SEPA review, the City of Bellevue will be forced to reverse its decision. This will be costly and time-consuming for all parties involved.

NEPA/SEPA decisions about Energize Eastside are critically important to the Puget Sound Eastside region. NEPA/SEPA decisions are important to all PSE customers, whose rates are guaranteed to increase if PSE's proposed Energize Eastside project is built.

One person on Bellevue City Staff, juggling multiple assignments, cannot possibly be in command of the all of the facts for a SEPA/NEPA determination on a project of the size and scope of Energize Eastside. SEPA/NEPA determination must be determined by an independent panel/commission that includes detailed local, state, and federal legal review.
Sincerely,

Russell Borgmann
2100 120th Place SE
Bellevue, WA 98005
425.445.4298
rborgmann@hotmail.com

Subject: Fwd: BDA Scoping Comments, Energize Eastside Draft EIS
From: Energize Eastside EIS <info@energizeeastsideeis.org>
Date: 6/11/2015 2:25 PM
To: Energize Eastside EIS <scoping@energizeeastsideeis.org>

---------- Forwarded message ----------
From: **Ariel Taylor** <ariel@bellevuedowntown.org>
Date: Mon, Jun 8, 2015 at 4:57 PM
Subject: BDA Scoping Comments, Energize Eastside Draft EIS
To: "info@EnergizeEastsideEIS.org" <info@energizeeastsideeis.org>
Cc: "council@bellevuewa.gov" <council@bellevuewa.gov>, "bmiyake@bellevuewa.gov" <bmiyake@bellevuewa.gov>, "sestead@psfinc.com" <sestead@psfinc.com>, Patrick Bannon <patrick@bellevuedowntown.org>

Mr. Pyle,

On Behalf of the Bellevue Downtown Association, please find the attached Energize Eastside scoping comments for phase 1 of the draft EIS.

Please let me know if you have any other questions or concerns.

Thank you,

Ariel Taylor | Policy and Community Affairs Specialist
Bellevue Downtown Association
425-453-3112 | Ariel@bellevuedowntown.org

Attachments:

BDA Scoping Letter_Energize Eastside Phase 1 EIS.pdf	369 kB

BELLEVUE DOWNTOWN ASSOCIATION

June 8, 2015

David Pyle
Energize Eastside EIS Program Manager
City of Bellevue, Development Services Department
450 110th Ave NE
Bellevue, WA 98004

RE: Scoping Comments for Energize Eastside Phase 1 Draft EIS

Dear Mr. Pyle,

On behalf of the Bellevue Downtown Association, we are writing to share brief scoping comments for the Energize Eastside Draft EIS.

We ask you to review proven solutions that will upgrade PSE's capacity to supply reliable electricity to serve our growing downtown and the Eastside. Per the city's growth forecast, we expect to add 24,000 jobs and 7,000 residents by 2030. Concentrating this growth in the city's core is an efficiency measure in itself, but recent technical studies show that PSE's infrastructure isn't presently equipped to serve projected demands in Bellevue and throughout the Eastside. In order to thrive, our economy will rely on the delivery of reliable power by way of proven electrical infrastructure.

We support proceeding with environmental review of the four alternatives, as well as a reporting and comparison of related impacts to adjacent businesses and neighborhoods. However, the "no action" alternative does not appear sufficient to meet the electrical reliability requirements of Downtown Bellevue or the Eastside region.

We appreciate the opportunity to offer these comments and look forward to reviewing the Phase 1 Draft EIS.

Sincerely,

Susan Stead
Chair, BDA Board of Directors

Patrick Bannon
BDA President

Subject: Re: Supporting Alternate 1 - Energize Eastside
From: Energize Eastside EIS <info@energizeeastsideeis.org>
Date: 6/11/2015 2:27 PM
To: Bart Phillips <bartp@oneredmond.org>
CC: David Pyle <dpyle@bellevuewa.gov>, Energize Eastside EIS <scoping@energizeeastsideeis.org>

Thank you for your email. We have included it in the record. If you have any additional comments on the scope of the EIS, please email them to Scoping@EnergizeEastsideEIS.org. If you have questions about the project or the EIS process, continue to send those to this email address: Info@EnergizeEastsideEIS.org.

Reema Shakra
Energize Eastside EIS Team

On Tue, Jun 9, 2015 at 1:56 PM, Bart Phillips <bartp@oneredmond.org> wrote:

> Mr. David Pyle
>
> City of Bellevue Development Services Department
>
> Thank you for the opportunity to comment on the project scoping for Energize Eastside. OneRedmond is a public private with a mission to expand and retain local employers, attract new companies and create community vitality in Redmond and the Eastside. We were an active participant in the Energize Eastside process that evaluated alternatives for providing power to the region.
>
> OneRedmond strongly supports 'Alternative 1- New Transformer and Transmission'. It is the only alternative being considered that ensures that businesses in the PSE service area will have adequate, quality and reliable power for their needs. None of the information presented during the Energize Eastside process supports the viability of any of the other options considered. The businesses that are driving the regional economy and those that we seek to grow cannot operate in an environment without a quality power supply.
>
> OneRedmond is concerned that delay of this project coupled with the current robust economic growth that electric demand will outstrip supply before the project is completed. A timely completion of the EIS is therefore imperative.
>
> Thank you for your consideration of this input.
>
> Bart Phillips

BART PHILLIPS, CEcD | CEO
P: 425.885.4014 x101| M: 360.607.3610

8383 158th Ave NE Suite 225 | Redmond, WA 98052
www.oneredmond.org

Subject: STOP DESTROYING BELLEVUE
From: "KEN YAMAMOTO" <ken_0447@msn.com>
Date: 6/11/2015 2:55 PM
To: <Scoping@EnergizeEastsideEIS.org>

To: PSE

I want to be on record as asking you to stop this idiotic project of laying more high voltage poles and powerlines in the Eastside.

You are destroying our beautiful residential areas. There are many other ways of backing up power. Please study the many projects

all over America that have installed modern batteries, underground wires, and more energy conservation.

What is worse is that you are doing this for profit and not for the benefit of the citizens of eastside.

You and I have read the many intelligent suggestions for better alternatives from the many citizens of the Eastside. There is still time.

Listen to them!!

Kenneth Yamamoto
4551 135th ave se
Bellevue, Wa 98006

email: ken_0447@msn.com

Subject: Opposing Alternate 3 - New transformers
From: Natasha Bosch <natasha@windermere.com>
Date: 6/11/2015 12:31 PM
To: "scoping@energizeeastsideeis.org" <scoping@energizeeastsideeis.org>

I am discouraged and gravely concerned that the route along 116th Ave bordering The Little School has somehow resurfaced as a potential avenue for new high voltage lines. This school campus is home to 160 young children (ages 3-12) who attend five days a week for 6 or more hours. What a terrible idea to place transformers directly adjacent to the school campus property line, putting these innocent, free-spirited children at risk for developmental and long term health issues. Please, please reject this proposal.

Thank you,
Natasha Bosch
(parent of a TLS student)

Natasha Bosch - Broker | Windermere Yarrow Bay | (425) 766-8019 | www.kirklandstyle.com | Experience Kirkland Style

Subject: FW: Energize Eastside
From: "Batra, Shiv" <Shiv.Batra@tetratech.com>
Date: 6/11/2015 11:53 AM
To: "Scoping@EnergizeEastsideEIS.org" <Scoping@EnergizeEastsideEIS.org>

Sorry, I sent to the wrong email. It bounced back. Here are my comments again!

Shiv

From: <Batra>, Shiv Batra <shiv.batra@tetratech.com>
Date: Monday, June 8, 2015 at 1:36 PM
To: "Scoping@EnergizeEastsideEIS.com" <Scoping@EnergizeEastsideEIS.com>
Subject: Energize Eastside

June, 8, 2015

David Pyle
Energize Eastside EIS Program Manager
City of Bellevue Office of Planning & Community Development 450 110th Ave NE
Bellevue, WA 98004

Dear Mr. Pyle:

Thank you for the opportunity to submit scoping comments into the Energize Eastside Phase 1 EIS.

I appreciate that the five jurisdictions are working together under the lead of the City of Bellevue to review and analyze various alternative solutions to meet the growing electrical needs of the Eastside. In doing so I encourage you to ensure that the alternatives that are studied are viable and possible. Much talk has been heard regarding using Seattle City Light lines for this project. I understand this solution has been "asked and answered" so I am hoping we don't waste time and energy on studying this as a solution.

I also have heard much discussion about option 2 – the demand side reduction/non-wire technologies. PSE has done an incredible job with its conservation efforts over the past years and I anticipate this will continue. However, the notion of batteries as a solution (as has been discussed) does not preclude the use of new transmission lines to connect those batteries. And, as far as I have come to understand, batteries are untested at this size and scope of need. Also, social engineering (forcing people to conserve, swap our electric heat for natural gas, etc) does not work because people don't want to be told what to do in their own homes.

Thus I request that only solutions that are technically feasible – that we know will work (versus that we HOPE will work) – be studied as viable options to meet this critical need.

In my career I have built economic infrastructure projects of all sizes and scope all over the world. Energize Eastside is a critical economic infrastructure project – a local project meeting local need for our growing Eastside communities -- and as such must be designed and built to guarantee our region's electrical

reliability. **This must be done in a timely manner so as not to risk reliability for our residents and our businesses.**

Thank you again for the opportunity to comment.

Sincerely,

Shiv Batra,

Shiv Batra | Management.Management VII.
Business **+1 (425) 635-1000** | Fax **+1 425 635 1150** | Mobile **+1 206 999 6507** | Shiv.Batra@tetratech.com

Tetra Tech | Complex World, Clear Solutions™
400 112th Ave., Bellevue, WA 98004 | tetratech.com

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Attachments:

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BBCDDCD7-6CFD-4DF0-A0C8-411255C8EC91.png 1.2 kB

Subject: RE: Comments against PSE's Energize Eastside project
From: <SJNunnelee@bellevuewa.gov>
Date: 6/11/2015 2:22 PM
To: <tessmcm@gmail.com>
CC: <scoping@energizeeastsideeis.org>

Thank you for your comment letter regarding Puget Sound Energy's proposed Energize Eastside project. The City of Bellevue is currently analyzing the proposed project through the Environmental Impact Statement (EIS) process as required by the Washington State Environmental Policy Act (SEPA - Washington Administrative Code section 197-11) and the City of Bellevue Environmental Procedures Code (Bellevue City Code 22.02). As the majority of the project is proposed within Bellevue, the City has taken the lead role in this analysis and the project is being managed by the City's Development Services Department Land Use Division under the direction of the Environmental (SEPA)Coordinator.

The EIS process is anticipated to take approximately 2 years and has only just begun with commencement of the Phase I scoping period. As part of the Phase I study, and consistent with your comment below, alternatives to PSE's proposed 'wired' solution will be analyzed. Your comment is relevant to Phase I of the EIS process and has been submitted into the project record as an EIS scoping comment.

More information on the Energize Eastside EIS process is available at www.EnergizeEastsideEIS.org under the 'Overview' tab. To participate directly in the EIS process please visit the project website at www.EnergizeEastsideEIS.org . Within this website you may sign up as an interested party and to receive updates on the EIS process. The website also allows for direct comment entry.

Thank you for your interest in this project. For more information please feel free to email info@EnergizeEastsideEIS.org .

Sandra Nunnelee
Executive Assistant to the City Council
450 110th AVE NE
Bellevue, WA 98004
425.452.4088 Direct Line
sjnunnelee@bellevuewa.gov
www.bellevuewa.gov

-----Original Message-----
From: Tess McMillan [mailto:tessmcm@gmail.com]
Sent: Thursday, June 11, 2015 08:32
To: Council
Subject: Comments against PSE's Energize Eastside project

Dear Bellevue City Council Members,

Below is a letter I recently sent to the Bellevue Reporter regarding the Energize

Eastside project. I am strongly against moving this project forward and think it is well beyond the scope of our city to decide, given the limited information we have received under an outstandingly aggressive ad campaign by PSE.

While I appreciate that the city commissioned a third party to evaluate the project, the evaluation only focused on electricity and I believe there is far more to the project than that.

My personal experiences with PSE -- in their systems not accurately reporting power outages to my neighborhood and in my being unable to contact someone during a power outage (even after exhausting all phone menu options several times over a 47 hour period during one outage) -- lead me to question whether the company has our interests at heart. I wonder if there are large system and process deficiencies inherent in the company that make it dangerous for us to move forward with the information we have been given.

Will you please consider my statements below. I urge you to refuse PSE to move forward with this project.

Thank you for your attention!

Tess McMillan
Bellevue, WA

I have three concerns about Energize Eastside which make me wonder if PSE has truly considered the welfare and community values of citizens impacted by the project:

I worry about the health consequences of adding high tension power lines through our urban corridor. In the past 10 years, epidemiological data has been coming out of Great Britain showing an increased incidence of childhood leukemia in families living near high tension power lines.

What about environmental degradation and creation of new unsustainable models? Bellevue reportedly has only a 36% urban tree canopy, the thinnest on the Eastside. Mature trees are critical for biodiversity through absorbing rain, slowing stormwater runoff, providing shade to counteract Urban Heat Islands caused by our over-use of pavement, for cleansing the air and for providing beauty. Thinning our already thin canopy to install huge power poles and lines is unsustainable.
Resources are wasted not just through construction but by shuttling power around up in the air where we don't need it and where it is lost due to laws of physics. I think we need to address how to have power at the points where we use it, much like instant-on water heaters.

My recent experiences with PSE have led me to doubt the company's commitment to its customers. We have accepted construction of new substations and enormous power poles in my neighborhood that have not delivered on the promise of a reduction in power outages. When we have experienced a problem, PSE's automated phone system has eliminated our ability to get hold of a live representative.

This winter one of our power outages lasted 47 hours. During an outage
-- always an isolating experience -- a landline is my only form of communication. I called PSE and received automated status reports which did not mention my neighborhood. I tried several times to reach a live person but the menu options informed me I should

call back during normal business hours. When I finally spoke to a representative on Monday morning I was informed that the system was showing power to my neighborhood had already been restored, even though I insisted homes were dark all along the street.

PSE is not a public utility; it is responsible for returning profit to its shareholders. I am concerned about accepting solutions that, while good for a distant shareholder, are not in our best interest.

Tess McMillan
Bellevue, WA

Subject: re:Energize Eastside EIS Scoping: Include Health & Safety Criteria
From: "astrid zuppinger" <astridrd@comcast.net>
Date: 6/12/2015 5:19 PM
To: <dpyle@bellevuewa.gov>, <chelland@bellevuewa.gov>, <bmiyake@bellevuewa.gov>, <mbrennan@bellevuewa.gov>, <lriordan@bellevuewa.gov>, "'EIS:'" <info@energizeeastsideEIS.org>, <scoping@energizeeastsideEIS.org>

Dear Mr. Pyle and EIS Officials,
European regulatory bodies are the vanguard in investigating health and safety concerns associated with High Voltage Transmission Lines (HVTL). Europe is taking pro-active measures in the siting of High Voltage Transmission Lines far away from urban centers. The U.S. has much to learn from the research that distinguish other parts of the developed world. I strong urge the City of Bellevue: Please don't make the residents of the Puget Sound eastside guinea pigs in the ongoing research and studies that investigate **EMF** and **Corona** health concerns. Learn from the mistakes of others and take advantage of that research and the lessons learned from other societies.

Below is a brief sampling of just some of the studies that have investigated EMF and Corona health concerns:

1. 1979, Wertheimer & Leeper Study (1950-1973) 2.11 times increased risk for all childhood cancers, 3.09 times increased risk for children living entire life in a high current environment
2. 1979 Cohort Mortality Study (Mortality in Aluminum Reduction Plant Workers)
3. Leukemia Mortality in Washington State Electrical Workers
4. 1988 Savitz, et. al. (1976 – 1983) 1.53 times increased risk for all childhood cancers, 1.78 times increased risk if child spent 90% of life in a high current environment, 5.22 times increased risk if child lived in a very high current environment
5. 1992 Feychting and Ahlbom Study (1960-1985) 2.7 times increased risk if 2 milligauss or more, 3.8 times increased risk if 3 milligauss or more, 5.6 times increased risk if one-family homes over 2 milligauss
6. 1997 Theriault and Li Meta Data Analysis: Increased leukemia for both children & adults living between <25 and <50 meters from powerlines >49kV
7. 1998 Li and Lin Taiwan Study: 2.5 times increased leukemia risk for children living <100 meters from HVTL vs. leukemia risk of children living >100 meters from HVTL
8. 2005 Draper, et. al. UK Study (1962-1995) Leukemia RR of 1.69 for children living <200 meters from HVTL; Leukemia RR of 1.23 for children living 200-600 meters from HVTL
9. 2007 Lowenthal et al. Tasmania Study (1972 – 1980) 3 times increased risk of adult cancer living <300 meters from HVTL during first 15 years of life; Children age 0-5 had a 5 fold increase risk in lymphatic and hematopoietic cancers. Residence near HVTL, especially early in life increases subsequent development of lymphatic and hematopoietic cancers

Plus-In addition to these samplings may I remind you of the recent 2003 Dairy Farmer- David Baumgardner, that won 1.1 million dollars against the Public Utility District in Lewis County due to the stray voltage that damaged his cattle and farmland- http://Seattletimes.com/html/localnews.2003309985_dairy18m.html . The issues that a farm would be damaged is no different than people being damaged by voltage that doesn't belong in their backyard nor in that matter voltage that runs into the city harming the people that work and live in it.

Currently there are no WA state regulations for siting 230kV transmission lines in urban areas. This is more the result of tacit oversight than explicit approval. Laws and regulations don't exist, because 60 years ago when 230kV lines were being erected (like the Seattle City Light transmission lines over Woodridge), those lines spanned rural countryside. Back then, it wasn't even considered that HVTL should co-exist in a dense urban corridor – and for good reason. **HVTL pose EMF concerns**. **HVTL pose CORONA concerns.**

Health and safety concerns that must be considered in EIS scoping and SEPA/NEPA criteria include:

- HVTL produce charged particles (**corona**)
- **Corona** can extend beyond 200 ft and will interfere with (not necessarily completely disrupt) emergency 911 back-up communication, e.g. HAM radio communication - crucial radio broadcasting capabilities during times of natural disasters, like earthquakes
- EMF/Corona have unknown impact on insects (e.g. bees, necessary for food production), wildlife, endangered plant/animal species
- Draper Study (2005) found that corona can drift in the wind much farther than anticipated, in excess of 600m (2,000 ft)
- Corona Discharge is positively linked to an increase in air pollution. Air quality is degraded near High Voltage Transmission Lines and is especially problematic for those prone to respiratory illnesses and diseases (asthma, etc.)

· Henshaw/Fews 2001 Study (Univ. of Bristol, Human Radiation Effects Group, www.electric-fields.bris.ac.uk/) showed a 20-60% increase in deposition of airborne pollutants in close proximity to High Voltage Transmission Lines. **Corona** attach to whatever is available—car exhaust, radon, radon progeny and other pollutants that are known carcinogens. These airborne pollutants are then inhaled and retained on skin. There is greater risk of impact to the lungs. The British Government National Radiological Protection Board says power line generated **corona** may result in excess cases of lung cancer.

- If corona occurs during wet weather, then rain washout of the cloud of airborne particles would result in few particles remaining airborne and available for inhalation or retention on skin. But what happens when it doesn't rain? Those particles cause pollution, drift in the wind, and deposit on the skin and in the lungs.
- PSE's own EMF expert stated, "As the air quality in the Pacific Northwest is quite good, the risk of skin cancer… is not of concern....There (is) no protective layer in the lungs (and) the chance of a greater impact to the lungs is also greater…" In essence, Drew Thatcher is saying that if you live near HVTL, it's best to stay indoors.
- Corona is shown to attach to radon and radon progeny (radioactive alpha emitters) – a known carcinogen
- High Voltage Transmission Lines are 50% thicker and operate at higher temperatures, causing endangerment to birds, flying insects (like bees) necessary for pollination, and other plant and animal species sensitive to heat and nighttime light emissions (UV flashes invisible to humans). HVTL produce UV flashes in the nighttime vision spectrum of certain animals. http://www.bbc.com/news/26548483

Dr. Denis Henshaw, of the University of Bristol, UK, has thrown down this challenge: "I would throw down a challenge here to anyone who claims that there is not a strong link between EMF and increased risk of adverse health. I will offer to send them every week for the rest of their lives a good peer reviewed scientific paper in a respected international journal reporting clear evidence of adverse health effects from exposure to power frequency electric and magnetic fields."

In summary, how will Bellevue respond and address public health and safety concerns related to EMF and corona? How will the City of Bellevue respond to concerns about emergency preparedness? Health and safety concerns must be included in the Energize Eastside EIS scoping. Health and safety are important EIS criteria that must be included in the SEPA/NEPA review of Energize Eastside.

In Health,

Astrid Zuppinger
2525 121st AVE SE
Bellevue, WA 98005

425-644-5057

Subject: Olympus Homeowner's Association EIS Comments
From: Keith Hargis <hargbusiness1@yahoo.com>
Date: 6/12/2015 7:14 PM
To: "Scoping@EnergizeEastsideEIS.org" <Scoping@EnergizeEastsideEIS.org>

Dear Mr. Pyle,
Attached, please find Olympus Homeowner's Association (in Newcastle) comments to the EIS.
Respectfully,
Keith Hargis
President, Olympus Homeowner's Assoion

Attachments:

OHA Scoping Comments.pdf 38.8 kB

Olympus Homeowners Association
Newcastle Washington

City of Bellevue,
Development Services Department
ATTN: David Pyle
450 110th Avenue NE
Bellevue, WA 98004

Dear Mr. Pyle:

The following scoping comments are intended to represent the interests of residents in the Olympus neighborhood of Newcastle. As you know, a number of our residents are extremely concerned about the potential installation of 230 kV transmission lines through our neighborhood.

We are pleased that the City of Bellevue has decided to conduct a phased environmental review of the Energize Eastside proposal. We understand that the Phase 1 EIS, for which scoping is now underway, will be programmatic in nature. Of the alternatives listed in the scoping notice, Olympus residents are particularly interested in a thorough, objective evaluation of the feasibility and environmental impacts of Alternative 2, Demand Side Reduction/Non-Wire Technologies, which include battery storage, demand conservation methods among others. In addition, we would like to add the alternative of constructing peaking sub-stations or fully utilizing the existing peaking sub-stations.

We are disappointed that the description of the scope of the Phase I EIS only lists the elements of the environment that will be discussed in the EIS, rather than providing a list of the issues that would be discussed for each alternative under each element of the environment. Because the list is so general, our comments on the thoroughness of the EIS subject matter will have to wait until the draft Phase I EIS is issued.

We request that the Phase 1 EIS acknowledge that Alternative 1 would have greater impacts on Land and Shoreline Use and Aesthetics, and would expose more people to EMF, than the other alternatives. Although we understand that property values are not required to be discussed in a SEPA EIS, we believe they should be discussed in this case. Impacts on property values are a concern not only of Olympus residents, but residents of every neighborhood through which the Alternative 1 transmission line could pass.

In addition, we request that Earth, Air, and Environmental Health be added to the elements of the environment discussed in the Phase 1 EIS; and that the EIS analyze both construction and operation impacts. This will allow the Phase 1 EIS to acknowledge that Alternative 1 would have significantly greater construction impacts than other alternatives, including risk of explosion or hazardous emissions if the new transmission line were constructed adjacent to the existing fuel pipeline through Olympus.

Given the high level of concern in Olympus about fuel pipeline safety, we believe the Phase 1 EIS should discuss measures that would be taken to prevent a pipeline rupture, or to prevent hazardous emissions or explosion if a rupture occurred inadvertently, since these are potential significant impacts of Alternative 1. (WAC 197-11-794(2) states: “An impact may be significant if its chance of

occurrence is not great, but the resulting environmental impact would be severe if it occurred.") Although the Phase 1 EIS is not site-specific, we believe it should guide the choice of reasonable alternatives to be analyzed in the Phase 2 EIS.

We suggest that the City of Bellevue prepare and distribute a responsive summary that indicates how the city intends to respond to scoping comments received. Throughout the environmental review process, OHA wants to be a party of record to whom notices and other information are sent.

Thank you for the opportunity to comment.

Respectfully,

Keith Hargis
President of the Olympus Homeowners Association
8006 128th Ave. SE
Newcastle, WA

Subject: Energize Eastside EIS Scoping Comment
From: Mike Sato <msato@rockisland.com>
Date: 6/12/2015 4:54 PM
To: <dpyle@bellevuewa.gov>, <scoping@energizeeastsideEIS.org>
CC: <chelland@bellevuewa.gov>, <bmiyake@bellevuewa.gov>, <mbrennan@bellevuewa.gov>, <lriordan@bellevuewa.gov>, <info@energizeeastsideEIS.org>

June 12, 2015

TO: David Pyle, City of Bellevue
Energize Eastside EIS Scoping

CC: Carol Helland, City of Bellevue
Brad Miyake, City of Bellevue
Michael Brennan, City of Bellevue
Lori Riordan, City of Bellevue

Subject: Energize Eastside EIS Scoping

Dear Mr. Pyle:

Please include in the Environmental Impact Statement for the Energize Eastside project the following:

1. How the cost of this project will be borne by ratepayers outside the propose transmission line service area and what possible benefits these ratepayers will gain from those costs;

2. What electrical power sources will the Energize Eastside project draw on to meet the increased demand which is the justification for the project, what will be the cost of that power and how will that additional power purchase affect ratepayers;

3. How much of the cost of the Energize Eastside project will be offset by power sales to other utilities and states and how much will those power sales offset rates of ratepayers;

4. How much would milder winters due to climate change, increased end-user efficiencies and increased solar applications and storage over the lifetime of the Energize Eastside project offset the need for the new transmission line;

5. What are the health effects of 230KV transmission lines and how will the project proponent ensure medical testing of residents and ensure compensation for any decline in property values.

Thank you for your consideration of these points.

Sincerely,

Michael H. Sato
772 Mahonia Dr.
Bellngham WA 98229
(206) 229-2844

Subject: FW: EIS Scoping Comments/NEPA
From: Loretta Lopez <loretta@mstarlabs.com>
Date: 6/13/2015 10:39 PM
To: "'Scoping@EnergizeEastsideEIS.org'" <Scoping@EnergizeEastsideEIS.org>
CC: "'DPyle@bellevuewa.gov'" <DPyle@bellevuewa.gov>

I am re-sending comments on PSE Proposed Project 230Kv transmission lines.

Loretta

From: Loretta Lopez
Sent: Friday, June 12, 2015 6:52 PM
To: 'info@EnergizeEastsideEIS.org'
Subject: EIS Scoping Comments/NEPA

I am submitting the following as part of the Energize Eastside Scoping Comments.

The City's position is that NEPA does not apply to the Energize Eastside Proposed Project. It is my understanding that PSE will transmit energy through the EE transmission lines, between Canada and the United States and through multiple States.Why doesn't NEPA apply to the Energize Eastside Project? Please explain and include citations to sources.

Loretta Lopez
13419 NE 33rd Lane Bellevue WA 98005

Secretary for CENSE
mailing address: CENSE 12819 SE 38th #294, Bellevue WA 98006.

President
Bridle Trails Community Club
mailing address: Bridle Trails Community Club 6619 132nd Ave NE #133 Kirkland WA 98033

Subject: FW: Energize Eastside EIS and Independent Technical Analysis
From: Loretta Lopez <loretta@mstarlabs.com>
Date: 6/13/2015 10:43 PM
To: "'Scoping@EnergizeEastsideEIS.org'" <Scoping@EnergizeEastsideEIS.org>
CC: "'DPyle@bellevuewa.gov'" <DPyle@bellevuewa.gov>

I am re-sending comments on PSE proposed project 230Kv transmission lines.

Loretta

From: Loretta Lopez
Sent: Friday, June 12, 2015 1:48 PM
To: 'info@EnergizeEastsideEIS.org'
Subject: FW: Energize Eastside EIS and Independent Technical Analysis

I am submitting the following as part of the Energize Eastside Scoping Comments.

The Coalition of Eastside Neighborhoods for Sensible Energy (CENSE) and the Bridle Trails Community Club (BTCC) requested a delay in the start of the EIS due to the delay in the completion of the Independent Technical Report by consultants USE.

The City denied our request for delay. I have attached Brad Miyake's April 24, 2015 letter.

Loretta Lopez
13419 NE 33rd Lane Bellevue WA 98005

Secretary for CENSE
mailing address: CENSE 12819 SE 38th #294, Bellevue WA 98006.

President
Bridle Trails Community Club
mailing address: Bridle Trails Community Club 6619 132nd Ave NE #133 Kirkland WA 98033

From: NKodanilee@bellevuewa.gov [mailto:NKodanilee@bellevuewa.gov]
Sent: Friday, April 24, 2015 11:50 AM
To: loretta@mstarlabs.com
Cc: don.m.marsh@gmail.com; sdofour@aol.com; hansennp@aol.com; Council@bellevuewa.gov; NMatz@bellevuewa.gov
Subject: Energize Eastside EIS and Independent Technical Analysis

April 24, 2015

Ms. Loretta Lopez:

Thank you for your inquiry regarding the schedule of the Energize Eastside EIS and the Independent Technical Analysis (ITA).

The schedule for the EIS is governed by the Land Use Code (Title 20 BCC), and the Environmental Procedures Code (Chapter 22.02 BCC). These city codes were adopted to be procedurally consistent with both the State Environmental Policy Act (SEPA) and the State Growth Management Act (GMA), and incorporate many parts of these statutes by reference. In order to ensure compliance, and effective public outreach and certainty for all stakeholders who participate in the local permitting process, timelines are an important component of the regulatory reforms integrated into Bellevue codes in the mid-1990s. The procedures contained in Chapter 20.35 LUC dictate how and when environmental review must proceed.

PSE submitted its application for environmental review in August of last year. The Interagency Agreement and Professional Services Contract was approved by Council at the end of January in order to allow the EIS to proceed, and staff advised the Council at that time that scoping was scheduled to begin as early as March to meet required environmental review timelines. Scoping has now been scheduled to begin at the end of April, and venues have been secured to ensure the scoping period occurs before school is out and stakeholders begin to leave town for summer vacations. Further delays place the City at risk of a process failure that would be to the disadvantage of all stakeholders. Development Services staff take their commitment to objectivity very seriously; delivering an objective and predictable process is in the best interest of all stakeholders alike.

The ITA is a disclosure document. The ITA, through a technical audit of PSE's data and methods for forecasting facility needs, will assess the local, i.e. Bellevue, need for the project for reliability and growth, as distinct from need for regional grid connectivity. As stated last year, it is the City's opinion that Energize Eastside is an Essential Public Facility under GMA which limits the City's permit authority to one of conditions and mitigation, not denial. These are matters for the EIS and the sooner we engage on the EIS the sooner we can begin to work toward conditions and mitigations.

The revised schedule for the ITA will not impact the schedule for the EIS inasmuch as it will be available, as planned, early in the EIS scoping period. The change in the ITA will not impact Council or stakeholder ability to comment on the EIS. The comment period will extend into mid-June (45 days from the initial scoping notice). The ITA is a technical report that will inform-or become part of the data-included in the EIS process. It is not part of regulatory review processes, and will not be subject to further evaluation.

The EIS is the state mandated process by which we are required to analyze the need for the Energize Eastside project proposed by PSE, analyze alternatives including the "no action" alternative, and disclose the impacts associated with deploying the alternative solutions. Conclusions regarding the need for the project in Bellevue will not obviate the need for the EIS.

Sincerely,

Brad Miyake Signature

Brad Miyake, City Manager

cc: City Council
Don Marsh
Norm Hansen

Steve O'Donnell
Pam Bissonnette

Attachments:

oledata.mso	17179869184 GB
image003.jpg	17179869184 GB
image004.jpg	17179869184 GB

Subject: FW: Question/ EE decision process
From: Loretta Lopez <loretta@mstarlabs.com>
Date: 6/13/2015 10:38 PM
To: "'Scoping@EnergizeEastsideEIS.org'" <Scoping@EnergizeEastsideEIS.org>
CC: "'DPyle@bellevuewa.gov'" <DPyle@bellevuewa.gov>

I am re-sending comment on PSE proposed 230Kv project.

Loretta

From: Loretta Lopez
Sent: Friday, June 12, 2015 6:37 PM
To: 'info@EnergizeEastsideEIS.org'
Subject: FW: Question/ EE decision process

I am submitting the following as part of the Energize Eastside Scoping Comments.

I do not understand the reasons that the City of Bellevue decided to conduct the EIS process in two phases. I also do not understand where along the process the Bellevue City Council is involved in decision making.

I sent a message to Carol Helland on 5/29/15. She responded in messages dated 6/1/15, 6/3/15 and 6/5/15. I have included the messages below.

Why doesn't Bellevue conduct phase 1 of the EIS and then issue a Final Decision? Why has the City chosen to complicate the EIS process by planning for 2 phases with no Final Decision until the completion of phase 2?

Carol Helland refers to the quasi judicial nature of part of the process. It is not clear when the process becomes quasi-judicial. Please clarify so that citizens know when the process becomes quasi-judicial.

Loretta Lopez
13419 NE 33rd Lane Bellevue WA 98005

Secretary for CENSE
mailing address: CENSE 12819 SE 38th #294, Bellevue WA 98006.

President
Bridle Trails Community Club
mailing address: Bridle Trails Community Club 6619 132nd Ave NE #133 Kirkland WA 98033

From: CHelland@bellevuewa.gov [mailto:CHelland@bellevuewa.gov]
Sent: Friday, June 05, 2015 3:35 PM
To: Loretta Lopez
Cc: info@EnergizeEastsideEIS.org

Subject: RE: Question/ EE decision process

Hello Loretta - I have imbedded my responses in your emails below.

From: Loretta Lopez [mailto:loretta@mstarlabs.com]
Sent: Wednesday, June 03, 2015 9:17 PM
To: Helland, Carol; Loretta Lopez
Cc: info@EnergizeEastsideEIS.org
Subject: RE: Question/ EE decision process

Carol,

Thank you for your email that discussed both project permitting and EIS scoping. Your response has cleared up several things for us, but I still have some questions.

Regarding permitting.

According to the code, it appears that a "electrical utility facility" is governed by Land Use Code 20.20.355, where the requirement for a conditional use permit is found. However, you state below that PSE has not applied for any permit yet. How can we consider a proposal without a permit application? In particular, Subsection D of 20.20.255 says that an "alternative siting analysis" must be completed prior to submission of the application for the conditional use permit. When will this analysis be completed? It seems to me that a permit application and the usual notice procedures should be completed before the public spends a lot of time on this project. Would you please clarify.

The alternatives siting analysis is a component of LUC 20.20.355. This is conducted as a component of the EIS process (when one is required as in the Energize Eastside example). When an EIS is not required, this is a requirement independent of the environmental review under the State Environmental Policy Act (this occurred on the Lake Hills to Phantom Lake project). With respect to the timing of environmental review, the point is to undertake it early in the process of developing a solution to a particular problem and before the range of reasonable alternatives is inappropriately narrowed. If we waited until a permit were filed, we would be largely constrained to the Phase 2 portion of the EIS process, and we would only discuss the range of design and construction alternatives available to implement the PSE preferred alternative. In this scenario we would not be evaluating conservation and distributed power as alternatives to meet the need identified by PSE. Refer to Bellevue City Code 22.02.031.D and WAC 197-11-055(2) and (4).

I would also like some clarification related to the role of the East Bellevue Community Council. It is my understanding that the transmission lines set forth by PSE in the Energize Eastside materials do indeed pass through the EBCC area. Can you confirm my understanding? Shouldn't a permit application be completed so that the public, and the EBCC, will know if their jurisdiction is involved? You do note that if "any portion of the project is located within the jurisdiction of the East Bellevue Community Council, the conditional use would be a Process III quasi-judicial decision made by the City Council." But I thought EBCC has the authority to approve or disapprove conditional use permits affecting their jurisdiction.

EBCC jurisdiction has authority only to approve or disapprove applications within the jurisdiction of the Community Council. Refer to LUC section 20.35.365. The determination is made at the time of application. If PSE applies for a conditional use permit to approve an Energize Eastside alignment that is located within the boundaries of the EBCC, then the application would be characterized as a Process III application. Refer to LUC 20.35.015.D.2. If PSE apples for

a conditional use permit to approve an Energize Eastside alignment that is located outside the boundaries of the EBCC, then the application would be characterized as a Process I application. Refer to LUC 20.35.015.B.

Please also confirm that if EBCC is involved, the Process III procedures will be used.

See the response immediately above.

And if the Council is a "quasi-judicial" decision maker, then it should observe the usual rules relating to conflicts of interest and appearance of fairness. But the Council has not announced that it is a quasi-judicial decision maker. And the Council continues to accept comments from all parties. Please clarify.

The appearance of fairness rules applicable to a quasi-judicial process only become applicable when it is clear that a permit decision will come before Council. There is currently no permit. So there is no application that can be deemed quasi-judicial at this point in time. If a permit were to be filed by PSE for an alignment located within the jurisdiction of the EBCC, the process becomes quasi-judicial and subject to appearance of fairness rules upon the date of permit application. In other words, for Process III permits (such as conditional use permits within the jurisdiction of the of the EBCC), we know at the point of permit application that the Council is the final decisionmaker even when no appeal of the Hearing Examiner recommendation is filed. Refer to LUC 20.35.300. For Process I decisions, the final decisionmaker is the Hearing Examiner, but there is an opportunity for the Hearing Examiner decision to be appealed to the City Council. For Process I decisions, the process becomes quasi-judicial and subject to appearance of fairness rules upon filing of any appeals of the Hearing Examiner decision on the application to City Council. Refer to LUC 20.35.100.C.

Regarding EIS scoping.

I am confused by your statement that the "Energize Eastside EIS is not a permit application." I understand the difference between an EIS and permit application, but how can we provide scoping comments without a permit application? Since the Energize Eastside concept is the creation of PSE, it appears to be one that is vague and subject to revision. This is a particular concern with your reference to Phase 2: "The subsequent Phase 2 of the EIS process will address construction and operation level impacts." How is it possible to comment on these aspects of the project without a permit application that informs CENSE and other member of the public of project details?

Phase 1 is what is referred to as a plan level EIS. This plan level review allows us to study alternatives to the wired solution that is preferred by PSE. In Phase 2, we will analyze the project level impacts of the preferred alternatives and any reasonable alternative for meeting the PSE objectives that is carried forward for project level review.

I'm also a bit perplexed by your reference to the City Council's preparation of a scoping letter that was discussed at the June 1 City Council meeting. I thought that the Council is the quasi-judicial decision maker not a commenting party. I do see that the Council has come up with draft scoping letter, but who prepared it for them? This letter does not look like a product of one or more councilmembers. Who is the author of the scoping letter?

I have not been involved in the preparation of the scoping letter. That was being managed through the City Manager's Office by Pam Bissonnette with the assistance of Nicholas Matz. Kate Berens has assumed Pam's responsibility as the City Manager Office representative since Pam's departure. As the environmental coordinator, I am required to maintain the objectivity of the EIS preparation process. It would be inappropriate for me to be involved in the preparation of the scoping letter on behalf of the Council. The letter will ultimately be submitted to me by City Staff working on behalf of the Council.

And are the City Council's of Renton, Newcastle, Redmond and Kirkland also invited to submit scoping letters? And if not, then why not?

It is my understanding that each jurisdiction will be submitting comment letters on behalf of their respective City Councils. Again, it would be prudent to ask those jurisdictions directly regarding their intentions. Through our multijurisdictional team, we have discussed how it is perfectly appropriate for each jurisdiction to submit scoping comments.

Again, thank you for your continuing work to inform CENSE and the BTCC of the current process. Once again we appreciate the courtesy of a prompt response to these questions so we can finalize our scoping comments.

I hope this information was useful. Please let me know if I can be of additional assistance. Have a nice weekend.
Carol

Loretta

From: CHelland@bellevuewa.gov [mailto:CHelland@bellevuewa.gov]
Sent: Monday, June 01, 2015 8:27 PM
To: loretta@mstarlabs.com
Cc: info@EnergizeEastsideEIS.org
Subject: FW: Question/ EE decision process

Hello Loretta - I have replied to your questions below. I wanted to let you know that I am responding in two different ways to the question you have posed. First, you asked how the City criteria will be used to "review the PSE proposal." This is a permit question. PSE has not applied for a permit yet, and that process will not likely occur until next year. Second, I reviewed my notes of your comments from the Saturday scoping meeting and believe you might really be interested in how the cities plan to decide what gets studied in the Energize Eastside EIS. I will answer both questions for you - the permit question and the EIS scoping question - then you can let me know if you still have any outstanding issues.

Project Permitting: The Energize Eastside transmission line project is a type of Electrical Utility Facility use. Refer to LUC 20.50.018 for the definition of Electrical Utility Facility. If PSE decides to apply for permits to construct the 230kV transmission line it refers to as the Energize Eastside project, "the use is permitted subject to the Conditional Use provisions specified in Part 20.30B or 20.30C LUC and to general requirements for the use and the use district." Refer to LUC 20.10.400 regarding how to interpret the Use Chart. For an Electrical Utility Facility the Conditional Use provisions of Part 20.30B LUC will control and the decision criteria used to render a decision on a permit application are contained in LUC 20.30B.140. General land use code provisions contained in LUC section 20.20.255 would also apply and the additional decision criteria of Paragraph E of that section would also be used to render a decision on any future permit application. In Bellevue, a conditional use permit is a Process I quasi-judicial decision made by the Hearing Examiner. The process is summarized in Chapter 20.35 of the Bellevue Land Use Code. If any portion of the project is located within the jurisdiction of the East Bellevue Community Council, the conditional use would be a Process III quasi-judicial decision made by the City Council. Each individual City would be required to issue permits for the segments of the Energize Eastside project that passes through its City and application review would occur in compliance with the codes that apply within the applicable jurisdiction.

EIS Scoping: The Energize Eastside EIS is not a permit application. An EIS is an environmental review and disclosure tool that is governed under the terms of the State Environmental Policy Act (contained in Chapter 43.21C RCW). The

EIS process is also governed by administrative rules contained in the Washington Administrative Code 197-11 and the Bellevue Environmental Procedures Code contained in Chapter 22.02 of the Bellevue City Code. Scoping in Phase I is intended to assist in identifying technically viable alternatives that address PSE's reported electrical transmission capacity and safety deficiencies. Alternative 1 of Phase 1 of the EIS represents the PSE proposal referred to as Energize Eastside. The City is in the process of identifying alternatives to meet the project objectives identified by PSE. The subsequent Phase 2 of the EIS process will address construction and operation level impacts. To the extent that your question relates to how decisions are made about what to include in the EIS, that process is described in the Inter-agency agreement adopted by the five cities through which the Energize Eastside project is proposed to pass. In a nutshell, the EIS consultant team will review the public comments and documents submitted during the scoping period, the city staff representatives will review and make recommendations to the City of Bellevue SEPA responsible official, and the City of Bellevue SEPA Responsible Official makes the final determination about scope of the EIS. I am the City of Bellevue SEPA Responsible Official. However, the process described in the inter-agency agreement is intended to be collaborative, and result in a unanimous recommendation by the cities. So, I anticipate that the scope of environmental review will be determined by the collective will of the participating cities. The role of the City Councils in this process is to provide feedback and comment on the scope of the EIS like other parties who are interested in the PSE proposal and development of a thorough EIS. I understand that the Bellevue City Council reviewed and discussed a draft scoping letter during the June 1, 2015, Study Session which can be viewed on BTV through the City website at http://www.bellevuewa.gov/bellevue-tv.htm# . It is my understanding that similar scoping discussions are occurring in several of the cities that will be impacted by the Energize Eastside proposal, and that Councils from those city's will also submit comments during the scoping period.

Please note that I have forwarded your email and my response to info@EnergizeEastsideEIS.org and they will be added to the record. Let me know if you have any additional questions.

Carol Helland, Land Use Director and SEPA Responsible Official
Development Services Department
City of Bellevue
425-452-2724

From: Loretta Lopez [mailto:loretta@mstarlabs.com]
Sent: Friday, May 29, 2015 7:25 PM
To: Helland, Carol
Cc: sdofour@aol.com; 'Don Marsh'; 'hansennp@aol.com'
Subject: Question/ EE decision process

Carol,
As the BTCC and CENSE is preparing scoping comments a few questions about the process have arise, that I am sure you can answer.
Once the EIS procedures have concluded, what criteria will be used by the City to review the PSE proposal? Which of the several City processes will be employed in this review? Will the City Council be making the final decision?
Though the several cities involved have an agreement for coordinated environmental review, I assume that each city will be making its own separate decision on PSE's proposal. Is that correct?
We want to get these issues ironed out before we submit comments on Phase 1 scoping so I look forward to hearing from you soon.
Thank you.

Loretta

Subject: FW: Request for delay of EIS denied
From: Loretta Lopez <loretta@mstarlabs.com>
Date: 6/13/2015 10:42 PM
To: "'Scoping@EnergizeEastsideEIS.org'" <Scoping@EnergizeEastsideEIS.org>
CC: "'DPyle@bellevuewa.gov'" <DPyle@bellevuewa.gov>

I am re-sending comments on PSE proposed project 230Kv transmission lines.

Loretta

From: Loretta Lopez
Sent: Friday, June 12, 2015 2:00 PM
To: 'info@EnergizeEastsideEIS.org'
Subject: Request for delay of EIS denied

I am submitting the following as part of the Energize Eastside Scoping Comments.

The Coalition of Eastside Neighborhoods for Sensible Energy (CENSE) and the Bridle Trails Community Club (BTCC) requested a delay in the start of the EIS due to the delay in the completion of the Independent Technical Report by consultants USE.

The City denied our request for delay. I have included the email messages from Carol Helland dated 3/27/15, 3/26/15 to my email messages/questions on 3/25/15 and 3/26/15.

Loretta Lopez
13419 NE 33rd Lane Bellevue WA 98005

Secretary for CENSE
mailing address: CENSE 12819 SE 38th #294, Bellevue WA 98006.

President
Bridle Trails Community Club
mailing address: Bridle Trails Community Club 6619 132nd Ave NE #133 Kirkland WA 98033

From: CHelland@bellevuewa.gov [mailto:CHelland@bellevuewa.gov]
Sent: Friday, March 27, 2015 5:57 PM
To: loretta@mstarlabs.com
Cc: DPyle@bellevuewa.gov
Subject: RE: PSE EE Project/ITC Report Delayed

Hello Loretta - The schedule for the EIS is governed by the City of Bellevue Land Use Code (Title 20 of the Bellevue City Code), and the Bellevue Environmental Procedures Code (Chapter 22.02 BCC). These codes were adopted to be procedurally consistent with both SEPA and the Growth Management Act and incorporate many parts of these

statutes by reference. In order to ensure effective public outreach, and certainty for all stakeholders who participate in the local permitting process, timelines were an important component of the regulatory reforms integrated into Bellevue codes in the mid 1990s. The procedures contained in Chapter 20.35 of the Land Use Code dictate how and when environmental review must proceed.

PSE submitted its application for environmental review in August of last year. The Interagency Agreement and Professional Services Contract was approved by Council at the end of January in order to allow the EIS to proceed, and staff advised the Council at that time that scoping was scheduled to begin as early as March to meet required environmental review timelines. Scoping has been scheduled to begin at the end of April, and venues have been secured to ensure the scoping period occurs before school is out and stakeholders begin to leave town for summer vacations. Further delays place the City as risk of a process failure that could be exploited to the disadvantage of all stakeholders. Development Services staff take their commitment to objectivity (both real and perceived) very seriously, and we find that delivering an objective and predictable process is in the best interest of all stakeholders alike.

So, the short answer to your question is that the timelines are required by code, and adherence to timelines is also a good idea for a range of good public policy reasons that benefit everyone. Have a nice weekend. Carol

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From: Loretta Lopez [mailto:loretta@mstarlabs.com]
Sent: Thursday, March 26, 2015 10:08 PM
To: Helland, Carol
Cc: Pyle, David
Subject: RE: PSE EE Project/ITC Report Delayed

Carol,

Thank you for your response.

I do have one more question. You state - David and I were consulted about the EIS schedule before the oversight team decided to delay issuance of the USE report because they knew that the EIS schedule could not change as a result of their decision.

Is there a specific section of the SEPA or Bellevue LUC provision that prevents you from changing the EIS schedule? Or is it that you are exercising your discretionary authority to meet the needs as you state below - As the lead on the EIS, the City has a responsibility to all stakeholders to create a schedule and deliver on that schedule to ensure certainty and predictability across all the affected jurisdictions. The change in the ITA will not impact the Council or community ability to comment on the EIS.

Thank you.

Loretta

PS I would like to forward your explanation of the reasons that you will not change the EIS schedule to others. I assume that you do not object, but if you do then let me know. I will check my email tomorrow morning.

From: CHelland@bellevuewa.gov [mailto:CHelland@bellevuewa.gov]
Sent: Thursday, March 26, 2015 3:08 PM
To: loretta@mstarlabs.com
Cc: DPyle@bellevuewa.gov

Subject: RE: PSE EE Project/ITC Report Delayed

I understand your concern Loretta, and the team overseeing the ITA is sensitive to that and committed to ensuring that the process does not weaken the City's ability to produce a thorough, credible and objective independent analysis. David and I were consulted about the EIS schedule before the oversight team decided to delay issuance of the USE report because they knew that the EIS schedule could not change as a result of their decision. At the end of the day, the delay will not impact City or Stakeholder ability to offer comments based on conclusions contained in the ITA during the EIS scoping period that will run through mid-June. The EIS is the state mandated process by which we are required to analyze the need for the Energize Eastside project proposed by PSE, analyze alternative solutions for meeting any need that is ultimately identified, and disclose the impacts associated with deploying the alternative solutions. Conclusions regarding the need for the project in Bellevue will not obviate the need for the EIS.

I hope you find this information useful. If you have additional comments regarding the EIS, please feel free to contact me. If you have comments regarding the schedule related to the ITA, I suggest that you contact Pam Bissonnette or Mike Brennan.

Carol Helland
Environmental Coordinator
Land Use Director

From: Loretta Lopez [mailto:loretta@mstarlabs.com]
Sent: Thursday, March 26, 2015 3:49 PM
To: Helland, Carol; Loretta Lopez
Cc: Pyle, David
Subject: RE: PSE EE Project/ITC Report Delayed

Carol,

Thank you for your response.

As you know, the reason for the ITC analysis, is in part, to determine whether there is a need for the project. It seems that the City would want to wait for the results of the ITC report before proceeding with the EIS. As I recall, I thought that the Council had made it clear at one of their meetings that we would have the results of the ITC Report before starting the EIS.

I understand that your group has worked to create a schedule, reserved rooms and wants to ensure predictability. Those are important tasks.

But the most important is to determine whether there is a need for this project, to determine whether the basis for PSE's project is correct. The City's responsibility is to ask the question and review the analysis. To continue with the EIS before reviewing the data seems to make it clear that the City has decided to proceed with the project independent of the outcome of the analysis.

Will you consider delaying the EIS until there is time to review the ITC report?

Loretta

From: CHelland@bellevuewa.gov [mailto:CHelland@bellevuewa.gov]
Sent: Thursday, March 26, 2015 9:16 AM

To: loretta@mstarlabs.com
Cc: DPyle@bellevuewa.gov
Subject: RE: PSE EE Project/ITC Report Delayed

Good Morning Loretta -

I also received word yesterday that the U.S.E. report release has been delayed due to the incompleteness of their work. The oversight of this report is being managed out of the City Manager's Office and is independent of the EIS process.

The revised schedule for the Independent Technical Analysis (ITA) will not impact the schedule for the EIS. Significant work has been undertaken to arrange venues and schedule the many scoping meetings that are necessary for this project. As the lead on the EIS, the City has a responsibility to all stakeholders to create a schedule and deliver on that schedule to ensure certainty and predictability across all the affected jurisdictions. The change in the ITA will not impact the Council or community ability to comment on the EIS. The comment period will extend into mid-June (45 days from the initial scoping notice).

Thank you for your continuing interest in this project. Your feedback will make the environmental analysis more thorough. Carol

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From: Loretta Lopez [mailto:loretta@mstarlabs.com]
Sent: Wednesday, March 25, 2015 5:54 PM
To: Helland, Carol
Subject: PSE EE Project/ITC Report Delayed

Hi Carol,

We know that the ITC Report will not be ready by March 30 and that the delay may be for a few weeks.

I thought that the EIS would not start until the after the ITC Report was issued and reviewed by Council. Is this correct?

Or will the City proceed with the EIS even if the ITC Report has not been reviewed?

Thank you.

Loretta

Subject: PSE EIS Comments/ EPF for Renton, Newcastle, Kirkland, Redmond?
From: Loretta Lopez <loretta@mstarlabs.com>
Date: 6/13/2015 11:10 PM
To: "'Scoping@EnergizeEastsideEIS.org'" <Scoping@EnergizeEastsideEIS.org>
CC: "'DPyle@bellevuewa.gov'" <DPyle@bellevuewa.gov>

I am submitting the following as part of the Energize Eastside Scoping Comments.

1. Does the PSE Proposed EE Project constitute an Essential Public Facility for the City of Renton?

2. Does the PSE Proposed EE Project constitute an Essential Public Facility for the City of Newcastle?

3. Does the PSE Proposed EE Project constitute an Essential Public Facility for the City of Kirkland?

4. Does the PSE Proposed EE Project constitute an Essential Public Facility for the City of Redmond?

Loretta Lopez
13419 NE 33rd Lane Bellevue WA 98005

Secretary for CENSE
mailing address: CENSE 12819 SE 38th #294, Bellevue WA 98006.

President
Bridle Trails Community Club
mailing address: Bridle Trails Community Club 6619 132nd Ave NE #133 Kirkland WA 98033

Subject: PSE EIS Comments/Comp Plan Requirements/Renton, Newcastle, Kirkla nd, Bellevue, Redmond
From: Loretta Lopez <loretta@mstarlabs.com>
Date: 6/13/2015 11:27 PM
To: "'Scoping@EnergizeEastsideEIS.org'" <Scoping@EnergizeEastsideEIS.org>
CC: "'DPyle@bellevuewa.gov'" <DPyle@bellevuewa.gov>

I am submitting the follow ing as part of the Energize Eastside Scoping Comments.

1. Does the PSE Proposed EE Project meet the City of Renton Comprehensive Plan requirements?

2. Does the PSE Proposed EE Project meet the City of New castle Comprehensive Plan requirements?

3. Does the PSE Proposed EE Project meet the City of Kirkland Comprehensive Plan requirements?

4. Does the PSE Proposed EE Project meet the City of Redmond Comprehensive Plan requirements?

5. Does the PSE Proposed EE Project meet the City of Bellevue Comprehensive Plan requirements?

Loretta Lopez
13419 NE 33rd Lane Bellevue WA 98005

Secretary for CENSE
mailing address: CENSE 12819 SE 38th #294, Bellevue WA 98006.

President
Bridle Trails Community Club
mailing address: Bridle Trails Community Club 6619 132nd Ave NE #133 Kirkland WA 98033

Subject: PSE EIS Comments/NEPA required
From: Loretta Lopez <loretta@mstarlabs.com>
Date: 6/13/2015 11:20 PM
To: "'Scoping@EnergizeEastsideEIS.org'" <Scoping@EnergizeEastsideEIS.org>
CC: "'DPyle@bellevuewa.gov'" <DPyle@bellevuewa.gov>

I am submitting the following as part of the Energize Eastside Scoping Comments.

I have reviewed the FERC complaint, FERC Docket No. EL15-74, and supporting documents filed by CENSE. It is clear that the PSE Proposed Projects requires the involvement of the Bonneville Power Administration and thus NEPA governs.

I request that the City of Bellevue, stop the current EIS process under SEPA and address the need for NEPA process.

If the City will not stop the SEPA EIS process, then please explain the reasons to proceed under SEPA in light of the involvement of the BPA.

Loretta Lopez
13419 NE 33rd Lane Bellevue WA 98005

Secretary for CENSE
mailing address: CENSE 12819 SE 38th #294, Bellevue WA 98006.

President
Bridle Trails Community Club
mailing address: Bridle Trails Community Club 6619 132nd Ave NE #133 Kirkland WA 98033

Subject: PSE EIS Comments/Permits
From: Loretta Lopez <loretta@mstarlabs.com>
Date: 6/13/2015 11:04 PM
To: "'Scoping@EnergizeEastsideEIS.org'" <Scoping@EnergizeEastsideEIS.org>
CC: "'DPyle@bellevuewa.gov'" <DPyle@bellevuewa.gov>

I am submitting the following as part of the Energize Eastside Scoping Comments.

1. Is PSE required to obtain federal permits prior to constructing its proposed 230Kv transmission line? If so, which permits?

2. Is PSE required to obtain state permits prior to constructing its proposed 230Kv transmission line? If so, which permits?

3. Is PSE required to obtain permits from the City of Bellevue prior to constructing its proposed 230Kv transmission line? If so, which permits?

4. Is PSE required to obtain permits from Renton, Newcastle, Kirkland, and Redmond prior to construction its proposed 230Kv transmission line? If so, which permits?

5. Is PSE required to obtain a permit from EBCC prior to construction of its proposed 230kv transmission line? If so, what permit?

Loretta Lopez
13419 NE 33rd Lane Bellevue WA 98005

Secretary for CENSE
mailing address: CENSE 12819 SE 38th #294, Bellevue WA 98006.

President
Bridle Trails Community Club
mailing address: Bridle Trails Community Club 6619 132nd Ave NE #133 Kirkland WA 98033

Subject: RE: EIS Scoping Comments/Essential Public Facility
From: Loretta Lopez <loretta@mstarlabs.com>
Date: 6/13/2015 10:52 PM
To: "'Scoping@EnergizeEastsideEIS.org'" <Scoping@EnergizeEastsideEIS.org>
CC: "'DPyle@bellevuewa.gov'" <DPyle@bellevuewa.gov>

I am adding another comment on my Essential Public Facility comment below. The name of the consultant which the City hired to produce the Electrical Reliability Study is Exponent.

Loretta Lopez
13419 NE 33rd Lane Bellevue WA 98005

Secretary for CENSE
mailing address: CENSE 12819 SE 38th #294, Bellevue WA 98006.

President
Bridle Trails Community Club
mailing address: Bridle Trails Community Club 6619 132nd Ave NE #133 Kirkland WA 98033

From: Loretta Lopez
Sent: Saturday, June 13, 2015 9:41 PM
To: 'Scoping@EnergizeEastsideEIS.org'
Cc: 'DPyle@bellevuewa.gov'
Subject: FW: EIS Scoping Comments/Essential Public Facility

I am re-sending comments on PSE Proposed Project 230Kv Transmission Lines.

Loretta

From: Loretta Lopez
Sent: Friday, June 12, 2015 7:11 PM
To: 'info@EnergizeEastsideEIS.org'
Subject: EIS Scoping Comments/Essential Public Facility

I am submitting the following as part of the Energize Eastside Scoping Comments.

The City has determined that the PSE EE Project constitutes an Essential Public Facility. I have included Mike Brennan's message dated 4/7/15 below which sets forth the City's position.

The issue is not whether energy transmission projects in general, constitute essential public facilities, but rather does this particular project proposed by PSE constitute an essential public facility. In this case, PSE has not proven that there is a need. In April 2015 which is the date of Mike Brennan's response there was no one

qualified on the Bellevue City staff to review the technical details of the PSE project.

It is clear from the Electrical Reliability Study (completed in 2011) for which the City of Bellevue paid $350K, that the City needed to hire an engineer either as a staff member or as a consultant who could asses electrical reliability and related energy transmission issues. The Bridle Trails Community Club has repeatedly, since completion of the Electrical Reliability Study, asked the City to hire an experienced, qualified engineer. The City has denied the requests.

Since there is no one on City staff who has the capability of assessing the PSE Energize Eastside Project, then who determined that the PSE EE project constitutes an essential public facility. Who on the Bellevue City staff assessed the technical details of the PSE Energize Eastside Project and determined that there is a need for the project?

Loretta Lopez
13419 NE 33rd Lane Bellevue WA 98005

Secretary for CENSE
mailing address: CENSE 12819 SE 38th #294, Bellevue WA 98006.

President
Bridle Trails Community Club
mailing address: Bridle Trails Community Club 6619 132nd Ave NE #133 Kirkland WA 98033

From: mbrennan@bellevuewa.gov
Sent: Tuesday, April 7, 2015 5:15 PM
To: rborgmann@hotmail.com

Dear Mr. Borgmann,

I am responding to your email from March 29th and your questions about city staff's conclusion that PSE's Energize Eastside project falls into the category of an Essential Public Facility (EPF). We may have to agree to disagree on whether the project constitutes an Essential Public Facility under state law. But, what we do agree on is that the City has the right and the obligation to condition and mitigate impacts of all projects, regardless of whether they are characterized as an EPF.

The general threshold test for determining if a project is an EPF takes into account whether the facility is necessary to provide a public service, and if the facility is difficult to site. Providing electric power is by most accounts a basic public need in today's society, and our current experience with Energize Eastside suggests that facilities like this are difficult to site. Washington's Administrative Code ("WAC") provides further guidance to local government and permittees on how to apply the test of siting difficulty. See WAC 365-196-550, "Essential Public Facilities."

City staff has concluded that the transmission line use has the status of an Essential Public Facility (EPF) under the Land Use Code definition which adopts the statutory definition found in the GMA. That said, Bellevue has specific performance requirements, decision criteria, and review processes applicable to Electrical Utility Facilities. As a consequence, the specific requirements applicable to Electrical Utility Facilities (contained in LUC 20.20.255) apply rather than the generic Essential Public Facility requirements of LUC 20.20.350. Its status as an EPF (or not) does not affect how the City of Bellevue's land use code applies to this facility (if located in Bellevue).

In your email you make the statement that it is inconceivable that city staff could go on record as saying there is "no feasible alternative location." That is not an accurate reflection of the city's position and would not be timely at this point in the city's assessment of PSE's project. Staff has stated on several occasions that the city has an

obligation to consider PSE's Energize Eastside project under our land use and development codes and we are at the beginning of the environmental review process. The EIS process will provide for significant public review and comment, consideration of multiply alternatives in addition to those recommended by PSE's Citizen Advisory Committee, the assessment of possible impacts, and mitigation measures.

I appreciate your interest in this project and ensuring that it is subject to a rigorous assessment. We still have significant work ahead and many unanswered questions that will be considered as the City begins the formal environmental review and I hope you will continue to participate through that process.

Mike

Michael A. Brennan
Director
Development Services Department
Phone 425-452-4113
mbrennan@bellevuewa.gov

Subject: Submitting comments on PSE EE Project
From: Loretta Lopez <loretta@mstarlabs.com>
Date: 6/13/2015 2:35 PM
To: "'DPyle@bellevuewa.gov'" <DPyle@bellevuewa.gov>
CC: "'Scoping@EnergizeEastsideEIS.org'" <Scoping@EnergizeEastsideEIS.org>, "'info@EnergizeEastsideEIS.org'" <info@EnergizeEastsideEIS.org>

David,

I sent comments on EE project late yesterday to 'info@EnergizeEastsideEIS.org'. The 'info@EnergizeEastsideEIS.org' is the email address to which we are to send comments, according to the EIS website.

This morning I was reviewing the Notice of EIS. The notice states to submit comments to Scoping@EnergizeEastsideEIS.org

This is confusing.

I assume that the City will consider that both are valid email addresses for the purposes of accepting comments. Is this correct.

Thank you.

Loretta

Subject: FW: EIS Scoping Comments/Essential Public Facility
From: Loretta Lopez <loretta@mstarlabs.com>
Date: 6/13/2015 10:40 PM
To: "'Scoping@EnergizeEastsideEIS.org'" <Scoping@EnergizeEastsideEIS.org>
CC: "'DPyle@bellevuewa.gov'" <DPyle@bellevuewa.gov>

I am re-sending comments on PSE Proposed Project 230Kv Transmission Lines.

Loretta

From: Loretta Lopez
Sent: Friday, June 12, 2015 7:11 PM
To: 'info@EnergizeEastsideEIS.org'
Subject: EIS Scoping Comments/Essential Public Facility

I am submitting the following as part of the Energize Eastside Scoping Comments.

The City has determined that the PSE EE Project constitutes an Essential Public Facility. I have included Mike Brennan's message dated 4/7/15 below which sets forth the City's position.

The issue is not whether energy transmission projects in general, constitute essential public facilities, but rather does this particular project proposed by PSE constitute an essential public facility. In this case, PSE has not proven that there is a need. In April 2015 which is the date of Mike Brennan's response there was no one qualified on the Bellevue City staff to review the technical details of the PSE project.

It is clear from the Electrical Reliability Study (completed in 2011) for which the City of Bellevue paid $350K, that the City needed to hire an engineer either as a staff member or as a consultant who could asses electrical reliability and related energy transmission issues. The Bridle Trails Community Club has repeatedly, since completion of the Electrical Reliability Study, asked the City to hire an experienced, qualified engineer. The City has denied the requests.

Since there is no one on City staff who has the capability of assessing the PSE Energize Eastside Project, then who determined that the PSE EE project constitutes an essential public facility. Who on the Bellevue City staff assessed the technical details of the PSE Energize Eastside Project and determined that there is a need for the project?

Loretta Lopez
13419 NE 33rd Lane Bellevue WA 98005

Secretary for CENSE
mailing address: CENSE 12819 SE 38th #294, Bellevue WA 98006.

President
Bridle Trails Community Club
mailing address: Bridle Trails Community Club 6619 132nd Ave NE #133 Kirkland WA 98033

From: mbrennan@bellevuewa.gov
Sent: Tuesday, April 7, 2015 5:15 PM

To: rborgmann@hotmail.com

Dear Mr. Borgmann,

I am responding to your email from March 29th and your questions about city staff's conclusion that PSE's Energize Eastside project falls into the category of an Essential Public Facility (EPF). We may have to agree to disagree on whether the project constitutes an Essential Public Facility under state law. But, what we do agree on is that the City has the right and the obligation to condition and mitigate impacts of all projects, regardless of whether they are characterized as an EPF.

The general threshold test for determining if a project is an EPF takes into account whether the facility is necessary to provide a public service, and if the facility is difficult to site. Providing electric power is by most accounts a basic public need in today's society, and our current experience with Energize Eastside suggests that facilities like this are difficult to site. Washington's Administrative Code ("WAC") provides further guidance to local government and permittees on how to apply the test of siting difficulty. See WAC 365-196-550, "Essential Public Facilities."

City staff has concluded that the transmission line use has the status of an Essential Public Facility (EPF) under the Land Use Code definition which adopts the statutory definition found in the GMA. That said, Bellevue has specific performance requirements, decision criteria, and review processes applicable to Electrical Utility Facilities. As a consequence, the specific requirements applicable to Electrical Utility Facilities (contained in LUC 20.20.255) apply rather than the generic Essential Public Facility requirements of LUC 20.20.350. Its status as an EPF (or not) does not affect how the City of Bellevue's land use code applies to this facility (if located in Bellevue).

In your email you make the statement that it is inconceivable that city staff could go on record as saying there is "no feasible alternative location." That is not an accurate reflection of the city's position and would not be timely at this point in the city's assessment of PSE's project. Staff has stated on several occasions that the city has an obligation to consider PSE's Energize Eastside project under our land use and development codes and we are at the beginning of the environmental review process. The EIS process will provide for significant public review and comment, consideration of multiply alternatives in addition to those recommended by PSE's Citizen Advisory Committee, the assessment of possible impacts, and mitigation measures.

I appreciate your interest in this project and ensuring that it is subject to a rigorous assessment. We still have significant work ahead and many unanswered questions that will be considered as the City begins the formal environmental review and I hope you will continue to participate through that process.

Mike

Michael A. Brennan
Director
Development Services Department
Phone 425-452-4113
mbrennan@bellevuewa.gov

Subject: Energize Eastside Project
From: amygfaith@aol.com
Date: 6/14/2015 8:51 PM
To: Scoping@EnergizeEastsideEIS.org

Hello David,

I attended the scoping meeting on May 30th, 2015. I'm writing to submit my thoughts about the Energize Eastside Project. Our family has been residents of the Eastside since 1987. We love the trees here. It is disheartening that all options, except option 4 would involve the removal of many mature trees along the route. Once those trees are cut down, they are gone. They would not grow back to their current size in our lifetime. We need to preserve the trees we have, not destroy them. Bellevue is known as a "city in a park". It would be much less so, with the removal of these trees. Power lines affect the health of people and animals negatively. No one needs more health problems. Putting up power poles affects not only the health of residents living in those homes, but also the resale value of those homes.

Thank you for listening.

Amy Faith
15210 NE 8th St Unit D4
Bellevue WA 98007

Jessica Conquest

From: Energize Eastside EIS <scoping@energizeeastsideeis.org>
Sent: Tuesday, June 16, 2015 9:50 AM
To: Jessica Conquest
Subject: Fwd: Inquiry

This is the only email that arrived after 5pm and based on David's response it looks like we should count it. Along with the website submittal that came in late too just to be fair.

---------- Forwarded message ----------
From: <DPyle@bellevuewa.gov>
Date: Tue, Jun 16, 2015 at 7:47 AM
Subject: RE: Inquiry
To: pdf3@comcast.net
Cc: Scoping@energizeeastsideeis.org, records@energizeeastsideeis.org, info@energizeeastsideeis.org

David,

We will be sure to include the comment as 'received' during the Phase I scoping period. Your question will be answered as part of the EIS.

Thank you,

David Pyle

Energize Eastside EIS Program Manager
Senior Land Use Planner
City of Bellevue
dpyle@bellevuewa.gov
(425)452-2973 (Office)
(425)452-5225 (Fax)
www.bellevuewa.gov

www.EnergizeEastsideEIS.org

From: Plummer David F. [mailto:pdf3@comcast.net]
Sent: Monday, June 15, 2015 8:26 PM
To: Pyle, David
Subject: Inquiry

Hello Mr. Pyle!

Why was the 300 MW gas turbine at Cedar Hills generation not included as a possible alternative in DS/Scoping notice for the Energize Eastside EIS?

RSVP,

David Plummer

Subject: Fwd: EIS Scoping submission for the Energize Eastside project, from CSEE and Larry Johnson a resend
From: Todd Andersen <todd@matadortech.com>
Date: 6/15/2015 1:05 PM
To: scoping@energizeeastsideeis.org
CC: "Larry Johnson" <larry.ede@gmail.com>

EIS - just forwarding this again in case you did not get Larry's submission.

Todd Andersen


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DKIM-Signature: v=1; a=rsa-sha256; c=relaxed/relaxed;
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        h=from:content-type:message-id:mime-version:date:subject:cc:to;
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         dTIg==
X-Received: by 10.70.123.136 with SMTP id ma8mr2061789pdb.33.1434245015432;
        Sat, 13 Jun 2015 18:23:35 -0700 (PDT)
From: Larry Johnson <larry.ede@gmail.com>
Date: Sat, 13 Jun 2015 18:23:00 -0700
Subject: EIS Scoping submission for the Energize Eastside project, from CSEE and
Larry Johnson a resend
Cc: Don Marsh <don.m.marsh@hotmail.com>,
 Steve O'Donnell <sdofour@aol.com>,
 Sue Stronk <SSBuds@comcast.net>,
 Brian Elworth <Br98799@comcast.net>,
 Council@bellevuewa.gov,
 Loretta Lopez <loretta@mstarlabs.com>,
 Christina Aron-Sycz <aronsycz@gmail.com>,
 Christina Corrales-Toy <newcastle@isspress.com>,
 Brandon Macz <bmacz@bellevuereporter.com>,
 CHelland@bellevuewa.gov,
 Mary Grady <mgrady@mi-reporter.com>,
 Glenna White <glennawhite@msn.com>,
 David PSE/Edmonds <davidtedmonds@comcast.net>,
 Sean PSE/McNamara <Seanpmcnamara@gmail.com>,
 Bruce Williams <docwilliams1@comcast.net>,
 Eva/Rob Downs <e2downs@msn.com>,
 Ron Chatterton <rchatt@gmail.com>,
 Carin Chatterton <cchatterton@comcast.net>,
 Joe Tassia <joet@nuoz.com>,
 Ide/John Woo <webewoos@comcast.net>,
 Karen Esayian <KEsayian@aol.com>,
 Alison Dildine <jadildine@comcast.net>,
 astrid zuppinger <astridrd@comcast.net>,
 Philipp Schmidt-Pathmann <psp@neomer.us>,
 Keith Hargis <Hargbusiness1@yahoo.com>,
```

Russell Borgmann <rborgmann@hotmail.com>,
Barry Zimmerman <Baz@starboarddev.com>,
Dee Mulford <getset13@gmail.com>,
Todd Andersen <todd@matadortech.com>,
Carlos/Danielle Ramo <danielle@cdramos.com>,
Cynthia Flash <cynthia@flashmediaservices.com>,
Cindy/Ken Lee <kplcjl@aol.com>,
Frank Shiers <frank@shierscreative.com>,
Gary Albert <albert.gary@gmail.com>,
"Gregg A. Zimmerman" <gzimmerman@rentonwa.gov>,
Hillery Nye <hillerynye@icloud.com>,
Tam/Harlan Kammin <Kammin@comcast.net>,
Karla Herman <hermvel@comcast.net>,
info@nwcouncil.org,
Janis Medley <jpmedley@me.com>,
Kam Yu <Kamyu808@gmail.com>,
Lisa Taylor <14lisat@gmail.com>,
My-Linh Thai <mlinh.thai@gmail.com>,
oha@olympusnewcastle.org,
Margie/Wayne Pietz <pietz@msn.com>,
Sangeetha/Raj Kurmakote <Sarajendra@hotmail.com>,
Sue Sander <suesander10@hotmail.com>,
Mike/Tracia Wong <mwong911@msn.com>,
unknown <seattlekay@comcast.net>,
unknown <sjgeagan@yahoo.com>,
Vicki Svidenko <vsvidenko@gmail.com>,
Wolfgang Sixl <wolfgangsixl@gmail.com>,
Yun Li <yunlidi@hotmail.com>,
Helen Zoerb <zorbo2@comcast.net>,
zhongbruce@hotmail.com
To: info@EnergizeEastsideEIS.org,
Steve Buri <steveb@ci.newcastle.wa.us>,
Rich Crispo <Richc@ci.newcastle.wa.us>,
"John C. Drescher" <JohnDr@ci.newcastle.wa.us>,
"John D. Dulcich" <Johnd@ci.newcastle.wa.us>,
"carols@ci.newcastle.wa.us" <carols@ci.newcastle.wa.us>,
Lisa Jensen <lisaj@ci.newcastle.wa.us>,
Gordon Bisset <GordonB@ci.newcastle.wa.us>,
Rob Wyman <RobW@ci.newcastle.wa.us>,
Tim McHarg <TimM@ci.newcastle.wa.us>,
DPyle@bellevuewa.gov
X-Mailer: Apple Mail (2.1874)
X-Nonspam: None

This is a resend of the email I sent yesterday to info@EnergizeEastside.org. That address was rejected. This resend is to info@EnergizeEastsideEIS.org.

Again, acknowledgement of receipt will be appreciated.

Larry Johnson

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To the EIS Scoping Team regarding Energize Eastside:

Please find my letter of today's date to you attached, along with other attachments that are referenced in that letter. The letter and all the attachments are submitted for inclusion in the EIS scoping public comments record.

Acknowledgement of receipt will be appreciated.

Sincerely,

Larry G. Johnson
Attorney at Law, WSBA #5682
8505 129th Ave. SE
Newcastle, WA 98056
425 227-3352
larry.ede@gmail.com

Content-Disposition: inline;

filename*0=BBC_News_-_Animals_'scared'_by_bursts_of_light_from_power_cables;
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x-mac-hide-extension=yes;
x-unix-mode=0644;

name="BBC_News_-_Animals_'scared'_by_bursts_of_light_from_power_cables.pdf"

Attachments:

EIS Scoping submission for the Energize Eastside project1.pdf	105 kB
Clyde's_Comments_on_Energize_Eastside_2-24-141.pdf	82.6 kB
Comments_on_Energize_Eastside_2-24-141.pdf	75.1 kB
BBC_News_-_Animals_'scared'_by_bursts_of_light_from_power_cables1.pdf	95.1 kB
Sumitomo_Electric_Industries,_Ltd.___Press_Release_(2014)_Contract_Awarded_for_the_Submarine_Power_C2.pdf	102 kB
Lauckhart Affidavit2.pdf	622 kB
CENSE-CSEE v. PSE et al. FERC Complaint2.pdf	326 kB

Larry G. Johnson, Attorney at Law

8505 129th Ave SE Newcastle, WA 98056
TEL 425 228-3786
larry.ede@gmail.com

June 12, 2015

City of Bellevue
Development Services Department
Attn: David Pyle
450 110th Avenue NE
Bellevue, WA 98004

City of Newcastle
David Lee
Associate Planner
City of Newcastle
Newcastle, WA 98056

sent via email to info@energizeeastside.org

Re: EIS Scoping submission for the Energize Eastside project

Dear Sirs:

I am transmitting to you this letter on behalf of Citizens for Sane Eastside Energy (CSEE) and myself personally, and I am doing so under protest by email because your website submittal form dedicated to the EIS scoping at http://www.energizeeastsideeis.org/scoping-comment-form.html does not offer provision for the uploading of documents in support of people's comments. Such a feature is available at several thousands of web sites for various purposes, and the fact that people are handicapped from supporting their comments at your web site with supporting documentation is but one of several serious flaws in the way this entire EIS scoping process has been handled. Your offering email as an alternative input is of no help if people simply resign themselves to something as inferior as your comment form while they are already there. It would have been far better simply to have programmed your site to provide just a single normal email portal instead.

Further, I cannot comprehend why there is an EIS process underway for Energize Eastside when none of the affected cities has yet to receive a permit application from PSE. Why does PSE get such special deferential treatment out of the normal order of things? And how is it PSE was able to manage to already squeeze in ahead of everybody else the "four alternatives" that Carol Helland has apparently unilaterally decided can pre-empt the agenda on worthy alternatives to Energize Eastside? How did that come to pass? Alternative #3 appears to come out of nowhere, a "project" far worse than Energize Eastside and no doubt a "poison pill" with PSE's fingerprints on it to make Energize Eastside look more palatable. We fear this is but one more indication of the all-too cozy relationship between PSE and the City of Bellevue staff, corrupting fiduciary duties to the other cities and citizens of the Eastside that Bellevue should be honoring as Lead Agency in an already severely compromised EIS process.

The EIS scoping has already been illegally constrained in yet another way. I attended the Bellevue and Newcastle "EIS scoping meetings," and though Ms. Carol Helland is a lawyer and should know better, the environmental topics selected for the EIS scoping focus overlooked several elements of the environment enumerated in WAC 197-11-444, "Elements of the environment." Excluded from consideration have been these highlighted elements from WAC197-11-444:

> "…
> (v) ***Scenic resources***
> (2) Built environment
> (a) Environmental health
> (i) Noise
> (ii) ***Risk of explosion***
> (iii) ***Releases or potential releases to the environment affecting public health, such as toxic or hazardous materials***
> (b) Land and shoreline use
> (i) Relationship to existing land use plans and to estimated population
> (ii) Housing
> (iii) ***Light and glare***
> (iv) ***Aesthetics***
> …"

For the reasons stated above, please be advised that the submittals hereby made are without prejudice to or waiver of the above and other objections to the way in which this entire EIS process has been fatally flawed.

Those objections will be revisited on another day. In the meantime, please accept on the record the following matters which we feel should be included in a proper EIS scoping of Energize Eastside with its myriad negative environmental impacts, in the event PSE should ever actually apply for any permits, and should the EIS scoping be done again correctly at a future time.

1. There are less expensive, more efficient and less environmentally destructive alternatives to Energize Eastside that have yet to be seriously considered by Bellevue or anyone else with permitting authority. Attached to the email transmitting this letter, please find the Complaint and supporting Affidavit of J. Richard Lauckhart filed this week with the Federal Energy Regulatory Commission (FERC) where there are five straightforward conventional solutions that could be pursued, any one of which is vastly superior to building a hugely bloated and unnecessary Energize Eastside. The affidavit attachments can be downloaded from the FERC eLibrary at www.ferc.gov under Docket No. EL15-74.

2. Please accept the concerns and measures as proposed by the two attached documents with the letterheads of our neighbor Newcastle residents Jean Garber and Clyde Moore, both dated February 14, 2014, as fully adopted here and endorsed by CSEE and me. These documents relate to the safety hazards inherent in removing existing H-poles in the PSE right of way through Newcastle and replacing them with steel towers more than three

times their size, with much deeper and broader concrete foundations, placed right on the Seattle Fault and over aging gas pipelines transporting jet fuel under 1000 psi just 3’ to 5’ from the surface, and requiring excavation of layers of deep hardpan in the soils. The current easements do not provide sufficient fall distance for the 130’ towers, and so the environmental impact of taking dozens of houses along the easement through eminent domain and destroying them to widen the easement must also be considered.

3. Also attached is an article entitled, “Animals 'Scared' by Bursts of Light from Power Cables.” It is not well known that most animals can see UV “light,” and going from 115kV to 230kV lines will substantially increase the UV flares as a result. As the article points out, “the random and unpredictable nature of these flashes were particularly problematic, he added, as the animals could not easily adapt to them.” We have experienced in Newcastle and elsewhere on the Eastside a lot of housing development this past year that has destroyed habitats for deer, raccoons, possum (a protected species), coyotes, foxes, rabbits and bobcats. They have few remaining habitats in this area or migratory paths to new habitats or mating areas, and we believe these already heavily encroached-upon species could easily become prone to local extinction if the exacerbation of UV light and glare are allowed to occur as a result of doubling the voltage on these Energize Eastside lines.

4. Finally, also attached is a news item regarding the construction of an AC 230kv submarine power cable in San Francisco bay with a route length of 4.5 km and total installation distance of 13.5 km, at a cost of $37 million. Months ago PSE promised to do a study to determine whether submerging such a cable would be a viable alternative to Energize Eastside. We have never heard back from them. This alternative also deserves serious and comprehensive study.

Sincerely,

Larry G. Johnson

cc: CSEE
The Newcastle City Council
Tim McHarg, Tim McHarg, AICP, Community Development Director, City of Newcastle
The Bellevue City Council
CENSE

Clyde Moore, P.E.

8436-129th Place Southeast
Newcastle, WA 98056-1764

Email: cnmoore@farallonconsulting.com
Telephone: (425) 757-0111

February 24, 2014

Re: Energize Eastside Project

As a civil engineer familiar with design and construction of a wide variety of projects, I have the following comments and questions regarding PSE's Energize Eastside project:

1. Your website shows a photo of a steel monopole foundation being constructed by vertical boring using high-intensity vibration. The intense ground vibrations generated by this method could cause settlement damage to homes and their foundations, as well as damage to the high pressure (up to 500 psi) petroleum pipelines that run parallel to PSE's transmission lines. Damage to pipelines could cause leaks and/or catastrophic rupture. Results could include burning, toxic liquid or asphyxiating gases flowing downhill through the neighborhood, or major explosions.

   Please provide detailed descriptions (and schematics as needed) showing how PSE would:
   - Minimize the impacts of vibration on homes and their foundations, and evaluate and compensate for any damage.
   - Ensure that the petroleum pipelines are depressurized and not damaged during construction of monopole foundations.
   - Detect and control any leakage of petroleum products from the pipelines, either liquid or vapor.

2. Native bedrock is often present just under the surface throughout the Olympus neighborhood.

   Please provide detailed descriptions (and schematics as needed) showing how PSE would:
   - Excavate the bedrock to construct monopole foundations.
   - Perform blasting, if required.
   - Minimize vibration (and vibration damage) in homes if blasting or excavator-mounted hydraulic hammer chisels are used.
   - Prevent damage to the high-pressure petroleum pipelines from rock movement.

3. Will steel monopoles be erected at approximately the same locations as the existing wooden towers, or are entirely new locations possible? How will PSE protect homes from the potential for wooden towers to fall during removal, or for monopoles to fall while being erected?

4. Newcastle is located in the area that would be most affected by a Seattle fault earthquake. Because it is so shallow, and capable of earthquakes of greater than Richter 7 magnitude, the Seattle fault is considered the greatest seismic risk in this area. What Richter magnitude earthquake will the towers and their foundations be designed and constructed to withstand? Would they withstand vertical as well as horizontal seismic forces?

5. How will PSE ensure that the monopoles will withstand the highest potential winds in this area? For example, there were sustained winds of 75 mph, with gusts to 90 mph, in a December storm that caused much damage.

6. Transmission of power at 230,000 volts, which is nearly double the existing voltage, will significantly increase the electromagnetic field surrounding the transmission lines. This field would potentially create powerful induced voltage and electrical current in the steel petroleum pipelines.

   Please provide detailed descriptions (and schematics as needed) showing how PSE would:
   - Reduce the risk of electrical shock from the high-pressure petroleum pipes and appurtenances, including from the casing vents at the road crossings.
   - Prevent increased current-induced corrosion and risk of leakage or catastrophic rupture of the pipelines.

Jean Garber

8436-129th Place Southeast
Newcastle, WA 98056-1764

Email: jgarber11@comcast.net
Telephone: (425) 277-9327

February 24, 2014

Re: Energize Eastside Project

Based on 35 years' experience managing the environmental review of major regional projects, I have the following comments and questions regarding PSE's Energize Eastside project:

1. Please provide Olympus residents with computer-generated simulations showing how the proposed transmission facilities would look from various viewpoints in the Olympus neighborhood. For each viewpoint, provide an actual photo of the existing towers and transmission lines side-by-side with a simulated photo in which the current facilities are removed and the new facilities are in place. The viewpoints selected for this photo analysis should be those from which views would be most altered or view blockage would occur (such as blockage of views of Mt. Rainier). Where needed, PSE should seek permission from homeowners to take photos from view windows. Photos should be taken on clear days with good visibility.

2. Please provide Olympus residents with letters from both PSE and from the owner/ operator of the gas pipelines in the PSE transmission corridor indicating how they will guarantee public safety in light of the issues raised by my husband, Clyde Moore.

3. Please provide a list of agency permits required for the route through Newcastle.

4. Who will be the lead agency for the EIS? Will there be any federal action or funding that requires compliance with NEPA as well as with SEPA? What alternatives and elements of the environment does PSE propose to subject to detailed analysis in the EIS, and when will formal EIS scoping occur?

5. As a potentially affected Olympus resident, I expect assurance from PSE that any and all environmental analyses, including aesthetics and public safety, will be conducted by expert and objective third-party consultants with no financial or other interest in the outcome of the project.

BBC NEWS

SCIENCE & ENVIRONMENT

12 March 2014 Last updated at 14:03 ET

Animals 'scared' by bursts of light from power cables

By Victoria Gill
Science reporter, BBC News

Animals around the world could be scared away from power cables because these give off UV flashes invisible to humans, scientists have said.

Several species' vision was studied by an international team to identify this ultra-violet (UV) sensitivity.

The findings, published in the journal Conservation Biology, claimed habitats and migration could be disrupted.

The flashes, or corona, occur when charge builds up in a cable and is released into the air.

The international team, including scientists from **University College London** and the **Arctic University of Norway**, measured the spectrum of light emitted by these bursts of charge.

They worked out that although the light was invisible to us, it contained wavelengths seen by many other mammals.

"Most mammals will let some [UV light] into their eye," explained UCL vision expert Prof Glen Jeffery, one of the lead researchers in this project.

"We're weird - us and monkeys - because we don't see UV. Most animals do."

'Previously a mystery'

The first animal to reveal its UV sensitivity was the reindeer. And, as the researchers explained, reindeers' avoidance of the power lines running across the Arctic tundra was part of the inspiration for this project.

Dr Nicholas Tyler, the other lead author, said it had been assumed that rather than avoiding the power cables themselves, animals steered clear of passages cut in forested areas before pylons were installed.

"Forest animals will not cross clear-cuts," he said.

"But for us in the Arctic, avoidance of power lines is difficult to explain - there are no trees, yet the reindeer still avoid the power

lines."

The animals keep as much as 5km (3 miles) from either side of the cables.

"This has been a mystery," Dr Tyler added. "We have now come up with a mechanism [to explain it]."

This research required a detailed understanding of animal vision, which was where Prof Jeffery came in.

Having discovered in 2011 that **reindeer eyes were sensitive to UV light**, Prof Jeffery went on to study the eyes of almost 40 mammal species, **revealing all were UV-sensitive**.

Since, as the researchers added, coronas "happen on all power lines everywhere", the avoidance of the flashes could be having a global impact on wildlife.

"It has always been assumed that power lines - masts and the cables strung between them - were passive structures standing immobile in the terrain, and therefore inoffensive for animals," said Dr Tyler.

"As a result of this work, we now consider them as chains of flashing light stretching across the tundra in the winter darkness, and that's why the animals find them so offensive."

The random and unpredictable nature of these flashes were particularly problematic, he added, as the animals could not easily adapt to them.

Prof Jeffery said he hoped power companies would now consider ways to address the issue.

More Science & Environment stories

'Shocking' scale of pangolin trade [/nature/26549963]
Official records show that pangolins are being illegally traded on a "shocking" scale, according to a report.

Hints of deep Earth's blue rocks [/news/science-environment-26553115]

Fracking 'could harm wildlife' [/news/science-environment-26553117]

Press Release

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- New Products & Technologies
- Others

Contract Awarded for the Submarine Power Cable Project in San Francisco Bay

February 28, 2014
Sumitomo Electric Industries, Ltd.

Sumitomo Electric U.S.A. Inc., USA incorporated sales company of Sumitomo Electric, was awarded a contract from Pacific Gas & Electric Company, a firm based in San Francisco USA, for supply and installation of a AC 230kV submarine power cable project.

This project is to install AC 230kv submarine power cable in San Francisco bay with a route length of 4.5km and total installation distance of 13.5km. This project is worth about $ 37 million. J-Power Systems Corporation, an affiliated company of Sumitomo Electric, was adopted as the supplier for the submarine power cable for this project which shall be exported from Japan. Sumitomo Electric U.S.A. Inc. has exchanged contracts with Pacific Gas & Electric Company in January 2014. The cable installation will start in January 2015 and complete in July 2015.

This project will improve power network in San Francisco and will achieve more stable energy supply.

Sumitomo Electric Group will continue to actively promote submarine power cable installation projects.

[Contract Outline]

Contract Principal	Pacific Gas & Electric Company
Date of Award	January 9th, 2014
Contract Amount	Approximately 37 M USD
Contract Main Element	Supply and installation of AC 230kV submarine power cable project (Total power cable length 13.5km or route length of 4.5km)
Estimated	July 2015

date of completion	July, 2013.

【About Sumitomo Electric U.S.A. In】

Company name	Sumitomo Electric U.S.A. Inc.
Location	Torrance, CA, U.S.A
Representative	Takeshi Kumazaki
Business	Conducting market research and sales of Sumitomo Electric products
Capital	3 M USD
Establishment	April 2001

【About J-Power Systems Corporation】

Company name	J-Power Systems Corporation
Location	Minato-ku, Tokyo, Japan
Representative	President Sadao Fukunaga
Business	Development, design, manufacturing, sales, installation and export of electric power cables and accessories, overhead power transmission lines, and related systems
Capital	8 billion yen (as of the end of March 2013)
Establishment	July 3, 2001

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UNITED STATES OF AMERICA
FEDERAL ENERGY REGULATORY COMMISSION

COALITION OF EASTSIDE NEIGHBORHOODS FOR SENSIBLE ENERGY (CENSE), a nonprofit Washington corporation; CITIZENS FOR SANE EASTSIDE ENERGY (CSEE), a nonprofit Washington corporation; LARRY G. JOHNSON and GLENNA F. WHITE, husband and wife; and STEVEN D. O'DONNELL, individually; Complainants, vs. PUGET SOUND ENERGY, a for-profit Washington corporation; SEATTLE CITY LIGHT, a public utility and department of the City of Seattle; BONNEVILLE POWER ADMINISTRATION, a federal agency and marketing agent for federally owned Northwest power facilities; and COLUMBIAGRID, a nonprofit Washington corporation, Respondents..	Docket No.

Affidavit of J. Richard Lauckhart

I, J. Richard Lauckhart, being duly sworn, hereby depose and state the following:

1. I am an energy consultant living in Davis, California. I have spent my professional career working in the power industry. That professional career spans 40 years. I have worked as a distribution engineer, a transmission planning engineer, a financial analyst for an investor-owned electric utility, a Vice President of Power Planning for an investor-owned utility, and then as a consultant in all aspects of the power business.
2. I have been qualified as an expert witness to testify in a number of proceedings before state and federal regulatory bodies, including FERC.
3. My resume is Attachment A to this affidavit.
4. I have been asked by Claimants to provide analyses and expert opinion on the need and scope of Puget Sound Energy's approach and justification for its proposal to build a new 18-mile double circuit 230 KV power line through a very large number of residential neighborhoods across five cities east of Seattle known collectively as "The Eastside," comprised of the cities of Bellevue, Kirkland, Redmond, Renton and Newcastle.
5. PSE calls this new line and associated 230/115 KV transformer the "Energize Eastside" project.[1] PSE claims the new 18-mile line is necessary to feed a new 230/115 KV transformer closer to the City of Bellevue where expected future Eastside demand is concentrated. PSE claims that if this line and station are not built that blackouts are possible.
6. ColumbiaGrid is a non-profit membership, Washington State corporation that was formed on March 31, 2006. ColumbiaGrid's declared purpose is to coordinate the use and expansion of participating transmission networks, thereby improving the operational efficiency, reliability and planned expansion of the Pacific Northwest

1 PSE's website for this project is www.energizeeastside.com.

transmission grid. ColumbiaGrid claims to achieve this coordination through functional agreements offered to its members and other qualified non-member parties. The ColumbiaGrid Planning and Expansion Functional Agreement ("PEFA") is one such functional agreement that has been revised periodically in attempts to adapt to evolving FERC Orders and regulations.

7. The PEFA was originally accepted by FERC on April 3, 2007, and subsequent amendments to the PEFA were accepted by FERC. ColumbiaGrid performs a number of services under the PEFA. Primarily, ColumbiaGrid agrees to prepare a Biennial Transmission Plan, and as part of that process performs system assessments of the PEFA parties' transmission systems.

8. Through the PEFA framework and in lieu of being a directly regulated Regional Transmission Organization ("RTO"), ColumbiaGrid has promised FERC to facilitate for the PEFA Parties a coordinated planning process for the development of multi-transmission system projects.

9. To satisfy the regional transmission planning requirements of FERC's Order No. 890, on December 7, 2007, ColumbiaGrid members Avista and PSE submitted amendments to their Open Access Transmission Tariffs ("OATTs"), creating an Attachment K to their tariffs that set forth a regional transmission planning process, incorporating, where applicable, descriptions of the elements of the sub-regional transmission planning process established by the PEFA. In addition, BPA submitted a petition for declaratory order granting reciprocity approval for the purpose of including a transmission planning process as part of its "safe harbor" OATT.[2]

[2] Through this voluntary act BPA made itself subject to indirect FERC jurisdiction for Order 890 purposes. FERC Order 1000 incorporates and expands upon Order 890, yet for reasons explored later in this affidavit, BPA has

10. FERC/NERC have established a Transmission Planning Reliability Standard whereby all utilities, including BPA, PSE and SCL are required to comply with that Transmission Planning Reliability Standard.

11. As will be explained in further detail in this affidavit, ColumbiaGrid (and its member utilities) are not acting in compliance with FERC Order 1000 because they have yet to agree on a PEFA that brings them into compliance. Further, it appears that its members are not in compliance with the FERC/NERC Transmission Planning Reliability Standard TPL-001.

12. On October 11, 2012, PSE made its FERC Compliance Filing regarding Order 1000. Attachment B. In that Compliance Filing, PSE states it will use ColumbiaGrid and its PEFA as its method of complying with FERC Order 1000. Id., p. 4. FERC assigned PSE's Compliance Filing regarding Order No. 1000 Docket Numbers ER13-99 and ER15-429.

13. A review of all the filings and FERC Orders in those Dockets reveals that PSE is unable to use ColumbiaGrid and its PEFA as its method of complying with FERC Order 1000 because BPA and SCL have refused to let them do so. See notes of my telephone conversation with a senior executive at ColumbiaGrid, Attachment C, p. 2. There have been considerable filings at FERC and FERC Orders on this matter between the dates of Oct 11, 2012, and today. Clearly, FERC believes that BPA and SCL need to use ColumbiaGrid to make them Compliant with FERC Order 1000. BPA and SCL continue to resist, however, effectively subverting Order 1000's purpose and

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argued varying degrees of Order 1000 compliance it claims it is subject to. I believe from recent FERC orders, such as in the May 14, 2015, FERC Order in Docket Nos. ER15-422 and ER15-429, 151 FERC ¶ 61,127, however, that the Commission takes the more logical position that Order 1000 for the ColumbiaGrid utilities becomes meaningless if government-owned utilities can opt out. Indeed, PSE cannot possibly call itself Order 1000 compliant if its largest neighbors shun the regional planning process contemplated by the "single utility" rule embodied in Order 1000.

effectiveness. FERC needs to enforce Order 1000 to ensure meeting the important public policy goals FERC is intending to accomplish are achieved.

14. In its Order on May 14, 2015 in Docket Nos. ER15-422 and ER15-429, 151 FERC ¶ 61,127, FERC, again told ColumbiaGrid participants to make compliance filings that are consistent with FERC Order 1000. Regarding BPA, page 2, footnote 3 in that Order states as follows:

> In the First Compliance Order, the Commission noted that Bonneville Power is not a public utility under section 201 of the FPA, 16 U.S.C. § 824 (2012), and is not subject to Commission directives made pursuant to FPA section 206; however, in reviewing proposed revisions to Bonneville Power's OATT, the Commission indicated further revisions were needed in order for Bonneville Power's OATT to substantially conform to the *pro forma* OATT, as modified by Order No. 1000. First Compliance Order, 143 FERC ¶ 61,255 at P 2 n.4. However, Bonneville Power has not, at this time, submitted a compliance filing with further revisions.

15. FERC is clearly appropriately holding BPA's feet to the fire in requiring BPA to comply with FERC Order 1000. This most recent Order is the result of an on-going back and forth of long tug-of-war exchanges between BPA, PSE and other utilities that have passive-aggressively resisted compliance with FERC Order 1000. For a brief summary and chronology, see Attachment D.

16. Meanwhile, FERC should not let PSE, BPA and SCL avoid FERC Order 1000 compliance by failing to use ColumbiaGrid to evaluate and plan for alternatives to the PSE-proposed Energize Eastside project. FERC should order ColumbiaGrid and its member utilities, including PSE, BPA and SCL, to study alternatives to PSE's proposed Energize Eastside line as CENSE/CSEE requested in letters to those entities on May 8, 2015 and May 15, 2015, respectively. Attachments E and F to this affidavit. As will be noted in greater detail, those requests were rejected.

Without those studies being done, it is likely that PSE will build the Energize Eastside line, and that would not be the preferred solution per Order 1000 to identified future reliability problems. As will be detailed later in this affidavit, Energize Eastside is not the lowest-cost and least environmentally harmful solution to the Eastside's reasonably anticipated future reliability problems.

II. PSE'S ORDER 1000 NONCOMPLIANCE AND FACTUAL OVERVIEW

17. FERC Order 1000 states that if a proposed new transmission lines project meets more than one need, that there is no right of first refusal to the incumbent utility (in this case, PSE) to build the line. Any such new transmission lines project such as Energize Eastside meeting more than one need must be put out to bid in order for the best bidder to be given the right to build and own the line. FERC Order 1000 also requires the costs for such a project be allocated fairly among those utilities which the project benefits.

18. Energize Eastside has dual needs. It is intended to meet both PSE local Eastside load as well as providing additional transmission capacity to support 1500 MW of flow north to Canada. PSE has (erroneously) determined that this need to provide transmission to support a 1500MW flow to Canada is an immutable, fixed obligation that BPA needs to fulfill because of the terms of the Columbia River Treaty.[3] That treaty states that Canada's entitlement to Treaty power was to be delivered to Canada via a major new transmission line that BPA was to build. But BPA never built that line.[4] Thus the

[3] BPA has known since at least 1998 (when the treaty was amended) that it would not be able to deliver Canada's share of downstream benefits to Canada under all weather and contingency conditions. In 2009, Puget Sound Area Study Group members developed a draft report entitled "Assessment of Puget Sound Area/Northern Intertie Curtailment Risk." Attachment G. That study describes certain system operating plans that could reduce the Curtailment Risk in the south-to-north direction on the tie to Canada.

4 The treaty deliveries to Canada were by its terms supposed to be accomplished by BPA building a new transmission line in Eastern Washington north to the Canada border near Oliver, BC, east of the Cascades. BC Hydro was supposed to build from their system in British Columbia to meet the new BPA line. Under that plan, there would be no impact on transmission in Western Washington and PSE ratepayers would have paid nothing to cause the Columbia River Treaty benefits to be moved to Canada. But BCHydro and BPA decided to use existing

Energize Eastside line is designed to serve the dual purpose of meeting PSE load and being capable of delivering 1,500 MW of primarily Columbia River Treaty power to Canada. In terms of maximum power transfer capability, BPA stands to be the major beneficiary of the proposed Energize Eastside project.

19. Any contemplated new transmission lines project that meets more than one need must comply with FERC Order 1000. By moving forward with Energize Eastside on its own, PSE violated several provisions of FERC Order 1000 as further explained in the next paragraphs.

20. First, the proper FERC Order 1000 procedures for doing transmission planning were not followed. Under FERC Order 1000, and for that matter, under the earlier Order 890 that was incorporated into Order 1000, ColumbiaGrid needs to do the initial determination of whether problems exist on the regional system. Then if they find some, its members and other interested stakeholders need to be told of the problems and allowed to bring candidate plans to resolve the problems. This was not done with respect to Energize Eastside, and that needs to be done.[5]

BPA/BCHydro lines instead. These lines are essentially the double circuit 500 KV lines that cross the border at Blaine. So if after 50 years under the treaty BPA and BCHydro are having trouble making that work now, then why should PSE and its ratepayers be required to make and pay for the "fix"?
Proper load studies should do the following: Set the PSE need with the Northern Intertie loading at zero. Find the best fix for PSE load only. Then if BPA and BCHydro still have a problem delivering the Canadian treaty power, let them find their solution. One such solution is to simply decide not to deliver that Canadian Treaty power to Canada during arctic events. BCHydro could have the power delivered somewhere in Washington or parts south. BC Hydro will get a very good price for that power if it is sold in the states during an arctic event. In any event, BC Hydro is not planning on using that power to cover their own peak load. See BCHydro 2013 IRP at https://www.bchydro.com/energy-in-bc/meeting_demand_growth/irp/document_centre/reports/november-2013-irp.html

[5] In answering a series of questions posed to PSE in March 2015 by Complainant Larry Johnson, Mark Williamson, PSE's consultant designated by PSE to answer project-related questions, stated that Energize Eastside is "essentially the same" as prior PSE candidate projects going back to 2009, entitled "Sammamish to Lakeside to Talbot Rebuild Project"and "Lakeside 230 kV Transformer Addition Project," but Williams further elaborated: "They are essentially the same from a needs perspective. What is different is the implementation of the projects. For example, what is contemplated in the Columbia Grid [sic] listings are a complete rebuild in the existing corridor. The Energize Eastside project includes options that may not end up in the existing corridor." Attachment H. I have been unable to find any ColumbiaGrid document that shows it considered let alone has had any

21. Second, then ColumbiaGrid needs to study the candidates and, in an open process, confer with interested parties about their power flow studies. This was not done and needs to be done. Only then can a regionally-vetted solution be identified.

22. Third, if ColumbiaGrid determines that the preferred solution is one that meets the goals of more than one entity (in this case, PSE local need and BPA desire to increase the Path Rating from Canada from 2,000 MW to 3,000 MW)[6], ColumbiaGrid needs to come up with a fair allocation of the costs of the project. This was not done.

23. Finally, if ColumbiaGrid determines that the preferred solution is one that meets the goals of more than one entity, then PSE has no Right of First Refusal and there needs to be a Request for Proposals issued to decide who will build and own the project. This was not done.

24. FERC Order 1000 requires planning of new transmission lines must meet coordinated, rational, regional "single utility" criteria. Energize Eastside does not meet those criteria.

25. By its 2012 Compliance Filing with FERC 1000, PSE was obligated to ask ColumbiaGrid to conduct regional power flow studies generally and for the Energize Eastside project specifically; instead, PSE chose to conduct inappropriate power flow studies of its own, using many undisclosed and dubious inputs, in order to contort data and assumptions to force what appear to be contrived technical justifications for Energize Eastside. Any properly qualified power generation and transmissions planner

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involvement in Energize Eastside, although its predecessor projects "Sammamish to Lakeside to Talbot Rebuild Project" and "Lakeside 230 kV Transformer Addition Project" were proposed and studied at ColumbiaGrid as "south-to-north" grid congestion relief projects for the Northern Intertie.

[6] ColumbiaGrid reports in 2009-2011 indicate that BPA had a desire (but not a requirement) to increase the Path Rating in the south to north direction to Canada from 2,000 MW to 3,000 MW. Studies were done to see how this desire could be met. However, at some point in that timeframe, the load flow studies changed to reflect a "Firm Delivery" requirement to deliver 1,500 MW to Canada. There has been no legitimate demonstration that there is a requirement for "Firm Transmission" in the amount of 1,500 MW (or any other amount) to Canada.

can see the results from these PSE and USE studies are inappropriate and conspicuously contrary to real world experience and common sense.

26. Utility Systems Efficiencies, Inc. ("USE") was hired by the City of Bellevue to provide independent verification of PSE's claimed need for Energize Eastside. Its report concluded that the need for Energize Eastside exists, although that conclusion is not supported by the power flow studies performed by USE; indeed, USE's studies contradict USE's conclusions.

27. The USE flow studies show that it is highly probable, approaching a certainty, that if legitimate studies are done properly, it will be shown that there is no need for Energize Eastside. Instead, as discussed in greater detail below, at least four comparatively modest, inexpensive and less environmentally disruptive wired solutions are adequate to solve whatever minor potential overload scenarios remain, to the extent they might exist. There are also non-wired alternatives to Energize Eastside, but the proposed four wired fixes are for now adequate to allow further consideration of other promising alternatives without time pressures or contrived scare tactics. [7] PSE's own documents reveal they cannot explain where it plans to find power generation resources to meet a major shortfall of possibly as much as 3000 MW (i.e., a firm 1500 MW shortfall in PSE's comparison of peak load to current resources, plus inexplicably but possibly 1500

[7] One should not lose sight of the fact that in technical contexts PSE properly focuses the discussion of the need for Energize Eastside in terms of system reliability, i.e. NERC requirements to meet extreme peak loads. I find it rather disturbing, however, when PSE in its PR and ads creates the impression massive blackouts loom if the project is not built, a false assertion that unfortunately was further promoted by Peter Mackin of USE when showing slides to the Bellevue City Council of the 2003 massive blackout in the Northeast. The major blackouts that have occurred in the US in the last 20 years have been traced to inadequate tree trimming. There are reliability criteria that utilities are required to keep their trees trimmed to within a safe distance of a line. But it has been learned in the case of the 2003 blackouts that some utilities were not complying with tree trimming reliability criteria. That sort of massive failure threat is not what Energize Eastside is designed to prevent. Inappropriate generation dispatch patterns overloading transmission lines have not been a major problem due in part to the role played by the Western Region Reliability Coordinator to watch for and prevent that kind of massive failure before it can occur. Suggesting that the Energize Eastside line is needed to avoid major blackouts is the sort of scare tactic that call into question PSE's and the project's overall credibility,

MW of current resources its modelers choose not to run in simulations) to meet its predicted peak load demands.[8]

28. That lack of PSE's generation resources will be compounded when the dirty-coal polluting Colstrip power plant in Montana is shut down by current lawsuits, or by state and federal government environmental enforcement actions.

29. In addition to the aforementioned four alternatives to Energize Eastside discussed below in Section IV is PSE's oft-stated "first choice" route of the SCL lines on the Eastside, lines which are at one point just one mile west of the proposed Energize Eastside project.[9] Energize Eastside would duplicate the SCL lines in violation of the "single utility" rule in Order 1000. SCL abets that duplication by having claimed its "preference" to hoard these lines for its own future needs as stated in a letter sent from SCL to the City of Bellevue, Attachment K. But SCL has never publicly and officially denied PSE access to and use of those lines. Nevertheless, SCL has also not done its part to work toward a cooperative "single utility" regional transmission plan run by ColumbiaGrid, of which SCL is a member.

30. ColumbiaGrid for its part has not met its obligations to FERC in developing and enforcing a cooperative regional transmission plan, in violation of FERC Order 1000.

III. <u>The "Need" for Energize Eastside is Premised on Flawed Data and Input</u>

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[8] See, e.g. the page from PSE's 2013 IRP report, Attachment I, with its graph of present and future Resource Assets.

9. See, e.g. "Meeting Conclusions" memorandum of April 23, 2010 meeting between BPA and ColumbiaGrid, Attachment J. In this document it is clear that **PSE proposed looping the existing SCL lines into its Lakeside station** to serve the high side of a new 230/115 KV transformer at Lakeside. This memorandum also indicates that studies should be done with more western Washington located generation being operated to see if additional generation would relieve indicated problems. **The PSE and USE load studies failed to do cases based upon these common-sense parameters, and such studies should be done ASAP**. The document also indicates that studies should be performed to see if new Remedial Action Schemes would help with deliveries of power to Canada**.**

Parameters.

A. The PSE and USE Power Flow Studies Were Improperly Done

31. My review of PSE's in-house studies performed to demonstrate the supposed need for the Energize Eastside project indicate that the studies were seriously flawed. I believe that if PSE would have had ColumbiaGrid perform the studies as they were obligated to FERC to do, the flaws I found would have been corrected and there would be better options than the Energize Eastside project to eliminate concerns over possible reliability problems on PSE's system that PSE currently foresees for 2017/2018.

32. PSE's transmission load flow studies include 1500 MW flow to Canada. PSE apparently and incorrectly believes this flow is immutably required to be included in such studies by an unspecified NERC reliability regulation. I can find no NERC reliability criterion that has that requirement, and so far neither has PSE despite my requests for same.

33. At a public meeting before the Bellevue City Council, the Utility Systems Efficiencies, Inc. ("USE") consultant Peter Mackin insinuated that if the Energize Eastside line is not built, then the system will be put at risk for extensive blackouts of the type that happened in the Northeast several years ago. For a number of reasons, that is simply not true. For example, the NERC Reliability Coordinator for the Pacific Northwest would monitor and never allow any kind of "firm" flow to subvert a utility's reliability priorities in extreme load conditions. Also, the Canadians themselves do not insist on a guaranteed constant delivery of their Columbia River power entitlement — indeed, it is common knowledge in the power industry that they do not need the 1500 MW for their own normal or peak load needs and prefer to sell that power to U.S. utilities instead.

34. Further, the ColumbiaGrid area's transmission grid has for years not been able to provide the agreed Canadian Entitlement 1500 MW of flow to Canada, anyway, let alone being able to do that for any time into the future.[10] If NERC somehow requires guaranteed flow of the 1500 MW to Canada be included in reliability studies and accommodated in practice regardless of extreme peak load emergencies, such a regulation would have by now presented such a major problem that it would have been discovered and resolved long before PSE perceived a problem in meeting Eastside's future local load demand.

35. It is completely inappropriate to have PSE retail customers be responsible for the large financial and environmental impacts that would occur if the Energize Eastside project is built, because as a dual-purpose project the costs for it should be allocated according to the percentage benefit bestowed on each party, in this case PSE and BPA. PSE has stated publicly and often that Energize Eastside is just an "Eastside local load project" with only "ancillary benefit to the grid of 3% to 8%."[11] The PSE studies need to remove this 1500 MW flow from the Puget Sound area to Canada, and those studies need to be performed by a disinterested ColumbiaGrid, not PSE, as required in PSE's Compliance Filing regarding FERC Order 1000.

36. A load flow study performed by USE for the City of Bellevue[12] shows that if this 1500 MW flow to Canada is removed from the study, then there is only a single overload of a

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[10] The WECC Guideline: 2014 Base Case Compilation suggested Target for interchange transaction for northbound flows to Canada in winter load flow cases is 1,000 MW unless anticipated operating conditions become more clearly known. This document is available at https://www.wecc.biz/Reliability/2014_Base_Case_Compilation_Schedule-R1.pdf.

[11] PSE testimony before the Bellevue City Council; see YouTube video at https://www.youtube.com/watch?v=jJae_YkK298

[12] The full report is available at http://www.bellevuewa.gov/pdf/PCD/COB_Independent_Technical_Analysis_1-3.pdf. See also CENSE's criticisms of that report in a document that I co-authored, at http://cense.org/CENSE-rejects-USE-report.pdf.

single 230/115 KV transformer on PSE's system under high winter load periods with outage contingencies. These results are shown in this graph on p. 65 of the report USE submitted, with the specific test parameters and results highlighted :

Table B.2: Winter 2019/20, 100% Conservation - Overloaded Elements

Northern Intertie: South to North	2019/20 Normal Winter 100% Conservation						2019/20 Extreme Winter, 100% Cons.		
Overloaded Element (Transmission Line or Transformer)	1) Original PSE Case	2) Reduce Eastside load growth to 1.5%	3) Reduce PSE's King County growth to 0.25%[50]	4) Increase Puget Sound area generation	5) Set Load transfers to Canada = 0 (North. Intertie = 0)	6) Combination of Scenario 4 and & 5	E1) Original PSE Case adjusted for extreme weather	E2) Set Load transfers to Canada = 0 (North. Intertie = 0)	E3) Scenario E2 + Increase Puget Sound area generation
Talbot Hill - Lakeside #1 115 kV line	OL	OL	OL	OL			OL		
Talbot Hill - Lakeside #2 115 kV line	OL	OL	OL	OL			OL		
Talbot Hill 230-115 kV transformer #1	OL	OL	OL				OL	OL	OL
Talbot Hill 230-115 kV transformer #2	OL	OL	OL	OL	OL	OL	OL	OL	OL
Talbot Hill-Boeing Renton-Shuffleton 115 kV line	OL	OL	OL				OL		
Sammamish 230/115 kV transformer #1									OL
Sammamish 230/115 kV transformer #2								OL	OL

OL = Overload of Emergency Rating. Source: OTA Results

37. The Energize Eastside project is not needed to fix this one possible transformer overload of unknown magnitude.[13] As is discussed in detail in Section B below, the PSE and USE load flow studies for some inexplicable reason did not include 1435 MW of 8 PSE controlled western Washington natural gas fired generators, including generators built precisely to respond to heavy peak load events. They were simply turned off. That makes no sense and creates the inappropriate results in the PSE and USE load flow studies.

38. Utilizing those 8 natural gas fired plants in extreme winter peak load simulations plus temporarily curtailing/dropping the Canadian 1500 MW flow would very likely further reduce or completely eliminate the overload on this transformer. Proper optimal flow

[13] A fully transparent study, as required by FERC Order 1000, would also disclose the magnitude of the overload so we would know how serious that would be.

tests conducted by ColumbiaGrid would conclusively give us the definitive answer.

B. PSE's Studies Inexplicably and Inappropriately Did Not Run Most of PSE's Western Washington Generating Plants.

39. It is widely understood that locating generation closer to load will reduce the need for transmission lines. For many years PSE generation supplies were primarily those located at five dams on the Columbia River in the Wenatchee area. Further, PSE owns a large share of large coal plants located in Montana. There is considerable transmission needed to move this remotely located power supply to PSE's service territory in Western Washington.

40. However, starting in the late 1980s and through the 1990s and beyond, PSE has built and/or acquired considerable natural gas-fired resources in its service territory in Western Washington.

41. But in running its transmission studies that purport to demonstrate the need for the Energize Eastside line, PSE's transmission studies assumed that 6 natural gas-fired generators totaling about 1357 MW of PSE-controlled natural gas-fired generation would not be running. As previously noted, this makes no sense. When ColumbiaGrid did their 2012 System Assessment of winter conditions these 6 natural gas fired generators were shown to be generating 1302 MW. Attachment L. That is 1302 MW more than the amounts used by PSE/Quanta and USE in their load flow studies. See the comparison chart in Attachment M between how those entities modeled the MW output of these available generators vs. how ColumbiaGrid modeled the MW from them as documented in Attachment L. There is no acceptable excuse for PSE /Quanta's and USE's methodology.

42. Further, the PSE and USE studies assumed that 2 additional PSE-controlled natural gas-fired generators would be running at 77 MW below their full-out capability. When ColumbiaGrid did their 2012 System Assessment of winter conditions, Attachment L, these 6 natural gas fired generators were shown to be generating 64 MW more than the amounts used by PSE and USE.

43. *The purpose for PSE acquiring all of this natural gas-fired generation was to be able to demonstrate that PSE could reliably meet its load obligations in extreme cold winter load events*. Without these generators running, it is unclear where PSE would be getting the power to meet its winter peak load in these studies. Further, it is irresponsible for PSE's transmission modelers to not ascertain whether overloads would be reduced or eliminated if these resources were turned on for the simulations. This is not an appropriate way to do a legitimate study.

44. USE ran a load flow study commissioned by the City of Bellevue with more, but not nearly all, of the PSE natural gas-fired generators running and was able to show reduced overloading on lines. See the chart in Paragraph 36 above. But no one has run an Optimal Power Flow model[14]for Energize Eastside to find the right amount of this natural gas-fired generation to turn on to minimize line overloads. And no one has tested turning on all these resources. This is a serious and inexplicable flaw in PSE's studies that needs to be fixed. I believe that if ColumbiaGrid did these studies, this flaw would be fixed.

[14] An Optimal Power Flow (OPF) model is one that seeks to find the best generation dispatch pattern to economically meet the demand for power while minimizing and/or eliminating overloads on the transmission infrastructure. This is a more elaborate model than the simple Power Flow (PF) model. In the PF model, the modeler needs to specify the generators that should be running to meet the load and an artificial "slack bus" generator makes up for any resulting mismatch between generation and load.

C. PSE's Studies Did Not Look at Obvious Alternatives to The Energize Eastside Project.

45. If future-looking study of the transmission grid indicates there may be a reliability problem in the near future if something is not done to the system, then a number of hitherto overlooked options for eliminating this forecast reliability problem need to be studied.

46. I have already been able to identify four promising alternatives to the Energize Eastside project that may quite likely be preferred alternatives for dealing with the forecast reliability problem. PSE has not provided any demonstration that they have performed studies of *any* of these four options.

47. These four options all require an initial brainstorming of any possible required ColumbiaGrid to Canada flows, of whatever nature or kind. Unless someone can provide a legitimate reason that the studies should require flows to Canada (I know of no such reason), the studies should assume zero flow to Canada.[15] Once it is determined what PSE's obligations are with respect to those inter-regional flows, if indeed there are any, then the study options should simulate the following four scenarios, each scenario to be run independently from the others:

a. Turn on the west side generators and fix any 115 KV lines or transformers that still seem to be having problems.

b. Turn on the west side generation and add a third 230/115 KV substation at Talbot Hill. Fix any remaining 115 KV lines that may still need to be fixed.

[15] BPA and BC Hydro have known for years that they cannot provide "Firm" 1,500 MW of transfer to Canada. So BPA and BCHydro have agreed to install Remedial Action Schemes (aka RAS) and have instituted an "automated transmission curtailment procedure" to allow higher levels of transfer to Canada with the understanding that these mechanisms can be called upon if necessary. As such, the transfers to Canada could be considered "Quasi-Firm"or "Conditional Firm" Transmission Service. The load flow studies did not acknowledge these mechanisms.

c. Turn on the west side generators and build a new 230/115 transformer at Lakeside. Feed the high side of the 230/115 KV transformer by looping the existing Seattle City Lines to that transformer.[16]

d. Turn on the west side generators and build the Lake Tradition alternative that Puget has planned to build several years ago to meet growing City of Bellevue loads.[17] Fix any possible remaining 115 KV line overloads that may be shown to occur.

48. While I believe it is highly probable that any one of these alternatives could be made to meet the 2017/2018 reliability requirements on PSE's system at a lower cost and lower environmental impact than the Energize Eastside project, I understand that it would be better to do a proper set of flow studies and be reliably informed, and indeed really for the first time. ColumbiaGrid should study these alternatives to the Energize Eastside plan for reasons already stated above.

III. PSE REJECTED COMPLAINANTS' INVITATION TO COMPLY WITH FERC ORDER 1000 IN A JOINT, COOPERATIVE EFFORT

A. PSE Refuses to Engage in Regional Transmission Planning

49. Regional Transmission Planning as required by FERC Order 1000 would allow entities impacted by any proposed transmission project to participate in the process. Studying the system as if a single utility owned all relevant generating, transmission, and distribution facilities would enhance efficiency and reduce duplication of facilities,

16 It should be noted that PSE from the outset when announcing Energize Eastside repeatedly stated that tying into the SCL's Eastside lines was always "its first choice for a route for Energize Eastside," but SCL allegedly refused PSE's offer to use those SCL lines, stating it "preferred' to retain its Eastside corridor for various self-serving reasons, including "possible future use," contrary to the "single utility" planning principles of ColumbiaGrid and FERC as expressed in its Orders 890 and 1000. See Attachment K, letter from SCL to the City of Bellevue. Note that SCL has never publicly refused to share its Eastside lines with PSE.

17 Indeed, this and other alternatives were under active consideration as recently as 2009. See Attachment N, page 17 of PSE's PowerPoint presentation, "King County 230/115 kV Transformation," September 23, 2009.

environmental impacts, and costs. FERC Order 1000 expressly requires such a single entity methodology.

50. ColumbiaGrid, BPA and SCL have chosen not to engage in this single utility process. In a letter from Complainants to BPA, SCL and ColumbiaGrid dated May 15, 2015, Attachment F, BPA, SCL and ColumbiaGrid were specifically asked by Complainants to have ColumbiaGrid perform specific studies of alternatives to the Energize Eastside line. BPA did not respond to Complainants as requested, and ColumbiaGrid replied on June 5, 2015, on the eve of Complainants' filing of their complaint and this affidavit. ColumbiaGrid's letter is Attachment BB. It may not be surprising that BPA did not respond since (according to FERC's May 14, 2015 Order on May 14, 2015 in Docket Nos. ER15-422 and ER15-429, 151 FERC ¶ 61,127) BPA did not even respond to a FERC Order to make a revised FERC 1000 Compliance filing. SCL also responded to the letter. Attachment O. In their response SCL asserted it is a non-jurisdictional utility with respect to the Federal Energy Regulatory Commission (FERC). However, in their letter SCL acknowledges that it is a member of ColumbiaGrid and, through it, SCL participates in regional transmission planning in an effort to improve reliability and efficient use of the Transmission Grid. SCL did not directly respond to Complainants' request that they cause ColumbiaGrid to perform the transmission studies Complainants are asking to have done. In its letter SCL does not acknowledge that it faces serious reciprocity repercussions if it does not agree to follow FERC public policy initiatives.[18] It is my understanding that reciprocity is an important matter for SCL's finances.[19]

[18] This is a key issue currently under discussion in FERC Docket Nos. ER15-422 and ER15-429; see, e.g. the FERC May 14, 2015, Order at 151 FERC ¶ 61,127, whether "non-jurisdictional" government-owned utilities are exempt from Order 1000 compliance or are nonetheless required to comply with Order 1000 policies in accordance with agreed reciprocity provisions. I subscribe to this latter point of view and believe Order 1000

51. ColumbiaGrid's letter, Attachment BB, rejects Complainants' request to do the load flow studies requested in Attachment F. Instead, ColumbiaGrid claims that is has done the needed studies. But it has not performed the studies we have requested be done. Those studies need to be done by ColumbiaGrid if ColumbiaGrid is to perform its proper role as a FERC-authorized Regional Entity. ColumbiaGrid describes some of its missions, but fails to acknowledge in its letter that it has a key role in Planning and Expansion. As stated on the ColumbiaGrid website: "*ColumbiaGrid provides single-utility based transmission planning for the combined network of its participating utilities. The goal of the program is to solve transmission issues regarding what should be built, who should build it, and who should pay for it*." https://www.columbiagrid.org. I find it particularly problematic that ColumbiaGrid would not respond positively to our request to study alternatives to the Energize Eastside line. It may well be because ColumbiaGrid is not truly an independent organization.

52. While ColumbiaGrid may claim to have an independent Board, the fact is that its Board is elected by its members. If a Board member likes his job, then it can be expected that the Board member will be attentive to the desires of those who elect him or her. It is clear that the ColumbiaGrid voting members are resisting ColumbiaGrid acting as a Regional Entity even though ColumbiaGrid members have told FERC that ColumbiaGrid will be the Regional Entity that allows them to comply with FERC Order 890 (and some believe, as I do, it is the Regional Entity that allows them to comply with FERC Order 1000 as well).

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compliance is unworkable and illusory if government-owned utilities can simply opt out on formalistic legal arguments while still reaping system benefits from reciprocity.

[19] Reciprocity means SCL grants open access to its transmission system under FERC approval of its reciprocity arrangements, which entitles SCL to receive open access transmission service from other transmission providers.

53. FERC is keenly aware of these issues surrounding the independence of Boards. For example, in the year 2005 FERC issued two orders on July 1, 2005 (Docket Nos. ER04-445 and EL05-114) relating to the independence and methods of appointing the Board of the California ISO. FERC Order EL05-114 set up a several-step process for selecting CAISO Board members that involved a search firm identifying qualified candidates, a large group of stakeholders to rank the candidates identified by the search firm, and finally the Governor of the State of California was to choose from either the ranked candidates provided to him or others of his own choosing. ColumbiaGrid should be required to insert similar methods in the selection process for its Board so that it exercises the supervision and control of regional projects so seriously lacking in the case of Energize Eastside The current method that ColumbiaGrid uses to select its Board members does not appear to meet the independence requirements in Order 2000.

54. PSE has chosen not to engage in the Order 1000 single utility process. In a letter from Complainants to PSE dated May 8, 2015, Attachment E, PSE was specifically asked by Complainants to perform its studies in this single utility manner as PSE promised FERC they would and is obligated to do under FERC Order 1000. PSE has refused to do so; see its letter in reply dated May 22, 2015, Attachment P.

55. PSE's May 22, 2015 letter is a clear example of the necessity for FERC Order 1000. That letter demonstrates PSE's failure to acknowledge that an 18-mile double-circuit 230 KV line is interconnected to the grid on both ends. It is in fact a part of the Bulk Electric System (BES) as defined by FERC in Docket Nos. RM12 -6-000 and RM12-7-000, Order No. 773. That Order established a bright-line threshold so that any facility above 100 KV is defined to be part of the Bulk Electric System.

56. PSE calls its Energize Eastside project a "local load-serving project," but clearly it is a part of the Bulk Electric System as defined by FERC.[20] Further, it is clear that ColumbiaGrid recognized that the PSE-sponsored Energize Eastside project served the dual purpose of meeting local load and solving the greater Puget Sound Area problems.[21] In its attempts to justify its need for the Energize Eastside Project, PSE has inappropriately run its own studies in-house and not by a Regional Entity operating under the requirements of FERC Order 1000. Further, the studies have not been performed in a transparent fashion as required by FERC Order 1000.

57. PSE's May 22, 2015 letter rejected Complainants' request that ColumbiaGrid analyze specific alternatives to the Energize Eastside project. PSE's and ColumbiaGrid's failure to conduct the analyses and studies for the potential need and utility of Energize Eastside violated FERC Order 890, issued in February of 2007. Order 890, incorporated in toto in Order 1000, sets clear guidelines as to how FERC requires certain processes to be done. For example, as to regional transmission planning, only Regional Entities such as ColumbiaGrid have the right and responsibility to work through a defined process (including conducting such things as load flow studies) that follows a regional agenda that should be set exclusively by ColumbiaGrid for determining what reliability issues need to be addressed. Interested parties such as PSE and SCL and others are supposed to be informed of the identified reliability issues and given an opportunity to propose fixes to those problems.

[20] The Energize Eastside does not fall under Bulk Electric System Exclusion E3 for several reasons including the fact that the studies done to justify Energize Eastside were designed so that Energize Eastside would increase the ability to provide an alleged Firm Transmission Service to Canada to 1,500 MW.

[21] See Attachment Q, a June 12, 2014 email from Marv Landauer, ColumbiaGrid Principal Planning Engineer to Hal Mozer, in which Mr. Landauer points out that the PSE Proposed project was chosen over the Seattle City Light project because the SCL project did not meet PSE local load needs while the PSE proposed Energize Eastside line met both the local need and the greater Puget Sound Area need. .

58. This regional entity-directed process is undermined if, as in the case of Energize Eastside, a single member utility decides to promote its own project in the region and lobbies for its acceptance by ColumbiaGrid, ignoring Order 1000's single utility rule. PSE did just that with Energize Eastside. In 2011, ColumbiaGrid, violating Orders 890 and 1000, allowed PSE to go forward with its "Sammamish-Lakeside-Talbot" project – later renamed in 2013 "Energize Eastside" – even though in its "Updated Recommended Transmission Expansion Plan for the Puget Sound Area to Support Winter South-to-North Transfers" report, Attachment R, it identified a cheaper and more productive candidate in a better project that would have entailed upgrading SCL's lines on the Eastside.. The Order 890 process here was insufficiently transparent and was guided by the parochial interests of PSE on an impermissible "first come, first served" basis.

59. Further, PSE's and ColumbiaGrid's acts violated commitments they made to FERC to comply with Order 890. In a series of filings with FERC, PSE, SCL and BPA, along with other ColumbiaGrid participants, committed themselves in Compliance Filings that ColumbiaGrid would be the Regional Entity to initiate and manage the regional planning processes, and they pledged to act in compliance with that regimen. They completely failed to do so with regard to PSE's Energize Eastside project.

60. PSE claims that its consultants, Quanta, and Utility System Efficiencies, Inc. (USE), an independent consultant hired by the City of Bellevue, have conducted multiple studies on the need for the Energize Eastside project. Yet the important studies that Complainants have asked PSE to request ColumbiaGrid to conduct have yet to be run by anybody. Nor have PSE and USE run their studies in a transparent fashion – data normally available from such studies have not been published or produced when

requested. Further, the studies have not been done pursuant to the single-utility principle as required by FERC Order 1000.

61. In its May 22, 2015 letter, Attachment P, PSE indicates that USE concluded the Energize Eastside project is necessary, but those studies also indicate that if there is no requirement to deliver 1500 MW to Canada on a firm basis, the only overload is a relatively minor and manageable overload of a 230/115 KV transformer at Talbot Hill. See highlighted fifth case in the graphic included in Paragraph 36 above.

62. It does not take an 18-mile double-circuit 230 KV line to remedy an overload on a 230/115 KV transformer. And there is no evidence known to me that there is a Firm Transmission requirement to deliver 1,500 MW to Canada, in any event. In fact, the evidence is to the contrary. It has been known for over 15 years that the BES is not capable of delivering 1500 MW of power to Canada on a Firm basis. If that had been a requirement, then the facilities needed to accomplish that would have been identified and put in place by the responsible parties many years before the expected 2018 operation date of the Energize Eastside project.

63. Since the Energize Eastside project is intended to meet both local load and a perceived need to provide 1500 MW of Firm Transfers (or to increase the Path Rating from 2,000 MW to 3,000 MW) to Canada, then the project is by definition not a local load-serving project.

64. PSE's May 22, 2015 letter, Attachment P, also states that ColumbiaGrid completed necessary studies and determined that the Energize Eastside project "will fit into the regional grid." However, as the Regional Entity identified as the entity that will bring PSE into compliance with FERC Order 1000, ColumbiaGrid needs to do much more than conclude that the Energize Eastside project will "fit into the regional grid." Per

FERC Order 1000, ColumbiaGrid needs first to do studies of future years (e.g. 2018) with the BES as it exists today. Then ColumbiaGrid must determine whether from those studies there may be a reliability problem within the regional perspective.

65. No one at ColumbiaGrid or elsewhere has done such a proper study. Any such proper study would run as many existing PSE generators as are available if they can be engaged to help solve overloads. Neither PSE nor USE has done a study where all of PSE's generators are running.[22] This is especially problematic given that PSE is 1,500 MW short of having enough generating supply to demonstrate it is "Resource Adequate" in the year 2018 even with all of PSE's generation running. See, e.g., page 1-5 of PSE's 2013 IRP, Attachment I. To shut down 1,400 MW of existing resource when PSE is already 1,500 MW short of enough power to meet its peak load needs renders the PSE and USE studies ridiculous.

66. In a proper FERC Order 1000 process, after running an initial study for a project like Energize Eastside, it is *ColumbiaGrid's* responsibility to identify a possible reliability issue. If it concludes there is such an issue, then interested parties should be informed and they should have an opportunity to propose alternatives and have studies performed on those proposed alternatives in a transparent process. This has not been done.

67. If, as a result of such studies, the grid needs to be enhanced with facilities that address both local and regional needs (as clearly Energize Eastside is intended to do when it is designed to increase the Firm Transmission capacity to Canada to 1500 MW or accommodate an increase of Path Rating from 2000 MW to 3000 MW), then

[22] This includes 8 western Washington generators that were specifically built to handle peak loads. If they are then not included in simulations of extreme peak load scenarios, then why were these generators built? Their failure to be turned on in PSE and USE studies is problematic. Equally strange is USE's turning on only some of these generators, rated for a total of approximately 500 MW, but not all of the approximately 1,400 MW that was available. No responsible modeler would simply accept bizarre results from these studies, let alone present them to decision makers as legitimate.

ColumbiaGrid also needs to perform an analysis of the proper cost allocations of the project. In addition, it further needs to put the project out for RFPs and bids from any qualified party to build and own the project. ColumbiaGrid has not done any of these things. All of the foregoing omissions by ColumbiaGrid and PSE are violations of FERC Order 1000.

68. In its FERC Order 1000 Compliance filing dated October 11, 2012, Attachment B, PSE told FERC that ColumbiaGrid is to conduct such activities consistent with the PEFA and is to endeavor to:

> (i) facilitate analysis of Proposed Projects as if a single utility owned all relevant generating, transmission, and distribution facilities to enhance efficiency and reduce duplication of facilities, environmental impacts, and cost.

However, it is apparent from their filings in FERC Docket Nos. ER15-429 and ER15-422 that PSE, BPA, SCL and others in the Northwest are attempting to evade compliance with FERC Order 1000 and in various ways consider themselves exempt. For example, BPA has stated that they would prefer to give up reciprocity in order to avoid having to comply with FERC Order 1000. See "Clarifying BPA Obligations, Strategic Intent Paper, 1-29-2015," available online at www.bpa.gov/news/AboutUs/Documents/20150129-Strategic-Intent-Paper.pdf.[23] BPA, SCL and other utilities prefer to operate as utilities performing studies in their back rooms and building whatever they want. See Attachment D. FERC Order 1000 is designed to stop that sort of behavior in order to enhance efficiency and reduce duplication of facilities, harmful environmental impacts, and unnecessary costs.

[23] An excerpt from p. 5 of that document: "Ultimately, if BPA determines that it cannot honor its statutory and contractual responsibilities through *pro forma* language adopted in its existing OATT, BPA will consider revising its OATT and moving away from *pro forma* in those areas, as needed. In that event, BPA may not continue to pursue reciprocity and will not file its tariff at FERC for approval. Regardless of BPA's reciprocity status, BPA will continue to engage in regional and national energy policies related to issues important to the agency and its stakeholders."

69. By refusing to study available and likely better alternatives via an independent and transparent process as required by FERC Order 1000, PSE plans to move forward unilaterally with the Energize Eastside project, a project that will not enhance efficiency and reduce duplication of facilities, harmful environmental impacts, and unnecessary costs.[24] Even more disturbing is the fact that PSE would unfairly place the burden of the inappropriate duplication of facilities and the large environmental impacts and unnecessary costs on its own customers.

70. In other areas of the country utilities have formed Independent System Operators (ISOs) or Regional Transmission Operators (RTOs). An ISO and a RTO are similar. The delineation between an ISO and an RTO is subtle.

67. ColumbiaGrid, a nonprofit corporation, is not a regional transmission organization (RTO) and has no plans to become one, but instead seeks to achieve many of the benefits of an RTO through incremental additions to its functions. As a membership private corporation, its activities are not subject to federal FOIA or state public records requests laws, so much of what it does is not transparent to the public.

68. ColumbiaGrid was formed after some of its members chose not to continue in efforts to form Grid West, a Northwest evolutionary structure with the ability to add functions and to move toward independent grid management.

69. It is my understanding that FERC allowed its jurisdictional utilities in the Northwest to avoid forming an ISO or RTO as the usual vehicles for complying with FERC Order 1000 because of these utilities' promises to FERC regarding their newly formed ColumbiaGrid organization and its associated ColumbiaGrid Planning and Expansion

[24]Note p, 2, paragraph (c) of Attachment C: "ColumbiaGrid itself does not try to take environmental impacts into account in their Plan. In their opinion, that should be happening in SEPA or NEPA processes." Yet FERC Order 1000 requires ColumbiaGrid's own independent assessment of environmental impacts when choosing which projects within its region appear desirable.

Functional Agreement ("PEFA"). This special and unique arrangement for ColumbiaGrid and its members does not excuse noncompliance with FERC Orders 1000 by its members, including PSE, BPA and SCL.

70. ColumbiaGrid performed some load flow studies in the years 2010/11 to see how the "Path Rating"[25] to Canada could be increased from 2,000 MW to 3,000 MW. BPA had requested such a study be done because they wanted to get this Path Rating increase, and not because of any firm requirement. ColumbiaGrid initially concluded at the time that enhancements to an existing SCL line would be the best solution.[26] PSE came to that study group and said they needed a new 230/115 KV transformer at Lakeside, and that the transformer would need to be connected to a 230 KV transmission line. [27]

71. So ColumbiaGrid studied not only enhancing the existing SCL line on the Eastside, but also looping that line into the PSE Lakeside substation. But then PSE came to the ColumbiaGrid study group and said their plans were firm on building the Energize Eastside line,[28] so there was no need to enhance the existing SCL line and loop it into Lakeside. ColumbiaGrid acknowledged that PSE's Energize Eastside line would not only meet PSEs need to serve growing load in the City of Bellevue, but would also allow the Path Rating to Canada be increased from 2,000 MW to 3,000 MW as BPA

[25] The term "Path Rating" is used in WECC in the same way that FERC uses the term "System Operating Limit" or "SOL."

[26] See Attachment S, which contains excerpts from Attachment R, "ColumbiaGrid 2011 Updated Recommended Transmission Expansion Plan for the Puget Sound Area to Support Winter South-to-North Transfers," and it also includes this conclusion: "I conclude from the above that there was an awareness by ColumbiaGrid and its members that some combination of fixes combining pieces of SCL's and PSE's Eastside lines could have led to an optimized solution, but instead of ColumbiaGrid following through by enforcing the FERC single utility rule, possible optimal options were left hanging in the air. Without further involvement by ColumbiaGrid to help identify a preferred solution rather than just accepting the fact that PSE had decided on its own to build Energize Eastside, PSE was wrongfully given carte blanche to build the Energize Eastside line any way it wanted to." .

27 Id.

28 Known to ColumbiaGrid then (and now) under a different name, "Sammamish-Lakeside-Talbot" and offered at that time as a regional grid congestion solution. PSE changed the "Sammamish-Lakeside-Talbot" name to "Energize Eastside" when making a public launch in December 2013, and now "Energize Eastside" is touted as "primarily a local Eastside load" solution with "only 3% to 8% benefit" to the regional grid. See PSE testimony before the Bellevue City Council at https://www.youtube.com/watch?v=jJae_YkK298

wished it would be. ColumbiaGrid has not been asked by PSE to do any studies on this matter since the 2011 ColumbiaGrid Plan, as evidenced by the Transmission Plans published by ColumbiaGrid since that time.

72. After the completion of the ColumbiaGrid studies in 2011, BPA, PSE and SCL negotiated and signed a Memorandum of Agreement in 2012 relating to preferred Puget Sound area plan of service projects. Attachment T. See various drafts created since that agreement seeking ways to modify and "clarify" it, though apparently never signed. Attachments U through X. In this agreement there is a statement that earlier in 2011 the parties had agreed on a Temporary Operational Support Program for relieving forecast transmission congestion. The Agreement went on to describe the agreed-upon plan and what each party would contribute to it. BPA was to build some facilities and pay some money. PSE was to build what is now called the Energize Eastside project. The estimated cost of the Energize Eastside project was $70 million, including the cost of the line and a 230/115 KV transformer at Lakeside.[29]

73. By the year 2015, the estimated cost of the Energize Eastside project had jumped to $200 million, apparently because PSE had come to the understanding that the 115 KV lines could not be removed for conversion to 230 KV until the 230KV was already in place and operating. That required a complete redesign of the Energize Eastside project and a very large increase in cost.[30]

[29] The drafts contemplating amending the 2012 MOA, Attachment T, going all the way into 2015 show an evolution of BPA's and SCL's financial participation in Energize Eastside, until they decide to avoid direct participation in the project, apparently since, as implied in the agreement, the parties wanted to avoid NEPA involvement.

[30] Latest cost estimates vary from $176 million to $154 million, according to http://www.energizeeastside.com/Media/Default/CAG/Meeting4a/7_CAG_UpdatedDataTable_2014_0625.pdf. However, these estimates were made before PSE discovered they needed to install double poles along some parts of the route due to the location of the Olympic Pipeline within the right of way, so these estimates may be low.

74. By 2015 the 2012 Memorandum of Agreement, Attachment T, was no longer representing the true cost of the EE project. That cost had increased substantially and BPA, who is the main beneficiary of the EE line because of the increase in ability to move power to Canada over the BPA 500 KV lines to Canada, is no longer paying an appropriate share of the cost of the EE line. Given the benefits to BPA of the EE line and the fact that BPA is enabling the construction of that line by paying some (but not nearly enough) of the cost of the EE line, NEPA review is required for this project.[31]

75. The parties chose the PSE Energize Eastside project without giving any consideration to its environmental impacts or considering the environmental impacts of alternatives. It was simply noted that PSE's project was, at the time, expected to be lower cost than BPA's project. However, since that time the cost of PSE's Energize Eastside project has escalated dramatically. No effort has been made to revisit the choice to take into account environmental impact differences and revised economics.

76. Meanwhile, there is not now nor any time soon a risk of blackout in the Northwest with anything like the scale of the 2003 blackout in the Northeast (caused by cascading failures due to utilities' failure to trim or cut down trees), because of the operations of the Pacific Northwest Security Coordinator. Further, Canada has not made any formal claim that they have a Firm Transmission Right that is not being delivered upon. PSE

[31] BPA in handwritten meeting notes produced in a FOIA request appears to agree. Attachment Y. These notes make several references to NEPA being required for EE, including these (page references are to the Attachment pdf): P. 1: "*NEPA - proposed to Puget that all Nepa be associated with Lakeside Transformer"; "ask who have Mike & Angela been talking to at Puget about NEPA? Where did they leave it? [red ink] didn't discuss with Puget staff". P. 2: "Jana will check on NEPA funding for SCL & Puget projects".
P. 6:
"John Phillips -
Eastside 230 project - 2018
Permitting folks hot to go to identify
substations & start NEPA process
LeAnn talked to permitting person Friday"

has grossly exaggerated the reliability threat it has claimed in order to justify building Energize Eastside. Other cheaper, more efficient and less environmentally destructive alternatives to Energize Eastside exist that would meet the much smaller local future reliability concerns of the Eastside, and they are discussed later in this affidavit in Section IV.

B. Flows to Canada

77. Flows to Canada often are discussed in the context of the Columbia River Treaty. The Columbia River Treaty is a 1964 agreement between Canada and the United States on the development and operation of dams in the upper Columbia River basin for power and flood control benefits to both countries. Four dams were constructed under this treaty: three in Canada (Duncan Dam, Mica Dam, Keenleyside Dam) and one in the United States (Libby Dam).

78. The treaty provided for the sharing with Canada of one-half of the downstream U.S. power benefits. In other words, before the construction of the large water storage dams on the Columbia River in Canada, there would be many times during the year when uncontrolled flows on the Columbia River were simply not useable at US power plants located in the US portion of the Columbia River.

79. With more power usable in the US, the agreement was that half of the additional energy and capacity that would be generated at the US dams would be given to Canada. The treaty negotiators recognized that there needed to be transmission to deliver that power to Canada, so the treaty provided that the power would be delivered to a point near Oliver, British Columbia. Oliver is a town on the US/Canadian border in Southeast British Columbia, north of Grand Coulee.

80. The treaty envisioned that the BPA would build a new transmission line north in Eastern Washington to Oliver. BC Hydro (BCH) would build a new transmission line from its system in British Columbia to meet the new Bonneville Power line. By agreement of everyone, Canada did not need nor want their share of the Treaty Power. So all parties agreed that for the first 30 years of the treaty all of Canada's share would be sold to California entities. This in fact became the economic justification for building the first major tie lines between the Northwest and California.

81. With the line to Oliver that the treaty contemplated, there would have been no impact on transmission line loading in Western Washington, and PSE customers would not have had any financial and environmental impacts from the delivery.

82. In 1998, BPA and BCH decided neither one of them wanted to pay for the new line specified in the treaty. So in 1998 the US and Canada agreed on new treaty terms that allowed BC Hydro to market its share of treaty energy in the United States if it chose rather than having to accept delivery in Canada. This allowed BCH and BPA to avoid building the lines to Oliver.

83. BPA and BCH were well aware at the time that by choosing not to build the line to Oliver that there would be times when the power could not be delivered to BCH even if BCH wanted it. BPA therefore put in place an operating procedure to curtail flows to Canada anytime such flows might cause overloads on transmission lines in western Washington. In the year 2007 BPA put in place an automatic curtailment scheme to accomplish this same purpose.

84. Often BCH did not want delivery of the power to Canada. It is widely known in the power industry that instead of using this power to meet BCH load, BCH finds it more lucrative to sell the power to entities in the United States. So, as is commonly known in

the industry, they ask BPA to deliver the power to a point where a US purchaser of the power could take delivery.

85. BCH does not count on their share of Canadian Entitlement power to meet their peak load needs. See BCHydro 2013 IRP, the relevant excerpt of which is Attachment Z. Over the course of the 60-year life of the treaty, if BPA and BCH had ever considered it a priority that Canada's share of the Canadian Treaty power be delivered to Canada at all times, even during winter extreme peak load events, the BPA and BCH would long ago have built whatever transmission that would have been necessary to accomplish that. They could, for example, have built the lines called for in the treaty itself.[32]

86. In any event, PSE and its customers should not be responsible for the financial and environmental burdens of building new transmission capacity for that purpose. The ColumbiaGrid studies of PSE's needs should be done with no flow between Canada and the US. This would also be consistent with PSE's many protestations that Energize Eastside is supposedly just a local Eastside load project, anyway.

87. That actual amount of the Canadian Treaty Capacity is, by the way, currently about 1300 MW of capacity, not the 1500 MW that PSE and USE used in their load flow studies. It is reasonable to assume and can be expected that if BCH and BPA are required to pay for new transmission to accommodate 1500 MW that BCH and BPA will instead decide to simply continue to deliver Canada's share of the Canadian Entitlement to a US entity during these peak load events. BCH will get a very good price for any power it sells to a US entity during these peak load events. Indeed, since PSE is clearly hugely short on power to cover its system peak load in these conditions (see discussion below), PSE is the likely purchaser of BCHydro's share of Treaty power

32 The full text of the treaty can be found at http://www.ccrh.org/comm/river/docs/cotreaty.htm.

under these conditions.

C. PSE Does Not Have Adequate Power Generation Resources to Meet Future Load

88. PSE is required to demonstrate in its Integrated Resource Plans (IRP) filed with the Washington Utilities and Transportation Commission ("WUTC") that it has adequate resources to cover its current and future peak load events. PSE needs to assure WUTC that it has sufficient transmission infrastructure to transport PSE generation to meet loads without violating FERC/NERC reliability requirements.

89. In the last 30 years PSE moved from a mostly hydro-based utility (with much of its hydro on the Columbia River near Wenatchee) to a combination coal/hydro based utility (with most of its coal located in Montana), thence to a combination hydro/coal/natural gas-based utility. In that mix PSE has added considerable renewable power through its wind plants.

90. PSE's 2013 Integrated Resource Plan at Figure 1-1, Attachment I, shows PSE needs more than the capacity it currently has in order to demonstrate resource adequacy. It shows a need for an additional 1500 MW of new capacity by the year 2018 in order to cover its estimated 6000 MW peak load and provide an appropriate level of reserves.

91. PSE apparently has not determined where it will get this additional 1500 MW of supply at this time. Clearly PSE will need to run **all** its resources including its combined cycle and simple cycle gas fired generators to cover an arctic event winter peak load in 2018, including the 1400 MW of PSE controlled natural gas plants PSE and USE did not include in their power flow studies.

92. When the transmission planners do not run 1400 MW of PSE's natural gas-fired resource in this peak loading condition it causes one to wonder: Where do those transmission planners believe that PSE's power will be coming from in that high load

event in 2017/2018? Clearly the transmission studies need to have these resources running, even if not needed to relieve transmission overloads, but just in order to simply meet the peak load.

93. Further, PSE generation supply needs to identify an additional 1500 MW of generation to be available to PSE by 2018. Locating needed new supply in Western Washington near Bellevue would help meet Bellevue peak load. It may be that other surplus generation in WECC (plants not owned by PSE) may be available to help PSE meet its peak load. But those resources would only be used if studies show they are more economical to run and can be run without causing transmission system problems.

94. An Optimal Power Flow ("OPF") is a computer modeling tool that picks the most economic resources to run to meet load without exposing the system to transmission reliability issues. The ColumbiaGrid studies need to be run with an OPF model. If a Power Flow (PF) model that is not an OPF model is run, then the modelers will need to perform many iterative runs to find the most appropriate generation dispatch pattern to meet the load without causing transmission overload problems. This manual approach is inefficient and less trustworthy than an OPF and liable to produce the kind of inappropriate results obtained in the PSE and USE power flow studies, such as turning off the western generators while also adding the Canadian entitlement. Those two aspects of the PSE and USE load flow studies are inappropriate, rendering any conclusions based on those studies worthless.

IV. PREFERABLE ALTERNATIVES TO ENERGIZE EASTSIDE

95. Unless someone can provide a legitimate reason that the studies should require flows to Canada, the studies should assume zero flow to Canada. Once an appropriate level of flow on the Northern Intertie is determined for purposes of this study (which

appropriate level would not be 1500 MW and most likely will be zero), and once an OPF model is set up with the data for the incremental operating costs of power plants, the transmission study needs an estimate of substation loading.

96. If the run is for the year 2018, then appropriate analysis needs to be done to see what the loads on transformers will likely be during peak load hours in 2018. Studying historical loading on substation transformers is the normal way to estimate future loads on those substations. Once all of these model inputs are properly set, then transmission reliability load flows can be run.

97. ***The first run*** would be to study the existing system that is in place. PSE has not done such a study. Their load appears to be too high. They are not running existing generation that is available. They are requiring flows to Canada that have no basis to be required. This study may show no need for new transmission for PSE to reliably meet its load. Or it may show some 115 KV line overloads or 230/115 KV transformer bank overloads under contingency conditions. If so, then one needs to see how most cost-effectively to eliminate those overloads. If only 115 KV lines show overloads, then determine how to solve by possibly reconductoring those 115 KV lines. Also, proper studies may show no overloads anywhere.

98. ***A second run*** would be to study the existing system with the addition of a new 230/115 KV transformer bank at Talbot Hill. This new 230/115 KV bank should eliminate any 230/115 KV transformer overloads under contingency analysis and may eliminate some remaining 115 KV line overloads. Then determine how to solve remaining overloads.

99. ***A third run*** would involve building a new 230/115 KV transformer at Lakeside and looping the existing Seattle City Light double circuit 230 KV line through the Lakeside substation to feed the high side of this new 230/115 KV transformer. This loop could

be accomplished for example as follows:

a. As the Seattle City Light line comes from the South and crosses Interstate 90, redirect these lines east parallel to the I-90 corridor until you get to where the proposed Energize Eastside lines would have crossed I-90.

b. Then turn north and have the lines follow the path of the proposed Energize Eastside line to Lakeside substation. Connect them to the new 230/115 KV transformer at Lakeside. Then from Lakeside substation, have the lines continue north on the path that Energize Eastside would have followed until you reach the Lake Hills Connector.

c. When you reach the Lake Hills connector, have the lines turn west toward I-405. When the lines reach the existing Seattle City Light lines where these existing lines cross the Lake Hills Connector, have them turn north and resume their original location heading north from the Lake Hills connector. If there are environmental issues in returning to the existing Seattle City Light lines at the Lake Hills Connector, then have the loop continue a little further north before turning back West to the existing Seattle City Light line. This loop would all be overhead and would have much less environmental impact and cost considerably less than the 18-mile new line. Further, it would allow a section of the Seattle City Light lines going over Woodridge Hill to be removed. That would be an environmental plus from the fact that a transmission eyesore currently in existence in a heavily populated neighborhood can be removed..

100. ***A fourth run*** would be to start with the base case, but instead of the third transformer at Talbot Hill and instead of the looping of the Seattle City Light line through Lakeside Substation, implement the Lake Tradition alternative that PSE had planned for serving growing City of Bellevue load a few years ago.

101. ***Additional generation near Bellevue***. During the California Power Crisis of 2000-2001 (a/k/a the power crisis in the WECC area), Governor Grey Davis put together a task force to get new power supplies online within one year. That task force put out a Request for Proposals for new power plants to be built within a year. The result of that effort was a very large number of 50 MW simple-cycle gas turbines were built within a year and located very near large cities in California.

102. As mentioned above, PSE has identified it needs another 1500 MW of capacity to meet its system load by the year 2018. That need will dramatically increase if the coal-burning Colstrip plant in Montana is shut down. But PSE's 2013 IRP did not address, among other things, the possibility of building 50 MW units somewhere in the greater Eastside area to accomplish the dual objectives of contributing toward a solution for its need for 1500 MW of capacity *and* simultaneously solving a potential Eastside transmission problem. For a good example in this regard of what a modern city like San Diego has done by building a cost-effective peaker plant in a span of just three months, see Attachment AA. This was not some experimental solution; this plant was built in 2001 in just three months.

103. These small simple-cycle generators do not cause significant environmental impact due to the fact that they seldom run — only in periods of arctic events that occur about one time in five years. Why couldn't PSE provide some of their 1500 MW of need with one or two of these 50 MW units located somewhere near the greatest load demand in Bellevue?

V. CONCLUSIONS

104. While I believe it is highly probable that any one of these alternatives could be made to meet the 2018 reliability requirements on PSE's system at a lower cost and lower

environmental impact than the Energize Eastside project, I understand that it would be better to study these alternatives properly to know conclusively. Columbia Grid should study these alternatives to the Energize Eastside plan, and FERC should not allow Energize Eastside to go forward unchecked until reliable evidence for its need and scope are available.

105. PSE was bound by FERC Order No. 1000 and PSE's Compliance Filing that ColumbiaGrid would perform these studies. I should be allowed to participate in those studies and have applied for a renewal of my CEII certification in order to be able to do so. My participation will be meaningful only if ColumbiaGrid performs them.

VI. RECOMMENDATIONS

106. The following are appropriate steps for FERC to take:

a. Stop Energize Eastside now as being noncompliant per Order 1000 for not having been put out to bid, for no cost allocation having been sought and put in place, and for PSE's promoting and justifying the project without required independent flow studies under the mandated and agreed-upon auspices and control of ColumbiaGrid.

b. Stop Energize Eastside now for being a duplicative, unnecessary and wasteful project under the "single utility" and "public interest" principles of Order 1000.

c. Order PSE, SCL and ColumbiaGrid to properly study the need and full range of options to satisfy the harmonious regional planning requirements of Order 1000, and to do so with complete transparency and in the public interest.

Respectfully submitted this 4th day of June, 2015.

J. Richard Lauckhart

J. Richard Lauckhart

SUBSCRIBED AND SWORN TO before me, G. BERMUDEZ,
A Notary Public, on this 4 day of JUNE, 2015.

I reside at: 417 MACE BLVD. STE J DAVIS, CA. 95618
My commission expires: Aug. 24, 2018

G. BERMUDEZ
NOTARY PUBLIC - CALIFORNIA
COMMISSION # 2076607
YOLO COUNTY
My Comm. Exp. August 24, 2018

UNITED STATES OF AMERICA
FEDERAL ENERGY REGULATORY COMMISSION

COALITION OF EASTSIDE NEIGHBORHOODS FOR SENSIBLE ENERGY (CENSE), a nonprofit Washington corporation; CITIZENS FOR SANE EASTSIDE ENERGY (CSEE), a nonprofit Washington corporation; LARRY G. JOHNSON and GLENNA F. WHITE, husband and wife; and STEVEN D. O'DONNELL, individually; Complainants, v. PUGET SOUND ENERGY, a for-profit Washington corporation; SEATTLE CITY LIGHT, a public utility and department of the City of Seattle; BONNEVILLE POWER ADMINISTRATION, a federal agency and marketing agent for federally owned Northwest power facilities; and COLUMBIAGRID, a nonprofit Washington corporation, Respondents.	Docket No.

June 8, 2015

Complaint and Request for Fast Track Processing

Complainants file this Complaint pursuant to Section 206 of the Federal Power Act (FPA) and the Commission's rules thereunder, seeking action by the Federal Energy Regulatory Commission (FERC) against the above-named Respondents for contravention and

violations of the FPA and the Commission's Orders 890, 1000 and 2000, as well as violations of contractual obligations they have entered into with the Commission that incorporate provisions and policies set out in those Orders, and for violations of the terms of their Open Access Transmission Tariffs (OATTs).

A. Introduction

Puget Sound Energy (PSE) is seeking to add 18 miles of new high-voltage transmission lines and towers through five contiguous cities on the east side of Lake Washington, known informally as the "Eastside." PSE calls the proposed project "Energize Eastside" (EE). PSE's promotion and implementation of this project, and as facilitated by Seattle City Light (SCL), Bonneville Power Administration (BPA) and ColumbiaGrid, violate FERC Orders 890 and 1000.

The affidavit of J. Richard Lauckhart in support of this Complaint is attached hereto and incorporated by reference herein as if fully set forth. The Attachment documents referenced in that affidavit are numerous and are being filed separately and served contemporaneously with this Complaint due to file sizes that prevent their being transmitted in a single email.

B. Statement of the Case

1. PSE claims EE is a local load project only. But it is in fact a BES project meeting more than one regional need that per Order 1000 should have gone out to bid to third parties. PSE, along with BPA, SCL and ColumbiaGrid, have violated the entire Regional Entity planning process as required by FERC Orders 890 and 1000. In particular, they have violated the single utility rule; they have failed to properly ascertain the regional need for EE; they did no environmental assessment of their own of EE, and they did not conduct industry-standard load flow studies

to determine whether EE might be duplicative, less efficient and more costly than better alternatives. EE is in fact all three of those things.

2. PSE has unilaterally promoted EE for its own parochial and financial interests and against the public interest. To that end, aided and abetted by BPA and SCL and with ColumbiaGrid's concurrence, PSE abrogated to itself the role of Regional Entity, a role that properly belongs to ColumbiaGrid. But ColumbiaGrid's board, being member-elected and unable to act independently from its member utilities that include PSE, SCL and BPA, has allowed and encouraged PSE, with the collusion of SCL and BPA, to circumvent the single utility rule and other provisions in Order 1000 compliance, as well as the Respondents' contractual PEFA obligations that incorporate Order 1000 in their terms.
3. Furthering PSE's subversion of the regional planning processes mandated by FERC Orders 890 and 1000, PSE controlled the selection and execution of load flow studies for EE that purport to justify the project, but which in fact PSE and its consultants manipulated in absurd ways in order to provide tortured results that no responsible modeler would ever accept as legitimate.
4. The $200 million EE project if built will result in an 18-mile double-circuit 230 KV transmission line and 230/115 KV transformer at the PSE Lakeside 115 KV switching station near downtown Bellevue, Washington.
5. Complainants understand and endorse FERC's mission to ensure a reliable electric utility system, but there is no risk that delaying or canceling the EE project will result in outages to PSE customers or cause a blackout in any of the WECC grid. The bases for these conclusions are contained in Mr. Lauckhart's affidavit and summarized here as follows:

- The Pacific Northwest Security Coordinator will ensure that on a day-ahead and/or hour-ahead basis the system will not be allowed to be operated in an unreliable fashion;

- Load flow studies already done by Utility Systems Efficiencies, Inc. (USE), hired by the City of Bellevue to do an independent study of the need for EE, have demonstrated (even though USE's load studies were as flawed as PSE's) that any reliability problem (if it even exists) that would occur without the EE line would be minimal and fairly easily fixed without having to resort to building the EE line.

- The USE studies show that by simply removing a supposed requirement of 1,500 MW of allegedly "firm transmission" to Canada, the result is a single and relatively minor overload that can be more efficiently and inexpensively fixed than resorting to the massively oversized EE. That overload occurs on an existing 230/115 KV substation at Talbot Hill. The overload could be fixed by replacing the overloaded transformer with a larger transformer or by adding another transformer at Talbot Hill to operate in parallel with the existing transformer that is shown to be overloaded.

- There are other local generation alternatives that do not require the construction of the environmentally unsound and hazardous EE (e.g. the project would require building 130' steel towers over two aging gas pipelines 3' to 5' from ground surface that transport jet fuel at 1000 psi the entire 18 miles of the project; over 8,000 mature trees would have to be cut down for the new lines).

- There is no "firm commitment" to deliver 1,500 MW of power to Canada. For over 50 years the system has been operated without the ability to deliver 1,500 MW to Canada. The Path Rating (a/k/a System Operating Limit) on this path is currently

2,000 MW. In order to demonstrate the System Operating Limit on this path, BPA has worked with BCHydro to install necessary Remedial Action Schemes and to put in place an Automated Transmission Curtailment Procedure for the Puget Sound Area. One of the techniques BPA has used to manage the congestion affecting the Puget Sound Area and Northern Intertie (PSANI) is curtailing transmission schedules. This means reducing the amount of energy allowed to cross the congested area. These remedial action schemes and operating procedures allow the redispatch of generation in Canada and the Puget Sound Area without any load loss. These arrangements have been in place for years and can be continued to be in place in 2018 when the EE line is planned to be in service.

- Complainants identify five specific alternatives to the EE line that could be more easily put in place at a lower cost and lower environmental impact than the EE line that would assure a safe and reliable operation of the grid starting in the year 2018 when the EE line is planned to be in service. Those alternatives are presented in detail in Mr. Lauckhart's affidavit.

6. PSE, BPA and SCL have already committed to have ColumbiaGrid perform the kinds of studies Complainants are asking to be performed. They agreed to so in their Order 890 and Order 1000 compliance filings (to the extent FERC has already accepted portions of those) and via their having signed various PEFA agreements with FERC. Complainants understand that PSE, BPA and SCL continue to object to including certain aspects of FERC Order 1000 in their FERC Order 1000 compliance filings, but those objections do not deal with the kinds of studies that these Respondents have already agreed to have ColumbiaGrid perform.

7. The studies that need to be done include an initial study of the transmission grid in the year 2018 without the EE line in place and with all generation running that can minimize the

potential of a system overload. The study would be done without the artificial, illusory "requirement" that 1,500 MW of Firm Transmission be shown to be available to Canada under all loading and outage contingency conditions. Complainants' expert, Mr. Lauckhart, believes this base case study would very likely show no overloads on the grid. If the study shows some overloaded facilities, then he believes there are several candidate alternatives (including addition of more transformation capacity at Talbot Hill or addressing some minor 115 KV line overloads) that will be economically and environmentally preferable to the EE line.

8. Further, Complainants' expert believes that another candidate alternative would be to build a small peaking generating unit located at the existing PSE Lakeside 115 KV switching station.

9. PSE insists EE is simply a local load project exempt from FERC Order 1000. However, this is not so. First, at 230KV, the project is clearly a BES facility based on FERC's "bright line" test set out in FERC Order 793. Second, the EE line would not fit Exclusion E3 (Local Networks) under FERC Order 793. There is no way that the EE project could be separated from the main grid without impacting the ability to move power to Canada.

C. Summary of Fundamental Flaws in the Load Flow Studies Done to Date Regarding EE, Ranked in Descending Order of Severity

1. The studies did not turn on 1,400 MW of PSE-owned/controlled natural gas-fired generation located in Western Washington.

2. The studies did not reflect the RAS and Schedule Adjustment Schemes that have been put in place for Northern Intertie schedules.

3. The studies assumed there is a Firm Requirement to deliver 1,500 MW to Canada. There is not.

4. The studies did not address the fact that PSE needs to acquire another 1,500 MW of firm power supply in order to demonstrate PSE is "Resource Adequate" to cover its system-wide winter peak load by the year 2018. Some of that needed supply can/should be located where there could otherwise be possible transmission system overloads.

5. The studies were not performed on a "single-utility" basis which would have logically looked at using the SCL lines (looped through Lakeside) if there is still an apparent reliability issue in the Bellevue area after doing the studies in 1-4 above.

D. Relief Sought

1. Complainants request that the Commission immediately enforce its Orders 890 and 1000 as applicable to EE by requiring ColumbiaGrid to perform transparent and industry-standard load flow studies to determine whether in fact EE is needed and whether more efficient, less expensive and less environmentally destructive alternatives exist. Such proper studies to date have not been conducted by ColumbiaGrid at all and only very poorly by PSE and USE. Since the project is already in the EIS process, time is of the essence in getting the fundamental load flow studies completed, and therefore this matter should be fast-tracked.

2. Further, once proper load flow studies as requested above show conclusively there is no local load reliability issue that would justify EE being built, PSE should be ordered to cease and desist from any further activity with respect to EE, including seeking permits for it, since the proposed project is clearly intended to serve more than one utility's needs. PSE circumvented many required FERC Order 1000 steps in a bold and reckless manner. First, a project such as EE should have been approved by the Regional Entity, ColumbiaGrid, for suitability for the regional plan applying the single utility principle. Second, ColumbiaGrid should have issued

RFPs and an invitation for bids on the project if ColumbiaGrid determined EE met the single utility test criteria. PSE has here no right of first refusal but has acted as if it does. Third, ColumbiaGrid should have evaluated on its own the potential negative environmental impacts of the proposed project (it did not). And fourth, following all that, proper load flow studies as urgently requested by Complainants herein should have been conducted.

3. Since ColumbiaGrid's Board is member-elected and was improperly influenced and dominated by board members from PSE, SCL and BPA with regard to the improper selection and promotion of EE, Complainants ask that FERC also order SCL and BPA to cooperate in restarting the project selection process at the ColumbiaGrid Regional Entity level; cooperate in properly performed load flow studies, and not to engage in any further acts subversive of the FERC Order 890 and Order 1000 processes.

4. Complainants further ask that FERC order PSE, BPA and SCL to provide a FERC Order 1000-Compliant Planning and Expansion Functional Agreement (PEFA) using ColumbiaGrid as the regional entity to implement all provisions of FERC Order 1000. If these utilities fail to provide a FERC Order 1000-Compliant PEFA, then FERC should order these entities to form an RTO or ISO to ensure Order 890 and Order 1000 compliance in the Pacific Northwest. Complainants submit that the ColumbiaGrid method for selecting its Board members is not fully compliant with the "independence" requirements set out in FERC Order 2000.

5. Complainants are aware that FERC, in Docket Nos. ER15-429 et al., is trying to resolve similar FERC Order 1000 compliance issues, and therefore Complainants submit that this aspect of their Complaint would best be considered in consolidation with those proceedings.

6. Complainants request such further relief from the Commission as it deems just and equitable.

E. Complainants' Compliance with CFR §385.206 (Rule 26)

1. Complainants are aware of the requirements of CFR §385.206(a) et seq., and other than the supplemental information provided in the following two paragraphs, they submit they are in compliance with CFR §385.206(a) et seq. in providing the information in this Complaint and the attached affidavit of J. Richard Lauckhart.

2. §385.206(b)(4): "Make a good faith effort to quantify the financial impact or burden (if any) created for the complainant as a result of the action or inaction": According to figures quoted by realtors to Complainants Johnson, O'Donnell and others in the Complainant citizens action groups, the financial impact for them would be an approximate 10% to 20% loss of the current market value of their homes. Eastside residents will also have to pay higher electrical utility rates to pay for EE, as would all other PSE ratepayers for a project grossly oversized and not needed for local load needs. Eastside residents also could expect an increase in local taxes to make up for the decrease in the local property tax base.

3. §385.206(b)(9)(i): "Whether the Enforcement Hotline, Dispute Resolution Service, tariff-based dispute resolution mechanisms, or other informal dispute resolution procedures were used, or why these procedures were not used": Complainants contacted FERC ADR and were informed that the relief sought here seeks policy decisions that can only be made at the Commission level.

Respectfully submitted on this 8th day of June, 2015.

Larry G. Johnson, WSBA #5682
Attorney for Complainants
8505 129th Ave. SE
Newcastle, WA 98056
tel.: 425 227-3352
larry.ede@gmail.com

Subject: Energize Eastside EIS Scoping Comments
From: Andrea Sato Borgmann <andrea_sato@hotmail.com>
Date: 6/15/2015 9:57 AM
To: "scoping@energizeeastsideEIS.org" <scoping@energizeeastsideeis.org>, "dpyle@bellevuewa.gov" <dpyle@bellevuewa.gov>

Andrea Sato Borgmann
2100 120th PL SE
Bellevue, WA 98005
425-644-7506

Energize Eastside EIS Scoping Comments:

1. Aesthetics/Built Environment/Scenic Resources: Energize Eastside will have a significant, negative impact on the built environment in Bellevue and the surrounding jurisdictions where the 18 miles of poles and lines will be located. The poles and lines will be significantly higher than any existing lines/poles, even the existing 230 Kv SCL line that runs north/south through the Eastside and the existing 115 PSE Kv that runs north/south. The lines and poles will detract from the beauty of the natural environment in the Bellevue and surrounding regions, impairing views of mountains and trees. Moreover, installing new towering towers and lines will fundamentally change the character of Bellevue and the surrounding cities in proximity to the new lines from a park-like environment to an industrial environment.
2. Economic Impact
    - Energize Eastside will have a significant, negative impact on **all** PSE ratepayers by increasing electrical rates. This rate increase will be partly to pay for the capital costs of the equipment, plus an automatic "return on investment" allowed by the WUTC tariff. This 10% "return on investment" goes to a foreign-owned utility that is motivated by investor profit motive, not best-interests of PSE ratepayers who will have to pay for decades to come in the form of increased electrical rates.
    - Energize Eastside and its towering new high-voltage electrical lines will depress property values in the surrounding areas. Furthermore, the siting of these lines reflects a policy of discrimination against less affluent and more racially diverse areas of Bellevue and the surrounding cities. PSE seeks to site these dangerous and unsightly poles and lines in areas where the residents are least able to take effective action against such initiatives. PSE would never attempt to site a high voltage electrical transmission line through West Bellevue or Medina where residents are powerful, affluent and well-organized.
3. Health: The negative health effects of high voltage electrical transmissions lines are established, including the effects of electromagnetic fields and corona particles. The effect of siting these lines through densely populated urban areas and exposing residents to increased cancer and other negative health effects needs to be studied comprehensively and carefully.
4. Pipeline Safety/Risk of Explosion: PSE is proposing installing these towering new poles in an existing

PSE right of way that currently contains two natural gas pipelines and existing 115 Kv lines and poles. The height of the proposed poles require a substantial base to each pole to adequately support the height. These installations pose a significant and material risk of gas pipeline damage and explosion. Bellevue and the surrounding cities cannot afford the risk of a pipeline explosion and the tragedy of an event like the Olympic Gas Pipeline explosion in Bellingham. For example, one portion of the proposed route abuts the Kelsey Creek Park in Bellevue. A portion of the Lake to Lake Trail runs directly across the proposed route of these new lines and poles. This park is an incredibly valuable natural resource and recreation area for the City of Bellevue. The risk of injury to the users of the park from a gas pipeline explosion is chilling to contemplate (especially for a regular user of this area).

5. Relationship to Existing Land Use Plans and to Estimated Population: Bellevue needs to carefully analyze the assumptions that underlie the assertions of population and business growth that establish the "need" for Energize Eastside. PSE's load growth model includes Canadian entitlements, which skews the data to show "need" for new transmission capabilities. The City of Bellevue needs to require an analysis that does not include Canadian entitlements and that focuses solely on local needs and realistic estimated population growth (which is limited at this point in time due to the City being built out to its borders).

PSE has been consistently dismissive of exploring alternatives to these hugely damaging high voltage transmission lines running directly through heavily populated areas. Alternative routing and alternative technologies have to be fully explored and not summarily dismissed. PSE is not incentivized to explore alternatives because of the automatic 10% return on investment in the tarfiff for a major capital project such as Energize Eastside. Nor are they incentivized to act in the best REGIONAL interests for routing high voltage transmission lines through less populated areas (which are outside of the PSE service areas). The City needs to fully vet the promise of battery technology. We live in one of the most innovative areas of the United States, home to Microsoft and Amazon. To blindly rely on an 20th Century technology is irresponsible and an abrogation of the City's responsibility for forward thinking stewardship. Storage technology needs to be fully explored, as wells as supplemental peak capacity technologies such as a gas fired peaker plant.

Evaluating Energize Eastside is problematic for the City of Bellevue. Building Energize Eastside is simply not necessary to meet local power needs now or in the coming years. Alternative technologies exist and could be implemented to deal with peak load concerns. The "need" for Energize Eastside can only be established by including Canadian Entitlements into the calculation, so the City of Bellevue needs to insist on adequate oversight by FERC in evaluating regional, national and international obligations and solutions.

Subject: Fwd: CENSE Scoping Comment for "Energize Eastside"
From: Carol at Aramburu-Eustis <carol@aramburu-eustis.com>
Date: 6/15/2015 4:55 PM
To: scoping@EnergizeEastsideEIS.org

Dear Sir or Madam:

Please acknowledge receipt of the CENSE comment.

Carol Cohoe
ARAMBURU & EUSTIS, LLP
720 Third Avenue, SUITE 2000
Seattle, WA 98104
(206) 625-9515
As of June 1, 2013 we are in SUITE 2000.

-------- Original Message --------

Subject:CENSE Scoping Comment for "Energize Eastside"
Date:2015-06-15 14:31
From: Carol at Aramburu-Eustis <carol@aramburu-eustis.com>
To: Scoping@EnergizeEastsideEIS.org
Cc: Rick Aramburu <Rick@Aramburu-Eustis.com>

Please see attached scoping comment. The original has been mailed to Mr. Pyle's attention.

--
Carol Cohoe
ARAMBURU & EUSTIS, LLP
720 Third Avenue, SUITE 2000
Seattle, WA 98104
(206) 625-9515
As of June 1, 2013 we are in SUITE 2000.
This message may be protected by the attorney-client and/or work product privilege. If you received this message in error please notify us and destroy the message. Thank you.

Attachments:

2015-6-15 CENSE Scoping Comment on Energize Eastside.pdf 2.4 MB

Subject: ENERGISING EASTSIDE
From: Cathal Petris <cathal.petris@gmail.com>
Date: 6/15/2015 10:15 AM
To: scoping@energizeeastsideeis.org

Hello,
I am writing to let you know that I am most concerned about the proposed installation of 18 miles of High Voltage transmissions lines that would run right across our family home and believe would have a huge impact. We have a large family and bought the house to raise our kids in peace and safety. I also believe the disruption and installation would have a significant effect on the value of our Home.
I understand there are other technologies available that would minimize the impact on health and the environment, such as Non Wire Technologies. If there is genuine need then these technologies need to be the preferred approach.
Best regards,
Cathal Petris

13431 NE 27th St,
Bellevue,
WA 98005
425 241 5634

Subject: FW: Is Energize Eastside an "Essential Public Facility?"
From: Don Marsh <doncense@gmail.com>
Date: 6/15/2015 4:58 PM
To: <Scoping@EnergizeEastsideEIS.org>

There was some confusion about whether this should be sent to info@energizeeastsideeis.org or scoping@energizeeastsideeis.org. To make sure it gets into the EIS record, I am forwarding to the scoping address.

Don Marsh

From: Don Marsh [mailto:doncense@gmail.com]
Sent: Monday, June 15, 2015 4:20 PM
To: info@energizeeastsideeis.org
Subject: Is Energize Eastside an "Essential Public Facility?"

My name is Don Marsh. My wife Ruth and I live with our two children at

4411 137th Ave. SE
Bellevue, WA 98006

I am the vice president of CENSE, the Coalition of Eastside Neighborhoods for Sensible Energy, a citizen action group which seeks an energy solution that is more cost effective, more reliable, and less harmful than Energize Eastside.

One of the things that puzzles us about this project is the opinion of Bellevue staff that Energize Eastside is an "Essential Public Facility" (EPF). This was explained by City Manager Brad Miyake in a letter to Loretta Lopez dated April 24, 2015:

> *As stated last year, it is the City's opinion that Energize Eastside is an Essential Public Facility under GMA which limits the City's permit authority to one of conditions and mitigation, not denial.* ***These are matters for the EIS…*** [emphasis added]

It has been hard for us to understand how the City could come to this conclusion before hearing the report of the Independent Technical Analyst regarding the need for the project. The Merriam-Webster Dictionary defines "essential" as "of the utmost importance; basic, indispensable, necessary." An unnecessary project cannot be an Essential Public Facility, by definition.

The determination of EPF status must be made by each city. It's difficult to imagine how a city like Newcastle would come to a similar conclusion on the necessity of a project that significantly degrades the city without providing obvious benefits. But Bellevue's premature judgment only serves to shackle its future actions. A properly conducted EIS will help clarify whether Energize Eastside is indeed an EPF. We think it is useful to keep this in mind when choosing which topics are prioritized in this study.

Three documents have been submitted into the EIS that raise significant questions about the power flow studies that PSE uses to explain the necessity of Energize Eastside:

1. A report by Bellevue's Independent Analyst, Utility System Efficiencies (USE).
2. A complaint submitted to the Federal Energy Regulatory Commission by CENSE and Citizens for Sane Eastside Energy.

3. A report by EQL Energy, commissioned by CENSE.

The USE report shows that 4 out of 5 overloads in PSE's system are directly caused by high flow of electricity to Canada. The other two documents question whether this flow is realistic or required during an N-1-1 outage of other system elements. Furthermore, both documents raise the possibility that overloads could be avoided by turning on local generators at their full capacity during such emergency scenarios. A peak load scenario is, in fact, the reason why these local generators were acquired by PSE in the first place. We asked PSE and ColumbiaGrid to run power flow simulations that assume lower Canadian flow and higher local generation, but these requests were denied. We have now asked FERC to resolve this dispute.

If more accurate power flow simulations demonstrate a need, is Energize Eastside the best project to meet that need?

We believe that better alternatives exist (the FERC complaint and EQL Energy's report suggest many interesting alternatives). Energize Eastside cannot be deemed "Essential" if a better alternative is available. City councils would be within their rights to reject the project in favor of the alternative. The evaluation of alternatives is a primary purpose of the EIS.

It is notable that residents felt compelled to spend tens of thousands of dollars to commission their own study of alternatives (the EQL report). We felt it was important to engage our own expert after seeing the four alternatives that were initially proposed. One of these alternatives lists some forward-thinking technologies, but the general idea has already been rejected by PSE as not adequate to meet the need. Another alternative proposes to add approximately 50 miles of new transmission lines, which would be even more difficult for neighborhoods to accept than Energize Eastside. The last alternative (doing nothing) seems unlikely given the fear of blackouts that PSE has raised during the past 18 months.

There are many other viable alternatives that haven't been explored. The report by EQL Energy broadly describes the possibilities. We expect these proposals to be fully, fairly, and transparently evaluated during the EIS. A properly executed EIS will allow all parties to understand the issues, impacts, and trade-offs between these alternatives.

In conclusion, Energize Eastside will only be understood as an Essential Public Facility if it **addresses a real need,** and if it is the **only reasonable way to meet that need.**

Sincerely,
Don Marsh, VP
CENSE.org

Subject: FW: CENSE rejects USE report
From: Don Marsh <doncense@gmail.com>
Date: 6/15/2015 4:57 PM
To: <Scoping@EnergizeEastsideEIS.org>

There was some confusion about whether this should be sent to info@energizeeastsideeis.org or scoping@energizeeastsideeis.org. To make sure it gets into the EIS record, I am forwarding to the scoping address.

Don Marsh

From: Don Marsh [mailto:doncense@gmail.com]
Sent: Monday, June 15, 2015 3:39 PM
To: info@energizeeastsideeis.org
Subject: CENSE rejects USE report

My name is Don Marsh. My wife Ruth and I live with our two children at

4411 137th Ave. SE
Bellevue, WA 98006

I am the vice president of CENSE, the Coalition of Eastside Neighborhoods for Sensible Energy, a citizen action group which seeks an energy solution that is more cost effective, more reliable, and less harmful than Energize Eastside.

I would like to submit into the EIS record a copy of our rejection of the report produced by Utility System Efficiencies regarding the need for Energize Eastside. This report was commissioned by the City of Bellevue to get an independent analysis of the need. Our response was co-authored by Rich Lauckhart, the former VP of Power Planning for Puget Sound Power & Light, which became PSE. The attached document from May 2, 2015 predates a more detailed complaint that CENSE and Citizens for Sane Eastside Energy filed with the Federal Energy Regulatory Commission. A copy of that complaint has already been submitted into the EIS record.

Sincerely,
Don Marsh, VP
CENSE.org

Attachments:

CENSE rejects USE report.pdf 1.2 MB

CENSE REJECTS U.S.E.'S REPORT ON ENERGIZE EASTSIDE

CENSE.org
May 4, 2015

SUMMARY

Members of the Coalition of Eastside Neighborhoods for Sensible Energy (CENSE) want to see an energy solution for the Eastside that benefits everyone, and harms no one. To better understand the challenges and opportunities, we have eagerly awaited the report of Bellevue's Independent Technical Analyst, which we asked the City of Bellevue to hire last June.

Now that we have read the report authored by Utility System Efficiencies, we find that it answers some of our questions. But it leaves key questions unanswered. These omissions make it difficult for us to agree with U.S.E.'s conclusion that Energize Eastside is reasonable and necessary.

Our response to U.S.E.'s report has been co-authored by CENSE and Richard Lauckhart, who served as VP of Power Planning for Puget Sound Power & Light, the company that became PSE. Mr. Lauckhart has over 40 years of industry experience, including over 20 years at Puget Power. We include Mr. Lauckhart's bio in Appendix A.

CENSE finds significant flaws and omissions in the U.S.E. report that cast doubts regarding its conclusions:

1. **Independent forecast missing.** U.S.E. did not perform an independent load forecast, the most critical question residents had about the need for Energize Eastside.
2. **Updated demand map missing.** U.S.E. admitted that PSE's map of electricity demand "didn't make much sense," but did not update the map as CENSE requested.
3. **Cost-effective savings ignored.** U.S.E. ignored savings identified by E3 totaling 56 MW.
4. **Local generation turned off.** U.S.E. rubber-stamped questionable assumptions made by PSE, such as turning off all local generation west of the Cascades in power flow simulations.
5. **Growth trends unexplained.** U.S.E. did not explain how population and employment trends lead to PSE's projections of demand growth.
6. **Mostly downtown growth.** U.S.E. did not show a need for this project outside of the downtown Bellevue and the Bel-Red corridor.
7. **Substation loads missing.** U.S.E. did not show peak load on Eastside substations, a key requirement for transmission studies.
8. **Canadian flow unexplained.** U.S.E. did not provide sufficient information about Canadian flow to settle this concern.

We include in Appendix B a copy of the questions we posed to U.S.E. in January, with annotations to indicate whether U.S.E.'s report actually answers these questions.

1. INDEPENDENT FORECAST MISSING

CENSE asked for an independent forecast to validate the need for Energize Eastside, and to be sure that PSE isn't pursuing Energize Eastside to satisfy its own corporate goals. PSE has a strong incentive to build projects like this one. In fact, due to outdated energy regulations in our state, **infrastructure projects are the only way the company makes money.** We felt a truly independent forecast was necessary to settle these questions.

Our concerns are reinforced by PSE's claim that the Eastside is experiencing demand growth at *twice* the rate forecast for Seattle. Seattle is also experiencing rapid growth in population and employment. According to PSE, vigorous growth on the Eastside nullifies conservation and efficiency trends that are well-documented at the national and regional level. For more than a year, PSE provided no historical data to support their forecast.

Bellevue Mayor Claudia Balducci underscored the importance of an independent forecast with this statement at the December 8 meeting authorizing the contract with U.S.E.: "I think that a kind of a truism about working with consultants… is they tend to want to give you what it is they believe you want to receive… We expect them to provide *independent judgment*."

Instead of providing an independent judgment, U.S.E. essentially rubber-stamped PSE's forecast, declaring it "reasonable." Their report contains little new analysis or careful examination of PSE's forecast assumptions.

2. UPDATED DEMAND MAP MISSING

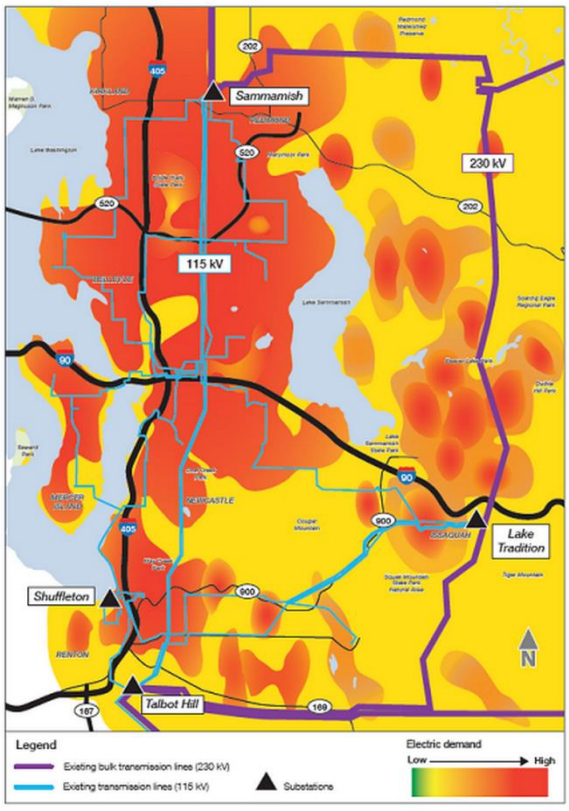
PSE created a map of electricity demand, shown at left, which supposedly demonstrates why the entire Eastside needs the new transmission line. According to this map, every city and neighborhood that the transmission line passes through is demanding the highest level of electricity.

To create this map, PSE used peak demand data from the coldest and hottest days in 2009, both of which were extreme. The map represents usage levels which would only occur if customers ran their furnaces and air conditioners simultaneously. Even with that explanation, it's hard to believe that downtown Bellevue and Mercer Island are using the same level of electricity.

We criticized this map during our meeting with U.S.E. in January, and they said it "didn't make sense to us either." U.S.E. told us they would create a more accurate map.

On page 37 of the report, U.S.E. admits they didn't have enough information to create a better map. As a result, we don't know who this project benefits, or where opportunities might exist for targeted conservation and efficiency programs.

The Eastside's electric demand



We are very disappointed with this outcome.

3. COST-EFFECTIVE SAVINGS IGNORED

During their own investigation of the need for Energize Eastside, PSE employed a consultant named E3 to study alternatives to new poles and wires. E3 found 56 MW of cost-effective savings through increased Electrical Efficiency, Distributed Generation, and Demand Side Resources. This amounts to 8% of the emergency system capacity PSE uses for planning purposes, so it's a significant amount. E3's savings would save customers money and benefit the environment.

Despite repeated questions from CENSE, PSE has refused to acknowledge E3's findings. We asked U.S.E. to explain how these savings might mitigate the need or timing of Energize Eastside. Unfortunately, we find no mention of the E3 study in U.S.E.'s report.

4. LOCAL GENERATION TURNED OFF

To determine when and how their system might be stressed, PSE uses power flow simulations with the following assumptions:

1. An extremely rare emergency condition: 2 of the 4 transformers that serve the Eastside are offline.
2. Peak winter load: a 23-degree day and peak usage in the morning or evening.
3. **All local generation turned off.**

The third assumption adds stress to the system, but is not a realistic scenario. PSE could require these local generators to be online when peak load is anticipated.

U.S.E. rubber-stamped PSE's assumption without comment on page 51:

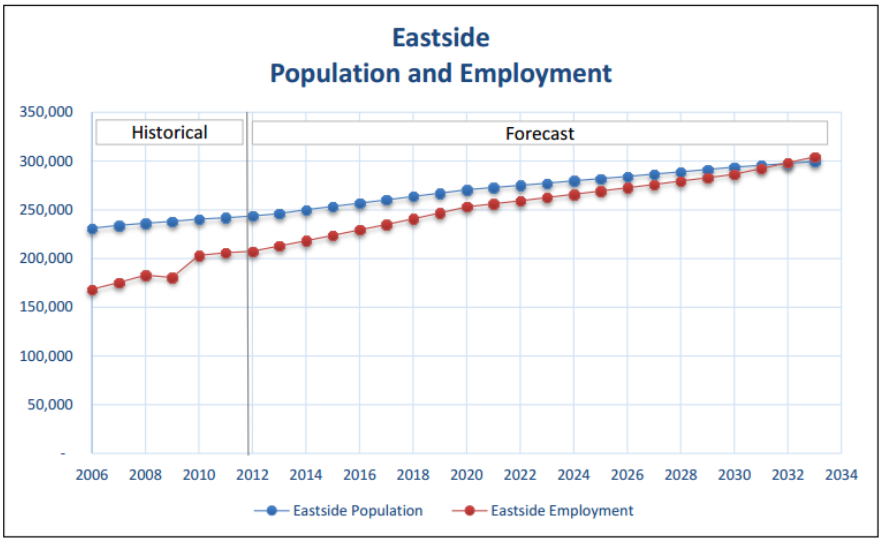
> *The ITA also confirmed the Northern Intertie (Path 3) transfers matched PSE's modeling plan (Table 8.2), and that PSE's winter generation dispatch scenario of **"no PSE and SCL generation west of the Cascades"** was modeled in the winter cases…*

CENSE members explicitly asked about this assumption during our meeting with U.S.E. in January. U.S.E.'s lead engineer, Gordon Gomegys, offered an explanation that involved renewable resources located east of the Cascades. This explanation made little sense to us, but we expected to see more detail in the final report. Again, we are sorely disappointed in this omission.

5. Growth Trends Unexplained

U.S.E. includes this chart of Eastside population and employment projections on page 20:

Figure 6.5: Population and Employment – Eastside



This graph shows population growing at slightly less than 1% per year, and employment growing at 1.7% per year. We hoped U.S.E. would explain at a conceptual level how these growth trends lead to growth in electricity demand of **2.4% per year**. U.S.E. offers no explanation that might help the average person understand how these trends relate to electricity demand.

6. Mostly Downtown Growth

U.S.E. lists 39 projects that are expected to be built in downtown Bellevue and the Bel-Red district during coming years. The report implies that these developments will use more electricity than the buildings they replace. However, U.S.E. did not list any projects in other Eastside cities. Should we conclude that the majority of the new demand will come from downtown Bellevue?

We know that power poles as high as 13-story buildings will have a severe impact on dozens of neighborhoods, schools, and parks along the 18-mile route of the transmission line. Are these neighborhoods being asked to sacrifice their quality of life in order to subsidize development downtown? Would downtown developers demand better solutions if the transmission line were coming through their property?

Our intent in asking these questions is not to start an argument between residents and businesses, but to work cooperatively towards an energy solution that benefits everyone and harms no one. The Eastside is capable of finding such a solution.

7. Substation Loads Missing

The U.S.E. report does not provide data on peak loads for individual substations. Expert transmission planners (such as Mr. Lauckhart) view this data as key to transmission studies. This information would enable us to determine if smaller, more targeted alternatives are feasible.

Lacking independent analysis of substation data, we must trust that PSE has fairly evaluated all alternatives and reasonably concluded that a 230 kV transmission line is the only viable option. This is not the result we expected from a truly independent analyst.

8. CANADIAN FLOW UNEXPLAINED

CENSE has repeatedly asked PSE and U.S.E. to provide the amount of Canadian electricity flow, in megawatts, that is being simulated in their power flow studies. Neither has responded with a specific number.

PSE says the number is "5-8%" of system capacity, but we don't know if they mean their normal system capacity (1600 MW) or the "N-1-1" capacity modeled in power flow studies (706 MW). We don't know if this "5-8%" value represents normal everyday flow, or if it is a winter peak level. We believe it serves PSE's strategic interests to keep this number vague.

U.S.E. says they modeled a scenario with 0 MW of Canadian flow. On page 65, U.S.E. reveals that the number of overloads is reduced from 5 to just one. This reinforces our suspicion that Canadian flow is having a significant effect on overall system stress.

If Canadian flow were diverted from PSE's lines, could the one final overload then be alleviated by other means? Could a third transformer at Talbot Hill help to prevent overload? Could E3's savings combined with lower Canadian flow accomplish the same thing?

These questions are not academic, even though U.S.E. claims that it is not possible to reduce Canadian flow due to U.S. treaty obligations. They fail to mention that this flow does not have to happen on PSE's lines. The utility consortium ColumbiaGrid previously endorsed a relatively inexpensive project to upgrade wires on Seattle City Light's 230 kV line through the Eastside. If that project were pursued, the amount of Canadian electricity on PSE's line would be significantly reduced.

CONCLUSION

U.S.E. declined to do the power flow simulation we are most interested in. It would include the following features:

1. Reconductor the Seattle City Light line to serve Canadian flow.
2. Reduce peak demand using E3's recommendations.
3. Install a third transformer at Talbot Hill to eliminate an overload at that location.
4. Anticipate the impact of rapid developments in grid and residential battery storage such as those announced by Tesla on April 30.

We suspect that such a study would not only delay the need for a new transmission line by many years (possibly forever), it would save customers money, preserve neighborhoods and the environment, and enhance the Eastside's reputation as a forward-thinking, technologically-advanced, and environmentally supportive community.

We welcome the opportunity to work with policymakers and PSE to achieve this better outcome for the Eastside.

APPENDIX A: BIO OF RICHARD LAUCKHART

J. Richard Lauckhart has 40 years of experience in power supply planning, electricity price forecasting and asset valuation. He began his career as a distribution engineer with Pacific Gas & Electric Co., and held various positions at Puget Sound Power & Light Co. (now Puget Sound Energy) in power supply planning, culminating as vice president of power planning.

For the last 12 years Mr. Lauckhart has performed consulting assignments related to power market analyses, price forecasting services, asset market valuation, integrated resource planning, transmission line congestion analysis, and management of strategic consulting engagements for clients in North America, including investor-owned and municipal utilities, independent power producers, and lenders.

Mr. Lauckhart received a bachelor of science degree in electrical engineering from Washington State University in 1971 and a masters degree in business administration from the University of Washington in 1975

Representative Project Experience

Black & Veatch
September 2008 to October 2011

MANAGING DIRECTOR

Mr. Lauckhart oversees wholesale electricity price forecasting, project revenue analysis, consults regarding wind integration matters electric interconnection and transmission arrangements for new power projects, and other related matters in the electric power industry. In addition, he heads Black & Veatch's WECC regional power markets analysis team.

WECC Power Market Analysis and Transmission Analysis, Henwood/Global Energy Decisions/Ventyx
2000 - 2008

SENIOR EXECUTIVE

Mr. Lauckhart oversaw wholesale electricity price forecasting, project revenue analysis, consulted regarding electric interconnection and transmission arrangements for new power projects, and other related matters in the electric power industry. In addition, he headed Global Energy's WECC regional power markets analysis team.

Lauckhart Consulting, Inc.
1996 – 2000 *President*
Primary client - Puget Sound Energy (formerly Puget Sound Power & Light Company): Involved in power contract restructuring, market power analysis, FERC 888 transmission tariffs, and other matters. Testified at FERC regarding Puget's 888 tariff. Testified for Puget in June, 1999 arbitration with BPA regarding transmission capability on the Northern Intertie.

Northwest IPP

Under retainer with IPP from July 1996 through December 31, 1999. Involved primarily in merchant power plant development activities including permitting activity, owner's engineer identification, environmental consultant identification, water supply arrangement, transmission interconnection and wheeling arrangements, gas pipeline arrangements, economic analysis, forward price forecasting, marketing, and related issues.

Levitan & Associates (Boston)

Participated in teams involved in electric system acquisition activities. Performed preliminary analysis for a major retail corporation regarding possible participation as an aggregator in the California deregulated electric market. Involved in the evolving discussions about deregulation in the state of Washington including participant in HB 2831 report and ESSB 6560 report.

Member of advisory task force for Northwest Power Planning Council study of generation reliability in the Pacific Northwest. Participating writer in a newsletter advocating electric deregulation in the state of Washington.

Puget Sound Power & Light Company
1991 – 1996

VICE PRESIDENT, POWER PLANNING

Involved in all aspects of a $700 million per year power supply for a hydro/thermal utility with a 4,600 MW peak and 2,200 aMW energy retail electric load. Included responsibility for a 22 person department involved in power scheduling (for both retail and wholesale power activity), power and transmission contract negotiation and administration, regulatory and NERC compliance, forward price forecasting, power cost accounting, and retail rate activity related to power costs. Activity included matters related to 650 MW of existing gas-fired, simple cycle combustion turbines. In addition, 660 MW of combined cycle cogeneration "qualifying facilities" were developed by others for Puget during this time frame. Detailed understandings of the projects were developed both for initial contractual needs and later for economic restructuring negotiations. Mr. Lauckhart was the primary person involved in developing Puget's Open Access transmission tariff in accordance with FERC Order 888.

Puget Sound Power & Light Company
1986 – 1991

MANAGER, POWER PLANNING

The company's key person in developing (1) a WUTC approved competitive bidding process for administering PURPA obligations, and (2) a WUTC approved regulatory mechanism for recovery of power costs called the Periodic Rate Adjustment Mechanism (PRAM).

Puget Sound Power & Light Company
1981 – 1986

DIRECTOR, POWER PLANNING

The company's key person in developing a power cost forecasting model that was customized to take into account the unique nature of the hydro generation system that exists in the Pacific Northwest.

Puget Sound Power & Light Company
1979 – 1981

MANAGER, CORPORATE PLANNING

Responsible for administering the corporate goals and objectives program.

Puget Sound Power & Light Company
1976 – 1979

FINANCIAL PLANNING

Improved and ran a computerized corporate financial forecasting model for the company that was used by the CFO.

Puget Sound Power & Light Company
1974 – 1976

TRANSMISSION PLANNER

Performed transmission engineering to assure a reliable transmission system.

Pacific Gas & Electric Company
1971 – 1974

DISTRIBUTION ENGINEER

Performed distribution engineering to assure a reliable distribution system.

Other Relevant Experience

- Expert testimony for Montana Independent Renewable Generators related to avoided cost regulations and pricing filed February 2009 at the Montana PSC
- Expert Testimony for LS Power in the SDG&E Sunrise Proceeding regarding economics of in-area generation vs. the cost of transmission and imported power Spring 2007
- Expert Testimony for BC Hydro in the Long Term Resource Plan, February 2009 dealing with natural gas price forecasts and REC price forecasting
- Expert Testimony for John Deere Wind in a proceeding in Texas in November 2008 related to avoided costs and wind effective load carrying capability.

- Expert Testimony for Two Dot Wind before the Montana commission regarding wind integration costs Spring 2008

- Expert Testimony in the BC Hydro Integrated Electricity Plan proceeding regarding WECC Power Markets. November 2006.

- Expert Testimony for Colstrip Energy Limited Partnership before Montana PUC regarding administration of QF contract prices. July 2006.

- Expert Testimony for Pacific Gas & Electric regarding current PURPA implementation in each of the 50 states. January 2006.

- Expert Testimony in CPUC proceeding regarding modeling procedures and methodologies to justify new transmission based on reduction of congestion costs (Transmission Economic Analysis Methodology – TEAM). Summer 2006.

- Expert Testimony for BC Hydro regarding the expected operation of the proposed Duke Point Power Project on Vancouver Island, January 2005

- Expert Testimony for PG&E regarding the cost alternative generation to the proposed replacement of steam generators for Diablo Canyon, Summer of 2004.

- Expert Testimony in an arbitration over a dispute about failure to deliver power under a Power Purchase Agreement, Fall 2004.

- Integrated Resource Plan Development. For a large investor-owned utility in the Pacific Northwest, Global Energy provided advanced analytics support for the development of a risk-adjusted integrated resource plan using RISKSYM to provide a stochastic analysis of the real cost of alternative portfolios.

- Expert Testimony for SDG&E, Southern California Edison, and PG&E regarding IRPs, WECC markets and LOLP matters before the California PUC, 2003.

- Miguel-Mission Transmission Market Analysis-San Diego Gas & Electric. San Diego Gas & Electric retained Global Energy to oversee an analysis of the economic benefits associated with building the Mission-Miguel transmission line and the Imperial Valley transformer. Global Energy performed an analysis of the economic benefits of the Mission-Miguel line, prepared a report, sponsored testimony at the CPUC, and testified at the CPUC regarding the report.

- Valley-Rainbow Transmission Market Analysis-San Diego Gas & Electric. San Diego Gas & Electric also engaged Global Energy to analyze the economic benefits associated with building the Valley-Rainbow transmission line and to respond to the CPUC scoping memo that "SDG&E should describe its assessment of how a 500 kV interconnect, like Valley-Rainbow, will impact electricity markets locally, regionally, and statewide." Global Energy analyzed the economic benefits of the Valley-Rainbow line, prepared a report, sponsored testimony at the CPUC, and testified at the CPUC regarding the report.

- Damages Assessment Litigation Support. Global Energy was engaged by Stoel Rives to provide damages analysis, expert testimony and litigation support in for its client in a power contract damages lawsuit. Global Energy quantified the range of potential damages, assessed power market conditions at the time, and provided expert testimony to enable Stoel Rives' client to prevail in a jury trial.

- Expert Testimony, Concerning the Economic Benefits Associated with Transmission Line Expansion. Testimony prepared on behalf of San Diego Gas & Electric Company, September 2001.

- Expert Testimony, Concerning market price forecast in support of Pacific Gas and Electric hydro divesture case, December 2000.

- Expert Testimony, Prepared on behalf of AES Pacific regarding value of sale for Mohave Coal project to AES Pacific for Southern California Edison, December 2000.

- Expert Testimony, Prepared on behalf of a coalition of 12 entities regarding the impact of Direct Access of utility costs in California. June 2002.

Mr. Lauckhart was Puget's primary witness on power supply matters in eight different proceedings before the Washington Utilities and Transportation Commission.

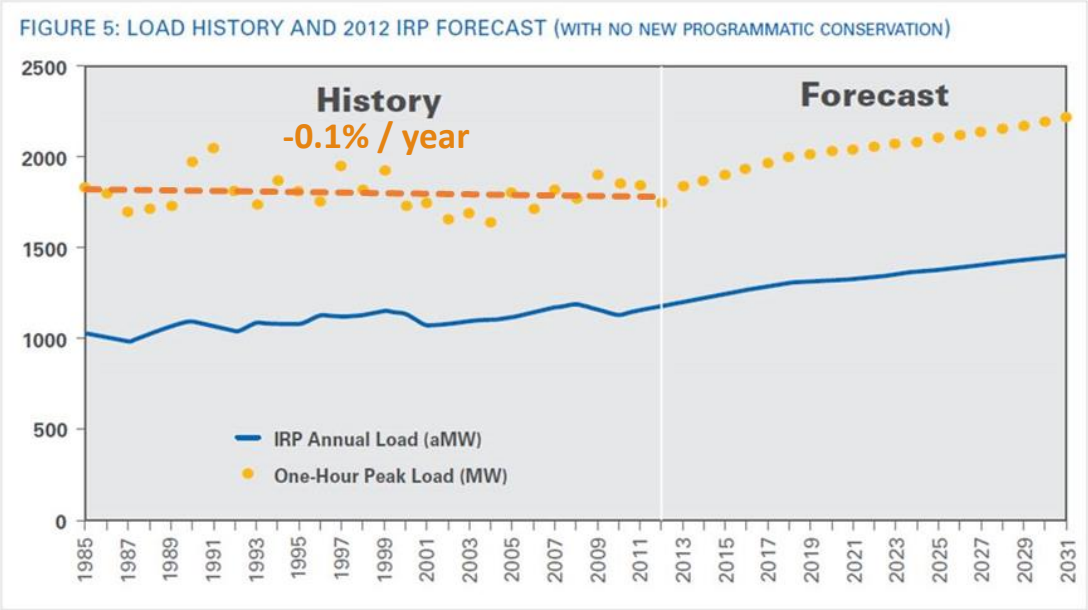
Mr. Lauckhart was Puget's chief witness at FERC in hearings involving Puget's Open Access Transmission Tariff and testified for Puget in BPA rate case and court proceedings.

APPENDIX B: CENSE QUESTIONS FOR U.S.E.

Below are the questions that CENSE submitted to U.S.E. during our initial meeting in January. We added annotations in red to indicate whether the U.S.E. report answers our questions.

Q1: UNDERSTANDING THE REAL NEED

To better understand the need for Energize Eastside, we would like to see a graph similar to this one from Seattle City Light[1] (orange annotations by CENSE):



We note that peak load (the same as "demand" in PSE's graph) has been gradually declining in Seattle for the past 27 years, despite significant economic and population growth during that period. Also, Seattle's forecast rate of growth is less than half of PSE's. Similar trends are occurring in Portland.

We ask the consultant to produce an analogous graph for the Eastside that shows the following data, with values independently determined by the consultant using unfiltered, raw data from PSE or other sources:

1. Time period from 2000 to 2030 (15 years of historical data, and a forecast for the next 15 years).
2. Values for "One-Hour Peak Load (MW)" with grid outage (N-1-1 state in Q3 below).
3. Values for "One-Hour Peak Load (MW)" with no grid outage (N-0 state).
4. Values for "Annual Average Load (aMW)" with grid outage (N-1-1 state in Q3 below).
5. Values for "Annual Average Load (aMW)" with no grid outage (N-0 state).
6. A line showing existing "System Capacity" (which PSE shows as approximately 710 MW on its Forecast) including any allowable increase for temporary loads. We would like the consultant to independently verify PSE's value.
7. A line showing the future "System Capacity" of Energize Eastside, including any allowable increase for temporary loads, which we would like the consultant to independently verify.
8. A line showing the Total Transfer Capacity of Energize Eastside.

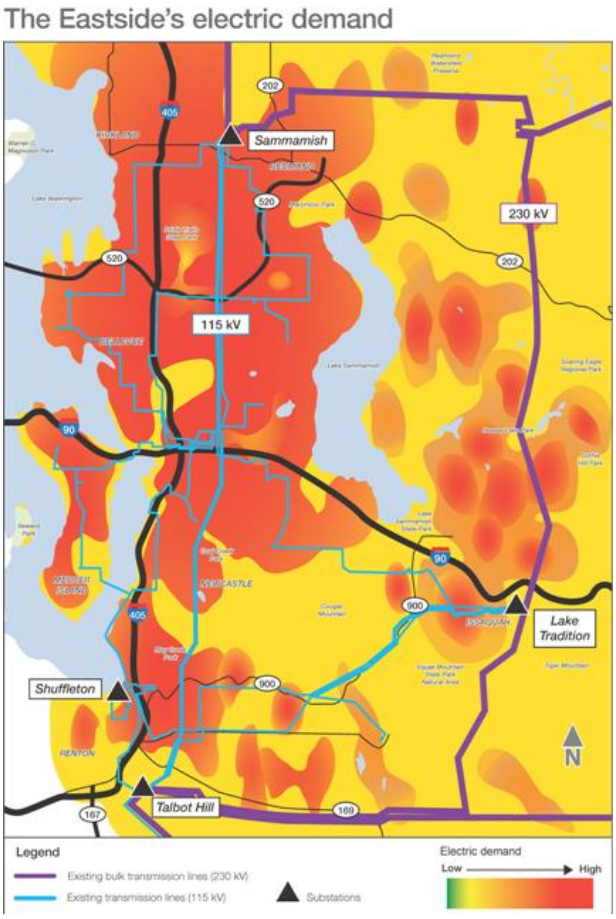
[1] http://www.seattle.gov/light/news/issues/irp/docs/SCL_2012_IRP.pdf, p. 13

The graph should be accompanied by an explanation of the methodologies used and assumptions made to produce each value on the graph so we can understand how they were determined and to what extent they are independent of PSE's values.

(None of the details requested above are included in U.S.E.'s report.)

Q2: Distribution of peak use

PSE shows the following map that purports to demonstrate high electricity demand throughout the Eastside:[2]



Unfortunately, the methodology used to create this map is unsound. We have been told by PSE that it combines peak use data from both summer and winter peaks which occurred over 5 years ago. The inclusion of summer peak data is not relevant to the winter peak problem Energize Eastside seeks to address and makes the problem look much worse.

Furthermore, the data was "scaled and smeared" to "protect consumers' privacy." The result of these manipulations suggests that Mercer Island is using electricity at the same intensity as downtown Bellevue, which is hard to believe.

[2] http://www.energizeeastside.com/need

We ask the consultant to create a more accurate map showing winter peak loads for the same area shown in PSE's map. The updated map should show data from a representative winter peak which occurred no more than 2 years ago. To provide adequate detail, data should come from measurements of peak loads at the level of individual distribution substations. An accurate map is important, because localized peaks might be addressed by localized solutions. Some may represent prime opportunities for conservation.

(On page 37 of their report, U.S.E. states that their map was not clear enough to warrant inclusion.)

Q3: EASTSIDE VS. REGIONAL NEEDS

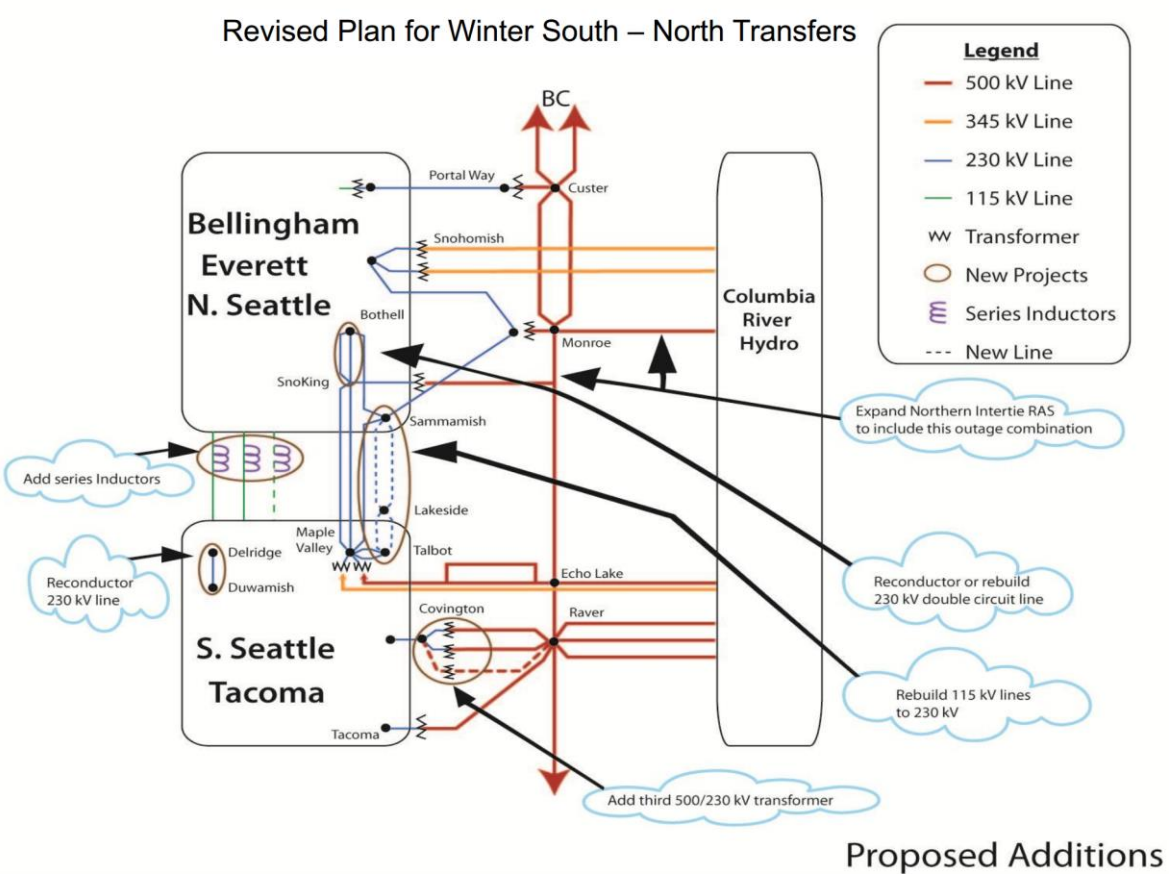
The VP of Transmission Planning for the Bonneville Power Administration (BPA) tells us that Energize Eastside is part of a regional transmission plan developed jointly by PSE, BPA, and Seattle City Light (SCL) to address three issues:

1. Load for the Eastside
2. Load for Seattle
3. Reliability of the Northwest Washington Electric Grid

This is confirmed in planning documents from the Columbia Grid consortium and agreements signed by PSE, SCL, and BPA.[3] The role of Columbia Grid and BPA is illustrated in this diagram, which shows how Energize Eastside (upgrades to the lines between Talbot and Sammamish) helps to address two outages on BPA lines indicated by arrows near the Monroe station: [4]

[3] http://www.bpa.gov/news/newsroom/releases/Documents/20120124-PR-5-12-Joint-transmission-system-projects-to-improve-system-reliability.pdf

[4] https://www.columbiagrid.org/download.cfm?DVID=2168, p. 5



We believe this diagram is relevant to PSE's Eastside Customer Demand Forecast, because PSE's Needs Assessment predicts no overload condition for Eastside infrastructure under extreme peak loads (13 degree winter weather) by 2022, even with very low conservation:[5]

6.1.1 N-0 Thermal and Voltage Violation Summary

For all cases, there are no thermal or voltage violations for the all lines in (N-0) state.

2017-18 – Case 2-Winter Peak, Normal Weather: For all elements in service (N-0), there were no thermal or voltage violations for 2017-18 winter peak, normal weather, with all levels of conservation modeled (i.e. 100%, 75%, 50%, or 25%) conservation.

2017-18 – Case 3-Winter Peak, Extreme Weather: For all elements in service (N-0), there were no thermal or voltage violations for 2017-18 winter peak, extreme weather, with all levels of conservation modeled (i.e. 100%, 75%, 50%, or 25%) conservation.

2021-22 – Case 2-Winter Peak, Normal Weather: For all elements in service (N-0), there were no thermal or voltage violations for 2021-22 winter peak, normal weather, with all levels of conservation modeled (i.e. 100%, 75%, 50%, or 25%) conservation.

[5] http://www.energizeeastside.com/Media/Default/Library/Reports/Eastside_Needs_Assessment_Final_Draft_10-31-2013v2REDACTEDR1.pdf, p. 45

2021-22 – Case 3-Winter Peak, Extreme Weather: For all elements in service (N-0), there were no thermal or voltage violations for 2021-22 winter peak, extreme weather, with all levels of conservation modeled (i.e. 100%, 75%, 50%, or 25%) conservation.

In order to better understand this issue, we ask the consultant to produce a series of simple one-line diagrams that illustrate the following:

1. Existing Eastside infrastructure and the direction and amounts of electricity flow during a normal winter peak load event with no nearby grid outages (N-0 in industry parlance).
2. Using the diagram and peak scenario created in 1. above, show the effects on and amounts of electricity flow during an N-1-1 outage of BPA's transmission lines as indicated in the "Revised Plan" diagram above.
3. Diagram Eastside infrastructure if Energize Eastside is built as proposed, with the direction and magnitude of electricity flow during a normal winter peak load event under N-0 conditions.
4. Using the diagram created in 3. above, show the effects on and amounts of electricity flow during the same N-1-1 outage specified in 2. above.

If it's not clear from these diagrams, we are especially interested to know what percentage of the electricity flowing on Eastside transmission lines is flowing to Canada or points north in the normal and N-1-1 scenarios.

We would like the consultant to verify that the values used in PSE's Eastside Customer Demand Forecast assume a scenario in which a winter peak demand event occurs on the Eastside at the same time a major transmission outage (an N-1-1 event) occurs nearby on the grid. We would also like the consultant to explain how likely it would be for these events to occur simultaneously. How many hours per year is this worst-case scenario likely to happen in 2015, 2020, 2025 and 2030, assuming Energize Eastside were not built? How would these forecasts change if BPA constructed the "Echo Lake-Monroe 500 KV Transmission Project" currently listed as "ON HOLD" in BPA's 2014 Annual Progress Report to the Western Electricity Coordinating Council?[6]

(We find no answers to these questions in U.S.E.'s report.)

Q4: RELIABILITY

We are unsure that spending $200 million on Energize Eastside is the best way to improve the reliability of our power. To better understand this, we ask the consultant to characterize all power outages for the years 2000-2015 by their causes. We are especially interested to know how the incidence of outages caused by system overload on the equipment which Energize Eastside would replace compares to downstream outages caused by extreme weather, tree strikes, accidents, downstream equipment failure, etc.

We ask the consultant to forecast how many outages in the next five years (2016 – 2020) would be avoided by implementation of Energize Eastside.

(These questions remain mostly unanswered in U.S.E.'s report. On page 47, U.S.E. estimates Energize Eastside will avoid one outage every 3-30 years.)

[6] https://www.wecc.biz/Reliability/2014_BPA_APR.pdf, p. 8

Subject: FW: CENSE presentation to council, 2-15-2015
From: Don Marsh <doncense@gmail.com>
Date: 6/15/2015 4:58 PM
To: <Scoping@EnergizeEastsideEIS.org>

There was some confusion about whether this should be sent to info@energizeeastsideeis.org or scoping@energizeeastsideeis.org. To make sure it gets into the EIS record, I am forwarding to the scoping address.

Don Marsh

From: Don Marsh [mailto:doncense@gmail.com]
Sent: Monday, June 15, 2015 6:59 AM
To: info@energizeeastsideeis.org
Subject: CENSE presentation to council, 2-15-2015

My name is Don Marsh. My wife Ruth and I live with our two children at

4411 137th Ave. SE
Bellevue, WA 98006

I am the vice president of CENSE, the Coalition of Eastside Neighborhoods for Sensible Energy, a citizen action group which seeks an energy solution that is more cost effective, more reliable, and less harmful than Energize Eastside.

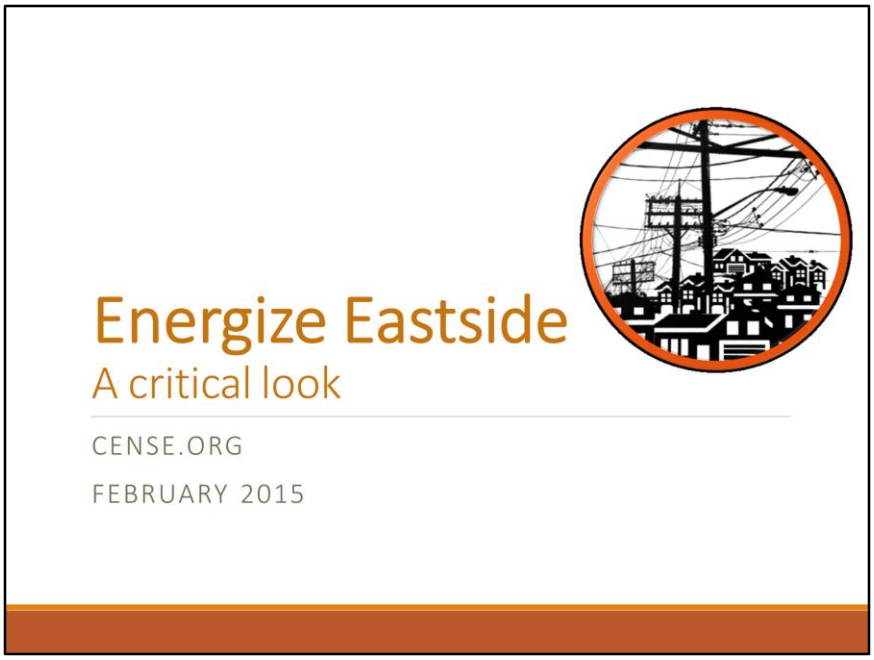
Please include the attached presentation in the records for this EIS. It is a presentation that was made to the Bellevue City Council on February 15, 2015, by CENSE and two neighborhoods associations (Bridle Trails and Somerset). Bridle Trails was represented by Loretta Lopez, Somerset by Jane Kim, and CENSE by Sally McCray.

Although the presentation contains many facts that we believe are still relevant, our understanding has increased during the past four months as a result of discussions with our consultants, which include Richard Lauckhart, the former VP of Power Planning for Puget Sound Power & Light, and Ken Nichols, the principal consultant of EQL Energy. We might state some of the facts in this presentation a little differently now, but they remain interesting to provide historical context for the EIS.

Sincerely,
Don Marsh, VP
CENSE.org

Attachments:

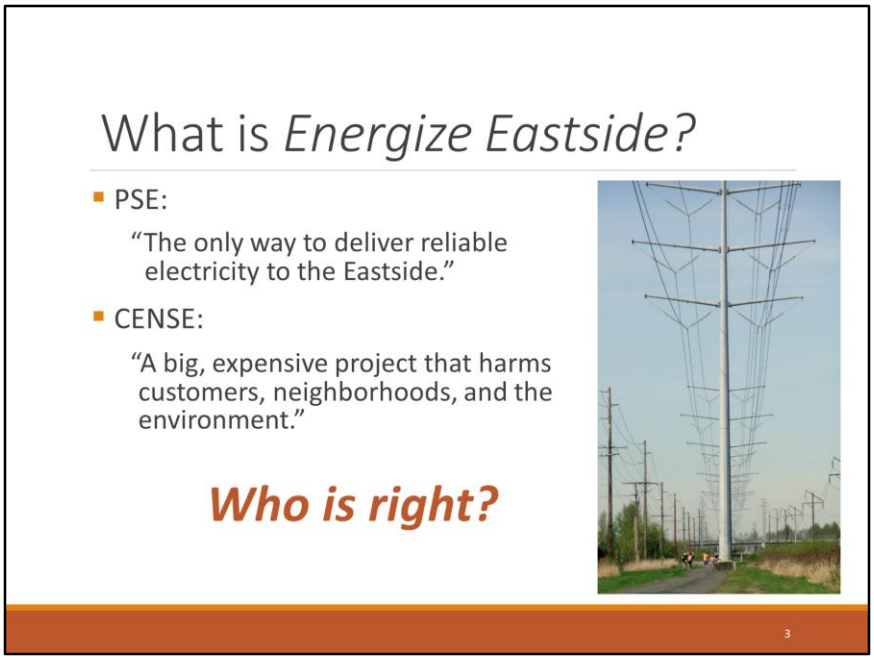
CENSE presentation to council 2-9-2015.pdf	1.8 MB



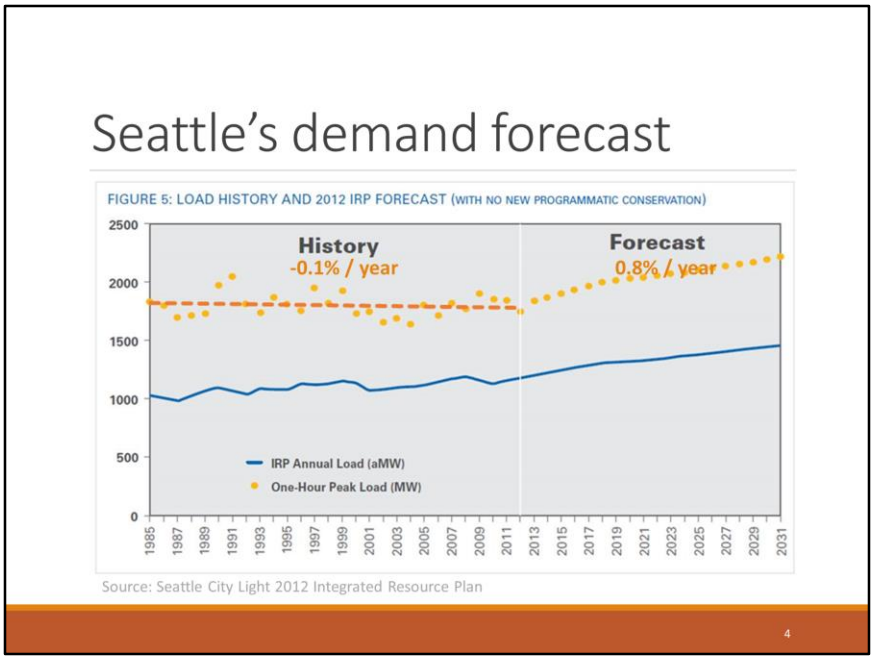
Honorable Councilmembers,
My name is Loretta Lopez, and I'm representing the Bridle Trails Community Club. We would like to show you a presentation that we are sharing with various homeowners' organizations, policy makers, and members of the press. We think it's important for you to hear what your constituents are hearing, so we've only modified the presentation a little for this particular venue. Although some of this information might seem familiar, there is new information that you might not have heard before. The other presenters will be Jane Kim, representing the Somerset Community Association, and Sally McCray, representing CENSE, the Coalition of Eastside Neighborhoods for Sensible Energy. We'll skip our usual introduction of CENSE, since you already know us pretty well.

Who is CENSE?

- CENSE: Coalition of Eastside Neighborhoods for Sensible Energy
- Volunteers from all Eastside cities
- We are pro-growth, pro-business, and pro-neighborhood
- (And we wear orange)

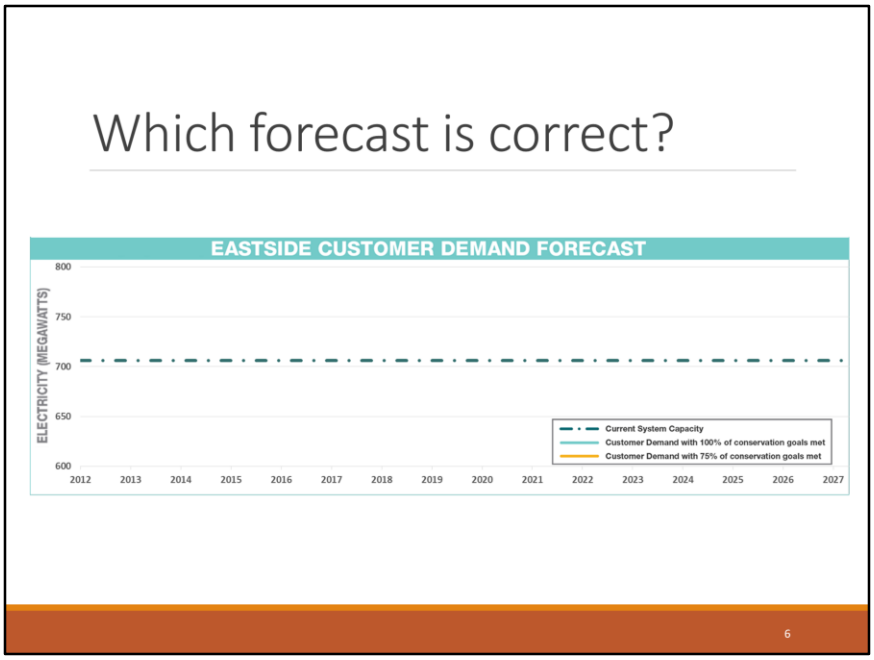


PSE and CENSE have different views on Energize Eastside. According to PSE, it's the only way to keep the lights on in Eastside cities. CENSE thinks there are a number of alternatives that are less costly and less harmful to residents and the environment. We'll give you our best arguments, and then you can decide whether we should think twice before we spend $200 million on this project.

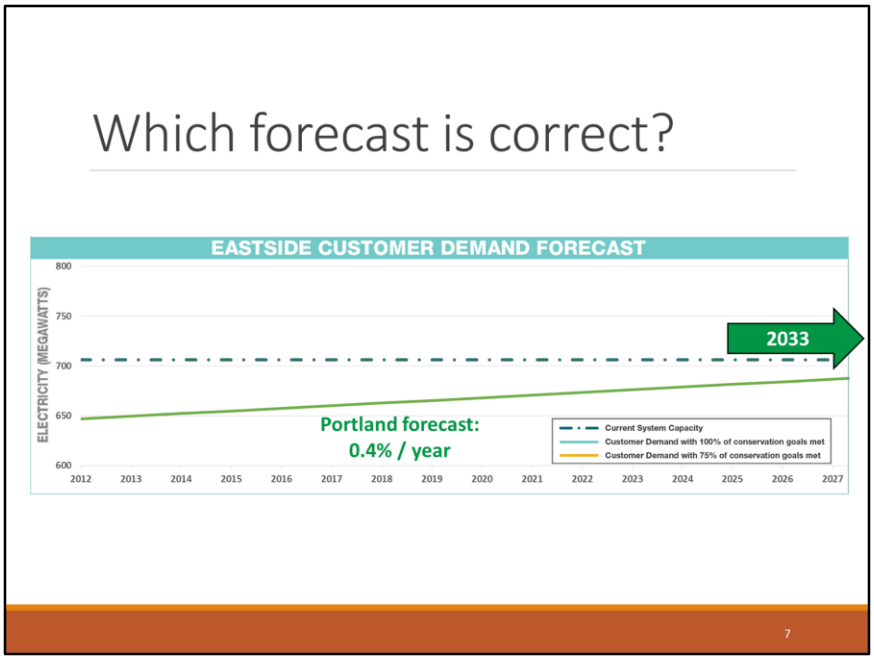


Let's start with the question of how to forecast demand for electricity. For example, here's a reasonable forecast from Seattle City Light. Notice how Seattle shows 27 years of historic data to give some context for their forecast? The yellow dots at the top of the graph show winter peak loads that were measured for each year. We've added an orange trend line that shows a slight decline over the years. Like every utility, Seattle City Light is very cautious, so they predict a small increase going forward, reversing the long-term trend. But it's a gradual increase, less than 1% per year.

The decrease in Seattle's peak loads is not an isolated phenomenon. This graph is from the Pacific Northwest Utilities Conference Committee, which includes PSE. The top line shows winter peak loads declining throughout the region during the last decade. The committee offers this explanation: "The region's aggressive conservation efforts are purposely dampening loads. Utilities are considering … use of electronic devices such as televisions, computer hardware, and household appliances, and they are evaluating efficiency improvements in transmission and distribution systems as they forecast future demand. Combined, these factors appear to be having a significant impact on load."

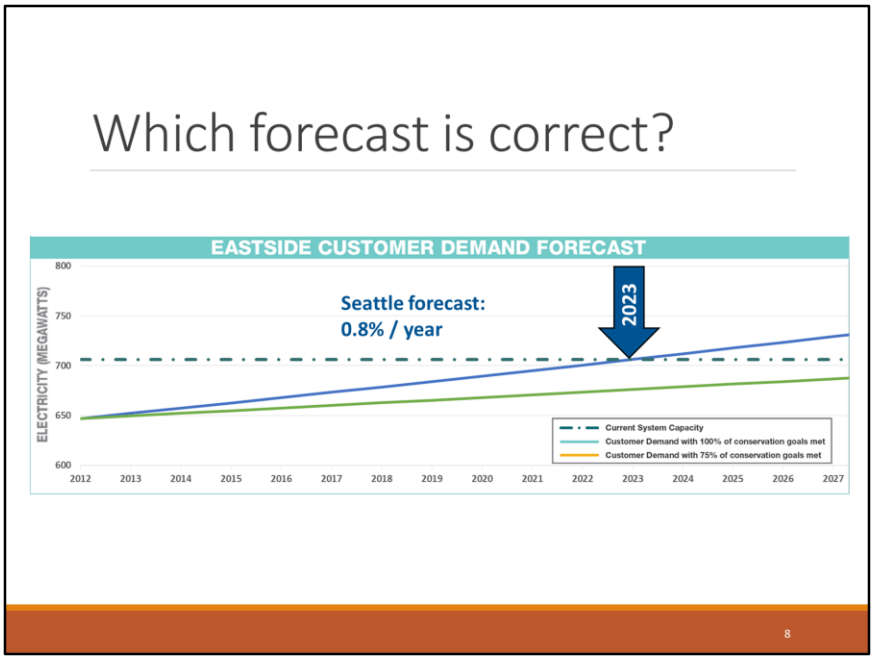


With those facts in mind, let's consider what a reasonable forecast for the Eastside might look like. I'll show you PSE's forecast in a minute, but let's start with three forecasts for other cities in the Pacific Northwest.

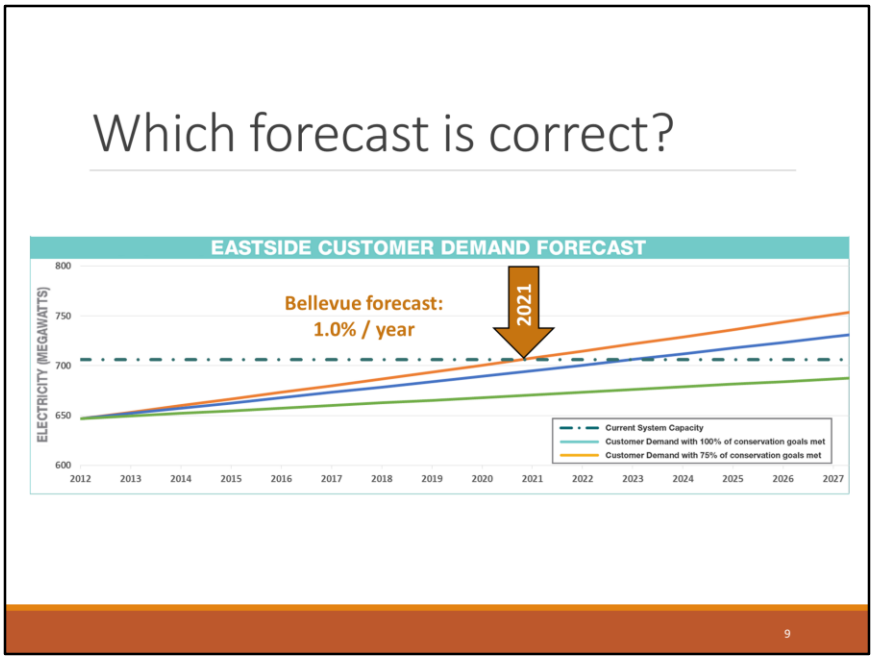


Portland is predicting demand growth of 0.4% per year, even though their population and economy are growing faster than ours. At that rate, we wouldn't hit PSE's System Capacity line until the year 2033.

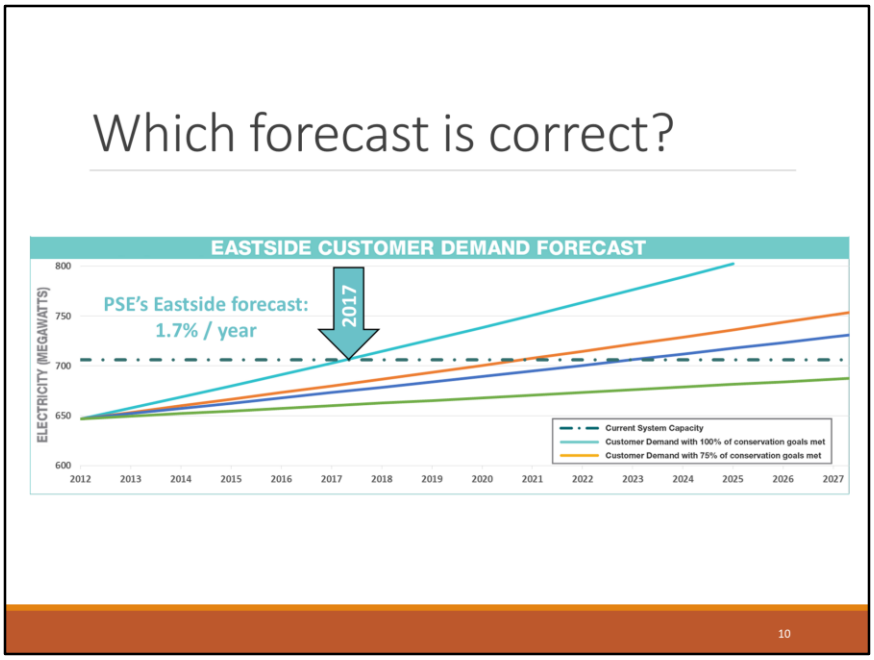
Portland keeps growth low by embracing technology and policy solutions used by utilities in many states. PSE has studied similar options. In fact, PSE's most recent planning document includes a 350-page analysis of these programs, but PSE isn't implementing any of them. Instead, the company buried the report in the thirteenth appendix of their plan and didn't mention it in the main text.



Seattle is predicting load growth of 0.8% per year. They have rates of population and economic growth that are similar to the Eastside's, and their weather is eerily similar to ours. Is it reasonable to ask if PSE could achieve a similar rate of load growth?



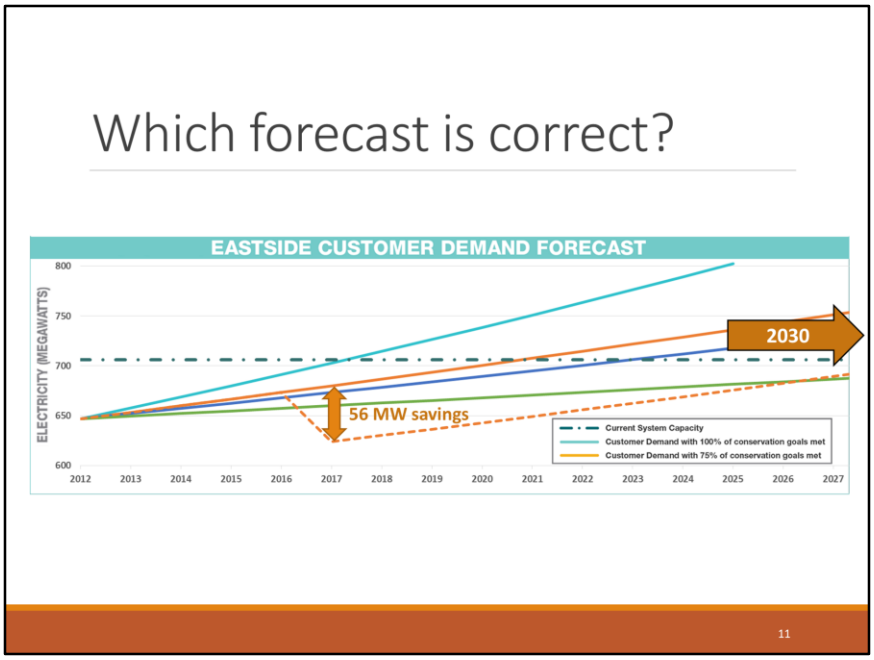
Here is a 1% annual growth rate predicted for the city of Bellevue by an independent consultant studying reliability at the same time PSE made their forecast. This matches the rate of population growth predicted by the Puget Sound Regional Council. Since Bellevue is the fastest growing city on the Eastside, this is a reasonably aggressive projection for the Eastside as a whole.
The 1% line hits the System Capacity line in 2021, which gives us a few years to study alternatives and identify the best solution for our communities.



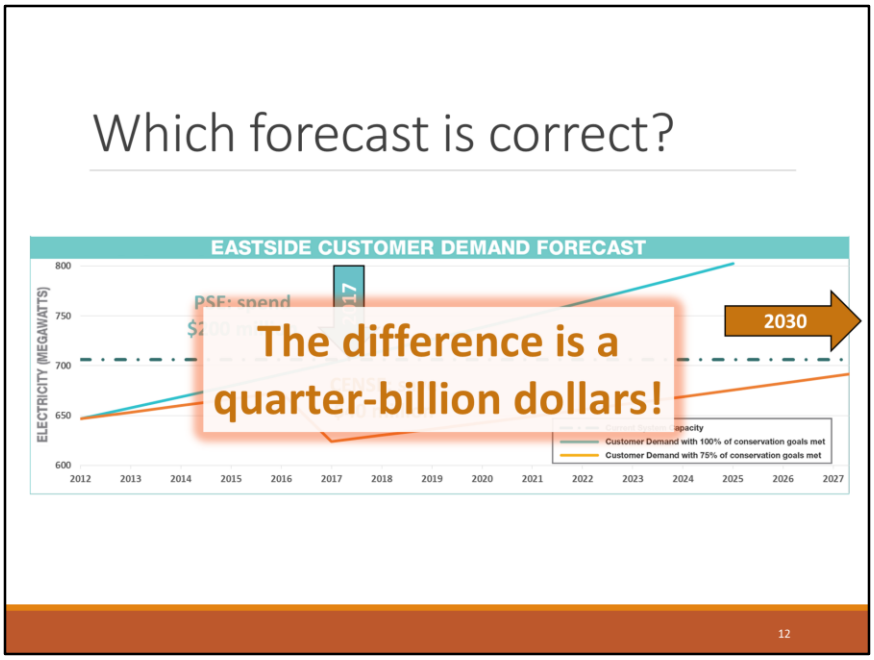
Now let's look at PSE's prediction, an average growth rate of 1.7% per year. This puzzles us. Why does PSE expect electricity demand to grow so much faster than population or economic growth? Is this a real forecast, or a convenient way for PSE to justify a project they want to build for other reasons?

To find out, CENSE has been asking for a qualified consultant to provide an independent load forecast. The City of Bellevue is considering our request, but has not committed to doing this.

Perhaps you're asking yourself, does it really matter whether the date is 2017 or 2021? If we're going to have a problem in a few years, why don't we just build the project now and get it over with?



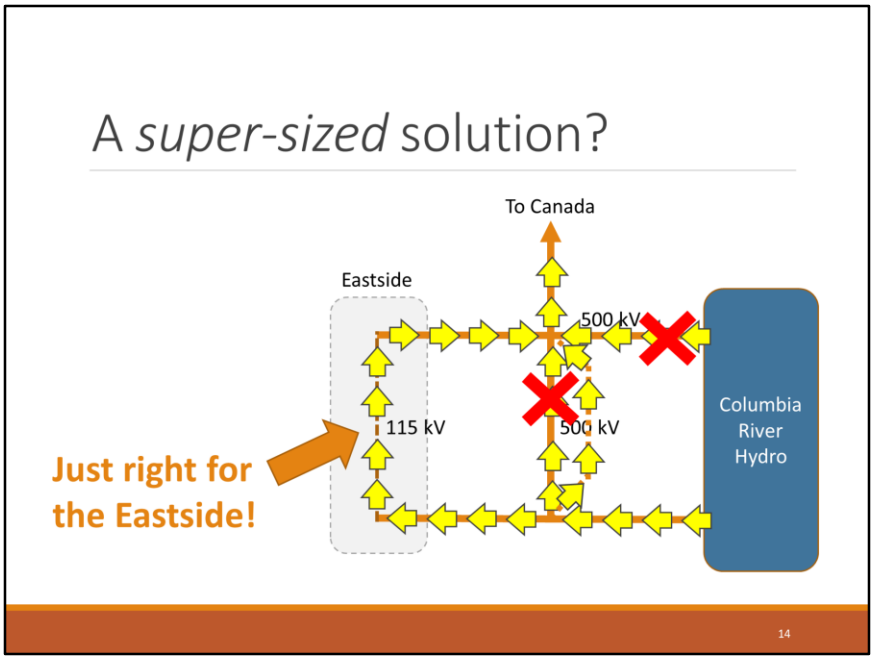
My name is Jane Kim, representing the Somerset Community Association.
Before we rush forward with Energize Eastside, there's another fact you need to know. PSE hired a consulting firm named E3 to study alternative solutions. E3 found 56 MW of cost-effective savings using electrical efficiency, distributed generation, and demand side resources. Their report is available on PSE's web site.
Taking E3's savings into account, we have 15 years before capacity becomes an issue, and we'll save PSE's customers almost a quarter of a billion dollars in the process.



Here's the choice: spend $200 million to meet a questionable deadline in 2017, or put $40 million back into the pockets of customers (according to E3's estimate) and delay this project until at least 2030. The difference is a quarter of a billion dollars!

A *super-sized* solution?

- Energize Eastside solves three problems:
  1. Peak load for the Eastside
  2. Load for Seattle
  3. Reliability for BPA



There's another problem with PSE's graph, but this will take a little explanation. According to the vice president of Transmission Planning for the Bonneville Power Administration, Energize Eastside is part of a regional transmission plan developed by PSE, BPA, and Seattle City Light to solve three problems: Load for the Eastside, load for Seattle, and a grid reliability issue for BPA. This third issue is illustrated in the diagram on the right.

The Columbia River Treaty obligates the U.S. to send Canada free electricity in return for river flow controlled north of the border. The electricity normally flows through a big 500 kV transmission line operated by BPA near Snoqualmie. *** Here is one path the electricity can take. Planners worry about what would happen if this line breaks. *** Fortunately, there is another path. *** But if that line also breaks, a surge of electricity would theoretically flow through our little 115 kV line, causing problems if our line is already serving peak load to the Eastside.

There are two ways to fix that problem. PSE can upgrade our line to 230 kV with Energize Eastside, *** or BPA can build a redundant line that can take the full load. *** In that case, Canadian electricity wouldn't need to flow through the Eastside, and our line would be adequate to serve our needs for many years.

BPA already has a plan to build their line, but they put that project on hold, hoping that Energize Eastside would handle the load for them. Is it fair for PSE's customers

to pay this cost themselves? Can we get some help from other states, or the federal government that signed the treaty?

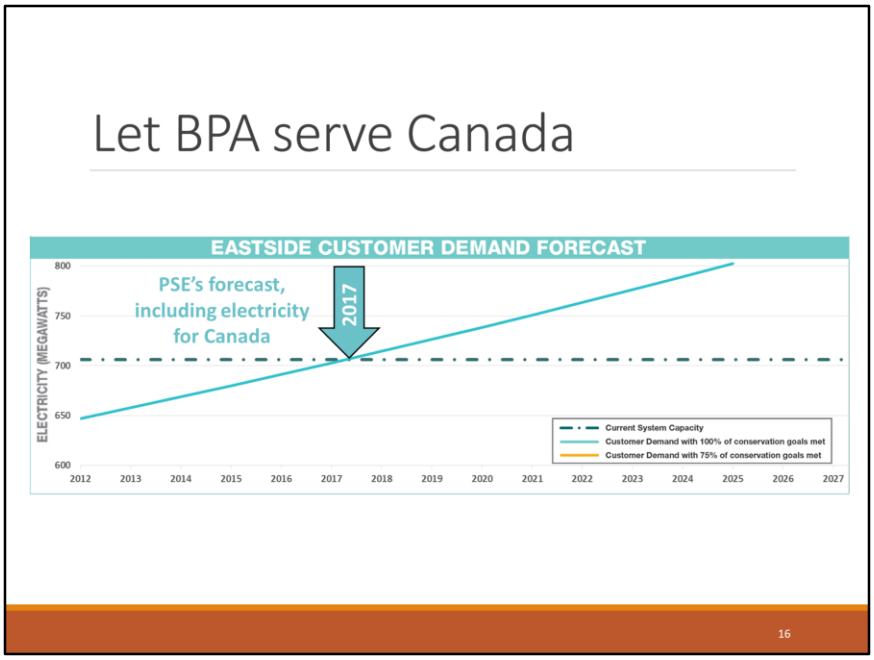
Now we know enough to understand the power outage scenario the company is predicting for the Eastside. It can only occur on a very cold winter work day, the kind that happens only a few days each year, and only during the highest usage that happens around 8:00 in the morning or 7:00 at night. Our infrastructure has plenty of capacity to handle that, even in the year 2022 with the aggressive growth rates PSE is forecasting.

So, PSE adds that big surge of Canadian electricity flow from BPA failures. This adds stress to the system, but not enough to cause a power outage.

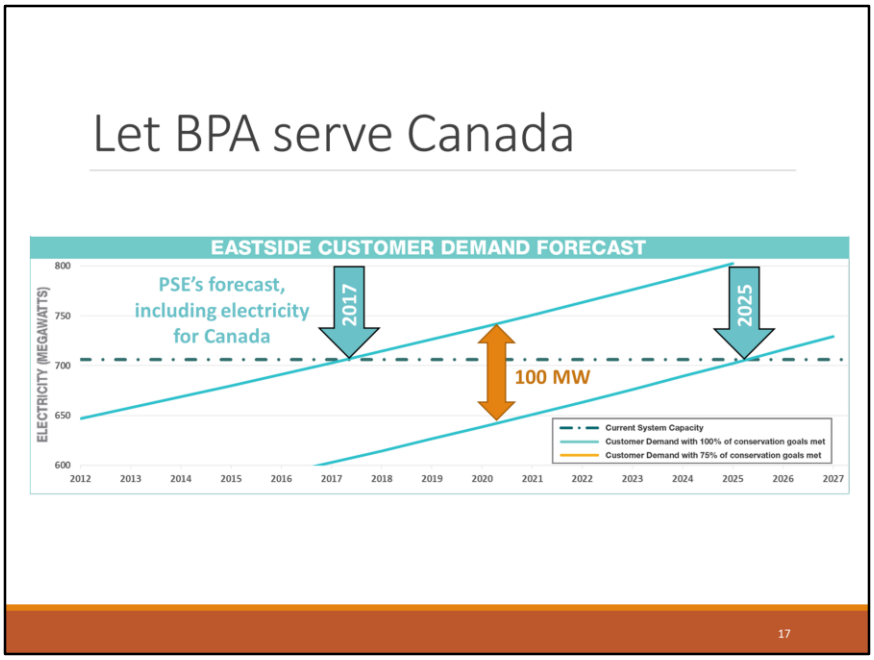
Then PSE simulates what would happen if all power generation in King County is turned off. This is more a voluntary choice rather than a realistic scenario, but PSE is simulating the worst case. Now PSE's transformers are getting hot. PSE responds by taking corrective actions. They isolate the north and south ends of the Eastside, which doesn't cause lights to go out, but it makes the system more vulnerable to any other problem that occurs.

Finally, a car hits a pole or a tree takes down some wires, and the system can no longer adapt.

If all these things happen at the same time, our lights might go out. But there are neighborhoods on the Eastside that regularly lose power when it gets windy. If we want to improve reliability, there are much better ways to spend our money.

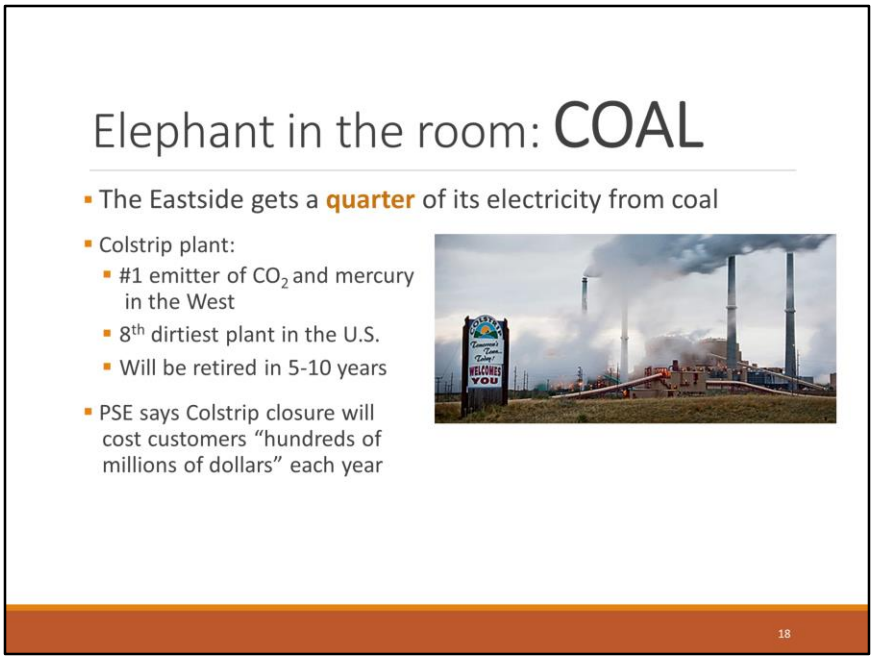


All of PSE's power flow studies and their demand graph include this assumption that BPA's lines are down, and 270 MW of Canadian electricity is surging through the Eastside. We have reason to believe at least 100 MW of that power would be flowing through our particular lines.

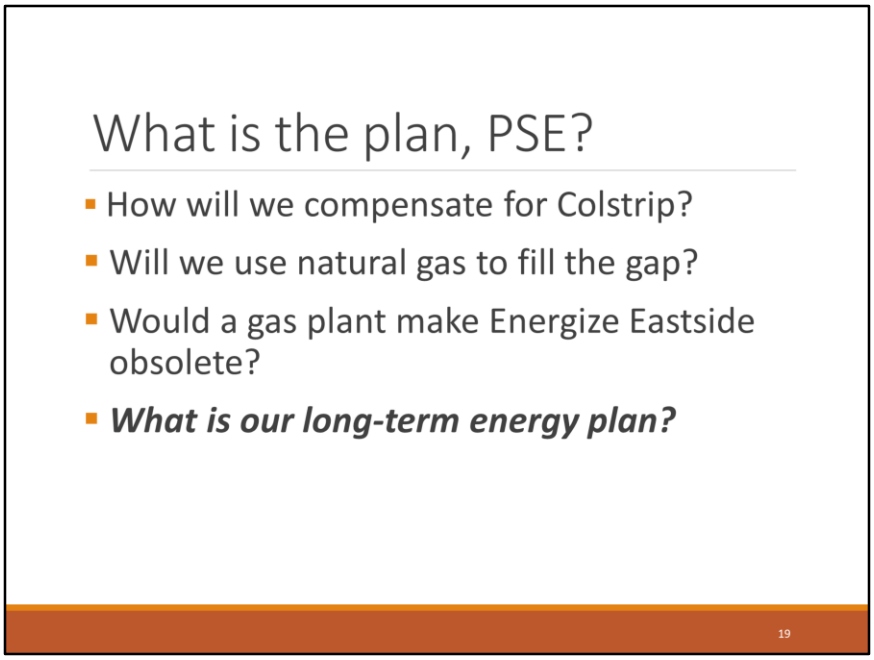


If BPA fulfills their obligation to provide reliable electricity to Canada, we can subtract 100 MW from PSE's graph. That delays capacity issues until 2025 at the earliest, even using PSE's aggressive growth projections.

So far, we've mentioned three ways that we can delay capacity problems and save money: a more realistic load forecast, E3's savings, and BPA building its own transmission lines. There are even more ways to avoid a capacity crunch, but it's time for us to talk about an elephant in the room that many people don't know about and PSE is trying to avoid.

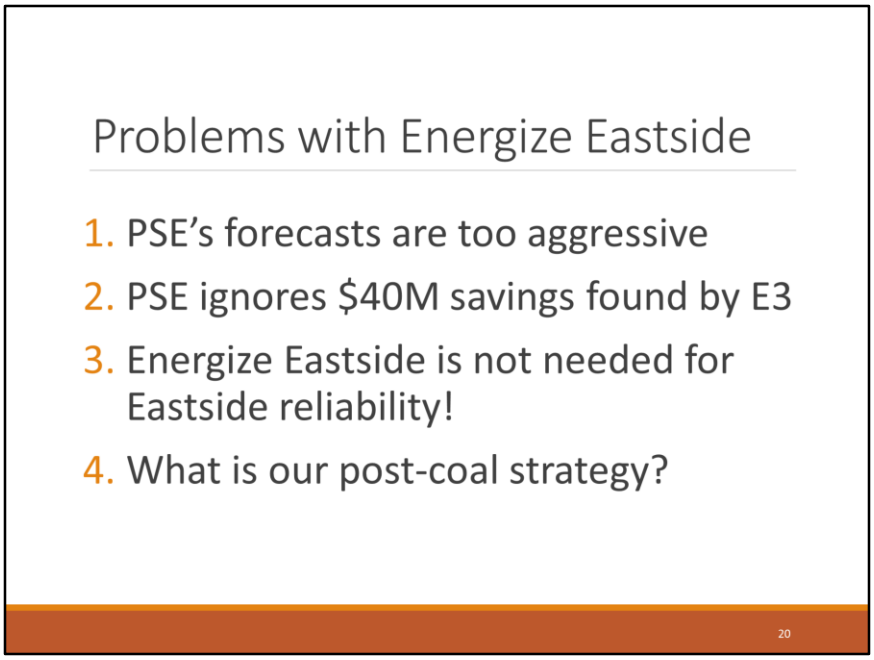


My name is Sally McCray, representing CENSE.
The elephant in the room is coal. Many Eastside residents don't know that up to a quarter of our electricity comes from an extremely dirty coal plant located in Colstrip, Montana. It's hard to believe an environmentally-conscious area like ours is served by a plant that is the number one emitter of carbon dioxide and mercury in the West, and the 8th dirtiest power plant in the nation. For many reasons, it's no longer a question of "if" this plant will be shut down, but "when."

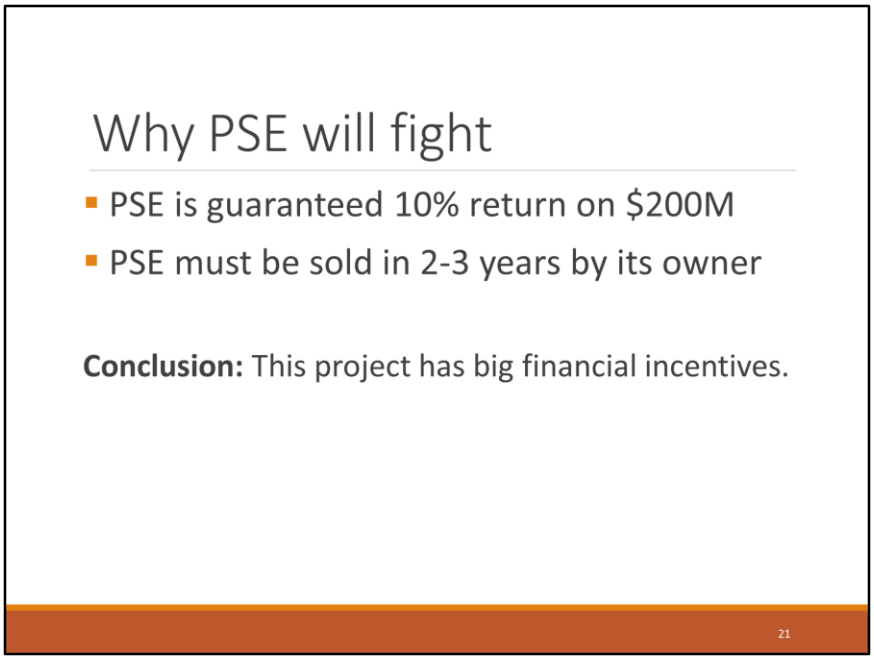


The impending closure of Colstrip raises big questions about our energy future. How is PSE going to replace a major power source? Experts think most of that gap will be filled by new power plants that use natural gas. If one of those plants is located close to the Eastside, it will improve overall reliability, reduce transmission losses, and save money. It would also make Energize Eastside unnecessary.

PSE wants its customers to spend $200 million on an expensive transmission project. PSE then says it will cost us "hundreds of millions of dollars per year" if the Colstrip plant is taken off line. How much will we be paying for our electricity in a few years? We need a good plan for what the Eastside will need in a post-coal era.



To summarize, we've shown four problems with Energize Eastside:
PSE's forecasts are unrealistic,
PSE ignores findings by E3 that would save energy and money,
Energize Eastside does not improve reliability for the customers who must pay for it,
and Furthermore, Energize Eastside might not fit into a comprehensive plan for a coal-free future.

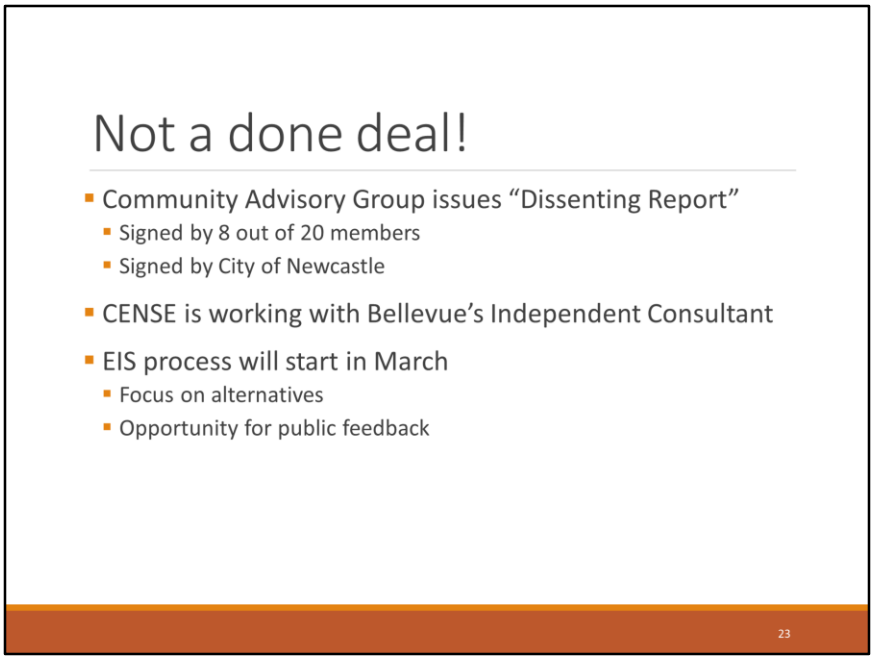


To understand how we've gotten to this situation, it's important to know that PSE makes most of its profits from building infrastructure. State laws enacted a century ago encourage power companies to build infrastructure to reach citizens near and far. Unlike other states, Washington has not updated these laws to shift incentives towards smarter technology.

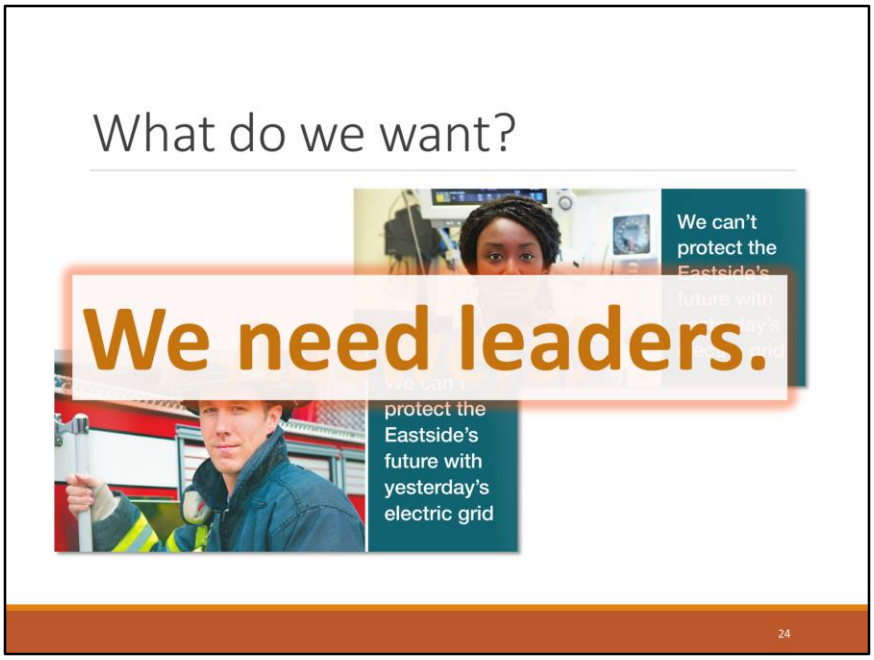
As a regulated monopoly, PSE is guaranteed a return of at least 10% on $200 million for the next 40 years. That's especially attractive for PSE right now, (well who wouldn't that be attractive to?).

But it is especially important for PSE to implement this project now, because the Australian hedge fund that owns PSE is scheduled to sell its holdings in the next 2-3 years when the fund expires. Having a big infrastructure project on the books will increase PSE's resale value and increase profits for the fund's investors.

When looking at the data PSE provides, a question should be asked: is PSE the kind of company that would prioritize profits over the well-being of its customers? Sadly, that looks to be the case. This chart shows that PSE has been ordered to pay substantial fines for mistreating its customers in every year but one for the past 8 years, culminating in an order to return $35 million to customers last year for overcharging them. Through its actions, PSE has earned a heightened level of scrutiny and skepticism from all of us.



When it comes to Energize Eastside, some people worry that PSE is a well-connected juggernaut that cannot be stopped. We don't think that has to be the case.
In December, PSE announced that their Community Advisory Group recommended two routes for the overhead transmission lines. In truth, there was never a vote taken on these recommendations, and none of the participants signed the final report. In fact, 8 out of the 20 members signed a Dissenting Report, which complains that the group was never allowed to consider reasonable alternatives. Among the dissenting signatures was the City of Newcastle, which stepped into a leadership role for their citizenry and stated that Energize Eastside would have "significant and irreparable impacts on homes and businesses" in their community.



We have many important questions about this project. Over the past year, we've asked PSE for answers and real data. PSE has responded with a PR campaign. We deserve facts, not fear mongering. We deserve a defensible load forecast, and a cost effective solution.

Citizens have shown tremendous concern about this project. Bellevue Neighborhood leaders have said this is the most important issue facing them. We need to see a strong response and real leadership from our elected officials.

Now is the time. Who is willing to make this a top priority and make sure decisions are based on a realistic load forecast? Who will demand real answers from this company?

Who will speak for us?

Subject: Energize Eastside: KC WTD EIS scoping comments
From: "Sheppard, Jacob" <Jacob.Sheppard@kingcounty.gov>
Date: 6/15/2015 1:35 PM
To: "scoping@energizeeastsideEIS.org" <scoping@energizeeastsideEIS.org>
CC: "Lampard, Mark" <Mark.Lampard@kingcounty.gov>, "Sheppard, Jacob" <Jacob.Sheppard@kingcounty.gov>

Dear Mr. Pyle:

Attached, please find King County Wastewater Treatment Division's scoping comments for the proposed Energize Eastside project.

Included in this attachment is a map illustrating WTD facilities in relation to the currently proposed transmission line alignments.

Thank you for the opportunity to review and comment on this project.

Sincerely,

Jacob Sheppard | Environmental Planner
(206) 477-5395

King County
Department of Natural Resources and Parks
Wastewater Treatment Division

Attachments:

EnergizeEastside KCWTDComment 06152015.pdf 1.2 MB

King County
Department of Natural Resources and Parks
Wastewater Treatment Division
Community Services & Environmental Planning
King Street Center, KSC-NR-0505
201 South Jackson Street
Seattle, WA 98104-3855

June 15, 2015 Sent via email: Scoping@EnergizeEastsideEIS.org

City of Bellevue
Development Services Department
Attn: David Pyle
450 110th Avenue NE
Bellevue, WA 98004

RE: Energize Eastside Project (File Number 14-139122-LE)

Dear Mr. Pyle:

The King County Wastewater Treatment Division (WTD) has reviewed the **Determination of Significance and project information for the Energize Eastside Project.** The transmission line alignments that PSE is currently considering intersect WTD wastewater conveyance facilities at multiple locations: Both proposed alignments cross the Cedar River Trunk, the Coal Creek Trunk, and the Lake Hills Interceptor; and the proposed "Willow" alignment also crosses the Factoria Trunk. The approximate locations of these intersections are shown on the attached map. In addition, WTD may have permanent easements or similar property rights for these conveyance facilities.

WTD is requesting that the City of Bellevue and PSE consider the potential impacts of the proposed project on these and other wastewater facilities when identifying and analyzing the impacts of project alternatives. WTD would need to be assured the right to maintain and repair our facilities, and, in the event that a sewer line must be relocated, new permanent easements may need to be provided.

WTD is also requesting that the City of Bellevue and PSE submit design drawings and other project information for review as design development continues so that King County staff can assess the project's impacts. Information should be sent to:

Mark Lampard, Local Public Agency Coordinator
Project Management Unit
King County Wastewater Treatment Division
201 South Jackson Street, KSC-NR-0508
Seattle, WA 98104-3855

Mr. Lampard can also be contacted at (206) 477-5414 or mark.lampard@kingcounty.gov.

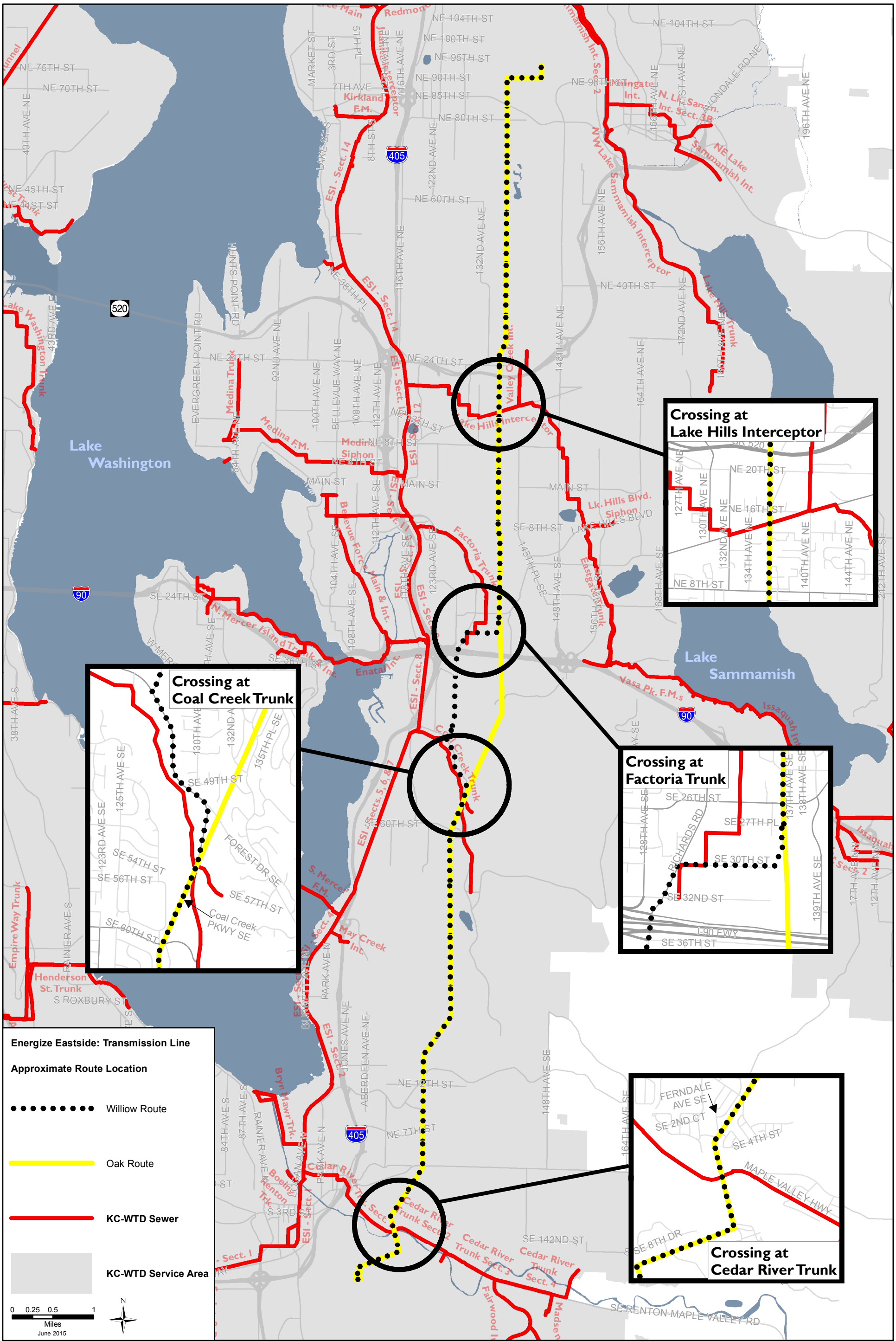
Thank you for the opportunity to review and comment on this project.

Sincerely,

Jacob Sheppard, Water Quality Planner
Community Services and Environmental Planning

cc: Mark Lampard, Local Public Agency Coordinator, Project Management Unit

enc: Map of WTD conveyance facilities in relation to proposed transmission line alignments



King County
Department of
Natural Resources and Parks
Wastewater Treatment Division

File Name: Q:\WTD\Projects\90Temp\Projects\EnergizeEastsideTransmissionLine.mxd

Data Source: KC-WTD GIS Center, bachc | Eastside Transmision Line Digitized by user bachc using "http://www.energizeeastside.com/interactive-map") Routes "Oak" & "Willow" as the source.

DRAFT: For Analysis Only

Energize Eastside EIS Review

Approx. Locations where Transmission Line Crosses KC-WTD Conveyance Line

Subject: Fw: Energize Eastside
From: <j.robertson@bellevuewa.gov>
Date: 6/15/2015 2:08 PM
To: <scoping@energizeeastsideeis.org>

This should be included as a scoping comment.
Sincerely,

Jennifer Robertson
City Councilmember, City of Bellevue
425-452-7810 (office)
425-516-5877 (cell)

From: Jennifer Neighbors <jenniferneighbors@hotmail.com>
Sent: Monday, June 15, 2015 2:05 PM
To: Robertson, Jennifer S.
Subject: Energize Eastside

Dear Ms. Robertson,

I write to express my deep concerns about and opposition to the Energize Eastside project for a new high-voltage power line, a project being promoted and pushed by Puget Sound Energy (PSE). The cost for this plan is extremely high in many ways:

1. The monetary cost for this project will be borne by the entire Eastside community for decades to come, while PSE reaps monetary profits for decades to come.

2. The safety risks of this project will be borne by the neighborhoods -- almost exclusively residential -- through which this project will run. For instance, how do you respond to constituents who send their children to Tyee Middle School, already on top of an old gas pipeline and, if this project is approved, soon to be under 130' tall high voltage power lines? Leaving aside the dangers of spending up to 10 hours a day directly under such transmission lines, one accident in construction or one unforeseen car crash in or on the way to the school parking lot would have catastrophic consequences for children, teachers, and the local community. Tyee is just one example among many -- for its entire length, this new 230kV line would run on top of an active and old gas pipeline. PSE is putting community members' lives in danger all along the proposed transmission corridor. If a disaster should occur and the Bellevue City Council has approved of this project knowing of these dangers, who will be held legally responsible?

3. One earthquake along the Seattle Fault, which crosses both the Olympic Pipeline and the proposed route for the new high voltage power lines in Bellevue, could result in explosions up and down the entire length of the proposed 230kV line.* If, as noted by the US Geological Survey, the pipeline is already at risk in an earthquake,** imagine the risk once new high voltage power lines tower above it. If part of the goal of Energize Eastside is to provide for energy needs in the case of a regional emergency, why would PSE try to locate power lines in a place so acutely vulnerable to a natural disaster?

4. There will be high environmental costs due to the destruction of thousands of mature trees.

5. Property values will decline along the entire corridor.

The Eastside does not need the capacity provided by these lines. Research conducted by community members and CENSE shows that demand forecasts done by PSE are wildly inflated, based on out-dated numbers and out of sync with those predicted by neighboring Seattle utilities.***

Why doesn't PSE use the existing, underutilized 230kV transmission line that runs a mile west of the proposed new route? Why doesn't PSE explore conservation and emerging technologies such as the self-healing wire technologies already being used right next-door in Seattle?**** Why not be at the cutting edge of energy supply rather than spend hundreds of millions of dollars on increasingly outdated technologies that are, again, not needed to supply local demand?

As a final note of concern, I would like to point out that PSE seems to assume that the 230kV power line project is already a fait accompli – at a recent public scoping meeting held at Newcastle Elementary on May 28, 2015, a citizen reported that PSE has already tagged trees in his backyard that will be cut down during the construction process. Why is PSE tagging trees along the proposed route of alternative 1 if the 230kV power line project itself has not yet been approved, and is one of only four alternatives presented to the public? Is the EIS public scoping process and public input process simply meant to provide a rubber stamp on a deal that has already been settled behind closed doors?

I strongly endorse Alternative 2 ("non-wire technologies") of the EIS/PSE alternatives as described on the Energize Eastside Scoping web page. I am staunchly opposed to Alternative 1 (PSE's "preferred" option that includes the laying of new 230kV power lines), and I would hope all members of the Bellevue City Council would feel the same. After all, is the job of the Bellevue City Council to cater to the interests of PSE -- a privately-held international corporation -- and help a corporation improve its profits? Or is the job of the Bellevue City Council to serve and protect the interests and safety of its citizens?

Stand up for your citizens, stand up for your community, and oppose these new 230kV transmission lines.

Sincerely,
Jennifer Wilson

14312 SE 45th Street
Bellevue, WA 98006

*Sandi Doughton, "Pinpointing Devastation if Seattle Fault Ruptures." *Seattle* Times. 2005/2008. http://www.seattletimes.com/seattle-news/pinpointing-devastation-if-seattle-fault-ruptures/
**"Report Urges Better Preparation for Quake on Seattle Fault." *DJC Oregon*. 2/23/2005.

http://djcoregon.com/news/2005/02/23/report-urges-better-preparation-for-quake-on-seattle-fault/
*** http://cense.org/
****http://powerlines.seattle.gov/2015/04/06/seattle-city-light-testing-self-healing-power-lines/

Subject: KDC scoping comments - Energize Eastside EIS
From: Jim Hill <jimhill@kemperdc.com>
Date: 6/15/2015 3:58 PM
To: "Scoping@EnergizeEastsideEIS.org" <Scoping@EnergizeEastsideEIS.org>

Attention Mr. David Pyle.

Please see attached comments.

Thank you.

Jim Hill, Kemper Development Company
575 Bellevue Square
Bellevue, WA 98004

Attachments:

20150615155319259.pdf 52.4 kB

David Pyle
Energize Eastside EIS Program Manager
City of Bellevue Office of Planning & Community Development 450 110th Ave NE
Bellevue, WA 98004

Dear Mr. Pyle:

Thank you for the opportunity to submit scoping comments into the Energize Eastside Phase 1 EIS.

For over 60 years, Kemper Development Company has been at the forefront of growth and development in Bellevue. The backbone of PSE's transmission system serving this area was last upgraded when Bellevue Square had just a few stores and its very first anchor tenant, Fredrick & Nelson. Today, the Bellevue Collection is comprised of over 4 million square feet of interconnected office, retail, restaurant, hotel and residential space, serving over 20 million visitors a year.

We support a project that ensures suitable electric capacity and reliability for our entire region. We believe reliability will be achieved by using technically feasible solutions and by using proven technologies. For KDC, it is important that the EIS move forward before we are faced with a greater likelihood of power disruptions and outages.

We appreciate the Eastside jurisdictions working together under the lead of the City of Bellevue to review and analyze alternatives that will meet the growing needs of the Eastside. We urge you to complete this process in a timely manner, while continuing to help mitigate the concerns of residents and businesses in both the downtown core and throughout the surrounding neighborhoods.

We appreciate the opportunity to comment on the Phase 1 EIS and believe the Energize Eastside project addresses a timely and urgent need for our community.

Sincerely,

Jim Hill
Vice President
Kemper Development Company

Subject: File No. 14-139122-LE: EIS Comment Letter Submittal
From: Joan Nolan <joansn64@hotmail.com>
Date: 6/15/2015 6:55 AM
To: "Scoping@EnergizeEastsideEIS.org" <scoping@energizeeastsideeis.org>

To David Pyle:

Attached please find a comment letter for File No. 14-139122-LE.

Joan and Robert Nolan

EIS 14-139122 LE (pg 1 of 2).jpg

City of Bellevue
Development Services Department
Attn: David Pyle
450 110 Avenue SE
PO Box 90012
Bellevue, WA 98009

RE: EIS File Number: 14-139122-LE
Energize the Eastside Project

June 15, 2015

Dear Mr. Pyle:

Here are comments on EIS File Number: 14-139122-LE Energize Eastside project:

EIS Process

Since the Energize Eastside (EE) is intended to meet both local load and a perceived need to provide MW of Firm Transfers / increase the Path Rating to Canada, EE is not a local load-serving project.

PSE states the need serving the eastside. This need can be addressed without going from 115 EMF to 230 EMF and putting a spine of 130' towers through the eastside.

BPA is required to send power to Canada by treaty not PSE. Under EE PSE customers carry the burden of paying an inappropriate share of the cost of the line.

Given this, NEPA not SEPA review is required for the EE project.

Views & Aesthetics

Energize Eastside Alternative #1 is inconsistent with Bellevue Comprehensive Plan which we maintain our vision of Bellevue 2025 set out in the Bellevue Comprehensive Plan. This includes the vision of our city as a "City in a Park". We believe that the Energize the Eastside project is inconsistent with this vision. The proposed higher voltage 130' lines and metal towers will scar our landscape and ruin our diverse neighborhood character.

EMF

With Energize Eastside Alternative #1 snaking through our residential neighborhoods many more people will be exposed to higher EMF 24/7. There are epidemiological data that show an increased incidence of childhood leukemia in families living near high tension power lines. We

EIS 14-139122-LE (pg 2 of 2).jpg

don't want to take any risk to the health and safety of our residents who would live by higher EMF lines.

Land and Shoreline Use Compatibility

Much of Energize Eastside Alternative #1 goes through residential routes when commercial/industrial routes are available. This is inconsistent with City of Bellevue zoning code. The proposed industrial poles do not match residential land use. Also Bellevue's land use code requires an alternatives analysis put new lines in the areas they are primarily designed to serve which would be Bel-Red corridor and downtown Bellevue.

Noise

Energize Eastside Alternative #1 lines will produce crackling noise where little existed previously.

Lights and Glare

Energize Eastside Alternative #1 130' lines may need to have night lights attached for aircraft safety. This will provide light pollution not allowing peoples to view nighttime skies. It also disrupts neighborhood character.

Other

Safety: Safety is a huge issue for Energize Eastside Alternative #1. The chosen route mostly goes along the Olympic pipeline. Extremely high power electromagnetic radiation can cause electric currents strong enough to create sparks. This doesn't make sense to put increased electromagnetic radiation over the airplane fuel-filled Olympic pipeline. What if there is an earthquake?

Wrong Alternatives and Inefficiency: If Energize Eastside purpose is really to address growing population centers; it should be built in downtown Bellevue and the Bel-Red corridor. PSE, BPA, and SCL should share corridors and expenses, the public should not be burdened with putting in multiple corridors of lines. This burden impacts financial, health, and quality of life for those by the lines.

Sincerely,

Robert Nolan Joan Nolan

Robert and Joan Nolan
4700 133rd Avenue SE
Bellevue, WA 98006

Attachments

EIS 14-139122-LE (pg 1 of 2).jpg	349 kB
EIS 14-139122-LE (pg 2 of 2).jpg	384 kB

Subject: Energize Eastside, 14-139122-LE, Determination of Significance
From: Karen Walter <KWalter@muckleshoot.nsn.us>
Date: 6/15/2015 11:13 AM
To: "Scoping@EnergizeEastsideEIS.org" <Scoping@EnergizeEastsideEIS.org>

To Whom It May Concern:

We have reviewed the Notice of Determination of Significance and the various materials available on the project website for the Energize Eastside project referenced above. We offer the following comments to the scoping notice:

1. The purpose and need of the project needs to be fully explicit and based on all of the available information. For example, some of the information available for the project suggests this is a localized project to ensure electrical grid reliability for eastside communities in King County. Other documents describe this project as necessary to accommodate existing problems with BPAs delivery system and its Columbia River Treaty with Canada. The purpose and need should be fully described as this should affect the range of alternatives considered and analyzed.

   Similarly, the technically viable alternatives listed in the Determination of Significance seem to be narrowly scoped. The available project documents also described other potential alternatives, such as upgrading the existing 115kV line; a new gas powered plant; microgrids and small turbines; and grid batteries. These other alternatives may have far fewer stream/wetland and buffer impacts than a new transformer and transmission line (Alternative 1; PSE's preferred alternative). These other alternatives should be given equal consideration and analysis in the DEIS. With this analysis, the DEIS needs to include a detailed discussion and analysis as to how the various alternatives can successfully avoid site specific and cumulative impacts to streams; wetlands; lakes and other waterbodies and their buffers. For example, demand side reduction and non-wire technologies would significantly limit the need to construct new facilities and could generally avoid a new transmission corridor.

2. One of the most significant issues to be analyzed is that this project is one of several in WRIA 8 that involve a long linear area where there will be the permanent removal of existing trees and the preclusion to grow trees in the future. The eastside is currently undergoing a major highway expansion with I-405 and SR 520; Sound Transit will be bringing light rail across Lake Washington and through Bellevue and Redmond; and King County has just issued its Determination of Significance for the Eastside Rail Corridor Regional Trail Master Plan. There are also other PSE projects occurring in the Eastside (i.e. Cottage Brook; Juanita-Sammamish etc) that will result in further areas and corridors were trees will be removed permanently. These projects are all being proposed at a time when the Puget Sound Partnership and individual jurisdictions are looking at ways to implement low development impact techniques, including tree retention and tree planting as a way to prevent further stormwater impacts and water quality degradation.
   Therefore, the DEIS needs a robust cumulative impacts analysis that looks at how this and these other projects with similar tree removal and tree preclusion effects mean for the affected subbasins and the larger waterbodies of Lake Sammamish; the Sammamish River; and Lake Washington.

   Part of the cumulative impacts analysis needs to include the issues that arise with managed corridors, including , but not limited to the introduction of invasive plant species; the potential for chemical treatment of these species; the loss of stream and wetland buffer areas from these corridors; the removal of adjacent hazard trees from the corridors.

3. The DEIS needs to identify a complete list of mitigation measures for unavoidable impacts for each alternative so that one can evaluate the completeness of these measures, as well as, any differences between alternatives, particularly where avoidance is used as the primary measure.

We appreciate the opportunity to review this Determination of Significance and look forward to the opportunity to review the Draft Environmental Impact Statement which addresses these issues.

Thank you,
Karen Walter
Watersheds and Land Use Team Leader

Muckleshoot Indian Tribe Fisheries Division
Habitat Program
39015 172nd Ave SE
Auburn, WA 98092
253-876-3116

Subject: EQL Energy for CENSE Energize Eastside EIS Phase 1 comments
From: Ken Nichols <ken@eqlenergy.com>
Date: 6/15/2015 3:49 PM
To: scoping@energizeeastsideeis.org
CC: info@energizeeastsideeis.org, Don Marsh <doncense@gmail.com>, Bill Henry <bill@eqlenergy.com>

Dear Mr. Pyle,
See enclosed comments to the Energize Eastside EIS Phase 1 scoping comments.

Ken Nichols
503 438 8223
ken@eqlenergy.com

3701 SE Milwaukie Ave., Suite A
Portland, OR 97202

eql logo.jpg

Attachments:

EQL CENSE EIS Ph 1 2015 6 15.pdf	2.0 MB
eql logo.jpg	5.8 kB

Energize Eastside EIS Phase 1 Scoping Comments

Study Request

June 15, 2015

Prepared For Client:
CENSE
12819 SE 38th St. #294,
Bellevue, WA 98006
info@cense.org

Prepared By
EQL Energy, LLC
Portland, OR
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EQL ENERGY

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Portland, OR 97202

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www.eqlenergy.com

Figures

1 Introduction

EQL Energy appreciates the opportunity to submit comments to the City of Bellevue, related to the proposed Energize Eastside project (EE) EIS process.

EQL Energy was started in 2010 to assist utilities, commercial & industrial customers, and vendors develop technology, processes, and planning to balance the supply and demand of electricity. Most of our work has been related to smart grid technology evaluation/planning, and integration of distributed energy resources (DER). We work with industry experts in transmission and distribution planning, advanced inverters and DG integration, microgrid development, demand response technology and program design, etc. For instance, we tested and assessed the amount and duration of electric load that could be managed for a 60MW campus to avoid infrastructure cost for campus and utility. We have individually worked on transmission projects, provided inputs to integrated resource planning processes, and assessed non-wire alternatives to both transmission and distribution infrastructure investments.

We were asked by CENSE to evaluate the studies and assumptions used to support the proposed Energize Eastside project. After reviewing these studies, numerous questions arose. The purpose of this document is to identify, explain, and request alternative inputs and modeling methods to power flow simulations that more realistically and credibly substantiate a reliability and capacity need for the proposed Energize Eastside project.

1.1 Understanding of Need

We understand the proposed EE project is addressing two primary objectives:[1]

1. Improve Winter South-to-North transfer capability between the Northwest and British Columbia.[2]
2. Provide a 230/115 kV source to Puget Sound Energy customer winter load service.

EE project objectives do not include:

1. Distribution level (12.5 kV) reliability issues identified in the Exponent 2012 City of Bellevue Reliability Study Phase 2 report.
2. Improve the capability for PSE and other utilities to trade power with market entities.

1.2 Evaluation of Studies

The documents we have reviewed that are relevant to Energize Eastside include, but are not limited to those listed in Figure 1 (EE Documents).

The needs assessment and transmission solution studies by Quanta and USE are based on evaluating contingency outages with specific assumptions provided by PSE.

---

1 Source of objectives:
PSE 2014 annual progress report submission to WECC Planning Coordination Committee
https://www.wecc.biz/Reliability/2014_PSE_APR.pdf

[2] USE 2015 report says transfer capability to British Columbia, Path 3, is not a requirement for EE Project

These inputs, contingencies, and actions following an N-1 or N-1-1 event dictate the model output (e.g., powerflow, transformer loads) and therefore identify locations of need. Puget Sound Energy has specified all the inputs to the studies and must undergo scrutiny and examination through the EIS process. Many of the assumptions are unknown, and therefore are difficult to assess the quality and reasonableness. Much of this information has been declared CEII by PSE and Consultants. Reviewing this information through the EIS process or legal proceedings will be important to determine reasonableness.

Examples of inputs to be included in needs assessment include:

1. Amount of DSR, and what is included/excluded from DSR (e.g., demand response, solar, storage, distributed generation, etc.) We have reviewed EE Documents and PSE IRP materials and provide reasonable assumptions for these resources and others (DER) during winter peaks. See 3.2.5 for explanation.

2. Puget Sound Area Generation running during peak load times, and which generation is available to respond in an N-1 contingency event. Much of the power flow analysis conducted by Quanta lists **ZERO Puget Sound Area Generation running during winter peak load periods**. This generation was built to ensure PSE can serve its load during peak hours. Because these peak hours are driving the need for Energize Eastside, PSE's project need justification should fully account for normal regional generation resource portfolio utilization. See 3.3.2 explanation.

3. Non-PSE Load and Generation dispatched during peak event times, and which generators are available to respond in an N-1 contingency event. WECC basecase provides load and generation information to transmission planners in the WECC area. We expect that PSE has manipulated this basecase, and requires scrutiny.

4. Regional electricity transfers, which must be appropriately incorporated into reliability-driven planning studies.

Figure 1: Energize Eastside Documents

Document	For	By	Date
Independent Technical Analysis of Energize Eastside	City of Bellevue	USE	April 2015
Eastside Needs Assessment Report, Transmission System King County	PSE	Quanta	Oct 2013
Eastside Transmission Solutions Report, King County Area	PSE	Quanta	Feb 2014
Supplemental Eastside Needs Assessment Report, Transmission System King County	PSE	Quanta	April 2015
Supplemental Eastside Solutions Study Report, Transmission System King County	PSE	Quanta	May 2015
PSE Screening Study (non-wires)	PSE	E3	Feb 2014

PSE Assessment of Demand Side Resource Potentials	PSE	Cadmus	May 2013
City of Bellevue Electrical Reliability Study Phase 2 Report	City of Bellevue	Exponent	Feb 2012
Puget Sound Energy IRP 2011, 2013, and 2015 relevant documents (e.g. load forecast, DSR)	PSE	PSE	various
Columbia Grid Puget Sound Area Study Documents	Columbia Grid	CG	various
FOIA Bonneville Power Administration MOA between SCL, BPA, and PSE	BPA, SCL, PSE	SCL, PSE	April 2015

2 Study Request

This request describes the powerflow modeling assumptions that should be evaluated to show whether or not there is a need for new transmission capacity into the Eastside area, and if such a need exists inform selection of the best option to meet that need.

2.1 Inputs

A set of power flow simulations should be conducted with inputs and methods that we describe in latter sections of this document. These inputs should be reflective of the discussion and suggestions we provide with regard to the following aspects.

2.1.1 Powerflow - Needs Study

1. **Load forecast with DSR (100% Conservation)**
    a. Low–Escalate PSE Eastside peak load forecast by 1% per year and 0.4% for rest of PSE system.
    b. High - Escalate PSE peak load forecast as Figure 6.2 in USE report, 2.2% Eastside and 0.4% King County.
2. **Additional DSR Scenarios**
    a. Cadmus 2013 IRP, (datapoint: 22% winter peak reduction reached by 2033)
    b. E3 adder, 2.3% of King Count peak load reduction (datapoint; 56MW of winter peak by 2021)
    c. EQL Eastside targeted DER – Add 8% of Eastside peak load reduction through DER deployment by 2021 to PSE DSR forecast (see 3.2.1)
3. **PSE bulk generation dispatch (see Figure 14)**
    a. Puget Sound Energy generation (1,565 MW)
4. **Regional transfers**
    a. 0 MW Export South to North to British Columbia at Blaine
    b. 300 MW Export South to North to British Columbia at Blaine
    c. 1,179 MW Export South to North to British Columbia at Blaine
5. **Study Year**
    a. 2017-18
    b. 2023-24
6. **Transmission Topology – Needs Study**

PSE's existing system plus base planned projects

7. **Transmission Topology – Alternatives**
    a. Case A – reinforce 115 kV network, add 230 kV transformer(s).
    b. Case B – reinforce 115 kV and 230 kV networks, add 230 kV transformer(s)[3].
    c. Case C – reinforce 115 kV and 230 kV networks, add 230 kV transformer(s)[4], add local generation.
    d. Case D – reinforce 115 kV and connect existing 230 kV lines.

A needs study should be conducted by using the inputs described above. Transmission topology alternatives A – D should only need to be ran in the event a capacity need is identified in a given model year.

2.1.2 Needs Study Scenarios

Figure 2: Needs Study Model Scenario Description

Scenario	Scenario Description	Load & DSR Forecast	DER % of Peak	PSE Generation Running (MW)	Regional S to N Transfers (MW)	Study Year
1a	Near term, high load, low DER, high generation, moderate transfers, transmission as-is	High	E3	1,565	1,179	2017-18
1b	Reduce regional transfers	High	E3	1,565	300	2017-18
1c	Reduce regional transfers, add DER	High	10.5	1,565	300	2017-18
1d	Reduce regional transfers, add DER, low load	Low	10.5	1,565	300	2017-18
1e	Zero regional transfers, add DER	High	10.5	1,565	0	2017-18
1f	Zero regional transfers, add DER, low load	Low	10.5	1,565	0	2017-18
2a	Medium term, high load, low DER, moderate transfers, transmission as-is	High	E3	1,565	1,179	2023-24
2b	Reduce regional transfers	High	E3	1,565	300	2023-24
2c	Reduce regional transfers, add DER	High	10.5	1,565	300	2023-24
2d	Reduce regional transfers, add DER, low load	Low	10.5	1,565	300	2023-24
2e	Zero regional transfers, add DER	High	10.5	1,565	0	2023-24
2f	Zero regional transfers, add DER, low load	Low	10.5	1,565	0	2023-24

[3] Add 230/115 kV transformers at existing substations
[4] Add 230/115 kV transformers at existing substations

2.1.3 Alternatives Study

If, after the needs study, a need is present, each transmission topology alternative should be evaluated in order from A to D, described in section 3.7 using the scenario sequence outlined in Figure 2.

2.1.4 Non-Wires Study

a. A non-wires study should be performed that combines EE project deferral ($155/kW-yr) with avoided cost of Generation Capacity ($184/kW-yr) and generic T&D deferral ($23/kW-yr[5]). The sum of these ($362/kW-yr) will buy PSE more DER than that forecasted by E3 and PSE.
b. Refresh alternatives and cost estimates for all DER. Include resources e.g., backup generation, CHP, storage, and refresh demand response potential using Navigant 2014 report for Northwest Power & Conservation Council (NPCC)[6]
c. Include backup generators to be used as contingency reserve (e.g., Portland General Electric)
d. Perform a more detailed customer analysis of DER opportunities in PSE Eastside area.

2.2 Modeling Method

Industry practice for power flow modeling is to adjust the inputs obtained from a WECC base case for local conditions. These model input modifications – substation load, turning generators up, down or off – can be done manually, or it can be automated with software called an optimization model. The latter will arguably result in a more accurate representation of real-world generation dispatch levels because the optimization selects the most economic generation dispatch combination, subject to transmission constraints, which is every utility's operations goal. Manual adjustments that are not informed by industry standard optimization modeling may result in inputs to reliability planning studies that are arbitrary, unreasonable and unlikely to occur.

In the EE Documents, Quanta and USE appear to be using manual methods of choosing and dispatching generation to evaluate transmission need. Current best practice is moving away from this method and towards modeling power flow and evaluating transmission using optimized methods. These methods provide the most economic mix of generation. Examples of transmission planning groups using these

[5] E3 2014, page 23 PSE's IRP team also provided avoided generation capacity cost of $184/kW-year and an avoided generic T&D cost of $23/kW-year, which are both represented in 2014 dollars. For this analysis, assumed that PSE's generic T&D avoided cost and the specific transmission line deferral value related to PSE upgrades are additive. This additive assumption presumes that load reductions in King County can defer the need for more general planned distribution system upgrades, in addition to deferring the construction of the specific Eastside upgrades.

[6] http://www.nwcouncil.org/media/7148943/npcc_assessing-dr-potential-for-seventh-power-plan_updated-report_1-19-15.pdf

new methods include, Northern Tier Transmission Group (Portland General Electric, PacifiCorp, Idaho Power, NorthWestern Energy), and the California ISO.

Modeling Study Request: PSE should use new optimization methods to study transmission need. Industry consultants, e.g., Quanta and USE, are familiar with these methods and have likely performed these types of studies. As well, EQL Energy and other industry consultants could perform these studies.

2.3 Outputs

For all model scenarios we request the following model output and information.

1. Location of most limiting elements (i.e., transformer or transmission line),
2. Duration of overload (i.e. hours per day),
3. Time of day (i.e., provide a daily load shape which shows hours of overload concern),
4. Amount MVA over or under:
    a. Continuous rating
    b. Emergency rating
        i. Duration of emergency rating
5. Daily load shape for days for peak load day used for study.
6. Number of hours per year an identified overload situation occurs,
7. Total Transfer Capability (TTC) at all flowgates (e.g., North of Echo Lake) relevant during peak times and contingency events.
8. Actual (input) generation levels for all generating resources greater than 10 MW of installed capacity in the NWPP area.
9. Actual peak load disaggregated to the individual substation level as represented in the powerflow model. (for comparison to actual historical coincident peak loads by substation.)

Continuous & Emergency Ratings

All transformer and transmission line loadings should be reported against both continuous and emergency ratings. For the emergency ratings report the duration of the rating. This will allow planners to determine the MW quantity and duration of mitigating actions that are needed to move facility loading below emergency levels to maintain full load service without causing equipment damage.

2.4 Questions

Generation

1. What new generation, (size, type, location) is planned to meet the increase in peak load growth?
2. How are the PSE Studies modifying WECC base cases for both PSE and non-PSE generation?
3. What non-PSE generation (name, amount, and location) is being dispatched in the power flow studies?

Load Forecast

4. How are the PSE Studies modifying WECC utility loads in the WECC base case for load coincident with PSE peaks? Especially, those in Washington and British Columbia.
5. Provide historical (years 2004 to 2014) load data for all PSE substations 115kV and above. (hourly)
    a. Provide analysis and explanation of applicability of CEII restrictions to substation load data.
6. Provide substation load data inputs used in power flow models (115 kV and above)
    a. Provide analysis and explanation of applicability of CEII restrictions to limited release of substation load data inputs.
7. What percent of new load is expected to come from electric water or space heat?
8. How was peak load for block loads determined? Are these peak loads coincident with substation and system peak load times?

DSR and DER

9. Provide nameplate capacity and location (substation) on all backup generators in PSE's service area.
10. Provide nameplate capacity and location (feeder) on all solar or other distributed generation interconnections in PSE's service area.
11. What reduction in peak load (MW) is expected from DSR measures used in the powerflow studies. Cadmus (2015 IRP) has provided DSR estimates, but does not discuss peak (MW) reductions from DSR.[7]
12. Has PSE considered the impact on peak load of dynamic pricing or critical peak pricing programs? If yes, provide analysis.
13. Has PSE included the avoided cost of EE project in their cost effectiveness analysis for DSR and DR? Back of the envelope of $220MM EE project cost, and Present Value DR cost of $100/kW-year for 20 years, provides 258MW of DR.

Model Methods

14. List vendors of powerflow models and methods used for all Energize Eastside studies, e.g., Quanta and USE.
15. Explain how generation dispatched and load for power flow studies was determined.

[7] http://pse.com/aboutpse/EnergySupply/Documents/IRPAG_Cadmus_presentation_2014-12-08.pdf

3 Study Input Discussion

The sections below contain information and discussion with regard to study input areas 1 through 6.

3.1 Load Forecast

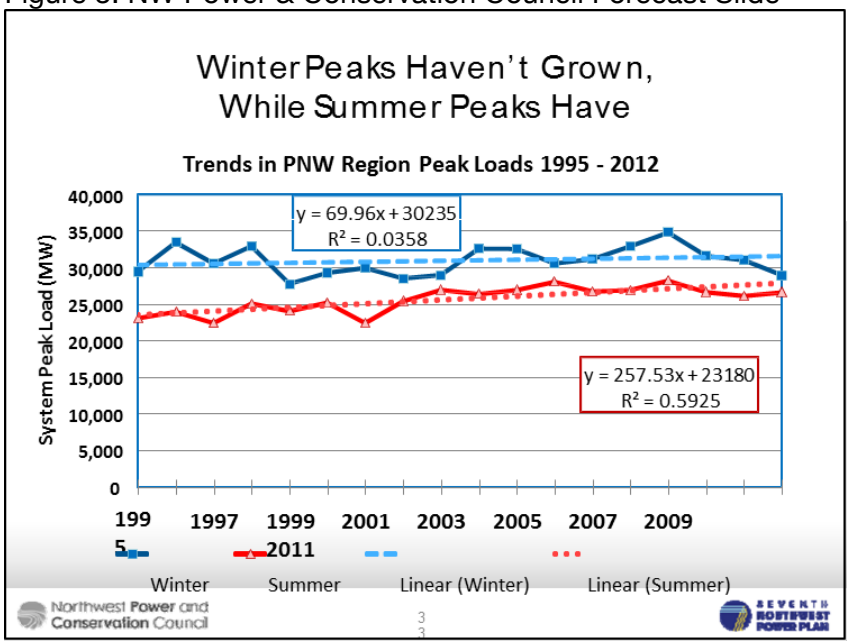
Winter peaks have gone down in the Pacific Northwest in the last 5 years, and growth in the winter peak will continue to be less than the increase in growth in energy use. PSE's winter peak decreased by 11 MW from 2013 to 2014. NPCC explains this low growth in winter peak through:

1. Electric heating load is saturated. I.e., new growth does not include electric heating that contribute to winter peak,
2. Fuel Conversion from electric to gas and propane are reducing winter peaks,
3. Milder winter temperatures reduce chance of extreme cold weather, and
4. Higher growth in multifamily and commercial.

USE 2015 report shows PSE System and Eastside Winter Peak (MW) growing faster than energy (MWh). We expect this to be just the opposite.

The NPCC winter peak load forecast uses a low to high range of 0.4 to 0.9% growth, and high range forecasts are not expected to reach the historical peak set in 2009 again until 2026.[8]

Figure 3: NW Power & Conservation Council Forecast Slide[9]



8 NW Power & Conservation Council load forecast for use in draft 7th plan. Dec 02, 2014 http://www.nwcouncil.org/media/7148586/p1.pdf

9 Ibid

3.2 DSR and DER Contribution

The terminology around resources on the distribution side can be confusing. PSE uses DSR or demand side resources, which includes energy efficiency, demand response, and distributed generation. The EE Documents we reviewed focus on energy efficiency and do not fully address DSR and its impact on peak capacity (MW). Analysis that is reported in Annual Average Megawatts (aMW) provides limited useful information for analyzing for transmission and distribution infrastructure needs.

In our report, we distinguish between DSR and DER forecasts and work to not double count resources.

DSR – Demand Side Resources: efficiency, demand response, and distributed generation (detail and types are unknown in PSE EE analysis). Cadmus 2013 IRP DSR assessment does not include kW or peak contribution, nor do they provide DR assessments.
DER – Distributed Energy Resources: EQL uses this term to refer to all resources on the distribution system, including distribution efficiency (CVR and power factor correction), demand response, combined heat and power, dispatchable standby generation, and storage.[10]

DER and load management in critical areas is an opportunity to invest in measures that address infrastructure costs and regional load growth while engaging and benefitting customers, just like energy efficiency. Through the evaluation of Energize Eastside it is unclear the extent to which PSE has considered the use of distributed energy resources (DER) in their modeling, either as a resource or as a means to reduce load.

The DER resources described below should be considered in addition to the PSE's DSR contribution to the 100% conservation load forecast.

Many of these DERs are dispatchable, including demand response, dispatchable standby generation (DSG), and energy storage and can therefore target peak load and reduce the need for infrastructure expansion in transmission and distribution.

3.2.1 DSR Contribution Study Request

a. Cadmus 2013 IRP, (datapoint 22% winter peak by 2033)
b. E3 adder, 2.3% of King County peak load (datapoint 56MW of winter peak by 2021)
c. EQL Eastside targeted DER – additional 8% of Eastside peak load reduction through DER deployment by 2021 beyond PSE forecast with DSR (100% conservation)

[10] In California Distribution Resources Planning they include energy efficiency into their DER analysis.

Figure 4: DSR Scenarios, Support data from PSE, Cadmus, E3, and EQL

5/19/2015 Cadmus IRP presentation						Cadmus 2013 IRP (DSR 22% of winter peak by 2033)	E3 2014 adds 56 MW DSR by 2021[11]	EQL - Target DER in Eastside (8% of Eastside load adder by 2021)
Year	DSR per year[12]	DSR Total	DR per year[13]	DR Total	2015 DSR	Cadmus 2013 IRP	E3 adder	EQL DER adder
2016	75	75	18	18	93	93	93	96
2017	64	139	12	30	169	184	196	209
2018	67	206	42	72	278	278	298	320
2019	64	270	14	86	356	369	401	437
2020	79	349	44	130	479	479	503	556
2021	62	411	2	132	543	550	606	666
2022	66	477	13	145	622	622	678	678
2023	56	533	2	147	680	680	750	750
2024	55	588	3	150	738	738	823	823
2025	53	641	2	152	793	793	895	895
2026	27	668	2	154	822	845	967	967
2027	27	695	2	156	851	897	1,039	1,039
2028	27	722	3	159	881	949	1,112	1,112
2029	23	745	2	161	906	1,001	1,184	1,184
2030	23	768	2	163	931	1,017	1,256	1,256

Notes:

Highlight cell indicates fixed data taken from previous reports

- From a review of EE Documents, it appears PSE is expecting DR to make up 2.7%, of peak load, with a ramp period of 6 years.
- Cadmus 2013 IRP report suggested PSE could expect 22% of winter peak load to be addressed with DSR.
- E3 Non-Wire Alternative Report (2014) has suggested PSE could achieve an addition 56 MW of cost effective DSR across King County by 2021. (represents approximately 2.3 % of King County peak load)
- EQL suggests a targeted DER program in the Eastside area could reduce winter peak load for the Eastside area by **an additional 8%** below the 100 % conservation load forecast by 2021.

[11] Quanta 2015 Needs Assessment
[12] DSR and DR estimate from PSE IRP Advisory Group presentation 05.19.2015, pages 50 and 58
[13] Ibid

These peak load reductions should be used for N-1 and N-1-1 analysis. These measures not only address peak load reduction, but also enhance grid resiliency, and improves reliability at customer sites.

Additional measures EQL is considering include:

- Dispatchable Standby Generation used for contingency reserves (e.g., Portland General Electric) this may have to be offered throughout PSE territory, so load reductions may be higher than estimated in Figure 5
- Demand Response (10-minute response, reserves)
- Storage
- CHP
- Additional CVR

Figure 5: EQL DER Amounts to Study by 2021

DER Measure	% of winter peak
System Winter Peak load	
Solar	0.0%
Distribution Efficiency (CVR)	2.5%
Combined Heat & Power (CHP)	3.0%
Storage	1.0%
DR Day Ahead	3.0%
Dispatchable Standby Generation (10 minute)	2.5%
DR (10 minute)	1.5%
Total	**13.5%**

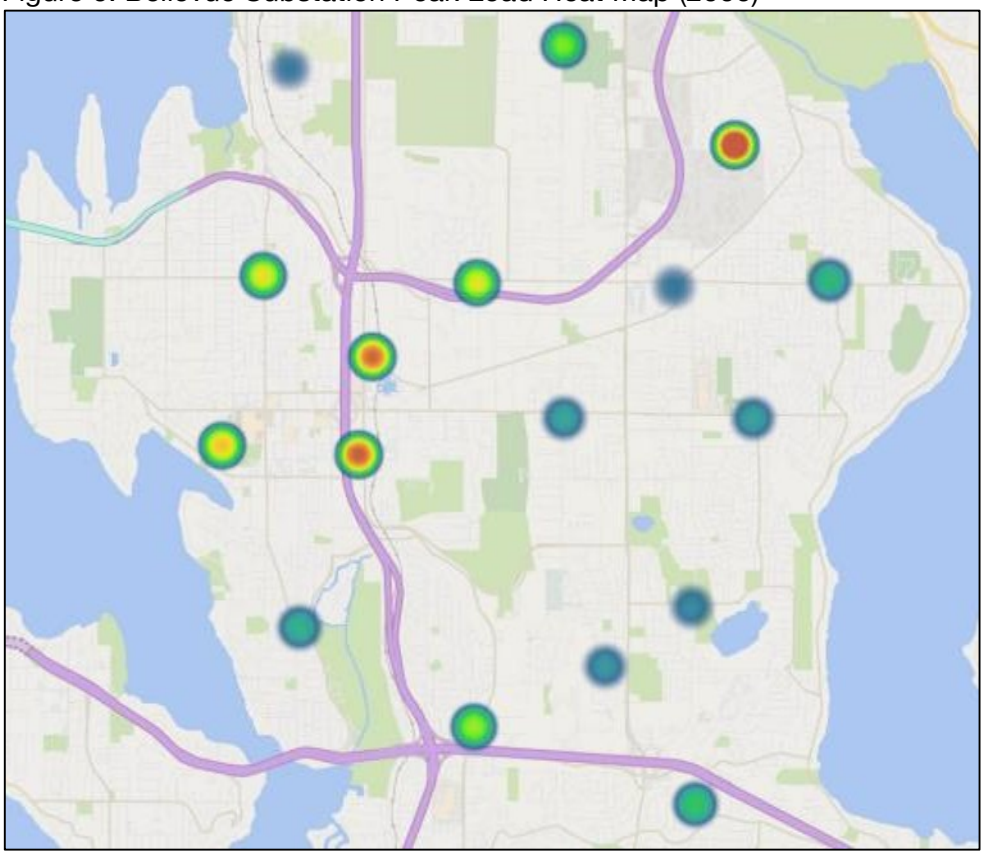
Note:
Percentages sum to 13.5%, but PSE has indicated its DSR forecast includes a nearly 2.7% peak load contribution from DR, and E3 findings included an additional 2.3%.

3.2.2 DSR Location

The DER contribution to peak load should be appropriately allocated among existing and future Eastside substations such that DER quantity reasonably matches the load assumed to be present at these substations.

Figure 6 below shows substation locations in the Eastside area that have historically recorded higher load and may be more likely to serve larger customers sites with high DER potential such as commercial/industrial, multifamily residential, institutional, government, campus and hospital loads.

Figure 6: Bellevue Substation Peak Load Heat Map (2006)

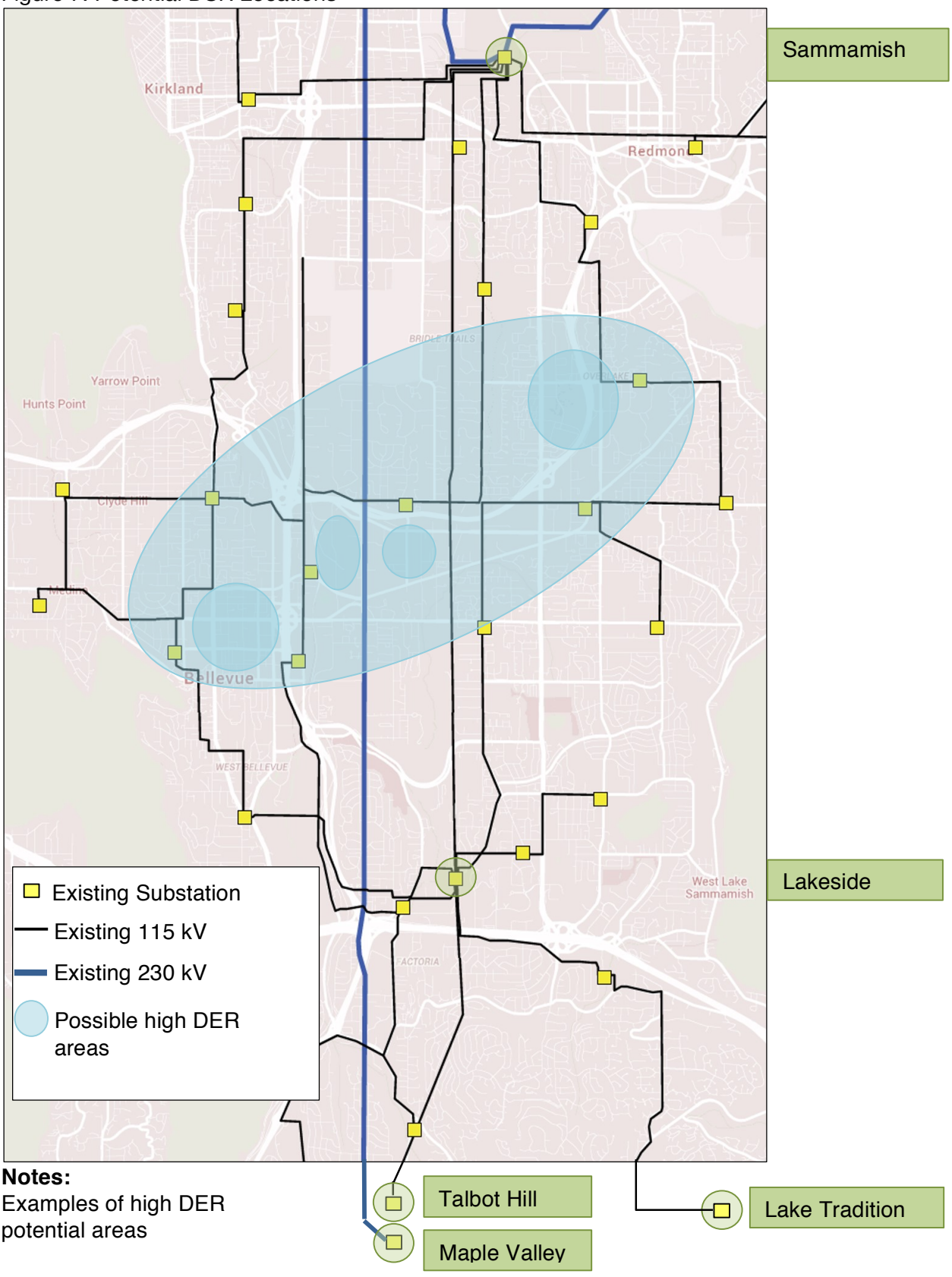


Sources:
Data: City of Bellevue substation peak load for 2002 and 2005[14]
See Appendix A for data table
Map: EQL (using Microsoft Excel/Bing Maps)
Note: PSE's transmission topology in this area has changed and is expected to continue to change to serve changing load patterns, therefore this rendering is for sample purposes only.

Figure 7, below shows PSE's existing 115 kV network in the Eastside with suggestions of areas that may experience higher load growth, may require additional infrastructure such as new substations, and therefore would represent advantageous locations for PSE and/or other appropriate parties to incentivize and site distributed energy resources.

14 City of Bellevue Comprehensive Plan Utilities Element Update, November 2006 http://www.ci.bellevue.wa.us/pdf/PCD/PSE_System_Plan_Update_November_2006.pdf (accessed 06.08.2015)

Figure 7: Potential DSR Locations



Notes:
Examples of high DER potential areas

3.2.3 Regional DER Examples

Figure 8 below shows an estimate of 43 GW of DER among a forecasted peak of 178GW, or **23%** of the peak. Solar may not be a contributor to winter peak events but the other DERs are relevant. Distributed energy resources and load management can often make substantial contributions to reducing peak loads and have demonstrated in many examples that these technologies and strategies can be relied upon for fast dispatch to mitigate contingency events.

Figure 8: WECC DER Estimate 2022

DER	2022 DER WECC Estimate (GW)	Source
Solar	25	2013 E3 TEPPC study on High DG[15]
CHP	9	2013 E3 TEPPC study on High DG[16]
DR Load Following	2.6	2013 WIEB VER Integration[17]
DR Other	4.7	2013 LBNL 6381, Incorporating Demand Response into Western Interconnection Transmission Planning[18]
Storage	1.8	AB2514 California 2020 mandate, plus 500 MW
Total	**43**	178GW WECC peak forecast (23%)

The 2013 LBNL report, identified 144 MW of direct load control programs that were forecasted in PSE's 2011 IRP.

Customer Driven DER

DER adoption behavior and demand for services is customer driven based on broad socio-economic factors and technology advancements –not strictly regional or based only on energy cost.

Customer desire for self-reliance is increasing

- **Ernst & Young**: **33%**of the multi-national firms are expected to meet a greater share of their energy needs through **self-generation over the next five years**
- **Navigant**: nearly **75%** of surveyed **residential customers** have "**concerns about the impact electricity costs** have on their monthly budgets, and **63%** are interested in **managing energy used in their homes**"
- **Best Buy**: **36% of residential** customers desire to "financially and physically protect the home" (Home Safeguarding persona)

[15] http://westernenergyboard.org/spsc/dsm-wg/
[16] http://westernenergyboard.org/spsc/dsm-wg/
[17] http://wiebver.org/wp-content/uploads/2015/03/12-20-13SPSC_EnerNOC.pdf
[18] http://emp.lbl.gov/sites/all/files/lbnl-6381e_0.pdf

3.2.4 Distribution Efficiency (aka CVR)

In 2007 Puget Sound and 12 other Pacific Northwest Utilities participated in a Northwest Energy Efficiency Alliance (NEEA) pilot to evaluate the energy and capacity savings from operating Conservation Voltage Reduction. [19] The study tested and found a 2 to 4 percent capacity reduction through distribution efficiency projects. An updated 2014 NEEA study found that over half the CVR projects operating in the United States are used for peak demand reductions versus energy efficiency. [20]

Wide scale adoption is beginning. One hurdle to adoption was mentioned in NEEA paper as, "hurdle to CVR implementation includes the lost customer revenue due to CVR rollout. End users reduce energy consumption with CVR and thus lower utility revenue. Utilities are often reluctant to recuperate lost revenue through rate increases, especially during times of slow or no load growth in the utility service area. Utilities can recuperate lost revenue from CVR more easily during periods of more rapid load growth. BPA currently offers incentives for CVR initiatives, which can help with utility cost recovery."

In Washington, Energy efficiency standard I-937 is currently a main driver for CVR implementation for IOUs in Washington State. I-937 mandates IOUs to undertake cost effective energy efficiency measures, such as CVR.

PSE has implemented Conservation Voltage Reduction (CVR) on three to six PSE substations before energy is sent to customers, thereby reducing customers' electric power consumption at the point of consumption on the customers' side of the meter.

CVR will be useful to PSE during winter peak load events due to the influence of resistive loads during those times. Reducing voltage is more effective for winter resistance heating load than for other types of load such as motors that experience greater use in summer for cooling loads.

CVR Target: 2.5% of peak load

3.2.5 Demand Response

Navigant (NPCC January 2015) reports that Northwest utilities could achieve 3,546 MW of peak load reduction through Demand Response measures at a total cost of $239 million, the approximate cost of EE.[21]

> *By 2030, the estimated DR impact associated with all capacity-based DR programs that utilize a combination of standard technologies and Smart DR technologies is 3,546 MWs in the winter and 3,208 MWs in the summer, at an*

[19] https://www.leidos.com/NEEA-DEI_Report.pdf

[20] http://neea.org/docs/default-source/reports/long-term-monitoring-and-tracking-distribution-efficiency.pdf?sfvrsn=5 (page 45)

[21] http://www.nwcouncil.org/media/7148943/npcc_assessing-dr-potential-for-seventh-power-plan_updated-report_1-19-15.pdf

> *approximate total cost of **$239.8 million**. This yields a unit cost of acquisition that ranges between $68 and $75 per kW-year. The cumulative load impact as a percentage of forecast peak demand for the Northwest is **8.8% relative to the winter peak** and 8.2% relative to the summer peak.*

By 2021 NPCC estimates the Pacific Northwest states will obtain between 960 and 1,080 MW (or 3%) of winter peak through demand response. At present, only a fraction of that quantity is operational. The Council is currently preparing their 7th power plan and has been working with regional utilities and industry stakeholders. [22]

In a 2015 report for NPCC, Navigant estimates that by 2030 Northwest utilities will have achieved nearly **9% of winter peak** load from demand response.

> *The estimated cumulative DR market potential for capacity programs represents nearly 9% of winter peak load by 2030. This estimate is in line with estimates of other DR potential studies conducted both in the Northwest and other parts of the country.*[23]

Cadmus 2013 DSR report for PSE IRP (page 7) suggests that by 2033 PSE could expect **4.7% of winter peak** to be reduced by Demand Response. Cadmus (2013) is approximately half of Navigant (2015) winter peak reduction forecast.

Two types of DR are likely to be beneficial for eastside areas:

1. Day-Ahead notification peak load reduction DR
2. Emergency 10-minute response DR

Because PSE identifies a peak load resource requirement for the Eastside, we have identified a need to study a demand response program to operate during these times, when PSE's most expensive resources will likely be supplying power. DR programs are often cost effective when displacing this expensive generation, such as PSE's peaking units in Whatcom County. When combined with the additional value of providing an infrastructure alternative, the cost effectiveness of such a DR program is improved. Many utilities have implemented day-ahead notification DR programs that call upon enrolled customer or 3rd party resources to reduce their demand for a specified duration, typically 2-4 hours.

In addition, emergency DR programs have successfully been implemented that are capable of fast response for contingency reserve purposes. An example is a 10-minute response program run by Southern California Edison.[24] These programs are typically of higher value due to the short notice time and reliability service provided. SCE's program pays customers $240/kW-year for capacity that successfully participates.

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[22] https://www.nwcouncil.org/news/meetings/2015/06/

[23] http://www.nwcouncil.org/media/7148943/npcc_assessing-dr-potential-for-seventh-power-plan_updated-report_1-19-15.pdf

[24] https://www.sce.com/NR/rdonlyres/7A1BC024-698D-44A0-98D1-ABD8DEE9E451/0/NR572V20810_BIP.pdf

For purposes of the EIS analysis, we have requested conservative DR quantities, shown in Figure 9, for the eastside area that are reflective of percentages of peak load that have been achieved in other areas and below those estimated by Navigant (2015).

Figure 9: Eastside Area DR by 2021

	Eastside DR Estimate
Day-Ahead DR quantity	3%
10-minute DR quantity	1.5%

Because PSE has indicated it may include DR at a level of approximately 2.7% of load by 2020, the 3% DR estimate above for day-ahead programs is incorporated into the 100% conservation forecast used by PSE.[25]

3.2.6 Dispatchable Standby Generation (DSG)

Portland General Electric's DSG program can be used as an example for one designed to provide enhanced reliability in the Eastside area. The DSG program connects customer backup generators to the distribution grid using parallel switchgear at sites such as hospitals, commercial/industrial, and government buildings. PGE remotely dispatches the generators, which are capable of providing uninterrupted service to customers in the event of a grid outage. As part of the program, PGE invests in and owns some of the interconnection equipment, pays for fuel, and performs ongoing testing – required for units at many sites such as hospitals.

DSG potential is determined by using a simple proportion of peak load to DSG capacity installed at PGE and applying it to PSE, as shown in Figure 10 below.

Figure 10: Potential DSG by 2021

DSG Potential	MW
2018 PGE System Peak	4000
Current PGE DSG Capacity[26]	94
DSG MW per System MW	2.5%
2018 PSE System Peak	6000
2018 Eastside Peak Load Forecast	750
PSE System DSG Potential	141
PSE Eastside Area DSG Potential	**17.6**

Note that the size of PGE's DSG program is growing and has plans to increase the program capacity to 125 MW in the next 5 years. Using the proportion method described above, Eastside DSG potential would increase to 22.7 MW.

[25] May 19 PSE IRP Advisory Group meeting materials
[26] 2015 PGE Smart Grid Report, May 28, 2015. Oregon PUC Docket UM1657 http://edocs.puc.state.or.us/efdocs/HAQ/um1657haq103857.pdf

While the simple DSG potential figures provided here are adequate to inform planning at this stage, additional detailed analysis of DSG capacity will be valuable to PSE and eastside reliability regardless which transmission projects are built.

3.2.7 Combined Heat and Power (CHP)

CHP is the simultaneous use of a fuel, primarily natural gas, to generate electricity and provide heat. When properly designed, CHP is capable of operating at higher efficiency than typical central station power plants.

PSE's Non-Wires Screening Study[27] CHP analysis, performed by E3 and informed by earlier work by Cadmus, found approximately 1 MW of peak CHP resource by 2023 across all of PSE's King County service area. Because this quantity can reasonably be achieved in a single building, the previous estimate is likely not reflective of actual potential. In order to determine this potential, a new study is warranted, especially in light of the amount of growth expected to occur in Bellevue and PSE's need for peak capacity resources.

With the cost of capacity to utilities often exceeding $100/kW-year, infrastructure deferral benefits and electricity sales revenue are components that contribute to cost effectiveness determination and would inform the ultimate potential of this resource. PSE needs over 1000 MW of new capacity by 2025, according to recent IRP development information.[28]

150 MW of load growth could occur in the Bellevue downtown and Bel-Red areas in the next 20 years.[29] The new development represents a large opportunity because many DER technologies such as CHP make the most sense when incorporated during the design phase and provide further benefits when central utility plants serve multiple buildings. But such a strategy requires deliberate planning and clear leadership to become successful.

Because Downtown and Bel-Red will consume significant quantities of natural gas regardless of PSE's electricity infrastructure decisions, the extent to which this gas can be put to use generating electricity should be studied. Additionally, the civil construction work to occur in these areas in future years points toward investigation of co-locating energy infrastructure and potentially common use infrastructure such as district energy where central utility plants supply heating, cooling and electricity to a potentially large development, such as the Spring District.

Recommendation: Explore 3rd party or PSE owned central utility plants with CHP in parts of the Eastside that will experience the most new construction.

Figure 11: Base CHP Quantity 2021

	Eastside CHP Estimate
CHP	3% of peak load

Note:

[27] http://www.energizeeastsideeis.org/uploads/4/7/3/1/47314045/attachment_5_-_screening_study.pdf
[28] May 19 PSE IRP Advisory Group meeting materials
[29] Exponent Reliability Study

Transmission topology alternative D adds Eastside generation. Because a larger central plant CHP project should be considered for this option, selection of this alternative could result in a substantially higher CHP penetration.

3.2.8 Energy Storage

Energy Storage is receiving a great deal of attention right now due to the cost declines seen in recent years and an increasing number of predictions for continuing storage cost reduction.[30] PSE, Avista, and Snohomish PUD have received $15MM to study use of energy storage.

Figure 12: Energy Storage Quantity 2021

	Eastside Storage Estimate
Storage	1% of peak load

3.2.9 PSE DER Potential & Interconnection

Many existing and future commercial, multifamily residential, institutional and corporate campus sites are centered near downtown Bellevue, Bel-Red and South Redmond– areas that are driving the need for new transmission and distribution infrastructure. Cost effectiveness of DER investments in these areas stands to be influenced to the extent they can substantively contribute to load service and reliability needs. In other words, a next-generation energy system, which is being pursued by leading utilities, will make full use of DERs by integrating their capabilities into utility planning and operations, a step that may well deliver cost reductions to PSE ratepayers – and one that will require developing appropriate compensation mechanisms to DER owners. In addition, PSE or 3rd parties could own DERs that may be designed to provide benefits directly to specific customers (i.e. storage installed behind-the-meter), while simultaneously providing infrastructure deferral benefits enjoyed by all ratepayers.

DER interconnection and operations practices will become more important as these resources grow in quantity and take on additional performance obligations related to reliability and system resiliency. Should PSE and Eastside communities decide to move to make full use of DER options as part of a strategy to support and enhance regional growth, appropriate technical interconnection and operations procedures and standards will be needed. DER best practices are emerging from California, New York, and Hawaii, states that have taken the lead. The standards by which PSE designs and operates the 12.5 kV distribution system will be important for DERs so as to ensure maximum utilization of the system, including supporting 2-way power flows.

Most distribution systems move electricity in one direction – from power plants to substations to customers. But when customers interconnect generation resources, their power will flow the other direction, serving other customers and in some cases

[30] Sample media story addressing storage: http://cleantechnica.com/2015/03/04/energy-storage-could-reach-cost-holy-grail-within-5-years/

flowing power back to the substation itself and serving load further upstream, possibly at higher voltages. While there is no fundamental reason why these new flows of electricity cannot occur, investments in additional monitoring equipment and advanced control technologies will be needed.

These types of investments, involving software, communications, controls, and switching equipment, are also likely to provide reliability benefits by enhancing the ability of utilities to automatically switch customers to alternate feeds in the event of an outage on a given distribution circuit.

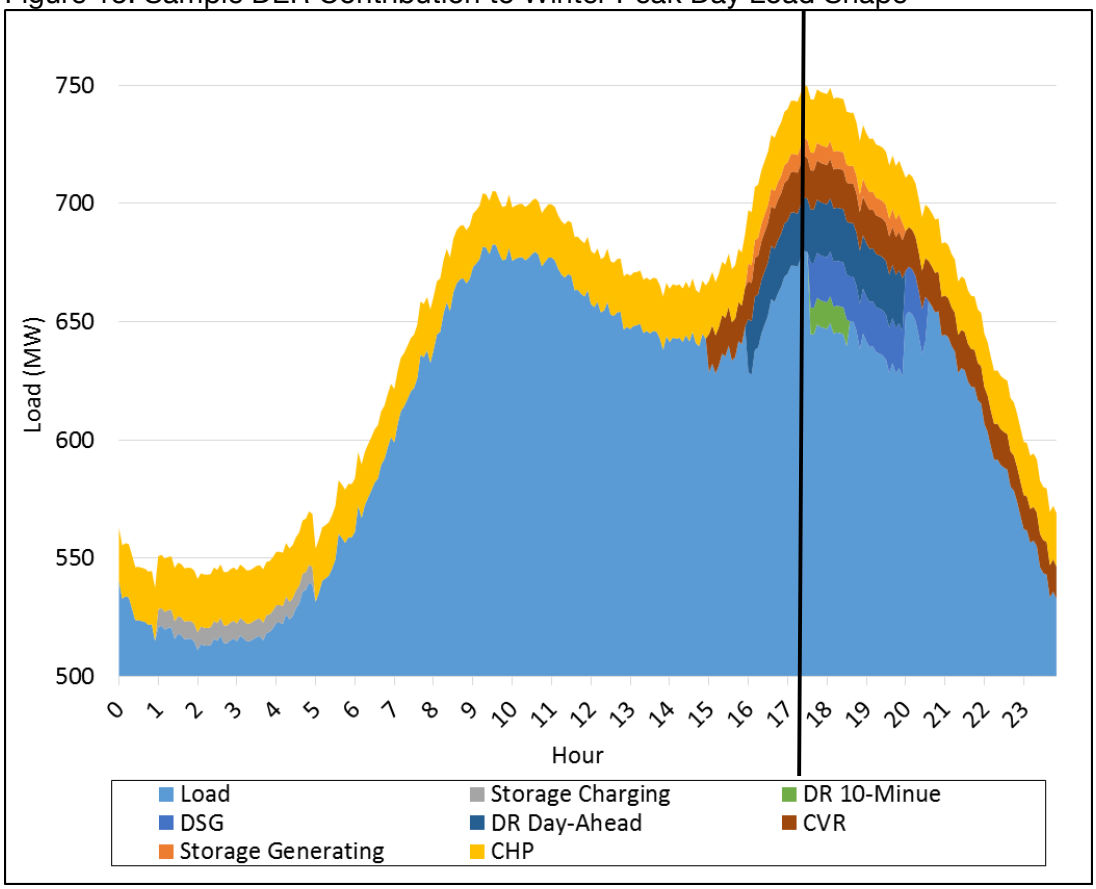
3.2.10 DER Load Shape Chart

E3 2014 report discusses time of day and critical hours but does not provide a load shape. Report states:

> *PSE's winter peak definition is on December weekdays from the hour ending 7 AM to the hour ending 11 AM and from the hour ending 6 PM to the hour ending 10 PM. For estimating each non-wires measure's contribution to reducing winter load, E3 awarded equal weight to the morning and evening portions of the peak period.*

Figure 13 shows a sample peak day load shape for the Puget Sound area with a stack of resources deployed both throughout the day and during a dispatch at 5:30PM during the peak to depict what could happen in the event of an outage. Note the duration of DER response required after dispatch as load decreases into nighttime hours.

Figure 13: Sample DER Contribution to Winter Peak Day Load Shape[31]



31 Data source for load shape:
Puget Area Net Load for 12.20.2008
http://transmission.bpa.gov/Business/Operations/Misc/default.aspx
This is not an Eastside area load shape, but is representative of typical winter peak load patterns for NW utilities. A chart with actual Eastside loads requires additional PSE data.

3.3 Bulk Generation Dispatch

3.3.1 Puget Sound Area Generation Levels for Study Request.

The figure below lists the MW generation level by resource suggested for study for N-1 and N-1-1 analysis. For generators that we request should be dispatched, use the maximum seasonal rating if that rating is different from the figures shown below.

Figure 14: Puget Sound Area Generation Levels for Study Request

Unit Name	Owner	December rating (MW)
Fredonia 1	PSE	223
Fredonia 2	PSE	223
Fredonia 3	PSE	118
Fredonia 4	PSE	118
Burlington	SPI	28
March Point	Shell	145
Encogen	PSE	169
Ferndale	PSE	270
Whitehorn 2	PSE	80
Whitehorn 3	PSE	80
Sumas	PSE	131
Upper Baker	PSE	80
Lower Baker	PSE	54
Ross	SCL	295
Gorge	SCL	157
Diablo	SCL	160
Totals		**2496**

Source: 2014 Pacific Northwest Loads & Resources Study (BPA)[32]

Of the generation in Figure 14, PSE owns **1565 MW**.

All of the above generation should be dispatched as close as possible to maximum winter ratings during analysis of contingency events. The hydro units above are listed at levels used in the Quanta 2014 solutions report.

[32] https://www.bpa.gov/power/pgp/whitebook/2014/2014WBK-TechnicalAppendixVolume2-CapacityAnalysis-1302015.pdf

3.3.2 Bulk Generation Dispatch Discussion

WECC base cases are used by utilities and consultants as a starting point that describes key operational details such as generation and reactive power levels from every power plant in the western interconnection. When studies are performed in different regions and for particular projects, these base cases are modified with details specific to those projects.

The modeling sequence for the heavy winter south-north power flow base case is intended to determine if PSE's system can continue to operate in a safe state following a single outage, meaning load service will not be interrupted in the event of another outage. We have included PDR generation levels that should be studied in analysis conducted for compliance with NERC transmission planning (TPL) standards that are applied to the bulk electric system (BES[33]) such as:

- TPL-001-4 (transmission planning performance requirements)
- TPL-002-0b (N-1 or Category B)
- TPL-003-0b (N-1-1 or Category C)

TPL-001-4 allows for generation redispatch in response to an outage, called planned system adjustments, so long as these are "executable within the time duration applicable to the Facility Ratings." Facility Ratings, as applied by PSE pursuant to NERC FAC standards, for the facilities that are most limiting following a category B or C contingency will govern the required response time of the DER products, which is discussed below. Our working assumption is 10-minute response for fast-response DER products, which is a potential response following either a category B or C contingency event.

Generation Levels

Previous studies conducted by Quanta and USE made limited use of PSE-owned generation when evaluating transformer and line loadings in the Eastside area. This is a substantial oversight because of the system stability benefits of running Puget Sound area generation – instead of relying exclusively on transfers from the south and from FCRPS generation east of the Cascades – during peak load hours or during times of system stress.

Other regions that rely on heavy generation imports from other areas have developed formalized restrictions to promote reliability by addressing local generation. For example, the Southern California Import Transmission (SCIT) constraint relates LA Basin generation levels to imports from the North and East, according to Southern California Edison:[34]

[33] NERC standards apply to the BES, which is generally comprised of facilities above 100 kV. Distribution voltage levels (12.5 kV) are generally not included.
[34] http://www.energy.ca.gov/2009_energypolicy/documents/2009-09-24_workshop/presentations/02_SCE-Minick_Sept_24_workshop_final.pdf

Import limits into southern California on the interconnected transmission system depend on the amount of inertia in southern California. At higher levels of inertia, it is feasible to import more power and vice versa.

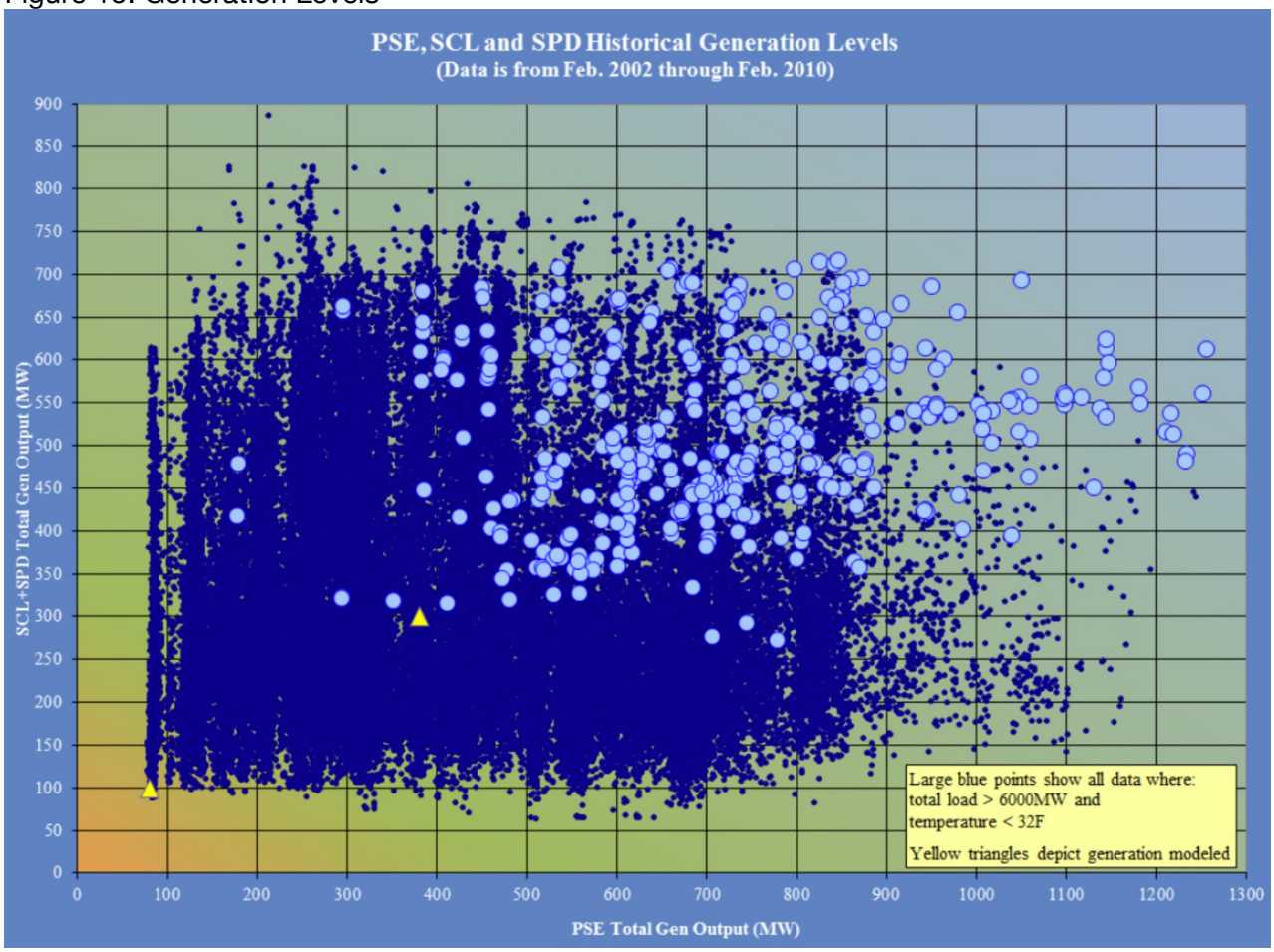
Because generation dispatch was insufficiently studied, and was not clearly communicated, we include suggestions for Puget Sound area generation that is located north of Sammamish substation and is likely to relieve loading at areas to the south during S to N flow such as at Talbot Hill.

Regardless of a contingency event, PSE's generation may already be dispatched to a higher level than was assumed in any of the previous studies because the peak loads used for transmission planning purposes by PSE may require PSE to dispatch its thermal generation portfolio, much of which is located electrically north of the constrained area and is likely to relieve some or all of this congestion.

The Quanta studies assumed low PSE generation, and have provided insufficient detail about which generation was running or was redispatched for sensitivity analysis. The USE study assumed low PSE generation but conducted an optional analysis with some level turned on. The USE report did not disclose the generation quantity assumed for the dispatch level, but we have determined it is likely to be 680 MW.[35]

35 Peter Mackin of USE told the audience this at the Bellevue City Council's May 04, 2015 Study Session

Figure 15: Generation Levels[36]



Source: ColumbiaGrid 2010

Figure 15 shows historical generation levels for PSE, Seattle City Light, and Snohomish PUD, and distinguishes levels that occurred when temperatures were below 32°F and loads were likely to be high. One of the yellow triangles is positioned at approximately 680 MW of total generation, used for a number of ColumbiaGrid studies that were assessing regional transfer capability and did not address local load service. One key conclusion to be drawn from this chart is that historical data shows 680 MW is on the low side for generation assumed to be running during cold winter weather and supports the study request for higher levels described below.

Puget Sound Area Generation

The table below shows generating units that are likely able to relieve Puget Sound area transmission congestion when flow is S to N. These units are all located electrically north of Sammamish substation.

36 Source: ColumbiaGrid draft 2010 Puget Sound Transmission Expansion Plan
Retrieved from:
http://www.bpa.gov/Doing%20Business/TechnologyInnovation/ConferencesGridTransformationWorkshop/Planning_for_Operational_Flexibility_by_Gordon_Dobson_Mack.pdf

Figure 16: Generation North of the Eastside Area

Unit Name	Winter MW	In service Date	Primary Fuel	Plant Type	Firm Gas Supply	Backup Fuel	Backup Type	Owner
Fredonia 1	223	1984	NG	SCCT	YES	YES	Tank	PSE
Fredonia 2	223	1984	NG	SCCT	YES	YES	Tank	PSE
Fredonia 3	118	2001	NG	SCCT	YES	YES	Tank	PSE
Fredonia 4	118	2001	NG	SCCT	YES	YES	Tank	PSE
Burlington	28	2007	Bio	Bio	NO	NO	-	SPI
March Point	145	1991	NG	CCCT	NO	YES	Pipe	Shell
Encogen	169	1993	NG	CCCT	NO	YES	Pipe	PSE
Ferndale	270	1994	NG	CCCT	YES	YES	Tank	PSE
Whitehorn 2	80	1981	NG	SCCT	YES	YES	Tank	PSE
Whitehorn 3	80	1981	NG	SCCT	YES	YES	Tank	PSE
Sumas	131	1993	NG	CCCT	YES	NO	-	PSE
Upper Baker	90	-	Hydro	Dam	-	-	-	PSE
Lower Baker	63	-	Hydro	Dam	-	-	-	PSE
Ross	408	-	Hydro	Dam	-	-	-	SCL
Gorge	178	-	Hydro	Dam	-	-	-	SCL
Diablo	172	-	Hydro	Dam	-	-	-	SCL
Total	**2496**							

Of these units, Figure 17 below shows the quantities of generation that were assumed to be running in previous studies performed by Quanta and USE. Quanta and USE performed sensitivity analyses with some generation running, as noted below.

Figure 17: Generation Levels used for previous studies

Unit Name	Winter MW rating	Quanta 2014 No Gen	Quanta 2014 Low Gen	USE 2015	Quanta 2015
Fredonia 1	223	0	0	Columbia Grid Generation Guideline	Unknown
Fredonia 2	223	0	0		
Fredonia 3	118	0	0		
Fredonia 4	118	0	0		
Burlington	28	0	22		
March Point	145	0	134		
Encogen	169	0	125		
Ferndale	270	0	0		
Whitehorn 2	80	0	0		
Whitehorn 3	80	0	0		
Sumas	131	0	0		
Upper Baker	90	0	80		
Lower Baker	63	0	54		

Ross	408	0	295		
Gorge	178	0	157		
Diablo	172	0	160		
Total	**2496**	**0**	**1027**	**680**	**?**

Additional Generation Dispatch Concerns

Generation levels at other resources in the region can have a significant impact on flows through the eastside, especially Federal Columbia River Power System (FCRPS) generation levels that impact BPA's Cross Cascades North and Raver-Paul flowgates. FCRPS hydro units that influence flows through the Puget Sound area such as Chief Joseph and Grand Coulee need to be modeled at reasonable generation levels for peak load conditions.

3.4 Regional Transfers

Three south-to-north regional transfers at the West-Side Northern Intertie (Custer – Ingledow) should be studied:

1. Transfers of 0 MW to British Columbia
2. Transfers of 300 MW to British Columbia
3. Transfers of 1,179 MW to British Columbia

While earlier studies assumed a 1500 MW flow north to BC Hydro at Blaine, additional investigation should be conducted to determine the extent to which it is appropriate for PSE to use this quantity when evaluating normal, N-1, and N-1-1 conditions.

While 1500 MW is recognized[37] as a possible level of transfers between BPA and BC Hydro pursuant to the Columbia River Treaty (CRT), an agreement[38] between Canada and the U.S. that relates to the CRT defines two delivery locations for these transfers. 11/14ths is to be delivered at Blaine, and the remaining 3/14ths is to be delivered at Nelway, which is on the east side of the Cascades.

Figure 18: Columbia River Treaty Transfer Location Estimates

	Delivery Location %	MW
Maximum CRT Transfers		1,500
Portion Delivered at Blaine	78.6%	1,179
Portion Delivered at Nelway	21.4%	321

[37] US DOE, US COE, BPA, Delivery of the Canadian Entitlement Final EIS http://energy.gov/sites/prod/files/nepapub/nepa_documents/RedDont/EIS-0197-SupROD-01.PDF

[38] Columbia River Treaty Entity Agreement on Aspects of Delivery of the Canadian Entitlement for 1998 through 2024. http://www.bcuc.com/Documents/Proceedings/2006/DOC_10966_B1-131_Columbia%20River%20Treaty%20Agree.pdf

Flow constraints impacting NWPP area generator dispatch and configuration of the Nelway phase shifting transformer should be applied such that exports to BC conform as closely as possible to the delivery location agreement shown in Figure 18.

In its 2013 IRP, BC Hydro proposed to count on 300 MW of capacity imports from BPA for years 2019 through 2023.[39] However, pursuant to the 2010 British Columbia Clean Energy Act, BC Hydro is required to achieve "electricity self-sufficiency," which is defined as acquiring an amount of electricity to meet supply obligations "solely from electricity generating facilities within the Province."[40] To meet this requirement, BC Hydro has plans to add over 1,500 MW of new hydro capacity and a new 500 kV transmission line into the Lower Mainland from hydro plants located to the North.[41]

Because BC Hydro is investing to meet its needs without using imports from BPA, lower levels of transfers should be used for reliability study purposes, and further investigation should be undertaken to determine:

- If any transfers between the U.S. and BC will occur during peak hours, and
- If transfers from BC could supply Puget Sound area peak capacity needs, should BC Hydro have surplus capacity available for sale in a future year.

Regional Transmission versus Local Need

After 2003, south to north transfers to British Columbia have been curtailed due to outages. This resulted in a Memorandum of Agreement[42] signed by BPA, PSE, and SCL to construct a set of upgrades, which includes a description of two projects to increase transfer capability through the Puget Sound area:

1. Reconductor or rebuild Maple Valley – SnoKing 230 kV
2. Rebuild Sammamish-Lakeside-Talbot 115 kV line to 230 kV (EnergizeEastside)

Connections between high capacity transmission nodes to the north and south of the Puget Sound area are limited to the following:

- Monroe–Echo Lake 500 kV (BPA)
- Sammamish–Maple Valley 230 kV (BPA leased to PSE)
- SnoKing–Maple Valley 230 kV (SCL)
- PSE's 115 kV Eastside system
- SCL's 115 kV system in Seattle

Though this may seem to be an abundance of capacity, the ability to transfer power across this section of the regional system is a bottleneck that has impacted transfers to

39 BCH 2013 IRP Chapter 9, page 9-40
https://www.bchydro.com/energy-in-bc/meeting_demand_growth/irp/document_centre/reports/november-2013-irp.html#appendices-9
40 BCH 2013 IRP Chapter 3, page 3-85
41 https://www.bchydro.com/energy-in-bc/projects/ilm.html?WT.mc_id=rd_ilm_transmission
42 BPA FOIA request 2015-00508
http://www.bpa.gov/news/FOIA/2015/15-00508/BPA-2015-00508-FResponse.pdf

BC Hydro pursuant to an agreement[43] between Canada and the U.S. relating to the Columbia River Treaty.

Until expiration of this agreement in 2024, BPA is to deliver a quantity of electricity to BC Hydro that varies by year with a maximum of approximately 1,179 MW at Blaine. The degree to which the transfers addressed in this agreement can be curtailed by BPA is not known because the extent to which firm transmission rights are held by parties involved in this transfer is not known at this time.

After curtailment of transfers related to outages on the lines listed above, among others, ColumbiaGrid formed a study team to search for a solution that decreases the likelihood of transfer curtailments. ColumbiaGrid completed a Puget Sound area Plan in 2010 and issued an updated recommendation in 2011.

Because the MOA indicates there is a need for one of these two projects, among numerous others, it may be possible that if Energize Eastside is not built, the MOA parties will opt for a different project such as the Maple Valley – SnoKing reconductor project, which is referred to in the MOA as "a preferred plan project not planned for construction."

Reconductor or Rebuild

ColumbiaGrid documents indicate that analysis was performed to determine whether SCL's existing structures could support new, higher capacity conductor. Retaining the existing towers and installing new conductor was contemplated, as was rebuilding the structures to accommodate yet higher capacity wire.

In a 2010 ColumbiaGrid presentation[44], 795 ACCR was suggested as a conductor option for the existing structures, with a weight .930 lbs/foot. This conductor is rated at approximately 1732 amps and 693 MVA.

The Bothell–SnoKing line was also discussed[45] as one that could either be reconductored or rebuilt. The structures are similar those used by the SnoKing–Maple Valley line. The rebuild option was identified to use 1272 ACSR conductor bundled 2 per phase, totaling a weight of approximately 2.8 lbs/foot. This configuration is rated at 2368 amps and roughly 950 MVA.

In transmission topology cases C and D, we assume SCL's SnoKing–Maple Valley line is reconductored with the highest possible ampacity conductor that can be accommodated by the existing structures.

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43 Columbia River Treaty Entity Agreement on Aspects of Delivery of the Canadian Entitlement for 1998 through 2024.
http://www.bcuc.com/Documents/Proceedings/2006/DOC_10966_B1-131_Columbia%20River%20Treaty%20Agree.pdf
44 ColumbiaGrid May 2010 Transmission Expansion Plan Presentation
http://www.columbiagrid.org/download.cfm?DVID=1741
45 ColumbiaGrid 2010 Puget Sound Area Transmission Expansion Plan

3.5 Study Years

The years requested for study are 2017-18 and 2023-24.

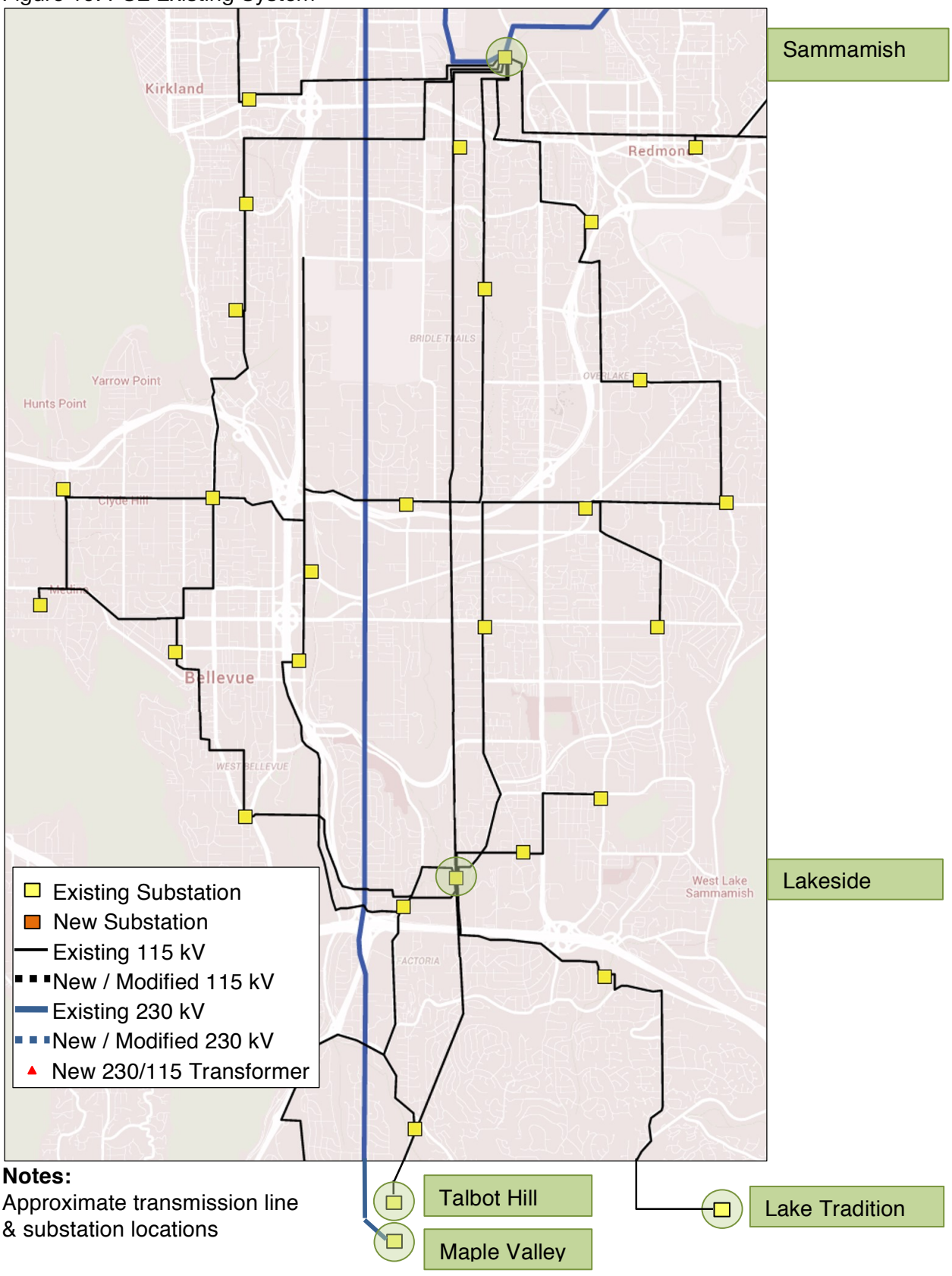
3.6 Transmission Topology for Needs Study

3.6.1 PSE Existing System plus planned projects

Study PSE's existing system with planned projects. Planned projects include those that PSE expects to have in operation at the study date (2017-18 and 2023-24) not including new 230 kV transmission lines or 230 kV transformers. Figure 19 below depicts approximate locations and system configuration.

Conduct this study for both 2017-18 and 2023-24 to determine the extent to which there is any additional need. If additional need is present, move to transmission topology study case A.

Figure 19: PSE Existing System



3.7 Transmission Topology – Alternatives

We suggest the following transmission alternatives be studied in order A through D as needs begin to arise in powerflow simulations specified in Figure 2. This set of projects includes modifications to SCL's SnoKing – Maple Valley 230 kV line and upgrades to PSE's 115 kV network serving Eastside communities, as well as any other projects that are determined to be relevant.

3.7.1 Case A - Reinforce 115 kV Network, add 230/115 kV Transformer(s)

Case A is based upon PSE's plans to build out its 115 kV network to serve load in areas experiencing higher load growth such as downtown Bellevue and Bel-Red. This case includes additional upgrades as needed.

3.7.1.1 Included Projects

Projects included are those that that PSE has identified or have been referenced in reports by Quanta and Exponent that are needed and likely to be built to serve load growth. Figure 20 shows sample projects that have been identified in these reports that serve to more effectively move power into and among substations located close to load centers. Below is a description of these projects, which does not constitute a precise study request, rather only suggestions the EIS preparer should consider when selecting the best options that reasonably fulfill the spirit of the Case B study request: to make full use of the 115 kV network.

Redundancy

Retaining 115 kV lines in the Sammamish–Lakeside–Talbot corridor allows them to be connected to existing and new substations, potentially at new locations for enhanced resiliency.

New Substations

New substations may be required in parts of the Eastside. This option should utilize one or more new substations as needed to serve load, make best use of the 115 kV network, and reduce reliability risk by reducing the need for corrective action plans if possible.

Downtown and Bel-Red Transformer Capacity

Exponent noted that 6 additional transformer banks will be needed in this area to support full build-out. Adding new substations and upgrading existing substations helps meet this area's long-term need.

230/115 kV Transformer Capacity

Explore the possibility of adding one or more 230/115 kV transformers as needed at existing substations while reconfiguring these substations as needed with switchgear,

circuit breakers and other equipment to reduce and eliminate NERC TPL compliance risk. For example, if a new transformer is needed at Talbot Hill, explore potential 115 kV upgrades that may then be required and determine if appropriate substation upgrades can be implemented to reliably connect and utilize this transformer. Primary candidate substations are Talbot Hill, Sammamish, and Lake Tradition.

New 115 kV lines

If new 115 kV lines or modifications such as extending an existing line or rebuilding a single circuit line into a double circuit line are needed to resolve overloads, include such projects in the study case.

115 kV Reconductor

By making use of commercially available high-temperature low-sag (HTLS) conductor to transfer more power across existing lines that reach into eastside load centers, this option should be considered by the EIS preparer. One or more 115 kV lines between Sammamish and Talbot Hill substations that are predicted to experience future overloads may be upgraded to higher temperature conductor for increased capacity.

If line overloads are detected, upgraded conductors, and potentially rebuilding of 115 kV lines in like kind to accommodate these new conductors should be reasonably considered. The objective of this approach is to determine if enough additional transfer capacity can be added this way to meet reliability requirements.

If it is determined that new lines, or portions of existing 115 kV lines are necessary, consider use of HTLS conductor for higher capacity.

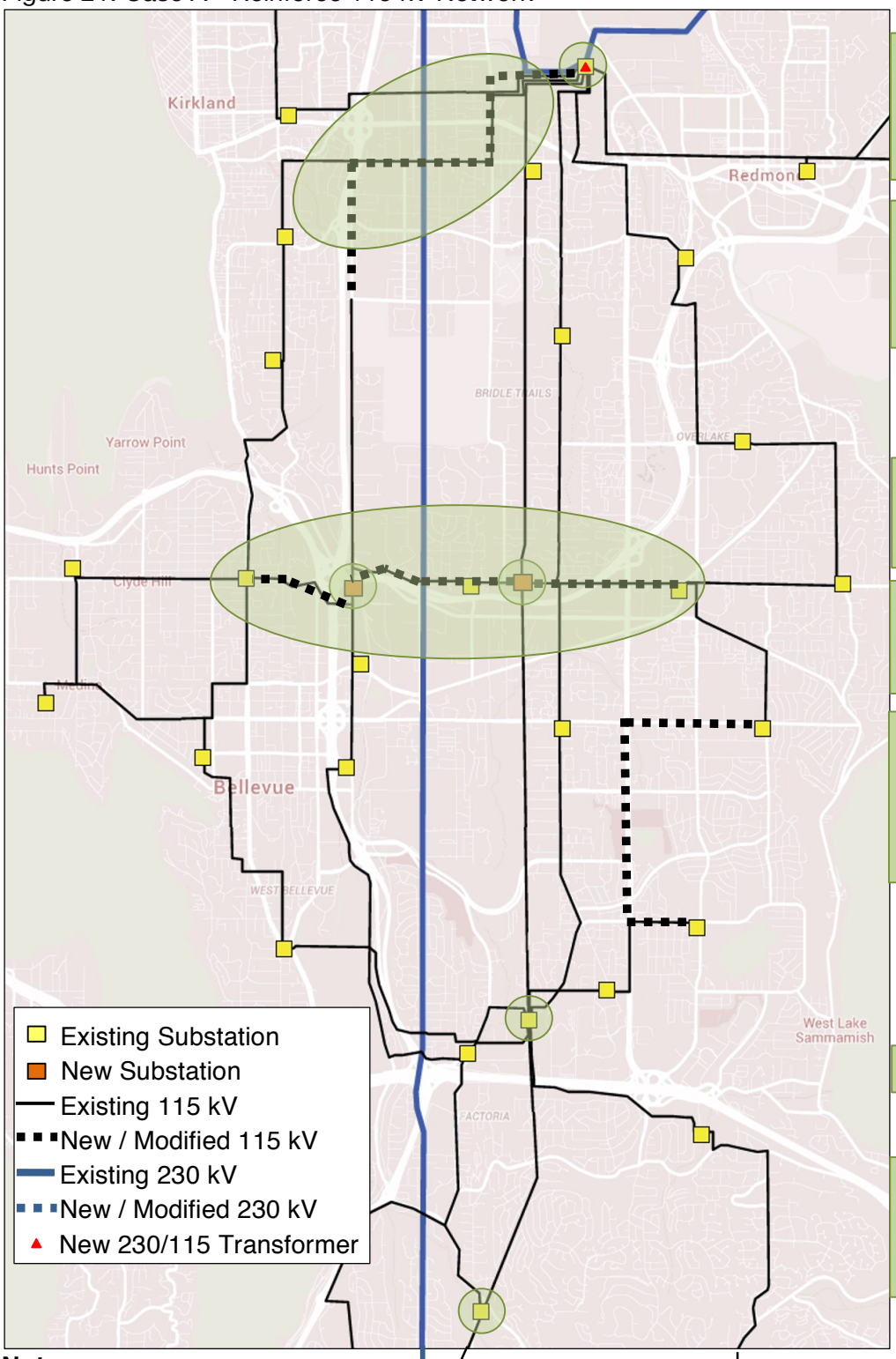
Sample conductor options are provided in Figure 20 below. The existing conductor for the Sammamishh-Lakeside-Talbot lines is 1.063" in diameter, ACSR type[46]. Reconductor projects may choose to utilize ACSS high temperature wire.

Figure 20: Suggested 115 kV conductors

Conductor Option	Conductor Description	Conductor Size	Temp (C)	Amps	Weight lbs / 1000 ft.	Streng th (lbs)	Continuous MVA	Emergency MVA
Existing	ACSR	795 Tern	100	887	895	22,100	157[47]	249[48]
A	ACSS	636 Grosbeak	200	1,435	874	22,400	260[49]	
B	ACSS	1272 Bittern	200	2,201	1,432	24,000	390[50]	

[46] Exponent states that PSE has upgraded its 115 kV system to 100°C conductor, and references Tern wire size
[47] Exponent
[4848] Quanta (supplemental needs statement May 2015)
[49] Estimate
[50] Estimate

Figure 21: Case A - Reinforce 115 kV Network



Sammamish Possible New 115/230 Transformer

Possible Sammamish-Vernell new 115 kV line

Possible New Westminster Substation

Possible New Vernell Substation

Possible increase in capacity among substations

Lakeside

Talbot Hill Possible New 115/230 Transformer

Notes:
Locations of modified lines & new transformers are suggestions only

Talbot Hill

Maple Valley

Lake Tradition Possible new 230-115 Transformer

3.7.2 Case B – Reinforce 115 kV and 230 kV Networks, add 230/115 kV Transformer(s)

This case takes what was studied in Case A and adds the SCL reconductor project as discussed in section 3.4.

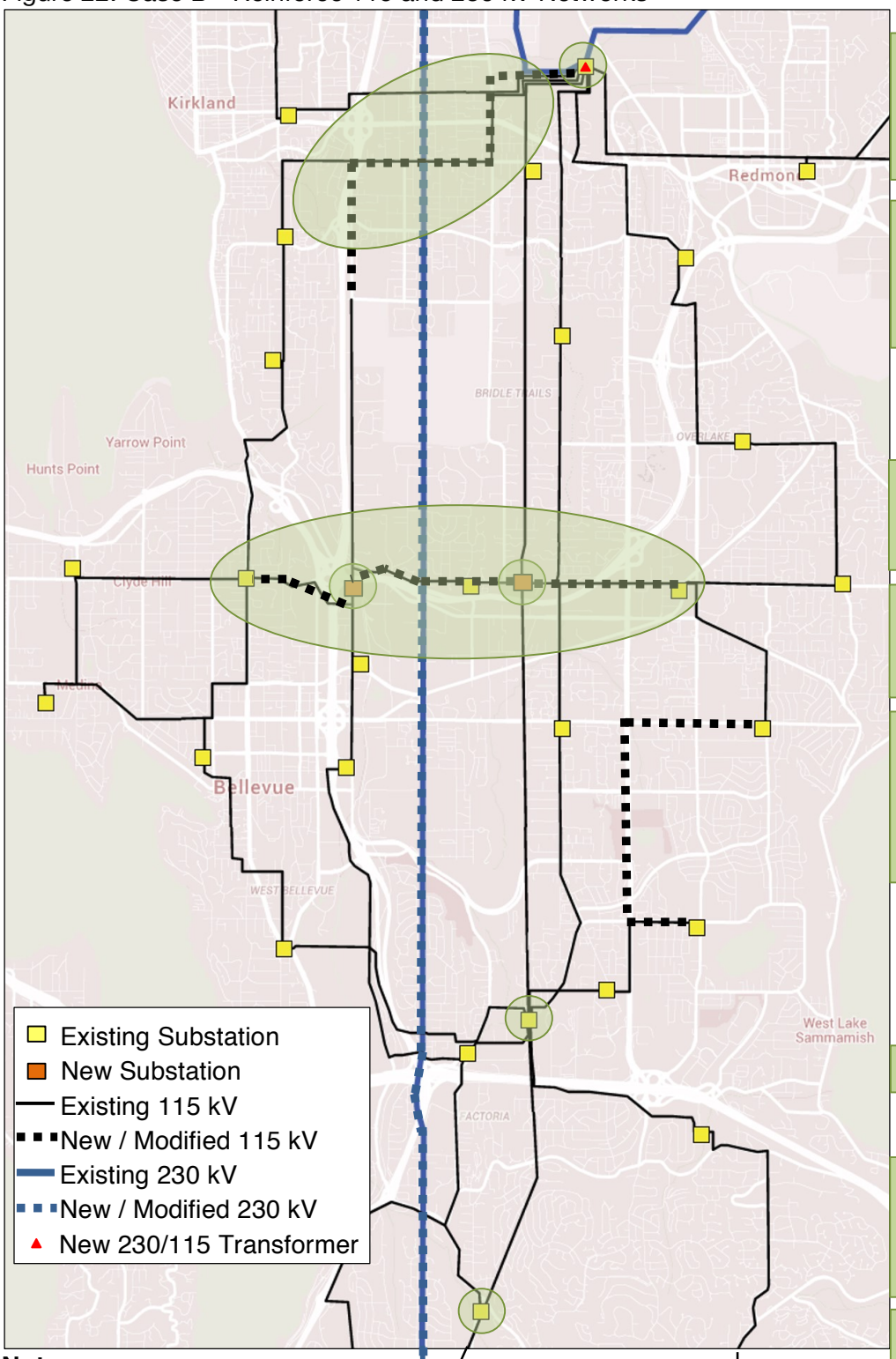
3.7.2.1 Included Projects

All projects such as transformer additions and 115 kV line reconductor options are carried through to case C from case B.

SCL Transmission Line Upgrade

In this alternative, regional needs are met by reconductoring SCL's Maple Valley – SnoKing line. This line is not connected to any PSE substation in the eastside area for this study case. SCL's SnoKing–Maple Valley line is reconductored with the highest possible ampacity conductor that can be accommodated by the existing structures.

Figure 22: Case B - Reinforce 115 and 230 kV Networks



Sammamish Possible New 115/230 Transformer

Possible Sammamish-Vernell new 115 kV line

Possible New Westminster Substation

Possible New Vernell Substation

Possible increase in capacity among substations

Lakeside

Talbot Hill Possible New 115/230 Transformer

Lake Tradition Possible new 230-115 Transformer

Notes:
Locations of modified lines & new transformers are suggestions only

3.7.3 Case C – Reinforce 115 kV and 230 kV Networks, add 230/115 kV Transformer(s), add Local Generation

For this study case, all elements are retained from Case B, and a 230 source is added to a PSE Eastside area substation.

3.7.3.1 Included projects

Generation resources are added to the Eastside to both reduce transmission congestion and provide peak load capacity and energy to PSE to promote reliable local service.

Although we are not suggesting a specific project, three general types of natural gas power plants are identified for consideration:

1. Baseload (designed for efficient continuous operation – combined cycle combustion turbine)
2. Peaking (designed for infrequent operation – simple cycle combustion turbine, less efficient)
3. CHP (central plant supplying heating, cooling and electricity, designed for continuous operation at high efficiency)

Simple Cycle

In his affidavit as part of CENSE's FERC filing in docket EL15-74, Richard Lauckhart suggested siting one or more 50MW simple cycle combustion turbines near areas of greatest demand in the Eastside area.

CHP

As an additional choice, CHP in a central plant configuration sited near areas of highest development potential in Bellevue should be considered. This option is potentially advantageous due to the possibility of being integrated into development plans at an early stage, likely required for successful implementation. An example is the University of British Columbia's District Energy Centre, currently under construction, that will serve a campus the size of a small city.

CHP is the most energy efficient and lowest carbon emitting solution because generator waste heat is captured and used.

Figure 23: UBC District Energy Centre rendering[51]

Combined Cycle

Because these types of power plants generally require a much larger footprint than simple cycle plants, siting near urban areas can be difficult. These plants are more efficient than simple cycle plants.

3.7.4 Case D – Tap SCL 203 kV Line + Reinforce 115 kV Network

For this study case, all elements are retained from Case C, and a 230 230 kV source is added to a PSE Eastside area substation by connecting one circuit of SCL's Maple Valley–SnoKing line. All feasible locations for this connection should be considered, including to existing substations or to new substations that may be built for Bellevue load service. Alternate routes should also be considered.

[51] http://planning.ubc.ca/sites/planning.ubc.ca/files/attachments/DP12029-Rend.pdf

1. Appendices

1.1 Appendix A: Bellevue Substation Historical Load

Figure 24: Bellevue substation load[52]

Substation Name	2005 Peak Load	2020 Projected Peak Load
	MW	MW
Ardmore	-	20
Bridle Trails	25.7	32.4
Center	24.7	49.3
Clyde Hill	23.4	38.3
College	20.2	21.8
Eastgate	32	27.1
Evergreen	54.1	57.6
Factoria	28.9	33.8
Houghton	22.8	19.9
Kenilworth	24.6	25.3
Lake Hills	22.4	22.6
Lochleven	19.2	41.1
Midlakes	20.7	22.9
North Bellevue	43.9	48.2
Northrup	26.5	37.5
Phantom Lake	19.3	21
South Bellevue	22.8	24.3
Somerset	18.3	19.6
Totals	**449.5**	**562.7**

[52] City of Bellevue Comprehensive Plan Utilities Element Update, November 2006 http://www.ci.bellevue.wa.us/pdf/PCD/PSE_System_Plan_Update_November_2006.pdf (accessed 06.08.2015)

Subject: Energize Eastside EIS Scoping Comments attached from Sierra Club
From: South King County Sierra Club <southkingsierraclub@outlook.com>
Date: 6/15/2015 4:18 PM
To: "Scoping@EnergizeEastsideEIS.org" <scoping@energizeeastsideeis.org>

To the Energize Eastside Lead Agency,
Attached are comments from the South King County Group of the Washington State Sierra Club regarding EIS scoping.

Can you please confirm these comments were received?

Thank you,
Kristen Bryant, Chair of the South King County Group of the Sierra Club.

Attachments:

South King County Sierra Club Energize Eastside EIS Scoping Comments.pdf	542 kB

Environmental Impact Statement Scoping Comments for PSE's proposed "energize eastside" project
From: Sierra Club South King County Group
Date: June 15, 2015

The Sierra Club South King County Group advocates for energy conservation and environmentally sustainable energy sources. We also support improvement of our local natural ecosystems and tree protection in our communities. The South King County Group has significant concerns with the expansion of electricity transmission lines from Renton to Redmond.

Regarding Environmental Impact Statement (EIS) Scoping, it is our position that many additional alternatives besides the 4 listed by PSE should be considered, and that all external costs and impacts be addressed and studied. This includes variations within and across the identified alternatives as well as additional alternatives. Some specific areas for more study are listed below.

Fully Evaluate Options to Reduce Peak Energy Demand

The Sierra Club's "Beyond Coal" campaign recommends sensible alternatives to address the issue of peak power demand. Rather than build expensive excess capacity to meet extremely rare (possibly once in 30 years or less) combinations of an annual peak demand event coinciding with a failure in parts of the system, we can make plans to reduce peak demand when the system is nearing system capacity. This is called "demand shaving."

Demand Shaving can be done by shifting the use of electricity other times of day, or decreasing use during peak use times. Options to evaluate:

- PSE can develop a more robust demand response program. Work with large customers to arrange to pay them to reduce their electricity use during peak time. Large customers can agree to slow operations, reduce heating and cooling use, or find other creative ways to reduce power that would only be used in a rare year where the peak demand coincides with the failure of some part of the electric system (the scenarios that PSE is doing the Energize Eastside project for). The customers would receive incentives to develop such plans. The cost and impact of such a program, and how much power would have to be reduced during one of these peak demand events should be determined. Also, PSE should make a list of large customers, and how much power each of them uses. A comprehensive list should be in the EIS.

- Evaluate the cost and impact of a program where customers can sign up to receive messages when the system is nearing capacity, and asked to turn off unnecessary electric equipment.

- Manage demand by increasing the price of electricity during peak demand times to reduce demand from growth and keep electricity use at current levels. This should include the use of a tiered pricing model as more electricity is used to both protect those with low income and to encourage conservation for big users of electricity. It is acknowledged that changing electricity rates has a process involved that is beyond this project, but the EIS Scope should include this information or we won't be able to make appropriate decisions in the future.

Modernize the Grid and Create More Incentive for Green Energy

The 2013 Eastside Solution Executive Summary related to this project simply dismisses meeting increased need with increased efficiency by looking at only one opinion: "PSE's Energy Efficiency Group….indicated they have already estimated the maximum amount of conservation available in the area. As a result, additional demand side reductions would not be a viable solution and therefore were eliminated as a potential alternative."

Clearly, there are additional efficiencies that can be put in place beyond the goals that PSE currently has. Conservation has always been difficult to incentivize for the utility because they make more money when they sell more power. Other outside pressures would be needed to result in more efficiency. Thus, we feel that Alternative 2, "Demand Side Reduction/Non-Wire Technologies" and options related to it must be fully evaluated in the EIS.

In particular, PSE should explore the potential for energy conservation if the money that would be spent on new power lines were instead invested in additional efficiency measures beyond the current goals. Further, they should estimate in detail how much conservation would be needed to negate the need for new lines and how cities could put programs in place to meet that amount of conservation.

PSE should analyze how modernizing the grid to better use local rooftop solar could be a factor in reducing peak demand. These grid improvements could include any technology needed to better use energy from increased solar panel installations, and to allow local batteries and solar to provide energy to the grid even in the event of an outage due to failure of transmission lines elsewhere on the east side. It should also include a detailed study of what it would take to build a smart grid that charges customers more for using energy during times of peak energy usage, therefore providing incentive for customers to shift the time of electricity use (run the dishwasher at night, remember to turn off lights during the day, etc.).

PSE should also work on "decoupling" programs so that PSE can make as much or more profit from encouraging energy efficiency as they can from selling more electricity.

Allow for future Green Technology

PSE indicates that technologies such as local storage and local generation will not be available in time for the project. These possibilities should still be evaluated in the scope, and an alternative that assumes a phased approach should be evaluated. Allow for battery storage and local generation (such as solar and battery storage) to be adopted very quickly as it comes online in the next several years and beyond. PSE should evaluate how to create a plan that allows future demand to be met by these technologies without assuming it will all be met by Alternative 1. Include both large industrial as well as residential users. This could be a hybrid of Alternatives 1 and 2.

PSE should calculate the cost and impact of being out of compliance with the standards for a month, 3 months, 6 months, a year, two years, and three years. The process of asking for an exception from the federal rule should be evaluated. This will allow cities and states to consider whether this is an option and allow time to create more green building and sustainable technologies to meet the demand.

Building Efficiency and Planning for Growth

This electricity capacity project is about supporting future population growth forecasts. Now is the time for local and state governments to establish incentives and requirements for improved energy performance in any new construction. Western Washington's mild climate is uniquely suited for energy efficient buildings. Energy efficiency standards and fees on new growth for buildings that are not meeting the highest standards of efficiency should repay the costs of expanding transmission lines. The cost of new lines should not be passed on to today's rate payers.

The EIS should include a full listing and review of new building standards and existing building upgrades that would be needed to reduce demand to levels that can be met with existing infrastructure.

Cities and PSE should also evaluate development permitting activity. Cities do not have to permit development if there is not sufficient electrical power. In fact, they are not supposed to issue permits if there is not sufficient electrical capacity. Therefore, if this project does not achieve increased capacity for the east side, it simply means cities could curb new development permits until solutions that stay within the current capacity can be put in place.

As part of the EIS, PSE should evaluate a new alternative (besides the 4 they identified already) of when and how they can let cities know that electrical capacity is not available for projects in the development application process. Cities would then have information they need to adjust their growth plans or permit processes to deal with this as one of the realistic possible scenarios. Developers will then be able to find other ways to pay for electrical infrastructure or conserve energy if it is financially worth it to them.

Natural Space and Wildlife Impacts

In King County, power transmission corridors serve as local wildlife corridors in our cities. The massive construction project and the removal of up to 8000 trees in the corridors will be extremely detrimental to wildlife. The wildlife that depends on these trees and corridors will be harmed during the intervening years waiting for trees to grow back and construction to finish. The scope should include an analysis of wildlife impacts due to construction noise, equipment, and tree removal. This should be specific to each section of the corridor, not general across the corridor.

Removal of mature trees also has the potential to harm local waterways. Detailed analysis of all the waterways including intermittent streams, small ponds, and groundwater should be evaluated for impact from both construction and tree removal. Analysis should also include effects on stormwater during tree removal, construction and over the next 10 years and how this will impact local water ways and Puget Sound. Identification should be made of any likely or possible exceptions to stormwater regulations that could be required.

We are concerned about any impact from areas where trees will not be replaced after removal. Removal of mature trees will negatively impact the livability of our area. Best practice studies on the benefits of trees should be used to quantify the value of trees that are in viewing distance of local residents, drivers, and workers who will see these areas.

Removal of trees also increases heat in summer. Tree removal could increase demand for air conditioning. This effect can already easily be seen in developments where all the trees are removed and then building occupants install or use air conditioning. The potential for increased energy use by air conditioning or for other reasons after tree removal along the corridor should be detailed in the draft EIS.

Trees clean our water and our air. Trees are proven to improve human health and happiness. Our focus should be on preserving our existing mature trees, not on the slow process of replacing the ones we cut down.

Climate Change Impacts

Any project that assumes an increase in energy use must be evaluated for its global warming impact. Energize Eastside does not readily identify the source of the electricity to move along these power lines, and it is assumed that the lines will be available to move energy from fossil fuel sources. The full potential environmental impact including global warming and other pollution of the power sources should be identified and enumerated in the EIS. Any externalized costs of pollution should be fully quantified. PSE should include in this analysis a range of energy sources including one scenario that assumes that all the additional energy will come from coal, and another one that includes natural gas.

For more justification on why allowing more fossil fuel energy to be used in our area is something we should not encourage, and not permit without addressing it in the EIS, here is an excerpt on Climate Change from the King County Comprehensive Plan:

> "Chapter 4--ENVIRONMENT
>
> II. Climate Change
> Arguably the single most pervasive environmental challenge that King County faces now and into the future is global climate change. Impacts from climate change have the potential to dramatically impact ecosystems, agriculture, economy, biodiversity, and public health and safety in myriad and interrelated ways. The effects of climate change will not be felt equally across King County, with some communities facing particular vulnerabilities. Sustaining quality of life and our environment requires a significant commitment on the part of King County to both reducing greenhouse gas emissions, the primary driver of human caused climate change, and adapting to climate change impacts in an ever-changing and increasingly dynamic landscape.
>
> Climate Change Science and Impacts
> Human caused sources of greenhouse gas emissions, including carbon dioxide and methane, are causing unprecedented and severe changes in global and local climate systems. This is the consensus view of the world's leading scientists, including the Intergovernmental Panel on Climate Change (IPCC) and the US National Academy of Sciences (NAS).

In King County, decreasing mountain snowpack, increasing flooding, and rising sea levels are evidence that the climate system is changing. While many factors affect the climate system and natural environment, including land use changes, scientists have attributed many changes in significant part to recent increases in atmospheric greenhouse gas concentrations. The County faces significant environmental and economic challenges stemming from climate change, including stressed and rapidly changing ecosystems, costly impacts on public and private property, and new public health risks resulting from worsening air quality, additional heat related impacts, and increased exposure to infectious disease."

Environmental Justice

Historically, many infrastructure projects have put more negative impacts in areas where the people who are already disadvantaged, with low income or a history of less opportunity. This could include loss of trees, disruptive construction, or less attractive views. The EIS should include an evaluation of each of the neighborhoods along the lines and alternate routes, and evaluate whether it is impacting a community that is already disadvantaged.

EM Radiation

Some credible studies have found a correlation between Electromagnet (EM) radiation from power lines and cancer. Not enough study has been done to be conclusive, and more study would be needed. The EIS should evaluate the cost of using construction technology for the new lines that minimizes risk to radiation effects.

Underground wires

Above-ground wires require extensive tree trimming and create unattractive power line corridors. Within Alternative 1, evaluate the cost of putting the new line underground, including the full cost spread over the next 50 years. Include evaluation of the benefits of underground wires as well.

From The South King County Group of the Washington State Sierra Club, including over 220 members in Renton and Newcastle.

Contact: SouthKingSierraClub@Outlook.com

Subject: PSE EIS Comments/Notice
From: Loretta Lopez <loretta@mstarlabs.com>
Date: 6/15/2015 2:08 PM
To: "'Scoping@EnergizeEastsideEIS.org'" <Scoping@EnergizeEastsideEIS.org>
CC: "'DPyle@bellevuewa.gov'" <DPyle@bellevuewa.gov>

I am submitting the following as part of the Energize Eastside Scoping Comments.

Then Notice is not adequate.

The Notice of EIS Scoping states:

"PSE has determined that projected electrical growth on the Eastside are of Puget Sound Energy's operating system is outstripping the capacity to deliver reliable sources of electricity to the region."

The notice goes on to state that the under certain conditions transformers operate near capacity. Then notice then states that "System studies and models have shown that they are expected to exceed their designed capacity as early as the winter of 2017.2018."

1. The Notice does not set forth where the project will occur. Since it does not set forth the location and route then it is unreasonable to assume that citizens have knowledge of the project and will comment.

2. The Notice does not set forth how the project will be constructed. Even if citizens knew the exact location of the project there is not sufficient detail in the Notice to inform anyone one about what the project entails and where and how the construction will occur.

3. The Notice does not set forth a description of the 135 transmission towers and the extent of the excavation that will be necessary to build 135 transmission towers. Notice to those residents who live along the Olympic pipeline is essential due to the public safety concerns of drilling and digging in proximity to a gas pipeline.

4. The Notice asserts that PSE conducted studies and models to conclude that there is proof that the current system will exceed capacity. There is no reference to how citizens can check such assertions and request information about the studies conducted.

5. The Notice states that the EIS will be phased. There is no adequate description and differences between Phase 1 and Phase 2 of the EIS.

6. The Scoping Notice has not identified all appropriate alternatives.

Loretta Lopez
13419 NE 33rd Lane Bellevue WA 98005

Secretary for CENSE

mailing address: CENSE 12819 SE 38th #294, Bellevue WA 98006.

President
Bridle Trails Community Club
mailing address: Bridle Trails Community Club 6619 132nd Ave NE #133 Kirkland WA 98033

Subject: PSE EIS/Comments Decision/Jurisdiction of Cities, EBCC
From: Loretta Lopez <loretta@mstarlabs.com>
Date: 6/15/2015 3:24 PM
To: "'Scoping@EnergizeEastsideEIS.org'" <Scoping@EnergizeEastsideEIS.org>
CC: "'DPyle@bellevuewa.gov'" <DPyle@bellevuewa.gov>

I am submitting the following as part of the Energize Eastside Scoping Comments.

1. What are the steps that PSE must take if one of the 5 cities, or the EBCC, decides that PSE cannot build the project in their jurisdiction?

Loretta Lopez
13419 NE 33rd Lane Bellevue WA 98005

Secretary for CENSE
mailing address: CENSE 12819 SE 38th #294, Bellevue WA 98006.

President
Bridle Trails Community Club
mailing address: Bridle Trails Community Club 6619 132nd Ave NE #133 Kirkland WA 98033

Subject: RE: PSE EIS Comments/Land Use Codes
From: Loretta Lopez <loretta@mstarlabs.com>
Date: 6/15/2015 3:13 PM
To: "'Scoping@EnergizeEastsideEIS.org'" <Scoping@EnergizeEastsideEIS.org>
CC: "'DPyle@bellevuewa.gov'" <DPyle@bellevuewa.gov>

I am re-sending with new Subject title: Land Use Codes

From: Loretta Lopez
Sent: Monday, June 15, 2015 1:41 PM
To: 'Scoping@EnergizeEastsideEIS.org'
Subject: PSE EIS Comments/Notice

I am submitting the following as part of the Energize Eastside Scoping Comments.

1. Is the PSE Proposed EE Project consistent with the Land Use Codes of the City of Renton?

2. Is the PSE Proposed EE Project consistent with the Land Use Codes of the City of Newcastle?

3. Is the PSE Proposed EE Project consistent with the Land Use Codes of the City of Kirkland?

4. Is the PSE Proposed EE Project consistent with the Land Use Codes of the City of Redmond?

Loretta Lopez
13419 NE 33rd Lane Bellevue WA 98005

Secretary for CENSE
mailing address: CENSE 12819 SE 38th #294, Bellevue WA 98006.

President
Bridle Trails Community Club
mailing address: Bridle Trails Community Club 6619 132nd Ave NE #133 Kirkland WA 98033

Subject: PSE EiS Comments/ Time Constraints on Phase 1 and Phase 2
From: Loretta Lopez <loretta@mstarlabs.com>
Date: 6/15/2015 2:51 PM
To: "'Scoping@EnergizeEastsideEIS.org'" <Scoping@EnergizeEastsideEIS.org>
CC: "'DPyle@bellevuewa.gov'" <DPyle@bellevuewa.gov>

I am submitting the following as part of the Energize Eastside Scoping Comments.

1. Is there a deadline for completing Phase 1 of the EIS?

2. Is there a deadline for completing Phase 2 of the EIS?

Loretta Lopez
13419 NE 33rd Lane Bellevue WA 98005

Secretary for CENSE
mailing address: CENSE 12819 SE 38th #294, Bellevue WA 98006.

President
Bridle Trails Community Club
mailing address: Bridle Trails Community Club 6619 132nd Ave NE #133 Kirkland WA 98033

Subject: PSE EIS Comments/Distinction between Phase 1 and Phase 2
From: Loretta Lopez <loretta@mstarlabs.com>
Date: 6/15/2015 2:47 PM
To: "'Scoping@EnergizeEastsideEIS.org'" <Scoping@EnergizeEastsideEIS.org>
CC: "'DPyle@bellevuewa.gov'" <DPyle@bellevuewa.gov>

I am submitting the following as part of the Energize Eastside Scoping Comments.

I know that there are two Phases of the this EIS, Phase 1 and Phase 2.

1. What are the specific distinctions between Phase 1 and Phase 2.

2. Are there different decision making processes for the phases?

3. Who is the decision maker for Phase 1?

4. Who is the decsion maker for Phase 2?

Loretta Lopez
13419 NE 33rd Lane Bellevue WA 98005

Secretary for CENSE
mailing address: CENSE 12819 SE 38th #294, Bellevue WA 98006.

President
Bridle Trails Community Club
mailing address: Bridle Trails Community Club 6619 132nd Ave NE #133 Kirkland WA 98033

Subject: PSE EIS Comments/Notice
From: Loretta Lopez <loretta@mstarlabs.com>
Date: 6/15/2015 2:08 PM
To: "'Scoping@EnergizeEastsideEIS.org'" <Scoping@EnergizeEastsideEIS.org>
CC: "'DPyle@bellevuewa.gov'" <DPyle@bellevuewa.gov>

I am submitting the following as part of the Energize Eastside Scoping Comments.

Then Notice is not adequate.

The Notice of EIS Scoping states:

"PSE has determined that projected electrical growth on the Eastside are of Puget Sound Energy's operating system is outstripping the capacity to deliver reliable sources of electricity to the region."

The notice goes on to state that the under certain conditions transformers operate near capacity. Then notice then states that "System studies and models have shown that they are expected to exceed their designed capacity as early as the winter of 2017.2018."

1. The Notice does not set forth where the project will occur. Since it does not set forth the location and route then it is unreasonable to assume that citizens have knowledge of the project and will comment.

2. The Notice does not set forth how the project will be constructed. Even if citizens knew the exact location of the project there is not sufficient detail in the Notice to inform anyone one about what the project entails and where and how the construction will occur.

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4. The Notice asserts that PSE conducted studies and models to conclude that there is proof that the current system will exceed capacity. There is no reference to how citizens can check such assertions and request information about the studies conducted.

5. The Notice states that the EIS will be phased. There is no adequate description and differences between Phase 1 and Phase 2 of the EIS.

6. The Scoping Notice has not identified all appropriate alternatives.

Loretta Lopez
13419 NE 33rd Lane Bellevue WA 98005

Secretary for CENSE

mailing address: CENSE 12819 SE 38th #294, Bellevue WA 98006.

President
Bridle Trails Community Club
mailing address: Bridle Trails Community Club 6619 132nd Ave NE #133 Kirkland WA 98033

Subject: RE: Proof of submission to 'info@EnergizeEastsideEIS.org'
From: <DPyle@bellevuewa.gov>
Date: 6/15/2015 1:46 PM
To: <loretta@mstarlabs.com>
CC: <don.m.marsh@hotmail.com>, <sdofour@aol.com>, <records@energizeeastsideeis.org>, <Scoping@EnergizeEastsideEIS.org>, <info@EnergizeEastsideEIS.org>

Loretta,
This email is a verification of receipt of comment submitted below as received during the Energize Eastside EIS Phase I Scoping Period. Comments were received before the closure of the scoping period (June 15, 2015 5 PM) and have been added to the record.

David Pyle
Energize Eastside EIS Program Manager
Senior Land Use Planner
City of Bellevue
dpyle@bellevuewa.gov
(425)452-2973 (Office)
(425)452-5225 (Fax)
www.bellevuewa.gov
www.EnergizeEastsideEIS.org

From: Loretta Lopez [mailto:loretta@mstarlabs.com]
Sent: Friday, June 12, 2015 2:54 PM
To: Pyle, David
Cc: 'Don Marsh'; sdofour@aol.com
Subject: Proof of submission to 'info@EnergizeEastsideEIS.org'

Hi David,

One more question. How do we check or have proof that you all have received comments after we hit send?

I like evidence of delivery.

Loretta

From: Loretta Lopez
Sent: Friday, June 12, 2015 1:28 PM
To: 'DPyle@bellevuewa.gov'
Subject: RE: FERC Docket # FERC Docket No. EL15-74

OK,. Thanks David.

Loretta

From: DPyle@bellevuewa.gov [mailto:DPyle@bellevuewa.gov]
Sent: Friday, June 12, 2015 11:52 AM
To: loretta@mstarlabs.com
Cc: don.m.marsh@hotmail.com; sdofour@aol.com
Subject: RE: FERC Docket # FERC Docket No. EL15-74

Hi Loretta,

Thank you for asking. To be sure all the info you want included is carried into scoping, please submit the documents you would like included in their entirety.

Thank you,

David Pyle

From: Loretta Lopez [mailto:loretta@mstarlabs.com]
Sent: Friday, June 12, 2015 1:47 PM
To: Pyle, David
Cc: 'Don Marsh'; sdofour@aol.com
Subject: FERC Docket # FERC Docket No. EL15-74

Hi David,

As you know, a FERC complaint has been filed. The FERC complaint includes many documents. We want the complaint to be included in the Scoping comments since it sets forth many technical details that are relevant. Does the City want me to submit by referring to the FERC Complaint and Docket # or does the City want all of the documents submitted.

Or is the City on its own going to include the FERC complaint?

Loretta

Subject: YMCA-EIS Letter
From: Marcia Isenberger <misenberger@seattleymca.org>
Date: 6/15/2015 4:13 PM
To: "Scoping@EnergizeEastsideEIS.org" <Scoping@EnergizeEastsideEIS.org>

David,

Good afternoon. Attached is the YMCA letter for the Energize Eastside EIS.

Thanks,

MARCIA ISENBERGER| Regional Executive
Bellevue, Coal Creek, Sammamish, Snoqualmie, Youth & Government
P 425.282.1505
C 425.785.8150

Coal Creek Family YMCA
13750 Newcastle Golf Club
Newcastle, WA 98059
seattleymca.org

The Y: We're for youth development, healthy living and social responsibility.

Attachments:

YMCA-EIS Letter.pdf	275 kB

June 15, 2015

David Pyle
Development Services Department
450 110th Avenue NE
Bellevue, WA 98004

Re: Scoping Comments for Energize Eastside Phase 1 Draft EIS

Dear Mr. Pyle,

On behalf of the Bellevue Family and Coal Creek Family YMCAs serving the cities of Redmond, Kirkland, Bellevue, Newcastle and Renton, we are writing to share scoping comments for Energize Eastside Phase 1 Draft EIS.

The Y is a cause-driven organization that is for youth development, for healthy living and for social responsibility. A strong community can only be achieved when we invest in our kids, our health and our neighbors. At the Y, Strengthening community is our cause. We welcome women, men, boys and girls of all ages, races, ethnicities, religions, abilities, sexual orientations and financial circumstances. The Y is committed to serving the Eastside and our local communities with quality and affordable programs.

The primary purpose of the YMCA is building community. Any efforts geared towards that end for all of our members on the Eastside, including affordable and reliable power is welcomed. We ask you to review solutions that definitively describe the effects for proposed activities on the environment.

We appreciate the opportunity to offer comments in Phase 1 of the EIS process.

Sincerely,

Marcia Isenberger
Regional Executive, Eastside YMCAs
YMCA of Greater Seattle

Paul Lwali
Executive Director
Bellevue Family YMCA

Subject: Public comment for Energize Eastside EIS
From: maria v. <mariaserios@hotmail.com>
Date: 6/15/2015 12:23 PM
To: "Scoping@EnergizeEastsideEIS.org" <scoping@energizeeastsideeis.org>
CC: maria v. <mariaserios@hotmail.com>

To whom it may concern:

Name: Maria Vlachopoulou
Address: 14708 SE 15th Place, Bellevue, WA 98007

I am writing this public comment with regards to the Energize Eastside environmental impact statement.

I have a technical background in the area of Energy Research with applications to Electric Infrastructure Planning, Renewable Energy Integration, and Future Power Grid Development funded by the Dept. Of Energy.

I have reviewed the Energize Eastside plan (www.energizeeastside.com), the Energize Eastside environmental impact statement website, and read the report of the Utility System Efficiencies on the project.

In summary:

- I do not think that the load forecast, which drives energy demand for the eastside, is accurate. PSE forecasts load based on an econometric regression model, and not based on actual energy usage data. While the population, and commercial activity on the east side is projected to increase, that does not translate to a proportional increase of the actual energy demand. I seriously doubt that the system capacity will be exceeded by energy demand in 2017/2018.
- The PSE study accounts for a large power flow of 1500 MWatts to Canada. This will obviously stress the power system and cause overloads. However, I do not understand why Energize Eastside should be built to send such large power flows to Canada, when it is advertised as a local project.
- Not only the PSE does not account for the potential use of distributed generation, and new rapid technological developments in the area of distributed generation, but it also assumes that the local generation from gas generation plans is turned off. When running power system simulations, adding or removing such an assumption to the simulation has a big impact on the outcome of the power flow and load forecast.
- The proximity to the Olympic pipeline is quite alarming.
- Last but certainly not least, cutting 8,000 trees is a large toll for a project to which we can find better alternatives. Maintaining the character of the neighborhoods, and the habitat for wildlife still living withing the city boundaries should be considered a high priority.

While we will have to find ways of meeting a generally increasing energy demand in King County and the US,

better planning, and technological advances give us the opportunity to suggest and implement solutions that are far less invasive and destructive than a massive network of 230kV poles.

My favorite alternative so far is the recommendation of E3, a PSE consultant that calculated a potential of 56MW savings by making use of energy efficient solutions for homes and businesses, and demand side resources.

Sincerely,

Maria

Subject: EIS Element - Economics/Costs
From: "whalvrsn1@frontier.com" <whalvrsn1@frontier.com>
Date: 6/15/2015 4:58 PM
To: "Scoping@EnergizeEastsideEIS.org" <Scoping@EnergizeEastsideEIS.org>

At last week' EIS orientation session, it was stated that Economics or Cost would probably not be a "stand alone" element considered in the EIS process. The reason given was that this is a factor inherent in all elements. Unfortunately, there seems to be considerable miscommunication and misunderstanding here, for I hear something completely different from neighbors, builders and realtors. I, therefore, urge the EIS team to incorporate Economics/Costs as a separate factor for the following reasons:

1. Property Values - While PSE likes to say there is no impact or at best a short term impact, this flies in the face of reality. At a meeting with twenty members of the Northwest Multiple Listing Services, the immediate reaction to the question "Do power lines impact property values?" was "Are you kidding" "It is huge!" "I won't show the house"; "I won't show it to young people with children due to concern for childhood Leukemia". So, economically speaking, demand for the house is lessened which then drives price down.

I know of some one with a house on the power line. His builder built an identical house just a couple of blocks away. The valuation difference is $300k+/-.

An assessor has told me Power lines impact valuations by 10%-30%. He stated further those impacted should appeal their taxes.

2. Rate payer impacts/social justice - You and I will ultimately pay for "Energize Eastside". If the solution is massive transmission lines and households do appeal their taxes, all of us will be impacted by the reallocation of ratepayer expense to meet budgets.

3. Project Costs/Alternative Solutions - It is troublesome that the public's number one solution to Energize Eastside is too costly for serious consideration. That solution is Undergrounding and yet EIS Scoping apparently is not going to consider Cost. Furthermore, we have heard vastly different numbers for apparent solutions. So, it seems natural and important to understand the costs to be able to properly view this project and alternatives. How can the EIS team reasonably view alternatives without understanding economic impacts? The city needs to know some detail to ascertain impacts to the city; and, the ratepayer should certainly be considered in terms of a cost/benefit analysis.

4. Actual Construction Costs - All my neighbors are interested in the actual construction costs so they can knowledgeably express a viewpoint of what is best for all of us. The unintended consequences of huge impacts upon right-of-ways; replacement expenses; time delays; potential liabilities should be accounted for and recognized as serious impacts upon the environment ant thus the neighborhood.

5. Opportunity Costs - If we fully define need and then fully relate alternative solutions a cost comparison and opportunity cost analysis can be made that intelligently looks to the 21st

century.

Please include a Economic/Cost element.

Maryanne Halverson
Warren Halverson
13701 NE 32nd Pl
Bellevue, Washington 9800t

Subject: Fwd: ENERGISING EASTSIDE
From: Moira Petris <mcpetris8@gmail.com>
Date: 6/15/2015 8:15 AM
To: scoping@EnergizeEastsideEIS.org

Hello,

I am writing to let you know that I am most concerned about the installation of 18 miles of voltage transmissions that would right across our family home and would have a huge impact.

PLEASE DO NOT DO THIS TO OUR HOME.

We have been in our house 4 years and would never have bought this home if we would have been threatened with the voltage proposals.

Not only is it ugly - but it would affect our health - WE DO NOT WANT THIS.....
also the property value of our home.

PLEASE USE OTHER METHODS INCLUDING NON-WIRE TECHNOLOGIES etc...

WE DO NOT, ABSOLUTELY, WANT THIS IN OUR BACKYARD.

Best regards,
Moira Petris

13431 NE 27th St,
Bellevue,
Wa 98005
425 889 0525

On Mon, Jun 15, 2015 at 8:09 AM, Moira Petris <mcpetris8@gmail.com> wrote:

> Hello,
>
> I am writing to let you know that I am most concerned about the installation of 18 miles of voltage transmissions that would right across our family home and would have a huge impact.
>
> PLEASE DO NOT DO THIS TO OUR HOME.
>
> We have been in our house 4 years and would never have bought this home if we would have been threatened with the voltage proposals.

Not only is it ugly - but it would affect our health - WE DO NOT WANT THIS.....
also the property value of our home.

PLEASE USE OTHER METHODS INCLUDING NON-WIRE TECHNOLOGIES etc...

WE DO NOT, ABSOLUTELY, WANT THIS IN OUR BACKYARD.

Best regards,
Moira

Subject: Energize Eastside EIS Scoping: Essential Public Facility Documentation
From: Russell Borgmann <rborgmann@hotmail.com>
Date: 6/15/2015 2:27 PM
To: "dpyle@bellevuewa.gov" <dpyle@bellevuewa.gov>, "chelland@bellevuewa.gov" <chelland@bellevuewa.gov>, "bmiyake@bellevuewa.gov" <bmiyake@bellevuewa.gov>, "mbrennan@bellevuewa.gov" <mbrennan@bellevuewa.gov>, "lriordan@bellevuewa.gov" <lriordan@bellevuewa.gov>, "info@energizeeastsideEIS.org" <info@energizeeastsideEIS.org>, "scoping@energizeeastsideEIS.org" <scoping@energizeeastsideEIS.org>
CC: "rborgmann@hotmail.com" <rborgmann@hotmail.com>

Dear Mr. Pyle and EIS Officials,
I request this email and it's enclosed attachments be included in the Energize Eastside EIS.

The first attachment is communication between myself and the City of Bellevue Development Services (Mike Brennan) regarding the importance of granting "Essential Public Facility" designation to Energize Eastside BEFORE the EIS.

In a letter from City Manager, Brad Miyake, dated April 24, 2015 (also attached), it states, "As stated **last year**, it is the City's opinion that Energize Eastside is an Essential Public Facility under GMA which limits the City's permit authority to one of conditions and mitigation, not denial. These are matter for the EIS, and the sooner we engage on the EIS, the sooner we can begin to work toward conditions and mitigations."

If PSE had found that a nuclear power plant was the right solution, would Bellevue City Staff have demonstrated that would be deemed an EPF? You may say that this is an unrealistic hypothetical. So, let's scale back a bit. Let's suppose that PSE proposed a solution of a natural-gas fired "peaker plant" to solve the Puget Sound Eastside peak power concerns for the coming decades. Would Bellevue City Staff deem that solution an EPF?

As it happens, PSE *did* in fact study a solution to build a 300MW natural gas-fired peaker plant to address power generation west of the Cascades and solve peak power problems in lieu of "Energize Eastside". PSE's studies explored the Cedar Hills location (east of Renton, south of Issaquah). PSE's studies found that this was a viable option to "Energize Eastside", when power flows northward to Canada were ***excluded*** from PSE's power flow studies. For economic reasons important to PSE alone, PSE's current power flow models **include** northward power flow to Canada in order to justify the excessive capacity of "Energize Eastside". PSE states they abandoned the natural gas-fired peaker plant allegedly because it posed "permitting problems". Serious questions must be asked whether the permitting problems associated with a peaker plant could be any more challenging than permitting problems posed by the proposed Energize Eastside project? The costs associated with building a natural gas-fired peaker plant west of the Cascades did NOT take into account the reality of early retirement of the Colstrip Generating Facility in Montana. Serious questions must be asked about the supply of power generation in the absence of electricity from Colstrip - one of the dirtiest coal-fired generation facilities in the U.S. PSE's planning must comprehensively include Colstrip retirement as an extremely likely event to meet EPA global climate objectives to reduce greenhouse gas emissions.

"The Comprehensive Plan has benefits including minimizing difficulties in the siting process and addressing local impacts equitably."
(pg. 81, http://www.bellevuewa.gov/pdf/PCD/05.CapitalFacilities02(3).pdf)

I submitted a letter to the City of Bellevue on March 23, 2012. It stated, "*What provisions in the Land Use Code spur City Staff to determine that "Energize Eastside" is an EPF? As a citizen of Bellevue, I am seeking an injunction of the city's ruling and a public review of the EPF determination. To conduct that public review, I request a detailed written report from the City of Bellevue* ***explaining in detail*** *the research done by City Staff to demonstrate that facilities*

proposed by PSE qualify as essential public facilities. In lieu of a timely response, I will submit comprehensive Public Records Requests as a result of the City of Bellevue reaching this conclusion."

City Staff, please re-examine your research regarding Energize Eastside as an EPF. PSE has not demonstrated the true NEED, PURPOSE, and TIMING of Energize Eastside. There are numerous documents from Bonneville Power Administration, Seattle City Light, PSE, and ColumbiaGrid that demonstrate ulterior motives for "Energize Eastside" that include financial benefits to ColumbiaGrid membership.

The City of Bellevue Staff and City Council have latitude and discretion in making the EPF determination. The citizens of Bellevue urge the City, and expect the City, to use that determination (as well as SEPA/NEPA review determination) to the citizens' full advantage.

"An analysis of technology and system efficiency" as well as all alternatives must be done by the City of Bellevue **before** making an a priori (and unsubstantiated) conclusion that the PSE proposed Energize Eastside project fits the EPF definition. A full analysis of ALL alternatives must be considered **before** it can issue a determination of EPF status - NOT last year, as Mr. Miyake's letter of April 24, 2015 indicates. It appears the City of Bellevue is putting the cart before the horse.

Please let me know if you have any questions.

Sincerely,

Russell Borgmann
2100 120th Place SE
Bellevue, WA 98005
425.445.4298
rborgmann@Hotmail.com

Attachments:

Energize Eastside EPF Letter 3-29-2015.pdf	236 kB
B.Miyake ITA-EIS Response.pdf	71.3 kB

From: Russell Borgmann [mailto:rborgmann@hotmail.com]
Sent: Sunday, March 29, 2015 5:19 PM
To: Brennan, Mike; Helland, Carol; Riordan, Lori; Andersson, Paul; Pyle, David; Miyake, Brad; Matz, Nicholas; Balducci, Claudia; Wallace, Kevin R; Lee, Conrad; Robertson, Jennifer S.; Stokes, John; Robinson, Lynne; Chelminiak, John
Cc: ddanner@utc.wa.gov; dkermode@utc.wa.gov; rkouchi@utc.wa.gov; mvasconi@utc.wa.gov; jwilliam@utc.wa.gov; pjones@utc.wa.gov; simon@atg.wa.gov; Patrick Chiarelli; Stephen Uy; kim.o'farrell@leg.wa.gov; William Parmer; david.postman@gov.wa.gov; rborgmann@hotmail.com
Subject: Is "Energize Eastside" an Essential Public Facility?

Dear Mr. Brennan,
It has been one week since I sent the email below question the City's designation of PSE's proposed project as an "Essential Public Facility". I have not had a response back to my email, so I will be initiating a comprehensive Public Records Request.

Regarding the EPF Designation
The City of Bellevue apparently believes the "Energize Eastside" project meets the legal definition of "Essential Public Facility" (EPF) which would then constrain it from taking certain actions. Before the City can properly make such a designation, it needs to conduct an analysis to show that, according to its own ordinance, "no feasible alternative location exists."

Below is a review of Washington State law and a Bellevue Ordinance regarding EPFs.

State Law
The statute on Essential Public Facilities (EPFs) is at RCW 36.70A.200, http://apps.leg.wa.gov/RCW/default.aspx?cite=36.70A.200 - "Siting of essential public facilities".

Some key provisions are these:
"(1) The comprehensive plan of each county and city that is planning under RCW 36.70A.040 shall include a process for identifying and siting essential public facilities. Essential public facilities include those facilities that are typically difficult to site, such as airports, state education facilities and state or regional transportation facilities as defined in RCW 47.06.140, regional transit authority facilities as defined in RCW 81.112.020, state and local correctional facilities, solid waste handling facilities, and inpatient facilities including substance abuse facilities, mental health facilities, group homes, and secure community transition facilities as defined in RCW 71.09.020.

"(2) Each county and city planning under RCW 36.70A.040 shall, not later than September 1, 2002, establish a process, or amend its existing process, for identifying and siting essential public facilities and adopt or amend its development regulations as necessary to provide for the siting of secure community transition facilities consistent with statutory requirements applicable to these facilities.

"(5) No local comprehensive plan or development regulation may preclude the siting of essential public facilities."

Under RCW 36.70A.030, "Definitions," subsection (12), "'Public facilities' include streets, roads, highways, sidewalks, street and road lighting systems, traffic signals, domestic water systems, storm and sanitary sewer systems, parks and recreational facilities, and schools". Note that transmission lines are not mentioned in the statutes quoted.

A key question begged by section RCW 36.70A.200(1): are high-voltage transmission lines "typically difficult to site?" One can see how "typically difficult" it is for PSE to find any route that isn't controversial or without technical flaws. On the other hand, the list of examples in RCW 36.70A.200(1) are all **buildings** that are potential nuisances of a concentrated nature to anyone living next to them. There is much more flexibility in routing sprawling transmission lines in ways to reduce or eliminate their potential for being nuisances. From a technical point of view, transmission lines are less "difficult" to build than, say, a prison or airport, where the fixed-in-place facility of necessity occupies a definite footprint and then stays there -- you can't move pieces of it here and there to reduce the nuisance consequences the way you can transmission lines, which can even be made invisible by putting them underground.

Although Bellevue cannot "preclude" an EPF, it certainly has the power to put conditions on where and how an EPF would be built. There is also this question that the City must answer: If it can be shown that the need for a project does NOT exist, or there is a better alternative to accomplish the same result with dramatically fewer negative consequences, then how can it be called "essential"? Arbitrarily putting a label on a project since it fits a certain generic category is not conclusive - especially if, after analysis, the project is NOT needed (because the supposed demand for it is trivial or nonexistent. Or, is there is a less "typically difficult" way to do the project to arrive at the same or better results?)

Bellevue ordinance defining EPF

"Essential Public Facility" is defined in the Bellevue City Code:

"20.50.018 - definitions.

"Essential Public Utility. A utility facility, **utility system** or right-of-way where no feasible alternative location exists based on an analysis of technology and system efficiency. (Ord. 3775, 5-26-87, § 27)".

From http://www.codepublishing.com/wa/bellevue/?LUC

The ordinance appears to build on state law in its definition of "utility system" in Bellevue City Code 20.50.050:

"Utility System. Physically dispersed elements through which a public utility supplies service including, but not limited to, **poles and towers with crossarms, braces, guys and anchors; transmission and distribution lines**; pad mounted switches, switches and above-ground transformers; underground transformers and microwave transformers; pipes; mains; interceptors; cables and underground conduits. (Ord. 3778, 5-26-87, § 4)".

It is thus evident that "an analysis of technology and system efficiency" needs to be done by the City of Bellevue instead of making an a priori and unsubstantiated conclusion that the PSE proposed project fits that definition. It is inconceivable that Bellevue City Staff could go on record saying there is "no feasible alternative location" when there are a number of feasible ones that have been put forward by BPA (along with others not yet advanced) but are also worthy of consideration and analysis.

The City of Bellevue is putting the cart before the horse: The City of Bellevue must FIRST obtain the report from the Independent Technical Consultant (USE), BEFORE it determines the if "Energize Eastside" qualifies as an "Essential Public Facility". And second, the City of Bellevue must FIRST obtain the USE report before embarking on a time-consuming, costly Programmatic EIS. The whole point of the USE report was to assess NEED, to help inform the Programmatic EIS process.

One last point: Councilmember Chelminiak recently questioned the 230 kV line that reverts to BPA in 2018. BPA will regain control of this line unless PSE renews the lease. That line produces revenue for PSE. If PSE loses it, they will control NO 230 kV line going north-south. Electrons will flow where they are needed regardless of who owns the line. However, who stands to make money on those electrons as they flow by? Is "Energize Eastside" a defensive move on PSE's part in case they are unable (or can't afford) to renew their existing 230kV line lease?

The City of Bellevue dictates the schedule, NOT Puget Sound Energy. Let's take the right steps, in the proper sequence, to avoid costly mistakes. Let's make the right decisions for the Puget Sound eastside, not convenient profit-motivated decisions.
Best Regards,

Russell Borgmann
2100 120th Place SE
Bellevue, WA 98005
425.445.4298
rborgmann@hotmail.com

In a message dated 4/24/2015 12:49:45 P.M. Pacific Daylight Time, NKodanilee@bellevuewa.gov writes:

City of Bellevue
Post Office Box 90012 • Bellevue, Washington • 98009 9012

April 24, 2015

Ms. Loretta Lopez:

Thank you for your inquiry regarding the schedule of the Energize Eastside EIS and the Independent Technical Analysis (ITA).

The schedule for the EIS is governed by the Land Use Code (Title 20 BCC), and the Environmental Procedures Code (Chapter 22.02 BCC). These city codes were adopted to be procedurally consistent with both the State Environmental Policy Act (SEPA) and the State Growth Management Act (GMA), and incorporate many parts of these statutes by reference. In order to ensure compliance, and effective public outreach and certainty for all stakeholders who participate in the local permitting process, timelines are an important component of the regulatory reforms integrated into Bellevue codes in the mid-1990s. The procedures contained in Chapter 20.35 LUC dictate how and when environmental review must proceed.

PSE submitted its application for environmental review in August of last year. The Interagency Agreement and Professional Services Contract was approved by Council at the end of January in order to allow the EIS to proceed, and staff advised the Council at that time that scoping was scheduled to begin as early as March to meet required environmental review timelines. Scoping has now been scheduled to begin at the end of April, and venues have been secured to ensure the scoping period occurs before school is out and stakeholders begin to leave town for summer vacations. Further delays place the City at risk of a process failure that would be to the disadvantage of all stakeholders. Development Services staff take their commitment to objectivity very seriously; delivering an objective and predictable process is in the best interest of all stakeholders alike.

The ITA is a disclosure document. The ITA, through a technical audit of PSE's data and methods for forecasting facility needs, will assess the local, i.e. Bellevue, need for the project for reliability and growth, as distinct from need for regional grid connectivity. As stated last year, it is the City's opinion that Energize Eastside is an Essential Public Facility under GMA which limits the City's permit authority to one of conditions and mitigation, not denial. These are matters for the EIS and the sooner we engage on the EIS the sooner we can begin to work toward conditions and mitigations.

The revised schedule for the ITA will not impact the schedule for the EIS inasmuch as it will be available, as planned, early in the EIS scoping period. The change in the ITA will not impact Council or stakeholder ability to comment on the EIS. The comment period will extend into mid-June (45 days from the initial scoping notice). The ITA is a technical report that will inform—or become part of the data—included in the EIS process. It is not part of regulatory review processes, and will not be subject to further evaluation.

The EIS is the state mandated process by which we are required to analyze the need for the Energize Eastside project proposed by PSE, analyze alternatives including the "no action" alternative, and disclose the impacts associated with deploying the alternative solutions. Conclusions regarding the need for the project in Bellevue will not obviate the need for the EIS.

Sincerely,

Brad Miyake, City Manager

Subject: Energize Eastside Scoping: No Longer Receiving Automated Confirmation Notices
From: Russell Borgmann <rborgmann@hotmail.com>
Date: 6/15/2015 4:42 PM
To: "dpyle@bellevuewa.gov" <dpyle@bellevuewa.gov>, "lriordan@bellevuewa.gov" <lriordan@bellevuewa.gov>, "bmiyake@bellevuewa.gov" <bmiyake@bellevuewa.gov>, "mbrennan@bellevuewa.gov" <mbrennan@bellevuewa.gov>, "info@energizeeastsideEIS.org" <info@energizeeastsideEIS.org>, "scoping@energizeeastsideEIS.org" <scoping@energizeeastsideEIS.org>, "chelland@bellevuewa.gov" <chelland@bellevuewa.gov>
CC: "rborgmann@hotmail.com" <rborgmann@hotmail.com>

Dear Mr. Pyle and EIS Officials,
The cut-off for EIS comments is 5pm PDT June 15, 2015. I have submitted several comments, emails and attachments today (6/15/2015) prior to 5pm. I have not been receiving the typical automated receipt confirmations from the City of Bellevue.

Please confirm that you are in receipt of all of my emails, attachments, and comments from 6/15/2015. And please include this email in the EIS scoping comments under PROCESS.

Sincerely,
Russell Borgmann
2100 120th Place SE
Bellevue, WA 98005
425.445.4298
rborgmann@Hotmail.com

Subject: Energize Eastside EIS Scoping: 15 Concerns with the U.S.E. Report
From: Russell Borgmann <rborgmann@hotmail.com>
Date: 6/15/2015 4:23 PM
To: "dpyle@bellevuewa.gov" <dpyle@bellevuewa.gov>, "chelland@bellevuewa.gov" <chelland@bellevuewa.gov>, "mbrennan@bellevuewa.gov" <mbrennan@bellevuewa.gov>, "bmiyake@bellevuewa.gov" <bmiyake@bellevuewa.gov>, "lriordan@bellevuewa.gov" <lriordan@bellevuewa.gov>, "info@energizeeastsideEIS.org" <info@energizeeastsideEIS.org>, "scoping@energizeeastsideEIS.org" <scoping@energizeeastsideEIS.org>
CC: "rborgmann@hotmail.com" <rborgmann@hotmail.com>

Dear Mr. Pyle and EIS Officials,
Please include the email below as a submission into the EIS record for the proposed Energize Eastside project.
Sincerely,

Russell Borgmann
2100 120th Place SE
Bellevue, WA 98005
425.445.4298
rborgmann@Hotmail.com

From: Russell Borgmann
Sent: Thursday, May 7, 2015 2:20 PM
To: cbalducci@bellevuewa.gov, krwallace@bellevuewa.gov, clee@bellevuewa.gov, lrobinson@bellevuewa.gov, j.robertson@bellevuewa.gov, jstokes@bellevuewa.gov, jchelminiak@bellevuewa.gov, bmiyake@bellevuewa.gov, lriordan@bellevuewa.gov, mbrennan@bellevuewa.gov, chelland@bellevuewa.gov, dpyle@bellevuewa.gov, nmatz@bellevuewa.gov
Cc: rborgmann@hotmail.com

Dear City Council and Staff,
I suspect you may have come away from Monday's meeting disappointed with the thoroughness of USE, Inc.'s independent technical assessment of "Energize Eastside". For the record, here are at least 15 shortcomings of the USE Report:
Escalating Growth Projections: PSE revised predicted rate of demand growth from 1.7% to 2.4% - a 41% increase in the rate of growth since their last forecast 3 years ago. Please explain the rationale for a dramatic increase in PSE's growth projections.

Is Bellevue Growing Twice as Fast as Seattle? Seattle City Light is predicting 1.2% annual growth in demand for Seattle. PSE expects Eastside demand to grow at twice Seattle's rate. Please provide rationale for Bellevue growth doubling Seattle's growth, given Seattle's expansive South Lake Union and SODO growth.

Delayed Need. Despite a significant increase in the growth projection, the "problem" date is now delayed 3 years (from 2017 in PSE's literature to 2020 in the USE report). Please provide rationale for this changed timeframe for potential impact.

E3 56MW Savings Unaccounted. USE did not include 56 MW of savings found by PSE's own consultant, E3. Please provide rationale for this omission.

Divergent Growth Trends. The USE report (pg. 20) shows population projections of less than 1% per year and employment growth projections of 1.7% per year. How do these trends combine to produce overall demand growth of 2.4% per year? The only obvious explanation is the expectation that residents will start using more electricity per person in the coming years, which is contrary to all data collected over the past decade by the EIA. Please explain this rationale.

Does a Bellevue-centric problem warrant an Essential Public Facility designation? The USE Report (pg 30) lists 39 major projects slated for construction in downtown Bellevue and the Bel-Red corridor in coming years. No projects are listed for other Eastside cities. The USE Report only addresses expansive growth of Bellevue. The City of Bellevue has conferred "Essential Public Facility" (EPF) status on the Energize Eastside project. However, there are 4 other jurisdictions affected by Energize Eastside: Renton, Newcastle, Redmond, and Kirkland. Why is there is no mention of growth in the other 4 jurisdictions contributing to the need for Energize Eastside? How can Energize Eastside be considered an EPF when clearly it has NOT been shown to be essential to the other 4 impacted jurisdictions?

Updated/Detailed Electricity "Heat Map". The USE report did not provide a more accurate map of peak electricity usage on the Eastside. The "heat map" provided by PSE is very misleading. It was created using data from 6 years ago that combined multiple worst case days (hottest day ever on record, 7/29/2009, along with the coldest day of 2009). When have electricity consumers ever run their electric heat and air conditioning at maximum levels simultaneously? Why are Mercer Island and Cougar Mountain shown at the same critical usage levels as downtown Bellevue? Please obtain a more detailed, accurate map to provide areas of opportunities for savings and where improved policies could help. Please provide historical annual peak loads for all Eastside substations. Peak loads on these substations is crucial to transmission line system analysis.

Frequency of Outages. Please provide detailed information about the type of outages Energize Eastside is designed to handle: Transformer overload? Adverse weather? Reliability concerns? Please provide the probability of occurrence associated with each type of event.

Why was local generation turned OFF? The USE report (pg 51) continues PSE's practice of turning OFF all local generation west of the Cascades during power flow simulations. What is the justification for simulating this condition? It provides an unrealistic snapshot of the system being subjected to an unrealistic, improbable stress. PSE's own contractors state that this was an artificial scenario without merit. Please provide rationale for continuing to promote this scenario.

Energize Eastside can be delayed. The USE report concedes that Energize Eastside could be delayed by 6 months, so the need isn't as urgent as PSE has indicated. Why is the City of Bellevue and PSE rushing through the EIS process? Why did USE not recommend a delay that allows more facts from independent sources to continue to be analyzed?

Did USE have access to independent CEII data sources? During USE's contract with the City of Bellevue to independently analyze the need for Energize Eastside, the City deemed that Mr. Gordon Comegys was crucial to this analysis. Also during USE's contract with the City of Bellevue, Mr. Comegys departed from USE, Inc. (situation undisclosed). Did Mr. Comegys' departure compromise the access to independent CEII data to corroborate or refute PSE's claims for the need for Energize Eastside? Is USE in breach of contract with the City of Bellevue? Did the City of Bellevue obtain a thorough, accurate, and comprehensive analysis, or was USE forced to simply rely on data supplied by PSE to draw its conclusions?

Canadian Entitlement Required by the Columbia River Treaty. If Canadian service was dropped to zero, only one transformer is overloaded. This overload can be resolved via other less costly, less impactful solutions: installing an additional transformer at Talbot Hill, and/or incorporating savings found by PSE's own consultant, E3. Please provide the rational why these alternatives were not considered. Canadian Entitlement can be addressed via other means, including BPA's Monroe-Echo Lake #2 proposed solution (the BEST technical solution studied by ColumbiaGrid).

Demand Response. As alternatives are explored in the programmatic EIS phase, USE did not explore

demand side response alternatives (e.g. shift load from peak to non-peak hours). Demand-side response programs are widely used and accepted in the utility industry. PSE's own IRP Appendix N (13) describes many demand-side response initiatives that could be taken, yet PSE has chosen not to implement these. PSE even conducted a trial of time-of-day pricing. It resulted in a profitability loss for PSE, so PSE discontinued this program. Please provide rationale for avoiding alternatives that save consumers money over choosing solutions guaranteed to raise consumers' electricity rates and increase PSE's profitability.

One-Line Diagrams and Assumptions. Without providing standard "one-line diagrams" (http://en.wikipedia.org/wiki/One-line_diagram), the USE report cannot clearly articulate the assumptions that were made during the transmission studies and analyses. Please provide clear one-line diagrams and detailed assumptions in the programmatic EIS.

PSE's Forecasting Model is a Black Box. PSE's forecasting model does not permit analysis by the general public. Data is input, and data is output. But the algorithms, scaling factors, primary, secondary, and tertiary algorithmic terms are obscured. The Sierra Club said, "PSE selectively withheld, obfuscated, or failed to produce underlying data… PSE presented the results as a "black-box" analysis without providing an opportunity for the public to verify or refute the methodology or results… As a result, the public must accept, without the ability to verify, that PSE's assumptions are valid and that PSE executed its analysis properly. PSE's IRP results must therefore be viewed cautiously. Without public transparency, PSE's results and conclusions run the risk of being self-serving justifications for the preexisting internal business plans of the company…" How are PSE's forecasting software models tested, verified, and validated? When was the last change made to PSE's forecasting software models? How were those changes tested, verified and validated? Recently Avista admitted that software changes to their rate-charging algorithms resulted in overcharging customers: (http://www.spokesman.com/stories/2015/may/04/software-error-caused-avista-overestimate-rate-req/). Why should we take PSE's forecasting model at face value? Is there an opportunity for software errors to produce forecasting errors that indicate an excessive demand/need/growth beyond what is truly warranted?

Sincerely,

Russell Borgmann

2100 120th Place SE

Bellevue, WA 98005

425.445.4298

rborgmann@hotmail.com

From: Russell Borgmann [mailto:rborgmann@hotmail.com]
Sent: Sunday, March 29, 2015 5:19 PM
To: Brennan, Mike; Helland, Carol; Riordan, Lori; Andersson, Paul; Pyle, David; Miyake, Brad; Matz, Nicholas; Balducci, Claudia; Wallace, Kevin R; Lee, Conrad; Robertson, Jennifer S.; Stokes, John; Robinson, Lynne; Chelminiak, John
Cc: ddanner@utc.wa.gov; dkermode@utc.wa.gov; rkouchi@utc.wa.gov; mvasconi@utc.wa.gov; jwilliam@utc.wa.gov; pjones@utc.wa.gov; simon@atg.wa.gov; Patrick Chiarelli; Stephen Uy; kim.o'farrell@leg.wa.gov; William Parmer; david.postman@gov.wa.gov; rborgmann@hotmail.com
Subject: Is "Energize Eastside" an Essential Public Facility?

Dear Mr. Brennan,
It has been one week since I sent the email below question the City's designation of PSE's proposed project as an "Essential Public Facility". I have not had a response back to my email, so I will be initiating a comprehensive Public Records Request.

Regarding the EPF Designation
The City of Bellevue apparently believes the "Energize Eastside" project meets the legal definition of "Essential Public Facility" (EPF) which would then constrain it from taking certain actions. Before the City can properly make such a designation, it needs to conduct an analysis to show that, according to its own ordinance, "no feasible alternative location exists."

Below is a review of Washington State law and a Bellevue Ordinance regarding EPFs.

State Law
The statute on Essential Public Facilities (EPFs) is at RCW 36.70A.200, http://apps.leg.wa.gov/RCW/default.aspx?cite=36.70A.200 - "Siting of essential public facilities".

Some key provisions are these:
"(1) The comprehensive plan of each county and city that is planning under RCW 36.70A.040 shall include a process for identifying and siting essential public facilities. Essential public facilities include those facilities that are typically difficult to site, such as airports, state education facilities and state or regional transportation facilities as defined in RCW 47.06.140, regional transit authority facilities as defined in RCW 81.112.020, state and local correctional facilities, solid waste handling facilities, and inpatient facilities including substance abuse facilities, mental health facilities, group homes, and secure community transition facilities as defined in RCW 71.09.020.

"(2) Each county and city planning under RCW 36.70A.040 shall, not later than September 1, 2002, establish a process, or amend its existing process, for identifying and siting essential public facilities and adopt or amend its development regulations as necessary to provide for the siting of secure community transition facilities consistent with statutory requirements applicable to these facilities.

"(5) No local comprehensive plan or development regulation may preclude the siting of essential public facilities."

Under RCW 36.70A.030, "Definitions," subsection (12), "'Public facilities' include streets, roads, highways, sidewalks, street and road lighting systems, traffic signals, domestic water systems, storm and sanitary sewer systems, parks and recreational facilities, and schools". Note that transmission lines are not mentioned in the statutes quoted.

A key question begged by section RCW 36.70A.200(1): are high-voltage transmission lines "typically difficult to site?" One can see how "typically difficult" it is for PSE to find any route that isn't controversial or without technical flaws. On the other hand, the list of examples in RCW 36.70A.200(1) are all **buildings** that are potential nuisances of a concentrated nature to anyone living next to them. There is much more flexibility in routing sprawling transmission lines in ways to reduce or eliminate their potential for being nuisances. From a technical point of view, transmission lines are less "difficult" to build than, say, a prison or airport, where the fixed-in-place facility of necessity occupies a definite footprint and then stays there -- you can't move pieces of it here and there to reduce the nuisance consequences the way you can transmission lines, which can even be made invisible by putting them underground.

Although Bellevue cannot "preclude" an EPF, it certainly has the power to put conditions on where and how an EPF would be built. There is also this question that the City must answer: If it can be shown that the need for a project does NOT exist, or there is a better alternative to accomplish the same result with dramatically fewer negative consequences, then how can it be called "essential"? Arbitrarily putting a label on a project since it fits a certain generic category is not conclusive - especially if, after analysis, the project is NOT needed (because the supposed demand for it is trivial or nonexistent. Or, is there is a less "typically difficult" way to do the project to arrive at the same or better results?)

Bellevue ordinance defining EPF

"Essential Public Facility" is defined in the Bellevue City Code:

"20.50.018 - definitions.

"Essential Public Utility. A utility facility, **utility system** or right-of-way where no feasible alternative location exists based on an analysis of technology and system efficiency. (Ord. 3775, 5-26-87, § 27)".

From http://www.codepublishing.com/wa/bellevue/?LUC

The ordinance appears to build on state law in its definition of "utility system" in Bellevue City Code 20.50.050:

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Best Regards,

Russell Borgmann
2100 120th Place SE
Bellevue, WA 98005
425.445.4298
rborgmann@hotmail.com

Subject: Energize Eastside EIS Scoping Comments
From: Russell Borgmann <rborgmann@hotmail.com>
Date: 6/15/2015 10:13 AM
To: "dpyle@bellevuewa.gov" <dpyle@bellevuewa.gov>, "chelland@bellevuewa.gov" <chelland@bellevuewa.gov>, "bmiyake@bellevuewa.gov" <bmiyake@bellevuewa.gov>, "mbrennan@bellevuewa.gov" <mbrennan@bellevuewa.gov>, "lriordan@bellevuewa.gov" <lriordan@bellevuewa.gov>, "info@energizeeastsideEIS.org" <info@energizeeastsideEIS.org>, "scoping@energizeeastsideEIS.org" <scoping@energizeeastsideEIS.org>
CC: "rborgmann@hotmail.com" <rborgmann@hotmail.com>

Dear Mr. Pyle and EIS Officials,
I request the information in the enclosed Attachment be included in the Energize Eastside EIS. I have categorized my comments as follows:

- EIS Elements (per WAC 197-11-444)
- Alternatives
- Process

Please let me know if you have any questions.

Sincerely,

Russell Borgmann
2100 120th Place SE
Bellevue, WA 98005
425.445.4298
rborgmann@Hotmail.com

Attachments:

Energize Eastside EIS Comments - RBorgmann 6-15-2015.pdf	524 kB

June 15, 2015

To: David Pyle dpyle@bellevuewa.gov
Carol Helland chelland@bellevuewa.gov
Brad Miyake bmiyake@bellevuewa.gov
Michael Brennan mbrennan@bellevuewa.gov
Lori Riordan lriordan@bellevuewa.gov
EIS info@energizeeastsideEIS.org
scoping@energizeeastsideEIS.org

Subject: Energize Eastside EIS Scoping

Dear Mr. Pyle and EIS Officials,
I request the information below be included in the Energize Eastside EIS. I have categorized my comments as follows:

- EIS Elements (per WAC 197-11-444)
- Alternatives
- Process

Please let me know if you have any questions.

EIS ELEMENTS

Aesthetics

- Aesthetic concerns are best explained by example: The City of Renton is now marred by a significant "industrial" look and feel (see the 600 block of South Grady Way, near downtown Renton). City Planners know there are numerous studies citing a self-fulfilling destiny: Large overhead transmission lines beget an unspoken, but noticeable "industrial" feel. This leads to less desirable neighborhood/community character, which begets declining property pride-in-ownership, which begets declining property values, begetting declining tax revenues, begetting more industrialization to compensate for declining tax revenues. The downward spiral continues (industry jargon refers to this as a "death spiral"). Where does it end? Will Bellevue experience its own death spiral like Detroit - once a shining beacon of mid-20th century technology and innovation, and now an impoverished, crime-ridden city mired in bankruptcy?
- Bellevue is French for "beautiful view". Isn't it ironic that Bellevue is contemplating a project that will scar the Puget Sound eastside for generations to come? Bellevue can have both: the energy needed for viable, sustainable growth and maintain the beauty and character of the Puget Sound eastside.
- Bellevue theme is a "City In a Park". Energize Eastside will result in the destruction of 8,000 mature trees and other vegetation crucial for maintaining a clean air supply. The eastside's tree canopy is essential for health as well as aesthetics. Bellevue already has the lowest remaining tree canopy in the Puget Sound eastside (declined to approximately 36%). Energize Eastside will contribute to this rapidly dwindling tree canopy.
  http://www.ci.bellevue.wa.us/pdf/Manager/Urban_Ecosystem_Analysis.pdf
- Energize Eastside would install a SECOND 230kV transmission line running parallel within 0.8 miles of an existing line (the Seattle City Light transmission lines). Depending on the routing, these two lines could run within 1,000 feet of each other, on either side of Newport High School.

Built Environment

- Currently there are no WA state regulations for siting 230kV transmission lines in urban areas. This is the result of tacit oversight, NOT explicit approval. When WA state legislature addresses 230kV transmission line regulations, will Energize Eastside be retroactively subject to those regulations?
- State laws and regulations for 230kV High Voltage Transmission Lines (HVTL) don't exist, because decades ago, when the 230kV lines were being erected, HVTL spanned rural countryside. Back then, it wasn't even considered that HVTL should co-exist in a dense urban corridor that has now built up around the existing lines. New High Voltage Transmission Lines must be built well away from urban centers.
- There are substantial Safety Issues with digging 15ft to 30ft deep holes for monopoles right next to 2 gas pipelines. Vertical boring of these holes cause significant vibration which can cause settlement damage to nearby house foundations. Additionally, the vibration can damage aging fuel pipelines located within the selected transmission line corridor. Vibration stress fractures and damage can ultimately lead to pipeline rupture days/weeks/months after transmission line construction is complete.
- How is the "fall-zone" of 130-ft tall monopoles accounted for in the Right of Way? Many houses are closer than 130 feet to the monopole sites. If a monopole were to fall (e.g. in an earthquake), it could hit houses. The selected corridor crosses the Seattle Fault, a shallow fault capable of earthquakes in excess of 7+. The Cascadia Subduction Zone ties to the Seattle Fault and is capable of earthquakes in excess of 9 on the Richter Scale. The Cascadia Subduction Zone is on a periodicity of 300 to 500 years, and the last major seismic event was January 26, 1700 (315 years ago). The Axial Seamount (underwater volcano) began eruptions April 30, 2015. These volcanic eruptions could add to the pressure along the Cascadia Subduction Zone, and by extension, the Seattle Fault.
- How is the "fall-zone" of 130-ft tall monopoles accounted for in the Right of Way if a monopole were to fall due to sustained high winds, like the Chanukah Eve Storm, December 2007?

Economic Impact

- PSE website says that Energize Eastside will increase each customers' bill by $1 to $2 per month. Estimated cost to all PSE ratepayers: $2/mo x 12mo x 40 years x 1.1M customers = **$1.056BILLION**
- All PSE customers rates are guaranteed to increase due to Energize Eastside. As such, all PSE customers must be notified of the Energize Eastside EIS.
- Data from Realtors indicate a 10% to 30% decrease in property values near High Voltage Transmission Lines (HVTL)
- Energize Eastside will increase costs in at least two ways: 1. electricity rates will increase for ALL PSE ratepayers; and 2. residents can expect an increase in local taxes to offset the decrease in the local property tax base from declining property values
- PSE customers and all taxpayers should decide how to best spend up to $1 BILLION dollars. Are PSE customers getting the very best value, and the most reliable solution, for our money? Is PSE doing everything it can to maintain reliable electricity at the lowest costs for its customers? Why hasn't PSE implemented recommendations from their own consultants, E3 and The Cadmus Group, contained in Appendix N of PSE's IRP?
- Current (outdated) WA state legislation actually REWARDS PSE for over-building infrastructure.
- The (wealthy) Bellevue west of I-405 boasts few overhead power lines. The Bellevue east of I-405 is beginning to resemble downtown Renton – unfortunately, large transmission lines are

springing up piecemeal across east Bellevue (latest example: Phantom Lake-Lake Hills overhead transmission line project). Sadly, it appears that issues of socio-economic inequality are developing in Bellevue. Important decisions appear to be made based on which ZIP code you happen to be fortunate enough to live in. Do we really want a divided Bellevue? Is this the future we want to build for Bellevue? Is this the legacy we want to leave our city for decades and generations to come?

Environmental Health

- High Voltage Transmission Lines are 50% thicker than typical distribution lines and operate at much higher temperatures, causing endangerment to native and migratory bird species, flying insects (like bees) necessary for pollination, and other plant and animal species sensitive to heat and nighttime light emissions. HVTL produce ultra-violet (UV) flashes that are invisible to humans. HVTL produce nighttime UV flashes that affect the vision of all mammals (except humans). http://www.bbc.com/news/26548483
- Corona emissions produce audible snaps, crackles, and pops that are disruptive to humans and animals. This noise intensifies when it rains (which occurs frequently in the rainy Northwest). When water droplets hit high temperature transmission lines which are rated to 400ºF (during full load), raindrops sizzle. Birds are forced to fly well clear of HVTL. Human hair can stand on end when walking underneath these lines. (Example: walk underneath the Seattle City Light transmission lines near Norwood Swimming Pool when SCL/BPA conduct full-load tests on a misty day).
- EMF/Corona have further unknown impact on insects (e.g. bees, necessary for food production), wildlife, endangered plant/animal species.
- Energize Eastside will result in the destruction of 8,000 mature trees and other vegetation crucial for maintaining a clean air supply. The eastside's tree canopy is essential for human health as well as environmental health. Trees, especially on slopes, are essential for erosion abatement in the rainy Northwest. Bellevue's tree canopy has already declined to 36%. Energize Eastside will contribute to this rapidly dwindling tree canopy.

Health: Releases or Potential Release to the Environment Affecting Public Health (such as toxic or hazardous materials)

- High Voltage Transmission Lines release charged particles (**corona**)
- Draper Study (2005) found that corona can drift in the wind much farther than anticipated, in excess of 600m (**2,000 ft**). As such, all residents living at a minimum of 2,000 feet from the selected route should be notified of the Energize Eastside EIS.
- Corona Discharge is positively linked to an increase in air pollution. Air quality is degraded near High Voltage Transmission Lines and is especially problematic for those prone to respiratory illnesses and diseases (asthma, etc.). Henshaw/Fews Study, 2001.
- Henshaw/Fews 2001 Study (Univ. of Bristol, Human Radiation Effects Group, www.electric-fields.bris.ac.uk/) showed a 20-60% increase in deposition of airborne pollutants in close proximity to High Voltage Transmission Lines. **Corona** attach to whatever is available—car exhaust, radon, radon progeny (radioactive alpha emitters) and other pollutants that are known carcinogens. These airborne pollutants are then inhaled and retained on skin. There is greater risk of impact to the lungs. The British Government National Radiological Protection Board says power line generated **corona** may result in excess cases of lung cancer. Airborne pollutants

from corona drift in the wind, and deposit on the skin and in the lungs.

- Multiple medical studies over the past 40 years show an Increased risk in lymphatic and hematopoietic cancers especially among children living near High Voltage Transmission lines (HVTL)
    - 1979, Wertheimer & Leeper Study (1950-1973) 2.11 times increased risk for all childhood cancers, 3.09 times increased risk for children living entire life in a high current environment
    - 1979 Cohort Mortality Study (Mortality in Aluminum Reduction Plant Workers)
    - Leukemia Mortality in Washington State Electrical Workers
    - 1988 Savitz, et. al. (1976 – 1983) 1.53 times increased risk for all childhood cancers, 1.78 times increased risk if child spent 90% of life in a high current environment, 5.22 times increased risk if child lived in a very high current environment
    - 1992 Feychting and Ahlbom Study (1960-1985) 2.7 times increased risk if 2 milligauss or more, 3.8 times increased risk if 3 milligauss or more, 5.6 times increased risk if one-family homes over 2 milligauss
    - 1997 Theriault and Li Meta Data Analysis: Increased leukemia for both children & adults living between <25 and <50 meters from powerlines >49kV
    - 1998 Li and Lin Taiwan Study: 2.5 times increased leukemia risk for children living <100 meters from HVTL vs. leukemia risk of children living >100 meters from HVTL
    - 2005 Draper, et. al. UK Study (1962-1995) Leukemia RR of 1.69 for children living <200 meters from HVTL; Leukemia RR of 1.23 for children living 200-600 meters from HVTL
    - 2007 Lowenthal et al. Tasmania Study (1972 – 1980) 3 times increased risk of adult cancer living <300 meters from HVTL during first 15 years of life; Children age 0-5 had a 5 fold increase risk in lymphatic and hematopoietic cancers. Residence near HVTL, especially early in life increases subsequent development of lymphatic and hematopoietic cancers
- Putting a SECOND 230kV transmission line running parallel within 0.8 miles of an existing line (the Seattle City Light transmission lines) poses exponentially higher health risks, especially to children. Depending on the routing, these two transmission lines could run within 1,000 feet of one another, on either side of Newport High School posing elevated health risks to school age children and public employees (teachers, staff, coaches) that spend extended periods of outdoor time near these transmission lines.

Housing

- Data from Realtors indicate a 10% to 30% decrease in property values near High Voltage Transmission Lines (HVTL)
- There are substantial Safety Issues with digging 15ft to 30ft deep holes for monopoles. Vertical boring of these holes cause significant vibration which can cause settlement damage to nearby house foundations.
- Before the City of Bellevue might issue Construction Permits (after the EIS and after Conditional Use Permits could be issued), PSE must demonstrate control over all property. This includes heavy equipment access right-of-way. Will PSE exercise Eminent Domain, condemning or making compulsory purchases of valuable housing, expropriating housing cheaply, so that they can demonstrate control over all property along the entire transmission line corridor?

Relationship to Existing Land Use Plans and to Estimated Population

- Putting a SECOND 230kV transmission line running parallel within 0.8 miles of an existing line (the Seattle City Light transmission lines) affects existing land use plans, aesthetics, and elevates health risks. Depending on Energize Eastside routing, these two lines could run within 1,000 feet of each other, on either side of Newport High School, posing concerns for the existing Newport High School land use (e.g. outdoor sports fields and elevated health risks to the youth and staff that use these fields, as well as aesthetic issues to the surrounding neighborhood).

Land and Shoreline Use

See comments under "Built Environment" and "ALTERNATIVES"

Light and Glare

- Will 130ft poles require flashing beacons to alert low flying private aircraft of tall aerial obstructions, especially in areas that cross I-90 or over Somerset?
- Energize Eastside will result in the destruction of 8,000 mature trees and other crucial vegetation. The eastside's tree canopy is essential for health as well as the reduction of light and glare, especially nighttime light pollution. Bellevue's tree canopy has already decreased to 36%, the lowest along the Puget Sound eastside. Energize Eastside will contribute to this rapidly dwindling tree canopy.

Noise

- Corona emissions produce audible noise - snaps, crackles, and pops. How will this noise be mitigated in urban areas? This audible noise is disruptive to humans and animals, and this noise intensifies when it rains (which occurs frequently in the rainy Northwest). When water droplets hit high temperature transmission lines which are rated to 400ºF (during full load), raindrops sizzle. Birds steer a wide berth. Human hair can stand on end when walking underneath these lines (example: walk underneath the Seattle City Light transmission lines near Norwood Swimming Pool when SCL/BPA conduct full-load tests on a misty day).
- **Corona** can extend 2,000 feet and will cause electronic noise interference with emergency 911 back-up communication, e.g. HAM radio communication - crucial radio broadcasting capabilities during times of natural disasters, like earthquakes.

Pipeline Safety

- There are substantial Safety Issues with digging at least 12ft diameter holes, 15ft to 30ft deep, to install/pour monopoles concrete bases right next to 2 gas pipelines and an existing 115kV line. This is an environmental disaster waiting to happen in a narrow, crowded corridor with houses in close proximity on both sides. Vertical boring of these holes cause significant vibration. This vibration can damage aging fuel pipelines located within the selected transmission line corridor. Vibration stress fractures and damage can ultimately lead to pipeline rupture days/weeks/months after transmission line construction is complete.
- Vibration stress fractures and damage to aging pipelines are exacerbated by natural disasters, like earthquakes and high winds (e.g. the Chanukah Eve Storm, December 2007). These pipelines cross the Seattle Fault, a shallow fault capable of earthquakes in excess of 7+. The Cascadia Subduction Zone ties to the Seattle Fault and is capable of earthquakes in excess of 9 on the Richter Scale. The Cascadia Subduction Zone is on a periodicity of 300 to 500 years, and the last major seismic event was January 26, 1700 (315 years ago). The Axial Seamount

(underwater volcano) began eruptions April 30, 2015. These volcanic eruptions could add to the pressure along the Cascadia Subduction Zone, and by extension, the Seattle Fault, making the pipelines vulnerable. Digging near the pipelines exacerbates pipeline susceptibility to damage.

Public Outreach

- Draper Study (2005) found that corona can drift in the wind much farther than anticipated, in excess of 600m (**2,000 ft**)
- Based on the Draper study, please recommend that EIS notices be sent out to all affected residents a **minimum of a 2,000 feet radius** along the selected route. The current EIS notification range of 500 feet is arbitrary and can be changed.
- Since all PSE customers are affected by an anticipated rate increase, request that PSE send out EIS notification to all customers via printed notifications in all customers' electricity bills.

Risk of Explosion

- There are substantial Safety Issues with digging 12ft diameter holes, 15ft to 30ft deep, for monopoles right next to 2 gas pipelines and an existing 115kV line.
- Remember the Olympic Pipeline explosion in Bellingham in 1999? https://www.youtube.com/watch?v=AJRwePrctGw
- Remember the San Bruno, CA gas pipeline explosion in 2010? http://www.mercurynews.com/business/ci_27880159/san-bruno-pg-e-faces-record-penalty-punishment
- Remember the Texas gas pipeline explosion caused by installing HVTL in 2010? https://www.youtube.com/watch?v=RSCz-35M9hA
- **Puget Sound Energy has experience with filing fraudulent gas pipeline inspection records**: http://www.seattletimes.com/seattle-news/puget-sound-energy-to-pay-125-million-fine-for-falsifying-inspection-records/

Scenic Resources

See comments under "Aesthetics"

ALTERNATIVES

- Non-wired Alternatives
    - Only 20% of the need for Energize Eastside is attributed to local load growth. Only ONE (1) transformer overload condition exists in power flow simulations when Canadian Entitlement electricity is removed from the power flow simulations. This single overload condition could be addressed via an additional transformer at the Talbot Hill station.
    - Install a Small Natural Gas-Fired Peaker Plant, possibly located in the corridor between Lakeside substation and the City of Bellevue Waste Transfer Station. The size of this gas peaker plant can be minimized for rare PEAK loads, not for daily 230kV transmission.
    - PSE *did* in fact study a solution to build a 300MW natural gas-fired peaker plant to address power generation west of the Cascades and solve peak power problems in lieu of Energize Eastside. PSE's studies explored the Cedar Hills location (east of Renton, south of Issaquah). PSE's studies found that this was a viable option to Energize Eastside, when power flows northward to Canada were ***excluded*** from PSE's power flow studies. For economic reasons important only to PSE, PSE's current power flow models **include** northward power flow to Canada (Canadian Entitlement) in order to justify the

excessive capacity of Energize Eastside. PSE states they abandoned the natural gas-fired peaker plant allegedly because it posed "permitting problems". Are those "permitting problems" more problematic than the serious challenges associated with permitting Energize Eastside, a project with much more far-reaching environmental impact?

- Distributed generation: Why can't PSE build a scalable, reliable, distributed solution for the Puget Sound eastside that is sized for Bellevue's needs, at a cost lower than Energize Eastside to keep our electricity rates down? These alternatives could be installed close to the anticipated downtown Bellevue load growth (per the USE report), at the Bellevue Substation near the corner of 116th Ave NE and NE 4th St. or near the Lakeside Substation off of Kamber Road.
- Batteries: Has the City of Bellevue and PSE kept abreast of technology advances that supply grid battery technology for peak load situations? Other cities are finding batteries to be a viable, affordable means of addressing peak load issues. Grid battery solutions do not need to be sized to address a full-time 230kV load. Grid batteries only need to be sized to address short-term emergency peak load situations. Battery containers could be located close to the anticipated downtown Bellevue load growth (per the USE report), at the Bellevue Substation near the corner of 116th Ave NE and NE 4th St. or near the Lakeside Substation off of Kamber Road.

- Wired Alternatives
  - Reconductor 115kV lines to improve transmission efficiencies.
  - SCL Loopback: Add a new 230/115kV transformer at Lakeside Substation. Loop the existing Seattle City Light double circuit 230kV line through the Lakeside Substation. Route the line east along I-90 then turn north to the Lakeside Substation. Continue along the existing PSE right-of-way north of the Lakeside Substation. Turn west near the Lake Hills Connector until the SCL lines are once again intercepted. This has significantly less environmental impact than 18 miles of new transmission lines. This could have the added benefit of removing 230kV SCL lines that currently run over the top of the Woodridge neighborhood – over the top of a public elementary school and two community swimming pools.
  - Lake Tradition Option: Re-evaluate PSE's plan-of-record until approximately 2011 to route power from Lake Tradition along I-90 to the Lakeside Substation.
  - Monroe-Echo Lake #2: Re-evaluate BPA's best technical solution (lowest risk, TCRM, and highest transfer capacity, TTC) by building a second Monroe-Echo Lake transmission line, to address Canadian Entitlement electricity delivery.
  - Underground installation of portions of the line through dense urban areas
  - Submerging the line if a route under Lake Washington can be found viable

PROCESS

- The City of Bellevue has deemed Energize Eastside an "Essential Public Facility" (EPF). The independent USE Report says that load growth is only needed in the downtown Bellevue corridor. How can Energize Eastside be deemed an EPF when it has been independently shown NOT to be essential to other directly affected jurisdictions (Renton, Newcastle, Redmond, and Kirkland)? Other less costly measures (e.g. a natural-gas fired peaker plant located close to the load in Bellevue) could more easily satisfy this need, on the rare peak occasions it may become necessary
- Energize Eastside does NOT meet the definition of an EPF. Per the City of Bellevue's Comprehensive Plan, " the Growth Management Act defines essential public facilities as those

"that are typically difficult to site, such as airports, state education facilities and state or regional transportation facilities as defined in RCW 47.06.140, state and local correctional facilities, sold waste handling facilities, and in-patient facilities including substance abuse facilities mental health facilities, group homes, and secure community transition facilities as defined in RCW 71.090.020." "The Comprehensive Plan has benefits including **minimizing difficulties in the siting process and addressing local impacts equitably**."
pg. 81, http://www.bellevuewa.gov/pdf/PCD/05.CapitalFacilities02(3).pdf

- Please determine if Energize Eastside is **OPEN ACCESS**? Please determine if Energize Eastside is **USED and USEFUL** specifically and solely for PSE ratepayers? Please determine if Energize Eastside" is **PRUDENT** for PSE ratepayers?
- PSE and ColumbiaGrid have not conducted industry-standard load flow studies to determine if Energize Eastside might be duplicative, less efficient and more costly than better alternatives.
- PSE and ColumbiaGrid studies did not reflect the Remedial Action Schemes (RAS) and Schedule Adjustment Schemes that have been put in place for Northern Intertie schedules.
- Contrived power flow studies and simulations include Canadian Entitlement electricity.
- Contrived power flow studies and simulations turned OFF all PSE-controlled emergency generation facilities west of the Cascades (facilities specifically intended to address peak load issues).
- FERC rules require Bulk Electric System projects, like Energize Eastside, to be competitively bid.
- In PSE's 2013 IRP, PSE indicates a 1,500MW **generation** shortfall forecast (unmet capacity, Figure G-12 on page G-25). PSE has not presented any plans to address not having enough electrons to flow through the Energize Eastside transmission lines. Building an electricity transmission pipeline the size of Energize Eastside will do no good, if PSE and others cannot produce enough electricity to flow through that transmission line (e.g. a bridge to nowhere).
- Energize Eastside transmission lines would depend upon PSE's ability to sufficiently generate electricity or buy electricity generation. Where will PSE obtain a new electricity supply to cover peak load with the pending shutdown of Colstrip? This planning must be part of the EIS process.
- Any significant change (decrease) in electricity generation capacity, like the retirement of Colstrip, must be included in the overall Environmental Impact Study for Energize Eastside.
- How did USE analyze PSE's Load Forecast?
- Did USE review the work that PSE did, or did USE re-calculate the Load Forecast?
- If USE recalculated, where did USE obtain the data?
- Did USE obtain independent data from unbiased third-parties, rather than rely strictly on data provided by PSE?
- Did USE compare PSE's data against ColumbiaGrid and/or BPA data to verify its authenticity?
- Did USE verify and validate that there are no software errors in PSE's load forecasting algorithms?
- How does PSE verify and validate its software algorithms, particularly for load forecasting?
- When was the last time changes were made to PSE's software algorithms and how were those software changes validated and verified before the software was used to create meaningful, actual load forecasts? (Page H-16, Loss Factors, indicates that the software was changed to adjust the loss factor. What other changes might have been made and how were those software changes validated and verified?)
    - **Example**: Recently Avista admitted that software changes to their rate-charging algorithms resulted in overcharging customers. http://www.spokesman.com/stories/2015/may/04/software-error-caused-avista-overestimate-rate-req/

- Should PSE's forecasting model be taken at face value? Is there an opportunity for software errors to produce forecasting errors that indicate an excessive demand/need/growth beyond what is truly warranted?

- **Bonneville Power Administration documentation (in addition to Memoranda of Agreement) states that all Lakeside Transformer (Bellevue) 230kV activities fall under NEPA**. Please re-evaluate all documentation from multiple sources, including BPA and FERC. Has the City of Bellevue overlooked crucial binding documentation requiring Energize Eastside to submit for NEPA review?
- Mr. Pyle (City of Bellevue Sr. Environmental/Land Use Planner charged with the Energize Eastside EIS) said that BPA has provided a letter stating that BPA is not involved with the Energize Eastside project (aka: Sammamish-Lakeside-Talbot project). If BPA is not involved, why are there BPA Memoranda of Agreement (MOA) included on the City of Bellevue EIS scoping website?

http://www.energizeeastsideeis.org/uploads/4/7/3/1/47314045/2015-06-01_moa_with_bpa-seattlecitylight-pse.pdf

- On the City of Bellevue EIS Scoping website , a MOA (amended April 2015, link included above) states, "Concerning the Puget Preferred Plan Projects identified in Section 3(b) of the MOA, the parties agree that the **BPA funding originally intended for these projects** will instead be directed under separate agreement to PSE's Whatcom County Transformer project. Accordingly, the parties acknowledge that BPA is not involved in any manner or capacity in PSE's Sammamish to Lakeside to Talbot Rebuild Project or its Lakeside 230 kV Transformer Addition Project."
- This MOA goes out of its way for BPA to disavow any association with Energize Eastside, yet, it also clearly states that BPA funding was, in fact, originally intended for this project.
- BPA is merely diverting payment for Energize Eastside to another project in Whatcom County. This is a maneuver to avoid FERC Order 1000 cost allocation requirements. This maneuver is also an attempt to avoid triggering a NEPA review. BPA is obviously playing a financial shell game. ANALOGY: To avoid me paying sales tax when buying your car, you sign the car over to me. Then I'll give you money so you can go buy a new bicycle. We complete the transaction and pretend that I never really paid you for the car.
- In that same MOA, paragraph 3(a), "Upon completion of the Puget projects, PSE shall submit an invoice or payment to SCL for the SCL cost obligations associated with construction of the Puget Preferred Plan Projects." Seattle City Light is involved in the shell game and forced to pay PSE, so that BPA can no longer appear to have any financial obligation. Why would Seattle City Light pay PSE, if Energize Eastside is solely to address Puget Sound eastside (local) load growth? BPA is going out of its way to misdirect and divert funds from a broader REGIONAL project to address west coast grid reinforcement (Energize Eastside) to avoid a NEPA review and circumvent compliance with FERC Order 1000.
- The Mid-West Electric Consumers Association states on their *Funding the Federal Power Program* fact sheet, "...due to ongoing federal budget crisis, appropriations from the U.S. Treasury will not be available to fund capital programs such as new construction and replacement or rehabilitation of existing facilities...For two decades, administrations' Budget Requests for funding of the federal power program have steadily decreased...Customer funding has become an important funding source…." Translation: Local ratepayers (like PSE customers) are being forced to finance new construction, replacement, and rehabilitation of electrical infrastructure that provides

benefits to a substantially larger base of beneficiaries throughout the west coast region. Electricity grid reinforcement is paramount to our national security and economic wellbeing. However, implementation is being abused. Some U.S. **utilities (like PSE) are "gold-plating" their infrastructure projects** to qualify for higher rates of Return On Equity. The Federal Power Program is leveraging individual utilities to address grid reinforcement. FERC has programs that provide EXTRA incentive (a higher rate of Return On Equity, ROE) to reward utilities for infrastructure investment that reinforces the electrical grid. In turn, those individual utilities get to charge their local customers for projects that have more far-reaching goals beyond just benefitting local ratepayers. Current WA state legislation actually REWARDS PSE for over-building infrastructure.
http://meconsumers.com/wp-content/uploads/2013/02/Funding-Federal-Power-2013.pdf
http://www.wsj.com/articles/utilities-profit-recipe-spend-more-1429567463

- The BPA News (Jan 24, 2012) has much to say about Energize Eastside: "When large amounts of energy are being delivered to the Puget Sound area through the Northern Intertie to Canada, transmission lines become congested...The projects being announced today will significantly expand system capacity and minimize the need for curtailments…."
  http://www.bpa.gov/news/newsroom/releases/Documents/20120124-PR-5-12-Joint-transmission-system-projects-to-improve-system-reliability.pdf

- SEPA/NEPA determination must be determined by an independent panel/commission that includes detailed local, state, and federal legal review.

Sincerely,

Russell Borgmann
2100 120th Place SE
Bellevue, WA 98005
425.445.4298
rborgmann@hotmail.com

Subject: Fwd: Questions on need for EnergizeEastside consultant from Todd Andersen Re: "Ask the Consultant" email link on Engagement page Update
From: Todd Andersen <todd@matadortech.com>
Date: 6/15/2015 3:23 PM
To: scoping@energizeeastsideeis.org
CC: todan@gmail.com

2nd email submittal: Additional info from Todd Andersen To the EIS Scoping Team regarding Energize Eastside:

Please find previous sent email to City of Bellevue all the attachments are submitted for inclusion in the EIS scoping public comments record.

Acknowledgement of receipt will be appreciated.

Sincerely,
Todd Andersen
4419 138th Ave SE Bellevue WA.

Date: Thu, 12 Feb 2015 16:50:22 -0800
To: energizeeastside@bellevuewa.gov,
From: Todd Andersen <todd@matadortech.com>
Subject: Questions on need for EnergizeEastside consultant from Todd Andersen Re: "Ask the Consultant" email link on Engagement page Update
Cc: "Janis Medley" <jpmedley@mac.com>, "Larry Johnson" <larry.ede@gmail.com>, Council@bellevuewa.gov, sdofour@aol.com, WHalvrsn1@frontier.com, norm Hansenn <hansennp@aol.com>, NMatz@bellevuewa.gov, mbrennan@bellevuewa.gov, bmiyake@bellevuewa.gov, pr@cense.org, Cv <cvchung@aol.com>, "Philip C Malte" <malte@u.washington.edu>, Don Marsh <don.m.marsh@hotmail.com>, mark Hancock <markhancock@hotmail.com>, "Lisa Taylor" <14lisat@gmail.com>, "Russell Borgmann" <rborgmann@hotmail.com>, "KC" <keithc@seanet.com>, pamagnani@gmail.com, Christina Aron-Sycz <aronsycz@gmail.com>,

Dear City of Bellevue,

In responds your request and lone email to the citizens with regard to "Energize Eastside" since June 2014 when the City supposedly created a distribution list to inform citizens. Regardless, please find my questions attached. There are four documents which together compile my list of questions. Please confirm receipt and ability to read Word docs.

Attached to this email:
1. *Questions to Add ToddA ListForFeb12Deadline.doc* Please start with *Questions to Add ToddA ListForFeb12Deadline.doc* As they have refinements to the questions to the master 36 question doc the City of Bellevue have been in possession of since June 30 2014 with no response
2. *Additional_questions_to_PSE_via_WUTC_2014-8-14-Toddrev4.doc*
3. Main list of 36 Questions on Need, *Questions&Commentsfor June25-2014rev0.9.1w.o.TrackChg.doc*
4. And for background on real energy production trends *Tech & financial issues with PSE Energize Eastside1.4w.o.affil.doc*

Sorry for not taking the additional time to consolidate, all my time is spent researching PSE, WUTC, Columbia Grid and Bonneville Power Authority. Amazing to note that PSE has the highest energy rates in the state of Washington 28% higher than all other WA utilities, per NEEA.org which is 19% funded by PSE. See page 5 of 21 of http://neea.org/docs/default-source/rbsa/washington-state-report-final.pdf? So much for the for-profit organization being lower costs other utilities ran government workers. And so much for the ability to government organizations like WUTC, and City of Bellevue staff to look out for Bellevue Citizens interests.

Thankfully, the arrogance of Bonneville Power Authority's vice president of Transmission Planning and Asset Management Hardev Juj in proposing Energize Eastside contrary to previous leading solutions that Columbia Grid documents have stated, have laid many thing bare. Without his arrogance and that of PSE's, Eastside citizens of would not have the deep understanding of how well Bellevue and other Eastside City governments work. No doubt that will have long term effects, hopefully for the positive.

Best Regards
Todd Andersen

From bellevuewa@public.govdelivery.combellevuewa@public.govdelivery.com
At 08:28 AM 1/29/2015, City of Bellevue wrote:

> You are subscribed to Electrical Facilities Planning web page alerts. This information has recently been updated, and is now available.
>
> http://www.bellevuewa.gov/electrical-facilities-engagement.htm
>
> The city has added an email link for stakeholders to submit your questions, comments and materials at "Ask the Consultant" on the Engagement page.

Utility Systems Efficiencies, Inc. is documenting stakeholder questions and issues around the purpose, need, and timing of the proposed Energize Eastside electrical system improvement can be specifically documented for Bellevue, evaluating the need for the project including assessment of forecast growth and timing for delivery of improvements to meet forecast growth, and evaluating impacts to electrical system reliability.

Attachments:

Additional_questions_to_PSE_via_WUTC_2014-8-14-Toddrev4.doc	46.5 kB
Questions to Add ToddA ListForFeb12Deadline.doc	1.0 MB
Questions&Commentsfor June25-2014rev0.9.1w.o.TrackChg.doc	1.7 MB
Tech & financial issues with PSE Energize Eastside1.4w.o.affil..doc	1.4 MB

Questions from Utility Power Engineers To Puget Sound Energy on "Energize Eastside"

1. Question on Lake Tradition Substation:

a) According to PSE planning documents, there was a plan to add a transformer at Lake Tradition and bring a 115 kV line into Bellevue along a route parallel to I-90. This plan would be less expensive and would cause less impact to neighborhoods on the Eastside, but it was abandoned in 2011. Could PSE please explain why? What specific criteria was not met that resulted in it being abandoned.

b) We also request to review non-redacted studies and the power flow printouts and line flows through the Lake Tradition transformer if it had been installed at that station.

c) From 2007 to 2010, PSE sent annual reports to WECC stating that their intention was to install a 230-115 kV transformer at Lake Tradition. In 2011, PSE changed its plans and no longer wished to supply Eastside load growth by installing a transformer in Lakeside. Would PSE please explain if previous to 2011, whether the power flows supported the proposal to install a 230-115 kV transformer at Lake Tradition Substation.

PSE interconnection to SCL Maple Valley-Snoking 230 kV lines:

d) PSE says Seattle City Light rejected PSE's inquiries to upgrade lines currently running along the SCL corridor. Did PSE ever make a formal interconnection request with Seattle City Light? Why not?

e) We request PSE submit a formal request for interconnection with SCL. We request that PSE mention in the SCL letter that FERC encourages open access for transmission systems and SCL should have a policy to perform interconnection studies.

2. **PSE proposed project to rebuild Sammamish-Lakeside-Talbot Hill 115 kV lines to 230 kV.**

Please provide detailed technical study on need to rebuild the Talbot-Lakeside #1 & #2 and Sammamish-Lakeside #1 & #2 lines. Please provide in a short paragraph defining the problem clearly why those have to be rebuild for 230 kV."

3. Please verify that the following are the only system contingencies (PSE, BPA & SCL) that the PSE proposed project is supposed to resolve:

a) Summarizing from the Eastside ~~Alternative~~ Transmission Solutions Report (pp 30-54, including Tables 4-2 and 4-11), and the City of Bellevue, Electrical Reliability Study, Phase 2 Report (dated February 2012), commonly known as the Exponent report, please verify that the

Comment [I1]: Need to number to make it easy to refer to in future communication with PSE, WUTC, Simon fittch etc. xxx

Comment [I2]: Added to xxx

Comment [I3]: Do you mean Lake Tradition?

Comment [I4]: xxxx "See Eastside Needs Assessment Study and Transmission Solution Study" PSE published Those two reports were missing key info. See table 4-1 pg 39of118 of Transmission Study, which is inadequate and tables 6-1 through 6-14 Eastside Needs Assessment are inadequate.

Comment [I5]: Confusing please verify Seems like the "Needs report " has this information but tables 4-2 to 4-11 are only in the "Transmission" report

Comment [I6]: My copy has these table 4-3 and on to xxx are completely blank. IF you have a copy that is not then can you fw to me Russ, KC, Don , phil, Lisa? This question is related to question 6b

following is the complete list of the system overloads and/or future voltage problems:

b) Loss of Talbot Hill 230-115 kV transformer would overload the adjacent transformer – winter condition

c) Loss of Sammamish 230-115 kV transformer would be close to overloading the adjacent transformer – winter condition

d) Loss of both the Monroe-Novelty Hill 230 kV line and the Bothell-Sammamish 230 kV line – summer condition

e) Loss of the Novelty Hill 230 kV transformer and the loss of one of the Sammamish 230 kV transformers may overload the remaining Sammamish transformer – summer condition.

f) There will be a future need for better voltage support to the Sammamish substation in order to support growth in the City and the surrounding areas. The contingency is loss of the Bothell-Sammamish and the Monroe-Novelty 230 kV lines.

Would PSE please confirm the above?

4. Previous PSE transformer fire and other transformer failures Information required to evaluate possible solutions to PSE transformer "overheating issues"

Comment [I7]: xxx add "Information required to evaluate possible solutions to PSE transformer "overheating issues"

a) PSE stated previously that they had a transformer fire at their Sammamish Substation in 2011. We would like to know the date when the fire occurred. Would PSE also please state when their system peak occurred in 2013 – date, time, system peak load and the loading on the Sammamish transformer during peak.

b) Please state the dates it took to replace the faulted transformer. Would PSE please submit the daily work schedule at Sammamish Substation for the duration of when the transformer was taken out of service until the spare was made operational?

c) In PSE service territory, how many transformer failures occurred during the last 20 years and what time of the year did they occur? Would you please give specific dates when failures occurred and when the spares were put in service?

d) How many total transformers did PSE have in operation during the last 20 years not including the spare transformers and those not serving load? Please provide annual numbers.

e) In order to reduce transportation of heavy and bulky transformers, would PSE be willing to relocate their spare transformers inside the fenced properties of Sammamish and Talbot Hill Substations?

f) In addition to moving the spare transformers inside the fenced substation properties, would PSE consider energizing these spare transformers to make sure that when they are needed, the spares are in good working condition?

g) To minimize the down time after loss of one transformer, would PSE considered making temporary line connection normally known as "shoofly" to the spare transformer? Please provide CENSE (Coalition of Eastside Neighborhoods for Sane Energy) the engineering sketches that PSE had previously prepared for "shoofly" connections in order to re-energize the spare transformer in the shortest possible time.

Definition of shoofly: A conductor or conductors strung as a temporary substitute for a more permanent installation; can be in a substation as a substitute for a section of bus or a short section of transmission line.

h) Has PSE revised their transformer overload policy to allow for "loss of life loading" of the transformer above its nameplate rating during an emergency? Would PSE please submit such policy to CENSE for comment and additional questions? Please submit previous policies and present policies. Would PSE please comment on the overload capabilities of their 230-115 kV transformers and whether they conform to NEMA standards? Would PSE please submit the loss of life tables for overloading the 230-115 kV transformers?

Comment [I8]: Spell out acronym for future paper trail purposes

i) Would PSE please provide us a target date to relocate the spare transformers inside Sammamish and Talbot Hill Substations and provide CENSE a short report upon completion of the relocation?

Comment [I9]: xxxx.

j) Does PSE own a "lowboy trailer" (photo – click here) or other trailers for transporting spare transformers? Would PSE please comment on where it is situated?

5. PSE system planning criteria submitted to the WUTC

a) Please provide a copy of PSE "system planning criteria that is used in the technical studies. This is the same criteria that PSE filed with the WUTC. We wish to see the technical study that is performed in accordance with the planning criteria."

Comment [I10]: xxxxxx

b) PSE builds its transmission infrastructure to minimize outages and avoid overloads on the 115 kV transmission system on an N-1 basis (N-1

Comment [I11]: PSE *Needs Assessment doc* page27of81 says the criteria is based on 8 items including NERC Standards TPL-001 to TPL-0004. and PSE transmission Guidelines.

is the first contingency). This is defined as a Category B event by the North American Electric Reliability Corporation (NERC). NERC defines a Category C event as an N-2 contingency case (two simultaneous events). An example of this is a breaker failure (the first event) that would lead to clearing all circuits connected to a substation bus (the second event). For this contingency, according to the NERC rules, PSE is allowed to drop non-consequential load. Please define non-consequential load.

Please verify.

6. Documents, supporting data, maps and one-line schematics requested but not supplied by PSE:

Comment [I12]: xxxxxx

a) Please provide all transmission line maps 525kV & below in N & S King County. Please provide one-line diagrams of N & S King County facilities including those of PSE, SCL and BPA. Please list normally open breakers, switchers and existing PSE Remedial Action Schemes.

b) Please provide historical load growth of all PSE substations in N & S King County. The annual substation loads for last 10 years for N & S King County have to be "coincidental loads" (measured at the same time) and the ambient temperature for the loads should be based on PSE’s "normal" 23ºF winter design temperature and not for an "extreme" 13ºF winter. Please provide temperature-adjusted loads for each station and the SeaTac temperature when the loads were adjusted for normal winter.

Comment [I13]: xxxx. Are these all peaks per given year. thus 10 years times # of substations = total number of points. The key data will be 2008/09 the all time winter peak which PSE reported to Joint Operation Committee June 13, 2013 at 25F. And the 2013/14 peak.. Define Normal as Deg F and whose normal

Comment [I14]: Add to show xxx

c) Please provide the annual transformer loadings for the 230-115 kV transformers in Sammamish, Talbot and Novelty Hill substations for the last 10 years with the coincidental transformer loads when the distribution substation loads were measured.

Comment [I15]: xxxx Also why are these not included already in the N & S KC substation info from above

d) Please provide transmission line rating tables, one-lines, or any lists showing the lines that PSE said would be overloaded. The lines are Talbot-Lakeside #1 & #2 and the Sammamish-Lakeside #1 & #2. We also need the one-line diagram to include the 115 & 230 kV line ratings and proposed new 230 kV lines "normal" ratings. Please specify line rating at what ambient temperature and at what wind speed.

e) Please provide the calculated “through flow” on the proposed new 230 kV lines when BPA's Monroe-Echo Lake 500 kV line is faulted. Please provide technical analysis of the fault and computer models showing the “through flows” during Spring. Please show maximum imports from BC Hydro and maximum export to California. Please show maximum generation from Columbia River dams. Please show imports to Pacific NW from Idaho and/or Montana. Please provide base cases that were verified by ColumbiaGrid as the appropriate base cases used in the ColumbiaGrid

Comment [I16]: This must be substantial as statement below table 1-2 of the PSE Eastside Needs Assessment report say line over heat in Summer with 3500 MW of “load” when in winter the load is 5208MW per pg 11of78.

April 25, 2011, study #4 and study #11. Please provide "bubble diagrams" of the studies. Also please provide base cases that are verified by ColumbiaGrid as the true base cases that were used to complete the October 28, 2011, study #4 and #11.

~~e)~~f)PSE states on page 11 of 78 of the Eastside Needs Assessment document that regional commitments to increase flows across to the Northern Intertie (the power grid connection British Columbia Canada) to 2300 MW that will show up in the 10 year time frame. Whose commitments are those specifically (PSE, or BPA etc) and what requirements, legal or otherwise, require PSE to shoulder that load through heavily populated areas.

7. CENSE also requested on June 17, 2014, for ColumbiaGrid studies but the detailed studies were unavailable:

a) ColumbiaGrid study dated Apr 25, 2011, request study #4 and study #11

b) ColumbiaGrid study dated Oct 28, 2011, request study #4 and study #11

Can PSE provide the above studies and if not explain why not?

Things missing but may be in your other questions. You may have sent them to me but I don't remember seeing/getting, can you resend?

c) Please detail the other Columbia Grid solutions that had higher capacity and lower reliability risk (higher grid reliability improvement) including but not limited to the "SCL" lines that the City of Bellevue asked SCL about and SCL replied "we prefer that PSE does not use" yet when PSE forwards they change that "prefer" to cannot. The letter was sent by Bellevue City employee Nicolas Matz to Seattle City Lights.
~~e)~~d)

To: City of Bellevue
From: Todd Andersen Bellevue home owner and resident
425-449-8889 todd@matadortech.com
Date Feb 12,2015
Subject: Questions for Need review by consultant(s) hired by City of Bellevue and additions to previously sent question list sent by Bellevue home owner and resident Todd Andersen entitled "*Questions for Puget Sound Energy Submitted to City of Bellevue June 5th, 2014 & to PSE on June 30th 2014"* file name Tech & financial issues with PSE Energize Eastside1.4.doc

Attached:
1. The doc making up this page *Questions to Add ToddA ListForFeb12Deadline.doc*
2. *Additional_questions_to_PSE_via_WUTC_2014-8-14-Toddrev4.doc*
3. Main list of 36 Questions on Need, *Questions&Commentsfor June25-2014rev0.9.1w.o.TrackChg.doc*
4. And for background on real energy production trends *Tech & financial issues with PSE Energize Eastside1.4w.o.affil.doc*

New Question1 What are the current power loads capacity from Seattle City Light circuits running parallel to the PSE proposed Eastside expansion (parallel to interstate 405 Renton-Bellevue-Kirkland and what would it be if it was rewired with higher capacity lines with existing towers and new towers with capacity to support even heavier lines. Also see Question 7c of above attached doc *Additional_questions_to_PSE_via_WUTC_2014-8-14-Toddrev4.doc*

Add 1 Q4 Add this additional information asked in question 4 of above reference document. Similar to question list by other veteran power engineers from Seattle City Lights/PSE and other local utilities, including but not limited to question 6 of that list. SEE attached doc *Additional_questions_to_PSE_via_WUTC_2014-8-14-Toddrev4.doc*

a) Please include peak load information of 2014/15 winter to date as the peak has likely already occur for this winter season.

b) What are the power flow capabilities over each of the two 115KV circuits PSE is requesting to replace? Detail the type of wire currently installed and specifications when new and any degradation(s) of capacity currently assumed. Please provide amperage / wattage / temperature capability of the wire(s) when new and detail each knockdown factor(s)? Also detail when those circuits are over loading what percentage of power is assumed to Eastside power needs specifically, wattage needs that PSE customers consuming power within the Washington state and power needs shipped out of state and to/from Canadian. What portion of power is from each failover condition(s) for Bonneville Power Authority?

c) Please detail the relevant transformers that PSE is claiming are overloading and under what wattage/amp/temperature each specific transformer is overloading, including "Lakeside" and "Talbot Hill" but not limited to those is PSE is claiming overload condition. Please provide make model and relevant performance technical details of each transformer that is overloading. Please breaking out

wattage needs for each overload condition that are Eastside power needs specifically, needs that PSE customers consuming power within the Washington state and power needs shipped out of state and to/from Canadian. What portion of power is from each failover condition(s) for Bonneville Power Authority?

d) if transformers are overloading this please explain what additional capacity in power could be gained by adding a 3rd transformer to Lakeside and Talbot Hill?

Add 2 For Question 7 please provide both the unadjusted and adjusted temperature actual historical peak, and typical weekday and weekend for the winter and summer in spreadsheet form. PSE has demonstrated unreasonable temperature adjustments in other projects and thus the request. Please provide adjusted temperature as by PSE's methodology and the methodology USE would use and explain any deltas. Please detail or reference publically available documentation for basis of that adjustment methodologies. Please provide this peak power information for the Eastside and PSE's broader area as asked in question 7 but also for the specific 18 mile circuits that PSE requesting to upgrade.

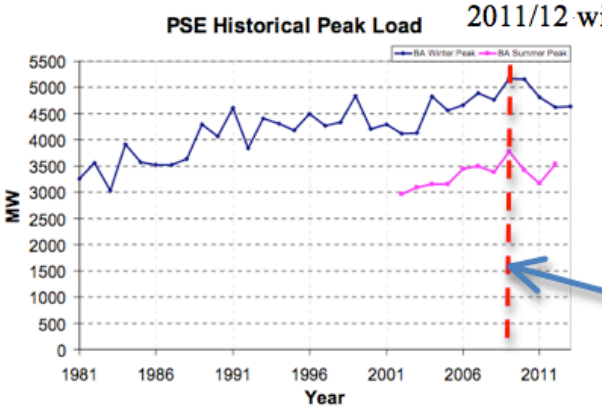
Add 3 For Question 15. As referenced in question 15 PSE's Screening Study states that "*includes all remaining cost-effective EE and DR in King County, as well as all remaining achievable DG in the area*" Please detail those cost levels for each sources of EE, DR and DG and how those cost numbers are more expensive than PSE's proposed grid expansion "EnergizeEastside" in terms of both present costs and life cycle costs.

Add 4 For Question 19. Please compare the cost of peaking turbine to handle further power growth projections and much extra peak capacity this solution would add. PSE claims that such a peaker would not get permitted by environmental authorizes yet PSE never submitted a request. Given PSE's continued rate increases and "good will" the likely long term demand scenario is that alternative energy solutions is going to continued the long term decline in energy needs from the grid and not increase it. Thus a stop gap peaker would to be the low cost solution assuming real need is proven.

Some relevant graphs from PacNW utilities

PSE Load Growth

- 2012/13 Winter Peak: 4632 MW @ 29°F
- All-time Winter Peak: 5166 MW @ 25°F in 2008/09
- 2012 Summer Peak: 3541 MW @ 74°F
- All-time Summer Peak: 3774 MW @ 100°F in 2009



2011/12 winter was 4631MW @ 27 F ¶

PSE's Electric Customer Count: More than 1 million

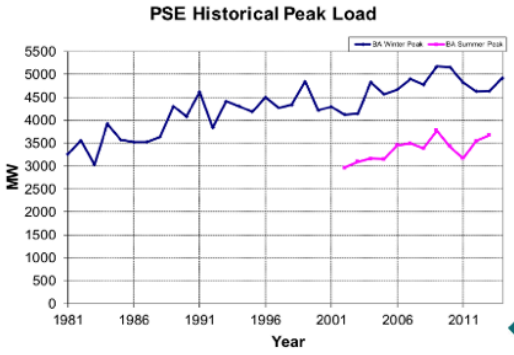
I-937 passed in Nov 2006 ¶ Code RCW19.285 goes into effect 2008 requiring cost effective conservation. ¶

22 ¶

and the latest per PSE even colder that 2008/09 peak but yet still a reduction in peak

PSE Load Growth

- 2013/14 Winter Peak: 4922 MW @ 22°F
- All-time Winter Peak: 5166 MW @ 25°F in 2008/09
- 2013 Summer Peak: 3675 MW @ 79°F
- All-time Summer Peak: 3774 MW @ 100°F in 2009

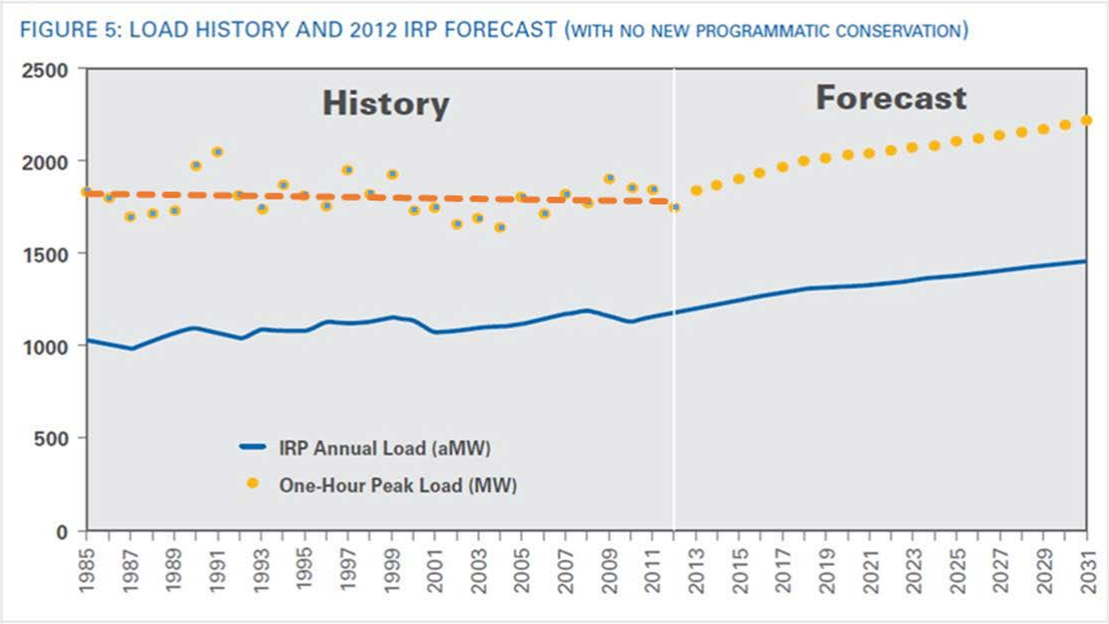


PSE's Electric Customer Count: More than 1 million

34

PUGET SOUND ENERGY
The Energy To Do Great Things

Seattle City Light:

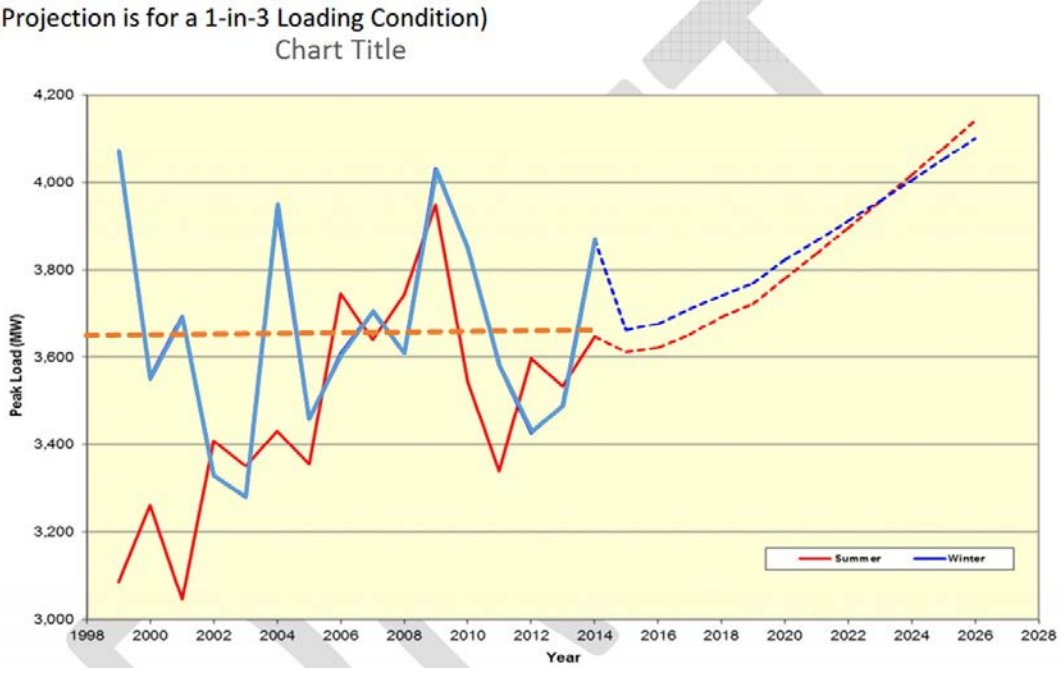


Seattle City Light's peak loads have been gradually decreasing during the 26-year history shown here. Their forecast is somewhat aggressive in comparison, but less than half of PSE's predicted growth rate. Keep clicking those heals together Dorothy you may get back to those monopoly utility years growth rates!

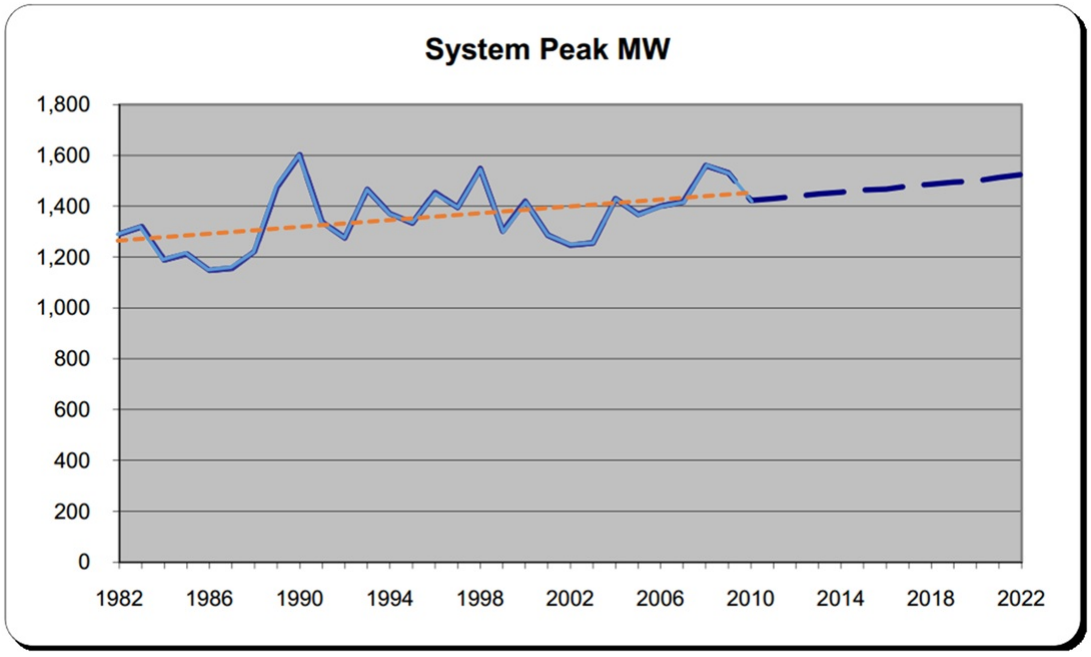
Portland Gas and Electric Portland's graph looks amazingly flat over 16 years including growth and a 45% first-year-failure-rate for Compact florescent light bulbs per the US Dept of Energy. LEDs should accelerate the energy and peak power load decline. Those dashed lines are wishful thinking, even with the WA bill to continue to allow incandescent bulbs to be sold in WA IF they are made in WA.

Figure 7: Portland General Electric's Historic & Projected Seasonal Peak Load

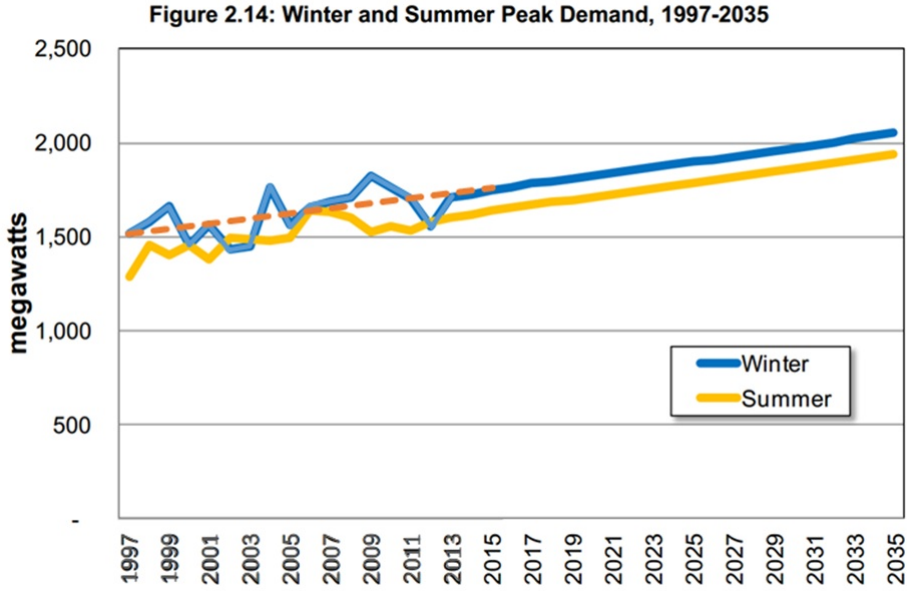
(Projection is for a 1-in-3 Loading Condition)



Snohomish PUDLoad= need to see winter and summer peaks



Spokane (Avista)-: Similar to Snohomish PUD, the forecast follows the same trend as the history.



Questions for Puget Sound Energy

Submitted to City of Bellevue June 5th, 2014 & to PSE on June 30th 2014

by

Todd Andersen – MSEE, former gigawatt device engineer US Dept of Defense 425-449-8889,
Bellevue resident and home owner at 4419 138th Ave SE.

Questions to uncover the Eastside true power needs

1. Please define what "the Eastside area" is for PSE's chart on page 31 of PSE's Eastside Needs Assessment document[2] in terms of cities and counties spanned, geographical area covered (by zip code if easier) and the population. That document is vague on the definition of what the Eastside area is with page 6 just saying *"Eastside area of Lake Washington"* and *"To assess area supply needs, comprehensive reliability analyses were performed to determine the present and future transmission supply to PSE's Eastside area in King County and the Puget Sound area as a whole".* What exactly is the Eastside area?

2. Page 6 of PSE's Eastside Needs Assessment document[1] says *"The studies documented by this report are collectively referred to as the "2013 Eastside Needs Assessment."* We are unable to locate the documents referenced, collectively called *2009 PSE Planning Studies and Assessment TPL-001 to TPL-004 Compliance Report* in footnote 3 of that document. Can we get a copy of that report(s) and the updated reports noted in footnote 2 called *"PSE Planning Studies and Assessment TPL-001 to TPL-004 Compliance Report"*? And any others that make up the *"Eastside Needs Assessment."*

3. PSE's Corporate Load Forecast Group provides forecasts via econometric regression models (not end use models) per page 6 of the Needs Assessment[1]. That document leaves out any actual details of data used in those models other than broad descriptions which can not be used to evaluate the validity of those assumptions/data. Please provide the detailed data and assumptions going into those models. Please describe end use models and how they differ from PSE's econometric regression model.

4. PSE's Corporate Load Forecast Group only provides forecasts via econometric regression models with no sanity check of actual historical peaks to compare against.

A. What are the actual historical peak winter and summer power loads in Mega Watts for the "Eastside" as used in PSE's chart on page 31 of 78 of the Eastside Needs Assessment[2]?
B. What are the actual historical peak winter and summer power loads in Mega Watts for the broader area PSE references in the same doc on page 30?

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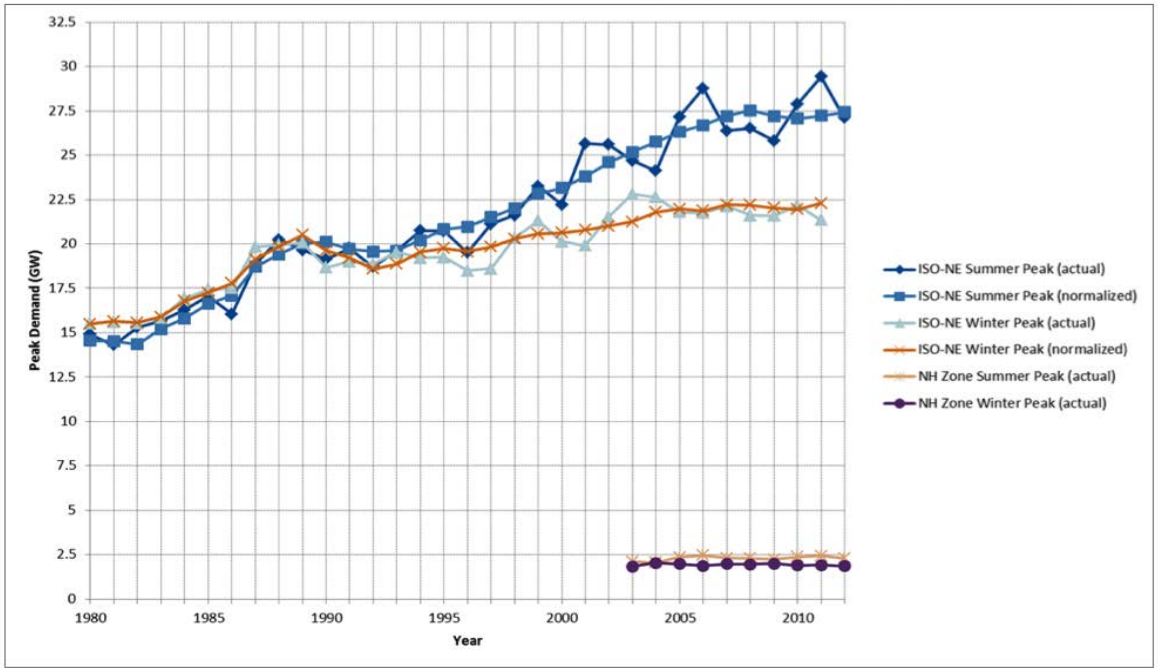
[1] Eastside_Needs_Assessment_Final_Draft_10-31-2013v2%20REDACTED%20R1.pdf http://energizeeastside.com/Media/Default/Library/Reports/Eastside_Needs_Assessment_Final_Draft_10-31-2013v2%20REDACTED%20R1.pdf

Questions to uncover the true **current** Canada- California power flow for non BPA failover

C. What are the actual historical peak winter and summer power loads in Mega Watts for non Eastside PSE customers Canada/California etc transmission (i.e. North/South flow) moving through the eastside.
D. And if different, the same for the broader PSE area (i.e all PSE area, not just the Eastside) for non local customers of PSE?
E. Can we get these above data sets going back to 1980 in spreadsheet form?

These charts should look like those PSE's contractor Cadmus did for New Hampshire (see chart below) but I did not see this in the PSE documents. We have reviewed over 2000 pages so it is possible we missed it.

Figure 1. Historical Seasonal Peaks for ISO New England and New Hampshire Load Zone



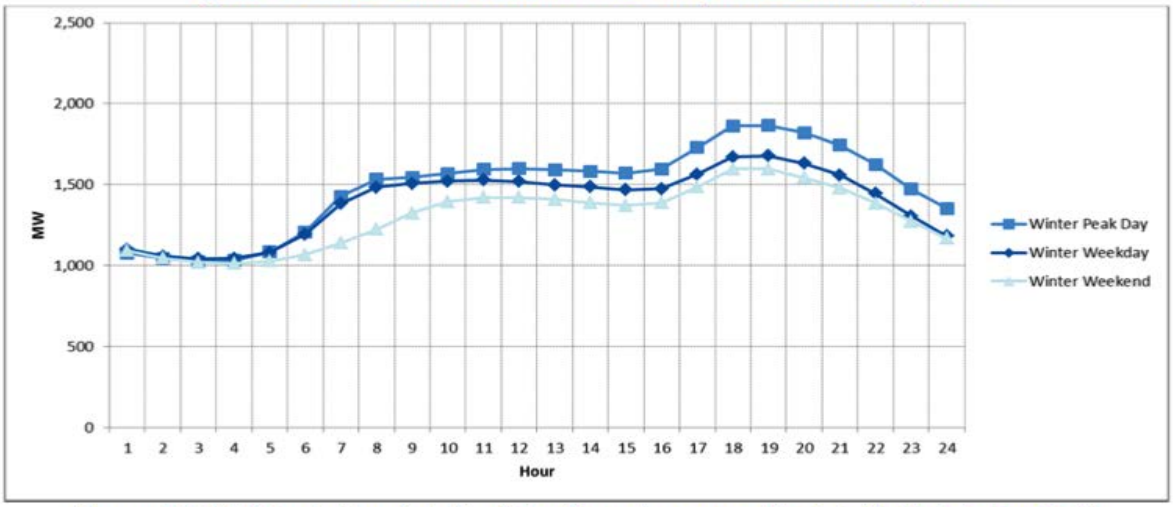
Source: ISO-NE historical market data (http://www.iso-ne.com/markets/hstdata/index.html)

5. If the non Eastside power is different than what PSE calls "*Transmission Customer load"* on pg30/78 of the Eastside Needs Assessment doc, then can PSE please detail what the difference is?

6. How much of the non-Eastside load "*Transmission Customer load"* in Mega Watts is for Canada and how much for USA endpoints?

Questions to uncover the true **current** Eastside power flow

7. Please provide 24-hour graphs and the raw data for actual historical peak, and typical weekday and weekend for the winter and summer as is typically done at other utilities. If this could be done for the last 5 winters and all time peak year that would be outstanding for the Eastside and PSE's broader area. Please provide the associated temperature(s) and humidity for the maximum load points during the day. See sample below of PSE's contractor Cadmus did for New Hampshire



8. During PSE's May 19th presentation to Bellevue City Council member Lynne Robinson asked the question of "*what percent of power going to Canada.*"(45:25 25 City of Bellevue onlineVideo) **PSE's stated it was about 5% power to Canada.** (48:25 onlineVideo) **Per PSE's data in the Eastside Needs Assessment document the percent of Eastside power going to Canada is 38% minimum. Can PSE explain the discrepancy and in detail how they get *"about 5%"?*** Per page 31 of PSE's Eastside Needs Assessment doc [2] it is at peak 400/650 =62% or if the 650 load number does not include power to Canada then 400/(400+650)=~38%. Hard to pin down as PSE technical documents have little descriptions of the technical details.

9. PSE says on page 30 of Eastside Needs Assessment doc *"The Transmission Customer load typically runs between 250 MW and 300 MW. For purposes of this study, 270 MW was used for a typical value".* When the purpose of the effort is to size the peak winter load, using non-peak load is inaccurate. Why is the "typical" fixed value of 270 MW used and not the peak (400 MW) Transmission Customer load? What are the actual historical peak Transmission Customer loads for winter and summer in MW going back 10 years? Do these loads peak at the same hour in the 24hr cycle as Eastside peaks?

10. Page 71 of PSE's Eastside Needs Assessment[2] report says the limit to/from Canada is 400 MW with 200 MWs of new commitment to Canada planned per page 72 of 78. What sets the limit? Treaty obligation or technical constraint? Who had made that commitment and by what authority? Whose responsibility is it to fill that commitment?

11. Page 32 of PSE's Eastside Needs Assessment doc[2] says *"For the winter peak load cases, **no PSE and SCL generation west of the Cascades were run"***
How is this a valid assumption to shut off ALL PSE and Seattle City Light generation west of the Cascades, yet Tacoma left on? Please explain why this condition, which

[2] Eastside_Needs_Assessment_Final_Draft_10-31-2013v2%20REDACTED%20R1.pdf http://energizeeastside.com/Media/Default/Library/Reports/Eastside_Needs_Assessment_Final_Draft_10-31-2013v2%20REDACTED%20R1.pdf

appears to not to be a real world case, could even rationally happen? What are the actual historical generation levels for PSE, SCL Shell (oil) and private owners listed in Table 4-4, west of the cascades for peak winter and summer? Of particular interest is the generation at all-time winter peak and summer peaks. Table 4-4 has "*Expected MW Output during Winter Peak for Low- Generation Sensitivity Case*" but we would like to see actual historical generation for all PSE, SCL, Tacoma Power and private owners at the all-time high winter peak load, and the last 5 years. See the below page 32 of PSE's document.

What does "*Sensitivity Case"* mean in the context used by PSE?

Questions on actual generation power availability

4.1.7 Load Power Factor Assumptions

The power factor at each substation was based on the MW and MVAR loadings at the time of the January 18, 2012 system peak. As the load levels changed based on the load forecast, the power factor at each substation did not change.

Hey Eastside – we at PSE shut off all our generators and Seattle City Lights' west of the Cascades, thus our computer simulations show we need to build more powerlines!!

4.1.8 Transfer Levels

The NI (Northern Intertie) flows were assumed based on season and historic flows; Winter Peak NI-1500 MW S-N and Summer Peak NI-2850 MW N-S.

Why is Tacoma Power left on and PSE & SCL left off? Answer = how to fake Eastside power needs

4.1.9 Generation Dispatch Scenarios

For the winter peak load cases, no PSE and SCL generation west of the Cascades were run. Tacoma Power generation was left on, due certain internal system constraints. The generators off-line in the Eastside Needs Assessment are listed in Table 4-4.

A low-generation case was simulated as a sensitivity. The Puget Sound area generation run during that case is indicated in Table 4-4.

Table 4-4: List of Puget Sound Area Generators Adjusted in the 2013 Eastside Needs Assessment

Generation Plant	Winter MW Rating	Expected MW Output during Winter Peak for Low-Generation Sensitivity Case	Type	Owner	Transmission Delivery Area
Enserch	184.8	125	Natural Gas, Combined Cycle	PSE	Whatcom County
Sumas	139.8	0	Natural Gas, Combined Cycle	PSE	Whatcom County
Ferndale	282.1	0	Natural Gas, Combined Cycle	PSE	Whatcom County
Whitehorn	162.2	0	Natural Gas, Simple Cycle	PSE	Whatcom County
Fredonia	341	0	Natural Gas, Simple Cycle	PSE	Skagit County
Sawmill	31	22	Biomass	Private Owner	Skagit County
Upper Baker	106	80	Hydro Dam	PSE	Skagit County
Lower Baker	78	54	Hydro Dam	PSE	Skagit County
Komo Kulshan	14	0	Hydro Run-of-River	Private Owner	Skagit County
March Point	151.6	134	Natural Gas, Combined Cycle	Shell	Skagit County
Ross	450	295	Hydro Dam	SCL	Snohomish County
Gorge	190.7	157	Hydro Dam	SCL	Snohomish County
Diablo	166	160	Hydro Dam	SCL	Snohomish County
South Tolt River	16.8	0	Hydro Run-of-River	SCL	Northeast King County
Snoqualmie	37.8	0	Hydro Run-of-River	PSE	East King County
Twin Falls	24.6	0	Hydro Run-of-River	Private Owner	East King County
Cedar Falls	30	0	Hydro Run-of-River	SCL	East King County
Freddy 1	270	0	Natural Gas, Combined Cycle	Atlantic Power/PSE	Pierce County
Electron	20	4	Hydro Run-of-River	PSE	Pierce County
Frederickson	162.2	0	Natural Gas, Simple Cycle	PSE	Pierce County

Expected MW output during Winter peak is based off of actual 2011-2012 Winter peak output except for SCL hydro, which is based off of modeled generation levels in WECC winter peak case.

Total Generation= 2858.6 MW

Low Generation = 1031 MW

Peak Winter Case generation assumed by PSE = ZERO!!! If PSE just uses the low generation case of 1.031 GW no new powerlines are needed. If transformers are over loading then add a third transformer at both Sammamish and Talbot Hill

32

Questions on actual generation availability

12. Also on page 32 of PSE's Eastside Needs Assessment doc states "*Tacoma Power generation was left on, due certain internal system constraints.*" Can PSE please explain what the certain internal system constrains are and why those constraints or others are not applicable to PSE and SCL forcing them to be left on? How does the Eastside load needs change if PSE and SCL and Shell and private owner generation west of cascades is left on at actual historical peak generation? Namely what

would the results be in the new increased load ceiling (in megawatts) and increase in the years of extra capacity before the new ceiling is reached?

13. The non wires options screened in PSE Screening Study[3] state on page 6 that "*PSE powerflow cases identified that 70 MW of incremental peak demand reduction (beyond the reduction included in the baseline load forecast reflecting 100% of IRP target conservation levels) would be required in King County to defer transmission need until 2021"* Please detail how this 70 MW was arrived at, preferably by providing the reports / powerflow cases with detailed description and math. Please include details of why 70 MW would only last 4 years until 2021.

14. Page 7 of PSE's Screening Study[3] written by PSE contractor E3 states that "*Using the median transmission project cost of $220 million from PSE's Eastside Transmission Solutions report, E3 estimated that a four-year project deferral from Winter 2017 to Winter 2021 would provide PSE approximately $40 million in present-value transmission revenue requirement savings."* Please provide the details of the math and assumptions to arrive at that $40 million.

15. On the same topic of <u>cost effectively deferring PSE's power line until 2021</u> PSE's contractor E3 stated on page 8 of the Screening Study[3] that "*E3's screening analysis identified an estimated 56 MW of winter peak reduction potential by 2021 (above the level included in the IRP) from incremental EE (30 MW), DR (25 MW), and DG (1 MW) in King County. This total non-wires potential includes all remaining cost-effective EE and DR in King County, as well as all remaining achievable DG in the area."* Please detail the power found in each of the three categories: energy efficiency (EE), demand response (DR) and distributed generation (DG) measures that make up the 56 MW E3 found. Why was PSE/SCL/private generation capacity of +80 MW in East King County left out?

16. Please provide the above spread sheets used to determined the above referenced 56 MW of incremental peak demand reduction.

17. Why has PSE not studied and reported the results of grid storage batteries as California's Public Utility Commission as determined they are the best technical, environmental and financial solution to growth driving up peak power and requiring additional capacity[4]? Batteries solve exactly the problem claimed by PSE of the Eastside growth driving up the <u>peak power</u> and eliminatie the need to add additional transmission capacity. A need which would only occur only a few days of the year. California's top three for profit electric utilities are deploying 1,325

[3] www.energizeeastside.com/Media/Default/Library/Reports/PSE Screening Study February 2014.pdf
[4] www.energy.ca.gov/research/integration/storage.html
www.mercurynews.com/business/ci_24331470/california-adopts-first-nation-energy-storage-plan

megawatts Grid storage batteries by 2020. **On Oct 2013 California PUC <u>unanimously</u> approved Commissioner Carla Peterman's ground breaking proposal that requires the for-profits** (PG&E, Southern California Edison and San Diego Gas & Electric) **to add 1,325 megawatts of electric storage by 2020**.

18. PSE's Project Engineer Jens Nedrud stated at the May 29th 2014 South Bellevue Community Center PSE Q & A, that batteries were reviewed in the 33pg PSE non wires solution report[3] done for PSE by the San Francisco consulting company E3. Contrary to Jens Nedrud's statement, not one word about batteries or storage in that report. In fact, the only reference to grid batteries was in the document that Mr Nedrud co-authored. Here is the entirety of battery storage mentioned <u>in all of PSE's publicly available</u> "Energize Eastside" reports. On page 34 of 118 of the *Transmission Solution Study Report* [5]

> At this time, biomass, batteries, pumped storage hydro, solar, fuel cells, geothermal, tidal, and wind were not modeled. PSE has observed some recent activity in biomass generation development plans, both for cogeneration and standalone facilities. The typical plant size is approximately 25 MW, but plants up to 50 MW are being proposed. The majority of the plants that have been proposed in this region would interconnect with BPA. Pumped storage hydro, tidal, geothermal, and wind are locational and would require additional transmission to get the supply to the load center of the Eastside area. Fuel cells and batteries have been growing in both number and scale, but are not yet operating at a gross generation scale. Fuel cells operate or are being developed at scales from several hundred watts, such as those to power portable electric equipment, up through several MW to power equipment, buildings, or provide backup power.

Given <u>dozens of non-profit utilities</u> are using/deploying at least 1000 Megawatts of batteries, <u>ten times greater than the scale of growth PSE claims the Eastside requires,</u> can PSE detail why those utilities see the batteries ready to deploy while PSE sees the batteries as not ready?

19. In 2013 PSE published their Integrated Resource Plan (IRP). The plan addressed the utility level electrical energy storage and compared its installed cost with that of combustion turbine peaking generators using 2011 pricing. Would PSE please clarify why its utility level energy storage in the IRP is so much greater than the US DOE's September 2013 report on the same subject that also has 2011 pricing?

The US Department of Energy's Sept 2013 report on energy storage is called "*National Assessment of Energy Storage for Grid Balancing and Arbitrage Phase II*[6]" PSE's IRP quotes "*utility- scale battery storage costs remain above $2,000 per kW with up to four hours of discharge capacity …"*[7] while the US Department of Energy

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[5] www.mercurynews.com/business/ci_24331470/california-adopts-first-nation-energy-storage-plan www.energy.ca.gov/research/integration/storage.html

014%20REDACTED%20v2.pdf

[6] http://energyenvironment.pnnl.gov/pdf/National_Assessment_Storage_PHASE_II_vol_2_final.pdf

[7] Page 107/245 of IRP chap1-7, http://pse.com/aboutpse/EnergySupply/Documents/IRP_2013_Chapters.pdf

report states that 2011 prices (in pages 36 & 45) for vanadium redox flow batteries, all inclusive 5-hour system capital costs were between $942 and $1280/kW. Furthermore, with prices expected to fall to as low as $608/kW by 2020. PSE's peaker prices will only climb. If one desizes to 4 hour capacity the price is $889/kW. PSE's price level for this critical next generation utility infrastructure is off more than 125%. How does PSE account for the discrepancy between PSE's numbers and the US Dept of Energy's?

20. If one uses PSE's old data in PSE's 2013 IRP of $2000/kW for Grid storage, then a Grid storage system is still cheaper at $200 Million for storing 100 MW peak power for 4 hours than the median cost of the proposed new powerline used in PSE's alternatives Screen Study report [3](page 7) of $220 million. And significantly cheaper than the $300 million dollar price PSE has stated numerous times in the community forums. Why was this alternative not offered and discussed in detail in the alternatives report[3]? If PSE determines this solution not viable then please detail why.

21. Would PSE please explain how its load forecast might be significantly lowered given that new technology and price reductions will encourage businesses and individuals to install battery storage devices, home based co-generation, solar PV and/or wind? Would PSE please explain what would prevent cheaper and more ecologically friendly "distributed generation" from unfolding?

Discussion:

If one reads the managing owner of PSE[8], (Macquarie) and the Edison Electric Institute's, (the lobbying group for the utilities) 2013 report *Disruptive Challenges: Financial Implications and Strategic Responses to a Changing Retail Electric Business.*[9] on page 11 is the following statement from that report "***one can imagine a day when battery storage technology or micro turbines could allow customers to be electric grid independent. To put this into perspective, who would have believed 10 years ago that traditional wire line telephone customers could economically "*****cut the cord***?" " Given Macquarie/EEI's urgent call to political action in that report then PSE's graph shown on page 32 of PSE's Needs Assessment[2] would look different.

Furthermore, the CEO of NRG Energy, David Crane, also has a significantly different view of the near & far term electric energy growth, than PSE. He generates more than 10 times the electricity as PSE (53,000 MW) and sees the future as local distributed generation, largely home. A quote from him "*Distributed generation will win because, **in the very near term**, it will perform the central function of our industry — the delivery of safe, affordable, reliable and sustainable energy — better than the grid operated by regulated utilities.*"[10] See his full open letter to the utility industry in the reference. Why is his future not

[8] www.macquarie.com/mgl/com/us/about/news/2007/20071026
[9] The for-profit electric utility trade association Edison Electric Institute's 2013 report www.eei.org/ourissues/finance/documents/disruptivechallenges.pdf
[10] http://www.energybiz.com/magazine/article/340139/keep-digging

the cheapest and most environmentally friendly one to solve the Eastside's growth needs?

The below chart is a mocked up of PSE's own chart to show what reality PSE's owners and the CEO of an electric company ten times the size of PSE think is going to actually going to happen, nearterm.

The future Bellevue and the Eastside should be building so we look like a City in a park and not further delay clean energy and not have dirty power turn the neighbors into an industrial war zone.

Note: PSE Load Forecast is provided for PSE system load, not including the 270 MW of Transmission Customer industrial load. Transmission Customer load is included in the area load for the TPL and Eastside Needs Assessment studies.

Conservation Sensitivities: The winter forecast was adjusted for sensitivities regarding the amount of expected conservation at peak load. PSE's corporate load forecast assumes 100% of the targeted conservation levels are achieved. To understand the reliability risk due to higher than expected load, PSE ran load sensitivity studies which adjusted conservation levels as a proxy for the higher loads. For the load sensitivity studies, conservation was adjusted to 75%, 50%, and 25% of expected values.

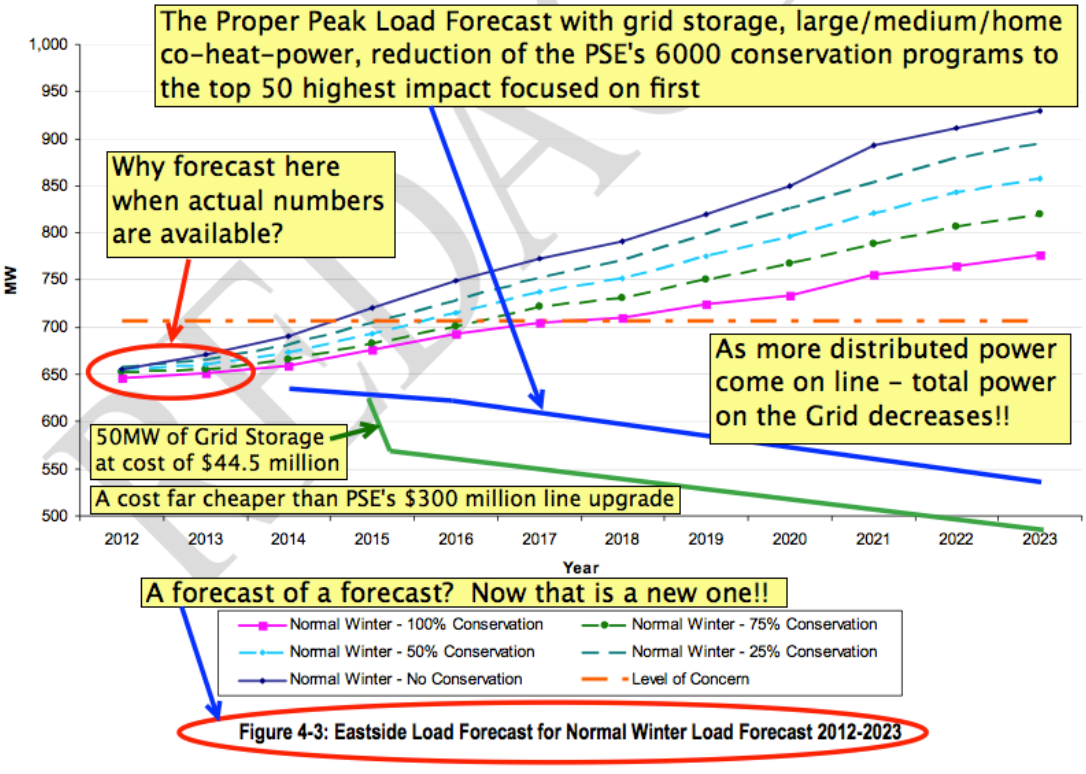

Figure 4-3: Eastside Load Forecast for Normal Winter Load Forecast 2012-2023

31

The Eastside power usage <u>from PSE</u> will go down because of all the distributed generation made possible from far more cost effective and less polluting technologies (mini & micro co-generation, solar PV, wind, Solar pavers etc).

Grid batteries deployments by a Bellevue sized city

22. The Imperial Irrigation District (IID), a municipal utility that provides power and water services to about 150,000 residential, commercial, and industrial customers launched a solicitation in January 2014 for 20 megawatts to 40 megawatts of battery storage. This Bellevue sized entity in California wants "respondents to design, engineer, procure and construct a utility-scale energy

storage project" and specifies that it is a "battery" storage project[11]. What plans does PSE have for the Eastside service area similar to IID battery storage project?[12] For additional information on grid scale energy storage see the many footnotes

23. Has PSE evaluated these grid battery storage companies for the purposes of solving the Eastside's power growth? If so please provide the details. The following were selected by California's Imperial Irrigation District[13]:

1. AES Energy Storage
2. Black & Veatch
3. Coachella Energy Storage
4. Duke Energy Business Services
5. Invenergy Storage Development
6. PMCCA, dba Performance Mechanical Contractors
7. S&C Electric Company
8. UC Synergetic (Hitachi)
9. ZBB Energy Corporation

24. What flaws does PSE find in the California Public Utility Commission's 95 page detailed policy and technical report on Grid storage that prevents PSE from solving the Eastside's power growth with a battery solution that is cheaper and more environmentally friendly than PSE proposed power line expansion[14]?

25. New York City's Metropolitan Transport Authority (MTA) will be installing three vanadium-flow batteries in a downtown Manhattan building to solve peak power issues[15]. PSE is requested to comment on why this solution would not solve the Eastside's power growth.

26. Hawaii Electric Co. launched one of the biggest energy storage proposals in the country in May 2014, quietly opening up requests for proposals of 60 to 200 megawatts of storage project[16]. PSE is requested to comment on why this battery solution would not solve the Eastside's power growth.

27. Does PSE think Bill Gates investment into grid storage to be unwise[17]?

More Grid batteries deployments by California , NY Hawaii and Bill Gates

Conservation

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11. http://energystorage.org/news/esa-news/grid-scale-energy-storage-rfqs-lessons-imperial-irrigation-district
http://www.greentechmedia.com/articles/read/Grid-Scale-Energy-Storage-RFQs-Lessons-From-the-Imperial-Irrigation-Distri

12 http://www.greentechmedia.com/articles/read/Another-40-MW-of-Grid-Scale-Energy-Storage-in-the-California-Pipeline

13 http://energystorage.org/news/esa-news/grid-scale-energy-storage-rfqs-lessons-imperial-irrigation-district

14 http://docs.cpuc.ca.gov/PublishedDocs/Published/G000/M078/K912/78912194.PDF.

15 www.resourceinvestingnews.com/70106-a-giant-leap-for-energy-storage.html

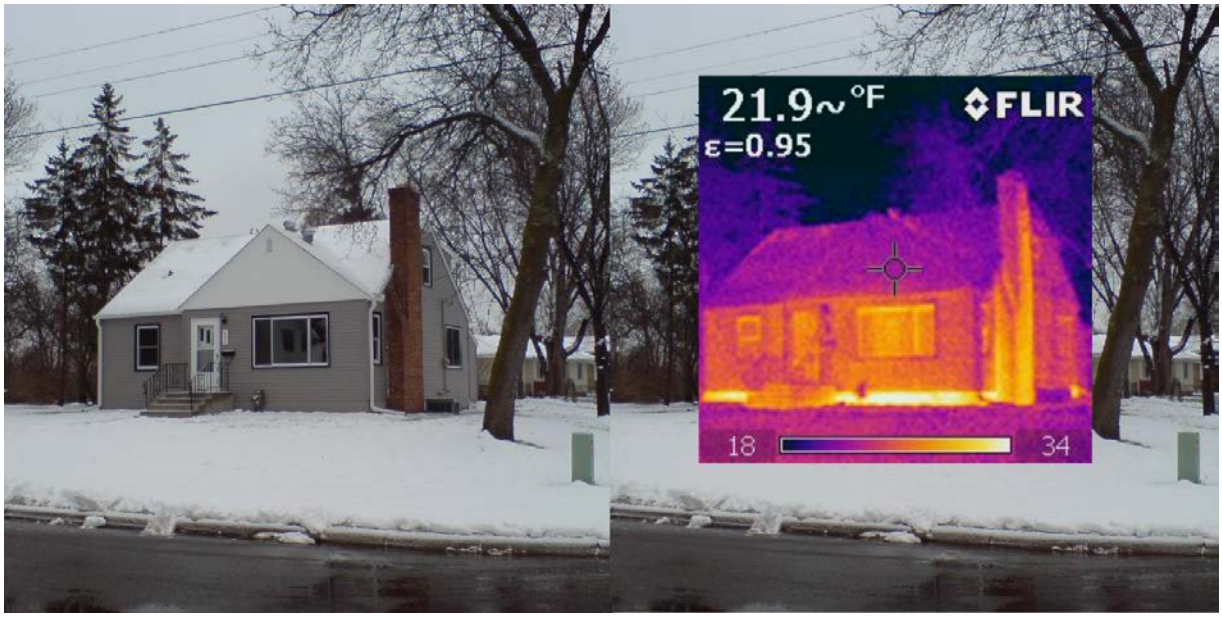
16 www.greentechmedia.com/articles/read/hawaii-wants-200mw-of-energy-storage-for-solar-wind-grid-challenges wants-200mw-of-energy-storage-for-solar-wind-grid-challenges.

17 www.smartgridnews.com/artman/publish/Technologies_Storage/Even-Bill-Gates-is-betting-on-energy-storage-6292.html

28. Page 8 of PSE's 2013 Integrated Resource Plan Appendix N[18] discusses a key document to understanding how well PSE is tackling energy conservation called the *2010 Residential Characteristic Survey* (RCS). Please forward the 2010 Residential Characteristic Survey as well as any similar studies or updates that detail the size and types of loads characteristic for PSE operating areas. Please provide in spreadsheet format so that the user can the rank order based on deferring parameters so that the work of E3 and PSE can be independently verified. Please describe any limitations of the reports and data set(s) accurately describing the characteristics of PSE's load. For example margin of error, undocumented assumptions and major missing load type(s) particularly during peak load conditions.

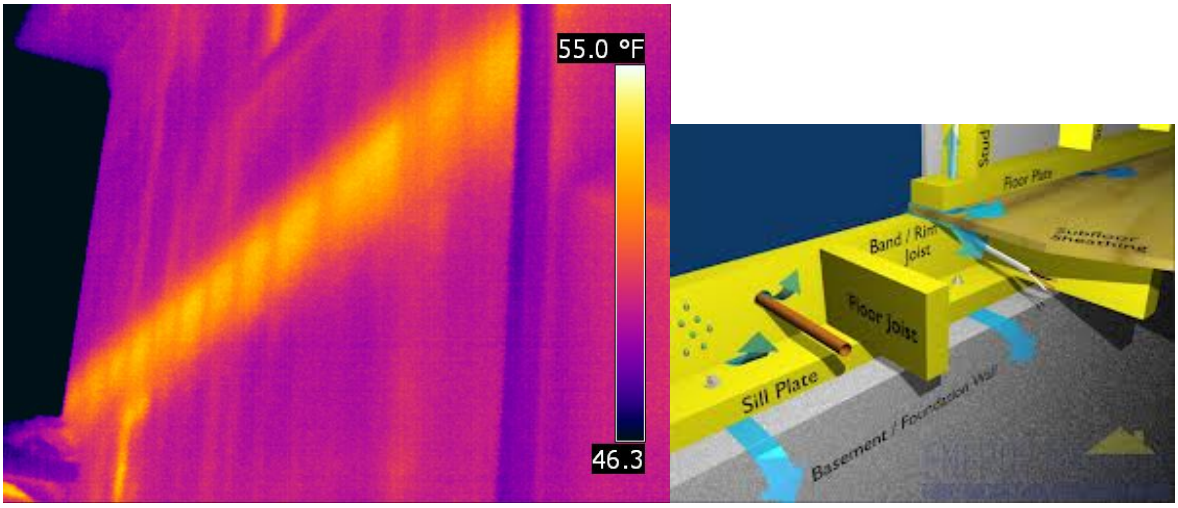
29. Has PSE measured energy savings by insulating RIM joists in residential and non-residential structures? This is likely to be a major cause of peak winter loading. What is PSE's count/estimate of the structures with uninsulated RIM joists? No RIM joist insulation is mentioned in any of the Cadmus Groups works for PSE - why? Cadmus might use a terminology that is not self evident, if so please tell us how uninsulated RIM joists are delineated. Or this info may be reported in non Cadmus documents, if so please identify.

These are huge energy wasters at low temperatures as almost all heating ducts run in those spaces with very little separating those ducts and the outside air. In most cases it is just 1.5 inches of wood and siding. About an R1.6 insulation value, less if air leaks. Most non remodeled homes in Bellevue's Somerset region are like this. The heat lost gradient of this confined space is ~50F higher than room temp, making it a major if not the major energy loss of most structures. Many of these homes will use electric space heaters to heat just a portion of the house on cold days to save $$ and driving electric peak load and unneeded infrastructure/pollution. **<u>There are large number of "Humvee houses" who will do this fix on their nickel if informed.</u>**



How to massively & cost effectively reduce the Eastside PEAK load

[18] http://pse.com/aboutpse/EnergySupply/Documents/IRP_2013_AppN.pdf



Above is a two story home on a typical Bellevue day of 46 degF

30. If a statistically valid survey is not available for the Eastside and the broader area for uninsulated RIM joists, then can PSE provide a count of pre 1980 (or prior to the date which code enforcement changed) of one, two and three story residential structures and what percent the residential is of total structures? Also, what is the count/survey of insulated vs uninsulated heating ducts?

31. Can PSE's Geographical Information System/data system(s) (or contractor, OnPower, Cadmus etc) map the above counts' addresses to income brackets? At the house level (high energy bill with high income)? If not, why? Any legal code restricting? If so please note. If restricted, will you turn this over this info to city officials? **This data is needed to prompt the large number of "Humvee houses" who will fix their uninsulated RIM joist on their nickel if informed.** If the reason was cost what was the dataset quote cost for income per address by which data bureau? Can PSE provide a data set of home addresses per grouping, 1 story, 2 story, 3 story (all per income bracket)? We do not need the actual data at this time but might require it if RIM joist prove to be the cost effective solution.

32. Please provide a count of when structures on the Eastside were originally built per year (manufactured, single family, multifamily/commercial) vs **all-time peak** month energy use in spreadsheet form. And again for the last two years of peak winter just for the peak month. This allow us to determine how much waste is built in that can be fixed and verify PSE and contractors assessments.

33. Inefficient heating is likely another major cause of the peak load during the 23°F temperature that PSE is using for its forecasts. Can PSE provide a count (or statistically valid sample, including methodology of how/when they were conducted) of residential homes (manufactured, single, multifamily etc), commercial and industrial with in the eastside and the broader area for the following:

A) Electric heat count at highest granularity you have (furnace, base board etc) and what percent each of these are of the total stock of electrical heating,
B) count of natural gas heat,
C) count of those not electric nor natural gas (i.e. propane, wood burning etc).

D) count of electric water heaters.
E) count of heat pumps (If you have numbers of pure electric heat pumps vs duel fuel that is natural gas backed up that would be excellent)

34. How many pure electric heat pumps (i.e not dual fuel electric and gas) are in PSE's overall area and specifically in the Eastside? Heat pumps are great 90% of the time. BUT on cold days or cool humid days they are very inefficient. On those days they are a major driver of peak load as electric heat pumps convert to pure electric restive heat in the Northwest due to humidity ice-over/lockup from 40°F to 34°F . And while generally not in ice-over/lock up at below 34°F they are generally still switched to pure restive heat by their users at temperatures below freezing. This is why great utilities track their use and effects on peak load and great municipalities require dual fuel heat pumps. PSE's new grid design temperature is 23°F. Attached is a graph from Dept. of Defense's August 2013 Air Source Cold Climate Heat Pump Final Report depicting energy consumption for 12 months [19]. But it is far worst than graphed for 15 to 20 days in Puget Sound due to our humidity. Does PSE agree with this analysis of lockup and actual efficiency under real operational use? If not please detail.

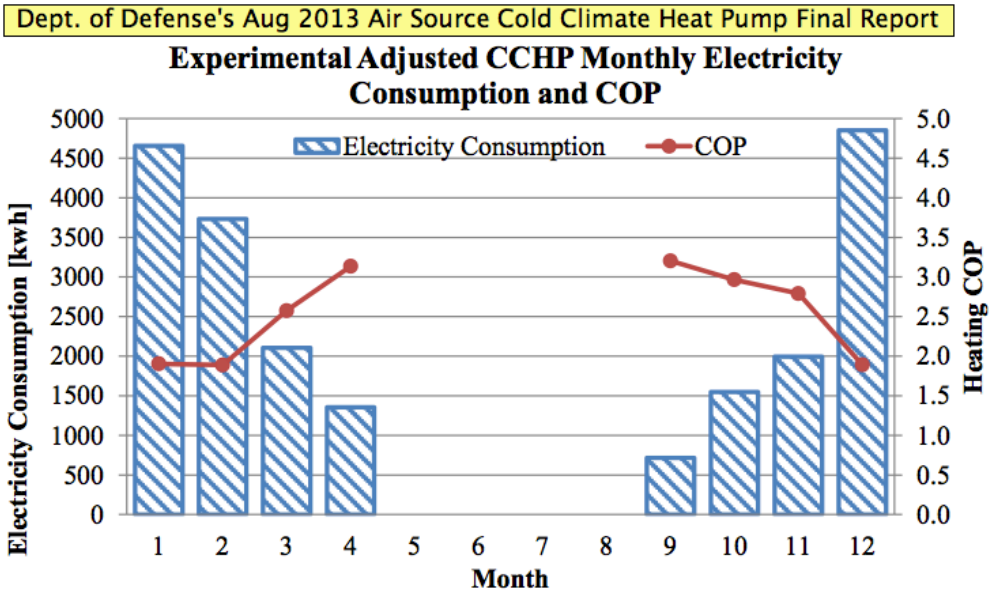


Figure 13. Experimentally adjusted TRNSYS model – monthly CCHP electric consumption and heating COP.

35. Has PSE made a dollar estimate to convert existing electric heat pumps to dual fuel heat pumps? What is the estimated peak load reduction for converting these residential and commercial heating devices? Lets say we convert/replace 5000 electric only heat pumps to dual fuel. Assuming a 5kW coil, (many have 10 kW coils) then 5000 times 5kW gives 25 MW of peak load reduction at $20 million assuming $4k per fix.

[19] page 37 of 50 DOD.2013Cold Climate Heat PumpEW-201136-CP.pdf http://www.serdp.org/Program-Areas/Energy-and-Water/Energy/Conservation-and-Efficiency/EW-201136/EW-201136/%28language%29/eng-US

36. What financial incentives do regulators provide to PSE to reduce energy consumption? Please detail and provide code and/or regulations supporting.

Draft

The Puget Sound Energy Electric Utility Death Spiral: The Sting that Puget Sound Energy is trying to do to Puget Sound[1]

By Todd Andersen

May 6, 2014

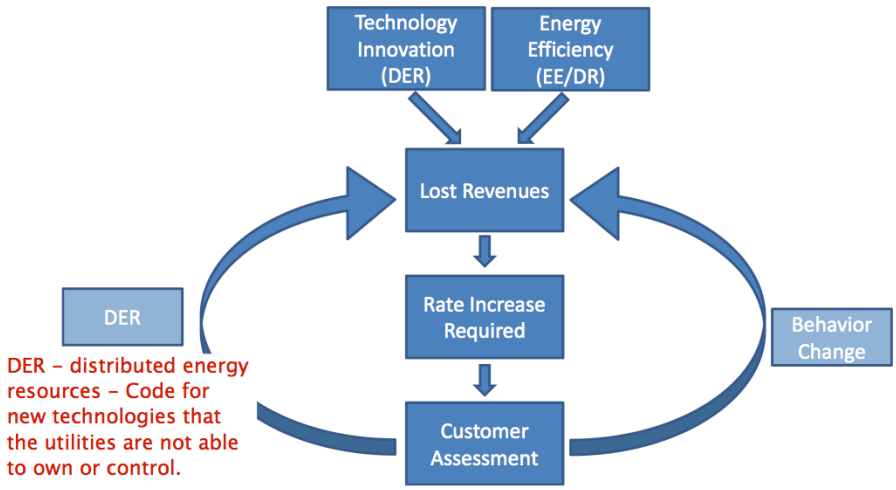
And no one's jamming their transmission
And when their eloquence escapes you
Their logic ties you up and rapes you
De Do Do Do - Lyrics by Sting

Because of the electric utility death spiral, PSE is polluting our environment and scarring our cities economically and visually. What death spiral? Massive waves of change from many new technologies have hit the electric utility industry hard and from many different directions. How bad is it for the electric utilities? Europe's electric utilities were featured in an October 2013 article in *The Economist*[2]. Europe's top 20 energy utilities have lost over half their 2008 value, or a half-trillion Euros—more than Europe's banks lost. With those types of losses starting to hit the US electric utilities, the for-profit ones are going to take some very desperate actions. There are a lot more *Energize PSE's dying business model via the Eastside* coming. Unless our political leaders get very educated and very soon the endgame will be ugly on multiple fronts. Bellevue's best legal reason to delay and later deny is that the Eastside needs to move to a **less vulnerable** distributed energy system with less remote generation that is **cheaper, more reliable, less polluting and in line with City's Comprehensive Plan.**

Do not take my word about the death spiral, take Macquarie's, the managing owner of PSE[3], and the electric utility industry trade association's words. Macquarie is sounding the alarm. Their hand shows in the Edison Electric Institute, (the lobbying group for the utilities) urgent call to action in their 2013 report *Disruptive Challenges: Financial Implications and Strategic Responses to a Changing Retail Electric Business.*[4] The death spiral is detailed with the figure from page 18 of that report.

Disruptive Challenges: Financial Implications and Strategic Responses to a Changing Retail Electric Business

Exhibit 3
Vicious Cycle from Disruptive Forces



The death spiral was slower in the US due to less government push to go to renewables. However, the prices of

[1] Alternative titles: The Latest Technology Road Kill – Puget Sound Energy / The History of How Puget Sound Energy energized the Eastside Public Utility District (CV inspired this title) / How PSE got many Puget Sound Politicians Unelected / The PSE Needs Assessment = a pun on a PSE doc
[2] Oct 12 2014, pg 27, *The Economist*. Full text available online via KCLS.org without figures
[3] www.macquarie.com/mgl/com/us/about/news/2007/20071026
[4] The for-profit electric utility trade association Edison Electric Institute's 2013 report www.eei.org/ourissues/finance/documents/disruptivechallenges.pdf

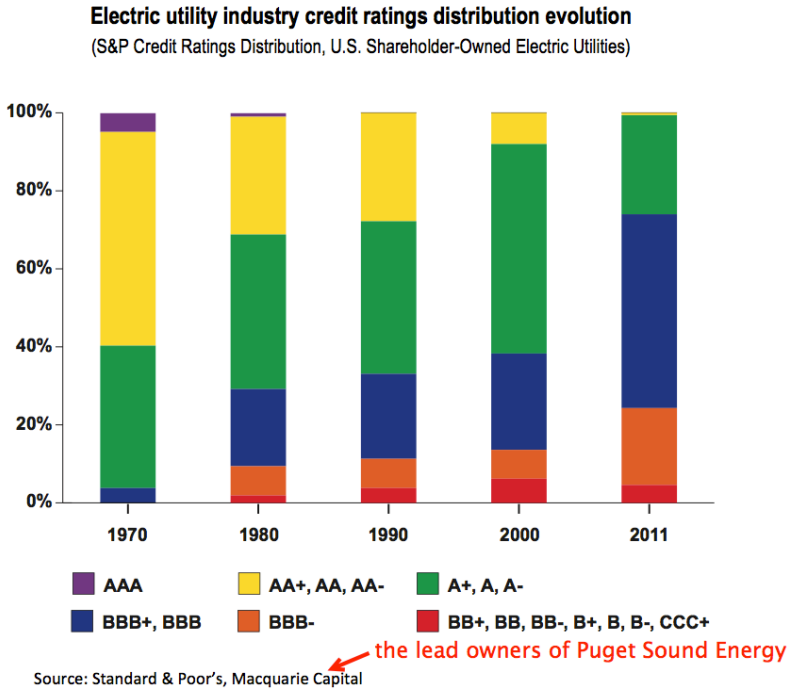
renewables like wind and solar are dropping below coal and "look ma no tax subsidies". Two other significant developments are here. Grid sized storage able to store hundreds of Mega Watts, cheaper than the current PSE method of "peakers"; and co-generation will drop down to homes in cool climates this year or next. Thus Puget Sound will see the collapse of their current electric utility business model faster and harder than it was for their European counterparts.

The report goes on that same page to relate how electric utilities (like PSE) are the RIM Blackberry or the Kodak to many new technologies that are the "iPhone" or digital photography and are about to get crushed. The problem is that PSE is stuck with vacuum tube technology of high power lines and remote generation and cannot monopolize the new technologies. The integrated circuit of distributed generation is here, today.

PSE is hoping to use its government granted monopoly to slam in a $300 a million project, a backup bulk power transmission line to ship power between Canada and California through the Eastside. Why, when the Seattle City Lines line was their first option[5]? Answer - PSE is desperate for any new growth revenue to stave off the death spiral; a choice between new revenue vs none is easy. This allows PSE to cheaply (to PSE shareholders only) gain bulk power transmission revenue as its government granted monopoly doesn't require it to pay for lost property values, increase costs, industrial plight and the pollution that vacuum-tube projects keep alive. And best of all can it stick the rate payer with the bill all the while tacking on its 10% profit.

The Macquarie is clearly quite concerned about the future of PSE, which they purchased in 2007. Macquarie's investment does not have the bright future that it did just 7 years ago! Is this why PSE's political contributions have gone up massively recently[6].

The death spiral really started decades ago with co-generation. This co-generation efficiency has been around for decades and was cost effective only for very large commercial or industrial sites. But its effects could be seen in the collapsing credit quality of the for-profit electric utilities credit ratings, see figure below. This information was thoughtfully prepared with the help of Puget Sound Energy's owners.

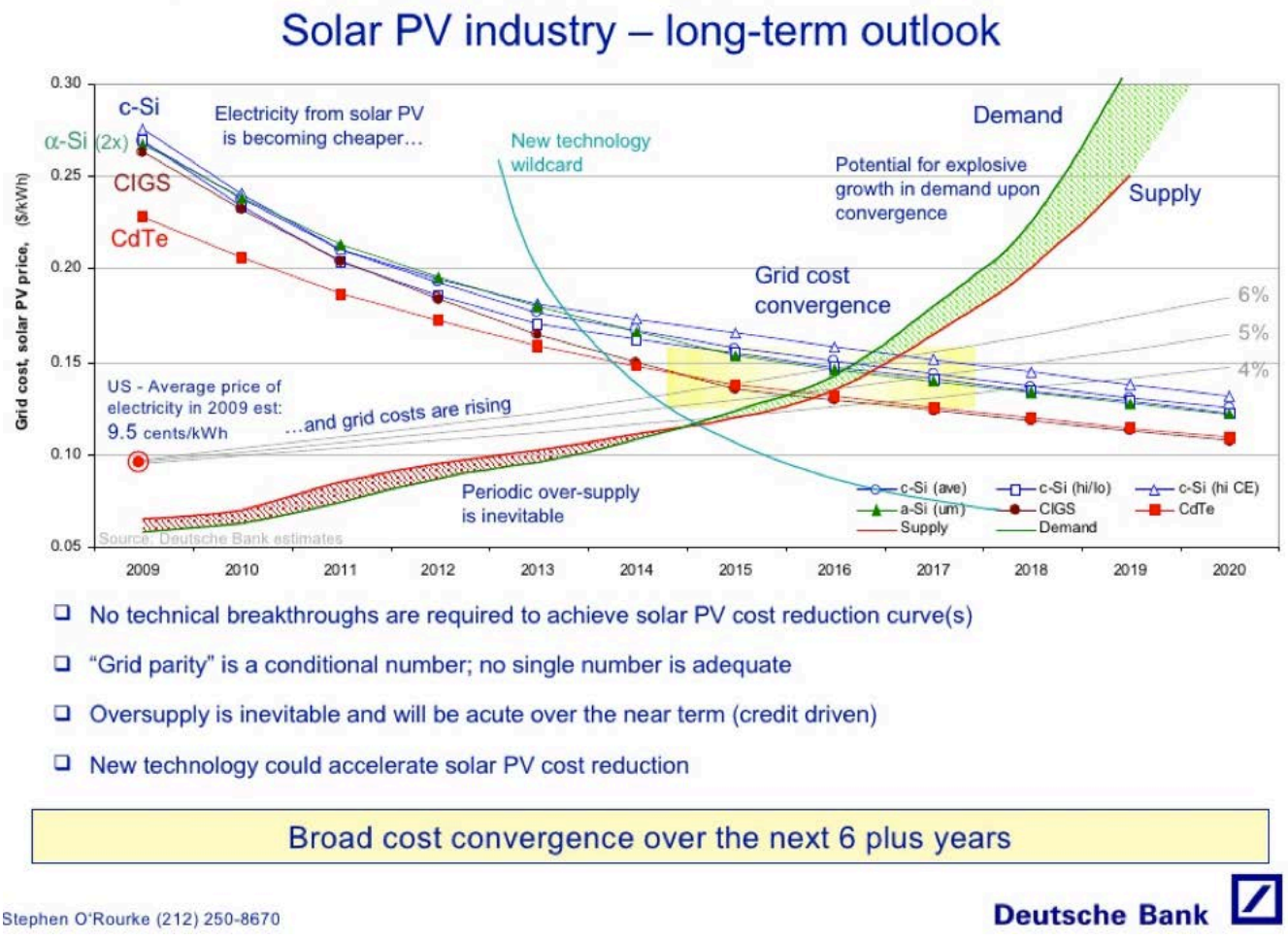


[5] First we have PSE on video saying so. Slides 1, 4 (shows the Seattle City Light lines being the fist choice = Rebuild Bothell – SnoKing) and 12 www.columbiagrid.org/download.cfm?DVID=2168 and page 2 of 5 of www.wecc.biz/committees/StandingCommittees/PCC/TSS/Shared%20Documents/2013%20Annual%20Progress%20Reports/PSE%202013.pdf www.wecc.biz/committees/StandingCommittees/PCC/TSS/Shared%20Documents/Forms/AllItems.aspx

[6] This sounds like a great article for someone to detail.

Now that cost effective co-generation is reaching small business and homes, the death spiral continues. One of the more efficient and cheaper technologies (and thus most hated by PSE) is co-generation from micro-turbines. They generate electricity and with the waste heat used to heat the home and supply hot water for an overall cost cheaper than PSE can. Given that the Puget Sound had 28 times as much heating as cooling this is particularly painful to PSE. Meanwhile the utilities' old generation technologies costs keep climbing not to mention the costs of pollution, which we pay not PSE.

How fast are the new technologies crushing the old ways of generating power? The chart below from Deutsche Bank is quite old in technology terms, April 2009, but it says a lot. The January 2014 report looks even better[7]. Why? The reason is that no technology breakthroughs are required to achieve the solar photo voltaic cost reduction curves. And if any more breakthroughs occur then the price will only fall faster. At 2009 prices Germany bought enough solar that on many days 50% of all electric power in the country comes solely from the sun. This is why the largest utility in Germany E.ON has seen its stock price fall by 75%.[2]



The latest report from Deutsche Bank is titled "*Let the Second Gold Rush Begin*" and things look much better. PSE only choice is to try to figure out how to grab any revenue as they do not own those gold mines nor are they creating any of those new technologies. And PSE, will at all costs, not allow utility grid energy storage to make their way on to PSE grid as that will just open the flood gates of cheaper, cleaner and more reliable distributed energy generation and kill PSE out-of-date business model sooner than otherwise. How will PSE do this this? In a word, disinformation.

How can we know? Easy – if you wade through thousand of pages of PSE documents. Luckily you do not have to. Lets compare the Department of Energy's Sept 2013 report on the game changing energy storage "*National*

[7] www.deutschebank.nl/nl/docs/Solar_-_2014_Outlook_Let_the_Second_Gold_Rush_Begin.pdf

Assessment of Energy Storage for Grid Balancing and Arbitrage[8]" and PSE's 2013 Integrated Resource Plan[9] (IRP) with regard to utility level electrical energy storage. Why should we? The answer is because this makes new distributed technologies of solar, wind and micro co-generation completely effective at supplying Puget Sounds current and future energy needs. These technologies are ready to go now.

PSE's IRP quotes "utility- scale battery storage costs remain above $2,000 per kW with up to four hours of discharge capacity …"[10] But that is just PSE's 2011 bad data for a May 2013 report. Get used to this highly inaccurate and in my belief dishonest data coming from PSE as you will see it detailed many times below. We only have to look to at that same paragraph to know this is "based on PSE's experience with bids submitted in the 2011 RFP…" and "compared to a peaker that has a capital cost of $915 per kw". Note - PSE is getting much more than the correct capitalization of power units wrong, kW not kw. Maybe this part of the IRP was written by the PR team not the technical team? If a utility can store power efficiently, then one of the many benefits is that the need for temporary and expensive power plants goes away. More often than not, the big "peaker" for the Pacific NW is PSE's coal Colstrip plant in Montana.

Is there a source that we can trust? Well some one without a dog in this fight is the US Department of Energy. Their 2013 storage assessment tells a much different story. We see 2011 prices for vanadium redox flow batteries. [11] A MASSIVE to-be business opportunity for those Cities with their act together. Costs for an all inclusive 5-hour system capital were $1111/kW (942-1280/kW)[12] in 2011 with prices expect to fall to as low as $608/kW by 2020. PSE's peaker prices will only climb. PSE's price level for this critical next generation utility infrastructure is off more than 125%.[13] Wow that means for $62 million you can solve the problem that PSE's $300 million dollar bulk transmission line supposedly solves, Eastside power needs. Don't even need the Seattle City Light first choice route detailed below. What a tangled web PSE weaves….. it tells all Puget Sounds residents that PSE is looking out for it shareholders interests at any expense.

How PSE hopes to control its bleeding and at whose costs

The only way PSE can slow its revenue decline is focusing on the transmission line side of the equation. Since all the new technologies are very distributed and not owned by PSE and there is no new business in their existing local business serving the Puget Sound. This is true for both the electric power generation and transmission lines sides. So what is PSE's battle plan? Yeah yeah… the new decoupling law signed in June 2013. Does PSE really think that is going to survive public inspection?

First PSE has to grab any new bulk power transmission, shipping power going to and from Canada to parts south of Puget Sound. In the winter the power flow is to Canada, and six times what the Eastside uses to Oregon and California in the summer. Luckily for PSE the bulk transmission lines from Bonneville Power Authority (BPA) to Canada has a short section that does not have a back up route and if PSE can become that route, there is money to be made. Regardless PSE makes around 10% profit on any infrastructure, whether economical or not.

PSE's second piece of luck is that Seattle City Lights (SCL) is asleep at the switch. Or is it lucky that the relevant senior management that would purse this at SCL is married to a senior manager at PSE that could be out of a job if new revenue is not found? Or, given what is at stake due to the Death Spiral, maybe some other back scratching is going on? Hard to say. But what is easy to say is that PSE's "first choice" is the Seattle City Lights owned lines as we have senior PSE personnel on video saying so besides in docs to the regulating athorities[5]. But gosh darn it "we asked Seattle City Lights, but they have no interest." Note to Seattle rate payers - those SCL lines are currently used by BPA for BPA purposes with no compensation to SCL for the last 15 years or so. Where does BPA send the thank you notes?

[8] http://energyenvironment.pnnl.gov/pdf/National_Assessment_Storage_PHASE_II_vol_2_final.pdf
[9] http://pse.com/aboutpse/EnergySupply/Documents/IRP_2013_Chapters.pdf
[10] Page 107/245 of IRP chap1-7, http://pse.com/aboutpse/EnergySupply/Documents/IRP_2013_Chapters.pdf
[11] (one brand made right here in Mukilteo)
[12] page 7 and 45 of 78, http://energyenvironment.pnnl.gov/pdf/National_Assessment_Storage_PHASE_II_vol_2_final.pdf
[13] if you desize to 4 hour capacity the price is $889/kW, $889k per MW or $62 Million to store the 70 MW peak power PSE claims we are short those two or three days a year.

The third piece of luck for PSE is that the power treaty between the US (Bonneville) and Canada is being renegotiated.[14] Per PSE's *Eastside Needs Assessment Report* the eastside is currently limited to 400MW but plans are to increase that by 200MW.[15] Thus we come to the "*Energize PSE's Profits Via the Eastside*" project, also known by PSE as Energize Eastside. Or is it the Energize Eastside Public Utility District? Time will tell.

But if PSE can sneak in a massive 18 mile power line upgrade past the Eastside Cities then they can slow the death spiral. Not easy and they almost pulled it off. How long has PSE been planning this exact line route? At least as long as 2011, fours years before publishing the February 2014 Screening Study which is listed on the PSE website as the *Non-wires solution analysis*[16]. This is odd as normal system engineering practice is to discount alternatives first BEFORE arriving at the final solution. But when the business side knows the best solution for their shareholders then the *alternatives screening study*[16] including the *Eastside Needs Assessment* are not engineering documents they are critical propaganda pieces. Is that what has happened? That is for the reader to decide.

In order to pull this off, first a good propagandist has to make sure not to show a graph of the historical growth peak power growth pattern going back several decades, not only for PSE total multi county service area and particularly not zoomed in to the Eastside. If they did that rate-payers, politicians and WAUTC[17] would easily be able to see the truth. Ok – done, none of that in the *Eastside Needs Assessment.* Lucky for us that PSE shared some of that data historical with utility grid "regulators". But before we show that let us look first at what PSE defines as the problem.

Here is where the propagandist's bad luck starts. Some people read the details. Below are two PSE charts from the same PSE document, *The Eastside Needs Assessment* mentioned above. There are many false and miss leading things about those charts. But my hat is off to the PR department at PSE for the highly effective use of disinformation. Edward Bernays, the father of the modern corporate PR industry would be proud. PSE's effort deserves a chapter in his 1955 classic *Engineering of Consent.* While PSE's results are not as high on the evil scale as others who have used Bernays' work[18], they are much higher than people currently understand. Now if one reads carefully one has all the information they need to know that PSE should be barred from planning Puget Sound's energy future.

First the below two graphs which chart the same peak winter loads, do not even match, they are off by 300 MegaWatts (MW) with pg 9 at 5100 MW and pg 30 at ~4800 MW. This is PSE foundation used to build a $300 million power line? PSE says we are only short 70 MW to delaying this project by four years[19]. Well there PSE we found 300 MW peak power, should be good for two decades, right?

---

[14] abc news et al. The decade or so renewal of the treaty is expected to be completed sometime in 2014. PSE moves in advance are death spiral related.

[15] pages 71 and 72 http://energizeeastside.com/Media/Default/Library/Reports/Eastside_Needs_Assessment_Final_Draft_10-31-2013v2%20REDACTED%20R1.pdf

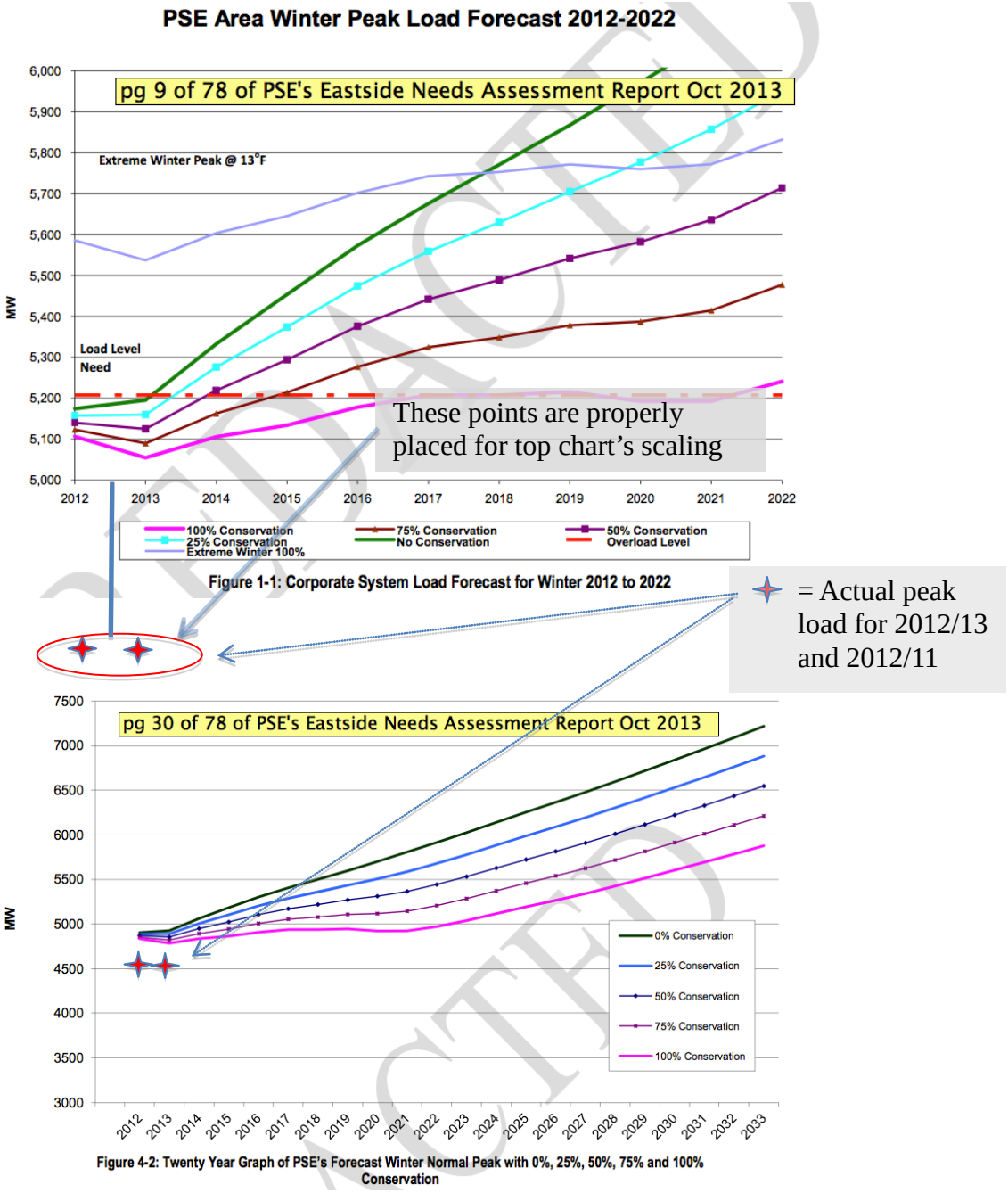
[16] www.energizeeastside.com/Media/Default/Library/Reports/PSE Screening Study February 2014.pdf

[17] Their only power is to allow construction costs to be passed on to the rate payer, they can not stop construction of unneeded lines.

[18] In his 1965 autobiography, Bernays recalls a dinner at his home in 1933 where:

> Karl von Wiegand, foreign correspondent of the Hearst newspapers, an old hand at interpreting Europe and just returned from Germany, was telling us about Goebbels and his propaganda plans to consolidate Nazi power. Goebbels had shown Wiegand his propaganda library, the best Wiegand had ever seen. Goebbels, said Wiegand, was using my book *Crystallizing Public Opinion* as a basis for his destructive campaign against the Jews of Germany. This shocked me.... Obviously the attack on the Jews of Germany was no emotional outburst of the Nazis, but a deliberate, planned campaign. (Bernayes fakes shock, he killed millions through his direct actions, just read the words of his own daughter)

[19] Pages 6, 7 and 8 of PSE Screening Study February 2014.pdf see footnote XXXX above



Another observation of PSE's incoherent and incompetent forecast of peak load growth is that it is flat for seven years then magically takes off at a 80 MW/year[20] Really? Oh, sorry I forgot, it is not an engineering document, rather an *Engineering Consent* document. But wait it get worse. Notice the word 'Forecast' in these charts. Forecasts can be <u>pure fiction</u> or could be based on historical trends combined with estimated future needs. Regardless they are not fact. In PSE's case, it is fiction or complete incompetence. Could it be fraud? Peter Drucker used to say "only predict what has already happened". Well PSE is not even competent to do that. Why does PSE need to a forecast number for the 2012/13 winter peak when this report was published on October 2013? The real number was available for 9 months and 21 months for 2011/12. How bad is PSE misrepresenting the truth? PSE must have published the real facts somewhere and indeed, a bit of googling, and you find the chart below[21].

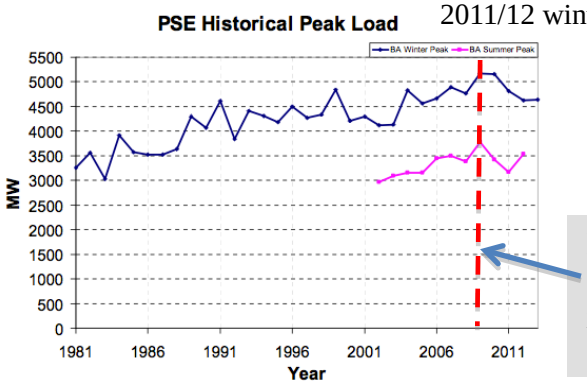
[20] The math is 5800-5000= 800 800/10 = 80 MW/year

[21] Slide 22 from PSE's Network and Joint Operating Committee Meetings June 13, 2013 www.oatioasis.com/PSEI/PSEIdocs/PSE_Att_K_Cust_Mtg_2013_6-13-13.pdf

PSE Load Growth

- 2012/13 Winter Peak: 4632 MW @ 29°F
- All-time Winter Peak: 5166 MW @ 25°F in 2008/09
- 2012 Summer Peak: 3541 MW @ 74°F
- All-time Summer Peak: 3774 MW @ 100°F in 2009

2011/12 winter was 4631MW @ 27 F



PSE's Electric Customer Count: More than 1 million

I-937 passed in Nov 2006 Code RCW19.285 goes into effect 2008 requiring cost effective conservation.

22

This chart is from PSE Network and Joint Operating Committee Meetings on **June 13, 2013**. From the above chart we know the actual peak electrical power used in 2013/13 winter was 4632MW. Why did PSE not just start with the facts? Could it be that if PSE showed these facts in the documents used to justify the new power lines then it would raise many more questions than answer? And that would undoubtedly end the *Energize PSE's Profits via the Eastside Project.*™ One can see the 534 MW drop in power usage from 2008/09 all time winter peak of 5166 MW to the last published winter peak which is 2012/13. Some might say it was really cold in 2008/09 at 25°F while the 2011/12 was at 27°F peak load was only 4631 MW. Why the drop? All temperature?

If it was mostly temperature then that calculation would have to be a blended and weighted by load across the total service area for both wind and temperature. Maybe PSE is that sophisticated but given their sophistication demonstrated so far I doubt it. The displayed temperature is likely just PR driven as they would need at least 3 digits to be relevant. The most likely cause of the 534 MW power drop is due to "conservation" measures that PSE is in charge of implementing. See RCW 19.285 being enforced in 2008 after I-937 passing in November 2006 in the real peak loading chart. The quotations are used because, by any engineering measure, they are very unproductive and wasteful conservation measures, more of a PR program. But you might have been able to guess that given Andy Wappler, VP for Corporate Affairs, Puget Sound Energy's PR department, was introduced at PSE community outreach meetings as being in charge of PSE's Conservation programs. But that is a whole other up coming article with the Sierra Club and others weighing in. <u>Until then see the conservation section below</u>.

Why do PSE's power lines take vacations in the summer?

The below graph is out right comical.[22] Per PSE the "*summer level of need is approximately 3340 MW*". Notice how carefully worded that is. PSE wants you to assume that the level is NOT already met and ignore the fact that those same lines shipped 5166 MW in the winter. How many have wrongly made the assumption that PSE wants? Is it the summer heat driving those line reductions? Or the heat from six times more power than the Eastside uses flowing from Canada towards California? While the Eastside only uses 552 MW, Canada ships 2850 MW through the Eastside to towards California with an additional 200 MW planned bringing the total to 3050 MW[23]

[22] Pages 9 and 10 from http://energizeeastside.com/Media/Default/Library/Reports/Eastside_Needs_Assessment_Final_Draft_10-31-2013v2%20REDACTED%20R1.pdf

[23] Page 44 and 72 of above Eastside_Needs_Assessment_Final_Draft_10-31-2013v2%20REDACTED%20R1.pdf

PSE Area Summer Peak Load Forecast for 2012-2022

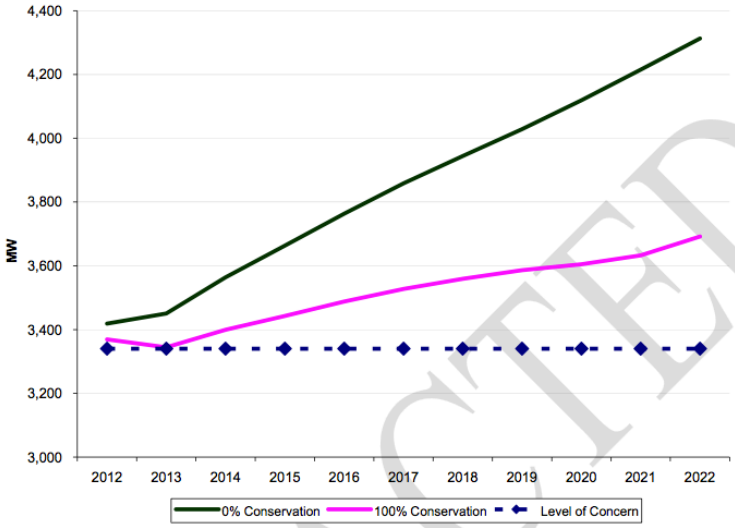


Figure 1-2: Corporate Load Forecast for Summer Peak from 2012 to 2022

Instead of putting in a historical load chart in the supposedly ***Eastside*** *Needs Assessment* document for the Eastside they put in a chart detailing the amount of supposed conservation savings in the nine counties PSE serves.[24] Why is conservation in the various counties relevant? The document is about the Eastside supposedly being out of grid capacity. Maybe PSE is trying to distract the vast majority of readers which are non technical. Maybe PSE is hoping people will miss that PSE did not provide any information on historical load growth for the Eastside in the documents they are using to justify at $300 million dollar line expansion. Maybe they have it buried in the appendix Z-4123 of some filing but this author has not been able to find it.

> Missing historical peak load growth for the Eastside going back two decades goes here – why is it that PSE refuses to provide these facts?
>
> Does it destroy PSE's Story?

Multiple engineers asked for it in the many North, Central and South PSE controlled public meetings but we have yet to see PSE respond. Why is this the first question that engineers ask? Because it is the foundation of starting to justify any need. It is highly likely that this historical data destroys PSE's story. When you read the electric utility lobbying group detailing the electric utility death spiral you start to understand why.

The below graph shows what the Eastside load growth should look like laid on top of what PSE wants you to believe[25]. Do you find it hard to believe that electric power on the grid can go down? Consider that on some days in Germany more that 50% of all electric power comes from solar. As micro co-generation (co-heat-power) becomes cost effective this year or the next, there will be cliff-like drops in grid loading like that shown for

[24] Page 29 of above
[25] page 31 of 78 of above Eastside_Needs_Assessment_Final_Draft_10-31-2013v2%20REDACTED%20R1.pdf

installing grid storage. Local Eastside power consumption may go up <u>but the grid loading will go down if PSE</u> (or the Eastside Public Utility District) does the right thing. The capital cost of putting on 50 MW of grid storage, according to US Department of Energy, is just $44.5 million, about seven times cheaper than PSE proposed industrial plight.[26] That is all that is needed to cover the Eastside until micro co-generation starts to become widely installed on the Eastside.

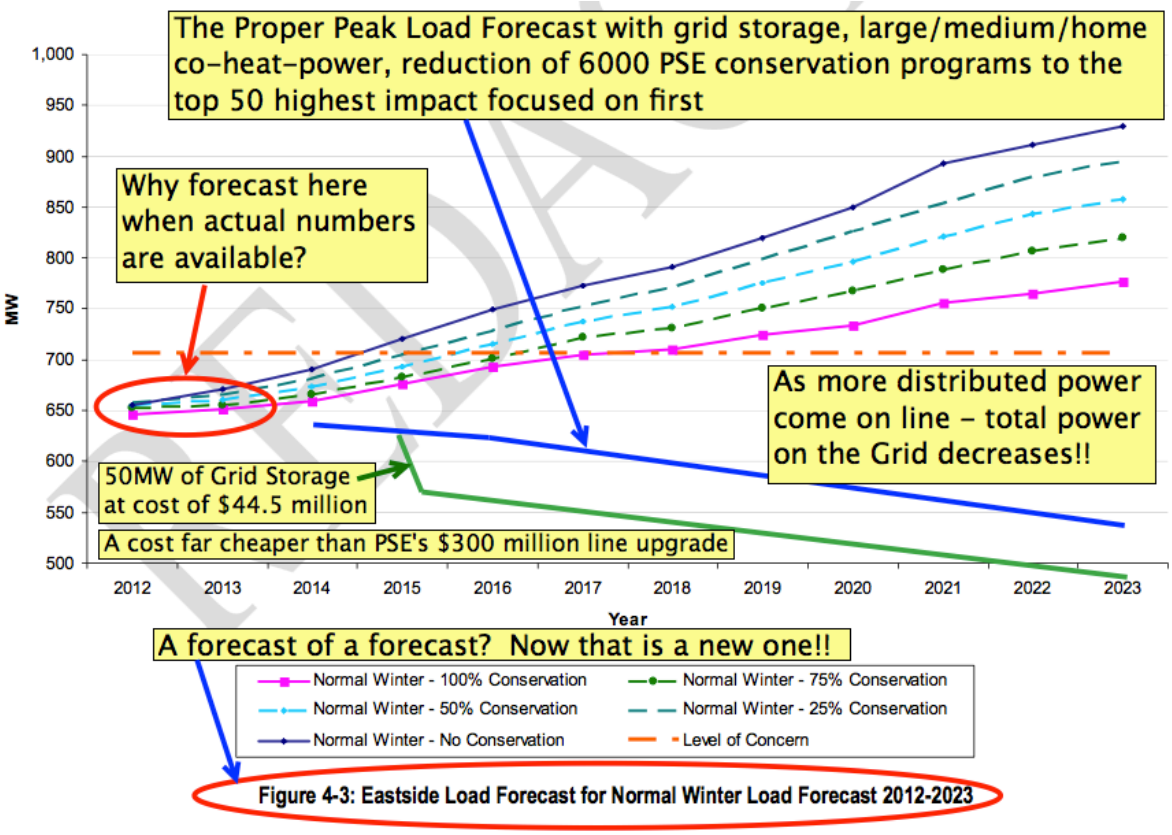


Figure 4-3: Eastside Load Forecast for Normal Winter Load Forecast 2012-2023

And just as when PSE displayed their system wide peak load growth, PSE has the reality distortion fields on full blast for the Eastside peak load forecast. First they have mislabeled the figure above, calling it "Eastside Load Forecast for Normal Winter Load Forecast". Huh? It should be 'Eastside **Peak** Winter load Forecast". And again, why is PSE forecasting the past peak load when the real numbers are available! That is what an honest engineer analyzing the system requirements would display.

Still do not believe grid power for the eastside should be going down. PSE estimates that only 33% of residential light sockets are compact florescence lights after accounting for PSE's conservation program activity[27]. (hmm… they say the regional average is just 10% for residential, and no mention of commercial or industrial) Ok, just go with PSE's numbers and look at the PSE's 2012 Annual Report of Energy Conservation [28] There one finds they funded the replacement of 4.44 million incandescent bulb Compact Florescent Lights. If the next 4.44 million are LED which are now cheaper than CFL and more efficient you get 223 MW for cost of $31 million retail. If only 10% are on at during peak load time you get a saving of 22 MW. We could get a much more exact total potential if PSE would make its 2010 Residential Characteristic Survey (RCS) publically available.

Still not believing? Heat pumps are great 98% of the time. BUT on cold days they are a/the major driver of peak load due to the massive energy draws at peak winter loads. Electric heat pumps convert to pure electric restive

[26] At $889/kW or $44.5 Million to store 50 MW peak power for 4 hours which was time mentioned in PSE's 2013 IRP pgs 107/245 of IRP chap1-7.
[27] Page 15 of 353 IRP N
[28] page100/256 May 2013 filing *2012 Annual Report of Energy Conservation Accomplishments* required by RCW 19.285.070 and W AC 480-109-040. http://pse.com/savingsandenergycenter/About/Documents/PSE%202013%20RCW%2019.285%20Conservation%20Report.pdf

heat in the Northwest due to humidity lockup from 40°F to 34°F and also switch to pure restive heat at temperatures that are the peak winter loads. Is this why great utilities track their use and effects on peak load and require dual fuel heat pumps? PSE's new grid design temperature is 23°F. A graph from Dept. of Defense's August 2013 Air Source Cold Climate Heat Pump Final Report says a lot[29]. But it is far worst than graphed for 5 to 10 days in Puget Sound. When it gets below say 30°F most PSE customers force the heat pump into pure electric heat if the heat pump is not already there. Lets say we convert/replace 5000 electric only heat pumps to dual fuel. Assuming a 5kW coil, (many have 10 kW coils) then 5000 times 5kW gives 25 MW of peak load reduction at $20 million assuming $4k per fix. PSE shareholders love electric only heat pumps but the rate payers do not nor does the environment.

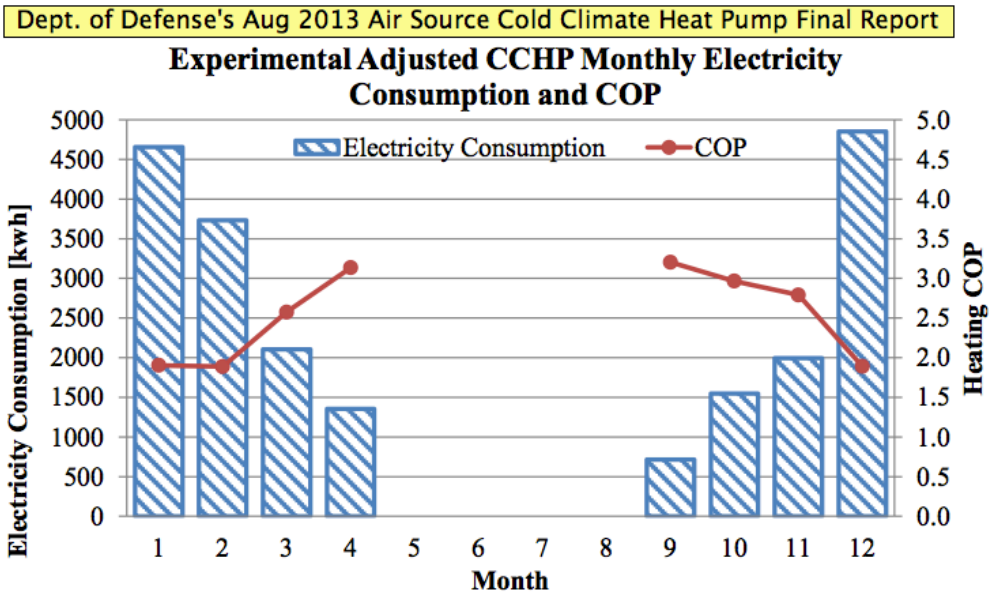


Figure 13. Experimentally adjusted TRNSYS model – monthly CCHP electric consumption and heating COP.

An Important Detour into PSE's Conservation:

Why is PSE distracting the reader with their various levels of conservation being achieved across countries[24]? This is a classic technique that the father of the modern PR industry Edward Bernays, employed and for which he learned from is uncle Sigmund Freud. But if one looks past the *Propaganda* (also the title Bernays' 1928 classic book) and the *Engineering of Consent* (also the title Bernays'1955 classic book) one arrives at facts. PSE's running of conservation programs will get detailed in an coming article but suffice it say that PSE is using 6000 conservation measures. Yes it is true, you cannot make this stuff up, just check the reference.[30] Many of those include the likes of rebates for the efficient fireplace[31] or the $600 dollar rebates electric car charger[32] to mention just a two. Whose boot do we apply to who at the Sierra Club? Or are there board members at the Sierra Club from PSE? At least one environmental group, the NW Energy Coalition, is starting to wake up. On April 7, 2014 they protested these wasteful tactics by PSE.[32] This rebate and thousands of other insignificantly reduce peak winter loading which is at the very cold temperatures. This drives very expensive grid system expansion, which PSE's owners love. This is the main reason giving PSE the continued license to burn coal and other expensive, wasteful and polluting "peakers". Kill the peak load, which may only occur for 1% time and put on grid storage, and you will kill coal and end up with a far cheaper and environmental friendly electric

[29] page 37 of 50 DOD.2013Cold Climate Heat PumpEW-201136-CP.pdf http://www.serdp.org/Program-Areas/Energy-and-Water/Energy/Conservation-and-Efficiency/EW-201136/EW-201136/%28language%29/eng-US

[30] Page 25 of 353 PSE Integrated Resource Plan 2013 appendix N which PSE is required to file with the WAUTC. However they only do it in a dozen paper copies, over 1000 gages each, no electronic ones. For those you have to get from PSE directly. Hmm I wonder if the paper and electronic ones on PSE's site match, they should. http://pse.com/aboutpse/EnergySupply/Documents/IRP_2013_AppN.pdf

[31] page 117 of 256 , http://pse.com/savingsandenergycenter/About/Documents/PSE%202013%20RCW%2019.285%20Conservation%20Report.pdf

[32] www.wutc.wa.gov/rms2.nsf/frm2005VwDSWeb!OpenForm&vw2005L1DktSh=131585-Documents&NAV999999

infrastructure.

PSE does not want real effective conservation as it just accelerates the death spiral that PSE's owner Macquarie helps to detail in the 2013 report *Disruptive Challenges: Financial Implications and Strategic Responses to a Changing Retail Electric Business.* What if we fixed the thousands of uninsulated RIM joists? Or used dual fuel heat pumps? Where are those numbers? Interesting that utilities serious about conservation track those numbers

Macquarie does not want the optimized conservation as it destroys their investment in PSE. PSE is most interested in moving 6 times more power that the Eastside needs through the Eastside toward California. PSE will keep conservation from shutting down its dirty coal, ruin Eastside property values and plaster 18 miles of industrial plight to serve its foreign shareholders. Unless we stop them. While politician are pondering their political future allowing such a plan to go through they might want to consider the alternative job growth scenarios which would be a big vote getter. While PSE ships roughly one third of a billion dollars in profits from the Puget Sound every year it is worthwhile considering what if that profit stayed here? And a whole lot more came here?

What if the Eastside bought out PSE as is our right and focuses on fostering new technology? Companies like UniEnergy Technologies, right here in Mukilteo, that builds utility grid sized storage batteries. They spun out from the Dept of Energy. Being on the ground floor of that massive new business wave seems like a much better deal that PSE is offering. PSE offers a one time build with most of the money going to specialized out-of-state contractors and on a going profit drain out of Washington of approximately $330 million per year. Add on top of that the 18 miles industrial plight, even seen from Bellevue City Hall, as well as the pollution a $300 million dollar power line would lock in for decades if not a century. The more positive alternative is on-going technology and manufacturing jobs that a state-of-the-art public utility district would provide, all the while fostering local companies providing key technology infrastructure to the new utility industry gold rush world wide. The new "utility grid storage Boeing" headquartered on the eastside. Or the politicians can decide to hitch their wagon to Pudget Sound Energy's utility death spiral.

The other question for politicians is how are they going to deal with PSE's monetary and other contribution to their campaigns? Will they be able to explain why they took donations from a monopoly who recently increase it political donations about 10 fold. It is clear PSE does not have the residents of Puget Sound best interests at heart not mention those of the Eastside.

Stay tuned for an exposé on PSE's so called "conservation measures". Will Bellevue be forced to rename its developing business *Spring District* to the *Silent Spring District* and at a higher cost than a clean one? With the help of the Sierra Club and others, we hope to detail just how many times Rachel Carson is turning over in her grave.

The birth of the Eastside Electric Public Utility?

The dozens of other inaccuracies by PSE, many detailed above, raises the question - Is PSE is the right company to partner with for the Eastside's electrical energy needs? Given the sea change of infrastructure technologies upon us, now is the time to put that question on the table. Half of PSE's electrical assets are worthless, the buyout for the total electric side would be about 5% of what PSE paid for all. And roughly $200 million in electrical profits that PSE ships out of the Eastside yearly would stay right here. A massive economic boost. PSE's behavior through out the entire "Energize Eastside" requires questioning everything PSE and related contractors say.

And after getting further educated it is easy to see the non-PSE electric alternative sets the stage for an even more diversified high tech Eastside economy in the new energy infrastructure technologies.

If our political leaders get very educated and very soon we are going to be able to out maneuver other areas to have this gold rush and the new energy Boeing headquartered here. Bellevue could be known as the world class

city with the world class energy infrastructure: the cheapest the cleanest and the prettiest, cleaning Europe's solar powered clocks. We already have the name "Beautiful View." Whatever metro area wins this space is going to be very large employer of both blue and white collar high jobs. The technologies like utility grid storage and micro co-generation are even going to allow Bellevue to remove high power lines. Hopefully we can make that all happen here.

Subject: Todd Andersen's EIS Scoping submission for the Energize Eastside project
From: Todd Andersen <todd@matadortech.com>
Date: 6/15/2015 2:21 PM
To: scoping@energizeeastsideeis.org

To the EIS Scoping Team regarding Energize Eastside:

Please find my letter, along with a marked up version and mostly unmarked version of PSE's partically redacted "Eastside Needs Assessment Report Transmission System, King County" report. This version of PSE's report is not as obfuscated as the one on PSE's website since Feb 2014 and clearly show this is a Bonneville Power project in disguise which requires a NEPA review not a SEPA. The hydro power operations and power flow across international borders effecting the endangered listed Salish Orca (aka Southern Resident Orca) also require EE to be a NEPA process.

The letter and all the attachments are submitted for inclusion in the EIS scoping public comments record.

Acknowledgement of receipt will be appreciated.

Sincerely,
Todd Andersen
4419 138th Ave SE Bellevue WA.

Attachments:

EIS Email - NEPA and ScopingToddA.pdf	4.1 MB
Eastside 81pgNeeds Assessment Oct2013 REDACTEDveryFewNotes.pdf	3.0 MB
Eastside 81pgNeeds Assessment Oct2013 REDACTEDNotesAsofJun14.2015.pdf	3.6 MB

Date: June 14, 2015
Email Subject: Energize Eastside EIS - Scoping input and requirement for use of NEPA vs SEPA
To: City Manager and Council
From: Todd Andersen, Jennifer Steinman 4419 138th Ave SE, Bellevue WA 98006

My feedback on scoping comes in three areas. These are summarized below, with supporting details following.

1. UNANSWERED CENSE QUESTIONS
   While I was initially encouraged that Bellevue was acting in the best interest of its citizens by approving the "Independent Technical Analysis of Energize Eastside, April 29, 2015 by Utility System Efficiency, Inc.", I am deeply disappointed that we have wasted more taxpayer money on a study that failed to answer the fundamental questions many of the citizens of Bellevue have been asking. These questions and incongruities were recapped in CENSE.org's response "Cense rejects U.S.E's report on Eastside Energy, May 4, 2015."

   Most importantly, an independent load forecast was not created based on more realistic parameters for demand/growth, local generation, energy savings and trends, and north-south transfer. It is critical these questions be carried forward into the input and scope of the EIS. Without this, the entire EIS is based on a shaky foundation that doesn't have community support.

2. FEDERAL / NEPA RULES
   It's clear from reading Bonneville Power Administration(BPA), Seattle City Lights(SCL) and Columbia Grid consortium (BPA, SCL, PSE) documentation that we can't consider Energize Eastside (EE) as an independent or local project to be governed by SEPA. BPA, a federal agency, is the driver of this, and as EE is a subset of a federal effort and should fall within Federal / NEPA jurisdiction. Columbia Grid documents clearly show EE is only one possible way to address North-South Transfer Reliability and is only part of the broader picture of the grid /bulk power planning spanning Canada, Pacific Northwest, California.

   Also, the majority of power and energy sent over the proposed lines are from hydro operations both in the US and Canadian, and for some of the cases conditions PSE/BPA/ColumbiaGrid are using for justification of EnergizeEastside(EE) ALL power/energy are from hydro operations. Hydro operations are specifically called out in the US government's 10 year review of threat to the Salish orca (a.k.a Southern Resident Orca) listed as an endangered species

   As such, the EIS for EE should clearly be governed under NEPA / Federal guidelines and possibly be expanded to look at the broader Columbia Grid plans. Legal challenges arise when large-scale projects are broken up into smaller projects to avoid federal oversight.

It is my understanding that under NEPA (versus SEPA), the scoping impact would primarily mean EE would need to be evaluated in the context of the regional strategy as a whole and alternatives would need to be considered more broadly.

- Under NEPA, more comprehensive inclusion of the impacts should be weighted including the evaluation of the impact of international endangered species, the risk of massive build out on top of an aging gas pipeline that already sits on fault line (when an safer alternative exists with SCL), and degradation of property values in cost calculations.
- Under NEPA, broader consideration should be given to alternatives such as SCL (Maple-Valley SnoKing) improvements/re-conductoring to support N-S Transfer or alternatives for balancing peak loads with PSE. Today, the only alternatives being promoted by PSE are minor route permutations.

3. ALTERNATIVE SOLUTIONS
   Please make sure a thorough analysis of demand side reductions are not only investigated but as stated before, factored into the demand forecast. These solutions are key to why cities keep growing but their traditional energy needs do not.
   a. Grid Batteries to manage peak load
   b. Solar Power for continual cost reduction
   c. Geothermal as cost effective alternative
   d. Building Materials (e.g. LED Bulbs, Canada/UK Window Standards vs California)

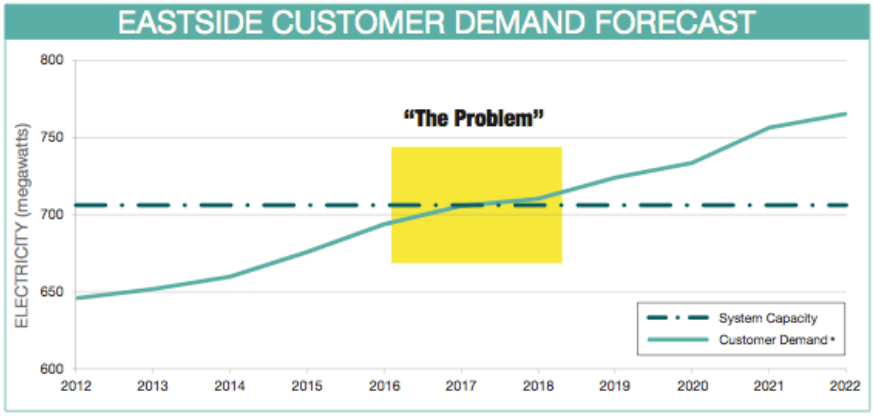
Under the guise of EE, BPA benefits as their reliability challenges are solved by PSE despite more cost effective solutions being available, PSE can charge higher rates with a 40-year guarantee of profits on their investment, and PSE customers (who already pay 28% higher rates than those served by cooperatives, municipalities or public utility districts) will bear the burden, not only of higher costs but also the negative impact to their neighborhoods.

Lastly, I wanted to make you aware of two “off-the-record” comments that I have heard in recent months that highlight the possible collusion that goes on within these organizations – the City of Bellevue, PSE, BPA. These are the types of comments that erode public confidence.

- Hardev Juj – formerly with SCL & PSE, is VP or Transition Planning and Asset Management at BPA. He actually made the comment that EE is largely to serve BPAs needs and BPA would be swapping costs on other projects. Seems Mr. Juj expectantly retired from BPA this month and this author finds that very odd. As BPA is a federal agency, which BPA itself is/was under several federal sanctions for misbehavior, EE should be a NEPA supervised project.
- Nicolas Matz – City of Bellevue Senior Planner. I commented that EE’s need is about keeping PSE (a Bellevue company) solvent. Nicholas’ response was “that was a need as well”. Given PSE’s rates per NEEA are 28% higher than all other utilities in WA maybe that is not a need as clearly public utilities are better run for the ratepayers.

SUPPORTING MATERIAL

1. UNANSWERED CENSE QUESTIONS – The biggest unanswered question has to do with the supply / demand forecast. PSE states demand will exceed supply in 2017 based on the chart below, but there are many issues with their analysis that remain unanswered. An independent forecast was requested but not completed.

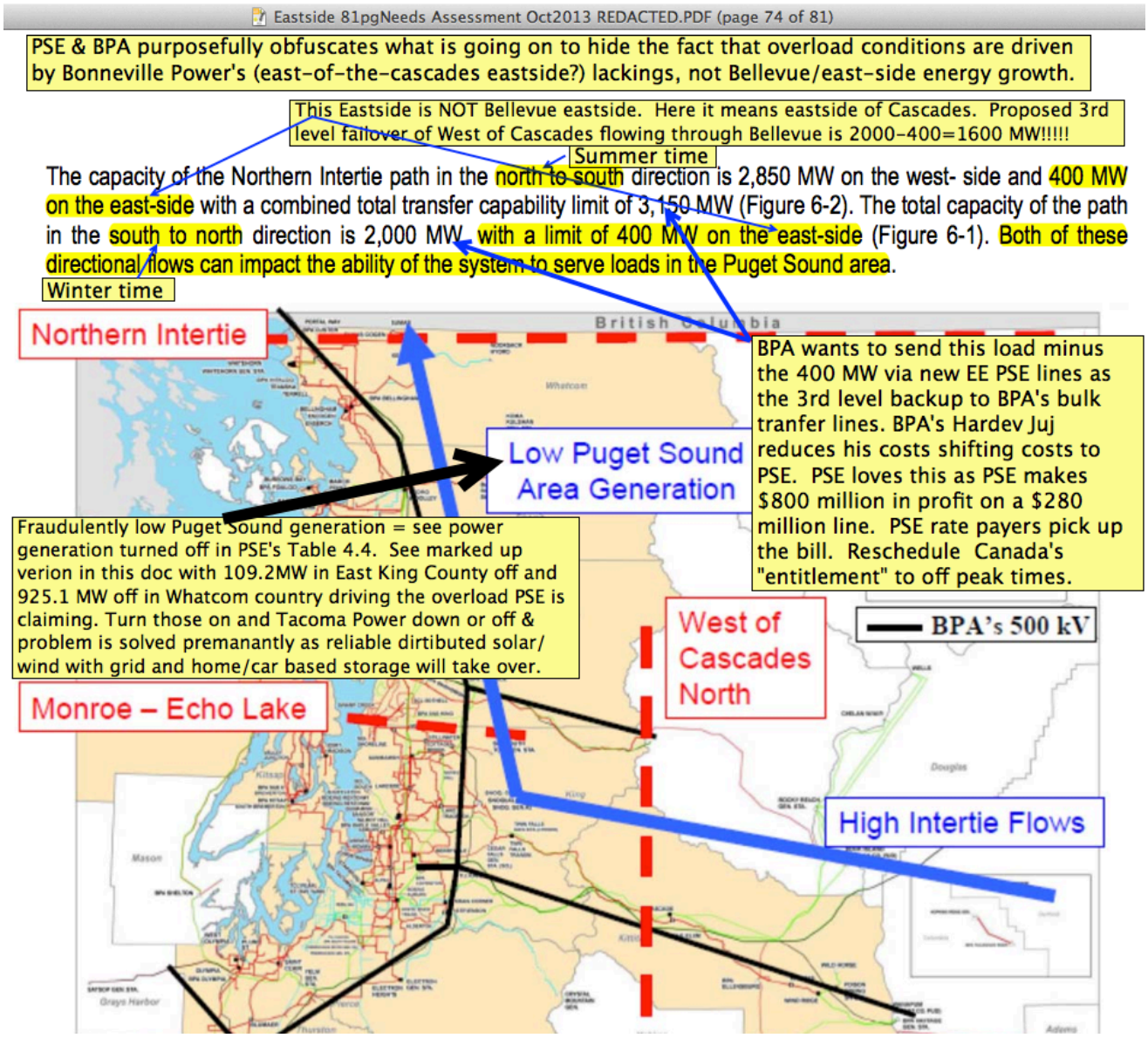


*Customer Demand assumes 100% of conservation goals are set.

This charts shows customer demand with 100% conservation goals met compared to our current electric transmission system's capacity. By 2017-2018, demand will exceed our ability to provide dependable power.

www.pse.com/energizeeastside 2

1. The next series of charts comes directly from PSE's own documentation "Eastside Needs Assessment Report – Transmission System – King County, October 2013".
    i. Since its original publication, PSE has redacted (hidden) the details behind their assumptions posted on their website, however, I downloaded a copy before they hid the few facts they show, so can highlight specific questions. Comments in yellow.
    ii. This first chart is an overview that explains the high-level flow of the Northern Intertie path.



2. This second chart below shows the Puget Sound Generation Capability that was "used" in the PSE modeling. This is a key input into their model and will be discussed below.

change.

These are schedulable with flexible timetable and not required to happen during peak system loads. And could go away completely depending of Columbia River Treaty renewal/cancelation in 2015/16. Why is PSE/BPA hiding this?

4.1.8 Transfer Levels

The NI (Northern Intertie) flows were assumed based on season and historic flows; Winter Peak NI-1500 MW S-N and Summer Peak NI-2850 MW N-S.

Why is Tocoma Power left off table 4.4? Is it not a generator? Does adding it raise too many questions? It took careful cherry picking to get those WECC computer simulations to overload!

4.1.9 Generation Dispatch Scenarios

For the winter peak load cases, no PSE and SCL generation west of the Cascades were run. Tacoma Power generation was left on, due certain internal system constraints. The generators off-line in the Eastside Needs Assessment are listed in Table 4-4.

A low-generation case was simulated as a sensitivity. The Puget Sound area generation run during that case is indicated in Table 4-4.

How is this valid? 925.1 MW of power generation turned off?? Even the Low case is fraudulently set up!!

Table 4-4: List of Puget Sound Area Generators Adjusted in the 2013 Eastside Needs Assessment

Simply turning on East King County dams just 10% of winter rating will support massive 3rd level failure power flows through Bellevue (EE)

Generation Plant	Winter MW Rating	Expected MW Output during Winter Peak for Low-Generation Sensitivity Case	Type	Owner	Transmission Delivery
Enserch	184.8	125	Natural Gas, Combined Cycle	PSE	Whatcom County
Sumas	139.8	0	Natural Gas, Combined Cycle	PSE	Whatcom County
Ferndale	282.1	0	Natural Gas, Combined Cycle	PSE	Whatcom County
Whitehorn	162.2	0	Natural Gas, Simple Cycle	PSE	Whatcom County
Fredonia	341	0	Natural Gas, Simple Cycle	PSE	Skagit County
Sawmill	31	22	Biomass	Private Owner	Skagit County
Upper Baker	106	80	Hydro Dam	PSE	Skagit County
Lower Baker	78	54	Hydro Dam	PSE	Skagit County
Komo Kulshan	14	0	Hydro Run-of-River	Private Owner	Skagit County
March Point	151.6	134	Natural Gas, Combined Cycle	Shell	Skagit County
Ross	450	295	Hydro Dam	SCL	Snohomish County
Gorge	190.7	157	Hydro Dam	SCL	Snohomish County
Diablo	166	160	Hydro Dam	SCL	Snohomish County
South Tolt River	16.8	0	Hydro Run-of-River	SCL	Northeast King County
Snoqualmie	37.8	0	Hydro Run-of-River	PSE	East King County
Twin Falls	24.6	0	Hydro Run-of-River	Private Owner	East King County
Cedar Falls	30	0	Hydro Run-of-River	SCL	East King County
Freddy 1	270	0	Natural Gas, Combined Cycle	Atlantic Power/PSE	Pierce County
Electron	20	4	Hydro Run-of-River	PSE	Pierce County
Frederickson	162.2	0	Natural Gas, Simple Cycle	PSE	Pierce County

Bellingham

Tacoma

Expected MW output during Winter peak is based off of actual 2011-2012 Winter peak output except for SCL hydro, which is based off of modeled generation levels in WECC winter peak case.

Total Generation= 2858.6 MW

109.2MW

Low Generation = 1031 MW

How MASSIVELY overbuilt is PSE currently in Bellevue/Renton/Redmond/Kirkland??? (Sammamish-Lakeside-Talbot Hill power lines) Putting ALL to ZERO and adding ~2.5x times Eastside's PEAK power from 3rd level failures from BPA AND leaving on Tacoma Power to drive even more power through Bellevue to barely overload PSE.

3. This third chart below shows the Assumptions used in their models to calculate the capacity gap and overload percentages. This is a key input into their model and will be discussed below.
    a. For Northern Intertie, the full amount is included in PSE's calculations, however, several areas should be checked:
        i. Why is PSE EE being proposed when it highest overload is 127.8% for a 115kV line when SCL's Maple Valley-Snoking- line overloads at 157.8% see table 6-5 below. SCL's line is a 230kV line carrying 4 time the power. Fixing that first is cheaper by rewiring with modern higher load lines like ceramic core and solves BPA's issues. Beside BPA already leases those lines from SCL, with any known compensation to SCL. Maybe EE is SCL's payment from BPA? Is that legal?
        ii. Assumes the full amount during an overload situation. What are the Columbia River Treaty rules for power transmission during an overload scenario? Thought there was flexibility.
        iii. What is the status/details of the renewal of the treaty, which expires here in 2015/16 or so. Local & national press report the US wants to scale back power sent back to Canada by 90%. As such, this number in the model is high.
    b. For PSE/SCL Westside Generation, winter was reduced to 0.
        iv. The base case, is 2858 MW
        v. The low generation scenario was 1031.
        vi. How can zero be justified as a good parameter? Unless PSE decides to behave like Enron and turn off the power as they did during California's energy crisis!

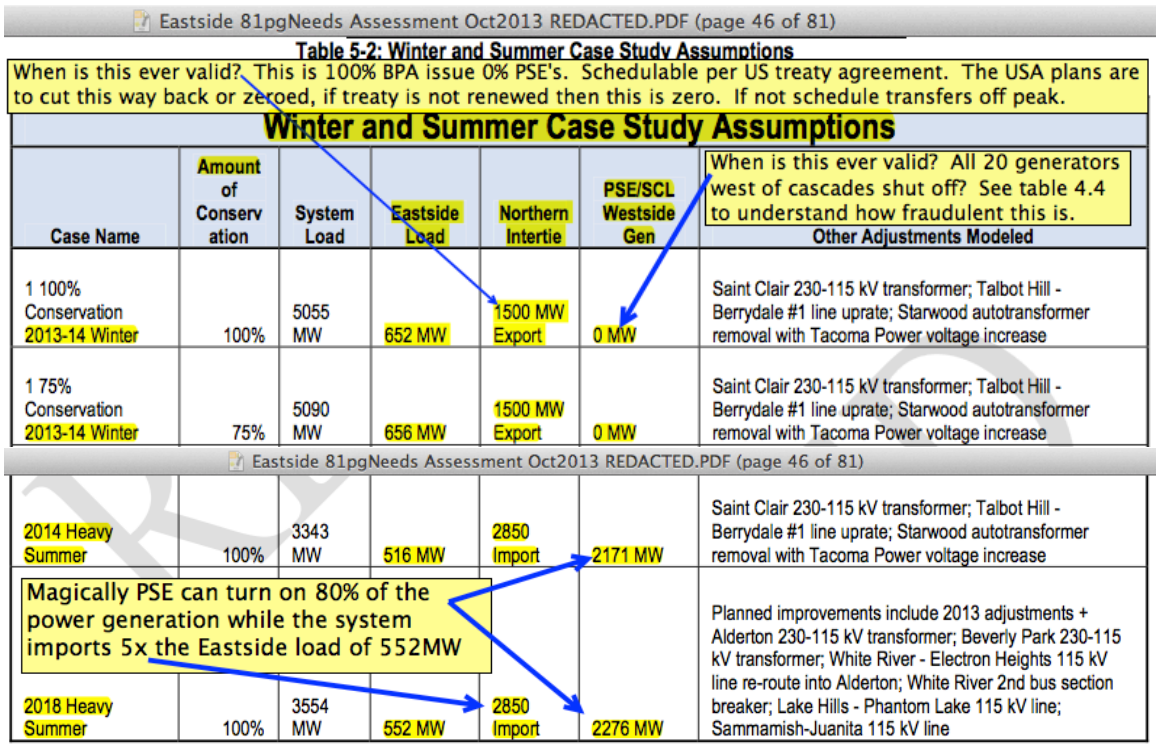

Eastside 81pgNeeds Assessment Oct2013 REDACTED.PDF (page 46 of 81)

Table 5-2: Winter and Summer Case Study Assumptions

When is this ever valid? This is 100% BPA issue 0% PSE's. Schedulable per US treaty agreement. The USA plans are to cut this way back or zeroed, if treaty is not renewed then this is zero. If not schedule transfers off peak.

Winter and Summer Case Study Assumptions

When is this ever valid? All 20 generators west of cascades shut off? See table 4.4 to understand how fraudulent this is.

Case Name	Amount of Conservation	System Load	Eastside Load	Northern Intertie	PSE/SCL Westside Gen	Other Adjustments Modeled
1 100% Conservation 2013-14 Winter	100%	5055 MW	652 MW	1500 MW Export	0 MW	Saint Clair 230-115 kV transformer; Talbot Hill - Berrydale #1 line uprate; Starwood autotransformer removal with Tacoma Power voltage increase
1 75% Conservation 2013-14 Winter	75%	5090 MW	656 MW	1500 MW Export	0 MW	Saint Clair 230-115 kV transformer; Talbot Hill - Berrydale #1 line uprate; Starwood autotransformer removal with Tacoma Power voltage increase

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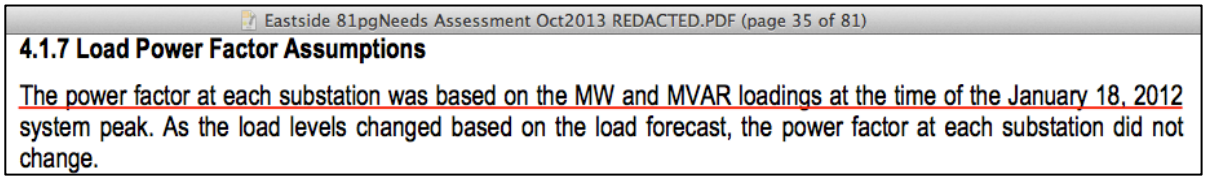
2014 Heavy Summer	100%	3343 MW	516 MW	2850 Import	2171 MW	Saint Clair 230-115 kV transformer; Talbot Hill - Berrydale #1 line uprate; Starwood autotransformer removal with Tacoma Power voltage increase
2018 Heavy Summer	100%	3554 MW	552 MW	2850 Import	2276 MW	Planned improvements include 2013 adjustments + Alderton 230-115 kV transformer; Beverly Park 230-115 kV transformer; White River - Electron Heights 115 kV line re-route into Alderton; White River 2nd bus section breaker; Lake Hills - Phantom Lake 115 kV line; Sammamish-Juanita 115 kV line

Magically PSE can turn on 80% of the power generation while the system imports 5x the Eastside load of 552MW

4. This fourth chart (snapshot) below shows the "Eastside" overloads predicted for 2017/18 are based on these assumptions at specific substations – all based on the above faulty assumptions.


Eastside 81pgNeeds Assessment Oct2013 REDACTED.PDF (page 35 of 81)

4.1.7 Load Power Factor Assumptions

The power factor at each substation was based on the MW and MVAR loadings at the time of the January 18, 2012 system peak. As the load levels changed based on the load forecast, the power factor at each substation did not change.

   a. In addition, the data shows overload trends at specific sub-stations, however, the modeling was done another "cherry picked" at a point in time? What are the loads and power factors at each substation going back 10-15 years for the winter and summer peaks? Electric car charging is improving this power factor with capacitive load, how much? There are mitigations at the sub-station level that are far cheaper than a $1 billion dollar power line ($280M plus $800 million in profit interests and O&M). Grid batteries and electric cars need to be modeled for power factor effects.

5. FEDERAL / NEPA RULES – The following documents provide evidence that Energize Eastside should not be considered as a local project subject to SEPA rules, but rather part of a broader strategy across BPA, a federal agency, and PSE, a for-profit utility, for overall international energy plans that should fall under Federal or NEPA jurisdiction.

   1. Columbia Grid documentation clearly shows EE is part of their broader plans. I have highlighted key points in yellow.
      i. EE is part of the larger project to increase international power flows between Canada and the US as required by Bonneville Power Authority (BPA), treaty obliterations, and to prepare for Canada's "Site C" dam coming on line with ~1,200 MegaWatts of power. A NEPA process is required for international projects, which both BPA and Canadian power authority want to deny, but is clearly the case.
      ii. Furthermore, using PSE's own document "Eastside Needs Assessment Report Transmission System King County", EE is for reliability of the grid SOLEY for BPA purposes. If one takes out BPA's bulk power flow to Canada OR not use a falsified low power generation case of shutting off all the northern gas turbine generators at the exact same time as all the hydro dams are off, then EE's business case falls apart. PSE/BPA went extraordinary lengths to get the model to show overloads.
      iii. The new hydro dam will further stress the endangered species listed as the Salish Orca (aka as Southern Resident Orca). A 10 year study published by NOAA in June 2014 states expanding hydro dam use threatens the habits of several endangered species including pacific salmon and the last remaining 77 Salish Orca (these Orca are 1 million years distinct for other Orca) which are an international endangered species further supporting NEPA review.

Eastside 81pgNeeds Assessment Oct2013 REDACTED.PDF (page 55 of 81)

There are six (6) potential thermal violations (same as 2013-14) of PSE lines or transformers in the King County area for Category C contingencies. These facilities are highlighted in yellow on Table 6-5, which shows that the potential thermal overloads vary up to a high of 128%. Overloads caused by BPA facility outages which are controlled by BPA generation dispatch are not highlighted.

Case	Category	Worst Contingency	Owner of Facilities Out	Element(s)	Owner of Overloaded Facilities	Percent Overload

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Table 6-5: Elements above Emergency and Operating Limits: 2017-18 Winter Peak, 100% Conservation, Normal Weather, Thermal Loadings (CONTINUED) (Redacted)

words for are also on pg54

A 230kV line carries is 4 times the power as115kV line

Here is the CHEAPEST solution = replace M.V-Skoking 40 year old wires with much higher capacity wires.

The greatest levels of failures in all of PSE's Senerios. Lets look what is causing them!!

2017-18 Winter	C	N-1-1: Echo Lake - SnoKing - Monroe 500 kV line & Maple Valley - SnoKing #1 230 kV line	BPA & SCL	Maple Valley - SnoKing #2 230 kV line	SCL	157.8%
2017-18 Winter	C	N-1-1: Echo Lake - SnoKing - Monroe 500 kV line & Talbot Hill - Lakeside #2 115 kV line	BPA & PSE	Talbot Hill - Lakeside #1 115 kV line (Redispatch not enough)	PSE	127.8%
2017-18 Winter	C	N-1-1: Echo Lake - SnoKing - Monroe 500 kV line & Talbot Hill - Lakeside #1 115 kV line	BPA & PSE	Talbot Hill - Lakeside #2 115 kV line (Redispatch not enough)	PSE	127.6%
2017-18 Winter	C	N-1-1: Talbot Hill 230-115 kV transformer #2 & Berrydale 230-115 kV transformer	PSE	Talbot Hill 230-115 kV transformer #1 (Redispatch not enough)	PSE	105.7%
2017-18 Winter	C	N-1-1: Echo Lake - SnoKing - Monroe 500 kV line & O'Brien - Falcon 115 kV line section	BPA & PSE	Talbot Hill - Boeing Renton - Shuffleton 115 kV line (Redispatch not enough)	PSE	110.6%
2017-18 Winter	C	N-1-1: Talbot Hill 230-115 kV transformer #1 & Berrydale 230-115 kV transformer	PSE	Talbot Hill 230-115 kV transformer #2 (Redispatch not enough)	PSE	105.7%

REQUIRES National Environmental Impact Review Process, not SEPA as requirements driving overload are for BPA's needs to do bulk power transfer to Canada, for one example see this case. And NEPA required as power flows come from hydro operations in an endangered species habitat.

Below are the case study assumptions causing "PSE's" "overloading". Sure looks like BPA power to Canada and all generators "West of the Cascades" off causing the "problem".

Table 5-2: Winter and Summer Case Study Assumptions

How is this BPA's requirement to ship "entitlement" power back to Canada valid during outages? This is 100% BPA issue 0% PSE's. Schedulable per US treaty agreement. USA plans are to cut this way back or zeroed in 2015/16

Winter and Summer Case Study Assumptions

When is this ever valid? All 20 generators west of cascades shut off? See table 4.4 to understand how fraudulent this is.

Case Name	Amount of Conservation	System Load	Eastside Load	Northern Intertie	PSE/SCL Westside Gen	Other Adjustments Modeled
2 100% Conservation 2017-18 Winter	100%	5208 MW	706 MW	1500 MW Export	0 MW	Block load allocated per King Co Dist. Planers; Planned improvements include 2013 adjustments + Alderton 230-115 kV transformer; Beverly Park 230-115 kV transformer; Raver 500-230 kV transformer; SCL series inductors
2 75% Conservation 2017-18 Winter	75%	5325 MW	722 MW	1500 MW Export	0 MW	Block load allocated per King Co Dist. Planers; Planned improvements include 2013 adjustments + Alderton 230-115 kV transformer; Beverly Park 230-115 kV transformer; Raver 500-230 kV transformer; SCL series inductors
3d 100% Conservation 2017-18 Extreme Winter	100%	5742 MW	782 MW	1500 MW Export	0 MW	Block load allocated per King Co Dist. Planers; Planned improvements include 2013 adjustments + Alderton 230-115 kV transformer; Beverly Park 230-115 kV transformer; Raver 500-230 kV transformer; SCL series inductors

yet PSE can magically generate 2171MW in Summer both 2014 and 2018 when they

Eastside 81pgNeeds Assessment Oct2013 REDACTED.PDF (page 46 of 81)

2014 Heavy Summer	100%	3343 MW	516 MW	2850 Import	2171 MW	Saint Clair 230-115 kV transformer; Talbot Hill - Berrydale #1 line uprate; Starwood autotransformer removal with Tacoma Power voltage increase
2018 Heavy Summer	100%	3554 MW	552 MW	2850 Import	2276 MW	Planned improvements include 2013 adjustments + Alderton 230-115 kV transformer; Beverly Park 230-115 kV transformer; White River - Electron Heights 115 kV line re-route into Alderton; White River 2nd bus section breaker; Lake Hills - Phantom Lake 115 kV line; Sammamish-Juanita 115 kV line

want to. Winter is Bellevue/Eastside's greatest local power need, summer is much lower locally. Power headed to California is at its greatest in summer as the 2850 MW import numbers above show.

Here is Columbia Grid comments on what EE is for.[1] Even the reliability issues are BPA's as PSE's 81 page "Eastside Needs" report clearly shows.

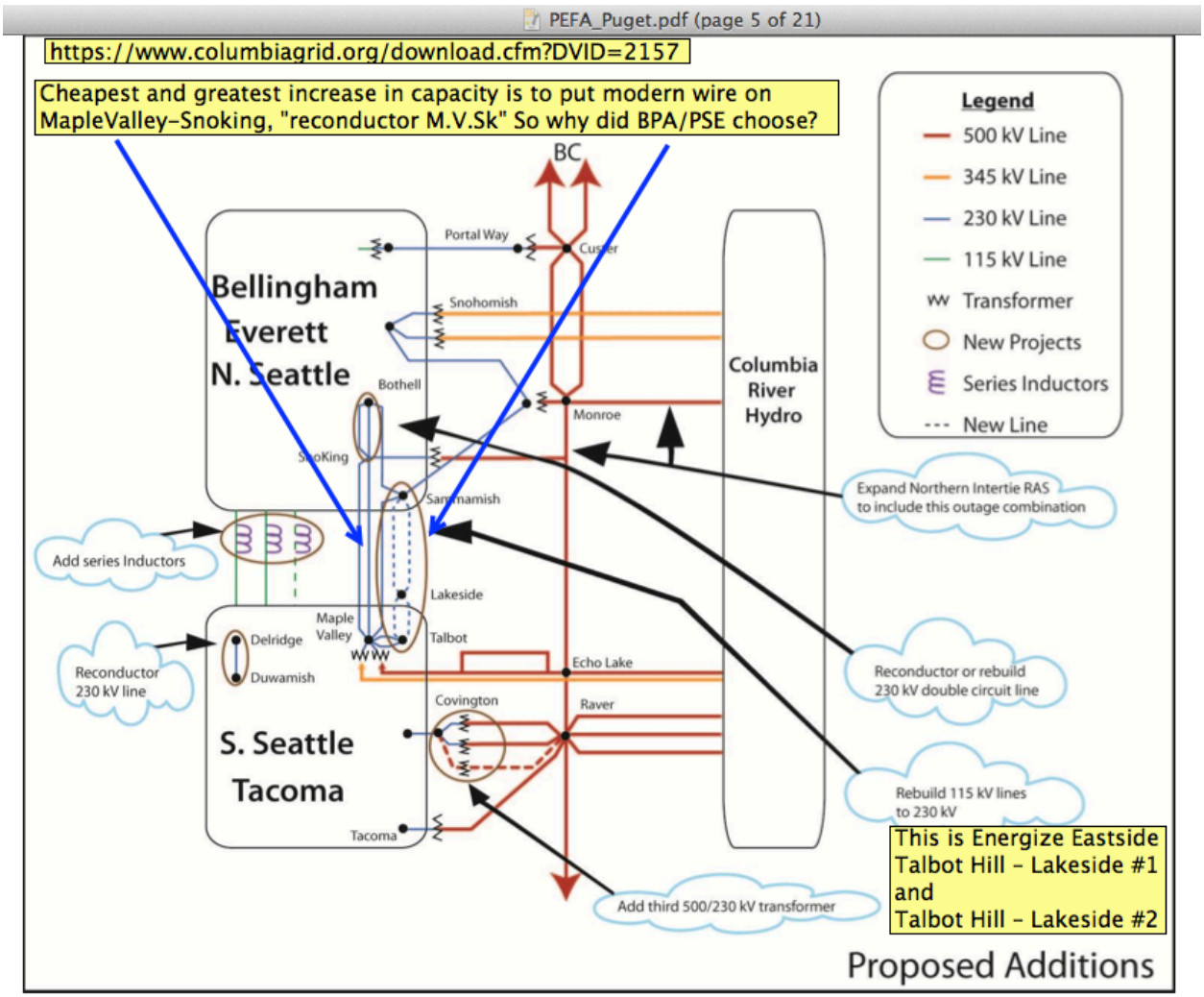
PEFA_Puget.pdf (page 2 of 21)

Introduction and Conclusions

In October of 2010, the Puget Sound Area Study Team issued a report entitled "Transmission Expansion Plan for the Puget Sound Area." The report is available via the ColumbiaGrid website. The report details a transmission plan for the Puget Sound region that would, as a basic requirement, provide for reliable system performance while significantly improving the ability of the transmission grid to support power transfers between the Northwest and British Columbia. Since the release of the original report, the following changes have occurred that have led to the need for the Puget Sound Area Study Team to revise their transmission plan:

[1] https://www.columbiagrid.org/download.cfm?DVID=2157

www.bpa.gov/Doing%20Business/TechnologyInnovation/ConferencesGridTransformationWorkshop/Grid%20Transformation%20Workshop_Ob



Columbia Grib Doc tells you the real reason for EnergizeEast project = to move power to from Canada/California. NOT FOR LOCAL Bellevue energy growth!!!!!!!

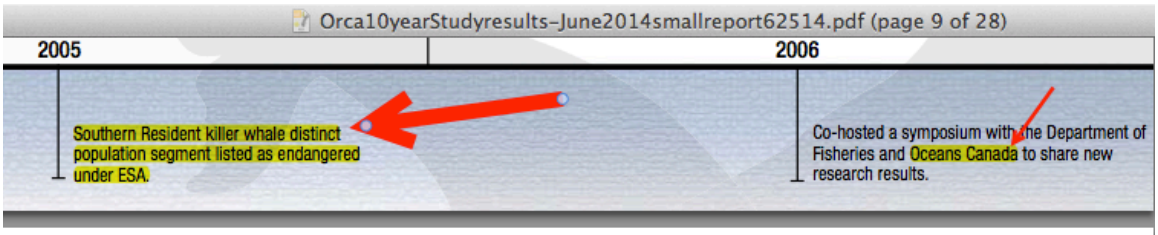
Figure Two: Revised Puget Sound Area Transmission Expansion Plan for Supporting South-to-North Transfers

With Canada's Site C dam coming on line 2024 with 1200 MW of power with no place to sell but USA, Canada is over supplied. PSE plans to have EE done so it move this power and use when joining EIM in 2016

https://www.columbiagrid.org/download.cfm?DVID=2157
See Site C dam progress at https://en.wikipedia.org/wiki/Site_C_dam

More on EIM, CA-ISO's energy market, which even Hardev Juj, BPA's head of grid planning touch on, see very end.

This is a screen shot below from NOAA's 10 year study on the endangered Orca whales, with only 78 leave in the entire world. This alone forces the EIS to be a NEPA not a SEPA as issues cross international boundary with Canada.



Reducing Threats to Southern Resident Killer Whales

Federal agencies must insure that any action they authorize, fund, or carry out is not likely to jeopardize the continued existence of any endangered or threatened species or destroy or adversely modify critical habitat. NOAA Fisheries consults on federal actions under section 7 of the Endangered Species Act to reduce or mitigate impacts and ensure the survival and recovery of Southern Resident killer whales. Section 7 consultations are an important and effective management tool to reduce impacts on Southern Residents.

	Types of Actions	Mitigation/Conservation Measures
Actions that affect the salmon prey of Southern Residents	• Harvest management, such as fisheries regulations or fishery management plans • Hydropower operations • Hatchery production and management • Freshwater and estuary habitat projects	• Risk analysis to assess salmon abundance levels and relationships to killer whale survival and recovery. • Identify workgroups and research projects to address data gaps. • Minimize occurrence of derelict gear. • Protective measures for salmon habitat, populations, and hatchery operations.

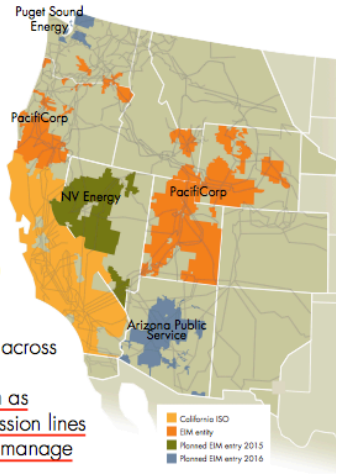
http://www.nwfsc.noaa.gov/news/features/killer_whale_report/pdfs/smallreport62514.pdf
http://www.nwfsc.noaa.gov/news/features/killer_whale_report/pdfs/bigreport62514.pdf
www.nmfs.noaa.gov/pr/species/mammals/whales/killer-whale.html
http://www.nwfsc.noaa.gov/news/features/killer_whale_report/

2. PSE announces plans to join EIM (Energy Imbalance Market) in 2016. Again, key points are highlighted or underscored.
    i. As PSE operates primarily in Puget Sound's East Side (and near British Columbia), Bellevue needs to question if the proposed highly expandable, and much taller 230kv lines are really to serve Bellevue's needs or to prepare for expansion efforts to maximize profit via North-South Transfer expansion and EIM agreement. PSE will need to have the capacity to sell/transport bulk high voltage power from Canada. PSE has no other plans for expansion that could support this outside of EE, so we can only assume the ulterior motive. Again, the Energize Eastside project is a small part of a much bigger picture.

CAISO.EIMFAQ.pdf (page 1 of 2)

EIM FAQ

Expanding regional energy partnerships



WHAT DOES IT MEAN TO PARTICIPATE IN THE EIM?

The Energy Imbalance Market (EIM) strengthens grid reliability by allowing participants to buy and sell power closer to when electricity is consumed and by allowing system operators real-time visibility across neighboring grids, which supports balancing supply and demand at less cost. The ISO market systems identify fluctuations in supply and demand and then automatically finds the best resource from across a larger region to meet immediate power needs (demand). This activity optimizes the interconnected high-voltage system as market systems automatically manage congestion on transmission lines which not only helps maintain reliability (system up time) but manage and mitigate the cost of congestion as well.

WHO ARE THE CURRENT PARTICIPANTS IN EIM?

The ISO and PacifiCorp, which serves customers in six states, launched the first western real-time energy balancing market on November 1, 2014. Las Vega-based NV Energy has approvals from both the Federal Energy Regulatory Commission (FERC) and the Public Utilities Commission of Nevada (PUCN) and will begin participating in the EIM on October 2015.

Puget Sound Energy of Bellevue, Washington, and Arizona Public Service headquartered in Phoenix, Arizona, have announced their plans to enter the EIM on October 1, 2016. This means the EIM will provide cost savings for consumers in eight western states. In addition, comprehensive studies show significant reliability benefits result from leveraging generation resources across the entire EIM region with the added benefit of more frequent power plant dispatching in real time to cost efficiently use available energy supplies.

i. Even with PSE's inflated demand picture, an alternative is to install 50 foot poles (+5 feet from today) to support the 230kv and easily meet their demand projections for next 40 years. PSE argues that it is more cost effective to install fewer 130 foot poles (+85 feet from today); however, it is out of character for a residential area, and would end in deadly disaster with the added stress to the and aging gas pipeline running directly underneath.

The real reason to go with larger poles is that they can easily be expanded to carry 500kv with no additional permissions or pole installation required. Again, not needed to meet Eastside demand, only needed for North-South Transfer. The picture below (Antelope-Pardee corridor in Lancaster) shows unsightly 500kv being proposed by PSE. These are typically rural not urban. And, PSE can add a wireless cable company to the area and expand the poles to 150feet with new federal rules without even have to ask the City of Bellevue permission.

[1] http://www.cpuc.ca.gov/Environment/info/aspen/antelopepardee/photos.htm

6. ALTERNATIVE ENERGY

   a. Grid Batteries / Storage – Lots of press and real world examples on this – New York, California, Hawaii are examples. Many states have already implemented this as alternative to infrastructure / power line build out, and more cost effective way to achieve reliability. With this trend, it's hard to believe we are even having a discussion around EE.
   b. Solar – Given solar is now cheaper than grid in 20 states (including WA Hydro) what are the projections of solar displacing utility power? Major banks are now funding hundreds of utility scale solar projects in the 50 states.
      i. See Deutsche Bank's work reference in on page 3/12 of *Tech & financial issues with PSE Energize Eastside1.4w.o.affil.doc*
      ii. References Edison Electric Institute's, (the lobbying group for the utilities) urgent call to action in their 2013 report *Disruptive Challenges: Financial Implications and Strategic Responses to a Changing Retail Electric Business.*
      iii. This was sent to the City of Bellevue on 2/12/2014 for the independent consultant review.
   c. LED bulb replacement - Confirm via statistically significant survey that there is at least 600MW (calculated in detail by this MSEE for PSE service area) at peak load of incandescent bulbs inside PSE's territory per NEEA.org numbers when accounting for the 45% first year failure rate of compact florescence bulbs as determined by the Dept of Energy reports across +300 bulb models sold. I look forward to comparing

numbers to what the NEPA EIS gets. Fix the current 11kW of incandescent waste at City Hall!

d. Windows – Washington currently only sells hot climate windows in Washington State wasting at least 100 aMW/year. These windows would retain heat reducing peak load in winter. What is PSE's share of saving when hot climate windows are banned in WA and only cold climate ones allowed? New building code proposals are with the Washington legislature.
e. Geothermal – My former employer let a 280 MW geothermal power plant be installed on our Navy Lab without cost to it in 1986, assuming the research and develop lab with 5000 employees (China Lake) got all its power for free and what was left over, then the California Energy Inc, could sell the rest. PSE's territory is as close, if not lot closer, to geothermal in terms of drilling depth. The major cost here is replacing heat exchangers; far cheaper over 40 years than $1 billion dollars of new power lines. Please fully detail that option. May need to confirm if BLM land is available for this purpose. The Navy had to have ownership transferred from BLM to Navy which Clean Air Act 111D and related rules can expedite transfer to City of Bellevue or other state/city government agency.
f. Callable Power - Solve PSE's inflated power needs with reverse Demand Response "call to turn on power" from distributed from electric car batteries to solve peak power loads. See more on flatten peak loads with Energy North West below.
g. Please evaluate all power options in the National Association of Clean Air Agencies (NACAA) May 2015 many of which have been testified to the WA State House and Senate committees . This is the +400 page document of menu items for states to get onto better energy resources.
www.4cleanair.org/sites/default/files/Documents/NACAA_Menu_of_Options_HR.pdf
h. What is the total cost of EE including profit, interests and assumed operation & maintenance fees over the 40 year payback period? And how does this compare to lifecycle costs for distributed generation or Demand Response (ability to call-to-turn-off-as-desired) actual project and potential projects by the likes of Stan Gent, CEO of Seattle Steam Company (just bought by the largest US private equity for renewable energy Brookfield and is now called Enwave Seattle, but for WA Senate/House invited presentations search with Seattle Steam) & WSU's Energy Program specialist Dave Sjoding or Energy North West's John A. Steiger's 509-377-4547 (the civil service guys running the grid/nuke facilities in eastern WA) 100MW Demand Response project in WA. All these folk of whom invited to give presentations to WA House and Senate Energy Committees represent the future. Demand Response is measured in 1000s of MegaWatts in East coast which is far more advanced than WA which has just 100MW which John A. Steiger has put together for sale to utilities even PSE. How about Overlake Hospital get more reliable power like Huston's medical center did with co-heat-power and ditched ALL of their emergency generators.
i. Peaking generator. PSE's technical consultants claimed to have asked Dept of Ecology for permission to install a peaking generator but was turned down. Please detail why and the cost and environmental impact to install a peaking generator at

say the lite rail garage/system or in the Spring Business District as co-heat-power systems.

j. Heliostats = $300 dollar self powered sun tracking mirror reflecting 500Watts of sun energy into home. What if PSE bought all it electric heating homes one? Costs & impact?

k. What are Canada's site C dams impacts for any WECC or other computer modeling?

7. Investor owned utility (primarily PSE) customers already pay 28% higher rates than those served by cooperatives, municipalities or public utility districts.

NEEA 2014-WA-report-final.pdf (page 5 of 21)

neea

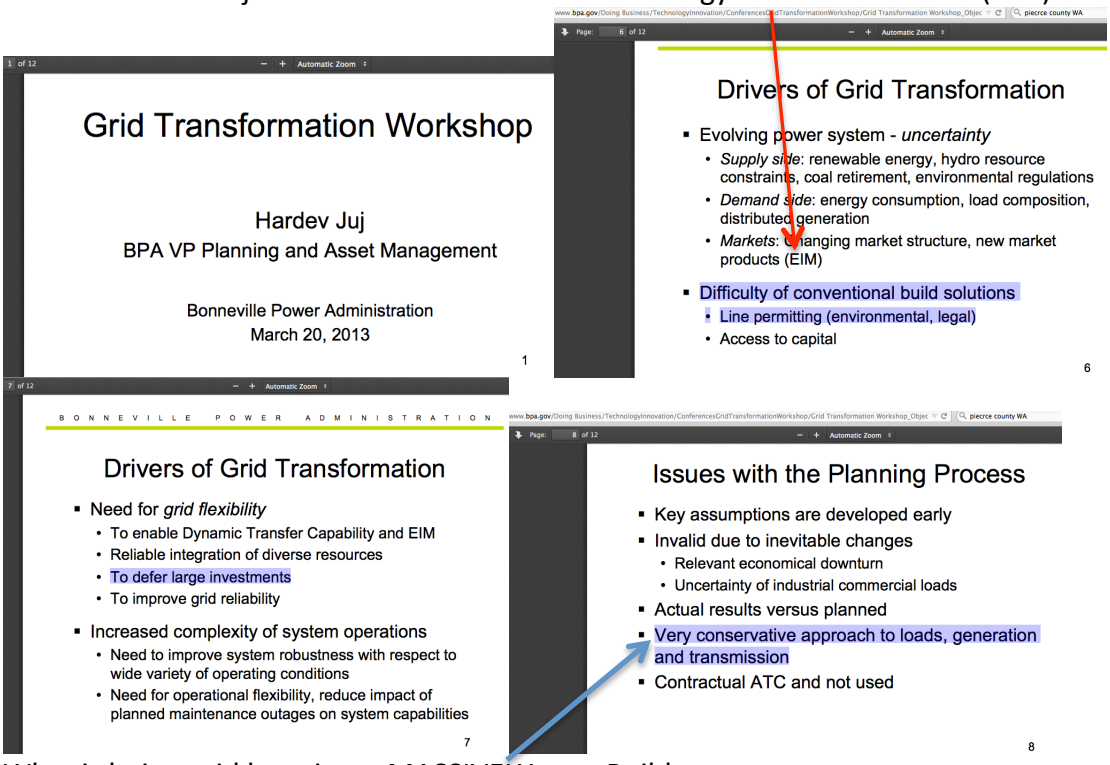
UTILITY AND ENERGY STATISTICS[2]

There are 3.2 million utility customers in Washington, 2.85 million of which are residential accounts. Residential customers in Washington account for 4,079 average megawatts (aMW) of demand and 35 million megawatt hours (MWh) of usage. More than 55 percent of residential customers in Washington (representing 58 percent of annual usage) are with Cooperatives, Municipalities, or Public Utility Districts. Investor Owned Utilities customers in Washington pay 28 percent more per killowatt-hour (kWh) than other utility types, but use about 14 percent less kWh per month.

Customers by Utility Type (2012)	Cooperatives	Municipalities	Public Utility Districts	Investor Owned Utilities	BPA	Total
Residential	141,165	572,208	861,085	1,278,302	-	2,852,760
Commercial & Industrial	23,135	69,915	115,136	175,505	9	383,700
Public Street & Highway Lighting	-	-	-	-	-	-
Other Public Authorities/ Transportation	-	5	-	1	-	6
Other Sales to Retail Energy Customers	-	-	-	-	-	-
Total Customers	**164,300**	**642,128**	**976,221**	**1,453,808**	**9**	**3,236,466**
Residential Electricity Costs	**Cooperatives**	**Municipalities**	**Public Utility Districts**	**Investor Owned Utilities**	**BPA**	**Total**
Average Cost per kWh	7.84¢	7.62¢	7.82¢	9.91¢	-	8.53¢
Average Monthly Cost	$101.44	$65.31	$95.42	$96.32	-	$88.48
Average Annual Cost	$1,400.43	$927.71	$1,320.82	$1,052.02	-	$1,122.80
Average Monthly kWh	1,294	857	1,220	972	-	1,037
Average Annual kWh	15,526	10,285	14,643	11,663	-	12,448
Total Annual MWh	2,191,697	6,083,474	12,326,735	14,909,055	-	35,510,961
Total Annual aMW	252	699	1,416	1,713	-	4,079

i. PSE is happy to take on capital investment projects. They are guaranteed profits for 40 years through their contracts with the state and can pass the costs (with profit margin) along to their customers.
ii. With the profit protection in place, there is no downside to this investment, and only possible upsides with North-South Transfer expansion.

Here is another reason why PSE & BPA are obfuscating the real need behind Energize Eastside in BPA's Hardev Juj's own words.[2] See above for Energy Imbalance Market (EIM)



What is being said here is we MASSIVELY over Build.

2

www.bpa.gov/Doing%20Business/TechnologyInnovation/ConferencesGridTransformationWorkshop/Grid%20Transformation%20Workshop_Objectives_by%20Hardev%20Juj.pdf

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BONNEVILLE POWER ADMINISTRATION

Issues with the Planning Process (cont)

- Increased inventories
  - Supply organization starts out based on annual planning
- Low return on assets leaving a lot of capability on the table
- Increased operating costs resulting in artificially high budgets

9

10 of 12 Automatic Zoom

BONNEVILLE POWER ADMINISTRATION

Where We Are Today…

- Lack of institutionalized processes for assessing uncertainty and risk
- Mostly deterministic planning criteria for decision making
- Limited ability to control power flows
  - Main grid capability is limited by lower voltage underlying sub-transmission
- Gaps exist between planning and operations

10

Is Hardev Juj foreshadowing Energize Eastside destabilizing the Olympic pipe line? With no automated shut off and carrying all liquids it will result in hundreds of deaths unlike the natural gas pipeline explosion in San Bruno CA fire which killed 8. A liquid spill will flood neighborhoods quickly and instead of just 100 homes damage or destroyed there will be a thousand casualities.

PUGET SOUND ENERGY

QUANTA TECHNOLOGY

Eastside Needs Assessment Report

Transmission System
King County

Redacted Version

October 2013

Puget Sound Energy

Report prepared by:
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Section 1 Executive Summary

The analysis discussed in this report verified that there is a transmission capacity deficiency in the Eastside area of Lake Washington which will develop by the winter of 2017-18. This transmission capacity deficiency is expected to increase beyond that date. Cities in the deficiency area include Redmond, Kirkland, Bellevue, Clyde Hill, Medina, Mercer Island, Newcastle and Renton along with towns of Yarrow Point, Hunts Point, and Beaux Arts.

Assessment Objective

The objective of this needs assessment is to assess the sufficiency of transmission supply within the next 10 years to Puget Sound Energy's customers and communities on the east side of Lake Washington.

As part of the mandatory North American Electric Reliability Corporation (NERC) Compliance Enforcement Program[1], PSE performs an annual comprehensive reliability assessment[2] to determine if any potential adverse impacts to the reliability of delivery of electricity exist on the PSE transmission system. During the 2009 comprehensive reliability assessment[3], PSE determined that there was a transmission reliability supply need developing due to the loss of one of the Talbot Hill Substation[4] transformers.

Since 2009, other issues have also been identified which impact this portion of the PSE system. These issues include concerns over the projected future loading on the Talbot Hill Substation, increasing use of Corrective Action Plans (CAPs) to manage outage risks to customers in this portion of the PSE system, and regional transmission reinforcement needs that were identified by ColumbiaGrid studies to support the movement of power from existing wind generation and hydroelectric generation across the Cascade Mountains to load centers around the Puget Sound.

The study described in this report focused specifically on the central King County portion of the larger PSE system in order to provide a more focused needs assessment. The timing of this study was intended to provide sufficient lead time to implement viable, long term solutions before the issues identified by the study develop. This report discusses the review of the current transmission infrastructure to support the current load and the future load growth in this area.

Method and Criteria

The studies documented by this report are collectively referred to as the "2013 Eastside Needs Assessment." To assess area supply needs, comprehensive reliability analyses were performed to determine the present and future transmission supply to PSE's Eastside area in King County and the Puget Sound area as a whole. In 2009, as part of

[1] NERC Reliability Standards for the Bulk Electric Systems of North America

[2] PSE Planning Studies and Assessment TPL-001 to TPL-004 Compliance Report

[3] 2009 PSE Planning Studies and Assessment TPL-001 to TPL-004 Compliance Report

[4] Talbot Hill Substation is located in Renton

the TPL-001 through TPL-004 Compliance Report, PSE's analysis showed that there was a potential thermal violation with the loss of one of the two transformers at Talbot Hill Substation. For the 2013 Eastside Needs Assessment, PSE performed an updated analysis to evaluate if this potential thermal violation would still exist with updated load forecasts. The 2013 Eastside Needs Assessment was performed consistent with the mandatory NERC TPL annual comprehensive analysis. Supplemental performance studies were also performed to provide a clear understanding of the location and causation of these potential thermal violations.

For the 2013 Eastside Needs Assessment, PSE used the WECC 2012 series base cases to develop the 2013-14, 2017-18, and 2021-22 heavy winter cases. These cases were set up to account for normal weather with 100% of the forecasted level of conservation and were updated with the current PSE system configuration and load information. To better understand the extent of the need and risks faced by customers in this portion of the PSE system, sensitivity studies were conducted to evaluate performance under different levels of conservation. Sensitivities studies were also conducted to assess system performance under extreme weather conditions that are expected to occur once every twenty years.

This assessment also reviewed the near and long-term summer cases run for the 2012 NERC Transmission Planning (TPL) standard requirements. For the TPL report, cases had been developed for heavy summer of 2014 and 2018 using the 2012 WECC series base cases. These cases were set up to account for normal summer weather with 100% of the forecasted level of conservation and were updated with the current PSE system configuration and load information.

This analysis covered PSE facilities that are part of the Bulk Electric System (BES) and the interconnected system covered by the Western Electricity Coordinating Council (WECC). BES facilities must be studied in accordance with the latest approved versions of the mandatory NERC Reliability Standards and the WECC Reliability Standards[5]. These standards set forth the specific methods for studying the performance of the transmission system – 100 kV and above – and govern how that system is planned, operated and maintained.

In addition to the mandatory reliability standards, PSE has also issued Transmission Planning Guidelines[6] which describe how to plan and operate PSE's electric transmission system. These guidelines are in place to encourage the optimal use of the transmission system for service to loads and generators while complying with the mandatory standards. These guidelines also support transfers between utilities, when applicable, to support economic use of available resources.

Performance criteria are also established to determine if a need exists to improve the system. These performance criteria serve as a baseline to measure performance and to identify where reinforcements may be needed. The needs documented in this report were determined by whether or not the study area would perform such that it satisfied all approved applicable NERC, WECC and PSE transmission performance criteria[7].

Study Assumptions

The following key assumptions were adopted to more fully understand the potential reliability impacts:

- The study horizon selected was the ten year period from 2012 to 2022.
- System load levels used the PSE corporate forecast published in June 2012.

[5] TPL-001-WECC-CRT-2 – System Performance Criterion Under Normal Conditions, Following Loss of a Single BES Element, and Following Extreme BES Events

[6] PSE Transmission Planning Guidelines, November 2012

[7] PSE Transmission Planning Guidelines, pages 3-5 & 7, November 2012

- Area forecasts were adjusted by substation to account for expected community developments as identified by PSE customer relations and distribution planning staff.
- Generation dispatch patterns reflected reasonably stressed conditions to account for generation outages as well as expected power transfers from PSE to its interconnected neighbors.
- Winter peak Northern Intertie transfers were 1,500 MW exported to Canada.
- Summer peak Northern Intertie transfers were 2,850 MW imported from Canada.

Specific Areas of Concern

The 2013 Eastside Needs Assessment was a fresh look at current and future system conditions which did not pre-judge the existence of any specific issues on the PSE system. Since 2009 a variety of concerns have been identified and these were investigated in the analysis. During the course of the analysis, some additional potential problems were identified that also were evaluated. The major issues include:

1. Overload of PSE Facilities in the Eastside Area: Several previous studies had identified potential overloading of transformers at Sammamish and Talbot Hill Substations[8]. These include the 2008 Initial King County Transformation Study, 2009 PSE TPL Planning Studies and Assessment, and the 2012 PSE TPL Planning Studies and Assessment[9]. Those studies indicated that potential thermal violations may occur on facilities from Talbot Hill Substation to Sammamish Substation. The 2013 Eastside Needs Assessment validated those concerns and identified transmission supply needs that focused on two 230-115 kV supply injections into central King County at Sammamish and Talbot Hill Substations. In the 2013 Eastside Needs Assessment the team found:

    - For the winter peak at approximately 5,200 MW (2017-18 in the model) there are two 115 kV elements with loadings above 98% for Category B (N-1) contingencies and five 115 kV elements above 100% for Category C (N-1-1 & N-2) contingencies.

    - For the summer peak at approximately 3500 MW (2018 in the model), there are two 230 kV elements above 100% and two 115 kV elements above 93% loadings for Category B (N-1) Contingencies. Also there are three elements above 100% loading and one above 99% loading for Category C (N-1-1) contingencies.

2. Small Margin of Error to Manage Risks from Inherent Load Forecast Uncertainties: The 2012 Corporate load forecast for winter under normal weather conditions and 100% conservation indicates load increases 138 MW from 2013-14 to 2021-22 (Figure 1-1), or about 17 MW of increased load per year. This annual increase is significantly lower than previous forecasts and is much lower than the 2011 forecast of approximately 22 MW per year[10],

    In extreme weather, system load can be much higher than this forecast. To illustrate, Figure 1-1 shows that the difference in forecast load between normal and extreme winter weather for the year 2014 is actually 497 MW – almost 10 percent of the total PSE load (assuming 100% of the forecast conservation for both). Normal weather represents the projected load at 23° F and extreme weather represents the projected load at 13° F. As the temperature gets close to 13° F, the forecasted load in any given year could easily surpass the entire 138 MW load increase projected for the 10 year study period. This effect has occurred recently on the

For Both of what

[8] Sammamish Substation is located in Redmond. Talbot Hill Substation is located in Renton.

[9] The 2010 and 2011 TPL Planning Studies also identified the Lakeside 230-115 kV transformer as needed and planned for 2016. It did not show up as a deficit in the long term due to being modeled as installed by the long term case year.

[10] 2011 PSE IRP Section H Page H-12 from 2010 to 2017

PSE system. In winter 2009, the system hit an all-time peak of 5038 MW[11] at a temperature of 16° F, which was 194 MW higher than the 2009 forecast for normal weather peak load in 2009 . This 2009 actual peak load level is also higher than the 2012 forecast for normal system peak load in 2021.

The 2013 Eastside Needs Assessment shows a load level of need at approximately 5,200 MW winter peak. To illustrate the importance of conservation in our modeling, the team forecasted PSE load levels under a variety of conditions. If only 75% of forecasted conservation materializes, the 5,200 MW load level would be hit as early as 2015 under normal weather conditions. Even if 100% conservation is achieved, under extreme weather conditions PSE could exceed the 5,200 MW level during the winter 2013-14. These winter peak forecast sensitivities are illustrated in Figure 1-1:

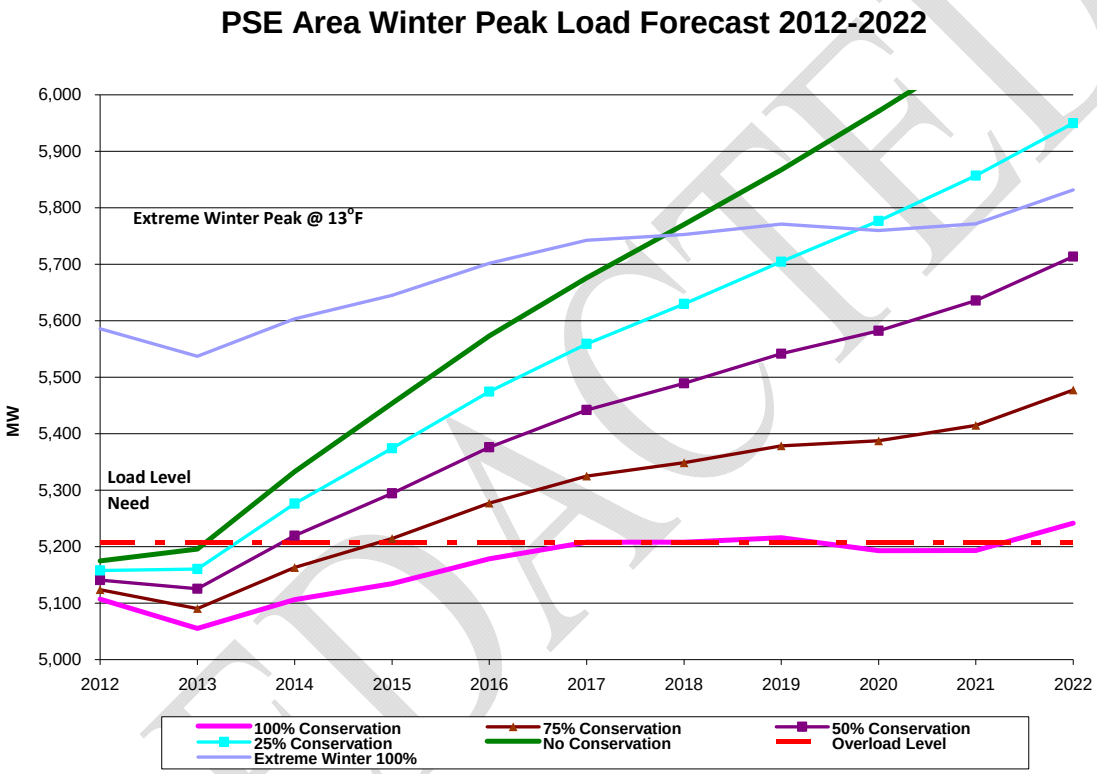


Figure 1-1: Corporate System Load Forecast for Winter 2012 to 2022

The 2013 Eastside Needs Assessment shows a summer load level of need is approximately 3340 MW (Figure 1-2). Summer peak load is calculated for an 86° F peak day. This load level could occur as early as 2014 and becomes more likely with time. While PSE has traditionally been a winter peaking utility, the increase in commercial load has driven summer load growth disproportionately higher than the winter growth in recent years. The projected summer peak growth is on average approximately 37 MW per year. The corporate load forecast does not indicate loading for an "extreme summer" peak, which would be expected to be higher than shown on these projections.

[11] This does not include approximately 270 MW of load on PSE's system served by other transmission providers.

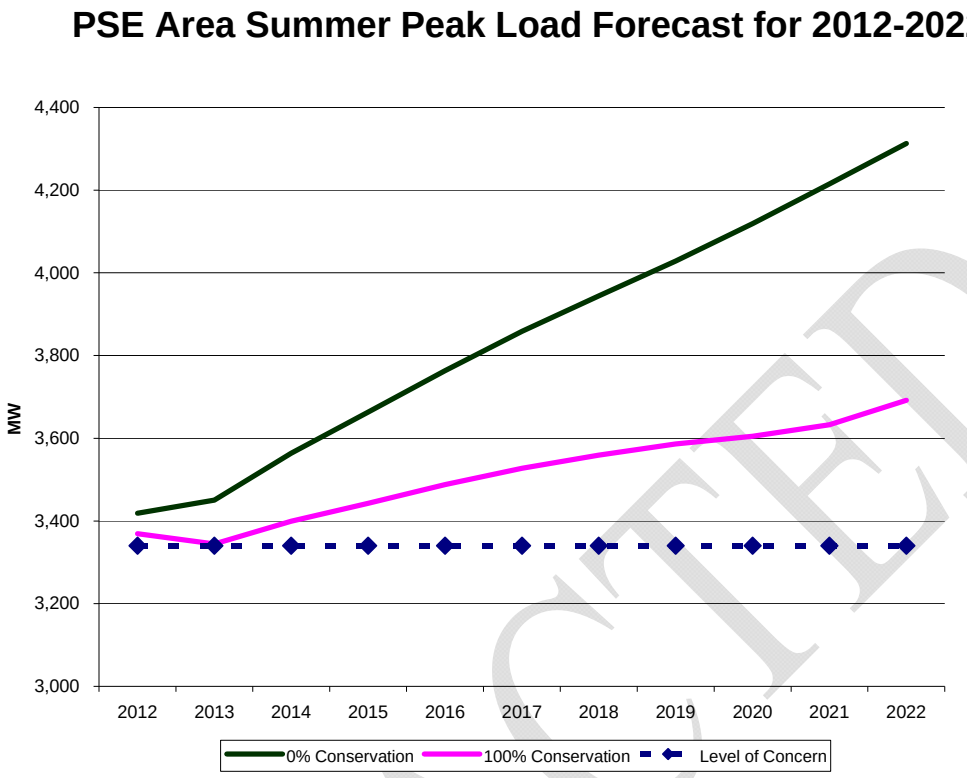


Figure 1-2: Corporate Load Forecast for Summer Peak from 2012 to 2022

3. Increasing Use and Expansion of Corrective Action Plans: An existing CAP in place to prevent overloads in the winter on either of the Talbot Hill transformer banks is increasing outage risk to customers. This CAP is to manually open 115 kV breakers at Talbot Hill Substation, which removes two 115 kV lines from Talbot Hill to Lakeside Substations. Taking this step reduces the inherent reliability of the network since the transmission system cannot handle as many contingencies without overloads, voltage issues or loss of customers' power.

   As the PSE system load grows, the overload of either Talbot Hill transformer at winter peak may not be sufficiently reduced by this CAP. If loading on the overloading transformer is not reduced by use of the existing CAP, then the Shuffleton – Lakeside 115 kV line and the Lakeside – Goodes Corner – Lake Tradition 115 kV line will also be opened. In addition to the reduction in reliability discussed above, opening these four 115 kV lines results in splitting northern King County from southern King County and puts approximately 32,400 customers at risk of outage, being served by just 1 transmission line without a backup line available (i.e., "radial supply"). This action also puts an additional 33,000 customers in Bellevue and Kirkland at risk of outage should there be an outage of either Sammamish transformer while the north and south systems are operating separately.

   There are two contingencies in the north end of King County that would trigger a CAP under summer conditions. These contingencies are (1) the loss of the Monroe-Novelty Hill 230 kV line along with the loss of the Bothell-Sammamish 230 kV line; and (2) the loss of the Novelty Hill transformer along with the loss of one of the Sammamish transformers. This CAP would open the 115 kV lines from Sammamish Substation south to Bellevue. Taking this action places 33,000 customers at risk of outage should an additional

transmission line outage occur. The 33,000 customers are served from two separate lines, so a single line outage would take out approximately half of the 33,000.

4. Emerging Regional Impacts Identified by ColumbiaGrid: ColumbiaGrid was formed in 2006 by regional utilities to improve the operational efficiency, reliability, and planned expansion of the Northwest transmission grid through an open and transparent process. The ColumbiaGrid produces a Biennial Transmission Expansion Plan that addresses system needs in the Pacific Northwest, including the PSE system. The latest report indicated a need to improve the dependability of the transfer capability through the Puget Sound Area. This need occurs during high load conditions and much of the rest of the year as facilities such as transmission lines are taken out of service to do required maintenance and improvements. ColumbiaGrid indicated that a reduced risk of curtailments is needed to reliably deliver power from regional and renewable generation such as PSE's wind generation in eastern Washington, to King County. Also, there are regional commitments to increase flows across the Northern Intertie to 2300 MW that will show up in the ten-year time frame.

   To significantly reduce regional curtailments, ColumbiaGrid identified six specific projects which include installing inductors on the 115 kV system in Seattle, adding a 500-230 kV transformer at BPA's Raver Substation in south King County, and increasing 230 kV south-north transmission capacity along the Eastside.

Statements of Need

The 2013 Eastside Needs Assessment confirmed that by winter of 2017-18, there is a transmission supply need on the Eastside of Lake Washington which impacts PSE customers and communities in and around Kirkland, Redmond, Bellevue, and Newcastle along with Clyde Hill, Medina, and Mercer Island. The supply need focuses on the two 230 kV supply injections into central King County at Sammamish Substation in the north and Talbot Hill Substation in the south. The transmission supply becomes a need at a PSE load level of approximately 5,200 MW, where overloads will result in operating conditions that will put thousands of Eastside customers at risk of outages. According to PSE projections, demand is expected to exceed this level in winter 2017-18.

The assessment also identified that higher overloads are expected to develop as load grows beyond the 5,208 MW (100% conservation) shown in 2017-18. For example as shown below, if only 75% of the conservation forecast is achieved - equivalent to 5,300 MW load in that same time period, the overloads will have grown. By the end of the 10 year study period, the study indicates that overloads will continue to grow even with all of the projected conservation in effect. These possible overloads will result in more hours operating under conditions that will put thousands of Eastside customers at risk of outages.

Under both load forecast conditions (full conservation and 75% conservation), the overloads occur for both Category B contingencies which are the loss of a single element (i.e., "N-1") and Category C contingencies which are the loss of more than one element, (i.e., "N-1-1" or "N-2"). Table 1-1 shows the overloads expected by 2017-18 for winter peak under normal weather conditions.

Table 1-1: Potential Thermal Violations for 2017-18 Winter Peak with Normal Weather

	2017-18 Winter Peak	2017-18 Winter Peak
	5208 MW	5325 MW
Contingency	100% Conservation	75% Conservation
Cat B (N-1)	Talbot Hill - Lakeside #1 115 kV line – 98.6%	Talbot Hill - Lakeside #1 115 kV line – 99.9%
	Talbot Hill - Lakeside #2 115 kV line – 98.4%	Talbot Hill - Lakeside #2 115 kV line – 99.8%
	Talbot Hill 230-115 kV transformer #2 – 90.3%	Talbot Hill 230-115 kV transformer #1 – 90.9%
		Talbot Hill 230-115 kV transformer #2 – 92.4%
Cat C (N-1-1)	Talbot Hill-Lakeside #1 115 kV Line - 127.8%	Talbot Hill-Lakeside #1 115 kV Line - 129.9%
	Talbot Hill-Lakeside #2 115 kV Line - 127.6%	Talbot Hill-Lakeside #2 115 kV Line - 129.7%
	Talbot Hill 230-115 kV transformer #1 - 105.7%	Talbot Hill 230-115 kV transformer #1 - 108.1%
	Talbot Hill 230-115 kV transformer #2 - 105.7%	Talbot Hill 230-115 kV transformer #2 – 107.6%
	Talbot Hill-Boeing Renton-Shuffleton 115 kV Line - 110.6%	Talbot Hill-Boeing Renton-Shuffleton 115 kV Line - 112.5%
	Shuffleton – O'Brien 115 kV Line – 97.9%	Shuffleton – O'Brien 115 kV Line – 99.7%
	Shuffleton – Lakeside 115 kV Line – 97.3%	Shuffleton – Lakeside 115 kV Line – 98.9%
Cat C (N-2 or Common Mode)	Talbot Hill-Lakeside #1 115 kV Line - 101.5%	Talbot Hill-Lakeside #1 115 kV Line – 100.5%
	Talbot Hill-Lakeside #2 115 kV Line - 101.1%	Talbot Hill-Lakeside #2 115 kV Line – 103.0%
	Talbot Hill 230-115 kV transformer #1 – 91.8%	Talbot Hill 230-115 kV transformer #1 – 93.8%
	Talbot Hill 230-115 kV transformer #2 – 92.8%	Talbot Hill 230-115 kV transformer #2 – 94.4%

The analysis also identified that overload conditions will occur for Summer Peak conditions under normal weather. These overloads can occur as early as 2014 with a load level of approximately 3,300 MW. These overloads increase by the year 2018 when the load is expected to increase to 3,500 MW. Those issues are listed in Table 1-2.

Table 1-2: Potential Thermal Violations for 2014 and 2018 Summer Peak with Normal Weather

	2014 Summer Peak	2018 Summer Peak
	3343 MW	3554 MW
Contingency	100% Conservation	100% Conservation
Cat B (N-1)	Monroe-Novelty Hill 230 kV line - 132.6%	Monroe-Novelty Hill 230 kV line - 133.0%
	Maple Valley - Sammamish 230 kV line - 111.4%	Maple Valley - Sammamish 230 kV line - 132.3%
		Talbot Hill - Lakeside #1 115 kV line - 93.9%
		Talbot Hill - Lakeside #2 115 kV line - 93.8%
Cat C (N-1-1)	Sammamish 230-115 kV transformer #1 - 95.5%	Sammamish 230-115 kV transformer #1 - 100.7%
	Sammamish 230-115 kV transformer #2 - 100.8%	Sammamish 230-115 kV transformer #2 - 106.4%
		Beverly Park - Cottage Brook 115 kV line - 100.5%
		Sammamish - Lakeside #2 115 kV line - 99.8%

When winter load reaches the point that overloads are possible, PSE or BPA would use CAPs to automatically or manually prevent overloads under the NERC reliability requirements. The CAPs required to prevent N-1-1 overloads would open lines between Sammamish and Talbot Hill. Some of the CAPs place customers at risk of outage due to transmission lines being switched to a radial supply, with no backup transmission line available. Load growth by the end of the 10 year study period will result in additional lines required to be opened, putting over 60,000 customers at risk of resulting outages. Some of the CAPs are set up today as BPA nomograms or PSE manual corrective action plans. If extreme winter weather were to occur today, loading would be high enough that CAPs would be employed to remain NERC compliant.

Future load growth will result in additional lines required to be opened, putting over 60,000 customers at risk of resulting outages. Additional power supply is needed in the central King County area to prevent overloads and outages, see .Figure 1-3.

The diagram below indicates areas at risk of outage if switching is performed to prevent overloads, and then subsequent outages occur on transmission lines that had been switched open. The subsequent outages could be due to radial lines experiencing faults due to car-pole accidents, lightning, or tree limbs. Outages could also occur if PSE dispatchers must drop load to prevent transformer overloads while transmission lines are switched open. In the diagram, green lines indicate a line or transformer whose loss during peak winter load could result in overloads of other system elements. The gold colored lines indicate those lines or transformers at risk of overloading when the green element trips out. The gray shaded areas indicate where customers would be at risk of outage from switching to mitigate the overloads.

This study finds that within the 10 year study period, additional transmission supply to the Eastside is needed to meet future demand growth of the area.

Figure 1-3: Topological View of the Needs Assessment of the Eastside of Lake Washington

Section 2 Introduction and Background Information

2.1 Study Objective

The study objective was to assess the capability of existing transmission infrastructure to supply the communities on the east side of Lake Washington, called the "Eastside", within Puget Sound Energy's (PSE's) central King County area. These communities include Bellevue, Kirkland, Redmond, Mercer Island, and Newcastle as well as the smaller towns along the shore. A review was performed to determine the needs for future transmission supply to the Eastside. This study review was performed due to concerns identified in 2009 TPL studies that were related to the projected future loading on the Talbot Hill Substation, future requirements of the Columbia Grid, and operational issues of PSE's control area. These supply issues were exacerbated by impacts on the PSE system due to Puget Sound Area Northern Intertie (PSANI) related events during winter supply conditions and heavy south to north flows that had been identified in analysis conducted by Columbia Grid.

This present report reviews the entire infrastructure, and design of the transmission system with respect to present and future viability. The following tasks were completed as part of this study review and are discussed in this report: (i) updated the block load forecast of the King County area; (ii) merged this block load forecast into the 2012 PSE system load forecast (iii) conducted future performance simulations of the King County area for the years 2014, 2018 and 2022; (iv) reviewed the Columbia Grid 2013 Biennial Transmission Expansion Plan; and (v) reviewed operational issues with PSE's control area operators; and (vi) aligned the recommendations with the recommendations from the Columbia Grid analysis of PSANI events under heavy south to north flows.

Quanta Technology, LLC., assisted Puget Sound Energy in conducting this study, including research, analysis and documentation.

2.2 Background Information

One of the major drivers in the determination of need for additional transmission facilities is the existing load on the system and the projected load growth that is expected to occur. As early as 2008, PSE had indications that additional transmission supply was needed to support the central King County portion of PSE's service territory. In 2008, PSE conducted a King County Transformation Study that indicated increased loading had occurred at the Talbot Hill Substation, which has two 230-115 kV transformers. Concerns were noted that if load continued to grow in the area, then by 2017-18 one transformer would overload if the other transformer tripped off-line. This study used the F2008 Puget Sound Energy Electric Load Forecast.

The needs for additional transmission sources into central King County were confirmed while performing the mandatory NERC 2009 reliability compliance studies. In that analysis, PSE observed a potential thermal issue when there was a bus fault at Talbot Hill Substation. The bus fault caused the overload of a Talbot Hill transformer for the loss of the other transformer for the 2010-2011 winter peak[12]. Based upon the adjusted 2009 PSE load forecast, the peak load modeled in the 2010-2011 Winter peak case was 5,329 MW[13]. For the 2018-2019 Winter peak case a load of 5,765 MW was modeled.

To resolve this equipment overload, a temporary measure of manually switching out two 115-kV lines from Talbot Hill –Lakeside was identified as a Corrective Action Plan (CAP) that could be used to mitigate the overload[14]. The CAP would be used at a PSE load level of approximately 5,300 MW. At that time, PSE implemented the CAP and has been using it in its operations for managing the reliability of service in that area.

[12] Page 13, 2009 PSE Planning Studies and Assessment TPL-001 to TPL-004 Compliance Report

[13] Page 7, 2009 PSE Planning Studies and Assessment TPL-001 to TPL-004 Compliance Report

[14] Page 22, 2009 PSE Planning Studies and Assessment TPL-001 to TPL-004 Compliance Report

In early 2009, PSE's corporate load forecast group responded to the national economic crisis to re-evaluate the projected load forecast. The resulting revision reduced the forecast 2010-11 winter peak by 3% from the previous year's forecast.

In 2009, PSE set their all-time record loads for both the winter and summer seasons. The 2009 winter peak load was 5,038 MW and the 2009 summer peak was 3,509 MW. This compares with a 2009 forecast of 4,973 MW for winter and 3,086 MW for summer. Neither the forecast number nor the peak load includes the 270 MW of transmission level customers used in the area load. It should be noted that the 2009 winter peak forecast assumed a normal winter temperature of 23° F, while the peak load occurred with a temperature of 16°F. For a discussion of the forecast methodology and the limitations on its use, see Section 4.1.5.

2.3 King County Area Description

King County is a major load center of the Puget Sound Region. The Eastside area is in central King County and includes the cities of Redmond, Kirkland, Bellevue, Mercer Island, Newcastle and Renton, as well as the smaller towns of Yarrow Point, Hunts Point, Medina, Clyde Hill and Beaux Arts. The greater Eastside area also includes towns and cities to the north and east of the core area which are not a focus of this study: Bothell, Woodinville, Duvall, Carnation, Sammamish, Issaquah, Preston, Fall City, Snoqualmie, and North Bend.

Figure 2-1 Street Map of Eastside Area

The load density of north King County is shown below in Figure 2-2. The map shows that the most densely populated areas, shown in red, of King County are Kenmore, Kirkland, Redmond, Bellevue, and Renton.

The easterly border of King County is along the Cascade Mountain Range, which creates a natural obstacle between the densely populated western Washington communities clustered around Seattle and Tacoma, and the sparsely populated arid region of eastern Washington.

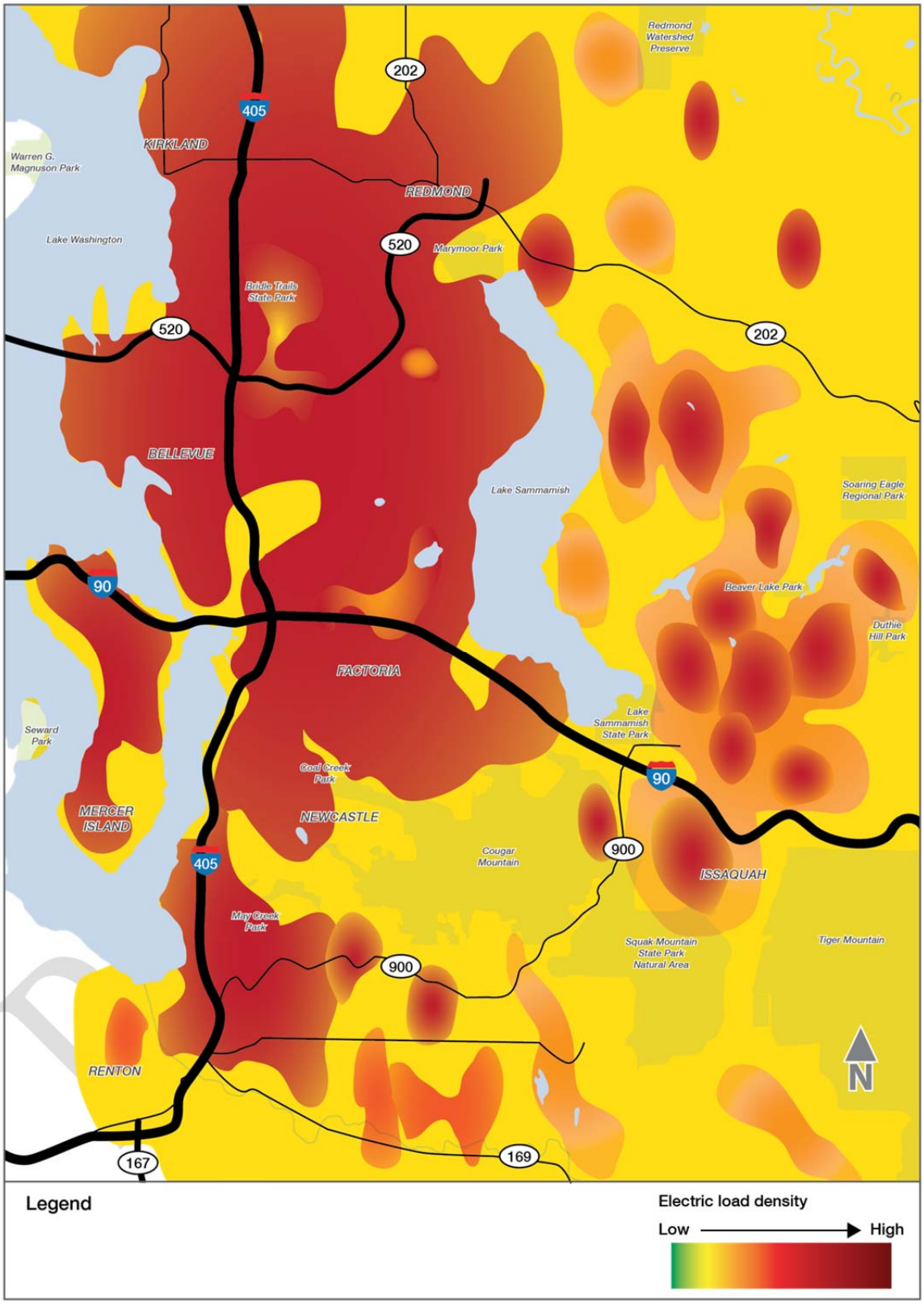


Figure 2-2: King County Load Density Map

The King County load is supplied from Bonneville Power Administration's (BPA) 500 kV sources at Monroe (Monroe), SnoKing (Mill Creek) Maple Valley (Renton), and Covington (Covington) Substations, as well as 500 kV switching stations at Echo Lake (south of Snoqualmie) and Raver (Ravensdale). There is very little generation in King County; a small amount of hydro generation in eastern King County provides less than 5% of the county's peak load requirements. Therefore PSE depends on its transmission system and on transmission interconnections with neighboring utilities to bring power to its load center in King County.

King County also has 230 kV supply from the following substations: Sammamish (Redmond), Novelty Hill (Redmond Ridge), Talbot Hill (Renton), O'Brien (Kent), and Berrydale (Covington). To serve the loads in King County, there are eight 230 kV/115 kV transformers; two at Sammamish, two at Talbot Hill, and one at Novelty Hill, two at O'Brien, and one at Berrydale. North King County load is generally served by Sammamish and Novelty 230 kV sources but due to the interconnecting nature of the system, Talbot Hill transformers serve part of the North King and South King systems. Sammamish and Novelty Hill are both connected to the Monroe-Maple Valley 230 kV line, which is leased from BPA. See Figure 2-3 and Figure 2-4 on the following pages.

Redacted

Figure 2-3: Puget Sound Area System Overview One-Line Diagram

Redacted

Figure 2-4: Major Electrical Infrastructure Supporting the Eastside Area

The 11 - 115 kV lines out of Lakeside Substation serve 15 substations in Bellevue and 14 substations in Newcastle, Issaquah, Mercer Island, Medina, Kirkland and Redmond, as shown in Figure 2-5. Lakeside Substation is supplied by 230-115 kV transformers at Sammamish and Talbot Hill. Lakeside connects to switching stations at Shuffleton (Renton), Lake Tradition (Issaquah) and Ardmore (Bellevue). In the Eastside area, when regional power flows are from south to north the power serving the Eastside will generally flow from south to north. In this case, power for the Eastside starts at Talbot Hill and flows north to Lakeside and continues to Sammamish Substation. When regional flows are north to south, Talbot Hill will still feed north past Lakeside but power will also flow south out of Sammamish Substation which feeds approximately sixty percent of the load between Sammamish and Lakeside Substations during north-south regional flows. Talbot Hill is a strong source of supply between Lakeside and Sammamish Substations.

Canada is 3x greater than eastside

Redacted

Figure 2-5 One-Line Diagram of Eastside Study Area

All of the 115 kV transmission lines in the Eastside area have been uprated to their maximum capacity ratings, except the two lines to Mercer Island, which operate normally open. PSE has two 115 kV transmission lines on separate structures on a transmission right of way (ROW) between Sammamish and Talbot Hill Substations, which interconnect at Lakeside Substation. There are three 115 kV lines in parallel with this corridor in the north, two lines in parallel in the south, all supplying load to distribution substations.

The Bellevue area is a higher-density load center without a 230 kV bulk transmission source nearby. With 230 kV supplies in the north at Sammamish Substation and the south at Talbot Hill Substation, lower-capacity 115 kV transmission lines bring power to Bellevue from the 230 kV transmission substations in Redmond and Renton.

2.4 Study Horizon

PSE has studied the Eastside area for the near-term (years 1-5) and long-term (years 6-10) horizons. Since PSE peaks during the winter season, the reliability analysis focused on the winter peak for years 2013-14, 2017-18, and 2021-22. Summer peak was also analyzed for years 2014 and 2018 for the annual 2012 NERC TPL analysis; the 2012 NERC TPL summer results were included in this study.

Section 3 Analysis Description

A number of comprehensive reliability analyses were performed to determine the present and future transmission supply to the central King County area. The following detailed studies were performed to assess any adverse conditions to the reliability and operating characteristics of the PSE system or surrounding systems in the context of applicable standards:

2013 Eastside Needs Assessment: Power flow simulations were performed for the near and far-term horizon to determine if there are any thermal or voltage violations to King County's Eastside area. Past studies have shown supply issues to this area. While the recent economic downturn has impacted the future load growth projections of PSE overall, the load within the Eastside continues to grow. This study uses the latest corporate load forecast and adjusts the lumpiness of the load based on PSE's knowledge of future block loads. Can PSE provide

2008 Initial King County Transformation Study: Power system simulation studies were performed on the King County system which indicated increased loading at Talbot Hill Substation, pointing to future overloads of either transformer for the loss of the other transformer at Talbot Hill. A bus section fault or loss of one of the lines from BPA Maple Valley Substation could also result in Talbot Hill transformer overloads.

2009 PSE Planning Studies and Assessment-TPL-001 to TPL-004 Compliance Report: As required per the 2009 NERC Compliance Enforcement Program, PSE performed an assessment of the system based on criteria described in NERC Standards TPL-001 through TPL-004. There were a number of potential overloads and voltage violations identified with these studies. The proposed solutions are generally system projects that will mitigate the issues via a topology change, line uprate, or additional transformation. The solutions may also take the form of a Remedial Action Scheme (RAS), as well. PSE demonstrated through a valid assessment that its portion of the interconnected transmission system is planned such that the Network can be operated to supply projected customer demands and projected Firm (non-recallable reserved) Transmission Services, at all demand levels over the range of forecast system demands, under the contingency conditions.

2012 PSE Planning Studies and Assessment-TPL-001 to TPL-004 Compliance Report:
PSE performed an assessment of the system based on criteria described in NERC Standards TPL-001 through TPL-004. There were a number of potential overloads and voltage violations identified with these studies. The proposed solutions are generally system projects that will mitigate the issues via a topology change, line uprate, or additional transformation. The solutions may also take the form of a Remedial Action Scheme (RAS), as well.

BPA Transformation Study: A study was conducted by PSE in 2010 to review the impact of BPA 500-230 kV transformation at Monroe, Maple Valley or Covington which had been identified by BPA as alternative sites for the new transformer. A Covington transformer plus Lakeside 230-115 kV transformation provides better improvements to stressed contingencies than Covington plus Lake Tradition, Berrydale and Christopher 230-115 kV transformers combined. A Maple Valley transformer would stress PSE's system in the Talbot Hill vicinity more than a Covington transformer. Have PSE detail

Is City Lights part of? If so why not their eastside right of ways

ColumbiaGrid 2013 Biennial Transmission Expansion Plan: ColumbiaGrid 2013 Biennial Transmission Expansion Plan looks out over a ten-year planning horizon (2013 - 2023) and identifies the transmission additions necessary to ensure that the parties to the ColumbiaGrid Planning and Expansion Functional Agreement can meet their commitments to serve load and meet firm transmission service commitments. The Expansion plan still includes the addition of a Lakeside 230-115 kV transformer in the Ten-Year Plan, and the additional 230-115 kV transformation at Lake Tradition in the long term. The new issues in the 2013 Expansion plan include Northern Intertie transfer issues.

Why are these PSE's? & not BPA & water controlers

A limitation in the 500/230 kV transformation in the Puget Sound area was noted in previous System Assessments. To resolve this issue, The Puget Sound Area Transmission Expansion Plan and the ColumbiaGrid Ten-Year Plan include a new 500-230 kV transformer at Raver which is scheduled to be installed in 2016.

Study Criteria: The following is a list of the criteria, standards and guides which apply to this needs statement:

1. TPL-001- System Performance Under Normal (No Contingency) Conditions (Category A)
2. TPL-001-WECC-CRT-2 – System Performance Criterion Under Normal Conditions, Following Loss of a Single BES Element, and Following Extreme BES Events:
3. TPL-002 - System Performance Following Loss of a Single Bulk Electric System Element (Category B)
4. TPL-003 - System Performance Following Loss of Two or More Bulk Electric System Elements (Category C)
5. TPL-004 - System Performance Following Extreme Events Resulting in the Loss of Two or More Bulk Electric System Elements (Category D)
6. PSE's Transmission Planning Guidelines
7. Northwest Power Pool Coordinated Plan
8. PSE Procedures to Establish and Communicate Operating Limits

Section 4 Study Assumptions

4.1 Steady State Model Assumptions

4.1.1 Study Assumptions

The 230 kV Eastside Area steady state models were developed to be representative of the long term projection of the winter peak system demand level to assess reliability performance under heavy load conditions. The model assumptions included consideration of Puget Sound area generation units' unavailability conditions as well as variations in surrounding area transfer level conditions.

The following assumptions are used in the 2013 Eastside Needs Assessment. The primary focus was on the winter peaks for years 2013-14, 2017-18, and 2021-22 utilizing the latest corporate load forecast modified to reflect the lumpiness of the load by substation. The Eastside load is defined as the sum of the MW flows out of the bus on the Talbot Hill end of the Talbot Hill - Lakeside #1 & #2 115 kV lines, Shuffleton end of the Shuffleton - Lakeside 115 kV line, Lake Tradition end of the Lake Tradition - Goodes Corner - Lakeside 115 kV line, and Sammamish end of the Sammamish - Lakeside #1 & #2, Sammamish - North Bellevue - Lakeside, Sammamish - Lochleven - Lakeside, and Sammamish - Ardmore - Lakeside 115 kV lines.

The difference in winter peak load forecasts with 100% conservation from 2013-14 to 2021-22 is 138 MW, which on average, is only approximately 15 MW per year (see Figure 4-1). Sensitivities on the amount of conservation and weather were run to reflect the inherent risks associated with an essentially flat load growth. Figure 4-1 shows the load levels in the study with various levels of conservation.

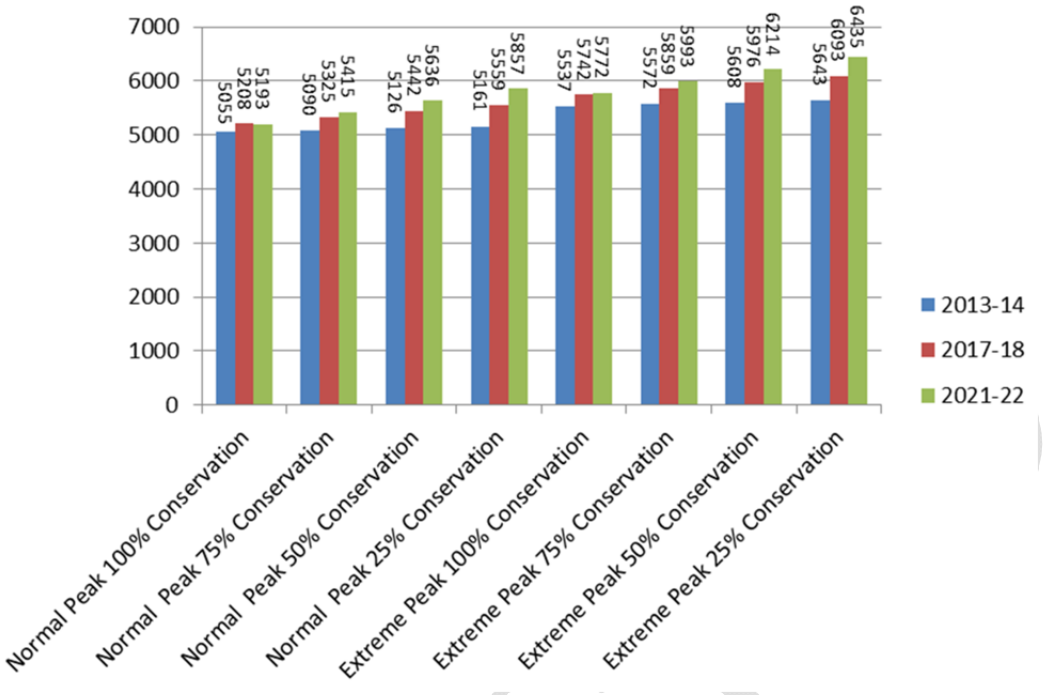


Figure 4-1: Winter Peak Load Growth with Varying Levels of Conservation

The Northern Intertie for the winter peak was modeled with a south to north flow of 1,500 MW into Canada.

The generation dispatches for the winter peak were modeled to reflect the standard way PSE studies the King County area which is to reduce generation in the north of the PSE area to create a greater south to north power flow during contractual flows from the Northwest to Canada. A winter low generation sensitivity case with adjusted Puget Sound area generation was run to identify risks associated with running a no Puget Sound Area generation case.

4.1.2 Source of Power Flow Models

The power flow models used in the study were based on WECC base cases created in 2012 for the winters 2012 -13, 2016 -17 and 2021-22 and for summers 2012 and 2017. These base cases are updated annually by all WECC members to reflect expected load forecasts, planned projects, generation changes and system adjustments. The 2012-13 winter case was modified to model the expected 2013-14 winter, the 2016-17 winter case to 2017-18 winter, the 2012 summer case to 2014 summer, and the 2017 summer case to 2018 summer. The cases were updated to reflect the PSE Corporate load forecast as discussed in Section 4.1.5.

The winter cases were then adjusted to reflect the case where the region sees high south to north power flows with no Puget Sound area generation. In previous studies, this scenario was the one that indicated the greatest problems on the Eastside in the winter. For TPL studies, four other scenarios are also studied:

- High South to North flows on the Northern Intertie with high Puget Sound area generation
- High South to North flows on the Northern Intertie and high south to north flows on the Paul - Raver 500 kV line with no Puget Sound area generation
- High North to South power flows on the Northern Intertie with no Puget Sound area generation
- High North to South power flows on the Northern Intertie with high Puget Sound area generation

The summer cases were run through four generation and Northern Intertie scenarios for PSE's 2012 TPL report; the TPL report summer results were used for this study.

The adjusted cases were then tailored for system improvements. Most improvements had been included already in the WECC cases. Additionally, the Seattle City Light (SCL) inductors and the Raver transformer were modeled. The PSE Lakeside 230 kV project was removed from the 2018 summer and 2021-22 winter cases since this project was proposed for perceived Eastside transmission supply need.

The cases were also adjusted for forecasted load in future years. First a block load adjustment was made where expected load is known for substations in King County. Then the system load for each of the study years was scaled to the level forecasted by PSE's Load Forecast Group in 2012.

4.1.3 Transmission Topology Changes

Projects added to the Eastside Needs Assessment base case are listed in Section 9 - Appendix B Table B-1 and Table B-2.

4.1.4 Generation Additions and Retirements

In addition to the generation increases included in the WECC base case by other utilities, PSE added generation capacity at the Snoqualmie and Lower Baker hydro units in 2013. These increases were modeled in the summer cases. The winter cases used no Puget Sound area generation for low generation scenarios, so the additional hydro generation was not relevant.

4.1.5 Forecasted Load (including assumptions concerning energy efficiency, interruptible loads, etc.)

The 2012 PSE Corporate system load forecast was used as a basis for the demand levels modeled in the study. PSE Corporate Load Forecast Group uses econometric regression models (*not end use models*) to forecast use per customer and customer counts for its electric and gas service area. The regression models are developed by customer class, such as residential, commercial, industrial, and so on.

The use-per-customer and customer equations are driven by a number of regional economic, demographic, weather, binary and other independent variables. The forecasts of the underlying economic and demographic variables are developed using information from Moody's Analytics and other regional sources of economic data.

The use per customer equation is driven primarily by historical data and variables such as unemployment rate, total employment, manufacturing employment, real personal income, retail rates and weather variables like heating and cooling degree days. The base forecast created by the regression model is modified appropriately to account for impacts of conservation programs and any known changes to large customers managed by the major accounts group. The conservation estimates prepared by the Integrated Resource Planning team distribute the implementation of conservation measures based on cost effectiveness analyses. The forecast of conservation savings is a major determinant of the final shape of the load forecast.

Customer count growth is driven by historical data and changes in population, household growth, housing permits, total employment and manufacturing employment in PSE's service area.

A major influence on PSE in the early 1990s was Washington's Growth Management Act (GMA). Elements of the GMA provide direction as to where growth and load will locate. PSE's planning process continues to provide input and updates on future planned transmission and distribution facilities for local jurisdiction Comprehensive Plan revisions to support their growth forecasts. Overall, the GMA and the local Comprehensive Plans coupled with PSE Annual Corporate Customer and Sales Forecasts provide a measure of predictability as to where and when construction of planned facilities will be needed.

PSE Annual Corporate Customer and Sales Forecasts include summer and winter peak load forecasts for a 20 year period. These forecasts include both normal and extreme winter load levels, with and without Demand Side Resources (DSR). Forecasts for Network Loads and other T & D service categories are obtained from customers

annually for a 10-year period. Transmission Planning uses the most recent normal peak loads as a starting point and checks sensitivities to forecasted load as set forth in the NERC transmission planning requirements[15].

Table 4-1 shows PSE's 20 year load forecasts for the calendar years of 2010 to 2012 for normal (23° F) and extreme weather (13° F) with 100% conservation. PSE Load Forecast is provided for PSE system load, and does not include the 270 MW of Transmission Customer industrial loads. Transmission Customer loads are included in the area load for the TPL and 2013 Eastside Need Assessment. The load forecasts have decreased from the earlier years. The 2013 Eastside Need Assessment used the latest forecast.

From Table 4-1, the total load growth between 2013 and 2021 for normal weather is 138 MW. The difference in load between normal weather and extreme weather for 2013 is 482 MW. If the temperature on the peak day drops from 23° F to 13° F, the load increase would be approximately 3.5 times the total normal load growth over the study period.

[15] TPL-001-2 R2.1.4: http://www.nerc.com/docs/standards/sar/atfnsdt_recirc_ballot_tpl_001_2_clean_20110711.pdf

Table 4-1: PSE Load Forecasts from 2010 to 2012 for Normal and Extreme Weather

	Forecasted 2010		Forecasted 2011		Forecasted 2012	
Year	Max of Normal Peak w/ DSR	Max of Extreme Peak w/ DSR	Max of Normal Peak w/ DSR	Max of Extreme Peak w/ DSR	Max of Normal Peak w/ DSR	Max of Extreme Peak w/ DSR
2010	4,842	5,260	4,781	5,253		
2011	4,868	5,291	4,878	5,363		
2012	4,913	5,344	4,893	5,388	4,837	5,316
2013	4,947	5,387	4,925	5,433	4,785	5,267
2014	4,961	5,407	4,965	5,487	4,836	5,333
2015	4,947	5,400	4,979	5,513	4,865	5,375
2016	4,954	5,414	5,003	5,548	4,909	5,432
2017	4,967	5,434	5,023	5,579	4,938	5,472
2018	4,989	5,462	5,027	5,593	4,938	5,483
2019	5,017	5,498	5,044	5,622	4,946	5,501
2020	5,063	5,551	5,025	5,615	4,923	5,490
2021	5,141	5,639	5,028	5,630	4,923	5,502
2022	5,222	5,731	5,078	5,693	4,972	5,562
2023	5,302	5,821	5,149	5,775	5,039	5,641
2024	5,383	5,913	5,225	5,865	5,117	5,732
2025	5,466	6,007	5,303	5,955	5,193	5,820
2026	5,547	6,099	5,382	6,047	5,266	5,905
2027	5,629	6,192	5,464	6,142	5,341	5,993
2028	5,711	6,285	5,552	6,244	5,426	6,090
2029	5,795	6,380	5,645	6,351	5,515	6,192
2030			5,490	6,091	5,605	6,296
2031					5,694	6,399
2032					5,785	6,504
2033					5,878	6,610

The conservation in MW, by county, utilized in the 2012 forecast is shown below in Table 4-2.

Table 4-2: Conservation in MW, by County

Conservation Effects by County Normal Peaks (23ºF) 100% Target Conservation (MW)										
Year of Study	King	Thurston	Pierce	Whatcom	Skagit	Island	Kitsap	Kittitas	Jefferson	Total
2012	33.0	7.8	6.9	5.2	3.4	2.1	7.4	0.8	1.3	67.9
2013	69.6	16.5	14.6	10.8	7.2	4.4	15.5	1.7	2.7	142.9
2014	112.3	26.7	23.6	17.5	11.5	7.0	24.8	2.7	4.3	230.5
2015	158.5	37.8	33.2	24.6	16.2	9.9	34.8	3.9	6.1	324.9
2016	196.1	46.8	41.0	30.3	20.0	12.1	42.7	4.8	7.5	401.5
2017	233.0	55.6	48.6	35.9	23.7	14.3	50.3	5.8	8.9	476.2
2018	280.4	66.9	58.3	43.1	28.4	17.2	60.1	7.1	10.7	572.1
2019	325.4	77.6	67.4	49.8	32.9	19.8	69.2	8.3	12.4	662.9
2020	389.5	92.8	80.4	59.5	39.2	23.5	82.2	10.2	14.9	792.1
2021	443.5	105.6	91.2	67.5	44.6	26.6	92.8	11.7	16.9	900.4
2022	474.0	112.9	97.3	72.0	47.6	28.2	98.4	12.7	18.0	961.1
2023	495.6	118.0	101.4	75.1	49.6	29.3	102.1	13.4	18.8	1003.4
2024	514.9	122.6	105.1	77.9	51.5	30.3	105.3	14.1	19.5	1041.2
2025	535.1	127.3	109.0	80.7	53.3	31.3	108.5	14.7	20.3	1080.3

Figure 4-2 shows the twenty year window of PSE's Winter Normal Peak with 0%, 25%, 50%, 75% and 100% conservation. As Figure 4-2 shows, with 100% conservation, the load levels of PSE are relatively flat for the years of study. The difference between 2013 and 2021 is 138 MW.

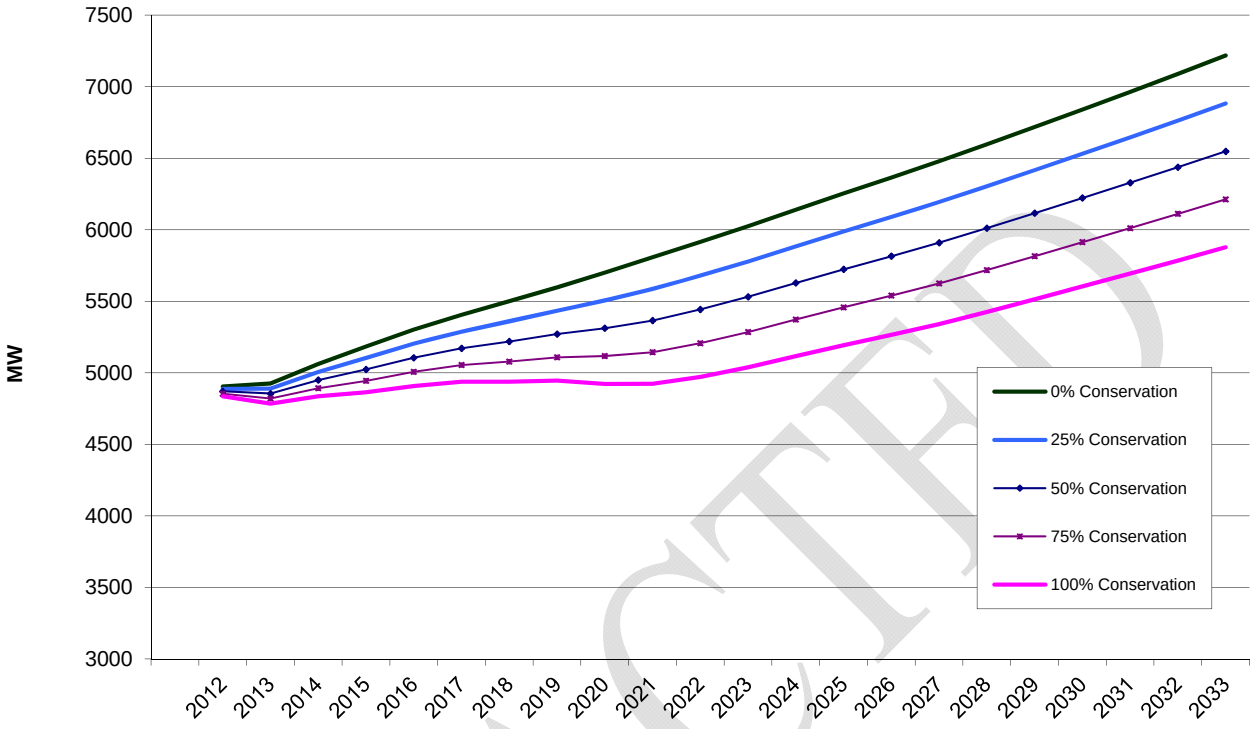


Figure 4-2: Twenty Year Graph of PSE's Forecast Winter Normal Peak with 0%, 25%, 50%, 75% and 100% Conservation

4.1.6 Load Levels Studied

For the power flow studies associated with the 230 kV Eastside Needs Assessment, the heavy winter 2013-14, 2017-18 and 2021-22 cases were used. Substation loading for the PowerWorld cases was developed using the substation loading at the time of the January 18, 2012 system peak as a proxy to the distribution of the load. There were a few substations without Supervisory Control and Data Acquisition (SCADA) load readings. Those substations were assigned values based on manual onsite substation load readings during the same load cycle. Both megawatts (MW) and megavars (MVAR) were determined in this manner.

Small Area Load Forecast: PSE distribution planners keep current on developments planned for their respective planning areas. These anticipated new loads are generally known within a 2-5 year time frame; specific projects are not often known with confidence beyond 5 years in advance. PSE planners reviewed such new loads expected in the King County area within the study period and added those expected loads to the historical load for each substation. These small area load adjustments were included in the substation load spread before the company-wide load was scaled to the corporate load forecast.

Transmission Customer Load: The corporate load forecast together with the interconnected Transmission Customer load, or non PSE load, was used to determine future loads for the power flow studies. The Transmission Customer load typically runs between 250 MW and 300 MW. For purposes of this study, 270 MW was used for a typical value. For example, in the year 2013-2014 the winter peak load forecast for the PSE area is 5055 MW which comprises the projected forecast of 4785 MW plus 270 MW of Transmission Customer loads. Loads were developed similarly for years 2017-18 and 2021-22. For completeness, this non-PSE load was included in the 2013 Eastside Needs Assessment and is shown in Table 4-3.

Table 4-3: Winter Peak Load levels studied in the Eastside Needs Assessment

Area Load Used for Eastside 230 Study												
Year Studied	Report	Season	Normal Peak 100% Conservation	Normal Peak 75% Conservation	Normal Peak 50% Conservation	Normal Peak 25% Conservation	Normal Peak 0% Conservation	Extreme Peak 100% Conservation	Extreme Peak 75% Conservation	Extreme Peak 50% Conservation	Extreme Peak 25% Conservation	Extreme Peak 0% Conservation
2013-14	2012 E230	Winter	5055	5090	5126	5161	5196	5537	5572	5608	5643	5678
2017-18	2012 E230	Winter	5208	5325	5442	5559	5676	5742	5859	5976	6093	6210
2021-22	2012 E230	Winter	5193	5415	5636	5857	6078	5772	5993	6214	6435	6656

Note: PSE Load Forecast is provided for PSE system load, not including the 270 MW of Transmission Customer industrial load. Transmission Customer load is included in the area load for the TPL and Eastside Needs Assessment studies.

Conservation Sensitivities: The winter forecast was adjusted for sensitivities regarding the amount of expected conservation at peak load. PSE's corporate load forecast assumes 100% of the targeted conservation levels are achieved. To understand the reliability risk due to higher than expected load, PSE ran load sensitivity studies which adjusted conservation levels as a proxy for the higher loads. For the load sensitivity studies, conservation was adjusted to 75%, 50%, and 25% of expected values.

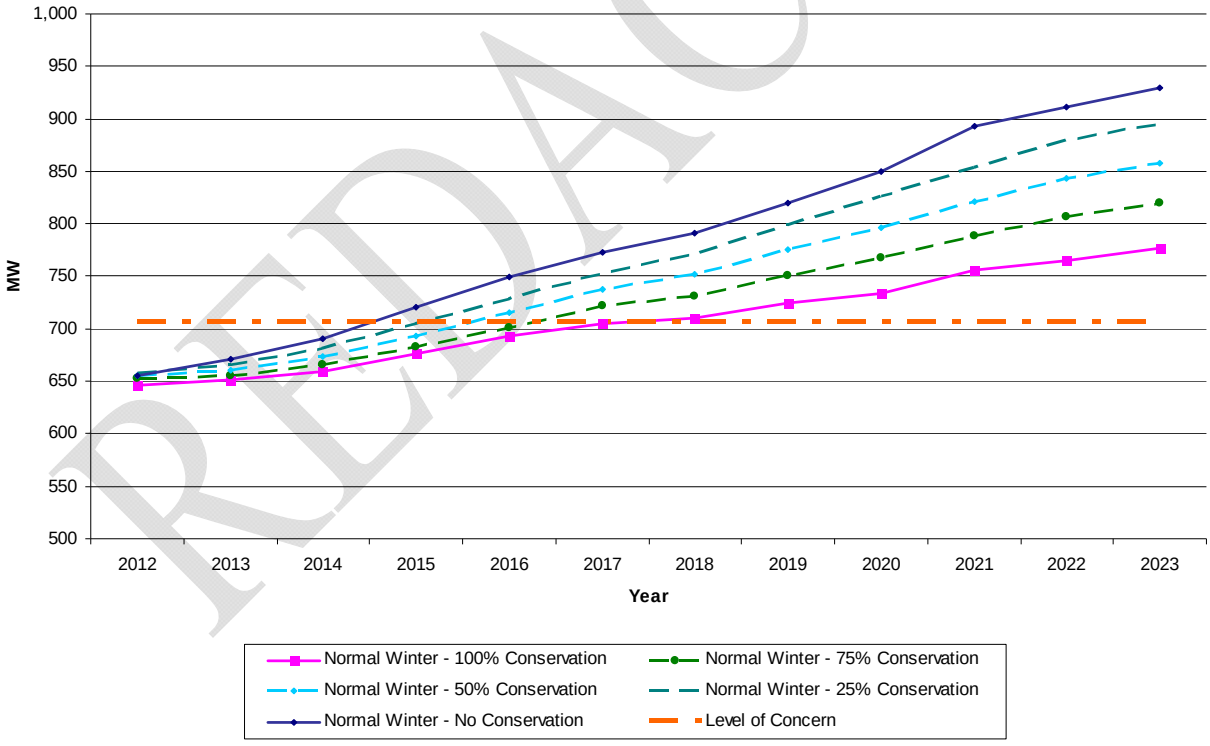


Figure 4-3: Eastside Load Forecast for Normal Winter Load Forecast 2012-2023

4.1.7 Load Power Factor Assumptions

The power factor at each substation was based on the MW and MVAR loadings at the time of the January 18, 2012 system peak. As the load levels changed based on the load forecast, the power factor at each substation did not change.

4.1.8 Transfer Levels

The NI (Northern Intertie) flows were assumed based on season and historic flows; Winter Peak NI-1500 MW S-N and Summer Peak NI-2850 MW N-S.

4.1.9 Generation Dispatch Scenarios

For the winter peak load cases, no PSE and SCL generation west of the Cascades were run. Tacoma Power generation was left on, due certain internal system constraints. The generators off-line in the Eastside Needs Assessment are listed in Table 4-4.

A low-generation case was simulated as a sensitivity. The Puget Sound area generation run during that case is indicated in Table 4-4.

Table 4-4: List of Puget Sound Area Generators Adjusted in the 2013 Eastside Needs Assessment

Generation Plant	Winter MW Rating	Expected MW Output during Winter Peak for Low-Generation Sensitivity Case	Type	Owner	Transmission Delivery Area
Enserch	184.8	125	Natural Gas, Combined Cycle	PSE	Whatcom County
Sumas	139.8	0	Natural Gas, Combined Cycle	PSE	Whatcom County
Ferndale	282.1	0	Natural Gas, Combined Cycle	PSE	Whatcom County
Whitehorn	162.2	0	Natural Gas, Simple Cycle	PSE	Whatcom County
Fredonia	341	0	Natural Gas, Simple Cycle	PSE	Skagit County
Sawmill	31	22	Biomass	Private Owner	Skagit County
Upper Baker	106	80	Hydro Dam	PSE	Skagit County
Lower Baker	78	54	Hydro Dam	PSE	Skagit County
Komo Kulshan	14	0	Hydro Run-of-River	Private Owner	Skagit County
March Point	151.6	134	Natural Gas, Combined Cycle	Shell	Skagit County
Ross	450	295	Hydro Dam	SCL	Snohomish County
Gorge	190.7	157	Hydro Dam	SCL	Snohomish County
Diablo	166	160	Hydro Dam	SCL	Snohomish County
South Tolt River	16.8	0	Hydro Run-of-River	SCL	Northeast King County
Snoqualmie	37.8	0	Hydro Run-of-River	PSE	East King County
Twin Falls	24.6	0	Hydro Run-of-River	Private Owner	East King County
Cedar Falls	30	0	Hydro Run-of-River	SCL	East King County
Freddy 1	270	0	Natural Gas, Combined Cycle	Atlantic Power/PSE	Pierce County
Electron	20	4	Hydro Run-of-River	PSE	Pierce County
Frederickson	162.2	0	Natural Gas, Simple Cycle	PSE	Pierce County
Expected MW output during Winter peak is based off of actual 2011-2012 Winter peak output except for SCL hydro, which is based off of modeled generation levels in WECC winter peak case.					

4.1.10 Reactive Resource and Dispatch Assumptions

All existing and planned area reactive resources were assumed available and dispatched if conditions called for their dispatch. The reactive output of units was constrained to defined limits and shunt reactive resources were dispatched as conditions required.

4.1.11 Conservation Assumptions

PSE employs conservation as a strategic measure to manage energy requirements and provide customer benefits. Conservation programs have been funded for over 20 years and are projected to continue to receive strong funding in the next 20 years. PSE's Energy Efficiency Group has demonstrated the efficacy of its funded programs on a continuing basis. As a result, conservation is included in PSE's Integrated Resource Plan (IRP) as a cost-effective source of new energy.

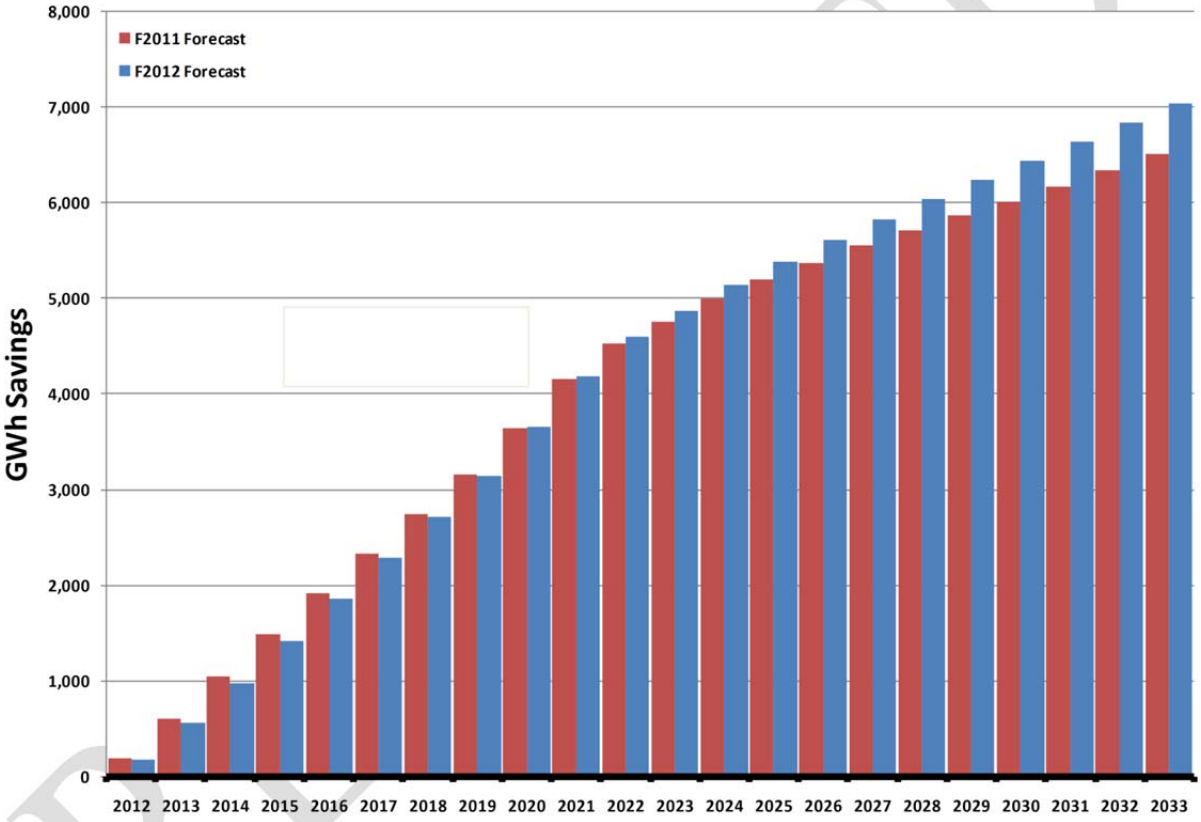


Figure 4-4: PSE Conservation Forecast in 20 year Horizon Measured in Gigawatt-Hours; Comparison of 2012 Forecast to 2011 Forecast

4.1.12 Explanation of Operating Procedures and Other Modeling Assumptions

PSE's Transmission Planning group has prepared a CAP that instructs PSE Transmission Operators to take certain actions in the event of either Talbot Hill 230-115 kV transformers overloading. While the CAP was initiated to address the potential for either transformer to exceed its emergency rating, the CAP can also be used to address the event of either transformer exceeding its operating limit as well.

The CAP instructs the PSE Transmission Operators to open the Talbot Hill – Lakeside #1 & #2 115 kV lines if either Talbot Hill 230-115 kV transformer overloads. The contingency that would cause the transformers to overload would be a double-contingency (N-1-1) loss of a Talbot Hill transformer and the Berrydale transformer during high winter loading.

With future load growth, the CAP may be expanded to state that if the transformer overload is not sufficiently reduced or the Shuffleton – Lakeside 115 kV line overloads as a result of opening the Talbot Hill – Lakeside #1 & #2 115 kV lines, then the Transmission operation should open the Shuffleton end of the Shuffleton – Lakeside and Lake Tradition end of the Lakeside – Goodes Corner – Lake Tradition 115 kV lines.

While none of these planned actions would drop load in a system normal configuration, the opening of the Shuffleton end of the Shuffleton – Lakeside and Lake Tradition end of the Lakeside – Goodes Corner – Lake Tradition 115 kV lines exposes three substations supplying 16,000 customers on the Shuffleton – Lakeside line and three substations supplying 17,000 customers on the Lakeside – Goodes Corner – Lake Tradition line to an outage on the lines, as shown in Figure 4-5. Furthermore, if the Talbot Hill – Lakeside #1 & #2, Shuffleton – Lakeside, and Lakeside – Goodes Corner – Lake Tradition lines are opened, North and Central King County is at risk of manual load shedding for an N-1-1 loss of the Novelty Hill 230-115 kV transformer and one of the two Sammamish 230-115 kV transformers. See Figure 4-5 below that shows areas in jeopardy of outage when transmission lines are opened under the CAP's to prevent overloads of the Talbot Hill and Sammamish transformers.

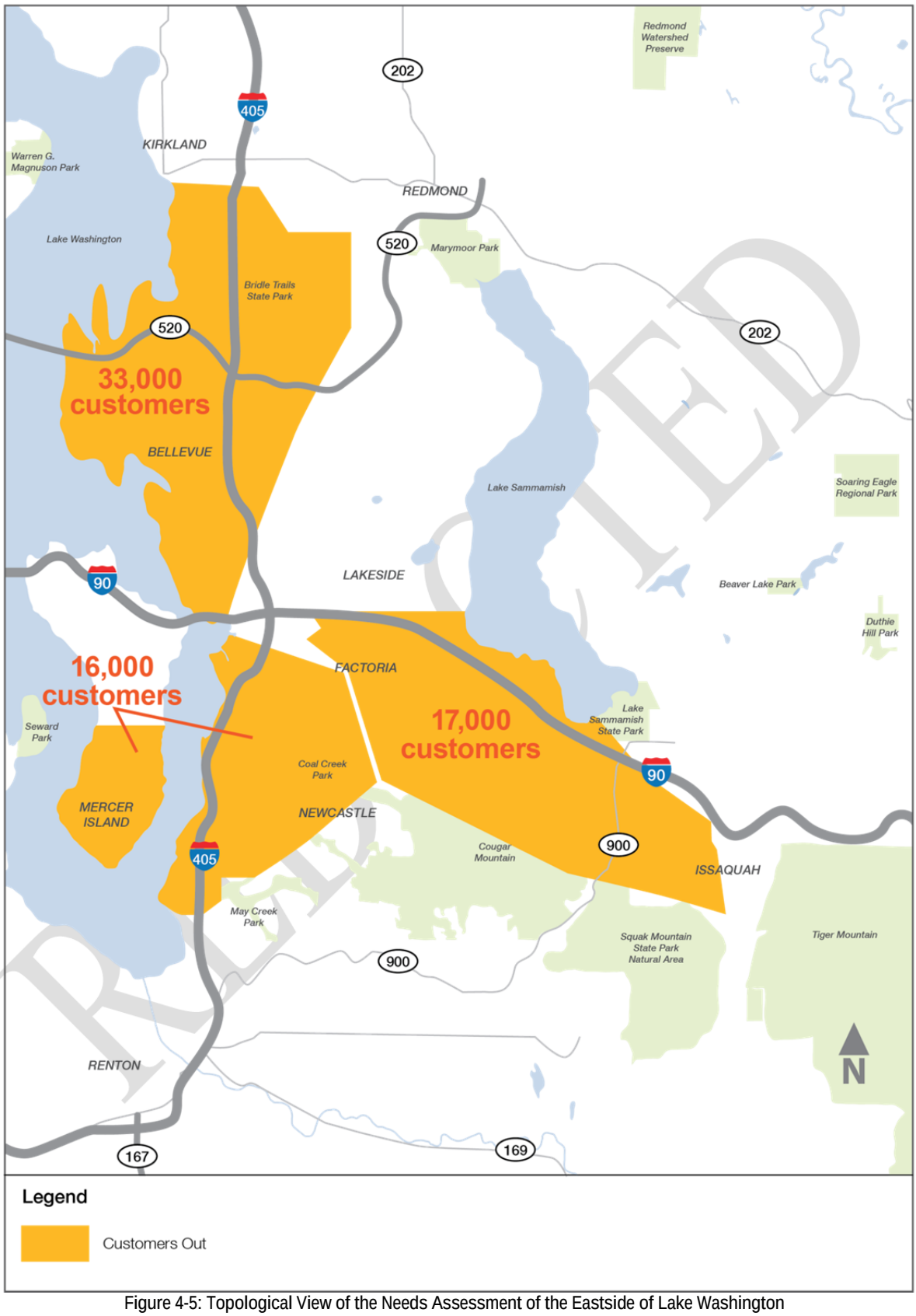


Figure 4-5: Topological View of the Needs Assessment of the Eastside of Lake Washington

If, with future load growth, the Talbot Hill 230-115 kV transformers are at risk of overloading for an N-1 loss of one transformer during Winter peak conditions, then the CAP described above would be implemented as a pre-emptive, pre-contingent measure to ensure that overloads don't materialize. In this case, the Talbot Hill – Lakeside #1 & #2, Shuffleton – Lakeside, and Lakeside – Goodes Corner – Lake Tradition 115 kV lines would be opened during winter peak conditions, regardless of the loading on the Talbot Hill transformers.

There is also a CAP intended for use during the summer peak in the event of the loss of two lines, the Monroe – Novelty Hill and Bothell – Sammamish 230 kV lines, or the loss of two transformers, the Novelty Hill 230-115 kV transformer and one of the two Sammamish 230-115 kV transformers. The CAP instructs the PSE Transmission Operators to open the Sammamish end of the Sammamish – Lochleven – Lakeside 115 kV line and the Sammamish – North Bellevue – Lakeside 115 kV line.

While none of these planned actions would drop load in a system normal configuration, the opening of the transmission lines exposes seven substations supplying 23,000 customers on the Sammamish – Lochleven – Lakeside line Sammamish end of the Sammamish – Lochleven – Lakeside, Sammamish – North Bellevue – Lakeside 115 kV lines and four substations supplying 10,000 customers on the Sammamish – North Bellevue – Lakeside line to a subsequent outage on the lines. The total customer impact of 33,000 is shown in Figure 4-5.

With future load growth, the CAP may be expanded to state that if the associated overloads are not sufficiently reduced, then the Transmission Operator should also open the Sammamish end of the Sammamish – Lakeside #1 & #2 and Sammamish – Ardmore – Lakeside 115 kV lines.

While none of these additional actions would drop load in a system normal configuration, the opening of the Sammamish end of the Sammamish – Lakeside #1 & #2 and Sammamish – Ardmore – Lakeside 115 kV lines exposes one substation supplying 6,000 customers on the Sammamish – Lakeside #1 & #2 lines and seven substations supplying 23,000 customers on the Sammamish – Ardmore – Lakeside line to a subsequent outage on the lines.

In the King County area, PSE has eight transmission transformers, any one of which, when tripped, could trigger a CAP. The customers at risk of outages due to the CAPs described above are supplied by four of the eight transmission transformers, located at Talbot Hill and Sammamish. When a transformer trips, it takes substantial time to test and replace: 18-24 hours typically for testing, and 3-5 weeks to replace the damaged transformer with a spare transformer. This is a long duration of exposure if CAPs must be employed during the transformer outage.

4.2 Changes in Study Assumptions

The Bothell - SnoKing 230 kV #1 & #2 lines, owned by SCL, overloaded for various outages in all cases. These overloads were excluded from the results page, as SCL is planning to upgrade these lines whether or not the Eastside 230 kV project is built. Furthermore, the Eastside 230 kV project scope is not expected to significantly alleviate these line overloads.

SCL's Maple Valley - SnoKing 230 kV #1 & #2 lines overloaded for various outages in all cases; these overloads were observed in the base case and were expected to also occur in the more extreme cases. However, these overloads were caused in large part by the loss of the Echo Lake - SnoKing - Monroe 500 kV line. BPA has winter operating procedures in place that will protect against these overloads through use of nomograms.

The Echo Lake - SnoKing - Monroe 500 kV line contingencies did not solve for the majority of the cases, due to the high South to North flows on the Northern Intertie. Therefore, the overloads in more extreme cases were not listed, as the contingency did not solve. The potential issues caused by the high South to North flows are managed through the use of nomograms by BPA.

Certain local 115 kV PSE system overloads within King County were excluded from the listed results, as they were clearly a local system problem that did not contribute to the need for the Eastside 230 kV project. The following systems or lines were excluded: Moorlands three line system, Asbury three line system, Krain Corner 115-55 kV system, and Novelty Hill - Stillwater - Cottage Brook 115 kV lines. These are known system issues with planned projects that are independent in nature from the Eastside 230 kV project.

Section 5 Performance Requirements

5.1 Planning Standards and Criteria

This study examined thermal overloads for Category A (N-0), Category B (N-1) and Category C (N-2 and N-1-1) outages as required by NERC, WECC and PSE Transmission Planning Guidelines. PSE plans for winter and summer peak, such that no thermal or voltage violations result. While the peaks occur for just a few hours per year, there are many more hours each year where operating flexibility is impacted by system capacity. PSE plans for normal summer and winter temperatures, which are 23ºF in winter and 86ºF in summer. PSE also studies extreme winter peak temperature (13ºF) as an indicator of future deficiencies.

NERC TPL-001- System Performance Under Normal (No Contingency) Conditions (Category A): PSE shall demonstrate through a valid assessment that its portion of the interconnected transmission system is planned such that, with all transmission facilities in service and with normal (pre-contingency) operating procedures in effect, the Network can be operated to supply projected customer demands and projected Firm (non- recallable reserved) Transmission Services at all Demand levels over the range of forecast system demands, under the conditions defined in Category A of Table 1[16].

NERC TPL-002 – System Performance Following Loss of a Single Bulk Electric System Element (Category B): PSE shall demonstrate through a valid assessment that its portion of the interconnected transmission system is planned such that the Network can be operated to supply projected customer demands and projected Firm (non-recallable reserved) Transmission Services, at all demand levels over the range of forecast system demands, under the contingency conditions as defined in Category B of Table 1[17].

Category B outages can occur at any time when a single element trips off line. The NERC TPL Standards Table 1 Category B states that there should be no loss of load or curtailed firm transfers with the exception outlined in footnote b of Table 1[18]. Utilities may only shed directly-connected ("consequential") load to stay compliant. Non-consequential load loss is not allowed for Category B events for BES level less than 300 kV. The system shall remain stable. Cascading or uncontrolled islanding shall not occur. Therefore any overloads showing up for a Category B event are very serious.

NERC TPL-003 – System Performance Following Loss of Two or More Bulk Electric System Elements (Category C): PSE shall each demonstrate through a valid assessment that its portion of the interconnected transmission systems is planned such that the network can be operated to supply projected customer demands and projected Firm (non-recallable reserved) Transmission Services, at all demand

[16] Table 1 TPL-001 - System Performance Under Normal (No Contingency) Conditions (Category A)

[17] Table 1 TPL-002 - System Performance Following Loss of a Single Bulk Electric System Element (Category B)

[18] Footnote b Table 1 - An objective of the planning process is to minimize the likelihood and magnitude of interruption of firm transfers or Firm Demand following Contingency events. Curtailment of firm transfers is allowed when achieved through the appropriate-dispatch of resources obligated to re-dispatch, where it can be demonstrated that Facilities, internal and external to the Transmission Planner's planning region, remain within applicable Facility Ratings and the re-dispatch does not result in the shedding of any Firm Demand. For purposes of this footnote, the following are not counted as Firm Demand: (1) Demand directly served by the Elements removed from service as a result of the Contingency, and (2) Interruptible Demand or Demand-Side Management Load. In limited circumstances, Firm Demand may be interrupted throughout the planning horizon to ensure that BES performance requirements are met. However, when interruption of Firm Demand is utilized within the Near-Term Transmission Planning Horizon to address BES performance requirements, such interruption is limited to circumstances where the use of Firm Demand interruption meets the conditions shown in Attachment 1. In no case can the planned Firm Demand interruption under footnote 'b' exceed 75 MW for US registered entities. The amount of planned Non-Consequential Load Loss for a non-US Registered Entity should be implemented in a manner that is consistent with, or under the direction of, the applicable governmental authority or its agency in the non-US jurisdiction.

Levels over the range of forecast system demands, under the contingency conditions as defined in Category C of Table 1[19] .

Category C outages have subcategories of N-2 and N-1-1. An N-2 outage is when a single event trips multiple facilities, such as a transmission bus fault tripping all breakers on the bus or a double-circuit transmission line outage. Breaker failure is also included as a Category C outage. For these outages, there is no time allowed for operator response, but the utility is allowed to have automatic processes to shed non-consequential load to stay compliant.

An N-1-1 Category C outage is a Category B outage followed by a period of time to manually adjust the system to a secure state, followed by a second Category B outage. PSE utilizes 30 minutes to make manual system adjustments after the first outage occurs, to prevent overloads upon the second outage event.

TPL-001-WECC-CRT-2: System Performance Criterion Under Normal Conditions, Following Loss of a Single BES Element, and Following Extreme BES Events. System simulations and associated assessments are needed periodically to ensure that reliable systems are developed that meet specified performance requirements with sufficient lead time, and that systems continue to be modified or upgraded as necessary to meet present and future system needs.

PSE Transmission Planning Guidelines, November 2012: The Transmission Planning Guidelines explain the criteria and standards used to assess the ability of Puget Sound Energy's existing and future electric transmission system, and how they are applied to provide safe and reliable service at reasonable cost. The guidelines address both specific and general issues the transmission planner needs to consider. There may be issues specific to site, project, region, or customer that will require plans to be developed on a case-by case basis. However, the Transmission Planning Guidelines are structured in a way that will help achieve consistency across the PSE transmission system.

5.2 Performance Criteria

5.2.1 Steady State Thermal and Voltage Limits

PSE has two thermal operating limits; normal and emergency. The normal operating limit is a specific level of electrical loading that a system, facility, or element can support or withstand through the daily demand cycles without loss of equipment life. The emergency limit is a specific level of electrical loading that a system, facility, or element can support or withstand for a finite period. The emergency rating assumes acceptable loss of equipment life or other physical or safety limitations for the equipment involved. If there is a violation of the emergency limit, a transmission line may not meet applicable clearance, tension and sag criteria. PSE's operating practice is to shift or shed load or dispatch generation to avoid reaching an emergency limit.

System steady state voltages and post contingency voltage deviation shall be within acceptable limits. For PSE system the acceptable limits are: the steady state voltage levels are not above 105% or below 90% for any bus, the voltage deviation for Category B events does not exceed 5%, and the voltage deviation for multiple contingency Category C events does not exceed 10%.[20]

[19] Table 1 TPL-003 - System Performance Following Loss of Two or More Bulk Electric System Elements (Category C)

[20] PSE Transmission Planning Guidelines, November 2012, page 7

5.2.2 Steady State Solution Parameters

Devices with automatic settings were allowed to adjust automatically for base case runs, reflecting manual operation by Transmission Operators where appropriate: LTC's, phase-shifters, and shunt reactive devices. During contingency runs, LTC and phase-shifter operations were disabled. Shunt reactive devices with known fast-acting schemes were allowed to switch. Inter-area AGC was enabled for the analysis since generation or load loss simulations for the Eastside Needs Assessment were all modeled within the Northwest area and AGC response would be expected for those conditions.

Table 5-1: Study Solution Parameters

Case	Area Interchange	Transformer LTCs	Phase Angle Regulators	SVDs & Switched Shunts
Base	Tie Lines Regulating	Stepping	Regulating or Statically Set	Regulating
Contingency	Tie Lines Regulating	Disabled	Disabled	Regulating

5.3 System Testing

5.3.1 System Design Conditions and Sensitivities Tested

Four base scenarios were developed for the additional winter studies run for the 2013 Eastside Needs Assessment. The study plan is shown in Figure 5-1.

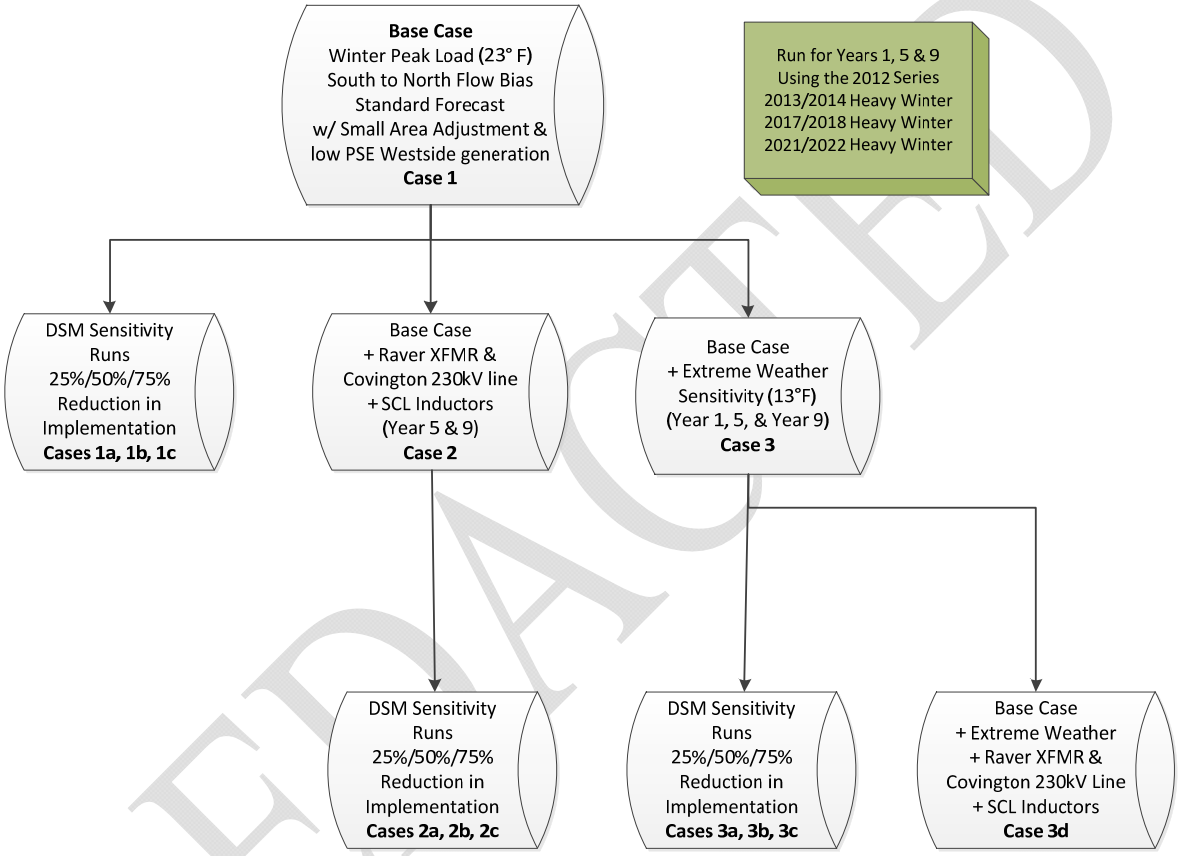


Figure 5-1: Eastside Project Need Validation Study Plan

Case 1 represents base years 2013-14, 2017-18, and 2021-22 winter peaks, normal weather adjusted by substation to reflect the lumpiness of the load. Case 1 includes a south to north bias of 1500 MW with low PSE generation in the Puget Sound area.

Case 2 represents 2017-18 and 2021-22 with additions of a 500 kV/230 kV transformer at Raver, a Raver to Covington 230 kV line, and 115 kV series inductors to the Broad Street - Massachusetts and Broad Street - East Pine 115 kV underground cables in Seattle City Light.

Case 3 represents extreme weather for Case 1.

Case 3d represents extreme weather for Case 2.

The winter cases were run with no generation in the Puget Sound area, a case which PSE normally runs for the annual TPL assessment. However, since it is an extreme case, a low-generation case was run for the 2013 Eastside Needs Assessment as a sensitivity to determine whether some of the violations seen during the power flows could be offset by running generation. The generation levels for the low-generation sensitivity case are shown in Table 4-4, in the column labeled "Expected MW Output during Winter Peak for Low-Generation Sensitivity Case."

Sensitivities on the amount of conservation realized were performed for each of the cases above, to indicate the possible additional violations that could occur should conservation be achieved at a level below the projection or if economic growth should be higher than forecast. This was done because the 10 year load forecast with full projected conservation had such a flat growth profile. The load levels were adjusted to reflect 75%, 50%, and 25% conservation as a proxy for higher loads. The case assumptions are summarized in Table 5-2.

Table 5-2: Winter and Summer Case Study Assumptions

Winter and Summer Case Study Assumptions						
Case Name	Amount of Conservation	System Load	Eastside Load	Northern Intertie	PSE/SCL Westside Gen	Other Adjustments Modeled
1 100% Conservation 2013-14 Winter	100%	5055 MW	652 MW	1500 MW Export	0 MW	Saint Clair 230-115 kV transformer; Talbot Hill - Berrydale #1 line uprate; Starwood autotransformer removal with Tacoma Power voltage increase
1 75% Conservation 2013-14 Winter	75%	5090 MW	656 MW	1500 MW Export	0 MW	Saint Clair 230-115 kV transformer; Talbot Hill - Berrydale #1 line uprate; Starwood autotransformer removal with Tacoma Power voltage increase
2 100% Conservation 2017-18 Winter	100%	5208 MW	706 MW	1500 MW Export	0 MW	Block load allocated per King Co Dist. Planers; Planned improvements include 2013 adjustments + Alderton 230-115 kV transformer; Beverly Park 230-115 kV transformer; Raver 500-230 kV transformer; SCL series inductors
2 75% Conservation 2017-18 Winter	75%	5325 MW	722 MW	1500 MW Export	0 MW	Block load allocated per King Co Dist. Planers; Planned improvements include 2013 adjustments + Alderton 230-115 kV transformer; Beverly Park 230-115 kV transformer; Raver 500-230 kV transformer; SCL series inductors
2 100% Conservation 2021-22 Winter	100%	5126 MW	756 MW	1500 MW Export	0 MW	Block load allocated per King Co Dist. Planers; Planned improvements include 2017-18 adjustments
2 75% Conservation 2021-22 Winter	75%	5415 MW	789 MW	1500 MW Export	0 MW	Block load allocated per King Co Dist. Planers; Planned improvements include 2017-18 adjustments
3 100% Conservation 2013-14 Extreme Winter	100%	5537 MW	718 MW	1500 MW Export	0 MW	Saint Clair 230-115 kV transformer; Talbot Hill - Berrydale #1 line uprate; Starwood autotransformer removal with Tacoma Power voltage increase
3d 100% Conservation 2017-18 Extreme Winter	100%	5742 MW	782 MW	1500 MW Export	0 MW	Block load allocated per King Co Dist. Planers; Planned improvements include 2013 adjustments + Alderton 230-115 kV transformer; Beverly Park 230-115 kV transformer; Raver 500-230 kV transformer; SCL series inductors
3d 100% Conservation 2021-22 Extreme Winter	100%	5772 MW	845 MW	1500 MW Export	0 MW	Block load allocated per King Co Dist. Planers; Planned improvements include 2013 adjustments + Alderton 230-115 kV transformer; Beverly Park 230-115 kV transformer; Raver 500-230 kV transformer; SCL series inductors
2014 Heavy Summer	100%	3343 MW	516 MW	2850 Import	2171 MW	Saint Clair 230-115 kV transformer; Talbot Hill - Berrydale #1 line uprate; Starwood autotransformer removal with Tacoma Power voltage increase
2018 Heavy Summer	100%	3554 MW	552 MW	2850 Import	2276 MW	Planned improvements include 2013 adjustments + Alderton 230-115 kV transformer; Beverly Park 230-115 kV transformer; White River - Electron Heights 115 kV line re-route into Alderton; White River 2nd bus section breaker; Lake Hills - Phantom Lake 115 kV line; Sammamish-Juanita 115 kV line

5.3.2 Steady State Contingencies / Faults Tested

The above cases were tested based on Category A, B, and C contingencies described in the NERC TPL, and WECC standards and PSE's Transmission Planning Guidelines. Descriptions of the type of contingencies tested are listed in Table 5-3.

Table 5-3: Summary of NERC, WECC and/or PSE Category Contingencies Tested

NERC WECC PSE Categories	Description of Outaged Element(s)	Contingencies Modeled
A	All lines in-service	N/A
B A-2; 6.1 a. PP4; 3.1 a.	Loss of a generator, transmission circuit, transformer or single pole DC line	Category B contingencies included all PSE and interconnected transmission lines and transmission transformers,
C A-2; 6.1 a. PP4; 3.1 a.	Normally loss of a bus or circuit breaker; or loss of any category B element followed by another category B element with system adjustments between events; or loss of any two circuits of a multi circuit tower line or loss of a bipolar DC line; or a stuck breaker with delayed clearing of a generator, transmission circuit, transformer or bus section.	Category C: N-2 contingencies included all common-structure double circuit lines, all transmission buses and bus sections with 3 or more transmission elements, and all stuck transmission breakers. Category C: N-1-1 included a pairwise combination of all Category B elements followed by all other Category B elements.
D A-2; 6.1 a. PP4; 3.1 a.	Loss of a generator, transmission circuit, transformer or bus section; or other transmission planning entity selected critical outage or loss of a category B element followed by loss of any two circuits of a multi circuit tower or a stuck breaker	Category D was not performed in this study

Section 6 Results of Analysis

6.1 Overview of Results

The following sections describe the results of the analysis. The thermal loading percentages described below are based on a percentage of the emergency rating for each facility.

6.1.1 N-0 Thermal and Voltage Violation Summary

For all cases, there are no thermal or voltage violations for the all lines in (N-0) state.

2013-14 – Case 1-Winter Peak, Normal Weather: For all elements in service (N-0) state, there were no thermal or voltage violations for 2013-14 winter peak, normal weather with all levels of conservation modeled (i.e. 100%, 75%, 50%, or 25%)

2013-14 – Case 3-Winter Peak, Extreme Weather: For all elements in service (N-0), there were no thermal or voltage violations for 2013-14 winter peak, extreme weather, with all levels of conservation modeled (i.e. 100%, 75%, 50%, or 25%) conservation.

2017-18 – Case 2-Winter Peak, Normal Weather: For all elements in service (N-0), there were no thermal or voltage violations for 2017-18 winter peak, normal weather, with all levels of conservation modeled (i.e. 100%, 75%, 50%, or 25%) conservation.

2017-18 – Case 3-Winter Peak, Extreme Weather: For all elements in service (N-0), there were no thermal or voltage violations for 2017-18 winter peak, extreme weather, with all levels of conservation modeled (i.e. 100%, 75%, 50%, or 25%) conservation.

2021-22 – Case 2-Winter Peak, Normal Weather: For all elements in service (N-0), there were no thermal or voltage violations for 2021-22 winter peak, normal weather, with all levels of conservation modeled (i.e. 100%, 75%, 50%, or 25%) conservation.

2021-22 – Case 3-Winter Peak, Extreme Weather: For all elements in service (N-0), there were no thermal or voltage violations for 2021-22 winter peak, extreme weather, with all levels of conservation modeled (i.e. 100%, 75%, 50%, or 25%) conservation.

6.1.2 2013-14 Thermal Summaries: Winter Peak, Normal and Extreme Weather & Summer Peak Normal Weather

Table 6-1 shows the summary of results for categories B (N-1) and C (N-1-1 & N-2) for 2013-14 winter and 2014 summer peaks with normal weather. Table 6-1 shows that for the winter peak, normal weather, 100% conservation, (PSE Load 5,055 MW), there are no Category B thermal violations but there are five (5) potential thermal violations in the King County area for Category C contingencies. Those five potential violations are as follows and highlighted in yellow in

Table 6-2.

1. Talbot Hill - Lakeside #1 115 kV Line
2. Talbot Hill - Lakeside #2 115 kV Line
3. Talbot Hill 230-115 kV transformer #1
4. Talbot Hill 230-115 kV transformer #2
5. Talbot Hill - Boeing Renton - Shuffleton 115 kV Line

Those Category C contingencies can be mitigated by operational procedures and re-dispatching. Also, Table 6-1 lists six (6) additional facilities within the King County area, which are operating from 90% to 100% of the emergency operating limits and are above the operating limits. Those facilities are highlighted in gray on

Table 6-2.

1. White River 230-115 kV transformer #2 – 97.4%
2. White River 230-115 kV transformer #1 – 96.9%
3. Talbot Hill - Berrydale #1 115 kV line – 96.0%
4. Berrydale 230-115 kV transformer – 92.4%
5. O'Brien 230-115 kV transformer #2 – 94%
6. O'Brien 230-115 kV transformer #1 – 93.2%

Table 6-2 also shows potential thermal overloads of elements outside of PSE's service area. Two lines of notice include Maple Valley - SnoKing #1 & #2 230 kV lines, which pass through the Eastside of King County.

For the 2014 summer peak normal weather, (PSE load of 3343 MW), high generation in the north and high imports from British Columbia (Table 6-1), there is one (1) potential Category B (N-1) thermal violation (Monroe - Novelty Hill 230 kV line) and for the same case with no generation in the north there is one (1) potential Category B thermal violation (Maple Valley - Sammamish 230 kV line). Those potential over loads are the result of losing Echo Lake - SnoKing - Monroe 500 kV line. Those facilities are owned by BPA. There is also one (1) potential Category C (N-1-1) potential thermal violation (Sammamish 230-115 kV transformer #2).

Table 6-3 show the potential impact of extreme winter weather with 100% and 50% conservation in 2013-14, (PSE load of 5,537 MW and 5,608 MW respectively). There are no potential Category B thermal violations, but there are three (3) elements which are operating at 90% or greater of the emergency limits and are above the operating limits; Talbot Hill 230-115 kV transformer #1, Talbot Hill 230-115 kV transformer #2, and White River 230-115 kV transformer #2.

Table 6-1: Summary of Elements above Emergency and Operating Limits: 2013-14 Winter Peak, Normal Weather & Summer Peak Normal Weather

Year of Study	Normal or Extreme Weather	Case Conditions	Amount of Conservation/ System Load	Type of Contingency	Elements above Emergency Limit	Elements > 90% of Emergency Limit or above Operating Limit
2013-14 Winter	Normal	South-North NI Flow No Western Generation	100% 5055 MW	N-1		
2013-14 Winter	Normal	South-North NI Flow No Western Generation	100% 5055 MW	N-1-1	Talbot Hill-Lakeside #1 115 kV Line Talbot Hill-Lakeside #2 115 kV Line Talbot Hill 230-115 kV transformer #1 Talbot Hill 230-115 kV transformer #2 Talbot Hill-Boeing Renton-Shuffleton 115 kV Line	White River 230-115 kV transformer #2 White River 230-115 kV transformer #1 Talbot Hill-Berrydale #1 115 kV line Berrydale 230-115 kV transformer O'Brien 230-115 kV transformer #2 O'Brien 230-115 kV transformer #1
2013-14 Winter	Normal	South-North NI Flow, No Western Generation	100% 5055 MW	N-2 or Common Mode		Talbot Hill-Lakeside #2 115 kV Line Berrydale 230-115 kV transformer
2013-14 Winter	Normal	South-North NI Flow, No Western Generation	75% 5090 MW	N-1		
2013-14 Winter	Normal	South-North NI Flow No Western Generation	75% 5090 MW	N-1-1	Talbot Hill-Lakeside #1 115 kV Line Talbot Hill-Lakeside #2 115 kV Line Talbot Hill-Boeing Renton-Shuffleton 115 kV Line Talbot Hill 230-115 kV transformer #1 Talbot Hill 230-115 kV transformer #2	White River 230-115 kV transformer #2 White River 230-115 kV transformer #1 Talbot Hill-Berrydale #1 115 kV line Berrydale 230-115 kV transformer O'Brien 230-115 kV transformer #2 O'Brien 230-115 kV transformer #1
2013-14 Winter	Normal	South-North NI Flow, No Western Generation	75% 5090 MW	N-2 or Common Mode		Talbot Hill-Lakeside #2 115 kV Line Berrydale 230-115 kV transformer
2013-14 Winter	Normal	South-North NI Flow, No Western Generation	50% 5126 MW	N-1		
2013-14 Winter	Normal	South-North NI Flow, No Western Generation	50% 5126 MW	N-1-1	Talbot Hill-Lakeside #1 115 kV Line Talbot Hill-Lakeside #2 115 kV Line Talbot Hill-Boeing Renton-Shuffleton 115 kV Line Talbot Hill 230-115 kV transformer #1 Talbot Hill 230-115 kV transformer #2	White River 230-115 kV transformer #1 White River 230-115 kV transformer #2 Talbot Hill-Berrydale #1 115 kV line Berrydale 230-115 kV transformer O'Brien 230-115 kV transformer #2 O'Brien 230-115 kV transformer #1
2013-14 Winter	Normal	South-North NI Flow, No Western Generation	50% 5126 MW	N-2 or Common Mode		Talbot Hill 230-115 kV transformer #2 Talbot Hill-Lakeside #2 115 kV Line Berrydale 230-115 kV transformer
2014 Heavy Summer	Normal	Hi Gen, Hi Import from BC	100% 3343 MW	N-1	Monroe-Novelty Hill 230 kV line	
2014 Heavy Summer	Normal	No Gen, Hi Export to BC	100% 3343 MW	N-1	Maple Valley - Sammamish 230 kV line	
2014 Heavy Summer	Normal	No Gen, Hi Export to BC	100% 3343 MW	N-1-1	Sammamish 230-115 kV transformer #2	Sammamish 230-115 kV transformer #1

Table 6-2: Elements above Emergency and Operating Limits: 2013-14 Winter Peak, 100% Conservation, Normal Weather, Thermal Loadings (Redacted)

Case	Category	Worst Contingency	Owner of Facilities Out	Element(s)	Owner of Overloaded Facilities	Percent Overload
2013-14 Winter	B	Echo Lake - SnoKing - Monroe 500 kV line	BPA	Maple Valley - SnoKing #1 230 kV line	SCL	110.0%
2013-14 Winter	B	Echo Lake - SnoKing - Monroe 500 kV line	BPA	Maple Valley - SnoKing #2 230 kV line	SCL	107.8%
2013-14 Winter	C	Breaker Failure: Echo Lake - SnoKing - Monroe 500 kV line & Echo Lake Capacitors	BPA	Maple Valley - SnoKing #1 230 kV line	SCL	124.0%
2013-14 Winter	C	Breaker Failure: Echo Lake - SnoKing - Monroe 500 kV line & Echo Lake Capacitors	BPA	Maple Valley - SnoKing #2 230 kV line	SCL	123.8%
2013-14 Winter	C	Breaker Failure: Echo Lake - SnoKing - Monroe 500 kV line & Echo Lake Capacitors	BPA	Talbot Hill - Lakeside #1 115 kV line	PSE	97.1%
2013-14 Winter	C	Breaker Failure: Echo Lake - SnoKing - Monroe 500 kV line & Echo Lake Capacitors	BPA	Talbot Hill - Lakeside #2 115 kV line	PSE	96.9%
2013-14 Winter	C	White River 115 kV bus section breaker failure	PSE	Berrydale 230-115 kV transformer	PSE	96.6%
2013-14 Winter	C	N-1-1: Echo Lake - SnoKing - Monroe 500 kV line & Maple Valley - SnoKing #2 230 kV line	BPA & SCL	Maple Valley - SnoKing #1 230 kV line	SCL	146.7%
2013-14 Winter	C	N-1-1: Echo Lake - SnoKing - Monroe 500 kV line & Maple Valley - SnoKing #1 230 kV line	BPA & SCL	Maple Valley - SnoKing #2 230 kV line	SCL	145.0%
2013-14 Winter	C	N-1-1: Talbot Hill 230-115 kV transformer #2 & Berrydale 230-115 kV transformer	PSE	Talbot Hill 230-115 kV transformer #1	PSE	100.9%
2013-14 Winter	C	N-1-1: Echo Lake - SnoKing - Monroe 500 kV line & Talbot Hill - Lakeside #2 115 kV line	BPA & PSE	Talbot Hill - Lakeside #1 115 kV line	PSE	115.2%
2013-14 Winter	C	N-1-1: Echo Lake - SnoKing - Monroe 500 kV line & Talbot Hill - Lakeside #1 115 kV line	BPA & PSE	Talbot Hill - Lakeside #2 115 kV line	PSE	115.1%
2013-14 Winter	C	N-1-1: Echo Lake - SnoKing - Monroe 500 kV line & O'Brien - Falcon 115 kV line section	BPA & PSE	Talbot Hill - Boeing Renton - Shuffleton 115 kV line	PSE	101.1%

Table 6-2: Elements above Emergency and Operating Limits: 2013-14 Winter Peak, 100% Conservation, Normal Weather, Thermal Loadings (Redacted) (CONTINUED)

2013-14 Winter	C	N-1-1: Talbot Hill 230-115 kV transformer #1 & Berrydale 230-115 kV transformer	PSE	Talbot Hill 230-115 kV transformer #2	PSE	100.5%
2013-14 Winter	C	N-1-1: Berrydale 230-115 kV transformer & White River 230-115 kV transformer #1	PSE	White River 230-115 kV transformer #2	PSE	97.4%
2013-14 Winter	C	N-1-1: Berrydale 230-115 kV transformer & White River 230-115 kV transformer #2	PSE	White River 230-115 kV transformer #1	PSE	96.9%
2013-14 Winter	C	N-1-1: Berrydale 230-115 kV transformer & White River - Sherwood tap 115 kV line section	PSE	Talbot Hill - Berrydale #1 115 kV line	PSE	96.0%
2013-14 Winter	C	N-1-1: White River 230-115 kV transformers #1 & #2	PSE	Berrydale 230-115 kV transformer	PSE	92.4%
2013-14 Winter	C	N-1-1: O'Brien 230-115 kV transformer #1 & Talbot Hill 230-115 kV transformer #2	PSE	O'Brien 230-115 kV transformer #2	PSE	94.0%
2013-14 Winter	C	N-1-1: O'Brien 230-115 kV transformer #2 & Talbot Hill 230-115 kV transformer #2	PSE	O'Brien 230-115 kV transformer #1	PSE	93.2%

Table 6-3: Summary of Elements above Emergency and Operating Limits: 2013-14 Winter Peak, Extreme Weather

Year of Study	Normal or Extreme Weather	Case Conditions	Amount of Conservation/ System Load	Type of Contingency	Elements above Emergency Limit	Elements > 90% of Emergency Limit or above Operating Limit
2013-14 Winter	Extreme	South-North NI Flow No Western Generation	100% 5537 MW	N-1		Talbot Hill 230-115 kV transformer #1 Talbot Hill 230-115 kV transformer #2 White River 230-115 kV transformer #2
2013-14 Winter	Extreme	South-North NI Flow No Western Generation	50% 5608 MW	N-1-1	Talbot Hill-Lakeside #1 115 kV Line Talbot Hill-Lakeside #2 115 kV Line Talbot Hill-Boeing Renton-Shuffleton 115 kV Line Talbot Hill 230-115 kV transformer #1 Talbot Hill 230-115 kV transformer #2 White River - Lea Hill - Berrydale 115 kV line Talbot Hill-Berrydale #1 115 kV line Berrydale 230-115 kV transformer O'Brien 230-115 kV transformer #1 O'Brien 230-115 kV transformer #2 White River 230-115 kV transformer #1 White River 230-115 kV transformer #2	Shuffleton-Lakeside 115 kV line O'Brien 115 kV North bus section breaker O'Brien - Asbury 115 kV line Shuffleton - President Park - Lake Tradition 115 kV line
2013-14 Winter	Extreme	South-North NI Flow No Western Generation	50% 5608 MW	N-2 or Common Mode	Talbot Hill-Lakeside #2 115 kV Line Berrydale 230-115 kV transformer	Talbot Hill-Lakeside #1 115 kV Line Talbot Hill 230-115 kV transformer #1 Talbot Hill 230-115 kV transformer #2

6.1.3 2017-18 Thermal Summaries: Winter Peak, Normal and Extreme Weather & Summer Peak Normal Weather

Table 6-4 shows the summary of results for categories B (N-1) and C (N-1-1 & N-2) for 2017-18 winter and summer peaks with normal weather.

Table 6-4 shows that for the winter peak, normal weather, 100% conservation, (PSE load of 5,208 MW), there are no potential Category B thermal violations but there are three (3) facilities which are loaded from 90% to 100% of the emergency ratings. These facilities are highlighted in gray in Table 6-5.

1. Talbot Hill - Lakeside #1 115 kV line – 98.6%
2. Talbot Hill - Lakeside #2 115 kV line – 98.4%
3. Talbot Hill 230-115 kV transformer #2 – 90.3%

If 50% of conservation is achieved, (PSE load of 5,442 MW), the number of potential Category B thermal overloads increase to two (2) facilities.

1. Talbot Hill - Lakeside #1 115 kV Line
2. Talbot Hill - Lakeside #2 115 kV Line

There are six (6) potential thermal violations (same as 2013-14) of PSE lines or transformers in the King County area for Category C contingencies. These facilities are highlighted in yellow on Table 6-5, which shows that the potential thermal overloads vary up to a high of 128%. Overloads caused by BPA facility outages which are controlled by BPA generation dispatch are not highlighted.

1. Talbot Hill - Lakeside #1 115 kV Line
2. Talbot Hill - Lakeside #2 115 kV Line
3. Talbot Hill 230-115 kV transformer #1
4. Talbot Hill 230-115 kV transformer #2
5. Talbot Hill - Boeing Renton - Shuffleton 115 kV Line
6. Maple Valley - Sammamish 230 kV Line

If 75% of conservation is achieved, (PSE load of 5,325 MW), the number of potential Category C thermal overloads increase to seven (7) facilities and some occur for more than one Category C contingency.

1. Talbot Hill - Lakeside #1 115 kV Line
2. Talbot Hill - Lakeside #2 115 kV Line
3. Talbot Hill - Boeing Renton - Shuffleton 115 kV Line
4. Talbot Hill 230-115 kV transformer #1
5. Talbot Hill 230-115 kV transformer #2
6. White River - Lea Hill - Berrydale 115 kV line
7. Maple Valley - Sammamish 230 kV line

If 50% of conservation is achieved, (PSE load of 5,442 MW), the number of potential Category C thermal overloads increase to ten (10) facilities and some occur for more than one Category C contingency.

1. Talbot Hill- Lakeside #1 115 kV Line
2. Talbot Hill- Lakeside #2 115 kV Line
3. Talbot Hill - Boeing Renton-Shuffleton 115 kV Line
4. Talbot Hill 230-115 kV transformer #1
5. Talbot Hill 230-115 kV transformer #2
6. Maple Valley - Sammamish 230 kV line
7. White River - Lea Hill - Berrydale 115 kV line
8. Talbot Hill - Berrydale #1 115 kV line
9. Shuffleton - O'Brien 115 kV line
10. Shuffleton - Lakeside 115 kV line

For the 2018 summer peak, normal weather, (PSE load of 3,554 MW), high generation in the north and high imports from British Columbia (Table 6-12), there are two (2) potential Category B (N-1) thermal violations (Monroe - Novelty Hill 230 kV line and Maple Valley - Sammamish 230 kV line) and there are three (3) potential Category C (N-1-1 & N-2) thermal violations (Beverly Park - Cottage Brook 115 kV line, Sammamish 230-115 kV transformer #1, and Sammamish 230-115 kV transformer #2). The sections of the Monroe - Novelty Hill 230 kV line and Maple Valley - Sammamish 230 kV line that may overload are owned by BPA.

Table 6-6 shows the results of the generation sensitivity case for 2017-18, in which 1,031 MW of Puget Sound area generation was turned on. For the winter peak, normal weather, 100% conservation, (PSE load of 5,208 MW), and Puget Sound generation of 1,031 MW, there are no potential Category B thermal violations. There are four (4) potential Category C (N-1-1) violations remaining above the emergency limits (Talbot Hill - Lakeside #1 & #2 115 kV lines, and Talbot Hill 230-115 kV transformers #1 and #2). Running this level of generation also resulted in a new transformer operating above 90% for an N-1-1 contingency; the Sammamish transformer #2 will be above 90% if there are outages of both Sammamish transformer #1 and the Novelty Hill transformer. In general, turning on 1,000 MW of generation in the northern part of the Puget Sound area can have a significant impact in reducing transmission line overloads, but minor impact for transformer overloads.

Table 6-7 shows that for the 2017-18 winter peak, extreme weather, (PSE load of 5,742 MW), no generation in the north and high exports to British Columbia, there are two (2) potential Category B (N-1) thermal violations (Talbot Hill - Lakeside #1 & #2 115 kV lines (99.2% & 98.6%)); and there are twelve (12) potential Category C (N-1-1 & N-2) thermal violations.

The operational solution to temporarily remedy the potential overloads on Talbot Hill #1 transformer for the Category C loss of the North Talbot Hill 230 kV bus during extreme winter weather is to open breakers preemptively at Talbot Hill to radial the 115 kV lines to Lakeside Substation. When that occurs there is added risk of losing load with the next N-1 contingency.

Table 6-4: Summary of Elements above Emergency and Operating Limits: 2017-18 Winter Peak, Normal Weather & Summer Peak Normal Weather

Year of Study	Normal or Extreme Weather	Case Conditions	Amount of Conservation/ System Load	Type of Contingency	Elements above Emergency Limit	Elements > 90% of Emergency Limit or above Operating Limit
2017-18 Winter	Normal	South-North NI Flow No Western Generation	100% 5208 MW	N-1		Talbot Hill-Lakeside #1 115 kV Line Talbot Hill-Lakeside #2 115 kV Line Talbot Hill 230-115 kV transformer #2
2017-18 Winter	Normal	South-North NI Flow No Western Generation	100% 5208 MW	N-1-1	Talbot Hill-Lakeside #1 115 kV Line Talbot Hill-Lakeside #2 115 kV Line Talbot Hill 230-115 kV transformer #1 Talbot Hill 230-115 kV transformer #2 Talbot Hill-Boeing Renton-Shuffleton 115 kV Line Maple Valley-Sammamish 230 kV line	Talbot Hill-Berrydale #1 115 kV line White River - Lea Hill - Berrydale 115 kV Line Shuffleton-O'Brien 115 kV line Shuffleton-Lakeside 115 kV line Berrydale 230-115 kV transformer O'Brien 230-115 kV transformer #2 O'Brien 230-115 kV transformer #1
2017-18 Winter	Normal	South-North NI Flow No Western Generation	100% 5208 MW	N-2 or Common Mode	Talbot Hill-Lakeside #1 115 kV Line Talbot Hill-Lakeside #2 115 kV Line	Talbot Hill 230-115 kV transformer #1 Talbot Hill 230-115 kV transformer #2 Berrydale 230-115 kV transformer
2017-18 Winter	Normal	South-North NI Flow No Western Generation	75% 5325 MW	N-1		Talbot Hill-Lakeside #1 115 kV Line Talbot Hill-Lakeside #2 115 kV Line Talbot Hill 230-115 kV transformer #1 Talbot Hill 230-115 kV transformer #2
2017-18 Winter	Normal	South-North NI Flow No Western Generation	75% 5325 MW	N-1-1	Talbot Hill-Lakeside #1 115 kV Line Talbot Hill-Lakeside #2 115 kV Line Talbot Hill-Boeing Renton-Shuffleton 115 kV Line Talbot Hill 230-115 kV transformer #1 Talbot Hill 230-115 kV transformer #2 White River - Lea Hill - Berrydale 115 kV line Maple Valley - Sammamish 230 kV line	Talbot Hill-Berrydale #1 115 kV line Shuffleton-O'Brien 115 kV line Shuffleton-Lakeside 115 kV line Berrydale 230-115 kV transformer O'Brien 230-115 kV transformer #2 O'Brien 230-115 kV transformer #1 O'Brien 115 kV North bus section breaker O'Brien-Asbury 115 kV line
2017-18 Winter	Normal	South-North NI Flow No Western Generation	75% 5325 MW	N-2 or Common Mode	Talbot Hill-Lakeside #1 115 kV Line Talbot Hill-Lakeside #2 115 kV Line	Talbot Hill 230-115 kV transformer #1 Talbot Hill 230-115 kV transformer #2 Berrydale 230-115 kV transformer
2017-18 Winter	Normal	South-North NI Flow No Western Generation	50% 5442 MW	N-1	Talbot Hill-Lakeside #1 115 kV Line Talbot Hill-Lakeside #2 115 kV Line	Talbot Hill 230-115 kV transformer #1 Talbot Hill 230-115 kV transformer #2 Talbot Hill-Boeing Renton-Shuffleton 115 kV Line
2017-18 Winter	Normal	South-North NI Flow No Western Generation	50% 5442 MW	N-1-1	Talbot Hill-Lakeside #1 115 kV Line Talbot Hill-Lakeside #2 115 kV Line Talbot Hill-Boeing Renton-Shuffleton 115 kV Line Talbot Hill 230-115 kV transformer #1 Talbot Hill 230-115 kV transformer #2 Maple Valley-Sammamish 230 kV line White River - Lea Hill - Berrydale 115 kV line Talbot Hill-Berrydale #1 115 kV line Shuffleton - O'Brien 115 kV line Shuffleton-Lakeside 115 kV line	Berrydale 230-115 kV transformer O'Brien 230-115 kV transformer #2 O'Brien 230-115 kV transformer #1 O'Brien 115 kV North bus section breaker O'Brien - Asbury 115 kV line Shuffleton - President Park - Lake Tradition 115 kV line
2017-18 Winter	Normal	South-North NI Flow No Western Generation	50% 5442 MW	N-2 or Common Mode	Talbot Hill-Lakeside #2 115 kV Line	Talbot Hill-Lakeside #1 115 kV Line Berrydale 230-115 kV transformer Talbot Hill 230-115 kV transformer #1 Talbot Hill 230-115 kV transformer #2
2018 Heavy Summer	Normal	Hi Gen, Hi Import from BC	100% 3554 MW	N-1	Monroe-Novelty Hill 230 kV line	

Table 6-4: Summary of Elements above Emergency and Operating Limits: 2017-18 – Winter Peak, Normal Weather & Summer Peak Normal Weather (CONTINUED)

2018 Heavy Summer	Normal	No Gen, Hi Export to BC	100% 3554 MW	N-1	Maple Valley - Sammamish 230 kV line	Talbot Hill-Lakeside #1 115 kV line Talbot Hill-Lakeside #2 115 kV line
2018 Heavy Summer	Normal	Hi Gen, Hi Import from BC	100% 3554 MW	N-1-1	Beverly Park - Cottage Brook 115 kV line Sammamish 230-115 kV transformer #1 Sammamish 230-115 kV transformer #2	Novelty Hill 230-115 kV transformer
2018 Heavy Summer	Normal	Hi Gen, Hi Import from BC	100% 3554 MW	N-2 or Common Mode		Sammamish-Lakeside #2 115 kV line

Table 6-5: Elements above Emergency and Operating Limits: 2017-18 Winter Peak, 100% Conservation, Normal Weather, Thermal Loadings (Redacted)

Case	Category	Worst Contingency	Owner of Facilities Out	Element(s)	Owner of Overloaded Facilities	Percent Overload
2017-18 Winter	B	Echo Lake - SnoKing - Monroe 500 kV line	BPA	Maple Valley - SnoKing #1 230 kV line	SCL	119.3%
2017-18 Winter	B	Echo Lake - SnoKing - Monroe 500 kV line	BPA	Maple Valley - SnoKing #2 230 kV line	SCL	118.2%
2017-18 Winter	B	Echo Lake - SnoKing - Monroe 500 kV line	BPA	Talbot Hill - Lakeside #1 115 kV line	PSE	98.6%
2017-18 Winter	B	Echo Lake - SnoKing - Monroe 500 kV line	BPA	Talbot Hill - Lakeside #2 115 kV line	PSE	98.4%
2017-18 Winter	B	Talbot Hill 230-115 kV transformer #1	PSE	Talbot Hill 230-115 kV transformer #2	PSE	90.3%
2017-18 Winter	C	Breaker Failure: Echo Lake - SnoKing - Monroe 500 kV line & Monroe 500 kV Capacitors	BPA	Maple Valley - SnoKing #1 230 kV line	SCL	123.9%
2017-18 Winter	C	Breaker Failure: Echo Lake - SnoKing - Monroe 500 kV line & Monroe 500 kV Capacitors	BPA	Maple Valley - SnoKing #2 230 kV line	SCL	123.3%
2017-18 Winter	C	Lakeside east bus section outage	PSE	Talbot Hill - Lakeside #2 115 kV line	PSE	101.1%
2017-18 Winter	C	Breaker Failure: Echo Lake - SnoKing - Monroe 500 kV line & Monroe 500 kV Capacitors	BPA	Talbot Hill - Lakeside #1 115 kV line	PSE	101.5%
2017-18 Winter	C	Talbot Hill 230 kV North bus outage	PSE	Talbot Hill 230-115 kV transformer #1	PSE	91.8%
2017-18 Winter	C	O'Brien 230 kV bus section breaker failure	PSE	Talbot Hill 230-115 kV transformer #2	PSE	92.8%
2017-18 Winter	C	White River 115 kV bus section breaker failure	PSE	Berrydale 230-115 kV transformer	PSE	93.6%
2017-18 Winter	C	N-1-1: Echo Lake - SnoKing - Monroe 500 kV line & Maple Valley - SnoKing #2 230 kV line	BPA & SCL	Maple Valley - SnoKing #1 230 kV line	SCL	176.6%

Table 6-5: Elements above Emergency and Operating Limits: 2017-18 Winter Peak, 100% Conservation, Normal Weather, Thermal Loadings (CONTINUED) (Redacted)

2017-18 Winter	C	N-1-1: Echo Lake - SnoKing - Monroe 500 kV line & Maple Valley - SnoKing #1 230 kV line	BPA & SCL	Maple Valley - SnoKing #2 230 kV line	SCL	157.8%
2017-18 Winter	C	N-1-1: Echo Lake - SnoKing - Monroe 500 kV line & Talbot Hill - Lakeside #2 115 kV line	BPA & PSE	Talbot Hill - Lakeside #1 115 kV line (Redispatch not enough)	PSE	127.8%
2017-18 Winter	C	N-1-1: Echo Lake - SnoKing - Monroe 500 kV line & Talbot Hill - Lakeside #1 115 kV line	BPA & PSE	Talbot Hill - Lakeside #2 115 kV line (Redispatch not enough)	PSE	127.6%
2017-18 Winter	C	N-1-1: Talbot Hill 230-115 kV transformer #2 & Berrydale 230-115 kV transformer	PSE	Talbot Hill 230-115 kV transformer #1 (Redispatch not enough)	PSE	105.7%
2017-18 Winter	C	N-1-1: Echo Lake - SnoKing - Monroe 500 kV line & O'Brien - Falcon 115 kV line section	BPA & PSE	Talbot Hill - Boeing Renton - Shuffleton 115 kV line (Redispatch not enough)	PSE	110.6%
2017-18 Winter	C	N-1-1: Talbot Hill 230-115 kV transformer #1 & Berrydale 230-115 kV transformer	PSE	Talbot Hill 230-115 kV transformer #2 (Redispatch not enough)	PSE	105.7%
2017-18 Winter	C	N-1-1: Berrydale 230-115 kV transformer & White River - Sherwood tap 115 kV line section	PSE	Talbot Hill - Berrydale #1 115 kV line	PSE	97.6%
2017-18 Winter	C	N-1-1: Berrydale 230-115 kV transformer & Talbot Hill - Rolling Hills 115 kV line section	PSE	White River - Lea Hill - Berrydale 115 kV line	PSE	98.0%
2017-18 Winter	C	N-1-1: Echo Lake - SnoKing - Monroe 500 kV line & Talbot Hill - Paccar 115 kV line section	BPA & PSE	Shuffleton - O'Brien 115 kV line	PSE	97.9%
2017-18 Winter	C	N-1-1: Talbot Hill 230-115 kV transformers #1 & #2	PSE	Berrydale 230-115 kV transformer	PSE	93.8%
2017-18 Winter	C	N-1-1: Echo Lake - SnoKing - Monroe 500 kV line & Maple Valley - SnoKing #2 230 kV line	BPA & SCL	Maple Valley - Sammamish 230 kV line	BPA	104.4%

Table 6-6: Elements above Emergency and Operating Limits: 2017-18 Winter Peak, 100% Conservation, Normal Weather, Low Generation Sensitivity Case, Thermal Loadings (Redacted)

						No Gen	With Gen
Case	Category	Worst Contingency	Owner of Facilities Out	Element(s)	Owner of Overloaded Facilities	% Overload	% Overload
2017-18 Winter	B	Talbot Hill 230-115 kV transformer #1	PSE	Talbot Hill 230-115 kV transformer #2	PSE	90.3%	87.4%
2017-18 Winter	B	Echo Lake - SnoKing - Monroe 500 kV line	BPA	Maple Valley - SnoKing #1 230 kV line	SCL	119.3%	86.5%
2017-18 Winter	B	Echo Lake - SnoKing - Monroe 500 kV line	BPA	Maple Valley - SnoKing #2 230 kV line	SCL	118.2%	84.2%
2017-18 Winter	B	Echo Lake - SnoKing - Monroe 500 kV line	BPA	Talbot Hill - Lakeside #1 115 kV line	PSE	98.6%	84.1%
2017-18 Winter	B	Echo Lake - SnoKing - Monroe 500 kV line	BPA	Talbot Hill - Lakeside #2 115 kV line	PSE	98.4%	83.9%
2017-18 Winter	C	Breaker Failure: Echo Lake - SnoKing - Monroe 500 kV line & Monroe 500 kV Capacitors	BPA	Maple Valley - SnoKing #1 230 kV line	SCL	123.9%	89.0%
2017-18 Winter	C	Breaker Failure: Echo Lake - SnoKing - Monroe 500 kV line & Monroe 500 kV Capacitors	BPA	Maple Valley - SnoKing #2 230 kV line	SCL	123.3%	87.1%
2017-18 Winter	C	Lakeside east bus section outage	PSE	Talbot Hill - Lakeside #2 115 kV line	PSE	101.1%	87.2%
2017-18 Winter	C	Breaker Failure: Echo Lake - SnoKing - Monroe 500 kV line & Monroe 500 kV Capacitors	BPA	Talbot Hill - Lakeside #1 115 kV line	PSE	101.5%	85.8%
2017-18 Winter	C	White River 115 kV bus section breaker failure	PSE	Berrydale 230-115 kV transformer	PSE	93.6%	90.2%
2017-18 Winter	C	Talbot Hill 230 kV North bus outage	PSE	Talbot Hill 230-115 kV transformer #1	PSE	91.8%	89.3%
2017-18 Winter	C	O'Brien 230 kV bus section breaker failure	PSE	Talbot Hill 230-115 kV transformer #2	PSE	92.8%	90.5%
2017-18 Winter	C	N-1-1: Echo Lake - SnoKing - Monroe 500 kV line & Maple Valley - SnoKing #2 230 kV line	BPA & SCL	Maple Valley - SnoKing #1 230 kV line	SCL	176.6%	112.9%
2017-18 Winter	C	N-1-1: Echo Lake - SnoKing - Monroe 500 kV line & Maple Valley - SnoKing #1 230 kV line	BPA & SCL	Maple Valley - SnoKing #2 230 kV line	SCL	157.8%	110.9%
2017-18 Winter	C	N-1-1: Echo Lake - SnoKing - Monroe 500 kV line & Talbot Hill - Lakeside #2 115 kV line	BPA & PSE	Talbot Hill - Lakeside #1 115 kV line	PSE	127.8%	108.7%

Table 6-6: Elements above Emergency and Operating Limits: 2017-18 Winter Peak, 100% Conservation, Normal Weather, Low Generation Sensitivity Case, Thermal Loadings (CONTINUED) (Redacted)

2017-18 Winter	C	N-1-1: Echo Lake - SnoKing - Monroe 500 kV line & Talbot Hill - Lakeside #1 115 kV line	BPA & PSE	Talbot Hill - Lakeside #2 115 kV line	PSE	127.6%	108.5%
2017-18 Winter	C	N-1-1: Talbot Hill 230-115 kV transformer #1 & Berrydale 230-115 kV transformer	PSE	Talbot Hill 230-115 kV transformer #2	PSE	105.7%	102.2%
2017-18 Winter	C	N-1-1: Talbot Hill 230-115 kV transformer #2 & Berrydale 230-115 kV transformer	PSE	Talbot Hill 230-115 kV transformer #1	PSE	105.7%	102.0%
2017-18 Winter	C	N-1-1: Echo Lake - SnoKing - Monroe 500 kV line & O'Brien - Falcon 115 kV line section	BPA & PSE	Talbot Hill - Boeing Renton - Shuffleton 115 kV line	PSE	110.6%	98.8%
2017-18 Winter	C	N-1-1: Berrydale 230-115 kV transformer & White River - Sherwood tap 115 kV line section	PSE	Talbot Hill - Berrydale #1 115 kV line	PSE	97.6%	96.5%
2017-18 Winter	C	N-1-1: Berrydale 230-115 kV transformer & Talbot Hill - Rolling Hills 115 kV line section	PSE	White River - Lea Hill - Berrydale 115 kV line	PSE	98.0%	94.8%
2017-18 Winter	C	N-1-1: Talbot Hill 230-115 kV transformers #1 & #2	PSE	Berrydale 230-115 kV transformer	PSE	93.8%	93.0%
2017-18 Winter	C	N-1-1: O'Brien 230-115 kV transformer #1 & Talbot Hill 230-115 kV transformer #2	PSE	O'Brien 230-115 kV transformer #2	PSE	93.9%	91.3%
2017-18 Winter	C	N-1-1: O'Brien 230-115 kV transformer #2 & Talbot Hill 230-115 kV transformer #2	PSE	O'Brien 230-115 kV transformer #1	PSE	93.1%	90.5%
2017-18 Winter	C	N-1-1: Sammamish 230-115 kV transformer #1 & Novelty Hill 230-115 kV transformer	PSE	Sammamish 230-115 kV transformer #2	PSE	83.8%	90.3%
2017-18 Winter	C	N-1-1: Echo Lake - SnoKing - Monroe 500 kV line & Talbot Hill - Paccar 115 kV line section	BPA & PSE	Shuffleton - O'Brien 115 kV line	PSE	97.9%	86.4%
2017-18 Winter	C	N-1-1: Echo Lake - SnoKing - Monroe 500 kV line & O'Brien 230-115 kV transformer #1	BPA & PSE	O'Brien 115 kV North bus section breaker	PSE	92.5%	85.0%
2017-18 Winter	C	N-1-1: Echo Lake - SnoKing - Monroe 500 kV line & Talbot Hill - Lakeside #2 115 kV line	BPA & PSE	Shuffleton - Lakeside 115 kV line	PSE	97.3%	83.6%
2017-18 Winter	C	N-1-1: Echo Lake - SnoKing - Monroe 500 kV line & Maple Valley - SnoKing #2 230 kV line	BPA & SCL	Maple Valley - Sammamish 230 kV line	BPA	104.4%	76.7%

Table 6-7: Summary of Elements above Emergency and Operating Limits: 2017-18 Winter Peak, Extreme Weather

Year of Study	Normal or Extreme Weather	Case Conditions	Amount of Conservation / System Load	Type of Contingency	Elements above Emergency Limit	Elements > 90% of Emergency Limit or above Operating Limit
2017-18 Winter	Extreme	South-North NI Flow No Western Generation	100% 5742	N-1	Talbot Hill-Lakeside #1 115 kV Line 99.1% Talbot Hill-Lakeside #2 115 kV Line 98.9%	Talbot Hill 230-115 kV transformer #1 Talbot Hill 230-115 kV transformer #2 Talbot Hill - Boeing Renton - Shuffleton 115 kV line
2017-18 Winter	Extreme	South-North NI Flow No Western Generation	100% 5742	N-1-1	Talbot Hill-Lakeside #1 115 kV Line Talbot Hill-Lakeside #2 115 kV Line Talbot Hill-Boeing Renton-Shuffleton 115 kV Line Talbot Hill 230-115 kV transformer #1 Talbot Hill 230-115 kV transformer #2 White River - Lea Hill - Berrydale 115 kV line Shuffleton-Lakeside 115 kV line Talbot Hill-Berrydale #1 115 kV line Berrydale 230-115 kV transformer O'Brien 115 kV North bus section breaker O'Brien 230-115 kV transformer #1 O'Brien 230-115 kV transformer #2	O'Brien - Asbury 115 kV line Shuffleton - President Park - Lake Tradition 115 kV line White River 230-115 kV transformer #1 White River 230-115 kV transformer #2 Sammamish 230-115 kV transformer #2
2017-18 Winter	Extreme	South-North NI Flow No Western Generation	75% 5859	N-1	Talbot Hill-Lakeside #1 115 kV Line Talbot Hill-Lakeside #2 115 kV Line	Talbot Hill 230-115 kV transformer #1 Talbot Hill 230-115 kV transformer #2 Talbot Hill - Boeing Renton - Shuffleton 115 kV line Berrydale 230-115 kV transformer
2017-18 Winter	Extreme	South-North NI Flow No Western Generation	75% 5859	N-1-1	Talbot Hill-Lakeside #1 115 kV Line Talbot Hill-Lakeside #2 115 kV Line Talbot Hill-Boeing Renton-Shuffleton 115 kV Line Talbot Hill 230-115 kV transformer #1 Talbot Hill 230-115 kV transformer #2 White River - Lea Hill - Berrydale 115 kV line Shuffleton-Lakeside 115 kV line Talbot Hill-Berrydale #1 115 kV line Berrydale 230-115 kV transformer O'Brien 115 kV North bus section breaker O'Brien 230-115 kV transformer #1 O'Brien 230-115 kV transformer #2	O'Brien - Asbury 115 kV line Shuffleton - President Park - Lake Tradition 115 kV line White River 230-115 kV transformer #1 White River 230-115 kV transformer #2 Sammamish 230-115 kV transformer #2 Shuffleton - O'Brien 115 kV line O'Brien - Midway #1 115 kV line Talbot Hill - Lake Tradition #1 115 kV line Sammamish 230-115 kV transformer #1
2017-18 Winter	Extreme	South-North NI Flow No Western Generation	75% 5859	N-2 or Common Mode	Berrydale 230-115 kV transformer Talbot Hill-Lakeside #1 115 kV Line Talbot Hill-Lakeside #2 115 kV Line Talbot Hill 230-115 kV transformer #1 Talbot Hill 230-115 kV transformer #2	Shuffleton - O'Brien 115 kV line Talbot Hill - Boeing Renton - Shuffleton 115 kV line O'Brien - Midway #1 115 kV line
2017-18 Winter	Extreme	South-North NI Flow No Western Generation	50% 5967 MW	N-1	Talbot Hill-Lakeside #1 115 kV Line Talbot Hill-Lakeside #2 115 kV Line Talbot Hill 230-115 kV transformer #1 (99.6%) Talbot Hill 230-115 kV transformer #2 (99.9%)	Berrydale 230-115 kV transformer Talbot Hill - Boeing Renton - Shuffleton 115 kV line
2017-18 Winter	Extreme	South-North NI Flow No Western Generation	50% 5967 MW	N-1-1	Talbot Hill-Lakeside #1 115 kV Line Talbot Hill-Lakeside #2 115 kV Line Talbot Hill-Boeing Renton-Shuffleton 115 kV Line Talbot Hill 230-115 kV transformer #1 Talbot Hill 230-115 kV transformer #2 White River - Lea Hill - Berrydale 115 kV line Shuffleton-Lakeside 115 kV line Talbot Hill-Berrydale #1 115 kV line Berrydale 230-115 kV transformer O'Brien 115 kV North bus section breaker O'Brien 230-115 kV transformer #1 O'Brien 230-115 kV transformer #2	Shuffleton-Lakeside 115 kV line O'Brien 115 kV North bus section breaker O'Brien - Asbury 115 kV line Shuffleton - President Park - Lake Tradition 115 kV line White River 230-115 kV transformer #1 White River 230-115 kV transformer #2 Shuffleton-O'Brien 115 kV line Sammamish 230-115 kV transformer #2
2017-18 Winter	Extreme	South-North NI Flow No Western Generation	50% 5967 MW	N-2 or Common Mode	Berrydale 230-115 kV transformer Talbot Hill-Lakeside #1 115 kV Line Talbot Hill-Lakeside #2 115 kV Line Talbot Hill 230-115 kV transformer #1 Talbot Hill 230-115 kV transformer #2	Talbot Hill 230-115 kV transformer #2 Shuffleton - O'Brien 115 kV line Talbot Hill - Boeing Renton - Shuffleton 115 kV line O'Brien - Midway #1 115 kV line O'Brien 230-115 kV transformer #2

6.1.4 2021-22: Winter Peak, Normal & Extreme Weather Thermal Summaries

Table 6-8 shows the summary of results for categories B (N-1) and C (N-1-1 & N-2) for 2021-22 winter and summer peaks with normal weather.

Table 6-9 indicates that the PSE load level for the winter peak, normal weather, 100% conservation, for 2021-22 is 5,193 MW. There are no potential Category B (N-1) thermal violations but there are five (5) elements with loadings from 90% to 100% of the emergency ratings. Those facilities are highlighted in gray on Table 6-9.

1. Talbot Hill - Lakeside #1 115 kV Line – 95.2%
2. Talbot Hill - Lakeside #2 115 kV Line – 95.1%
3. Talbot Hill 230-115 kV transformer #1 – 91.0%
4. Talbot Hill 230-115 kV transformer #2 – 91.5%
5. Talbot Hill - Boeing Renton - Shuffleton 115 kV Line – 91.5%

For Category C (N-1-1) contingencies there are six (6) elements above the emergency limits and an additional six (6) elements with loadings above 90% of their emergency limits. Those facilities are highlighted in yellow for overloads.

1. Talbot Hill - Lakeside #1 115 kV Line
2. Talbot Hill - Lakeside #2 115 kV Line
3. Talbot Hill 230-115 kV transformer #1
4. Talbot Hill 230-115 kV transformer #2
5. Talbot Hill - Boeing Renton - Shuffleton 115 kV Line
6. Shuffleton - Lakeside 115 kV Line

The PSE load level for the winter peak, normal weather, 75% conservation, for 2021-22 is 5,415 MW. Table 6-8 indicates that there are no potential Category B (N-1) thermal violations but there are five (5) elements with loadings above 90% of the emergency ratings (Talbot Hill-Lakeside #1 & 2 115 kV Lines, Talbot Hill 230-115 kV transformers #1 & 2, and Talbot Hill-Boeing Renton-Shuffleton 115 kV Line). For Category C (N-1-1) contingencies there are ten (10) elements above the emergency limits and an additional five (5) elements with loadings above 90% of their emergency limits.

Table 6-10 shows that for the 2021-22 winter peak, extreme weather, (PSE load of 5,772 MW), no generation in the north and high exports to British Columbia, there are four (4) potential Category B (N-1) thermal violations (Talbot Hill - Lakeside #1 & #2 115 kV lines, Talbot Hill-Boeing Renton-Shuffleton 115 kV line, and the Talbot Hill 230-115 kV transformer #1). There are fourteen (14) potential Category C (N-1-1 & N-2) thermal violations.

The extreme winter cases are run as an indication of the flexibility and robustness of the electric transmission system in a near or far future year. As shown in Tables 6-7 and 6-10, the increased load to be expected with extremely cold weather could lead to many more overloads than those projected with loads during normal weather, even with reduced conservation effects. While most utilities, including PSE, do not construct facilities on the basis of extreme seasonal temperatures, it does serve as an indicator of system stresses further into the future.

Table 6-8: Summary of Elements above Emergency and Operating Limits: 2021-22 Winter Peak, Normal Weather

Year of Study	Normal or Extreme Weather	Case Conditions	Amount of Conservation/ System Load	Type of Contingency	Elements above Emergency Limit	Elements > 90% of Emergency Limit or above Operating Limit
2021-22 Winter	Normal	South-North NI Flow No Western Generation	100% 5193 MW	N-1		Talbot Hill-Lakeside #1 115 kV Line Talbot Hill-Lakeside #2 115 kV Line Talbot Hill 230-115 kV transformer #1 Talbot Hill 230-115 kV transformer #2 Talbot-Boeing Renton-Shuffleton 115 kV Line
2021-22 Winter	Normal	South-North NI Flow No Western Generation	100% 5193 MW	N-1-1	Talbot Hill-Lakeside #1 115 kV Line Talbot-Lakeside Hill #2 115 kV Line Talbot Hill-Boeing Renton-Shuffleton 115 kV Line Talbot Hill 230-115 kV transformer #1 Talbot Hill 230-115 kV transformer #2 Shuffleton-Lakeside 115 kV line	White River - Lea Hill - Berrydale 115 kV Line Berrydale 230-115 kV transformer O'Brien 230-115 kV transformer #2 O'Brien 230-115 kV transformer #1 O'Brien 115 kV North bus section breaker Talbot Hill-Berrydale #1 115 kV line
2021-22 Winter	Normal	South-North NI Flow No Western Generation	100% 5193 MW	N-2 or Common Mode	Talbot Hill-Lakeside #2 115 kV Line	Talbot Hill-Lakeside #1 115 kV Line Talbot Hill 230-115 kV transformer #1 Talbot Hill 230-115 kV transformer #2 Berrydale 230-115 kV transformer
2021-22 Winter	Normal	South-North NI Flow No Western Generation	75% 5415 MW	N-1		Talbot Hill-Lakeside #1 115 kV Line Talbot Hill-Lakeside #2 115 kV Line Talbot Hill-Boeing Renton-Shuffleton 115 kV Line Talbot Hill 230-115 kV transformer #1 Talbot Hill 230-115 kV transformer #2
2021-22 Winter	Normal	South-North NI Flow No Western Generation	75% 5415 MW	N-1-1	Talbot Hill-Berrydale #1 115 kV line Talbot Hill-Lakeside #1 115 kV Line Talbot Hill-Lakeside #2 115 kV Line Talbot Hill-Boeing Renton-Shuffleton 115 kV Line Talbot Hill 230-115 kV transformer #1 Talbot Hill 230-115 kV transformer #2 White River - Lea Hill - Berrydale 115 kV line Shuffleton-Lakeside 115 kV line Berrydale 230-115 kV transformer O'Brien 230-115 kV transformer #2	O'Brien 230-115 kV transformer #1 O'Brien 115 kV North bus section breaker O'Brien-Asbury 115 kV line Shuffleton-President Park - Lake Tradition 115 kV line Shuffleton-O'Brien 115 kV Line
2021-22 Winter	Normal	South-North NI Flow No Western Generation	75% 5415 MW	N-2 or Common Mode	Talbot Hill-Lakeside #1 115 kV Line Talbot Hill-Lakeside #2 115 kV Line Berrydale 230-115 kV transformer	Talbot Hill 230-115 kV transformer #1 Talbot Hill 230-115 kV transformer #2 Shuffleton - O'Brien 115 kV Line Talbot Hill-Boeing Renton-Shuffleton 115 kV Line
2021-22 Winter	Normal	South-North NI Flow No Western Generation	50% 5636 MW	N-1	Talbot Hill-Lakeside #1 115 kV Line Talbot Hill-Lakeside #2 115 kV Line	Talbot Hill 230-115 kV transformer #1 Talbot Hill 230-115 kV transformer #2 Berrydale 230-115 kV transformer Talbot Hill - Boeing Renton - Shuffleton 115 kV line
2021-22 Winter	Normal	South-North NI Flow No Western Generation	50% 5636 MW	N-1-1	Talbot Hill-Lakeside #1 115 kV Line Talbot Hill-Lakeside #2 115 kV Line Talbot Hill-Boeing Renton-Shuffleton 115 kV Line Talbot Hill 230-115 kV transformer #1 Talbot Hill 230-115 kV transformer #2 White River - Lea Hill - Berrydale 115 kV line Talbot Hill-Berrydale #1 115 kV line Shuffleton-Lakeside 115 kV line Berrydale 230-115 kV transformer O'Brien 230-115 kV transformer #1 O'Brien 230-115 kV transformer #2 O'Brien 115 kV North bus section breaker	O'Brien - Asbury 115 kV line Shuffleton - President Park - Lake Tradition 115 kV line Shuffleton-O'Brien 115 kV line Sammamish 230-115 kV transformer #2 White River 230-115 kV transformer #1 White River 230-115 kV transformer #2 O'Brien-Midway #1 115 kV Line
2021-22 Winter	Normal	South-North NI Flow No Western Generation	50% 5636 MW	N-2 or Common Mode	Talbot Hill-Lakeside #1 115 kV Line Talbot Hill-Lakeside #2 115 kV Line Berrydale 230-115 kV transformer Talbot Hill 230-115 kV transformer #1	Talbot Hill-Boeing Renton-Shuffleton 115 kV Line Talbot Hill 230-115 kV transformer #2 Shuffleton - O'Brien 115 kV line

Table 6-9: Elements above Emergency and Operating Limits: 2021-22 Winter Peak, 100% Conservation, Normal Weather, Thermal Loadings (Redacted)

Case	Category	Worst Contingency	Owner of Facilities Out	Element(s)	Owner of Overloaded Facilities	Percent Overload
2021-22 Winter	B	Talbot Hill - Lakeside #2 115 kV line	PSE	Talbot Hill - Lakeside #1 115 kV line	PSE	95.2%
2021-22 Winter	B	Talbot Hill - Lakeside #1 115 kV line	PSE	Talbot Hill - Lakeside #2 115 kV line	PSE	95.1%
2021-22 Winter	B	Talbot Hill 230-115 kV transformer #2	PSE	Talbot Hill 230-115 kV transformer #1	PSE	91.0%
2021-22 Winter	B	Talbot Hill 230-115 kV transformer #1	PSE	Talbot Hill 230-115 kV transformer #2	PSE	91.5%
2021-22 Winter	B	O'Brien - Falcon 115 kV line section	PSE	Talbot Hill - Boeing Renton - Shuffleton 115 kV line	PSE	91.5%
2021-22 Winter	C	Lakeside east bus section outage	PSE	Talbot Hill - Lakeside #2 115 kV line	PSE	107.1%
2021-22 Winter	C	Talbot Hill 115 kV South bus section outage	PSE	Talbot Hill - Lakeside #1 115 kV line	PSE	96.8%
2021-22 Winter	C	White River 115 kV bus section breaker failure	PSE	Berrydale 230-115 kV transformer	PSE	95.5%
2021-22 Winter	C	O'Brien 230 kV bus section breaker failure	PSE	Talbot Hill 230-115 kV transformer #2	PSE	93.2%
2021-22 Winter	C	Talbot Hill 230 kV North bus outage	PSE	Talbot Hill 230-115 kV transformer #1	PSE	93.6%
2021-22 Winter	C	Talbot Hill 115 kV South bus section breaker failure	PSE	Shuffleton - O'Brien 115 kV line	PSE	90.0%
2021-22 Winter	C	N-1-1: Berrydale 230-115 kV transformer & White River - Sherwood tap 115 kV line section	PSE	Talbot Hill - Berrydale #1 115 kV line	PSE	97.6%
2021-22 Winter	C	N-1-1: Talbot Hill 230-115 kV transformer #2 & Berrydale 230-115 kV transformer	PSE	Talbot Hill 230-115 kV transformer #1	PSE	108.1%

Table 6-9: Elements above Emergency and Operating Limits: 2021-22 Winter Peak, 100% Conservation, Normal Weather, Thermal Loadings (CONTINUED) (Redacted)

2021-22 Winter	C	N-1-1: Talbot Hill - Lakeside #2 115 kV line & Shuffleton - Mercer Island tap 115 kV line section	PSE	Talbot Hill - Lakeside #1 115 kV line	PSE	117.8%
2021-22 Winter	C	N-1-1: Talbot Hill - Lakeside #1 115 kV line & Shuffleton - Mercer Island tap 115 kV line section	PSE	Talbot Hill - Lakeside #2 115 kV line	PSE	117.7%
2021-22 Winter	C	N-1-1: Talbot Hill - Lakeside #2 115 kV line & O'Brien - Falcon 115 kV line section	PSE	Talbot Hill - Boeing Renton - Shuffleton 115 kV line	PSE	107.6%
2021-22 Winter	C	N-1-1: Talbot Hill 230-115 kV transformer #1 & Berrydale 230-115 kV transformer	PSE	Talbot Hill 230-115 kV transformer #2	PSE	107.0%
2021-22 Winter	C	N-1-1: Berrydale 230-115 kV transformer & Talbot Hill - Rolling Hills 115 kV line section	PSE	White River - Lea Hill - Berrydale 115 kV line	PSE	99.7%
2021-22 Winter	C	N-1-1: Talbot Hill - Lakeside #1 & Talbot Hill - Lakeside #2 115 kV lines	PSE	Shuffleton - Lakeside 115 kV line	PSE	100.8%
2021-22 Winter	C	N-1-1: Talbot Hill 230-115 kV transformers #1 & #2	PSE	Berrydale 230-115 kV transformer	PSE	96.1%
2021-22 Winter	C	N-1-1: O'Brien 230-115 kV transformer #2 & Talbot Hill 230-115 kV transformer #2	PSE	O'Brien 230-115 kV transformer #1	PSE	94.3%
2021-22 Winter	C	N-1-1: O'Brien 230-115 kV transformer #1 & Talbot Hill 230-115 kV transformer #2	PSE	O'Brien 230-115 kV transformer #2	PSE	95.1%
2021-22 Winter	C	N-1-1: O'Brien 230-115 kV transformer #1 & Talbot Hill 230-115 kV transformer #2	PSE	O'Brien 115 kV North bus section breaker	PSE	94.6%
2021-22 Winter	C	N-1-1: Talbot Hill 230-115 kV transformer #1 & Talbot Hill 115 kV south bus section breaker outage	PSE	O'Brien - Asbury 115 kV line	PSE	90.9%

Table 6-10: Summary of Elements above Emergency and Operating Limits: 2021-22 Winter Peak, Extreme Weather Thermal Loadings

Year of Study	Normal or Extreme Weather	Case Conditions	Amount of Conservation/ System Load	Type of Contingency	Elements above Emergency Limit	Elements > 90% of Emergency Limit or above Operating Limit
2021-22 Winter	Extreme	South-North NI Flow No Western Generation	100% 5772 MW	N-1	Talbot Hill-Lakeside #1 115 kV Line Talbot Hill-Lakeside #2 115 kV Line Talbot Hill-Boeing Renton-Shuffleton 115 kV Line Talbot Hill 230-115 kV transformer #1	Berrydale 230-115 kV transformer Talbot Hill 230-115 kV transformer #2
2021-22 Winter	Extreme	South-North NI Flow No Western Generation	100% 5772 MW	N-1-1	Talbot Hill-Lakeside #1 115 kV Line Talbot Hill-Lakeside #2 115 kV Line Talbot Hill-Boeing Renton-Shuffleton 115 kV Line Talbot Hill 230-115 kV transformer #1 Talbot Hill 230-115 kV transformer #2 White River - Lea Hill - Berrydale 115 kV line Shuffleton-Lakeside 115 kV line Talbot Hill-Berrydale #1 115 kV line Berrydale 230-115 kV transformer O'Brien 115 kV North bus section breaker O'Brien 230-115 kV transformer #1 O'Brien 230-115 kV transformer #2 O'Brien - Asbury 115 kV line Shuffleton-O'Brien 115 kV line	Shuffleton - President Park - Lake Tradition 115 kV line White River 230-115 kV transformer #1 White River 230-115 kV transformer #2 Sammamish 230-115 kV transformer #1 Sammamish 230-115 kV transformer #2 Talbot Hill-Lake Tradition #1 115 kV Line O'Brien-Metro Renton – Talbot Hill 115 kV Line O'Brien – Christopher #1 115 kV Line
2021-22 Winter	Extreme	South-North NI Flow No Western Generation	100% 5772 MW	N-2 or Common Mode	Talbot Hill-Lakeside #1 115 kV Line Talbot Hill-Lakeside #2 115 kV Line Talbot Hill 230-115 kV transformer #1 Shuffleton-O'Brien 115 kV line Berrydale 230-115 kV transformer	Talbot Hill-Boeing Renton-Shuffleton 115 kV Line Talbot Hill 230-115 kV transformer #2 O'Brien 230-115 kV transformer #2 O'Brien - Midway #1 115 kV line

6.1.5 Summary of Potential Thermal Violations

Based on Table 6-11, below, the PSE Winter load level where King County starts to have significant issues is approximately 5200 MW. The elements which are the most susceptible to potential overloads for the winter peak loads are in the Talbot Hill and Lakeside Substation areas.

The sensitivity cases with 75% conservation instead of 100% conservation indicate system performance concerns with higher winter loads. Those sensitivity studies show even higher overloads of the elements already overloaded in the 100% conservation cases. In general, should loads grow faster than forecast, or conservation not provide anticipated peak load relief, the potential overloads will be higher than the results reported. Even when the corporate load does not increase from 2017-18 to 2021-22, the Eastside load has grown, resulting in an increased number of potential violations.

Table 6-11: Summary of Potential Thermal Violations for Winter Peak Load Season

Contingency	2013-14 5055 MW 100% Con	2013-14 5090 MW 75% Con	2017-18 5208 MW 100% Con	2017-18 5325 MW 75% Con	2021-22 5193 MW 100% Con	2021-22 5415 MW 75% Con
Cat B (N-1)			Talbot Hill - Lakeside #1 115 kV line – 98.6%	Talbot Hill - Lakeside #1 115 kV line – 99.9%	Talbot Hill - Lakeside #1 115 kV line – 95.2%	Talbot Hill - Lakeside #1 115 kV line – 99.2%
			Talbot Hill - Lakeside #2 115 kV line – 98.4%	Talbot Hill - Lakeside #2 115 kV line – 99.9%	Talbot Hill - Lakeside #2 115 kV line – 95.1%	Talbot Hill - Lakeside #2 115 kV line – 99.1%
			Talbot Hill 230-115 kV transformer #2 – 90.3%	Talbot Hill 230-115 kV transformer #1 – 90.9%	Talbot Hill 230-115 kV transformer #1 – 91.0%	Talbot Hill 230-115 kV transformer #1 – 94.7%
				Talbot Hill 230-115 kV transformer #2 – 92.4%	Talbot Hill 230-115 kV transformer #2 – 91.5%	Talbot Hill 230-115 kV transformer #2 – 93.6%
						Talbot Hill - Boeing Renton - Shuffleton 115 kV line - 95.4%
Cat C (N-1-1)	Talbot Hill-Lakeside #1 115 kV Line - 115.2%	Talbot Hill-Lakeside #1 115 kV Line - 115.9%	Talbot Hill--Lakeside #1 115 kV Line - 127.8%	Talbot Hill-Lakeside #1 115 kV Line - 129.9%	Talbot Hill--Lakeside #1 115 kV Line - 117.8%	Talbot Hill--Lakeside #1 115 kV Line - 122.9%
	Talbot Hill-Lakeside #2 115 kV Line - 115.1%	Talbot Hill-Lakeside #2 115 kV Line - 115.8%	Talbot Hill--Lakeside #2 115 kV Line - 127.6%	Talbot Hill-Lakeside #2 115 kV Line - 129.7%	Talbot Hill-Lakeside #2 115 kV Line - 117.7%	Talbot Hill-Lakeside #2 115 kV Line - 122.8%
	Talbot Hill 230-115 kV transformer #1 - 100.9%	Talbot Hill 230-115 kV transformer #1 - 101.6%	Talbot Hill 230-115 kV transformer #1 - 105.7%	Talbot Hill 230-115 kV transformer #1 - 108.1%	Talbot Hill 230-115 kV transformer #1 - 108.1%	Talbot Hill 230-115 kV transformer #1 - 112.8%
	Talbot Hill 230-115 kV transformer #2 - 100.5%	Talbot Hill 230-115 kV transformer #2 - 101.6%	Talbot Hill 230-115 kV transformer #2 - 105.7%	Talbot Hill 230-115 kV transformer #2 – 107.6%	Talbot Hill 230-115 kV transformer #2 - 107.0%	Talbot Hill 230-115 kV transformer #2 - 109.8%
	Talbot Hill-Boeing Renton-Shuffleton 115 kV Line -101.1%	Talbot Hill-Boeing Renton-Shuffleton 115 kV Line - 101.7%	Talbot Hill-Boeing Renton-Shuffleton 115 kV Line - 110.6%	Talbot Hill-Boeing Renton-Shuffleton 115 kV Line - 112.5%	Talbot Hill-Boeing Renton-Shuffleton 115 kV Line - 107.6%	Talbot Hill-Boeing Renton-Shuffleton 115 kV Line - 112.3%
				White River - Lea Hill - Berrydale 115 kV line - 100.2%	White River - Lea Hill - Berrydale 115 kV line - 99.7%	White River - Lea Hill - Berrydale 115 kV line - 104.0%
				Maple Valley - Sammamish 230 kV line - 100.5%		Talbot Hill-Berrydale #1 115 kV line - 101.9%
						Shuffleton-Lakeside 115 kV line - 105.2%
						Berrydale 230-115 kV transformer - 100.8%
						O'Brien 230-115 kV transformer #2 - 100.2%
						O'Brien 230-115 kV transformer #1 - 99.4%
Cat C (N-2 or Common Mode)			Talbot Hill-Lakeside #1 115 kV Line - 101.5%	Talbot Hill-Lakeside #1 115 kV Line - 103.0%	Talbot Hill - Lakeside #1 115 kV line – 96.8%	Talbot Hill-Lakeside #1 115 kV Line – 100.7%
			Talbot Hill-Lakeside #2 115 kV Line - 101.1%	Talbot Hill-Lakeside #2 115 kV Line - 100.5%	Talbot Hill - Lakeside #2 115 kV line – 107.1%	Talbot Hill-Lakeside #2 115 kV Line - 111.7%
					Talbot Hill 230-115 kV transformer #1 – 93.6%	Talbot Hill 230-115 kV transformer #1 – 97.3%
					Talbot Hill 230-115 kV transformer #2 – 93.2%	Talbot Hill 230-115 kV transformer #2 – 95.1%
					Berrydale 230-115 kV transformer - 95.5%	Berrydale 230-115 kV transformer - 100.2%

Based on Table 6-12 below, the PSE summer load level where King County starts to have significant issues is approximately 3,500 MW. The elements which are the most susceptible to potential overloads for the summer peak loads are in the Sammamish Substation area.

Table 6-12: Summary of Potential Thermal Violations for Summer Peak Load Season

Contingency	2014 3343 MW 100% Con	2018 3554 MW 100% Con
Cat B (N-1)	Monroe-Novelty Hill 230 kV line - 132.6%	Monroe-Novelty Hill 230 kV line - 133.0%
	Maple Valley - Sammamish 230 kV line - 111.4%	Maple Valley - Sammamish 230 kV line - 132.3%
		Talbot Hill - Lakeside #1 115 kV line - 93.9%
		Talbot Hill - Lakeside #2 115 kV line - 93.8%
Cat C (N-1-1)	Sammamish 230-115 kV transformer #2 - 100.8%	Beverly Park - Cottage Brook 115 kV line - 100.5% (Have solution)
	Sammamish 230-115 kV transformer #1 - 95.5%	Sammamish 230-115 kV transformer #1 - 100.7% (Have solution)
		Sammamish 230-115 kV transformer #2 - 106.4% (Have solution)
Cat C (N-2)		Sammamish - Lakeside #2 115 kV line - 99.8%

6.1.6 Temporary Mitigations and Associated Risks

Based on the analysis described above there are a number of system events that require the Transmission Operators to implement operating procedures in place to temporarily reduce or mitigate the potential thermal violations. Table 6-13 indicates mitigation needed for each of the winter overload contingencies identified in 2017-18.

Table 6-13: Mitigations for Worst Winter 2017-18 Contingencies

Contingency	2013-14 Winter Peak 5208 MW 100% Conservation	2017-18 Winter Peak 5208 MW 100% Conservation	2017-18 Winter Peak 5325 MW 75% Conservation	Contingency Causing Overload	Mitigation Plan - Worst Contingency	Customers at Risk
Cat B (N-1)		Talbot Hill - Lakeside #1 115 kV line – 98.6%	Talbot Hill - Lakeside #1 115 kV line – 99.9%	Echo Lk-SnoKing-Monroe 500 kV line	Run Northern Generation at least 1000 MW, BPA control of Northern Intertie for lower capacity line	None
		Talbot Hill - Lakeside #2 115 kV line – 98.4%	Talbot Hill - Lakeside #2 115 kV line – 99.9%	*Echo Lk-SnoKing-Monroe 500 kV line	Run Northern Generation at least 1000 MW, BPA control of Northern Intertie for lower capacity line	None
		Talbot Hill 230-115 kV transformer #2 – 90.3%	Talbot Hill 230-115 kV transformer #2 – 92.4%	Talbot Hill 230-115 kV transformer #1	Open Talbot Hill end of Talbot Hill-Lakeside #1 and #2 115 kV lines	None
			Talbot Hill 230-115 kV transformer #1 – 90.9%	Talbot Hill 230-115 kV transformer #2	Open Talbot Hill end of Talbot Hill-Lakeside #1 and #2 115 kV lines	None
Cat C (N-1-1)	Talbot-Lakeside #1 115 kV Line - 115.2%	Talbot-Lakeside #1 115 kV Line - 127.8%	Talbot-Lakeside #1 115 kV Line - 129.9%	Echo Lk-SnoKing-Monroe 500 kV line & Talbot Hill-Lakeside #2 115 kV line	Open Talbot Hill-Lakeside #1 and #2, Shuffleton-Lakeside, Lakeside-Lake Tradition, and Novelty Lake Tradition 115 kV lines	49,000 for line outage, 33,000 for transformer outage
	Talbot-Lakeside #2 115 kV Line - 115.1%	Talbot-Lakeside #2 115 kV Line - 127.6%	Talbot-Lakeside #2 115 kV Line - 129.7%	Echo Lk-SnoKing-Monroe 500 kV line & Talbot Hill-Lakeside #1 115 kV line	Open Talbot Hill-Lakeside #1 and #2, Shuffleton-Lakeside, Lakeside-Lake Tradition, and Novelty Lake Tradition 115 kV lines	49,000 for line outage, 33,000 for transformer outage
	Talbot Hill 230-115 kV transformer #1 - 100.9%	Talbot Hill 230-115 kV transformer #1 - 105.7%	Talbot Hill 230-115 kV transformer #1 - 108.1%	Talbot Hill 230-115 kV transformer #2 & Berrydale 230-115 kV transformer	Open Talbot Hill end of Talbot Hill-Lakeside #1 and #2 115 kV lines	More lines may need to be opened for next N-1-1 contingencies
	Talbot Hill 230-115 kV transformer #2 - 100.5%	Talbot Hill 230-115 kV transformer #2 - 105.7%	Talbot Hill 230-115 kV transformer #2 – 107.6%	Talbot Hill 230-115 kV transformer #1 & Berrydale 230-115 kV transformer	Open Talbot Hill end of Talbot Hill-Lakeside #1 and #2 115 kV lines	More lines may need to be opened for next N-1-1 contingencies
	Talbot Hill-Boeing Renton-Shuffleton 115 kV Line - 101.1%	Talbot Hill-Boeing Renton-Shuffleton 115 kV Line - 110.6%	Talbot Hill-Boeing Renton-Shuffleton 115 kV Line - 112.5%	Echo Lk-SnoKing-Monroe 500 kV line & O'Brien-Falcon 115 kV line	For 2013-14, Run Northern Generation at least 1000 MW. By 2017-18 Due to risk of overload in many locations, open 5 lines preventively: Talbot Hill-Lakeside #1 and #2, Talbot Hill-Lake Tradition, Berrydale-Lake Tradition, and Talbot Hill-Boeing Renton-Shuffleton 115 kV lines.	23,000 for line outage, 33,000 for transformer outage

Table 6-13: Mitigations for Worst Winter 2017-18 Contingencies (CONTINUED)

		O'Brien 230-115 kV transformer #1 - 93.1%	O'Brien 230-115 kV transformer #1 - 94.9%	O'Brien 230-115 kV transformer #2 & Talbot Hill 230-115 kV transformer #2	Open Talbot Hill end of Talbot Hill-Lakeside #1 and #2 115 kV lines	More lines may need to be opened for next N-1-1 contingencies
		O'Brien 230-115 kV transformer #2 - 93.9%	O'Brien 230-115 kV transformer #2 - 95.7%	O'Brien 230-115 kV transformer #1 & Talbot Hill 230-115 kV transformer #2	Open Talbot Hill end of Talbot Hill-Lakeside #1 and #2 115 kV lines	More lines may need to be opened for next N-1-1 contingencies
		Berrydale 230-115 kV transformer - 93.8%	Berrydale 230-115 kV transformer - 96.0%	Talbot Hill 230-115 kV transformers #1 & #2	Open Talbot Hill end of Talbot Hill-Lakeside #1 and #2 115 kV lines	More lines may need to be opened for next N-1-1 contingencies
		Talbot Hill-Berrydale #1 115 kV line - 97.6%	Talbot Hill-Berrydale #1 115 kV line - 99.8%	Berrydale 230-115 kV transformer & White River-Sherwood tap 115 kV line section	Open Talbot Hill end of Talbot Hill-Lakeside #1 and #2 115 kV lines, Shuffleton end of Shuffleton-Lakeside and Lake Tradition end of Lakeside-Lake Tradition 115 kV lines.	32,000 for line outage, 50,000 for transformer outage
		Shuffleton - Lakeside 115 kV line - 97.3%	Shuffleton - Lakeside 115 kV line - 98.9%	Echo Lake - SnoKing - Monroe 500 kV line & Talbot Hill - Lakeside #2 115 kV line	Run Northern Generation at least 1000 MW, BPA control of Northern Intertie for lower capacity line	None
			White River - Lea Hill - Berrydale 115 kV line - 100.2%	Berrydale 230-115 kV transformer & Talbot Hill-Rolling Hills 115 kV line section	Open Talbot Hill end of Talbot Hill-Lakeside #1 and #2 115 kV lines, Shuffleton end of Shuffleton-Lakeside and Lake Tradition end of Lakeside-Lake Tradition 115 kV lines.	32,000 for line outage, 50,000 for transformer outage
			Maple Valley - Sammamish 230 kV line - 100.5%	Echo Lk-SnoKing-Monroe 500 kV line & Maple Valley-SnoKing #1 230 kV line	Run Northern Generation at least 1000 MW, BPA control of Northern Intertie for lower capacity line	None
Cat C (N-2 or Common Mode)		Talbot-Lakeside #1 115 kV Line - 101.5%	Talbot-Lakeside #1 115 kV Line - 103.0%	Breaker Failure: Echo Lake-SnoKing-Monroe 500 kV line & Monroe 500 kV Capacitors	Run Northern Generation at least 1000 MW and BPA control of Northern Intertie for lower capacity line, or open Talbot Hill-Lakeside #1 and #2, Shuffleton-Lakeside, Lakeside-Lake Tradition and Novelty Hill-Lake Tradition 115 kV lines.	32,000 for line outage, 50,000 for transformer outage
		Talbot-Lakeside #2 115 kV Line - 101.1%	Talbot-Lakeside #2 115 kV Line - 100.5%	Lakeside 115 kV east bus section outage	Open Talbot-Lakeside #2 115 kV line. Long-term solution: rebuild Lakeside 115 kV bus to breaker and a half	None
		Talbot Hill 230-115 kV transformer #1 - 91.8%	Talbot Hill 230-115 kV transformer #1 - 93.8%	Talbot Hill 230 kV North bus outage	Run Northern Generation at least 1000 MW, gain 2%	None
		Talbot Hill 230-115 kV transformer #2 - 92.8%	Talbot Hill 230-115 kV transformer #2 - 94.4%	O'Brien 230 kV bus section breaker failure	Run Northern Generation at least 1000 MW, gain 2%	None

The following table indicates mitigation needed for each of the summer overload contingencies identified in 2018.

Table 6-14: Mitigation for Worst Summer 2018 Contingencies

Contingency	2014 Summer Peak 3343 MW 100% Conservation	2018 Summer Peak 3554 MW 100% Conservation	Contingency Causing Overload	Mitigation	Customers at Risk
Cat B (N-1)	Monroe-Novelty Hill 230 kV line - 132.6%	Monroe-Novelty Hill 230 kV line - 133.0%	Echo Lk-SnoKing-Monroe 500 kV line with Hi Gen, Hi Import from BC	Adjust generation; Open Sammamish-Novelty #2 230 kV line	None
	Maple Valley - Sammamish 230 kV line - 111.4%	Maple Valley - Sammamish 230 kV line - 132.3%	Echo Lk-SnoKing-Monroe 500 kV line with No Gen, Hi Export to BC	Run generation	None
		Talbot Hill - Lakeside #1 115 kV line - 93.9%	Echo Lk-SnoKing-Monroe 500 kV line with No Gen, Hi Export to BC	Run generation	None
		Talbot Hill - Lakeside #2 115 kV line - 93.8%	Echo Lk-SnoKing-Monroe 500 kV line with No Gen, Hi Export to BC	Run generation	None
Cat C (N-1-1)	Sammamish 230-115 kV transformer #2 - 100.8%	Sammamish 230-115 kV transformer #2 - 106.4%	Sammamish 230-115 kV transformer #1 & Novelty Hill 230-115 kV transformer with Hi Gen, Hi Import from BC	Open Sammamish end of 2 115 kV lines between Sammamish and Lakeside	33,000
	Sammamish 230-115 kV transformer #1 - 95.5%	Sammamish 230-115 kV transformer #1 - 100.7%	Sammamish 230-115 kV transformer #2 & Novelty Hill 230-115 kV transformer with Hi Gen, Hi Import from BC	Open Sammamish end of 2 115 kV lines between Sammamish and Lakeside	33,000
		Beverly Park - Cottage Brook 115 kV line - 100.5%	Monroe-Novelty Hill & Bothell-Sammamish 230 kV lines with Hi Gen, Hi Import from BC	Open Cottage Brook end of Beverly Park-Cottage Brook and the Sammamish end of the Sammamish-Ardmore 115 kV lines.	27,000
Cat C (N-2)		Sammamish - Lakeside #2 115 kV line - 99.8%	Sammamish 115 kV east bus section breaker failure with Hi Gen, Hi Import from BC	Run back generation in Skagit and Whatcom Counties	None

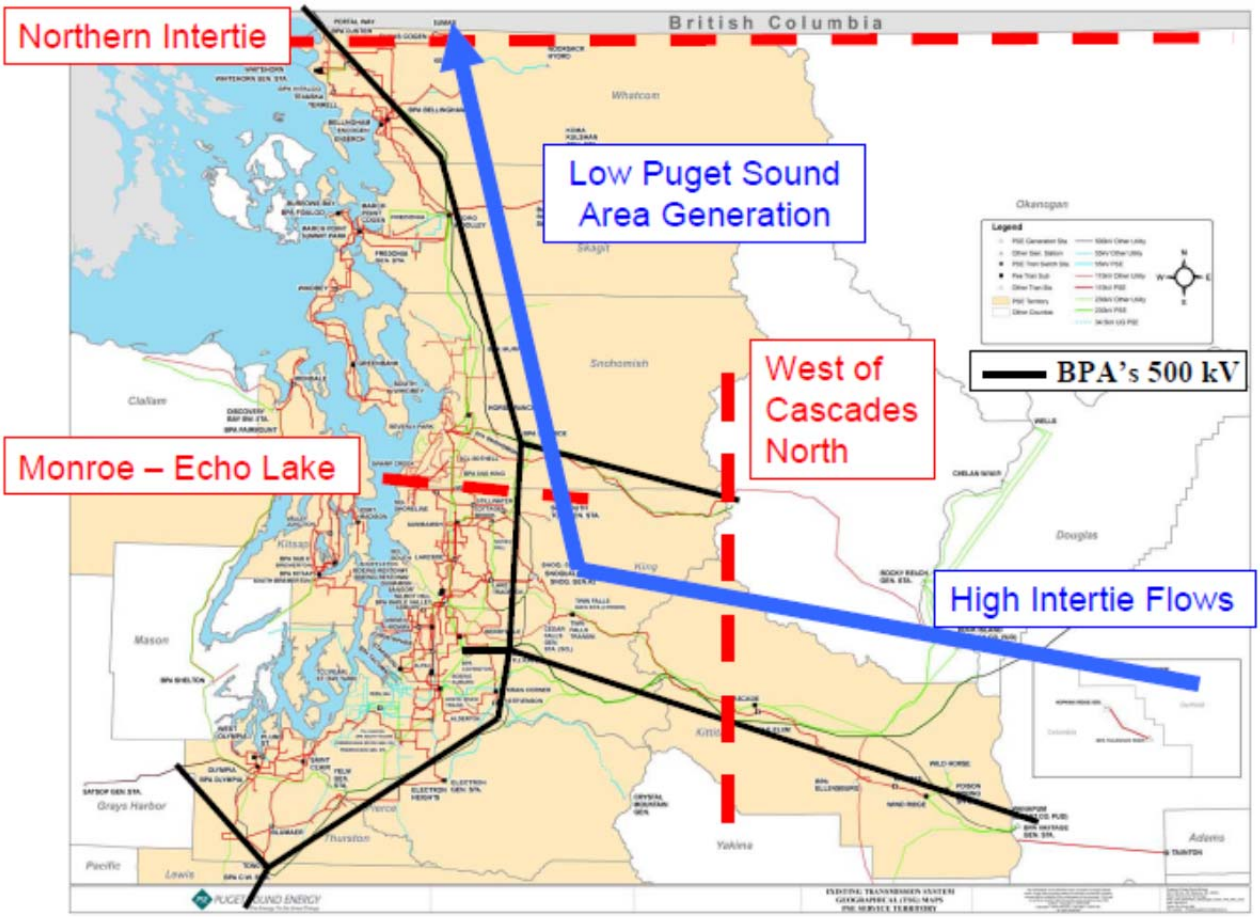
6.2 Other Assessment Criteria Compliance

6.2.1 Columbia Grid

As stated in the ColumbiaGrid 2012 System Assessment[21], ColumbiaGrid was formed with seven founding members in 2006 to improve the operational efficiency, reliability, and planned expansion of the northwest transmission grid. Eleven parties have signed ColumbiaGrid's Planning and Expansion Functional Agreement (PEFA) to support and facilitate multi-system transmission planning through an open and transparent process. ColumbiaGrid's primary grid planning activity is to develop a biennial transmission expansion plan that looks out over a ten-year planning horizon and identifies the transmission additions necessary to ensure that the parties to the ColumbiaGrid Planning and Expansion Functional Agreement can meet their commitments to serve load and transmission service commitments. A significant feature of the transmission expansion plan is its single-utility planning approach. The plan has been developed as if the region's transmission grid were owned and operated by a single entity. This approach results in a more comprehensive, efficient, and coordinated plan than would otherwise be developed if each transmission owner completed a separate independent analysis.

[21] ColumbiaGrid 2012System Assessment, page 1 – Executive Summary, July 2012

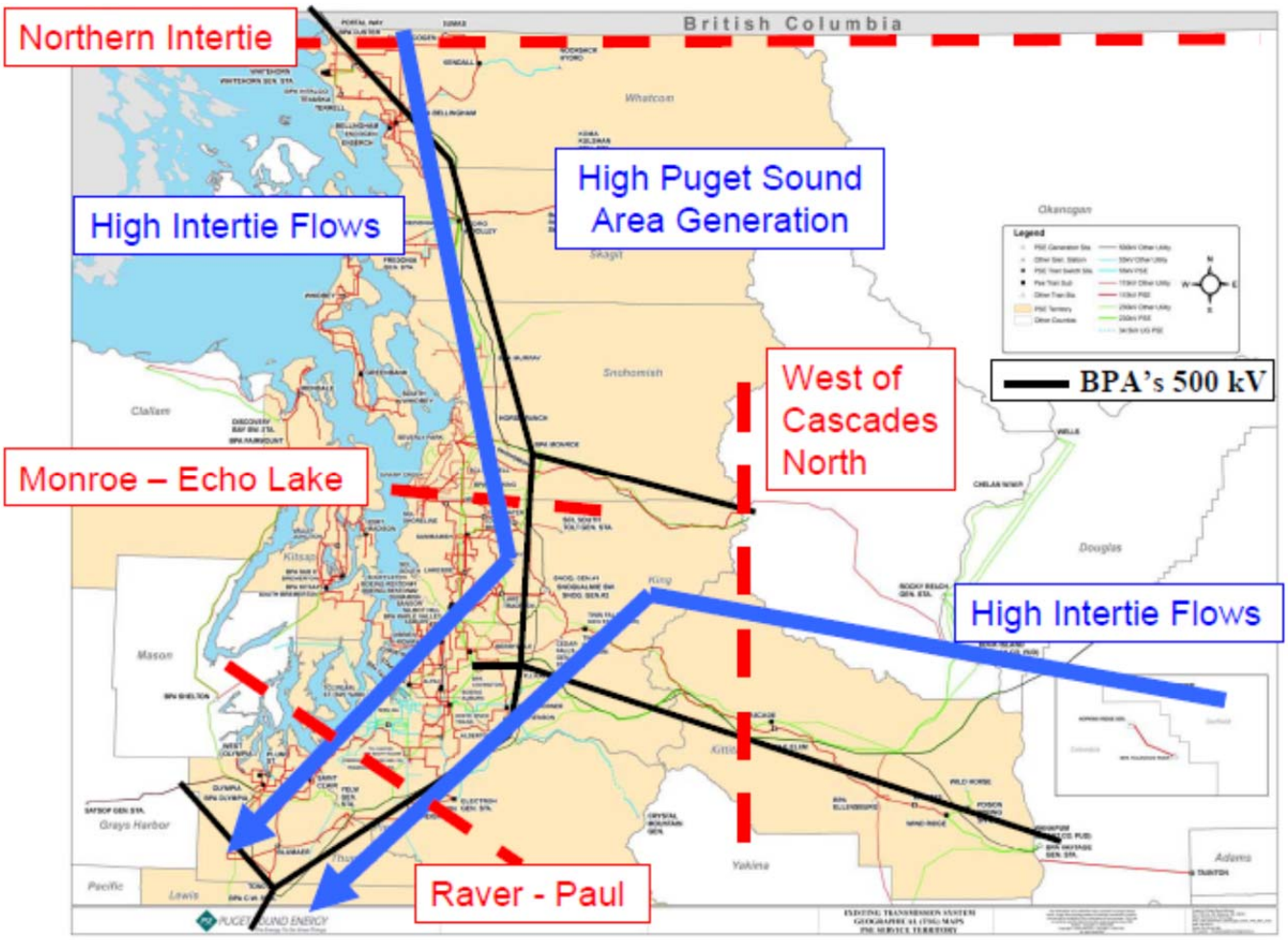
The capacity of the Northern Intertie path in the north to south direction is 2,850 MW on the west- side and 400 MW on the east-side with a combined total transfer capability limit of 3,150 MW (Figure 6-2). The total capacity of the path in the south to north direction is 2,000 MW, with a limit of 400 MW on the east-side (Figure 6-1). Both of these directional flows can impact the ability of the system to serve loads in the Puget Sound area.



[22]

Figure 6-1: Winter Power Flow resulting from Northern Intertie

[22] PSE Attachment K, Puget Sound Area Transmission Meeting, PSE Presentation Slide #9, Dec 18, 2012



[23]

Figure 6-2: Summer Power Flow Resulting from Northern Intertie

The major issues in the PSE area were identified in the 2012 System Assessment, dated July 2012. The Assessment documented that: BPA is making commitments to increase flows across the Northern Intertie to 2,300 MW through the Network Open Season that will show up in the ten-year time frame. 200 MW of this new commitment is planned to be scheduled on the east side of the Northern Intertie at Nelway. Therefore in the ten- year summer cases this flow will increase to 2,300 MW to cover the additional commitments that are being made on the Northern Intertie including the 200 MW on the east side of the tie at Nelway.

6.2.2 2009 TPL Study Results

Issues associated with loading in the Talbot Hill area under winter conditions and south-north regional transmission flows were first shown in the 2009 TPL study. (The previous year's TPL study had noted high loading on Talbot Hill transformers, although these were not identified as Category B or C overloads in any of the study years used for the 2008 TPL.) As a result, PSE identified short-term mitigation in the form of CAPs and also began studying options for improving the power supply in the central King County area.

Load forecasts used in the 2009 TPL study followed corporate forecasts published in December 2008. There was an updated forecast in June 2009 which projected lower normal peaks. Due to the conservative approach used in the TPL report, it is deemed that the change in the peak loads would not influence any TPL results.

[23] PSE Attachment K, Puget Sound Area Transmission Meeting, PSE Presentation Slide #10, Dec 18, 2012

The 2009 TPL Study assumed no generation in Puget Sound Area as opposed to minimum generation in earlier reports - for the low generation scenarios. Also, the NI (Northern Intertie) flows were assumed realistic based on season and historic flows. This information is tabulated in Table 6-15.

The winter season in years 2010 (2010-11) and 2019 (2018-19) was studied both in Northern Intertie (NI) import and export conditions. Loads used were 1 in 2 year winter peak. The summer season in years 2010 and 2019 was also studied both in Northern Intertie (NI) import and export conditions. Loads used were 1 in 2 year summer peak. PSE's system load peaks during the winter season; summer represents reduced-load conditions. For the near-term cases winter peak load of 5,329 MW and summer peak load of 3,417 MW is modeled. For the long-term cases a winter peak load of 5,765 MW and summer peak load of 3,678 MW is modeled. To cover a broad range of operating conditions, Northern Intertie flows and PSE generation levels were varied in all case studies.

Table 6-15 shows the different scenarios used for the study.

Table 6-15: Scenarios for the 2009 TPL Study

WECC case	Base case	Northern Intertie flows (North-South (N-S) or South –North (S-N)	Puget Sound Area Generation
2009 HS3A APPROVED OPERATING CASE	2010HS-A	N-S 2850/300 MW	Full generation
2009 HS3A APPROVED OPERATING CASE	2010HS-B	N-S 2850/300 MW	No generation
2009 HS3A APPROVED OPERATING CASE	2010HS-C	S-N 2000/0 MW	Full generation
2009 HS3A APPROVED OPERATING CASE	2010HS-D	S-N 2000/0 MW	No generation
2009-10 HW2 OPERATING CASE	2010-11HW-A	S-N 1500/300 MW	No generation
2009-10 HW2 OPERATING CASE	2010-11HW-B	S-N 1500/300 MW	Full generation
2009-10 HW2 OPERATING CASE	2010-11HW-C	N-S 1450/0 MW	No generation
2009-10 HW2 OPERATING CASE	2010-11HW-D	N-S 1450/0 MW	Full generation
2019 HEAVY SUMMER 1 BASE CASE	2019HS-A	N-S 2850/300 MW	Full generation
2019 HEAVY SUMMER 1 BASE CASE	2019HS-B	N-S 2850/300 MW	No generation
2019 HEAVY SUMMER 1 BASE CASE	2019HS-C	S-N 2000/0 MW	Full generation
2019 HEAVY SUMMER 1 BASE CASE	2019HS-D	S-N 2000/0 MW	No generation
2018-19 HW1 BASE CASE	2018-19HW-A	S-N 1500/300 MW	No generation
2018-19 HW1 BASE CASE	2018-19HW-B	S-N 1500/300 MW	Full generation
2018-19 HW1 BASE CASE	2018-19HW-C	N-S 1450/0 MW	No generation
2018-19 HW1 BASE CASE	2018-19HW-D	N-S 1450/0 MW	Full generation

The 2009 TPL study indicated that as soon as the winter of 2010-11, during south-north regional transmission flows with low Puget Sound Area generation, a Category C loss of the O'Brien 230 kV bus or a Category C loss of the North Talbot Hill 230 kV bus section could overload the Talbot Hill transformer #2. The O'Brien outage would load the Talbot Hill transformer to 101% of its emergency limit, which could be mitigated by dispatching generation. The north Talbot Hill 230 kV bus outage was shown to result in a 107% load on Talbot Hill transformer #2, which would be mitigated by instituting a CAP to open Talbot Hill-Lakeside #1 and #2 115 kV lines. Installation of 230-115 kV transformation in central King County was identified as a long-term mitigation and studies commenced as to best transformation location and associated system improvements.

Section 7 Conclusions on Needs Assessment

This 2013 Eastside Needs Assessment has shown that PSE is facing a transmission capacity deficiency on the Eastside of Lake Washington. Overloads of Talbot Hill and Sammamish transformers as well as several 115 kV lines point to the need for a new power supply centered in the Eastside area. By the fall of 2017, additional 230-115 kV transformation or generation integrated at the 115 kV level will be required in the Eastside area to relieve the overloads predicted in this study. Depending on the location of a new transformer, additional 115 kV or 230 kV line capacity will also be required.

In multiple contingencies studied, different parts of the transmission system will overload or will be close to overloading within the 10 year study period. When the regional power flows are south to north, as is typical in the winter, there are potential overloads in the Talbot Hill Substation area, on both transformers and transmission lines. When the regional power flows are north to south, as is typical in the summer, there are potential overloads in the Sammamish Substation area. In each case, it is the need to provide power to PSE communities in the Eastside area that is stressing the local power system.

The Eastside area has no utility generation sources. In King County, local generation covers less than 10% of the peak load. Therefore the King County area is quite dependent on transmission interties to Bonneville Power Administration and other neighboring utilities that can transport bulk power from generation located north, south and east of King County, primarily in the east. Bulk power is most often transported at 230 kV or higher voltage. This study has indicated possible overloads of existing 230 kV lines in future years. A 2012 Columbia Grid study has also indicated the need for additional 230 kV capacity in the King County area.

The core area of the Eastside in Bellevue is eight miles from any 230-115 kV source. This has placed a strain on the two nearest substations providing 230-115 kV transformation to the Eastside: Sammamish and Talbot Hill Substations. Continuing load growth in the Eastside area would increase the overload problems being shown in the first 5 years of the study.

This study examined thermal overloads for Category A (N-0), Category B (N-1) and Category C (N-2 and N-1-1) outages as required by NERC, WECC and PSE Transmission Planning Guidelines.

At approximately 5,200 MW PSE system load, as forecast for 2017-18 winter, multiple elements are at risk of overload. If the load growth is higher or conservation goals are not achieved as projected, the overloads will be higher and occur sooner.

PSE uses CAPs to automatically or manually prevent overloads under the NERC reliability requirements. The CAPs required to prevent N-1-1 overloads would open lines between Sammamish and Talbot Hill. Some of the CAPs place customers at risk of outage due to transmission lines being switched into a radial mode, with a feed from just one end. In the future, load growth will result in additional lines required to be opened, putting over 60,000 customers at risk of subsequent outages.

This analysis has shown a transmission capacity deficiency in the Eastside area of Lake Washington will develop by the winter of 2017-18. This transmission capacity deficiency will continue to increase beyond that date.

Appendix A: Load Forecast

Table A-1: 2012 Annual Peak Load Forecast Distribution

	100% Conservation		Net of 100% Conservation			Gross of Conservation (0% Conservation)		
Year	Normal 23º	Extreme 13º	Normal Peak (23º)	Extreme Peak (13º)	ERM Peak (PSO)	Normal Peak (23º)	Extreme Peak (13º)	ERM Peak (PSO)
2012	68	68	4,837	5,316	5,316	4,905	5,384	5,384
2013	140	140	4,785	5,267	5,267	4,926	5,408	5,408
2014	226	226	4,836	5,333	5,333	5,063	5,560	5,560
2015	319	319	4,865	5,375	5,375	5,184	5,694	5,694
2016	394	394	4,909	5,432	5,432	5,303	5,826	5,826
2017	468	468	4,938	5,472	5,472	5,406	5,940	5,940
2018	562	562	4,938	5,483	5,483	5,500	6,045	6,045
2019	651	651	4,946	5,501	5,501	5,597	6,152	6,152
2020	778	778	4,923	5,490	5,490	5,701	6,268	6,268
2021	885	885	4,923	5,502	5,502	5,808	6,386	6,386
2022	944	944	4,972	5,562	5,562	5,916	6,506	6,506
2023	986	986	5,039	5,641	5,641	6,025	6,627	6,627
2024	1,023	1,023	5,117	5,732	5,732	6,140	6,754	6,754
2025	1,061	1,061	5,193	5,820	5,820	6,254	6,881	6,881
2026	1,100	1,100	5,266	5,905	5,905	6,365	7,004	7,004
2027	1,138	1,138	5,341	5,993	5,993	6,479	7,131	7,131
2028	1,172	1,172	5,426	6,090	6,090	6,598	7,262	7,262
2029	1,203	1,203	5,515	6,192	6,192	6,718	7,396	7,396
2030	1,236	1,236	5,605	6,296	6,296	6,840	7,531	7,531
2031	1,270	1,270	5,694	6,399	6,399	6,964	7,668	7,668
2032	1,305	1,305	5,785	6,504	6,504	7,090	7,808	7,808
2033	1,341	1,341	5,878	6,610	6,610	7,219	7,951	7,951

Table A-2: 2012 Annual Peak Load Forecast for Eastside Area

	Normal Peaks (23 ^{0}F) Net of Conservation			Extreme Peaks (13 ^{0}F) Net of Conservation			Normal Peaks (23 ^{0}F) Gross of Conservation		Extreme Peaks (13^{0}F) Gross of Conservation	
Year	Eastside % of King Co	Eastside	King	Eastside % of King Co	Eastside	King	Eastside	King	Eastside	King
2012	27.5	646	2,348	27.4	709	2,586	655	2,381	718	2,619
2013	27.5	652	2,371	27.5	718	2,615	671	2,440	737	2,685
2014	27.5	660	2,399	27.5	729	2,652	691	2,512	760	2,764
2015	28.0	676	2,413	28.0	748	2,672	720	2,572	793	2,831
2016	28.5	694	2,434	28.5	769	2,699	750	2,630	825	2,896
2017	28.8	706	2,448	28.8	782	2,719	773	2,681	849	2,952
2018	29.0	710	2,449	29.0	790	2,725	792	2,729	872	3,006
2019	29.5	724	2,454	29.5	807	2,735	820	2,779	903	3,061
2020	30.0	733	2,445	30.0	820	2,732	850	2,834	937	3,122
2021	30.9	756	2,449	30.8	845	2,742	893	2,892	982	3,187
2022	30.9	765	2,476	31.0	861	2,776	912	2,950	1,008	3,251
2023	30.9	777	2,514	31.0	874	2,821	930	3,010	1,028	3,317
2024	30.9	790	2,558	31.0	890	2,871	949	3,073	1,050	3,387
2025	30.9	804	2,602	31.0	906	2,922	969	3,137	1,072	3,458
2026	30.9	818	2,646	31.0	922	2,973	989	3,201	1,094	3,530

NOTES:

1. Normal and Extreme County Peaks taken from PSE F2012: Electric County Peaks worksheet.
2. Eastside Normal and Extreme Peaks for years 2013, 2017 and 2021 are taken from the E230 Project worksheet: Eastside Load. The King County load was adjusted for expected block loads known to PSE Planning within the 10-year study period.
3. The Eastside load is calculated for years 2013, 2017 and 2021 based on the expected block loads with interpolation being used to calculate the in between years.

Appendix B: Upgrades Included in Base Cases

Table B-1: Projects Added to the Eastside Needs Assessment Winter Base Case

2013-14	2017-18	2021-22
Beverly Park - Cottage Brook breaker replacement	Beverly Park - Cottage Brook breaker replacement	Beverly Park - Cottage Brook breaker replacement
Cottage Brook - Moorlands line reconductor	Cottage Brook - Moorlands line reconductor	Cottage Brook - Moorlands line reconductor
Saint Clair 230-115 kV transformer	Saint Clair 230-115 kV transformer	Saint Clair 230-115 kV transformer
Talbot Hill - Berrydale #1 line uprate	Talbot Hill - Berrydale #1 line uprate	Talbot Hill - Berrydale #1 line uprate
Starwood autotransformer removal / Tacoma Power voltage increase	Starwood autotransformer removal / Tacoma Power voltage increase	Starwood autotransformer removal / Tacoma Power voltage increase
	Alderton 230-115 kV transformer	Alderton 230-115 kV transformer
	Lake Holm Substation (block load)	Lake Holm Substation (block load)
	Beverly Park 230-115 kV transformer	Beverly Park 230-115 kV transformer
	Sensitivity Study 2: Raver 500-230 kV transformer	Sensitivity Study 2: Raver 500-230 kV transformer
	Sensitivity Study 2: SCL series inductors	Sensitivity Study 2: SCL series inductors

Table B-2: Projects Added to the Summer NERC TPL Base Case for the Eastside Area

2014	2018
Beverly Park - Cottage Brook breaker replacement	Beverly Park - Cottage Brook breaker replacement
Cottage Brook - Moorlands line reconductor	Cottage Brook - Moorlands line reconductor
Saint Clair 230-115 kV transformer	Saint Clair 230-115 kV transformer
Talbot Hill - Berrydale #1 line uprate	Talbot Hill - Berrydale #1 line uprate
Starwood autotransformer removal / Tacoma Power voltage increase	Starwood autotransformer removal / Tacoma Power voltage increase
	Alderton 230-115 kV transformer
	White River - Electron Heights 115 kV line re-route into Alderton
	White River 2nd bus section breaker
	Lake Hills - Phantom Lake 115 kV line
	Lake Holm Substation (block load)
	Cumberland Substation 115 conversion (block load)
	Beverly Park 230-115 kV transformer

Appendix C: Quanta Technology and Puget Sound Energy Author Biographies

Quanta Technology assisted Puget Sound Energy in conducting this study, including research, analysis and documentation. Quanta Technology is an expertise-based, independent consulting company providing business and technical expertise to the energy and utility industries. They assist with deploying strategic and practical solutions to improve a company's business performance. Their mission is to provide value to clients in every engagement with the industry-best technical and business expertise, holistic and practical advice, and industry thought leadership.

Thomas J. Gentile, PE, *Quanta Technology Vice President Transmission Strategy,* is based in Massachusetts and has over 36 years of experience and proven leadership with transmission and distribution system planning, analysis, engineering, program/project management and interfacing with RTOs/ISOs and regulatory agencies. Mr. Gentile has participated in various planning, operating and market committees at NERC, NPCC, NYISO and ISO-NE. Tom received MSEE and BSEE degrees from Iowa State University and Northeastern University. He is a registered professional engineer in the State of Massachusetts.

Donald J. Morrow, PE, *Quanta Technology Partner, Senior Vice President of Corporate Strategy and Quanta Technology Expert*, has more than 30 years of utility and consulting experience. During the course of his career, Don has held a wide range of technical and management responsibilities including system planning, control area operations, transmission operations, energy trading, maintenance scheduling, operator training, protection, distribution operations, energy management systems and natural gas dispatch. Don received his BSEE and MBA from the University of Wisconsin, Madison. Don developed the transmission practice at Quanta Technology and he has led several transmission planning projects since 2006, including the SPP EHV Overlay study, the Smartransmission Project (www.smartstudy.biz), and Companhia de Electricidade de Macau in Macua, China. He is a registered professional engineer in the states of Wisconsin and Arkansas.

Carol O. Jaeger, PE, *Puget Sound Energy Consulting Engineer*, *Transmission Planning*, has over 30 years experience in transmission and distribution planning, distribution design, and substation design and operations. She received her BSEE from the University of Washington and is a registered professional engineer in the state of Washington.

Zach Gill Sanford, *Puget Sound Energy Engineer, Transmission Planning*, has over 4 years experience in transmission planning and NERC compliance. He received his BSEE from the University of Washington.

Subject: EIS Scoping Questions
From: "whalvrsn1@frontier.com" <whalvrsn1@frontier.com>
Date: 6/15/2015 4:32 PM
To: "Scoping@EnergizeEastsideEIS.org" <Scoping@EnergizeEastsideEIS.org>

I want to begin by thanking the city for providing last weeks "Scoping Orientation" session. While the turnout was small, it did give us a chance to learn more abut this rather complicated subject. Since the meeting I have given some thought to our discussion, and I have a couple of other questions.

Concerning Scoping alternatives:

Within the EIS Phase 1 Scoping documents, there is reference to considering various and viable solutions that could be implemented "to meet the stated need". There is another reference to "solutions for the stated need". Would you please share with me the "stated need" set forth in PSE's documents and application?

The city's Electrical Reliability study recommended the hiring of an electrical engineer. To date the city has not done this. So, there really is no one on city staff who is qualified to review technical aspects of this application or review alternatives that meet need. In your orientation session, the EIS consultant indicated that a company named Scan Tech will do technical research and evaluation. So here are my questions:

Were the four solutions with the Scoping document proposed by PSE? If not, who proposed them?

Will Scan Tech work from "stated need" and/or further evaluate refine it?

Would you briefly describe who will be doing the evaluation of alternatives and the criteria that will be used to determine viable alternatives?

Regarding USE Independent Technical Analysis:

As I understand it, the city will use the USE report to frame a scoping letter from the council to Carol Helland. In addition, "It will inform -- or become part of the data -- included in the EIS process".

Is my understanding correct?

If so, I would request that the Scoping team acquire from the city the following transcripts: (1) the staff's presentation and council member's Q&As for the awarding of the contract to USE (Dec 6th); and, (2) USE's presentation and council member's Q&As presenting the results of the study to the city council (May ?). This will help provide a more clear and complete record.

Please advise as to this request?

Finally, since USE did not provide a third party authentication of need, how will this be accomplished?

Thank you! I sincerely appreciate your responsiveness to these many types of questions.

Sincerely,

Warren E. Halverson
13701 NE 32nd Pl\
Bellevue, Washington 98005

EIS for PSE's Energize Eastside Project

Scope

The scope of the EIS for PSE's Energize Eastside Project should include the aesthetic impacts of the project during destruction/construction and at completion. The negative aesthetic impact extends from the neighborhoods, to the cities, and to the region. The broader scoping question is what social value does this project provide? Does this project raise the standard of living for the general population? Does it improve environmental stewardship? Does it efficiently apply limited resources such as monetary and land resources to the most critical needs? PSE's proposed project, as well as the alternatives, need to be weighed in these terms in the EIS.

Safety is the utmost critical consideration and one that was completely ignored by PSE during the CAG process. The EIS should include all impacts caused by the mitigation of safety hazards. Like smoking, lead paint and asbestos consumer product safety, a lot has been learned in the last few decades about transmission lines, hazardous liquid pipelines, and the catastrophic interactions between collocated high energy sources. If we could apply to past decisions what we know now about these interactions, likely we would not have allowed the existing thin safety margins. Like any new demolition/construction project, the new design and construction process must meet current 'code' not the obsolete standards applied and grandfathered along in the past.

The project should not impose safety risks, Therefore the EIS should include complete mitigation of safety risks including:

- Electromagnetic
    - Corrosion from induced AC currents
    - High energy events, e.g., lightning, arcing, structure failure
- Thermal
    - Immediate breach - transmission line has 10,000 times the arc voltage needed to melt ductile iron pipe
    - Latent damage – Event of sufficient energy to rupture cathodic protection insulation
- Mechanically induced failure
    - Immediate rupture
    - Construction induced latent failure, e.g., Bellingham disaster
    - Long term stress from forces on transmission line structure

The project provides a 4X increase in energy available to aggravate a line fault condition. The mitigation for this is physical separation. But worse, the key change in the supporting structure is replacement of the relatively insulating wooden supports with highly conductive metal supports. The mitigation for this is physical separation. In addition, the AC magnetic field in the power lines induce a current in adjacent

parallel pipes causing corrosion and shock hazard for personnel contacting the pipe and its fittings and valves. The mitigation for this is physical separation.

The Corridor Concept Theory and Application by Charles H. Weir, C.L.S., P.E.N.G and June P. Klassen state: "The major conflict between power transmission lines and pipelines in corridors is an unavoidable result of proximity. Spacing between these two facilities should be in the range of 30 metres due to voltage and resultant current flows which may be induced in a pipeline from an adjacent powerlines" The mitigation for this is physical separation.

Chevron states: "All overhead cable should maintain a minimum height of 20 feet above grade for a distance of 25 feet each side of the pipeline. No part or portion of mechanical supports and service drops, including poles, towers, guy wires, ground rods and anchors, should be within 25 feet of the existing pipeline" (www.chevronpipeline.com/pdf/Guidelines_for_Property_Development.pdf).

PSE's project locates the three phase conductors on the side of the towers towards the center of the ROW, i.e., towards the pipeline. Worse yet, the conductors are stacked in a vertical configuration. A review of three phase transmission line magnetic field equations shows this configuration produces the highest magnetic field strength vertically towards the pipeline ROW. The mitigation for this is physical separation.

In a perfect storm scenario an arc to ground from a transmission line failure, weather, lightning or other event allows the hazardous liquid pipeline to be energized to the point of rupture requiring the pipeline to be shut down. But given the pipeline is energized at lethal potential, there is no automatic or manual means to shut it down. This runaway situation is quite possible. The mitigation for this is physical separation.

Other colocation issues:

- Immediate or latent damage to the pipeline during construction. The mitigation for this is physical separation.
- Latent damage to the pipeline due to forces transmitted from the towers to the footing, and to the soil adjacent to the pipeline. The mitigation for this is physical separation.
- Damage to the pipeline cathodic protective insulation through heating caused by lightning strikes to towers conducted to the ground adjacent to the pipeline. The mitigation for this is physical separation.

In a following discussion the topic of Inadequate Power Line Right Of Way Width is further addressed showing the geometry of the proposed tower locations. What should be clear in all of this is the transmission line corridor is too narrow for safe installation and operation of PSE's proposed project. The corridor must be about 2.5X its current size. The EIS must address this impact.

The EIS should include safety codes per RCW 81.88 including relevant inputs from CCOPS sanctioned by RCW 81.88.140

The EIS should identify which alternative are consistent with WAC 480-100-238 Integrated resource planning

The EIS should include positive environmental impacts where current ongoing environmental impacts are reduced.

Alternatives

There are many known good alternatives to PSE's proposed project. Unfortunately, due to PSE's control over the City of Bellevue, the process is being rushed thereby preventing full consideration all the potential alternatives. It is a certainty the best alternatives have not been thought of yet.

Conversion from 115 kV AC to 120 kV AC

In a following discussion the topic of Line Voltage calculation is addressed. Summarized here, since power is a function of the voltage squared, PSE's stated shortfall can be addressed by replacing the transformers at each end of the transmission line segment with 120 kV AC. This will provide the full capacity PSE states is needed and the environmental impact will be essentially zero.

High Voltage Direct Current (HVDC) electrical power transmission

One of the most wasteful methods to transfer electrical energy is via an alternating current (AC). The waste is caused by loss of energy from the resultant Electromagnetic Field (EMF) and the high loss through the 'skin effect'[1] of conductors. But this is the prevalent method of electrical power transmission.

A much more efficient method is to use Direct Current (DC). DC transmission lines have been employed in the U.S. since the 1960's. Current technologies for DC/AC conversion are orders of magnitude better and lower cost since the early deployments. Current technologies allow for cost effective AC/DC conversions for even short DC transmission lines.

In the transmission line corridor that PSE has selected for its proposed project, the two three-phase (three-wire) AC circuits can be converted to three DC (two-wire) circuits with no transmission line rewiring. The net benefits include:

- Higher capacity – The lines can run at peak voltage which is 163 kV for a 115 kV nominal (RMS) circuit. This provides twice the power (162 kV^2 vs $115kV^2$)
- Greater redundancy – Additional circuit provides 50% increase in redundancy
- Lower resistive loss – DC currents flow through the whole conductor unlike AC which only flows through a small layer at the surface of the conductor[1].

[1] Skin effect is the term used to describe AC current flow in a conductor. AC current travels through the outer portion (skin) of a conductor in contrast to DC current which travels through the entire conductor. The consequence is there is much greater loss (approximately twice the loss) with AC current versus DC current for the same size conductor.

- Lower reactive loss – DC lines are not subject to loss through radiation unlike AC lines
- No induced current corrosion in pipelines – DC lines don't produce the alternating magnetic field that causes induced currents
- Greater grid resiliency – DC sections in AC networks allow more graceful recovery from outages because AC phase matching is not required unlike all-AC networks
- Zero negative environmental impact – net impact is positive due to elimination of alternating magnetic fields
- Lower cost than PSE's proposed project

DC underground

This has all the advantages of the DC alternative but it additionally eliminates overhead wiring. This alternative was dismissed without supporting data in section 2.5.4 of PUGET SOUND ENERGY Eastside 230 kV Project Underground Feasibility Study PROJECT NUMBER: 130155. PSE chose to study an antiquated approach to undergrounding and DC conversion, and consequently rejected that as too expensive.

Cooperate with Seattle City Light

PSE highlights Seattle City Light (SCL) letter of June 2, 2014 stating SCL "prefers not to utilize SCL's transmission lines for PSE's native load service needs." But PSE has never formally submitted a documented request to SCL for cooperative power sharing under the limited failure condition that PSE proposed project allegedly addresses. In lieu of PSE's apparent inability to formulate such a request, the City of Bellevue as lead agency should submit a request to SCL. The request should state the true need:

- If a major PSE transmission line fails, and
- If the ambient temperature falls below 23°F, then
- Up to 55 MW additional power is needed on the eastside during two four-hour peak periods per day

The request should further outline:

- The combination of ambient temperature and peak period stated above amounts to 28 hour per year average (NOAA data 1970 – 2014)
- The loan of power is repayable to SCL the same day or within a week worst case
- The intertie improves reliability of both services with minimal impact

Make regional power requirements the one and only priority for regional power utilities

PSE is playing a game of mixing and matching regional regulations and inter-regional power transmission. Eliminate alternatives that are excessive or irrelevant to PSE's customer base. Supplying

power over U.S. borders is not PSE's or its customer's responsibility. The federal government is obligated to provide those resources.

Conversion to PUD to promote forward thinking regional solutions

RCW 54, authorized the establishment of public utility districts to "conserve the water and power resources of the State of Washington for the benefit of the people thereof, and to supply public utility service, including water and electricity for all uses." (www.wpuda.org). This law was enacted in 1931 against bitter opposition by Puget Power, the precursor to PSE. Efforts were made about 70 years ago to convert Puget Power region to a PUD but the effort failed.

Under certain circumstances, the granting of franchise monopolies for regional services provides value to the recipient of those services. Efficiency, elimination of duplicity, and coordinated management are some of the potential benefits. Some of the potential downsides are lack of competition, profit motivated wasteful expenses, entrenchment in obsolete processes and technologies, tunnel vision approaches to maintaining and improving services, and self-serving manipulation of rules and regulations.

Under the current circumstances none of the benefits and all of the downsides are evident in PSE's electrical energy monopoly. Now and looking forward, we will be victims of needless projects like Energize Eastside that degrade the environment, drain financial resources, and only benefit PSE. PSE has migrated away from renewable hydroelectric energy towards coal-fired sources. This is the opposite direction we need to be headed. We pay far too much for power and then pay 10% more for the privilege of having PSE deliver it. (http://www.wpuda.org/PDF_files/PSE%20Rate%20Comparison.pdf)

PSE is only responsible to its owners. A PUD is only responsible to its customers. The consequential difference is PSE's objective is to squeeze the maximum allowable profit from its customers whereas the PUD's objective is to provide the best service and value to its customers.

PSE's objective:

- Profit

PUD's objective:

- Better forecasting
- Better management
- Better service
- Better efficiency
- Better environmental stewardship
- Better value
- Better security

The Energize Eastside project would never come into existence under PUD control. PSE stated to the CAG last year that eastside customer demand was just under 650 MW in 2012. In the EIS process, PSE

shows eastside customer demand is just under 600 MW in 2014. Per PSE, power demand has dropped by about 50 MW in two years from 2012 to 2014. PSE currently has in place a power transmission capacity that is over 200% greater than any forecasted peak load in the foreseeable future. Clearly PSE has no ability to accurately forecast the shortfall they currently state. A PUD would be motivated to use proper techniques and accurate data to model and forecast energy demands. PSE's management to provide service and efficiency is motivated solely to increase owner profits. A PUD would manage services to embrace newer proven technologies, improve efficiencies, and move forward in a positive and sustainable direction. PSE places profits from its coal-fired sources above concern for the environment. A PUD would be responsive to its stakeholder, its customers, to seek sustainable energy sources and storage and bring its carbon footprint to near zero. PSE creates and promotes unnecessary projects through fear and obfuscation. PSE derives huge profits from these made-up projects. A PUD would focus on projects of true need, seeking the least costly, least invasive, and most valuable solutions. A PUD would not allow the power grid to be controlled by foreign nationals. There is significant risk in allowing ownership, and therefore control, of the local power grid by entities that have no allegiance to the U.S.

Energy storage

The traditional approach for electrical power transmission is to size the network from generation source to point of use for the worst case peak demand. This concept is rapidly becoming obsolete in light of the fact that peak generation capacity and peak usage don't necessarily coincide. This is particularly evident with 'green' technologies such as wind or solar renewable energy alternatives to fossil fuel. These alternatives are being mandated and rapidly adopted to reduce electrical power generation carbon dioxide footprint.

But wind energy based generation is asynchronous to electrical power usage. Diurnal solar radiation energy is synchronous, but out of phase, with electrical power usage. Peak capacity of these green resources that goes unused is effectively wasted energy. With its antiquated mindset, PSE has absolutely no way to capture this lost power. Doubling of the voltage on a power line will not solve the problem. In fact, an infinite electrical power transmission capacity will not solve that problem. But the problem is solvable.

The concept of storage of a resource near the point of use has been around for quite a while. Examples can be found in old western movies where a steam locomotive would be stopped at a water tower (a water stop) to quickly refill tanks for the boiler with water. The water tower provided storage and high water flow (peak rate of demand) at the point of use. Facilities for refilling the water tower storage, e.g. pumps and pipes, needed to be sized only large enough to meet the average rate of use which is very much less than the peak rate of use.

Today, the concept is applied by domestic water utilities. Water resources are stored near point of use to support peak rate of demand but are replenished at a very much smaller average rate of demand. Water utilities wisely apply this concept to sizing the piping infrastructure rather than sizing the entire distribution network from source to point of use for worst case peak demand.

Obviously, if a similar concept of storage could be applied to electrical energy distribution, wasted excess power distribution capacity could be utilized to improve service, improve reliability, and meet future needs. The electrical power transmission system could terminate at local storage facilities and be sized to meet the average demand at the storage facility rather than the peak demand.

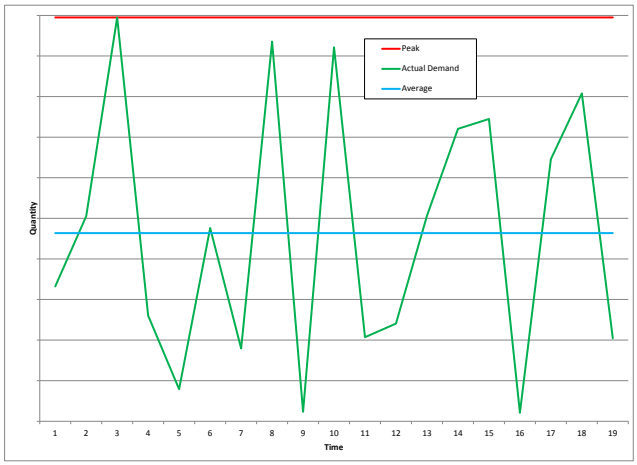


Figure 1 is a notional depiction of a time varying resource demand plotted on the green line. The red line represents the peak demand (highest of values plotted on the green line). The blue line is the average demand (average of the values plotted on the green line). In this example, it can be seen that the average demand is very much less (about half) of the peak demand.

Figure 1

In appendix H of its 2013 Integrated Resource Plan (May 31, 2013) PSE states average electrical power consumption for 2012 is 2,437 MW (Mega Watts) and peak electrical power demand in 2012 is 4,837 MW. Restating those values, the average electrical power consumption for 2012 is 2,437/4,837 = 55.5% of peak demand. An electrical power transmission line with a capacity to continuously support peak demand has 44.5% wasted capacity (100% - 55.5%). This is PSE's approach. Ratepayers are forced to pay for installation and maintenance of that unusable capacity.

Looking forward to PSE forecast, the problem is gets worse. PSE's estimate for 2033 average electrical power consumption is 3,719 MW estimates peak electrical power consumption is 7,113 MW. Based on those estimates, the average electrical power consumption for 2033 is 3,719/7,113 = 52.3% of peak demand. If PSE continues using their obsolete methodology, the capacity will be wasted 47.7% of the time (100% - 52.3%).

Historically this has been a difficult problem to solve as there has not been an economically viable method to store electrical energy near the point of use. This will continue to be a problem for utilities that are stuck in the past and have an economic interest in staying that way.

The fundamental question is: when will point-of-use large-scale electrical energy storage be viable? The answer is the technology is commercially available and is being employed today. One such product of new technology is referred to as a "flow battery". In a battery, energy is stored in a chemical form. The

battery converts the chemical energy to electrical energy to power to an electrical load[2]. A rechargeable battery can reverse this process by receiving electrical energy (reversing the flow of power) and converting to chemical energy. In a typical battery the chemical (electrolyte) is contained within the battery which can produce power until the energy in the electrolyte is depleted. The energy capacity of the battery is limited by its physical size. In a flow battery, the electrolyte is stored outside the battery and is pumped through the battery to produce power. The energy capacity of a flow battery is limited by the size of the storage tank. This decouples energy storage capacity from energy conversion rate. The battery is sized for the power demand, e.g., Mega Watts, and the storage tanks are size for the duration of the need, e.g., Mega Watt hours.

The U.S. Department of Energy (DOE) addressed this in a report titled Grid Energy Storage released December 2013. In it, the DOE identifies the need to focus on energy storage for a wide variety of reasons including, improvement of power grid utilization, improvement power grid reliability, reduction in wasted transmission capacity, and reduction of greenhouse gas emissions. From the report:

> *Energy storage can reduce the need for major new transmission grid construction upgrades as well as augment the performance of existing transmission and distribution assets. DOE estimates that 70% of transmission lines are 25 years or older, 70% of power transformers are 25 years or older, and 60% of circuit breakers are more than 30 years old. 4 Extending the capability of the transmission grid—for example by pre-positioning storage on the load side of transmission constraint points—makes the grid more secure, reliable, and responsive. Additionally, distributed storage can reduce line-congestion and line-loss by moving electricity at off-peak times, reducing the need for overall generation during peak times. By reducing peak loading (and overloading) of transmission and distribution lines, storage can extend the life of existing infrastructure.*
>
> *Energy storage will also play a significant role in emergency preparedness and increasing overall grid resilience. An August 2013 White House report, 5 written in conjunction with the Office of Electricity Delivery & Energy Reliability, details the integral role that energy storage will play in enhancing grid resilience and robustness related to weather outages and other potential disruptions*
>
> *Storage technology can help contribute to overall system reliability as large quantities of wind, solar, and other renewable energy source s continue to be added to the nation's generation assets, furthering the goals of reducing greenhouse gas emissions and increasing energy security. Additionally, storage technology will be an instrumental tool in managing grid reliability and resiliency by regulating variable generation and improving microgrid and smart-grid functionality. For micro- and smart-grid technologies, storage can provide redundancy options in*

[2] Power is the flow of energy (quantity of energy divided by time) and is commonly measured in Watts (W), kilowatts (kW, 1000 Watts), or megawatts (MW, 1,000,000 Watts). Quantity of energy is the level of power times the duration of the power and is commonly measured in Watt-hours (Wh), kilowatt-hours (kWh) or megawatt-hours (MWh).

areas with limited transmission capacity, transmission disruptions, or volatile demand and supply profiles[3].

Further, Federal Energy Regulatory Commission (FERC) Order 755, 784, and 792, specifically address and encourage energy storage as a method to provide instant on-demand capacity to improve the electrical power transmission network.

Going back to PSE's IRP, the peak demand supported in 2012 (4,837 MW) is significantly greater than the average demand forecasted for 2033 (3,719 MW). Therefore if PSE customers were served by a forward thinking electrical utility that applied storage technology over the next 18 years as that technology evolves and improves, the need for increasing electrical power transmission capacity vanishes. The current capacity supports 100% the 2033 projected average demand with 30% spare (4,837/3,719 = 130%). Besides eliminating the blight and wasted ratepayer money on additional excess transmission capacity, electrical energy storage allows less expensive off-peak power to be purchased and stored until needed. Also less dependence is needed on dirty power sources such as the coal-fired Colstrip Generating Facility in Montana[4] [5]. So how much would it cost? With current technology, the cost would be as low as $400/kW. Using a more conservative $500/kW the following table shows the cost per year to provide storage capacity adequate to support PSE's claimed demand. The costs are based on the assumption that there is zero progress in the state of storage technology over the next eight years. Given the global demand and developments in storage technology, this is an unlikely assumption. If the DOE cost target is achieved, the cost would eventually drop to $100/kW.

Year	Demand (MW)	Capacity (MW)	Shortage (MW)	Storage cost ($M)	Storage cost cum ($M)
2018	715	710	5	$2.5	$2.5
2019	720	710	10	$5.0	$7.5
2020	725	710	15	$7.5	$15.0
2021	760	710	50	$25.0	$40.0
2022	770	710	60	$30.0	$70.0

Is it reasonable that this storage capability could be established? On October 17, 2013 the California Public Utilities Commission mandated a target of 1,325 MW storage capability by the year 2020. The

[3] The concept of grid energy storage has been employed since the 1890's in the form of Pumped Storage Hydroelectricity (PSH) where hydroelectric reserves are replenished during low power demand periods and consumed during peak demand periods. PSH facilities are somewhat limited in that they are not necessarily located at the point of use.

[4] The Colstrip Generation Facility is 20% owned by PSE and is a significant source of mercury, particulate matter, regional haze and coal ash pollution.

[5] On August 16, 2013 the city of Seattle sent a letter to Dave Danner, Chair – Washington Utilities and Transportation Commission urging the UTC to "require that PSE strengthen its efforts to reduce greenhouse gas emissions and move away from carbon-based energy sources." The letter was signed by Michael McGinn Seattle Mayor, Mike O'Brien Chair Energy and Environment Committee, Sally J. Clark Seattle City council President Vice Chair Energy and Environment Committee, Tim Burgess Member Energy and Environment Committee.

additional capability needed to meet PSE's claimed peak demand in 2020 is 15 MW. This represents about 1.1% of California's mandate. (15/1,325).

Assessment of PSE's problem statement

Capacity increase need assessment

There are serious issues regarding the path being pursued by PSE in resolving a claimed shortfall in supporting projected power demand. These issues include:

- Insufficient data to support the claimed shortfall
- No justification for limiting the scope of solutions
- Serious flaws in the selection of criteria for selected candidate options

Worst case temperatures

PSE projects that electrical power demand will begin to exceed peak power capacity by the year 2017. PSE further projects demand will exceed capacity by approximately 10% by 2022. The key point emphasized by PSE is the projected demand is based on days where the air temperature is 23°F or lower.

The question is whether of the occurrence of the conditions is so frequent that PSE's intended solution with its enormous impacts is warranted and there are no alternatives. Or is there something being left unsaid that indicates less aggressive solutions may be viable?

The NOAA National Climatic Data Center has a database of daily minimum temperatures for Station GHCND:USW00024233 SEATTLE TACOMA INTERNATIONAL AIRPORT WA US. Figure 2 is a summary of 16170 daily minimum temperature measurements in a period between January 1st 1970 and April 9th 2014. The horizontal scale is the daily minimum temperature in one-degree Fahrenheit increments from the lowest measured value in the period (7°F) to 23°F. The vertical scale ranges from 0% to 100% and is the percentage of the period in which each minimum temperature was recorded.

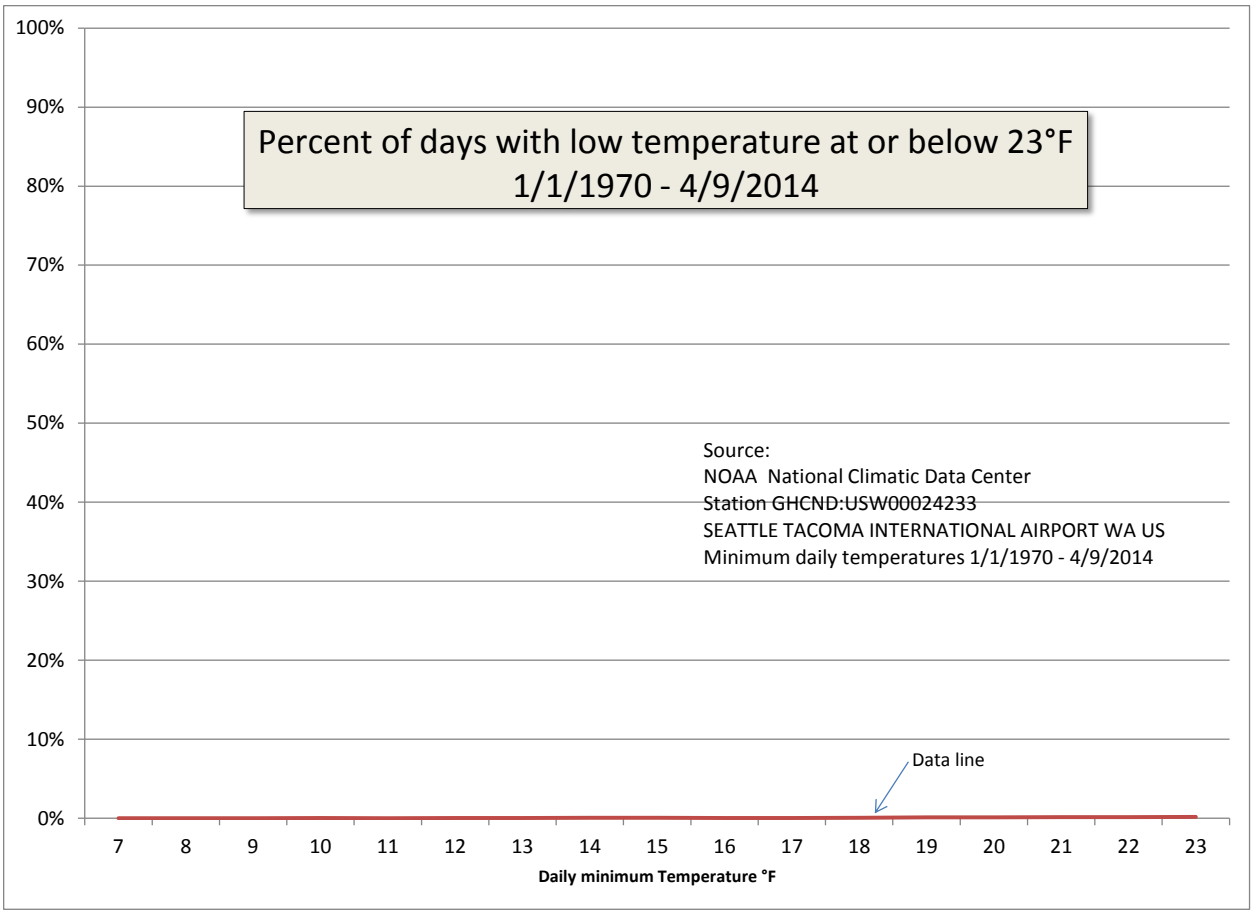


Figure 2

Since the occurrences of 23°F and lower temperatures days are extremely infrequent an expanded view of the bottom 1% is provided in Figure 3.

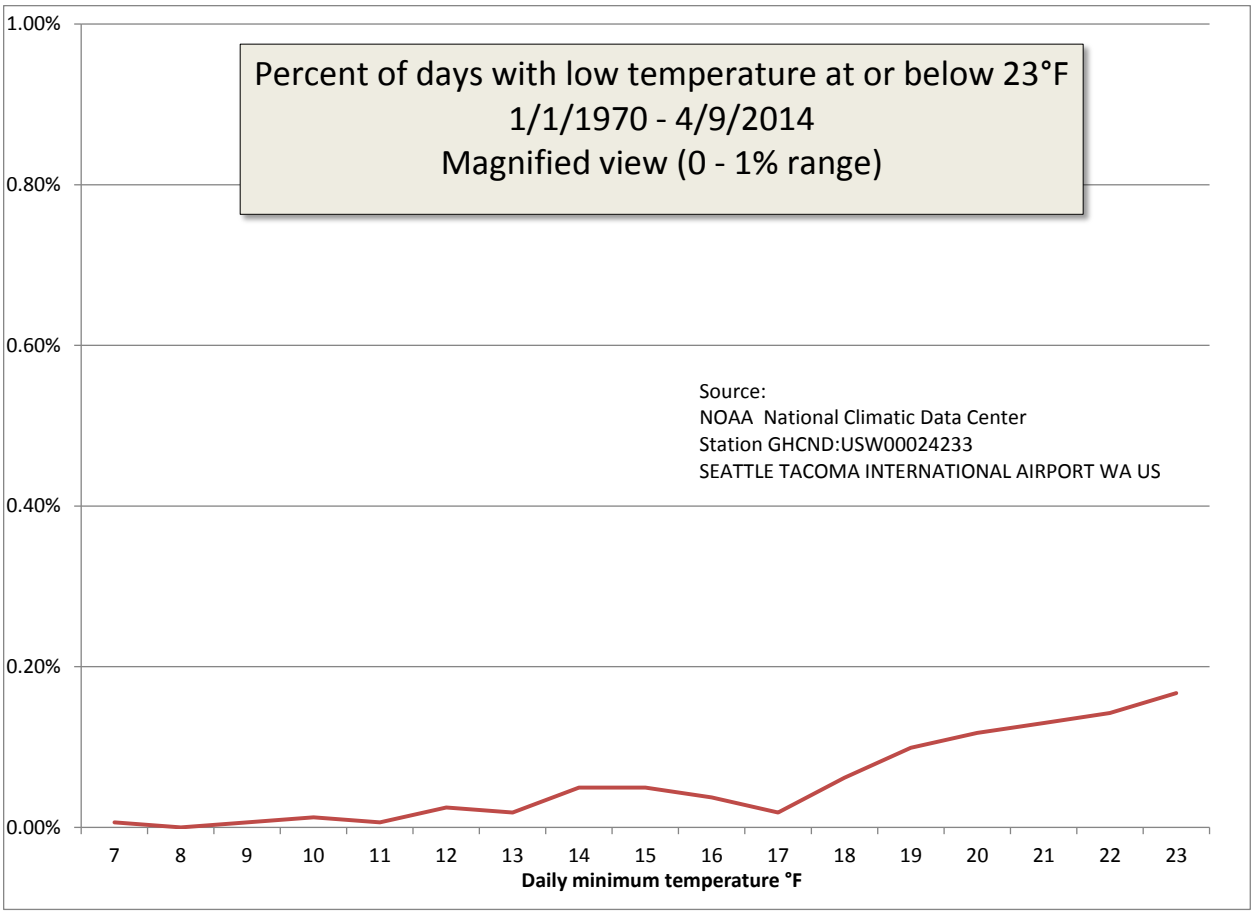


Figure 3

As can be deduced from the charts, the extreme conditions identified by PSE are very infrequent. The total percentage of days with minimums at or below 23°F is .95% (less than 1%) for the entire period. This suggests that the problem stated by PSE is potentially solvable within the realm of smart power management policies without resorting to the unnecessary options within PSE's narrow solution space. PSE has offered no defendable justification for excluding employment of a smart power management approach.

At less than one percent rate of occurrence, the number of days (meeting the conditions for which PSE claims this project is needed) over a ten year period is: .95% x 365 days/year x 10 years = 34.7 days. PSE claims the cost will be as high as $290 million. That cost spread across the number of occurrences in a ten year period is $290 million / 34.7 days = $8.36 million per day for each low temperature day. PSE claims the periods of peak electrical demand are from 6:00 AM to 10:00AM and from 5:00 PM to 9:00 PM. That is a total of 8 hours per day. Dividing $8.36 million by 8 hours leaves the consumers paying over $1 million dollars an hour. This is a very poor value to the customer and an unnecessary expense. PSE has offered no defendable justification for promoting such an expensive and limited value solution over lower cost, lower impact, and much higher value solutions.

Figure 4 shows the relative scale of PSE's proposed project vs PSE's statement of need during the CAG process.

PSE statements during CAG process and PSE documentation

- PSE states peak demand shortfall under a transmission line failure condition is 55 MegaWatts (MW)
- PSE projected demand is based on days where the air temperature is 23°F or lower.
- PSE states peak demand occurs in two 4 hour periods (8 hours total per day)
- PSE intends to add 3200 MVAR From PSE PROJECT NUMBER:130155 STL 085-1244 (SR-02) 130155 (03/31/2014) MM (~2560 MW of additional capacity @ 80% PF)

Background

- NOAA National Climatic Data Center has a database of daily minimum temperatures for Station GHCND:USW00024233 SEATTLE TACOMA INTERNATIONAL AIRPORT WA US.
- Summary of 16170 daily minimum temperature measurements in a period between January 1st 1970 and April 9th 2014 by NOAA indicates air temperature is at or below 23°F a total of 3.5 days on average per year

Analysis

- PSE claimed need: 55 MW x 8 hours/day x 3.5 days/year = 1520 MW hours (MWH)/year
- PSE intended increase in capacity: 2560 MW x 24 hours/day x 365 day/year = 22,425,600 MWH/year
- Percent increase in capacity vs need: 22,425,600 MWH/1520 MWH = 1,475,765%
- Conversely, percent increase needed vs capacity: 1520 MWH/22,425,600 MWH MWH = 0.0068%

To be clear, the percent increase in capacity vs need as stated above is almost 1.5 million percent. An increase of this magnitude will never ever be needed in the PSE customer base area.

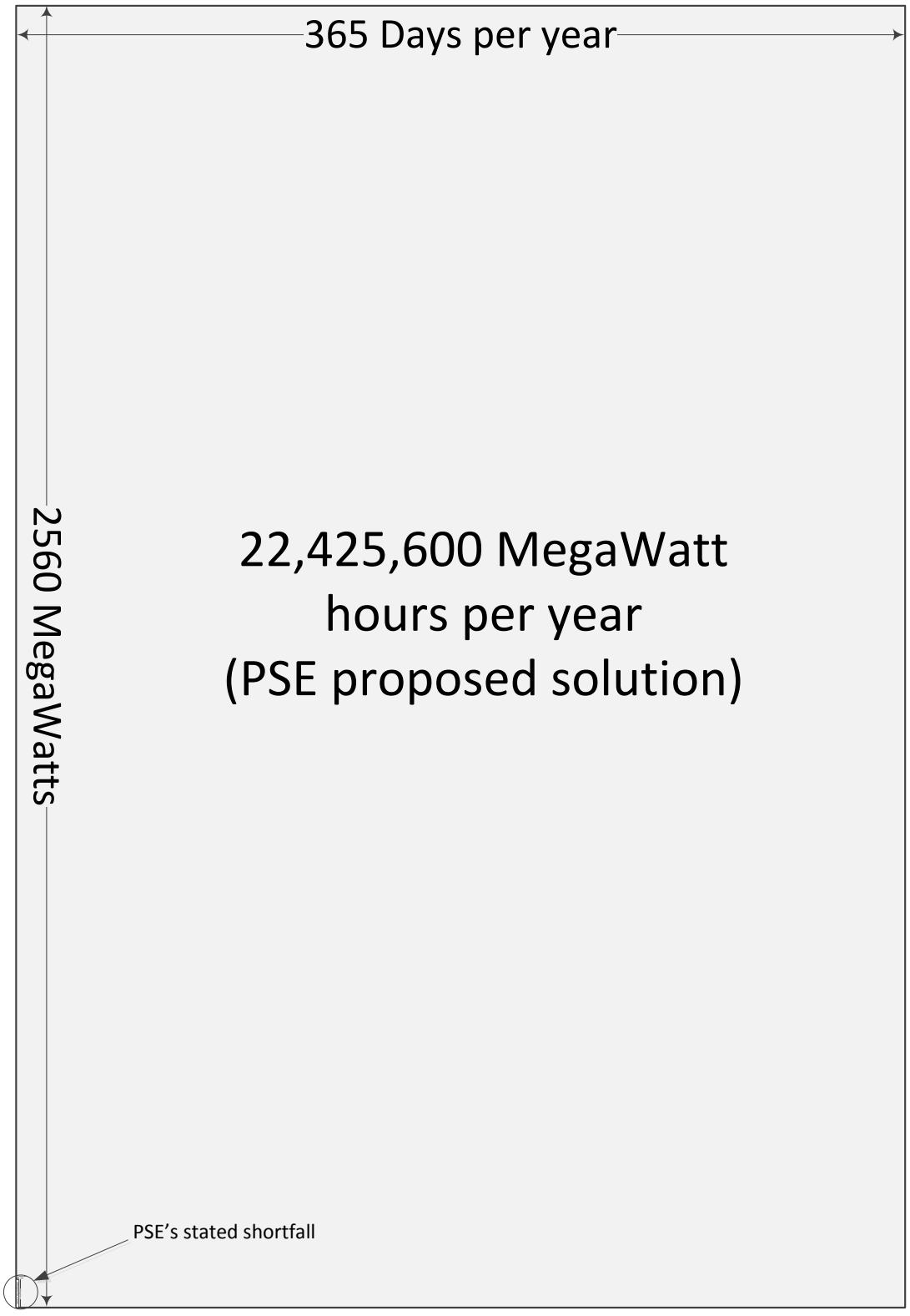

365 Days per year
2560 MegaWatts
22,425,600 MegaWatt
hours per year
(PSE proposed solution)
PSE's stated shortfall

Figure 4

Line Voltage Calculation

PSE states that electrical power demand will exceed supply by 10% in the year 2022 yet concludes the only solution is to double the power line voltage. This non-sequitur has been raised in writing and also verbally to PSE with no satisfactory answer. In the second case, the electrical engineering expert for the project claimed to be “a little rusty” on the arithmetic involved in the calculation and was unable to understand.

The fundamental relationship between power, voltage, and resistance (load) for which PSE is “a little rusty” is: the power (in Watts) is equal to the square of the voltage (in volts) divided by the resistance (in Ohms). This is a basic scientific principle used by engineers and is not re-definable by PSE:

$$\text{Power} = \frac{\text{Voltage}^2}{\text{Resistance}}$$

The important relationship in this discussion is power is proportional to the square of the voltage. Therefore if voltage is double, power is quadrupled (2 squared is four). So PSE claims the future electrical power demand will be today’s capacity plus 10% more, i.e., 100% + 10% = 110%. But doubling the voltage from 115kV to 230kV provides 400% of current supply per the quadrupling explained above. Clearly, 400% is not equal to 110%.

So what is the correct voltage increase required to meets the future demand claimed by PSE? An equivalent expression for the power-voltage relationship described above is the voltage is proportional to the square root of the power (by taking the square root of both sides of the equation). PSE’s claim of future electrical power demand, i.e., 110% of today’s capacity, can be met with the square root of 110% or 104.9% of the 115kV voltage. This is only 120.6kV not 230kV.

120kV electrical power transmission lines are use in the US and throughout the world. The existing 115kV transmission lines are compatible for use with 120kV equipment. PSE has offered no defendable justification for excluding employment this low cost, low impact approach.

Safety

Inadequate Power Line Right Of Way Width

Figure 5 is a diagram of the current PSE power line Right Of Way (ROW) and the Olympic Pipeline Hazardous Liquid Pipeline ROW through the Olympus residential community in Newcastle. This is a segment of the proposed route ‘M’. The hazardous liquids consist of highly flammable petroleum products (kerosene, jet fuel, diesel fuel, and gasoline). The liquid is pumped at very high pressure

(approximately 1400 pounds per square inch) through two pipelines within the pipeline ROW. In the Olympus neighborhood, the hazardous liquid pipeline ROW is 50 feet wide and centered within the 100 foot wide PSE power line ROW.

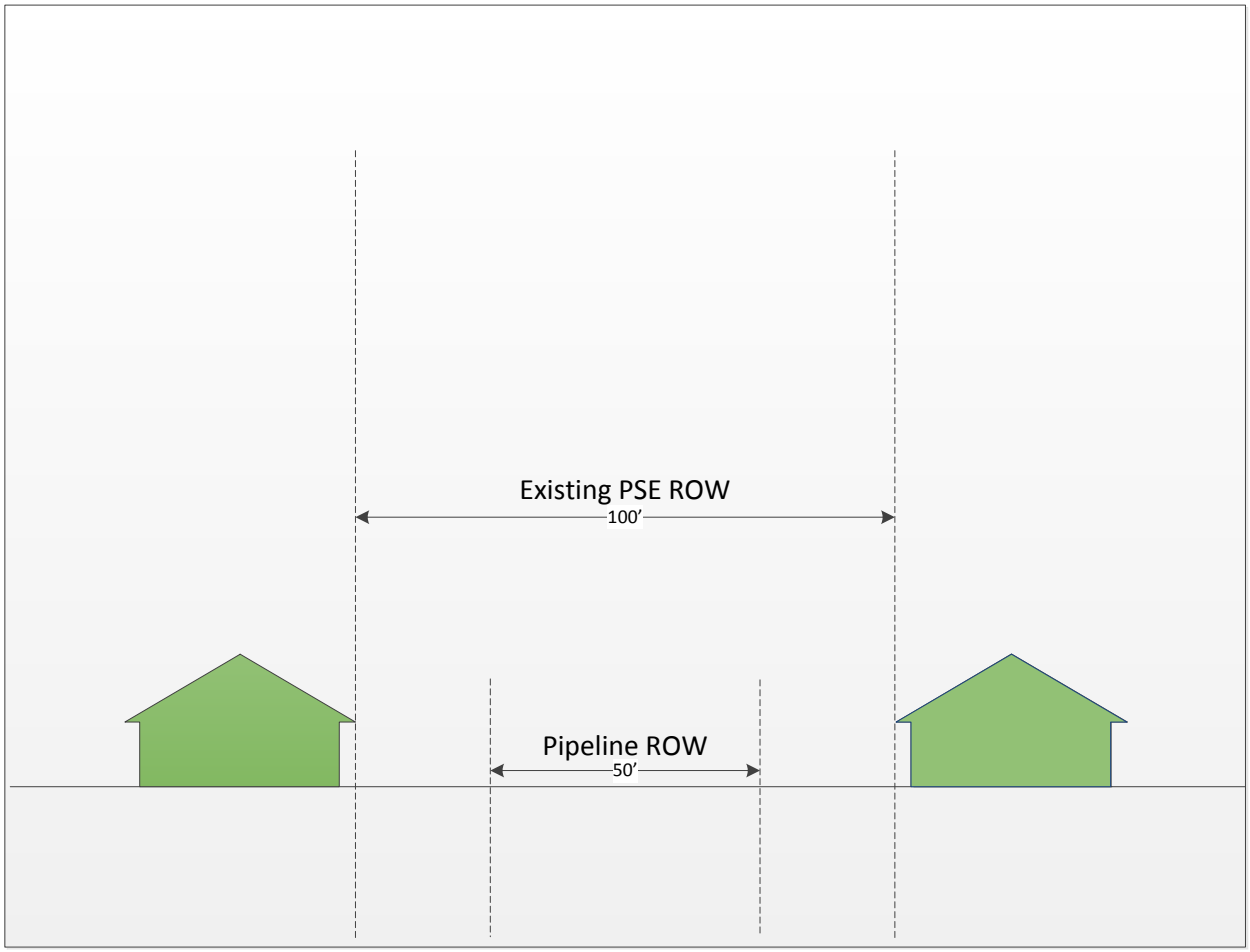


Figure 5

Figure 6 shows the nominal location of 120 foot tall monopole towers on 6 foot diameter footings to support the proposed 230kV lines. The footings must be placed in undisturbed soil to be able to withstand lateral forces on the monopole. A minimum margin of undisturbed soil around the footing is required and must be within the PSE power line ROW. As can be seen, the footings can only be located within the outer 25 foot margins of the 100 foot wide PSE power line ROW without directly violating the hazardous liquid pipeline ROW. The edge of the footing is potentially within 9.5 feet of existing and future residential structures given the current 100 foot wide easement. This is far too narrow.

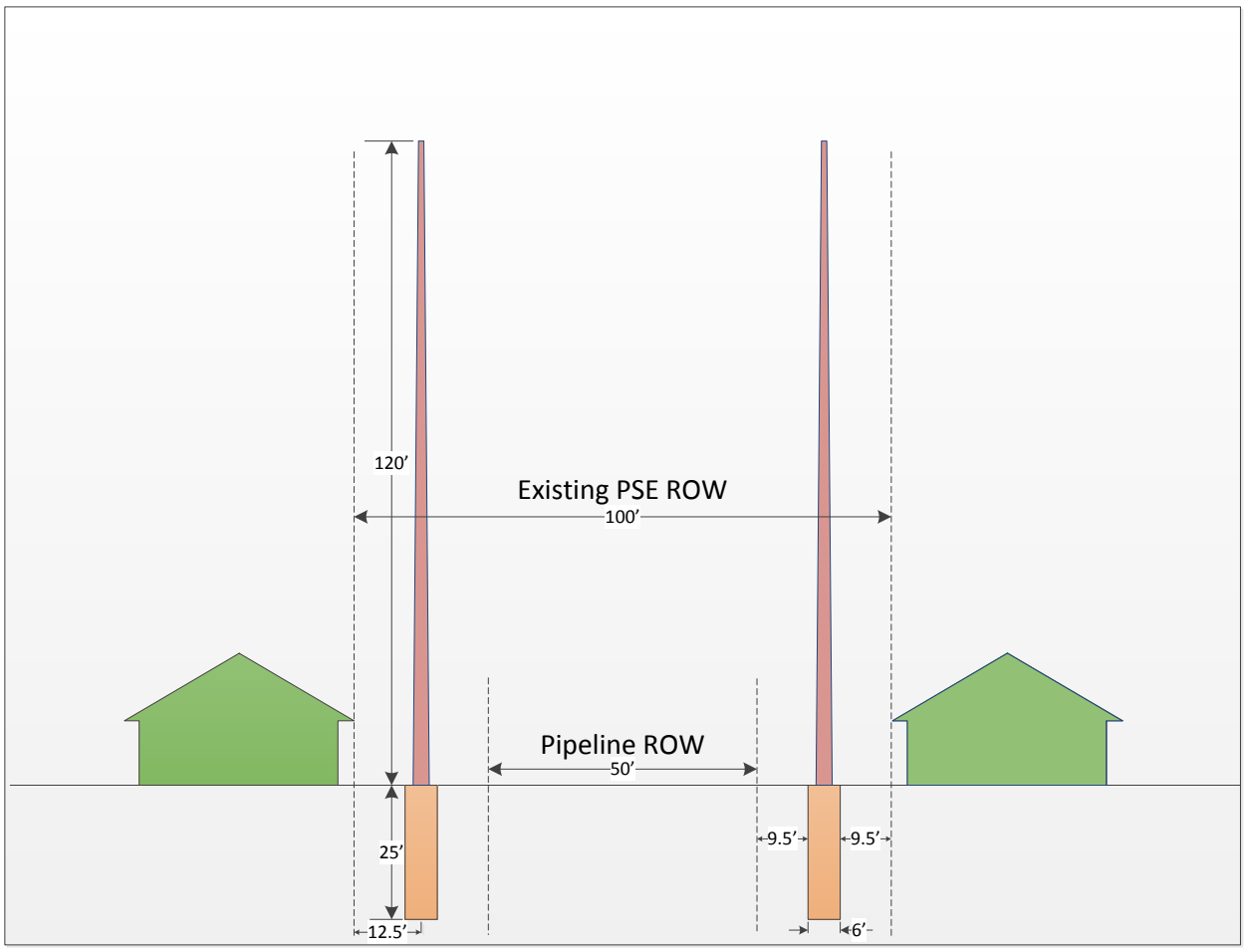


Figure 6

Modern standards of the U.S electrical power industry for 230kV power lines include a minimum 150 foot ROW (nominally 75 feet on each side of the power line support centerline). As an example, PPL Electric utilities with 1.4 million customer and 48,000 miles of power lines in central and eastern Pennsylvania requires the 150 foot ROW (ref PPL Electric Utilities Transmission Line design Criteria Version 0 12/18/2012. Other example include: Tri-State Generation and Transmission Association, Public Services Company of Colorado Comanche Transmission Project; Duke Energy Transmission Rights of Way – Ohio, Kentucky & Indiana.

PSE is ignoring modern standards in the selection of 230 KV power line routes through existing 100 foot ROWs. PSE points to historical examples where this has been done. These are artifacts of obsolete and outdated standards. PSE's error is compounded by the location of the monopole supports. The location at the edge of the existing easement leads to an extremely skewed ROW offset with only 12.5 feet between the support centerline and the ROW boundary.

The Bonneville Power Administration publishes their safety standards for transmission line installation (http://www.bpa.gov/news/pubs/GeneralPublications/lusi-Living-and-working-safely-around-high-voltage-power-lines.pdf). They state: "BPA operates one of the world's largest networks of long-

distance, high-voltage lines, ranging from 69,000 volts to 500,000 volts. This system has more than 200 substations and more than 15,000 miles of power lines." One of their most critical safety requirements is:

> **"Pipes and cables should not be installed closer than 50 feet to a BPA tower, any associated guy wires or grounding systems. These grounding systems are long, buried wires that are sometimes attached to the structures and can run up to 300 feet along the right-of-way."**

Figure 7 shows the proper extent of a 230kV power line ROW adjacent to a pipeline consistent with BPA standards. Although not as rigorous as other U.S electrical power industry standards it does present a moderate safety solution. As can be seen, the existing ROW has insufficient width to accommodate the proposed 230kV power line. Clearly, the application of common sense modern standards precludes the routing of the 230kV power line through route 'M' within the existing corridor.

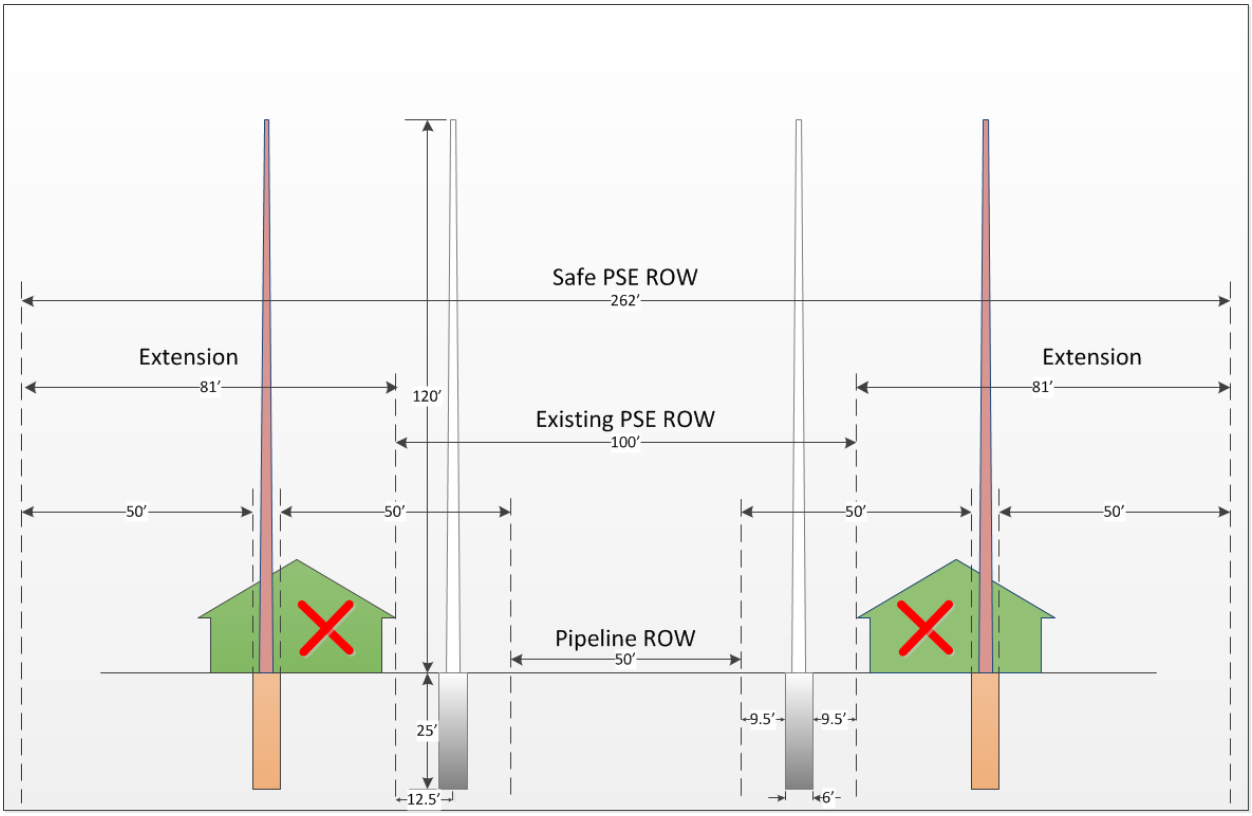


Figure 7

The EIS must address the impact of implementing this safety requirement. The transmission line corridor must be wide enough such that no tower will be within 50 feet of pipes including utility, hazardous liquid, or residential pipes. The current corridor is 100 feet wide. It must be expanded to approximately 260 ft (2.5X) to ensure adequate safety. The EIS must address this impact.

Mike Able

I am an engineer who has resided on the Eastside for over 30 years. I am a past member of The Earthquake Engineering Research Institute. I have had frequent involvement with the US National Science Foundation funded Network for Earthquake Engineering Simulation and In my work I frequently communicate with key members of the Pacific Earthquake Engineering Research Center at UC Berkeley and the John Blume Earthquake Engineering Center at Stanford.

In discussions with Berkeley and Stanford two key points emerged.

1) A seismic events combined with the co-location of the Olympic Pipeline route and PSE's new 230KV power line would have catastrophic effects. Significant loss of both life and property would most likely result.

Secondly, and more importantly, these Berkeley and Stanford researchers went on to advise me that a more likely scenario would be damage to the pipelines causing similar loss of life and property due to the construction activity associated with the installation of the new 230KV towers. As a result I have spent several weeks studying the materials available from US Federal Department of Transportation's Pipeline and Hazardous Materials Safety Administration.

I will submit a more complete report of my findings via the Energize Eastside EIS comment page however I would like to take a moment to share a few key bullet points resulting from my research.

- The existing Olympic Pipeline Consists of two parallel pipes. A 16" pipe with an age 50 years, and a 20" pipe with an age of 42 years.
- The US DOT Pipeline and Hazardous Materials Safety Administration lists 2,700 pipeline incidents in the 20 year period 1990-2009
- Approximately 3% of those incidents or 81 were considered to be "serious" where serious is defined as involving fatalities and/or injuries requiring hospitalization

May 12, 2015

- For all pipeline incidents the predominant failure causes for flammable liquid pipelines are corrosion, material/weld failures, and excavation damage
- For incidents classified as "Serious" the leading cause was Excavation Damage.
- PSE proposes construction along 18 miles of the Olympic Pipeline route. Assuming poles spaced at 800 foot intervals results in approximately 120 excavations adjacent to the gas pipelines. The potential for damage is very high.
- Olympic Pipeline was not involved in PSE's Citizen Advisory Group Process
- Olympics only public comment resulted from an Olympic Pipeline representative's attendance at an Olympus Homeowners Association meeting. At that time, Olympic expressed preference for routes that did not share their easement citing "safety, impact to landowners, future maintenance, and customer impacts" as reasons.

In conclusion, I would urge the city of Bellevue to include as part of the EIS a complete and thorough analysis of the risks associated with the construction of Energize Eastside along the existing Olympic pipeline route. This analysis should include but not be limited to a complete examination of Olympic Pipeline's past safety record and compliance with previously mandated safety processes, procedures and reporting requirements. Additionally, I feel that it will be important that Olympic Pipeline be required to be an active participant in the process and to demonstrate transparency by disclosing any and all communications they may have had with PSE regarding the project to date.

City of Bellevue – EIS/Scoping Testimonial – May 12th; Bellevue City Hall

MY NAME IS WARREN HALVERSON AND I LIVE AT 13701 NE 32ND PL IN THE BRIDLE TRAILS NEIGHBORHOOD OF BELLEVUE – FOR OVER 40 YEARS. THE MAJOR REASON THAT I LIVE IN BRIDLE TRAILS IS THE ENVIRONMENT.

THIS IS PROBABLY NOT A SURPRISE TO ANYONE. IN FACT THE CITY OF BELLEVUE HELD THEIR SEMI ANNUAL NEIGHBORHOOD LEADERSHIP GATHERING IN OCTOBER. THANK YOU AND I SEE MIKE HUNTELMAN IS HERE TONIGHT. THESE ROUGHLY 100+ LEADERS FELT THE NUMBER ONE FACTOR IN DEFINING NEIGHBORHOOD CHARACTER WAS NATURAL ENVIRONMENT – TREES OPEN SPACE NATURAL BEAUTY, VIEWS – SOUND FAMILIAR. IN SUMMARY ANSWER TO 'WHAT IS IMPORTANT TO PRESERVE AND PROTECT? THE ANSWER 'ENVIRONMENT' SECOND ONLY TO SAFETY. BUT, I BELIEVE THE MOST SIGNFICANT QUESTION OF THE FOUR WAS 'WHT DO YOU SEE AS THE GREATEST THREAT TO NEIGHBORHOOD CHARACTER? BY FAR THE GREATEST ANSWER "ENERGIZE EASTSIDE" – FOUR TIMES GREATER THAN EVEN SOUND TRANSIT (I SUBMIT THE CITY OF BELLEVUES 'NEIGHBORHOOD LEADERSHIP GATHERING' SUMMARY DOCUMENT AS PART OF THE RECORD).

SO WHAT IS THE IMPACT OF ENERGIZE EASTSIDE ON BRIDLE TRAILS: THE LOSS OF SEVERAL THOUSAND TREES; VISUAL BLIGHT BY 130' METALLIC POLES; BURIED IN 30' OF CONCRET WITH 5 INCH LINES DANGLING FROM THEM; DANGEREOUS INSTALLATION AND SAFETY CONCERNS FOREVER BEING BUILT ON TOP OF TWO MAJOR PIPELINES; EMF/NOISE IMPACTS ON PLANTS/ANIMALS/BIRDS AT A COST OF $400 M AND A REDUCTION IN SOME PROPERTY VALUES FROM 10%-30%

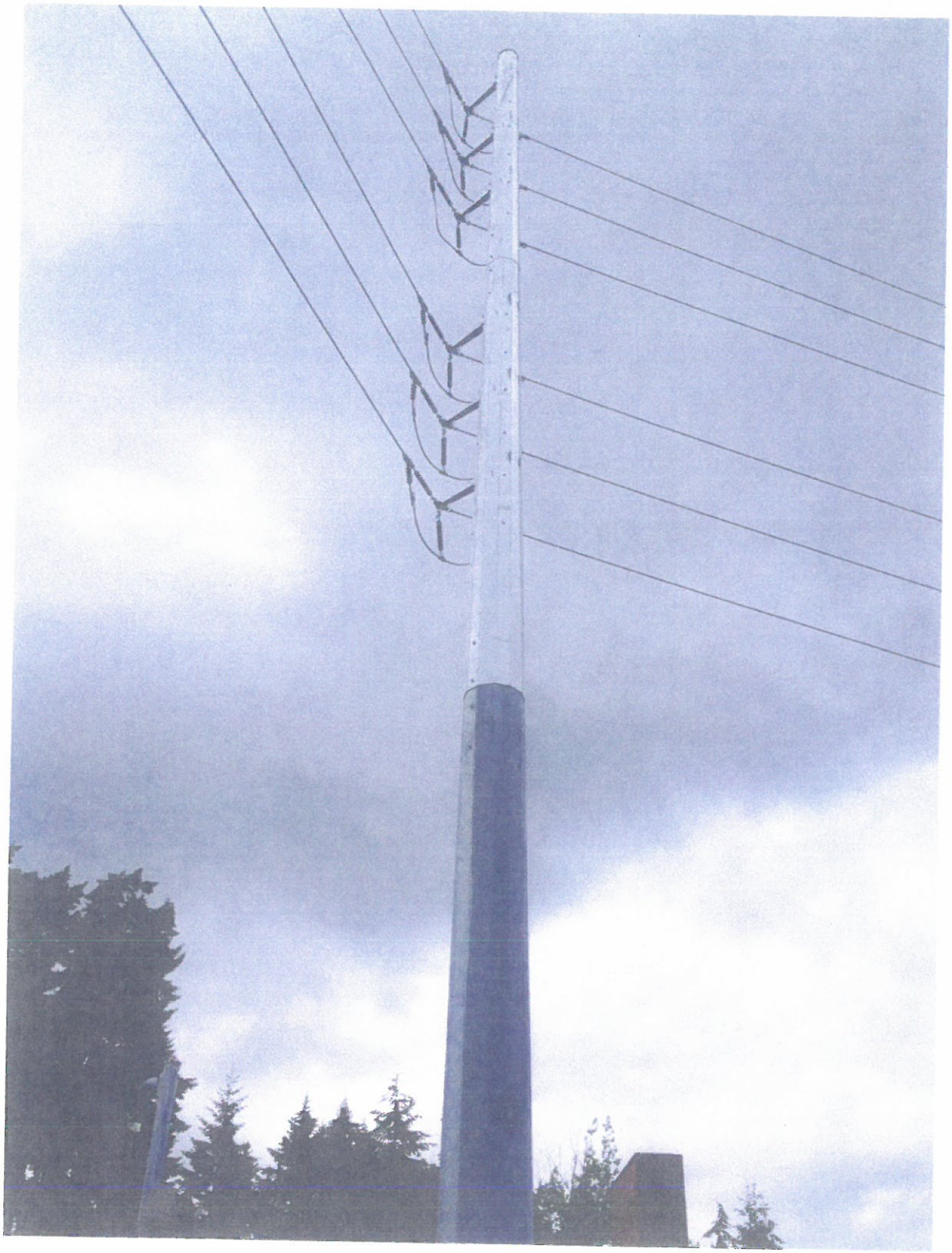
IN ALL LIKELIHOOD, 'ENERGIZE EASTSIDE' WILL BE THE MOST DESTRUCTIVE PROJECT THAT BELLEVUE AND YOUR NEIGHBORHOODS WILL EVER ENCOUNTER. IT WILL AFFECT NEIGHBORHOOD CHARACTER – NOT JUST FOR PROPERTY OWNERS DIRECTLY IMPACTED BUT FOR ALL OF US FOR MILES AROUND FOR EVERYONE TO SEE. IT CAN'T BE MITIGATED.

THE 'ENERGIZE EASTSIDE' PROJECT AS CONFIGURED IS UNNECESSARY AND WILL BRING 130' POLES AND INDUSTRIAL 230KV LINES THROUGH OUR NEIGHBORHOOD, FOREVER. THERE ARE BETTER, LESS COSTLY AND MORE ENVIRONMENTALLY FRIENDLY ALTERNATIVES. THE CITY RECOGNIZES THIS FACT AND EVEN THE RECENT USE INDEPENDENT ANALYSIS – WITH ITS MANY FAILURES RECOGNIZES BETTER ALTERNATIVES EXIST. THIS IS BELLEVUE – AN ENVIRONMENTALL ENVIRONMENTALLY FRIENDLY AND FUTURISTICALLY ORIENTED CITY. NO TO PSEs CURRENT 'ENERGIZE EASTSIDE" PROPOSAL.

THANK YOU FOR ALL YOUR WORK AND CONSIDERATION.

ATTACHMENTS: PICTURES OF 24TH AND BELRED ROAD

'NEIGHBORHOOD LEADERSHIP CONFERENCE SUMMARY"




Postal Express

City of Bellevue

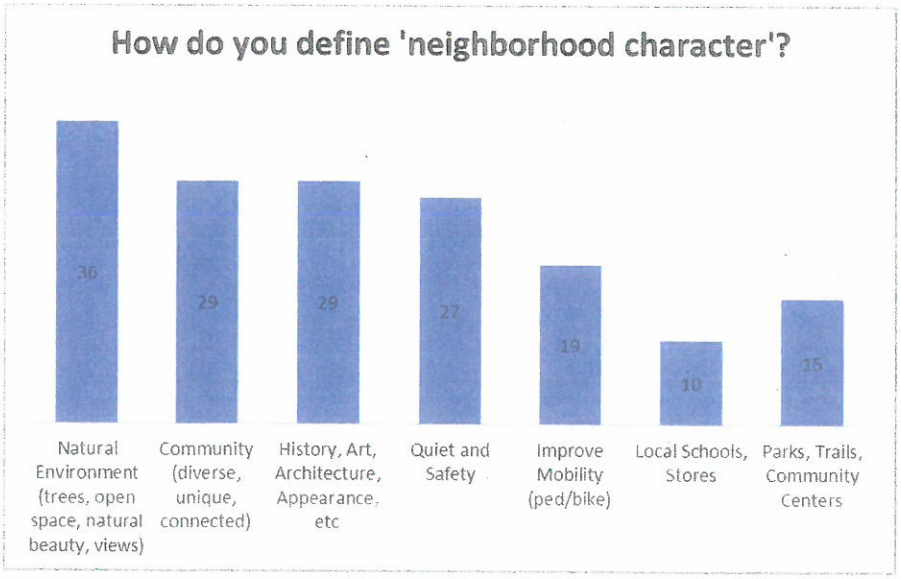
Neighborhood Leadership Gathering
Meeting Summary
October 7, 2014

On October 7th, 2014, the Neighborhood Outreach team hosted a Neighborhood Leadership Gathering on the topic "Neighborhood Character: What to preserve amidst change". The meeting began with the sharing of two video presentations, "Did You Know: Shift Happens 2014 remix" and "Did You Know: Bellevue edition". Mayor Claudia Balducci shared her perspective on the importance of neighborhood character and her experience in the neighborhood of Lake Hills. Over 92 neighborhood leaders participated in the conversation, sharing at table discussions and large group conversations their perspectives on the following questions:

- What does neighborhood character mean to you?
- What aspects of neighborhood character are important to preserve and protect?
- What do you see as the greatest threat to your neighborhood character?
- What opportunities are available for us to adapt to the best of what is changing?

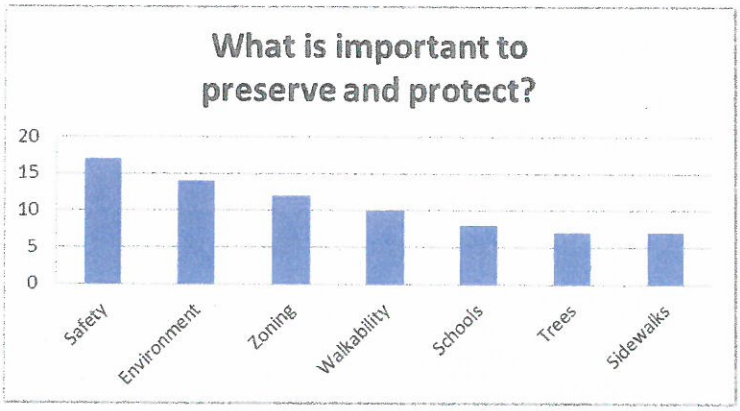
There was great representation from neighborhoods across Bellevue and the conversation about neighborhood character spanned across a wide number of important neighborhood issues. Some of the dominant themes included:

Recognition of unique neighborhood identities Neighborhood leaders recognized that each Bellevue neighborhood is distinct and unique. They know that 'one size does not fit all' – and desire to have the unique aspects of their individual neighborhood areas protected. They also have a broad and holistic understanding of the elements that comprise healthy neighborhoods, speaking about the importance of walkability, neighborhood safety, zoning and neighborhood appearance and the community connections that make neighborhoods strong.



Neighborhood Character Residents identified natural environment, neighborhood safety and community connectedness as the dominant elements that comprise neighborhood character. Trees, open spaces and the beauty of Bellevue's natural environment was highlighted in its' importance to residents. The conversation ranged from the importance of low crime and less traffic to the aesthetics of well-maintained residential and commercial spaces. The walkability of a neighborhood was frequently mentioned – as people talked about the importance of connecting to local schools and stores.

Preserve and protect When asked what was the most important to preserve or protect – the first priority was neighborhood safety. Maintaining safe, crime-free, and quiet neighborhoods was identified as the first priority. Secondly, residents also raised the importance of protecting Bellevue's natural environment, including Bellevue's tree canopy.

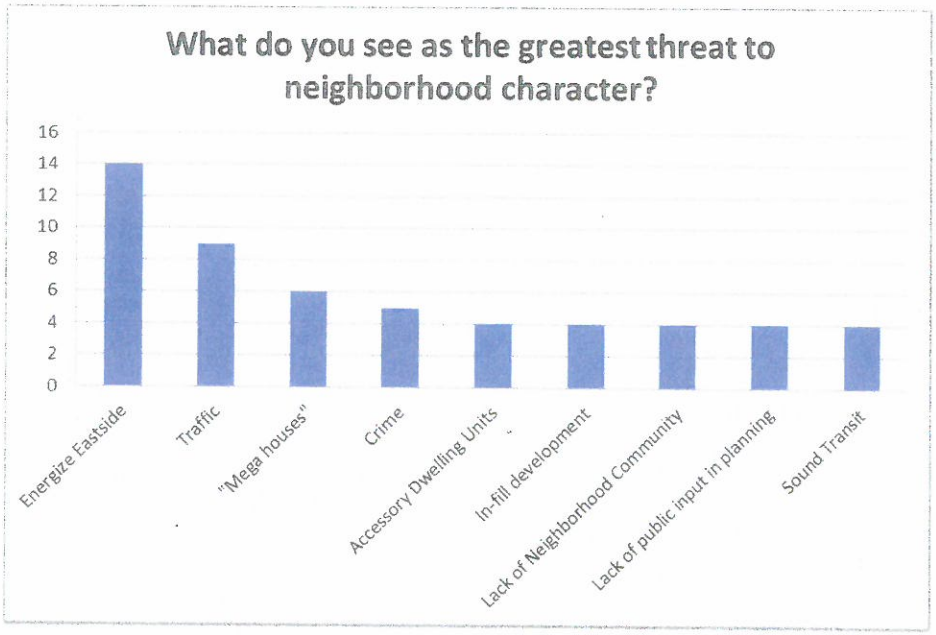


When added together, comments regarding neighborhood walkability and sidewalks received 17 references, elevating it to be comparable to the desire for neighborhood safety. Sidewalks and neighborhood trails, as well as pedestrian/bike lanes, provide meaningful ways for residents to access local schools and stores and connect with each other.

Neighborhood leaders also identified the growing phenomenon of large homes, termed "mega-homes", which are built on tear-down lots and viewed as being 'out of character' with surrounding houses and neighborhood charm. During the evening's conversation, there was concern about what is permissible under current zoning that allows for large homes to be built on smaller lots. There was also a strong desire to maintain current zoning of SF neighborhoods to protect the density allowed in SF residential neighborhoods.

Residents also sought to protect the unique qualities of their neighborhood identities. This includes the diversity found in their architecture, the traditions of their community events and diversity of the people who live there. The high quality of Bellevue's schools was noted as a reason why residents can be more selective as to the 'neighborhood character' where they want to live – and why the distinct qualities of each neighborhood remain important to preserve.

Threats to neighborhood character There was a wide variety of answers to the question regarding 'threats to neighborhood character' –and identified potential threats to neighborhood character included Sound Transit, Energize Eastside, accessory dwelling units, in-fill development, lack of protection of green space, lack of public input in planning, population growth, traffic, residential crime, lack of neighborhood community, Shoreline Master Plan, the lack of affordable housing, 'mega-homes' and no parking for downtown.



In the large group conversation, neighborhood leaders want to ensure that there is mitigation for surrounding neighborhoods impacted by large development projects – such as Energize Eastside or Sound Transit Light Rail. Additionally, residents expressed concern regarding lot to house size ratios and the issue of 'mega-homes' that are inconsistent with the surrounding neighborhood. There were

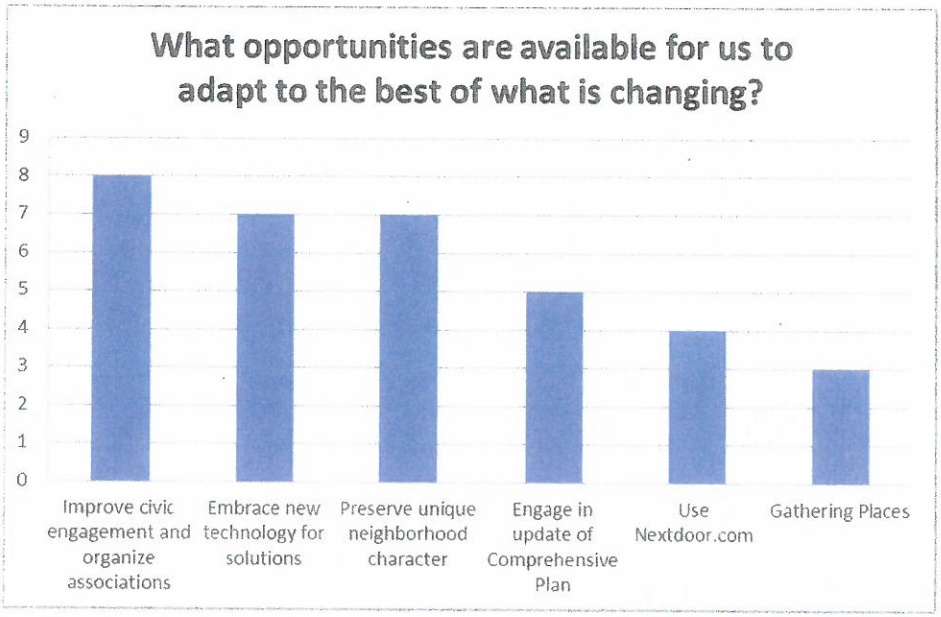
comments on the need for affordable housing – both for Bellevue's workforce and for Bellevue's elderly as they seek to 'age in place'. Final emphasis was placed on maintaining neighborhood safety and the need to build community in neighborhoods.

The number of written comments (out of a total of 45 submissions) identified the Energize Eastside project (with 14 references), traffic (9 references) and 'mega-homes' (6 references) as the top threats to Bellevue's neighborhoods.

Opportunities to adapt

Neighborhood leaders offered a creative range of ideas on the opportunities that are available for us to adapt to the best of what is changing. On their list included ideas such as:

- Improve civic engagement and organize neighborhood associations
- Embrace new technology for solutions
- Preserve unique neighborhood character
- Engage in the update of the Comprehensive Plan
- Communicate with residents through Nextdoor social media application
- Town Hall neighborhood meetings
- Leverage CIP projects with enhancements
- Neighborhood Gardens
- Improve pedestrian access
- Bike stations



- Transit oriented development
- Improve services and care for shut-ins
- Underground power lines
- City Ombudsman
- Invest in more public gathering spaces

Residents agreed upon the importance of strengthening civic engagement and the ability of residents to speak into shaping the planning and future of their respective neighborhood areas. There was a growing understanding of the importance of engaging with the Comprehensive Plan update – and the subsequent updates of the Subarea Plans.

The evening ended with a presentation by Robert Shay on his efforts to restore the World War I Veterans Memorial at Downtown Park. It was provided as an example of neighborhood leaders working to preserve and protect the things that we care about in our neighborhoods.

The next Neighborhood Leadership Gathering is scheduled for February 26th, 2015.

Written comments are attached.

Attachment #1
Neighborhood Leadership Gathering
Neighborhood Character Written Comments
October 7, 2014

"What does neighborhood character mean to you?"

Natural features of trees, water features, open spaces, sidewalks, safe speed on streets and roads, bike lanes and sidewalks. Human made organization that serve people to grow/learn/enjoy life/ do business so people can shop in their neighborhoods; schools, parks and open spaces, community centers, pools, churches and places of worship

Retention of the Status Quo: not too much traffic, single family residence, crime rate is relatively low

Maintain the basic theme/topographical nature of each neighborhood- grow but not at all costs; Single family - but not McMansions; Shoreline preservation, large trees in Bridle Trails; Safety, walkability and open spaces; good diversity

Caring and responsible neighbors, safe and quiet, health and ecology, natural beauty, appearance of homes and commercial district, safe neighbors, good schools

Open space, trees, family-oriented schools, sense of community, physical look, quiet, people knowing neighbors, neighborhood maintenance (neat yards and appealing home exterior)

Safety is the most important. If we do not have public safety, which, in part, means a well staffed police and fire department then we will not have strong, vibrant neighborhoods. Your video about population growth is Bellevue made some good points. My question is whether the police and fire departments are keeping up with the growth. Who should I ask about staffing?

Bridle Trails; tree ordinance, schools, participation in schools, PTAs, flavor of small town,
Neighborhood character for my neighborhood is defined in part by high rise, multiuse buildings which are new and each should be different, creating diversity of architecture. Also defined by natural aspects (trees, space, water, etc.); the people who live there, certain places/spaces which are considered landmarks - aspects unique to the area.

Walkability; Trees; accountability of neighbors; Safety

Beauty - landscapes - green spaces; aesthetics; planning; historical perspective - parks, sidewalks, community center; people; public events; public-private meeting places; traditions; streams and trails

Everyone knows each other; communication; kids are the invisible glue; potlucks/social activities; reasons to gather; house styles; trees; sites of the area; recognize people; physical aspects
Single Family; shorelines; architectural design; young urban population; open spaces; walkability; trees; large lots; history; aging in place

Heritage, History, Art, Mediation and the Lake Hills Shopping Center
Walkable, safety; meet neighbors, parks, stay true to what your neighborhood wants, how it sees itself

"What does neighborhood character mean to you?"

A distinct look and feel of an area that makes it welcoming to visitors and a great place to live for residents. That children have space to play and it is safe to walk around at night. In our neighborhood generations of folks live here and some return after growing up here (like me). What made me come back? Nice neighbors, a feel of being in the country but still close to the city. A view of the mountains and water and trees all around me. Wildlife! Very close to Bellevue and Seattle. A City government that really thought about the future of the place. In our neighborhood there was talk of trails so we could get around easier. It lured me back.

Neighborhood character has multiple definitions. Physically, neighborhood character is defined by lot dimensions specified by the zone it is in. Bellevue has 7 single-family residential zones specifying lot area and lot width. Those zones which have wider lots (R-1 - R-3.5) give a more spacious look and feel to a neighborhood, with sizable separation between homes. Neighborhoods with narrower lots (R-4 - R-7.5) have a more condensed look and feel. Neighborhood character and appearance are also affected by quality of construction, size, scale, and mass of architectural design within the neighborhood. Bellevue has numerous neighborhoods with identifying names, and there are unique differences among them (e.g., some are more rural, some are water-oriented along shorelines, others are view-oriented, while many are located on interior plats). In addition to lot size and width, neighborhood character also is impacted by the customs and sense of community within the neighborhood. Are the homes well maintained? Is there a social and cultural neighborhood identity that is shared by residents? Are there neighborhood activities? Do neighbors look out for each other? Are there shared traditions and history? Are there particular concerns specific to that neighborhood?

Multi-generational, multi-cultural, lively and peaceful

Lake Lanes; safety and security Natural resources; Safety and Security; Representation; Community and Privacy Serenity, Safety, Aesthetic Setting, An urban escape in the city

Lakemont Heights; new development, quiet and small (17 homes),
Views, greenery, schools, safety, serenity, parks and traffic

Living on the water without unreasonable shoreline interference - like a 50' or even 25' control (setback)

Safety - police, fire, physical walkways, care not speeding through; restive look - trees, shrubs, grass areas, keep residential feel, peace and quiet

Newport Hills; generously sized properties; wooded and natural resources; styles of homes of late 1950's; Size of lots, type, style and size of homes; trees; activities and events that bring residents together; walkability - encourage residents to get out and meet each other; safety

Northtowne; community club - need meetings when there is an issue like in Lake Hills; it's people and families, older folk and young families which keep the neighborhood alive - with dog walking and block parties - people watching out, ladder trucks, landscaping. Physical housing; trees; open spaces, parks

It's what separates or makes your neighborhood different than others

Safety, Aesthetics, Function, Sidewalks and Stores, Trails, Gathering Places that enhance the ability to communicate with our neighbors. A great sense of place

"What does neighborhood character mean to you?"

Working together to form a unified vision of how we want to view ourselves and project our own images as persons and as a group

Historical, sense of community, could be a United Nations; physical attributes - country, city, parks, horses, suburban, safety!! We do block watches, Bellevue PD and Fire protection

Old Bellevue; romantic example of Main Street USA, all restaurants are sole proprietors, not chains with owners on site; New developments with mixed use to continue retail atmosphere,

In the case of Old Bellevue, it is the romantic feel of "Main Street USA" that is present and is unique to Bellevue. Old Bellevue is refreshingly franchise free with sole proprietorships' who take pride in their business.

Green spaces, healthy riparian zones, fish that come up streams, trails; aesthetics - architectural design, maintained, green, trees; breathability - open spaces allow breathing; distinct neighborhoods - not all neighborhoods are the same; downtown has vibrant high rises; health concerns due to PSE power lines and the noise threat; these all mean livability

Neighborhood character is influenced both by geographic features/locations and the residents. The best neighborhoods have good neighbors - people who care about their community and have shared interests and priorities. People need safety and good access to facilities.

A combination of the strengths and values of those who live in a neighborhood

Walkability - sidewalks and pleasant walkways improve health, community relationships and safety - both discouraging criminals and providing a safe means of getting from point A to B; cultural and ethnic diversity; landmarks - parks, shops; views and healthy environment

Single-Family; Sidewalks; Trees and Greenery; Trails; Yards; Quiet; Safety; Low Crime
Trees, Trails, Views, Parks for Kids, Sidewalks, Family-oriented, aging in place, multi-generational, access to grocery stores, transit and highways

Single Family, multi-generational, trees and trails, not much traffic, easy access to transit, able to walk, website

Surrey Downs is a strong example of a single-family neighborhood conveniently nestled next to a vibrant urban downtown. This history of the filbert farm and development of the neighborhood are an important aspect of the character here.

Long and narrow - 5+ miles, I90 to Redmond, one street wide plus side streets in places; Shorelines important; Safety's important traffic or parking a part that is used as a commuter route and a regional bike route impacts driveways and access along the lake.

West Lake Sammamish Parkway; Long, Linear, and Narrow, beautiful drive, sensitive to more traffic and higher speeds; 50% shoreline owners with concerns about SMP

Type of neighborhoods ie, Wilburton, Beau Arts, Bridle Trails, Woodridge, etc. Each was built differently at different times in the City's growth. Maintaining distinct character is critical to the livability of the City.

"What does neighborhood character mean to you?"

Land, views; preserve what we have left in our communities; Healthy environment - not so many wires - preserve trees, parks, schools; don't change just to change
Family - single family dwellings or stability; Schools - enrollments changing their neighborhoods; good walking areas with safety

Friendly and inclusive to all families, access to schools and bus service, safe and secure with low crime, sense of community and keeping homes maintained.

Safe, friendly, community

Neighborhood Leadership Gathering
Neighborhood Character Written Comments
October 7, 2014

"What aspects of neighborhood character are important to preserve or protect?"

Open spaces/Green spaces/Life Spaces; protect people from the negative impacts of noise pollution, sights and sounds of traffic/trains; air pollution and illegal burning

Environment which is associated with Mercer Slough and its total preservation.

Above and great neighborhood schools

Unique character of Bridle Trails, natural beauty, stable ownership and sense of belonging, good schools

Trees, Open space, maintain current density of housing, protect intrusion from infrastructure that doesn't serve the neighborhood

Neighborhood Character. We have many different neighborhoods in Bellevue. When we decide which neighborhood in which to live we have the expectation that the particular neighborhood character will not be greatly altered. The City should be careful and not increase density in current single family zones.

Diversity of architecture; open space - small and large green spaces (no cement landscape); cleanliness, walkability (or bike-ability); safety - keep it vibrant

Trees, Open Spaces, Safety

Traditions - family and social; Christmas ships; keep old and embrace the new; Open spaces and natural resources; clean air and clean water; local stores - family owned

"Change happens" - well yes, but, you can influence how much and what kind....

Unique personality of neighborhoods; diversity; neighborhood schools and public education opportunities; pedestrian/bike friendly

Aesthetics, history, views, parks/greenbelts, green space for children to play in and for adults to walk in, wildlife corridor; the railroad offers a corridor for wildlife (bear, deer, coyote, raccoon, bobcat), our trees on the hill are the focal point for numerous birds of prey (eagles, hawks, heron, owls);they use our trees for hunting because it offers a vantage point to see but not be seen by other predators. Trees need protecting because our hillside needs protection from slides. And that helps protect our wetlands along the rail corridor and further downstream. Along with the wildlife and aquatic culture. And protects our lungs from breathing in the bad air as our neighborhood is surrounded by 405 and I-90. It is surrounded by freeways except for Lake Washington Blvd on the west. Our physical safety is very important and needs to be protected by maintaining sidewalks, neighborhood block watches, monitoring and controlling speed on the street.

It is vital to uphold the underlying zoning laws governing that neighborhood, to mitigate well the traffic impacts from increased development, and to provide for sufficient police coverage to stem increased residential burglaries. PUDs and conservation subdivisions (which fundamentally increase density) should be separate entities, not an infill development within an existing neighborhood. PUDs, conservation subdivisions and short plats should have their own access to an arterial and not burden...

"What aspects of neighborhood character are important to preserve or protect?" Cont.

...an existing neighborhood's traffic. Within single-family zones, homes must not turn into de facto boarding houses or unrelated multi-family residences. If a property has become neglected to a point of dereliction, the neighborhood should be able to ask the City for redress help with the owner. Bellevue's neighborhood grants program should be reinstated, as it serves as an incentive for neighborhood improvement.

Trails, sidewalks, parks, quiet, walkability, easy to access transit, Greenbelt (Lake Hills), good schools, multi-generational, multi-cultural, Inviting to be outside

Natural resources of trees, lake and eagle habitat; privacy and security
traffic and access control, maintain connectivity, artistic quality and experience

Safety, privacy, shoreline, parks, traffic, schools

Main street being overbuilt with high rises, creating too much traffic and crowding out character of small shops

All of the above plus: traffic safety and adequate parking

Lot size - one home per lot, not 2-5 homes "rammed and crammed"; trees/wooded environment; walkability - NH is very pedestrian but increased traffic due to development cam impact walkability and traffic safety; character of home styles: McMansions are out of character for this neighborhood (different than remodels); Gathering spaces - our parks, our swim club, our shopping center;

Connectedness - neighbors communicating and interacting with each other in person and online

Safety, education, trees, single-family, recreate their own unique personality; police and fire, ecology

Safety (traffic especially), community, zoning

Northtowne needs to accept changing character by creating gathering spaces. By redesigning and rebuilding certain streets. For example, 108th from 12th to 24th as a local service street with safe pedestrian and cyclists ways, landscaping, water absorbent materials (both hard and soft scape) as a pilot project for the entire city.

Safety; Education, Trees and green areas of recreation and inspiration; places for all ages to get together and share and meaning and caring

Health - PSE power lines/trains; beauty; views; historical sites

Yes, neighborhoods change. But preserve where the alternative is present. Within the context of "change" we can embrace new technology and not be left with the relics of old technology. This relates to my concern of the Energize the Eastside project which proposes to take the existing 50' high lines to 130' lines. According to some engineering experts this solution to growth is not needed.

The beautiful natural setting and high quality of life. Let's keep our #2 rating in the nation with respect to livability.

"What aspects of neighborhood character are important to preserve or protect?"

The people who dwell in a given neighborhood can outline what it is about their specific area that is core to its identity. For Somerset it is our magnificent views and an amazingly diverse and supportive population, protected by our covenants.

Healthy environment; Safety; Pleasant Walkable communities; Focus on Schools

Sidewalks, Trails, Parks, Single Family, Lot Sizes to House ratio, Safety

Sidewalks (walkability and bike-ability); appropriate lot size to house mass; trees, views, neighborhood affordability, family services, ie. Transit for elderly

Sidewalks, parks, trails, tree preservation, lot sizes, groups - special safety - emergency preparedness, green belt preserve single family dwelling

This neighborhood was built without sidewalks; keeping the zoning density at single-family 3.5-4.5 ensures that the traffic does not increase. Safe streets is very important to most neighbors.
Zoning - don't change; property rights regarding shoreline (SMP)

We know that growth happens and will happen - managing the growth is key. We want to manage not constrict or restrain growth, because we want our city to remain economically viable

Safety - police, fire, sidewalks, lighting; traffic; housing affordability; controlled growth of the City Greenbelts - retain; Crime-free - police alertness; Codes preventing overly large new structures that do not match character already there.

Keep our CCRs current to maintain high quality value of our homes, safe and secure with Neighborhood Watch

High quality living

Neighborhood Leadership Gathering
Neighborhood Character Written Comments
October 7, 2014

"What do you see as the greatest threat to your neighborhood character?"

Automobile traffic; sound transit train (above ground) at grade. We need this train in a tunnel or cut and cover trench. Put Sound Transit in a tunnel.

Sound Transit ST2 and the 5 years of construction associated with it. The traffic is near at gridlock right now. With another 25% of office space with the additional traffic impact is hard to contemplate. Reducing Bellevue Way to 3 lanes cannot function morning and evening rush hour.

Put ST2 in a tunnel from I90 to 106th (transit center)

Energize Eastside; Sound Transit

PSE power lines, Light Rail, Losing the natural beauty and unique character, mega mansions, gated homes. Above ground power lines on metal poles are not a sign of progress in a modern city. I don't want to see high voltage power lines running above ground through our neighborhoods.
Poles and wires, new out of scale transmission lines to serve new residents and residents increased density if detached dwelling are allowed on existing lots. Abandoned gas station at entrance to neighborhood, intrusion of transportation and utilities - ie. new 135' poles for transmission lines

Detached Accessory Dwelling Units. The City should not allow Detached Accessory Dwelling Units in single family residential zones. An Attached Accessory Dwelling Unit meets the needs of allowing a family member or friend to live in a home without the issues which are caused by Detached Accessory Dwelling Units.

Polarization over livability and development; over eager to develop and grow without considering open and green small parks/areas; managing forward thinking design for architecture, need for growth and transportation with: safety, pedestrian ability to enjoy our city and its aspects/feature, feel of openness/air/light as buildings get taller, integration for kids and pets in the midst of streets and high rise. Small memorials such as Memorial for Vets, Chase Pancake Corral (landmark!)

Unmanaged growth

Foreign investors; tear down neighborhoods - with no involvement; population growth; traffic and noise; exponential plans;

detached buildings on large lots;

Energize Eastside; No path forward without significant tree loss

Up-building, detached dwellings;

The greatest threat to Greenwich Crest is any development along the old BNSF rail line that would harm the integrity of the sensitive slope that runs along the entire west side of the neighborhood. The vegetation that soaks up the water flowing through the hill and down the slope it vital to the integrity of the hillside, and the hillside is the main trait of the neighborhood because it provides a beautiful vista over Lake Washington, Mercer Island, downtown Seattle, and the Olympic Mts for all who live up here...

"What do you see as the greatest threat to your neighborhood character?"
Cont.

...to enjoy. If parents don't want to live here because of threats to health and ecology for their children; the neighborhood character will change. Right now, children can play outside amongst green belts and wildlife and yes with beautiful views of the lake and mountains. Traffic of course is a huge issue. Getting into and out of Bellevue and our side streets during rush hour is frustrating to say the least. The easy access on and off freeways makes us perhaps an easy target for burglary. We are trying to make our homes safer now and taking steps to thwart the thief's.

The City of Bellevue does many things very, very well. However, insofar as neighborhood character is concerned, the greatest threats are by the City of Bellevue's development services department, greedy and indifferent developers, and some on the Bellevue City Council who have partisan interests when development hearings come before Council. All too often in land use cases, it appears the City is solidly advocating for the developer and giving lip service (but in reality, no consideration at all) to neighborhoods impacted by the proposed development. This produces a conclusion of neighborhood betrayal. There is a balance point between a property owner's rights and the impacts of problematic development upon the neighbors. With limited vacant land and with housing targets of the Growth Management Act, it is tempting to squeeze as many new homes as possible in infill development regardless of the zone of that area. However, the City, its planners and permitting process must be mindful of not betraying its neighborhoods in the City's headlong campaign to meet GMA goals. According to Bellevue's Comprehensive Plan and Land Use Code, infill development is to be "compatible" with the surrounding area, but that requirement has been rendered almost meaningless in recent years through vague and dismissive justifications for incompatible developments. Population growth and a need for affordable housing are additional major concerns suggesting change in neighborhoods, but these are best addressed by new solutions, not by compromising neighborhood character. The tall transmission towers proposed by Puget Sound Energy's "Energize Eastside" program also are of great concern to many neighborhoods and surrounding cities.

Traffic - pedestrian safety; no affordable housing - limited; housing is too expensive; house to lot size ratio; commercial space degradation (ex. 140th and 16th near cemetery)

Impacts of many projects PSE/405 expansion/Eastside Rail Corridor/Sound Transit/Shoreline master Plan - biggest threat are all of these combined.

PSE project to cut across many Bellevue communities, dividing neighborhoods with new transportation corridors; City of Bellevue focus on growth and economic development and a lack of a comprehensive neighborhood plan/rules of engagement (eg. Ensure construction of infrastructure in a way that minimizes neighborhood impacts als Mercer Island Lid verses Bulldozing Surrey Downs)

Infrastructure and lack of mitigations to maintain quality, aesthetics, safety, etc.

Harder to connect to other neighbors, shared park not used,

The new Meydenbauer Park being planned when it's totally unnecessary - but only a few people's egotistical insistence! The worst part of it is the horrid "bridge" sticking out in the Bay. Ugly! Pointless!

Expansion of businesses (including restaurants) when there are no additional parking lots to absorb the cars driving to them.

"What do you see as the greatest threat to your neighborhood character?"

Issue with "Ram and Cram" developments (5 homes on 1 acre not in common with neighborhood); worried that developers perceive as a tear down neighborhood; tired shopping center controlled by owners; decline of use and membership at Swim Club

Zoning: R5 (allows up to 5 homes per acre); Developers: buying empty lots and building inappropriately sized homes, tearing down homes and exploiting zoning; Investors: buying homes to rent out, creating revolving door of tenants - no investment in neighborhood; Shopping Center owner apathy, their apathy (read refusal to sell, partner with developers, or just improve the property) creates commercial flight in our neighborhood; New residents not recognizing the value of connecting with neighbors and greater community, whether its foreign born folks or people from other parts of the state or country, it's like pulling teeth to get them to participate

home invasions, huge homes, growth of population on only so much land; transient nature of residents in neighborhoods

Change without any consensus

Unreasonable resistance to large homes that borders on ugly "anti" feelings being targeted to new comers.

1) The ability of the elderly to be minified and to be overlooked - it is a racism of age 2) home invasion 3) populations not understanding concepts of the individual human rights, and this lack of education based knowledge of legal issues being clearly shared - hard to explain this - "How to help "new to democratic" life to understand democracy doesn't give the right to bully by mass weight - might does not make right.

Foreign investors; health PSE power lines; traffic!! Expansion of commercial venues into residential areas; lack of parking; We need earthquake training and disaster training in EVERY NEIGHBORHOOD! (Preparedness for disaster)

Concerns over lack of parking and impacts of final development of downtown park; parking meters is an offensive concept;

There has been some discussion of parking meters on Main Street. This is a device that is never viewed as welcoming and is in fact repellent to many. Kirkland's parking meters are an encumbrance to going to Kirkland.

PSE is to put in oversize lines marring the landscape; not planning well through the Bellevue Comprehensive Plan and the implementing ordinances' - Bellevue needs to get out ahead of planning, not react to it.

Uncontrolled growth and infrastructure driven by cooperate profits. PSE is one example. Is our growth being driven for the benefit of residents or corporations?

PSE's Energize Eastside project - not just a threat to my neighborhood, but a threat to the whole Eastside. This project would re-define Bellevue's (and Kirklands and Redmonds and Newcastles and Rentons) skyline. The proposed towers would become the dominant geographic marker - visible from every approach to our cities

"What do you see as the greatest threat to your neighborhood character?"

PSE Energize Eastside - the need for PSE Energize Eastside isn't at all clear - electricity usage on the Eastside has actually declined over the last five years as population has grown - but the impact is terribly clear. The power poles proposed are horribly out of scale, expensive, and a blight on our community. Views, health and property values would all be impacted negatively.

Encroachment of multi-family housing; the proposed PSE transmission towers; houses that take up the whole lot, infill development, traffic, development like the Lake Hills Shopping Center mixed use development; efforts to create "affordable" housing and low income housing; transit oriented development

PSE's Energize Eastside, a great threat to All fo Bellevue. Not just the 230 kv lines, but the very tall poles that will link various substations throughout the City. New development out of scale with neighborhood.

Group homes, multi-family, PSE-power modification; house to lot; affordable housing, need; traffic; poor road crossings for kids

Up-zoning and TOD possibilities will ruin the character of this community.

City regulations on shorelines; traffic growth on the parkway (improvement of I 405 is "the Neighborhood Protection Act"), traffic wants to be on I405, IT is broken, therefore traffic floods to local streets. And some of it comes to the Parkway.
traffic growth

Traffic and Crime. Mitigating the first is very important and has happened when neighborhoods work with the City as ours has. Complaints are easy - answers take thought, understanding and working together, government and citizens

Influx of foreign money interests. Participation in community - events, schools, it's a responsibility! A) Learn English B) Power Lines and the health consequences and destroying views! C) Land of parking downtown d) Traffic! People use Woodridge to get to I90 who don't live on the hill; Richards Rd and Factoria and downtown are always clogged!

No feedback between residents and local government

Traffic and lack of Metro bus

Traffic, Poor bus service

Neighborhood Leadership Gathering
Neighborhood Character Written Comments
October 7, 2014

"What opportunities are available for us to adapt to the best of what is changing?"

Move outside of Bellevue. Hide man-made things from views: PSE Power lines, ST Trains, etc. Organize people in your area.

Precious little leeway with the impending significant construction project

Your slide program shows the phenomenal change...technology; then growth is upon us. The City needs to truly look at technology to solve electrical utility needs - what is PSE's and (more so) the City's incentives plans for new technology in the electrical field - solar, batteries, wind. The Comprehensive plan is a great opportunity to help with our planning and neighborhood character.

Regulated growth, code compliant residential and commercial development, modifications to building codes to accommodate and preserve the unique character of the neighborhood.

Upgrade old neighborhoods to new housing amenities and standards. Remove all poles and wires so Bellevue may become "One City" Maybe Bellevue could be #1 if they mitigate growth for the existing residents.

Major projects which disrupt/damage neighborhoods. As I stated at the meeting, we need help from the City in addressing major projects such as the plan proposed by PSE. The PSE project, if allowed, has the potential to damage many neighborhoods throughout the City. Once that damage begins, the neighborhoods will start to deteriorate. And without strong, desirable neighborhoods businesses will not be as interested in locating or staying in Bellevue.

More in Bellevue Reporter and Nextdoor.com - and share what's happening with everyone

Too much is going too fast. Bellevue downtown is still dominated/"run" by the merchant and $$ and leaving the residences (or residential) out of the equation, while the residential population is relatively new it is the largest sector of the pending growth. Neighborhood area (mini town halls) for input ongoing and not just Livability. (Downtown Resident Council?)

I think the most important is to form a neighborhood association to establish CCRs of conduct, appearance, as guidelines to new neighbors. As existing neighbors, we can protect what we like by publishing codes.

Owner-paid improvements; appropriate technology; foresight for planning; community involvement; use technology wisely in Energize Eastside

Nextdoor web site; neighborhood associations

Take a small idea and make it large - ie. Trails, but added sidewalks; be reasonable in change

Embracing technology that provides minimum impact of infrastructure on the character of neighborhoods. Introduce more green technology even if as simple as planting more trees along our freeways and side streets. They don't have to be tall but they need to be green. More garden spaces available would be awesome so folks can grow their own food and again it is good for the air we...

"What opportunities are available for us to adapt to the best of what is changing?" Cont.

...breathe. Enhancing trails and parks. Better pedestrian access. Consider electric bikes stations for use between the parks especially on the waterfront. Or perhaps a tram. Our beautiful Bellevue is being stripped of its very foundation...the greenery embedded in the beautiful views, that attracted us all to this beautiful place. The greenery is the foundation of all of our beauty, it enhances our views and removes the bad air naturally.

With increased transit links and redevelopment of large areas of land (e.g., Spring District), new opportunities are on the near horizon to increase housing stock, reduce traffic despite projected population growth, and make it easier for residents to commute from more distant locations to employment centers and the retail core.

Form neighborhood associations. Be proactive with planning and zoning. Resources for shut-ins.

Build a plan in Bellevue that establishes rules, guidelines and zoning that is consistent with the neighborhoods individual characteristics - example, the one-size-fits-all approach to the Shoreline Master Plan is a failure because the characteristics of Lake Sammamish is completely different than Lake Washington. An alternative may have been to establish specifics that take into consideration the individual characteristics of these natural waterways. Another example - neighborhoods with 1/2 acre lots are changing because the COB is allowing high density developments that put 5 similarly priced houses on one lot - this does nothing to provide for lower cost housing.

Tech savvy solutions to change/adapt community infrastructure; government process to preserve character assets of parks nearby

I don't know! Perhaps try to alter the arrogant attitude of staff!

I don't know - but I would like to know more about the City's program for mediation with neighborhoods that don't agree with the changes the City makes

Comp Plan update: address codes that need to be changed, update the sub area plans; Create gathering places and programs within the neighborhoods that will embrace neighbors of all ages, races, sexes, countries of origin and encourage them to meet and interact THIRD PLACES; create codes that will prevent commercial blight - Bellevue currently does not have codes that address this, especially not in neighborhoods. Business zones like Newport Hills, Lake Hills and Northtowne.

Having new buildings help carry the load of the new building. New people are paying taxes. CC&R's should set codes for what is allowed for that individuality is kept. Community meetings where people can meet and get involved; Neighborhood community - develop restrictions that help develop common ground and consensus and creates the integrity of the neighborhood.

Communication/Meetings/Newsletters

More emphasis improving physical spaces and connections.

Speak to and with people everywhere - grocery stores, home depot, gas stations, bars, restaurants, not coming to you - but you coming to us.

"What opportunities are available for us to adapt to the best of what is changing?"

Reach out to immigrants and teach how to participate in the community. Everyone who is a resident in this City has a responsibility to participate in the community. This is America and we want to keep it as America*

Opportunity with park to bridge to old downtown with Farmers Market, Civic events, and ties to other areas of City; continuation of Old Main to the East;

It is finally time to address the parking issue in Old Bellevue with a parking garage of some significant size - ideally on the SE corner of the park (possibly underground) Such a structure would bridge the Park with Old Bellevue and make possible such events as Farmer's Markets, Music Festivals, Political Rallies, Craft Fairs and all other things that make Bellevue a great place to live.

We can adapt to new technology; we can conserve, use less energy, choose greener alternatives that have less impact! In the case of PSE when alternative technology is available such as battery and other technology. We have to have smart growth, dense downtown, good mass transportation, low impact development, maintain a balance.

My involvement with residents opposing PSE Energize Eastside project gives me cause for optimism, but also reasons for concern. I see tremendous participation and passion from residents, and receptivity from City Council - great! But we're fighting a private corporation that controls all the data. The questions are very arcane and technical. Because of this, we don't feel we have a level playing field. We want better checks and balances so neighborhoods can question a project that seems ill advised or detrimental to our interests.

We will continue to access the city's resources. We will need Mandarin/English earthquake preparedness.

1. New technologies in energy production and distribution are in the headlines globally every day. Bellevue should be a leader in both solar and distributed energy implementation.
2. Mayor Balducci mentioned a possible revival of the NEP program. This program really involves neighborhoods and puts them in control of their own areas.

The demographics of our city are changing, which represents an opportunity to connect and communicate and as a result, benefit from everyone's background and insights.

Could we use the Sound Transit rail yard as a solution to some of our energy challenges. Let's put in place grid batteries and solar panels - a high tech solution for an innovative high tech city.

Make sure zoning protects single family neighborhoods. Neighborhood Associations.

1) Organize neighborhood Associations
2) 2) Smart planning to recognize what we love about Bellevue (Parks, Trees, Homes in Scale to their Environment, a mix of housing offerings, views, job opportunities, transit and highway accessibility, etc) with a careful view to preserving these treasures while accommodating growth and technology

Form community associations (be involved); pro-active with code compliance; have a web site; light rail and bus service -understand how to use - use Nextdoor.com

"What opportunities are available for us to adapt to the best of what is changing?"

This neighborhood is full of residents who are very involved with the development aspects of the City. Continuing the neighborhood outreach on different issues - park, light rail, TOD is essential.

Continue the parkway rebuilt project beyond Phase 1 - bike/ped safety to: landscaping separation on west side, 4' shoulder on east side; expanded pavement - narrower lanes slow traffic - good! Smooth and less noise; storm water quality upgrade - helps street storm water from polluting lake; upgrade utilities - water, sewer, power, communication, gas; parkway pavement was constructed in 1930's.

Our form of government is the primary way for us to be involved in change. We have the best for of representative government. I have traveled and seen the best and worst.

Reaching out to immigrants to show them how to participate! Work with the City to manage the growth

Enhance our Amherst entry area on 138th Ave SE and 144th Ave SE with a Gazebo/Bench shelters
Look at low maintenance bark for our greenbelt area on Forest Drive.

Reduced maintenance, reduced resource usage; water, electricity

Safety – bench near where parents and children wait for bus

Neighborhood Leadership Gathering
Letter Attachments
10/7/14

Subject: Senior - E Bellevue Neighborhood

Good Morning, Lynne

Would you advise my husband and I on neighborhood concerns that I will list below. We have been residents in our SE Bellevue home for 25 years. The past 5 years or so we have experienced swift and destabilizing changes to our neighborhood community.

There are a high percent of homes being sold to buyers from off shore, some of whom are leasing for a few years before taking residence. Property care is declining affecting neighborhood appearance. And, with an adjacent neighbor...a two year email attempt to resolve landscaping and large fir trees overhanging our property. Off shore or temporary residents have not shown an interest in building a neighborhood community contacts/watch group that will impact emergency response that comes from these relationships. Let me say, this has not limited our reaching out to these neighbors by email, or at their front doors.

Our neighborhood school resources (Somerset) are being dedicated to a 60 percent Chinese population (Bellevue School District data). Cultural differences enhance a community if off shore residents embrace their new culture, attempt to engage, and intend to stay in the community rather than live here as temporary residents who intend to educate their children and return to their homelands. We have watched this trend with 3 families who left with a child graduating from Newport High. The home, without being listed for sale, is then reoccupied by another family of the same country origin, who repeat the pattern. Non of these families have been open to being part of this neighborhood or caring for their property.

This diminishes the security we feel as seniors to continue "ageing in place" in a home where we have created a multi-generational "sacred" space, and continue to offer, as 70 year olds, to a fifth grandchild still being care for several days a week.

All these concerns are amplified by our recent property tax assessment which the King County Ombudsman tells us reflects off shore buyers home demands for this school district and this neighborhood.

We look forward to your response,

Respectfully, Ann and Craig Jackson

4. In addition to the attached I will add to this section with the following:

We will continue to access the city's resources.

We will need Mandarin/English earthquake preparedness.

Over a 2-year period we respectfully communicated our concerns and needs to an off shore neighbor, via email, until the family recently took residence. Our years of asking for consideration in tending to trees that were interfering with maintaining our roof and causing us real concern with wind storm and large trees falling on our home, left us taking on an unfair proportion of care of their property.

With many years of calls for assistance from the city with the tree concerns, deteriorating yard care and clarifying city dwelling regulations, we believe there are city regulations and oversight needed to help citizens with these new challenges to our neighborhood character.

In addition, we believe the city manager and city council are responsible for leadership in protecting our community resources and representing the interests of Bellevue citizens. May I be confident in assuming that you are aware of the research being published about off shore buyers targeting Bellevue to access our excellent schools? We have been living this reported pressure. These schools are a very valuable resource. When the school data reports (60 percent and 51 percent from one ethnic group) we no longer have diversity. In addition, does the city have data that breaks these numbers down between permanent residents and guests of the US who may or may not choose citizenship and the duties of citizenship? How does this affect our tax burden? Again, I ask does the city, and therefore we citizens, take on a disproportion share of the responsibility.

All this data can be debated. However, we are living the effects. We have lived in Bellevue for 25 years where we chose to give our son quality education at Newport High School. It is a disturbing bit of "change" to accept that his daughter will not have the opportunity to access this great education. The inflated, high demand/cost of housing has excluded the next generation from the quality of life we moved into Bellevue 25 years ago to give them.

It is not responsible to frame these resulting disruptions to families as resolvable with neighborhood mediation or, discounted with "change is inevitable", as we heard at last evening's presentation.

This is a management, city governance challenge.

Fire departments typically run an engine company (pumper with hose and water on board) out of every fire station. They also run a ladder company (ground and aerial ladders, plus rescue tools) at a ratio of 3 engines to 1 ladder. In Bellevue, staffing has been historically short, 1 ladder to 9 stations. In the early '90s, staffing was cut with the addition of the station in Newport Hills. The ladder company was moved from the downtown station, to station 7. The engine crew was moved from station 7 to station 9. When the ladder company was moved to station 7, one person was added to the crew to drive an engine, giving the ladder company the ability to extinguish fires in Woodridge.

When the city cut the fire budget in 2010, staffing was reduced and that person was removed, leaving Woodridge (and the surrounding area) without a quick responding engine (water source). If the ladder was in quarters when they received a fire call in their surrounding area, they could take the engine depending on the information given from the dispatcher. This info is often sketchy at first, and the situation only becomes clear when fire units get on scene. A good example is the car fire on 405 last summer. That was initially dispatched as a vehicle extrication/rescue, when in fact, the initial calls to dispatch reported a vehicle fire. That left the ladder company sitting on scene of a burning vehicle with an occupant still inside, until another engine company could be dispatched and then respond...a delay of over 5 minutes.

So, basically, your nearest water source for a fire response is at SE 8th and Bellevue Way, or the station at SE 36th on Factorial Blvd. If the ladder company at station 7 is on another response, and they are the first resource to be pulled out of the city, then you have nothing. Essentially, the city is gambling that nothing will happen in your area, and it's already burned them twice. To the city manager's defense, the fire chief never told anyone, or wasn't allowed to by the old city manager. So they had political cover.

By all standards, the BFD is hugely under-staffed and has had many firefighter close calls. But unfortunately, they may have to lose a firefighter before things are corrected and the city protects the folks that protect the citizens.

Karen Esayian
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Bellevue, WA 98006-3005

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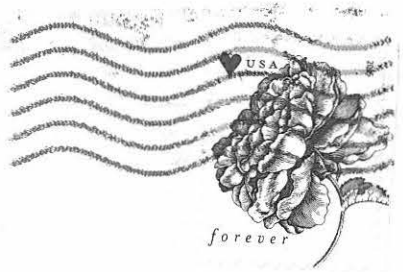

City of Bellevue
Development Services Dept
Attn: David Pyle
450 – 110th Ave NE
Bellevue, WA 98004

9800451450

City of Bellevue, Development Services Department

Attn: David Pyle

Comments for Scoping and EIS, Energize Eastside

The **zoning** laws and guidelines for the cities along the proposed 18 mile route for Energize Eastside need to be taken into consideration. The Generalized Zoning Map for the City of Bellevue illustrates that the PSE proposed route for industrial sized power grid poles and transmission lines will tower over areas primarily zoned as residential; a higher percentage of this route is residential versus commercial. At the May 18, 2015 Bellevue City Council meeting, the CAC for "**Livability Effort**" with respect to land use code and height restrictions was presented and discussed for building in downtown Bellevue and residential areas. One comment stood out: the importance of the view toward Mt. Rainier from Bellevue. I ask you to consider what that view would be if the distance between were cluttered with 130 foot high industrial sized power grid poles.

It is commendable that the City of Bellevue is planning its downtown growth and concentration of growth toward the center of the City. All residents appreciate your considerations and for adding parks and green spaces to compliment the "City within a Park".

But this consideration will be contradicted if the residential neighborhoods are asked to sacrifice their quality of life to subsidize development needs in downtown Bellevue and along the Bel-Red corridor as proposed by PSE with the Energize Eastside project. The visual blight of industrial height power poles contradicts the vision of "A City within a Park".

In the Utilities Element of the **Comprehensive Plan** for Bellevue:
~ on page 95 under Goals, it is stated: "To encourage new technology that improves utility services and reliability while balancing health and safety, economic, aesthetics, and environmental factors". ~ on page 111, under Policy UT-72: it states "Work with Puget Sound Energy to implement the electrical service system serving Bellevue in such a manner that new and expanded transmission and substation facilities are compatible and consistent with the land use pattern established in the Comprehensive Plan. Discussion: Where feasible, electrical facilities should be sited within the area requiring additional service. Electrical facilities primarily serving commercial and mixed use areas should be located in commercial and mixed use areas, and **not** in areas that are primarily residential."
~ on page 103, Non City-Managed utilities, Authority, it is stipulated: "The City of Bellevue has the authority to regulate land use and, under GMA, the requirement to consider the location of existing and proposed utilities and potential utility corridors in land use planning."

There are multiple, less impactful, means of solving an energy shortfall on the coldest day of the year. If, as part of the Columbia River Treaty, power is needed to flow to Canada - this does NOT have to happen on PSE lines. The utility consortium Columbia Grid previously endorsed a project, less expensive, to upgrade lines on Seattle City Light's 230 kv line that runs through the Eastside. There is also the BPA corridor that could accommodate additional 230 kv lines. In addition, there are non-wire options; central battery storage, diesel backup generators to name only two.

We encourage our City planners and decision makers to keep the stated vision of **"City within a Park"** in mind and support the residential neighborhoods in their commitment to keep parks, not power poles, in their neighborhood.

Karen

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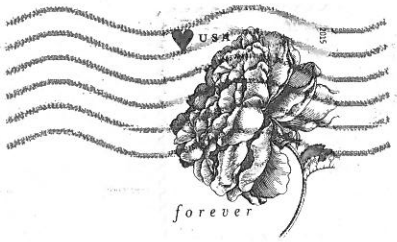

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City of Bellevue, Development Services Department

Attn: David Pyle

Comments to be entered into Scoping Period file, Energize Eastside (PSE)

Consistently ignored in presentations by PSE regarding the Energize Eastside proposed project: impact on people/residents, quality of life of residents, view property and the effect of industrial sized power transmission line poles on residential lots. Nor have these factors been added to the: Preliminary List of Elements of the Environment: ...to be discussed in the EIS, from Development Services Department, Environmental Coordinator. But, perhaps the intent is that people can be discussed under the "Plants and Animals" section? Or is it suggested that view property and industrial power grid poles could be discussed under "Aesthetics"? The **residents** along the 18 mile stretch identified by the Energize Eastside proposed project are at the heart of this project. IF the suggested need is to serve the residents - the impact of any solution should be considered first and foremost.

The only mention of safety refers to the electric and magnetic fields, in the Preliminary List of Elements of the Environment. But do *not* forget that there are also **two aging pressurized fuel pipelines** along this proposed Energize Eastside route. It has been noted that they are buried only 3-6 feet underground. Please think again of the foolhardiness of excavating and shoving a 130 foot high power pole into the soil around the pipelines.

One more thing - there is nothing mentioned, nor allowance made, to study the impact of what an **earthquake** would do to the stability of these power grid poles. There is this thing called an earthquake fault line running under and alongside I-90, which happens to be in close proximity to residential neighborhoods along the PSE proposed project route.

In addition to these concerns, there are elementary schools and high schools along this 18 mile stretch of the proposed Energize Eastside project. These children are the future residents and support for the communities involved. Their health and safety should be a primary concern - this year and for the future legacy we leave.

There are **alternatives** to PSE suggested resolution.

As early as January of 2012 the reliability of the regional electric grid was studied and discussed between BPA, PSE, Seattle City Light and Snohomish Public Utility District. In a news memo from that date it is acknowledged that BPA delivers energy through the Puget Sound area to Canada to fulfill the **"Canadian Entitlement"** agreed to in the 1964 Columbia River Treaty. It is understood that BPA proposed a solution for this potential problem, but allowed PSE to take over the project and will be paying them a sum of monies for resolving the Canadian Entitlement power commitment. **IF** this is a regional problem **or if** this is in context of an agreement between Washington State or the U.S. government and Canada - then it should not be resolved on the roofs of the

residents from Bridle Trails down through Renton. At the very least, BPA could use their current right of way east of Lake Sammamish and develop Lake Tradition for transmission of energy to Canada.

In addition to this, one recommendation made in the *review* of the **Columbia River Treaty** (from U.S. Entity Regional Recommendation for the Future of the Columbia River Treaty after 2024, dated December 2013) is that the U.S. government "proceed with a renegotiation of the Treaty with Canada in order to modernize the Treaty by incorporation the objectives in this regional recommendation." (page 7) On page 14 of this memo, under Recommendation Details, it is stated: "The United States should pursue rebalancing the power benefits between the two countries to reflect the actual value of coordinated operations. This rebalancing is necessary because the present Treaty power benefits are not equitably shared and Canada is deriving substantially greater value from coordinated power operations than the United States."

If this proposed Energize Eastside project is not specific to the resident home owners, the resident home owners should not bear the burden alone, neither physically nor financially.

Karen

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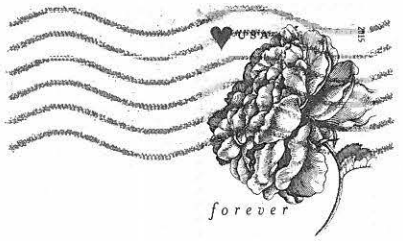

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City of Bellevue, Development Services Department

Attn: David Pyle

Comments for Scoping file, EIS Energize Eastside, PSE

Over 80 years ago a narrow easement running through some of the residential properties in the neighborhood of Somerset was granted to the company now know as Puget Sound Energy. The houses on these streets, along this easement, were mostly built in the mid 1970's. The home we have lived in for 40 years was built in 1976 - on 135th Avenue SE. All residents all along these streets have developed and landscaped their properties and in our block of homes have dug a rain creek to accommodate heavy rainfall on the hillside. This has made even this very narrow easement into a habitat for not only family, but for wildlife of all kinds. We have always felt that the City of Bellevue valued residential neighborhoods like ours; the appreciation in property values in Somerset definitely reflect the pride of owning a home here.

The project as proposed by PSE does not belong on an easement granted some 80 years ago. Transmission line poles 130 feet in height and between 3 to 6 feet in diameter at the base are not compatible with a 100 foot easement running through homeowners back and front yards. The Energize Eastside project as proposed by PSE does NOT belong in an easement shared with a pressurized 50 year old jet fuel pipeline. A power grid of the size proposed by PSE belongs on a right of way - away from any residential area; consider the BPA corridor east of Lake Sammamish which already accommodates a 230 kv transmission line.

In the year of 2015 the City of Bellevue should be planning a 21st century infrastructure, not reusing the plans of the past century. If pride is taken that Bellevue attracts high-tech companies that produce cutting edge product - it follows that any proposed power grid should include cutting edge technology such as large scale battery storage systems, a gas fired peaking plant or diesel backup generators for the coldest days. I cannot spell out a plan - but **you** can contact experts who can.

The Energize Eastside proposed project is totally out of scale with Bellevue's Comprehensive Plan which seeks to preserve neighborhood character. Policy UT-72 on page 111 of the current Comprehensive Plan states: "Discussion: where feasible, electrical facilities should be sited within the area requiring additional service. Electrical facilities primarily *serving commercial* and mixed use areas should be located in *commercial* and mixed use areas, and not in areas that are primarily residential."

Karen

Karen Esayian

4601 135th Ave SE

Bellevue, WA 98006

Mr S Esayian
4601 135th Ave SE
Bellevue, WA 98006

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City of Bellevue
Development Services Department
Attn: David Pyle
450 110th Avenue NE
Bellevue, WA 98004

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May 30, 2015

City of Bellevue, Development Services Department

Attn: David Pyle

My name is Sam Esayian and I live at 4601 135th Avenue, SE, in Bellevue 98006. I have been a resident of Bellevue for 40 years.

My comments are for the public record on the phase 1 scoping of the EIS for the PSE Energize Eastside project.

In that connection I submit the following:

- Consistently ignored in presentations by PSE regarding the Energize Eastside proposed project: impact on people/residents, quality of life of residents, view property and the effect of industrial sized power transmission line poles on residential lots.
- Over 80 years ago a narrow easement running through some of the residential properties in the neighborhood of Somerset was granted to the company now know as Puget Sound Energy. The houses on these streets, along this easement, were mostly built in the mid 1970's. The home I have lived in for 40 years was built in 1976 - on 135th Avenue SE. All residents all along these streets have developed and landscaped their properties and in our block of homes have dug a rain creek to accommodate heavy rainfall on the hillside. This has made even this very narrow easement into a habitat for not only family, but for wildlife of all kinds. We have always felt that the City of Bellevue valued residential neighborhoods like ours; the appreciation in property values in Somerset definitely reflect the pride of owning a home here.

- The project as proposed by PSE does not belong on an easement granted some 80 years ago. Transmission line poles 130 feet in height and between 3 to 6 feet in diameter at the base are not compatible with a 100 foot easement running through homeowners back and front yards. The Energize Eastside project as proposed by PSE does NOT belong in an easement shared with a pressurized 50 year old jet fuel pipeline. A power grid of the size proposed by PSE belongs on a right of way - away from any residential area; consider the BPA corridor east of Lake Sammamish which already accommodates a 230 kv transmission line.

- The **zoning** laws and guidelines for the cities along the proposed 18 mile route for Energize Eastside need to be taken into consideration. The Generalized Zoning Map for the City of Bellevue illustrates that the PSE proposed route for industrial sized power grid poles and transmission lines will tower over areas primarily zoned as residential; a higher percentage of this route is residential versus commercial. At the May 18, 2015 Bellevue City Council meeting, the CAC for **"Livability Effort"** with respect to land use code and height restrictions was presented and discussed for building in downtown Bellevue and residential areas. One comment stood out: the importance of the view toward Mt. Rainier from Bellevue. I ask you to consider what that view would be if the distance between were cluttered with 130 foot high industrial sized power grid poles.

- It is commendable that the City of Bellevue is planning its downtown growth and concentration of growth toward the center of the City. All residents appreciate your considerations and for adding parks and green spaces to compliment the **"City within a Park".**

- But this consideration will be contradicted if the residential neighborhoods are asked to sacrifice their quality of life to subsidize development needs in downtown Bellevue and along the Bel-Red corridor as proposed by PSE with the Energize Eastside project. The visual blight of industrial height power poles contradicts the vision of **"A City within a Park"**

- In the Utilities Element of the **Comprehensive Plan** for Bellevue on page 95 under **Goals**, it is stated: "To encourage new technology that improves utility services and reliability while balancing health and safety, economic, aesthetics, and environmental factors".

- On page 111, under **Policy UT-72**: it states "Work with Puget Sound Energy to implement the electrical service system serving Bellevue in such a manner that new and expanded transmission and substation facilities are compatible and consistent with the land use pattern established in the Comprehensive Plan. Discussion: Where feasible, electrical facilities should be sited within the area requiring additional service. Electrical facilities primarily serving commercial and mixed use areas should be located in commercial and mixed use areas, and **not** in areas that are primarily residential."

- On page 103, **Non City-Managed utilities, Authority**, it is stipulated: "The City of Bellevue has the authority to regulate land use and, under GMA, the requirement to consider the location of existing and proposed utilities and potential utility corridors in land use planning."

- The only mention of safety refers to the electric and magnetic fields, in the Preliminary List of Elements of the Environment. It should be noted that there are also **two aging pressurized fuel pipelines** along this proposed Energize Eastside route. It has been noted that they are buried only 3-6 feet underground. Please think again of the foolhardiness of excavating and shoving a 130 foot high power pole into the soil around the pipelines.

- There is no mention, nor allowance made, to study the impact of what an **earthquake** would do to the stability of these power grid poles. There is an earthquake fault line running under and alongside I-90, which is in close proximity to residential neighborhoods along the PSE proposed project route. In addition to these concerns, there are schools along this 18 mile stretch of the proposed Energize Eastside project. These children are the future residents and support for the communities involved. Their health and safety should be a primary concern - this year and for the future legacy we leave.

- There are **alternatives** to PSE suggested resolution.

- Important information was presented in the analysis performed by the City of Bellevue's consultant , USE that growth would be in the downtown and Bel-Red corridor. PSE has not provided any plans as to how the power will be supplied to the downtown and Bel-Red corridor. The required load can be served directly from the Sammamish and Talbot Hill substations via

underground as an alternative to building 230 kv lines on 130 foot poles through areas not driving the growth.

- As early as January of 2012 the reliability of the regional electric grid was studied and discussed between BPA, PSE, Seattle City Light and Snohomish Public Utility District. In a news memo from that date it is acknowledged that BPA delivers energy through the Puget Sound area to Canada to fulfill the **"Canadian Entitlement"** agreed to in the 1964 Columbia River Treaty. It is understood that BPA proposed a solution for this potential problem, but allowed PSE to take over the project and will be paying them a sum of monies for resolving the Canadian Entitlement power commitment. **IF** this is a regional problem **or if** this is in context of an agreement between Washington State or the U.S. government and Canada - then it should not be resolved on the roofs of the residents from Bridle Trails down through Renton. At the very least, BPA could use their current right of way east of Lake Sammamish and develop Lake Tradition for transmission of energy to Canada.

- In addition, one recommendation made in the *review* of the **Columbia River Treaty** (from U.S. Entity Regional Recommendation for the Future of the Columbia River Treaty after 2024, dated December 2013) is that the U.S. government "proceed with a renegotiation of the Treaty with Canada in order to modernize the Treaty by incorporation the objectives in this regional recommendation." (page 7) On page 14 of this memo, under Recommendation Details, it is stated: "The United States should pursue rebalancing the power benefits between the two countries to reflect the actual value of coordinated operations. This rebalancing is necessary because the present treaty power benefits are not equitably shared and Canada is deriving substantially greater value from coordinated power operations than the United States."

- If the proposed Energize Eastside project is not specific to the resident home owners, the resident home owners should not bear the burden, neither physically nor financially.

Sam Esayian

4601 135th Avenue, SE

Bellevue, WA 98006

8243 126TH PLACE SE
CV
NEWCASTLE - WA - 98056

SEATTLE WA 981
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City of Bellevue
Dev. Services Dept.
Attn. David Pyle
450 110th Avenue NE
Bellevue, WA 98004

S60048514

Comments on the Scope of Energize Eastside EIS

Energize Eastside EIS Scoping Meeting #4 Newcastle • May 28, 2015

Name Courtney Voorhees

Address* 8243 126th Pl. SE
Newcastle, WA 98056

* *You must provide your physical mailing address to be considered a "party of record," eligible to appeal the adequacy of the EIS.*

I object to the proposals set forth by PSE on the basis of safety and necessity. All four alternatives are unacceptable. PSE needs to present better alternatives that are constistent with energy technology and our quality of life in Washington State.

Bellevue
CHAMBER OF COMMERCE
THE VOICE OF BUSINESS
330 112th Ave NE, #100
Bellevue, Washington 98004

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Bellevue CHAMBER OF COMMERCE THE VOICE OF BUSINESS

June 2, 2015

City of Bellevue
Development Services Department
Attn: David Pyle
450 110th Avenue NE
Bellevue, WA 98004

Mr. Pyle:

We appreciate the opportunity to submit scoping comments on Phase 1 of the Energize Eastside EIS. The Chamber is the voice of business in Bellevue, and is working to expand business growth and economic opportunity in Bellevue. Projections from various sources – including the City of Bellevue and the Puget Sound Regional Council – show Bellevue and the Eastside growing at a remarkable rate in the decades to come. Similarly, job growth and economic expansion is steadily climbing. It is clear, as the technical analysis recently conducted by Utility System Efficiencies showed once again, that Bellevue and the Eastside needs to upgrade its power infrastructure to provide reliability of the electrical grid for the business community.

Four alternatives are to be considered as part of the Energize Eastside EIS. We believe Alternative 1 – providing a new 230 kV transmission source that would improve reliability for the Eastside area – is the only alternative that provides the power infrastructure necessary to provide reliability to Bellevue businesses. Alternatives 2 and 3 fall short of providing certainty to the business community that its electrical power needs will be provided, and Alternative 4 represents the status quo and unreliable inaction.

Presently there are 32 major development projects in Bellevue. Other urban and suburban cities and areas throughout the Eastside are going through the same explosive expansion and growth. Safe, reliable, and redundant electrical infrastructure is something we cannot afford to take for granted. We believe Alternative 1 is the right choice for Bellevue and the Eastside.

Thank you,

Gary Guenther, Board President
Bellevue Chamber of Commerce

Betty Nokes, President & CEO
Bellevue Chamber of Commerce

Cc: Bellevue City Council
Brad Miyake, City of Bellevue

330 112th Ave NE • Bellevue, Washington 98004
tel 425.454.2464 • fax 425.462.4660 • email staffteam@bellevuechamber.org • web www.bellevuechamber.org

Linda Young
12813 SE 80th Way
Newcastle, WA 98056
U.S.A.

RETURN RECEIPT REQUESTED

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David Pyle
Energize Eastside EIS Program Manag
Senior Land Use Planner
City of Bellevue
450 110th Ave. NE
Bellevue, WA 98004

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June 2, 2015

David Pyle
Energize Eastside EIS Program Manager
Senior Land Use Planner
City of Bellevue
450 110th Ave. NE
Bellevue, WA 98009

RE: **Puget Sound Energy's Plan to Blight the Eastside**

Dear Mr. Pyle:
As a homeowner and resident of Newcastle, WA I have attended countless meetings regarding Puget Sound Energy including the Newcastle Meeting Thursday, May 28, 2015. You must have noted the large crowd, standing room only and many families with babies in their arms and young children in strollers. That painted a true picture of how people in this community are worried, scared and desperate to stop the madness.
One of the speakers a mother who is also a Pediatric Nurse broke down with emotion as she spoke of holding the hand of a dying child with cancer and her efforts to comfort the grieving parents. Parents who to their own dying day will remember their child. I know the "jury" is still out on the medical ramifications of high voltage, but at an earlier Bellevue City Hall meeting several Bellevue and Overlake Doctors spoke passionately of their concerns.
We do not need 130-foot poles with 230 kV going through densely populated neighborhoods. There are alternatives, but Puget Sound Energy wants to use out dated methods, cut costs and look good on the books when they are sold off by their off shore owners in Australia.
Mr. Pyle, when I have watched you at the "top table" you appear to be the most concerned and you do not smile, laugh and smirk and I believe you understand where we are coming from.
Regardless of anything else this proposed nightmare brings with it health and safety issues and also loss of home values. At a recent Real Estate Brokers Meeting it was made obvious they would not show or sell homes close to this proposed high voltage and even more so with Olympic Pipe Line sitting just below the soil line. The CEO at Olympic Pipe Line must be shaking in his boots thinking about what could be ahead for the company. They are owned by BP and even their deep pockets took an enormous "hit" due to the disaster in Louisiana – something that will be on going for decades.
Puget Sound Energy has employed people to roam through neighborhoods marking trees and shrubs with pink/black plastic and numbers -anything that could grow to be over 15 feet. Isn't this approaching the issue backwards and spending thousands of ratepayer dollars when they do not have the authority to go forward with this project. Did anyone sit down and think this through or was it hurry up, keep quiet and see how far we can get before the public catches on to our moves?

We have fine men and women working at the Newcastle Fire Department and Police Department, but we have one police officer driving around and how would an explosion be handled? Close to the proposed 230 kV lines over the old Olympic Pipe Line we have young families with babies and young children, older couple dealing with Alzheimer's, a care home with residents who cannot move on their own and a woman who never leaves her home due to a debilitating disease.

In closing I quote the great English Statesman, Winston Churchill.

"Those who fail to learn from history are doomed to repeat it."

As you think about those lines think of the three little boys who burnt to death in Bellingham.

Sincerely,

Linda Young

Linda Young

12813 SE 80th Way
Newcastle, WA 98056

RENTON CHAMBER OF COMMERCE

625 South 4th Street
Renton, WA 98057

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David Pyle
Development Services Department
City of Bellevue
450 110th Ave. NE
Bellevue, WA 98009

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David Pyle
Development Services Department
City of Bellevue
450 110th Ave. NE
Bellevue, WA 98009

RENTON CHAMBER OF COMMERCE
YOUR FIRST CALL RESOURCE

June 10, 2015

Dear Mr. Pyle,

The Renton Chamber's mission is to improve business and economic conditions, and the general welfare of the community. For more than 76 years the Chamber has been a leader in networking opportunities, advocacy, leadership development and promoting business prosperity. Our member businesses along with our non-profit and government partners play a significant role in building prosperity, excellence in education, wellness and healthcare along with a genuine good quality of life for the residents of Renton.

We must weigh in on issues that contribute to a consistent quality of life and prosperity for present and future generations. These issues include transportation, wages, education, business stability/vitality which involve improved infrastructure for a growing city.

Much of the new growth comes through manufacturing, hospitality, healthcare and service businesses that support our already established companies. According to the Puget Sound Regional Council, between 2010 and 2040, Renton's population is expected to grow 31 percent, and employment is expected to grow more than 50 percent. While this growth ensures the continued prosperity of Eastside cities and communities, it must be supported by suitable infrastructure.

A heat wave, severe cold spell, car accident, act of God, etc., can tax an electric system, causing outages particularly when customers use their air conditioning or heating around the clock. For our manufacturing businesses a power outage can ruin a "just in time" production schedule and end up costing the company millions of dollars.

Without adequate investments in our electric infrastructure, businesses and residents in Renton and across the Eastside will be at risk of power outages. Existing businesses cannot afford the loss of productivity and revenue resulting from power outages and new businesses will not locate here without a robust electric system. Our jobs, families and communities need dependable power in order to thrive.

Many solutions will be considered as part of the EIS process, but we need a solution that is proven, dependable and technically feasible. Betting on untested technologies is too big of a risk. The Eastside needs a solution that is viable and stands the test of time. The Renton Chamber believes the best solution is Alternative 1, which entails building a new 230 kV substation and transmission line.

Sincerely,

Vicky Baxter

Vicky Baxter
CEO
Renton Chamber of Commerce

Cc: Executive Board: Brent Camann (Chair); Joe Kiley (Chair-elect); Audrey Godwin (Treasurer)

Public Works Department
City of Renton
1055 South Grady Way
Renton WA 98057-3232

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Mr. David Pyle
Development Services Department
City of Bellevue
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Bellevue, WA 98004

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Denis Law
Mayor

City of Renton

Public Works Department - Gregg Zimmerman, P.E., Administrator

June 15, 2015

Mr. David Pyle
Development Services Department
City of Bellevue
450 110th Avenue NE
Bellevue, WA 98004

RE: Energize Eastside Environmental Impact Statement Phase 1 Scoping Comments
Sent via email: info@EnergizeEastsideEIS.org

Dear Mr. Pyle:

Thank you for the opportunity to provide comments regarding the scope of the Phase 1 Environmental Impact Statement (EIS) for the proposed Energize Eastside Project. The City understands that this scoping process is intended to assist in identifying technically viable alternatives and associated impacts that address Puget Sound Energy's reported electrical transmission capacity deficiency.

The preliminary list of elements of the environment identified by the lead agency for analysis in the EIS includes: surface water, noise, land and shoreline use, recreation, public services and utilities, air (greenhouse gases), electric and magnetic fields (EMF), aesthetics, historic and cultural resources, plants and animals, energy and natural resources, light and glare, and transportation.

In addition to the listed elements of the environment identified for study in the EIS, it is the City of Renton's expectation that a third-party analysis regarding the need for the project will be incorporated into the EIS. The EIS should also provide an evaluation of the environmental effects of an underground or marine transmission line to address system reliability, health, noise and aesthetic (view) issues for Alternative 1 (New Transformer and Transmission Line). An analysis regarding the safety of the proposed alternatives should be analyzed, including the proximity of PSE's preferred alternative (Alternative 1) to the Olympic Pipeline. Additionally, an "Earth" section should evaluate soil suitability and geotechnical constraints including seismicity for each of the alternatives. Finally, proposed routes for the new 230 kV transmission line (including transmission tower locations) may have an impact on the rights-of-way for existing public transportation facilities and rights-of-way needs for future transportation projects within Renton's city limits. And, construction of overhead transmission lines

may affect the ability of residents and businesses to access their property or facilities. Therefore, we look forward to reviewing more detailed discussion of transportation impacts in the EIS.

Sincerely,

Gregg Zimmerman

Gregg Zimmerman
Public Works Administrator

cc: Denis Law, Mayor
Jay Covington, Chief Administrative Officer
C.E. "Chip" Vincent, Community & Economic Development Administrator
Doug Jacobson, Deputy Public Works Administrator, Transportation
Jennifer Henning, Planning Director
Vanessa Dolbee, Current Planning Manager
Bob Mahn, Transportation Planning Civil Engineer

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David Pyle
Energize Eastside EIS Program Manager
Senior Land Use Planner
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450 110th Ave. NE
PO Box 90012
Bellevue, WA 98009

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SEATTLE King County REALTORS®

June 11, 2015

David Pyle
Energize Eastside EIS Program Manager
Senior Land Use Planner
City of Bellevue
450 110th Ave. NE
P.O. Box 90012
Bellevue, WA 98009

RE: Public Scoping Comment Period for Phase 1 of the Energize Eastside EIS

Dear Mr. Pyle,

The Seattle King County Realtors[1] appreciate the opportunity to comment on Phase 1 of the Energize Eastside EIS.

Realtors are keenly aware of both the importance and fragility of a robust economy. It must not be taken for granted. It requires care.

The Eastside is the fastest-growing region in Washington. The area has established itself as a hub for world-class businesses, and employment growth has created a rising demand for housing. Residents and businesses are enjoying this economic prosperity, but it has taken a toll on our infrastructure – including the local electric grid.

The existing electric grid serving PSE's Eastside-area customers had its last major upgrade in the 1960s. Since then, Eastside population has grown nearly eight times, and this growth is projected to continue.

PSE's Eastside-area customers need the Energize Eastside project to ensure electric reliability to sustain growing business, population and housing growth. Reliable power is not optional – PSE must plan to federal reliability standards that protect customers from widespread power outages. East King County needs this project to ensure that the community continues to be strong and thriving.

A robust economy and strong neighborhoods are key ingredients to the high quality of life we enjoy on the Eastside. Over time, the economy and neighborhood will suffer absent a modernization in electrical infrastructure as envisioned by the Energize Eastside project.

---

[1] Our 6,000± REALTORS® on whose behalf these comments are submitted are members of the SEATTLE *King County* REALTORS®, Washington REALTORS®, and the National Association of REALTORS®.

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We would also note that such a transmission upgrade can and should be done within existing rights of way that minimizes the impact on homeowners and residential neighborhoods.

Sincerely,

Tyler McKenzie, 2015 President, SKCR

ARCHITECTS
baylis
10801 Main Street, #110 | Bellevue, WA 98004

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David Pyle
City of Bellevue, Planning & Community Development
450 110th Avenue NE
Bellevue, WA 98004

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baylis ARCHITECTS

principals Brian Brand, AIA
Kevin J. Cleary, AIA
Meredith Everist, AIA
Thomas Frye, Jr., AIA
Richard Wagner, FAIA

June 16, 2015

David Pyle
Energize East Side EIS Program Manager
City of Bellevue, Planning & Community Development
450 110th Avenue NE
Bellevue, WA 98004

Re: Energize Eastside – EIS Scoping Comments

Dear Mr. Pyle,

As a 44 year member of the planning and architectural design community on the Eastside, I write to encourage Puget Sound Energy in its endeavors to assure that our neighborhoods and our central business districts have long-term, dependable energy resources.

Our communities are all growing at record paces and thinking that these paces will slow; would be misplaced and naïve. We continue to hire more and more talent from around the world; we continue to design and build better and better live-work-play environments; and we are all direct and indirect beneficiaries of these events. BUT, we must have energy and that will take good solid planning, including increased use efficiencies, alternative environmental resource development and a well maintained grid.

Lest we forget, it was not so long ago that that we all told the story of running an elevator in downtown Kirkland and seeing the lights in the adjacent building dim.

I recognize that PSE has put much effort into the study of solutions to our Eastside power needs and these are to be complimented. But the time to move toward decisions and community consensus is fast approaching. At a minimum, let us at least agree on the need, the subject of this letter here, and we can talk about routing immediately thereafter.

Sincerely,

Richard L. Wagner, FAIA
President

rw/sac

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City of Bellevue
Development Services Department
Attn: David Pyle
450 110th Avenue N.E.
Bellevue WA 98004

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June 15, 2015

City of Bellevue
Development Services Department
Attn: David Pyle
450 110th Avenue N.E.
Bellevue 98004

Scoping Comments: 14-139122-L "Energize Eastside"
Scoping@EnergizeEastsideEIS.org

Dear Mr. Pyle:

I write today to provide scoping comments on Puget Sound Energy's "Energize Eastside" proposal on behalf of the Coalition of Eastside Neighborhoods for Sensible Energy (CENSE), a volunteer coalition of residents and local citizens concerned with the "Energize Eastside" proposal. These comments are in response to a Determination of Significance and Scoping Notice issued by the City in April, 2015, herein referenced as the "DS."

These comments are supplemental to others submitted by CENSE and its members. This letter incorporates by reference all other comments entered by other parties on scoping.

Comments on the process and scoping set forth below.

1. LACK OF A PROJECT APPLICATION

As a beginning point, the City is inappropriately processing the "Energize Eastside" proposal as a concept as promoted by PSE, rather than as a project proposal. "Energize Eastside" is essentially a promotional or branding characterization by PSE. The City should reference the proposal in "Description of Proposal" found in the DS as the construction of "a new 230 kV electrical transmission line and substation."

In addition, in correspondence with CENSE, the City admits that PSE has not filed any type of land use or building permit application with the City for this new transmission line. This is despite the fact that PSE has continuously identified the intended location of its proposed new transmission line along a defined and well known corridor and has made decisions concerning the design of the transmission lines. See

the "Energize Eastside" website at http://www.energizeeastside.com/design. This website also has photo simulations of the proposed construction and tower locations in many places. See http://www.energizeeastside.com/photo-simulations. There is certainly sufficient information available to prepare a permit application for this work.

Indeed, the City has stated in the DS that during scoping interested persons may comment on "licenses or other approvals that may be required." However, without a specific application, it is impossible to know the licenses or approvals that will be required for the transmission line. For example, all material prepared by PSE indicates that the transmission line route will extend through the East Bellevue Community Council area for more than a mile, but City staff says that issue is still up in the air in an email from Carol Helland to CENSE on June 3, 2015:

> EBCC jurisdiction has authority only to approve or disapprove applications within the jurisdiction of the Community Council. Refer to LUC section 20.35.365. The determination is made at the time of application. If PSE applies for a conditional use permit to approve an Energize Eastside alignment that is located within the boundaries of the EBCC, then the application would be characterized as a Process III application. Refer to LUC 20.35.015.D.2. If PSE apples for a conditional use permit to approve an Energize Eastside alignment that is located outside the boundaries of the EBCC, then the application would be characterized as a Process I application. Refer to LUC 20.35.015.B.

(Emphasis supplied). Of course, EBCC has approval/disapproval authority over any conditional use permit application that PSE may make for its new 20 kV line. It is inappropriate for City staff to hide the ball on this important issue; the Draft EIS (DEIS) needs to confirm that the jurisdiction of EBCC will be invoked by this application and that the review will be under Process III review rules and procedures.

The lack of a specific permit application is particularly important for any Phase 2 considerations. The DS states that: "Construction and operation level impacts will be addressed with Phase 2 of the EIS process." Similarly at the third page, the DS states that Phase 2 "will examine project level alternatives, include possible alternative routes for transmission lines." It is impossible for local citizens to consider "construction and operation level impacts" without a specific project application to determine the location of the new transmission line with locations and descriptions of proposed towers.

The City should require the filing of a permit application as a precondition to additional SEPA review. That application will disclose critical detail concerning the PSE proposal and allow informed comment by the public. Such an application would not foreclose or affect the review in the EIS process of reasonable alternatives.

2. THE PREPARATION OF TWO SERIAL DRAFT ENVIRONMENTAL IMPACT STATEMENTS IS INCONSISTENT WITH SEPA AND THE SEPA RULES.

The DS states that the City plans to prepare two draft EISs for the "Energize Eastside" proposal. The second phase is described as follows:

> The second phase of the project will select among the Phase 1 alternatives and examine project level alternatives, including alternative routes for transmission lines. A second opportunity for scoping will be provided and a second Draft EIS will be issued for Phase 2.

The outlined process is inconsistent with SEPA and requires immediate revision.

For many years, the SEPA Rules have provided for "Phased Review" in WAC 197-11-060(5). Phased review involves the preparation of a "nonproject EIS" which focuses "on issues that are ready for decision and exclude from consideration issues . . . not yet ready." Subsection (b). Indeed, WAC 197-11-442 sets forth criteria to be followed for a nonproject EIS, and states:

> (2) The lead agency shall discuss impacts and alternatives in the level of detail appropriate to the scope of the nonproject proposal and to the level of planning for the proposal. Alternatives should be emphasized. In particular, agencies are encouraged to describe the proposal in terms of alternative means of accomplishing a stated objective (see WAC 197-11-060(3)).

The nonproject EIS follows the usual sequence of scoping, draft EIS and final EIS. Once a decision is made on a broader nonproject proposal, a project level EIS will be prepared based on the nonproject analysis. As described in WAC 197-11-443:

> (2) A nonproject proposal may be approved based on an EIS assessing its broad impacts. When a project is then proposed that is consistent with the approved nonproject action, the EIS on such a project shall focus on the impacts and alternatives including mitigation measures specific to the subsequent project and not analyzed in the nonproject EIS. The scope shall be limited accordingly. Procedures for use of existing documents shall be used as appropriate, see Part Six.

Thus, the SEPA provisions for phasing require a draft and final EIS on the nonproject proposal and a decision on the nonproject alternatives. Following that decision, if the applicant wishes to pursue a specific project, then preparation of a project level draft and final EIS will follow.

However, the City of Bellevue procedures for "Energize Eastside" do not follow the SEPA Rules for nonproject EIS. Instead of adherence to the rules, the City of Bellevue intends to prepare the Phase 1 DEIS, but not prepare a final EIS on Phase 1. Instead it will inexplicably move to a second DEIS without preparing a Phase 1 final EIS. No reason is stated for the bizarre process. The SEPA Rules are absolutely clear that: "The lead agency shall prepare a final environmental impact statement whenever a DEIS has been prepared, unless the proposal is withdrawn or indefinitely postponed." WAC 197-11-560(1). The FEIS is the key element in the SEPA decision making process. Under the rules, citizens and agencies may comment on the EIS and the City is required to respond in one or more of the means found in WAC 197-11-560(1). The City should prepare a final EIS on Phase 1 based on comments from the public which will inform the staff and public on the selection of an alternative for consideration in the Phase 2 project level draft and final EIS.

Further, the description of Phase 2 indicates that: "The second phase of the project will select among the Phase 1 alternatives . . ." Obviously, a "phase" does not "select" among alternatives; a person or persons must make that selection. The DS does not identify who that person or persons will be. As noted above, no "selection" of this nature can proceed without the preparation of a final EIS on Phase 1. WAC 197-11-070, specifically establishes "Limitations on actions during the SEPA Process" states:

> (1) Until the responsible official issues a final determination of nonsignificance or final environmental impact statement, no action concerning the proposal shall be taken by a governmental agency that would:
>
> (a) Have an adverse environmental impact; or
>
> (b) Limit the choice of reasonable alternatives.

(Emphasis supplied.) The City is obligated to issue a final EIS on the Phase 1, nonproject level review, before it proceeds to select or limit alternatives.

The City must bring its environmental review process consistent with the SEPA rules or it risks having the process overturned at a later time with consequent delays to the applicant a waste of money and the public interest.

3. "ENERGIZE EASTSIDE" IS NOT AN ESSENTIAL PUBLIC FACILITY (EPF) .

Correspondence with city staff indicates that the City considers the "Energize Eastside" an Essential Public Facility (EPF) though the DS does not describe it as such. As will be demonstrated below, "Energize Eastside" is not an EPF for numerous reasons. However, CENSE is concerned that this inaccurate characterization may result in a crabbed analysis of the proposal in the DEIS, especially Phase 1.

Provisions relating to EPFs are set forth in RCW 36.70A.200. Subsection 1 of the statute lists eight EPFs; however, "electric transmission facilities" are not listed among them. WAC 365-196-550(1)(d) provides a more comprehensive list of EPFs, but again, electric transmission lines are not included.

In *Residents Opposed to Kittitas Turbines v. State Energy Facility Site Evaluation Council (EFSEC),* 197 P.3d 1153, 165 Wn.2d 275 (2008), an issue was raised as to whether the GMA provisions for EPF repealed the authority of the State Energy Facility Site Evaluation Council (EFSEC) to regulate energy facilities. (The EFSEC statute was adopted long before GMA). In rejecting that proposition, the court noted that: "The GMA makes no mention of an energy facility. . ." in RCW 36.70A.200. However, in the EFSEC statute at RCW 80.50.020, the following definition is provided: (10) "Electrical transmission facilities" means electrical power lines and related equipment." The Court held that GMA did not supersede EFSEC rules.

The exclusion of "electrical transmission facilities" from the list of EPFs is both deliberate and a part of the overall statutory scheme for regulation and permitting for energy plants or transmission lines. Should PSE wish to provide specialized consideration for its new electric transmission lines, it could file an application with EFSEC under RCW 80.50.060(3). However, it has chosen to engage in local permitting

under the municipal codes of the several jurisdictions through which its proposed line will run, obviously running the risk that one or more jurisdiction may find its proposal inconsistent with its regulations.

Consistent with the Supreme Court decision in *Residents,* the City of Bellevue Comprehensive Plan, Capital Facilities Element at page 82 provides as follows:

> POLICY CF-14. Require land use decisions on essential public facilities meeting the following criteria to be made consistent with the process and criteria set forth in Policy CF-16 :
>
> 1. The facility meets the Growth Management Act definition of an essential public facility at RCW 36.70A.200(1) now and as amended; or
>
> 2. The facility is on the statewide list maintained by the Office of Financial Management, ref. RCW 36.70A.200(4) or on the countywide list of essential public facilities;
>
> AND
>
> 3. The facility is not otherwise regulated by the Bellevue Land Use Code.

(Emphasis supplied.) As is seen, because electrical transmission lines are specifically regulated by the Land Use Code, they are not considered an EPF. Ms. Helland's comments on page 2, *infra*, confirm this.

The City will make a serious error in its SEPA review of the "Energize Eastside" project if it considers the proposal an EPF. The responsible official should direct the drafters of the draft EIS to not consider the "Energize Eastside" proposal an EPF.

4. THE DRAFT AND FINAL PHASE 1 ENVIRONMENTAL IMPACT STATEMENTS MUST GIVE THOROUGH CONSIDERATION TO ALL ALTERNATIVES.

As the City is aware, consideration of alternatives is the most important part of SEPA analysis. Indeed SEPA itself, at RCW 43.21C.030(2)(e), has a separate, action forcing provision that agencies "study, develop, and describe appropriate alternatives to recommended courses of action in any proposal which involves unresolved conflicts concerning alternative uses of available resources." Alternatives are in the forefront of environmental analysis. The SEPA rules direct that the EIS text comparatively analyze "alternatives including the proposed action." WAC 197-11-440(5).

In the present situation, alternatives analysis revolves around three basic issues. First, is there an identified and plausible need for a new transmission line? Second, are there alternative methods to meet the identified need? For an electric transmission line, are there nonstructural means to meet the need including demand management or reconfiguration of existing resources? Third, are there alternative structural methods to meet the need?

CENSE will be providing expert analysis of alternatives together with an identification of the kinds and types of review and study necessary to fully consider these alternatives. This material is incorporated by reference herein. We look forward to the careful review of these matters in the draft EIS.

In conclusion, this letter identifies serious defects and inconsistencies with SEPA Rules and statutes in the DS and associated communications with the City. These matters must be corrected immediately and before the city begins preparation of a draft EIS.

Thank you for your consideration of these comments.

Sincerely,

Aramburu & Eustis, LLP

J. Richard Aramburu

JRA:cc
cc: Clients

bellevue LifeSpring®

Helping Bellevue's Children and Their Families For Over 100 Years

Office:
P.O. Box 53203
Bellevue, WA 98015 – 3203

Thrift Shop:
167 Bellevue Square
Bellevue, WA 98004

David Pyle
Development Services Department
City of Bellevue
450 110th Ave NE
Bellevue, WA 98004

98004$5514

bellevue LifeSpring®

Helping Bellevue's Children and Their Families For Over 100 Years

June 9, 2015

David Pyle
Development Services Department
City of Bellevue
450 110th Avenue NE
Bellevue, WA 98004

Re: Scoping Comments for Energize Eastside Phase 1 Draft EIS

Dear Mr. Pyle,

On behalf of Bellevue LifeSpring, I am writing to submit comment on the Energize Eastside Phase 1 Draft EIS.

I urge you and the Development Services Department to consider the most affordable option for residents when making the decision on this project. Bellevue LifeSpring serves children and their families living in poverty in Bellevue. We provide emergency crisis support for families when they are threatened with having their utilities cut off due to an inability to pay. We know that there are families here that are living paycheck to paycheck and are having to make decisions between paying rent and feeding their children. For this reason, it is important to keep the costs of developing this project in mind.

We know that the goal of Energize Eastside is to improve reliability and dependability of the system while improving capacity to accommodate growth in our area. We just ask that you keep in mind that any significant increase in utility bills can adversely impact our low-income community.

Thank you for the opportunity to address our concerns.

Sincerely,

Jennifer Fischer
Executive Director

Office: P.O. Box 53203
Bellevue, WA 98015 – 3203

Thrift Shop: 167 Bellevue Square
Bellevue, WA 98004

Tel: 425.451.1175
Fax: 425.451.1088

www.bellevuelifespring.org
info@bellevuelifespring.org

Subject: RE: As a Bellevue resident of many years, I would appreciate a response
From: <SJNunnelee@bellevuewa.gov>
Date: 6/17/2015 1:12 PM
To: <dimande@comcast.net>
CC: <scoping@energizeeastsideeis.org>

The below message is being sent on behalf of staff in our Development Services Department –

Thank you for your comment letter regarding Puget Sound Energy's proposed Energize Eastside project. The City of Bellevue is currently analyzing the proposed project through the Environmental Impact Statement (EIS) process as required by the Washington State Environmental Policy Act (SEPA - Washington Administrative Code section 197-11) and the City of Bellevue Environmental Procedures Code (Bellevue City Code 22.02). As the majority of the project is proposed within Bellevue, the City has taken the lead role in this analysis and the project is being managed by the City's Development Services Department Land Use Division under the direction of the Environmental (SEPA)Coordinator.

The EIS process is anticipated to take approximately 2 years and has only just begun with commencement of the Phase I scoping period. More information on the Energize Eastside EIS process is available at www.EnergizeEastsideEIS.org under the 'Overview' tab. As your comment is valuable, it has been forwarded to the EIS team for inclusion in the project record. To participate directly in the EIS process please visit the project website at www.EnergizeEastsideEIS.org . Within this website you may sign up as an interested party and to receive updates on the EIS process. The website also allows for direct comment entry.

Thank you for your interest in this project. For more information please feel free to email info@EnergizeEastsideEIS.org .

Sandra Nunnelee
Executive Assistant to the City Council
450 110th AVE NE
Bellevue, WA 98004
425.452.4088 Direct Line
sjnunnelee@bellevuewa.gov
www.bellevuewa.gov

From: dimande@comcast.net [mailto:dimande@comcast.net]
Sent: Saturday, June 06, 2015 18:22
To: Council
Subject: As a Bellevue resident of many years, I would appreciate a response

Dear Mayor and City Council members,

I have lived in Bellevue for over thirty years. I am hoping to glean some further understanding about Council thinking on the matter of PSE plans.

Last night I read a letter to the editor of the Bellevue Reporter by resident John Merrill, who

presented a most interesting and seemingly informed
rebuttal about the direction Bellevue may be headed with the 18 mile, 13-story high Energize Eastside Transmission Project.

Given his presentation, I question why we would want/need to obliterate our "City In a Park"
.

Thank You. Your response is appreciated. Sincerely, Diana Mandell

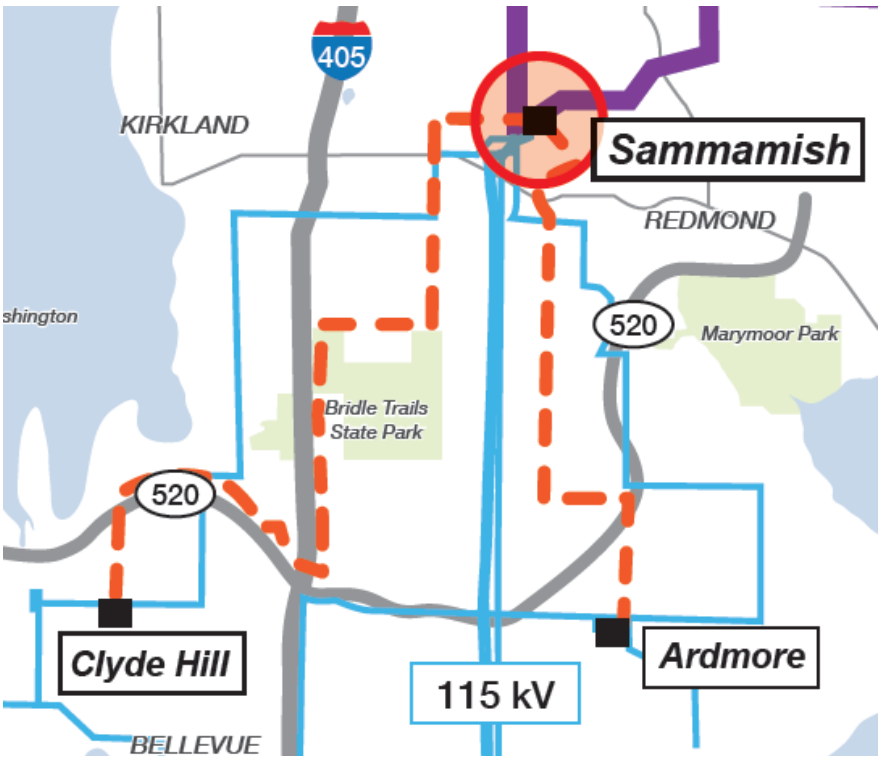
Subject: Re: Opposition to Alternative 3
From: Energize Eastside EIS <info@energizeeastsideeis.org>
Date: 6/15/2015 5:26 PM
To: Dick Hwang <platyase@gmail.com>
CC: David Pyle <dpyle@bellevuewa.gov>, Energize Eastside EIS <scoping@energizeeastsideeis.org>

Thank you for submitting comments for the Phase 1 Draft EIS. A summary of all comments submitted will be made available on the Energize Eastside EIS website later this summer (see www.EnergizeEastsideEIS.org). Individual responses to each comment will not be provided. Instead, your comments will inform the alternatives to be included in the Draft EIS and help define the environmental issues to be studied.

Reema Shakra
Energize Eastside EIS Team

On Sun, Jun 14, 2015 at 10:53 PM, Dick Hwang <platyase@gmail.com> wrote:

> To whom it may concern:
>
> I am a resident of the Bridle Trails neighborhood in Bellevue, and I am writing to voice my opposition to Alternative 3. Below is a diagram from the EIS Scoping Meeting slides showing possible routes of the additional 115 kV lines (orange dashed lines) connecting the substations in the area north of 520. The caption notes that the new connections represent electrical connections and are not geographically accurate. However, given that the prior optimization analysis suggested Segment B as one of the best routes in that area, one would expect that the connection between Clyde Hill and Sammamish would roughly follow Segment B (as it appears to roughly do so in the diagram).



Currently, there is a large clearcut swath of trees along the existing 115 kV line (take a look on google map satellite imagery). Trees of reasonable height are not allowed to grow close to the 115 kV lines for safety and reliability reasons. If we went with Alternative 3, two new large clearcut swaths would need to be cut. In particular, the Bridle Trails neighborhood is known for it's numerous mature trees. Cutting numerous trees in this area would be devastating environmentally and aesthetically to the neighborhood as well as to Bridle Trails State Park.

In addition, many of the homes along 116th Ave in the Bridle Trails neighborhood and in the dense Rose Hill neighborhood of Kirkland are located close to the public street right of way, leaving little room to build new lines. In particular, if a new 115 kV transmission line were to be build along the Segment B route, this would cross approximately 46 homes less than 30 feet from the public street right of way, with several of the homes being less than 10 feet from the public street right of way (see attached document for details of analysis). It would be rather unfortunate for a homeowner to find a transmission line tower spring up less than 10 feet from his/her front door. In contrast, the easement for the existing 115 kV line existed before the construction of the vast majority of homes, and therefore, the homes were intentionally located on the properties to maximize distance from the transmission lines.

The existence of a high pressure natural gas transmission line along 116th Ave also needs to be taken into account when considering building new lines.

Many of the other arguments against building a 230 kV line along Segment B would still apply to building a 115 kV line around this route. See http://segment-b.webs.com/ for a summary of these arguments.

Given the existence of the utility easement along the existing 115 kV transmission line with numerous trees already cut along that line, it seem reasonable to utilize that route as much as possible, without doing even worse damage to two other routes. However, I would also strongly support options that do not burden the residents along that route more than they already have to bear. So I would support findings ways to reduce peak demand so that the existing lines can be used as long as possible.

If a new 230 kV line is needed, I would support finding a way to spread the costs among a greater number of residents with a financing plan so that undergrounding becomes an option. If there can be a mechanism for spreading out the cost among all ratepayers that benefit from the upgraded transmission lines, the added cost of undergrounding would be relatively small. Per PSE's data table, the cost of using the existing "Willow" route is $154 million, with an estimated $0.90 increase per residential customer. If we underground the entire 16 mile Willow route, at an increased cost of $20 million/mile, the added cost would be $320 million, or $1.87 per month per residential customer. It could be considerably less if we left stretches above ground that are not close to any residences. I think this small increase would be worth the result of improved beauty and decrease environmental impact in our neighborhood. The increase could be adjusted for those whom it would be a financial burden.

I appreciate your taking the time to review these arguments. Please feel free to contact me to discuss this further.

Yours truly,
Dick Hwang

11810 NE 39th St
Bellevue, WA 98005
617-676-5975

Subject: Re: HUD Archives: HOC Reference Guide -- Hazards & Nuisances: Overhead High Voltage Transmission Towers and Lines (Page 1-18f)
From: Energize Eastside EIS <info@energizeeastsideeis.org>
Date: 6/15/2015 5:24 PM
To: Sue Stronk <ssbuds@comcast.net>
CC: David Pyle <dpyle@bellevuewa.gov>, Energize Eastside EIS <scoping@energizeeastsideeis.org>

Thank you for submitting comments for the Phase 1 Draft EIS. A summary of all comments submitted will be made available on the Energize Eastside EIS website later this summer (see www.EnergizeEastsideEIS.org). Individual responses to each comment will not be provided. Instead, your comments will inform the alternatives to be included in the Draft EIS and help define the environmental issues to be studied.

Reema Shakra
Energize Eastside EIS Team

On Sun, Jun 14, 2015 at 9:02 PM, Sue Stronk <ssbuds@comcast.net> wrote:

> Sunday June 14, 2015
>
> David Pyle—
> Please add this to the list of PSE EIS Scoping issues for Phase 1. See below: HUD will not issue mortgages to homes with poles within falling distance of a home. How will PSE compensate for this? I and others along this corridor will have poles **on our property which is also a PSE easement**. These towers can be up to 130' tall along a 100' wide easement between homes—roof to roof.
>
> Also BPA standards say power poles must be 75' from a gas line when running parallel to it. This cannot happen through Route M—Olympus neighborhood—in our 100 foot easement space between homes. We have 2 gas lines running down the middle of the ROW and the new poles cannot be 75 feet from the gas lines unless two rows of homes—all those on each side of the ROW would have to be removed so poles could be 75' from the gas lines! Thus costing PSE over $45-$50 million to purchase those 52 homes along just this neighborhood. Good luck getting those agreements done in 10 years!!
>
> Thus a $50 million peaker plant located in Factoria—needed only rarely-- would do the trick.
>
> How long will it take for City of Bellevue to quit drinking the PSE Kool-aid?
>
> Sue Stronk
> 12917 SE 86th Place
> Newcastle, Wa 98056
> ssbuds@comcast.net

Hazards & Nuisances: Overhead High Voltage Transmission Towers and Lines

Chapter 1
Appraisal & Property Requirements
Page 1-18f

The appraiser must indicate whether the dwelling or related property improvements is located within the easement serving a high-voltage transmission line, radio/TV transmission tower, cell phone tower, microwave relay dish or tower, or satellite dish (radio, TV cable, etc).

1. If the dwelling or related property improvement is located within such an easement, the DE Underwriter must obtain a letter from the owner or operator of the tower indicating that the dwelling and its related property improvements are not located within the tower?s (engineered) fall distance in order to waive this requirement.
2. If the dwelling and related property improvements are located outside the easement, the property is considered eligible and no further action is necessary. The appraiser, however, is instructed to note and comment on the effect on marketability resulting from the proximity to such site hazards and nuisances.

- Airports
- Railroad tracks and other high noise sources
- Flood zones and insurance
- Lead based paint
- Radon
- Overhead high voltage transmission towers and lines
- Operating and abandoned oil and gas wells, tanks and pressure lines
- Insulation materials
- Lava zones
- Avalanche hazards

Content Archived: October 25, 2012

Subject: Re: Energize Eastside, Phase 1 EIS
From: Energize Eastside EIS <info@energizeeastsideeis.org>
Date: 6/15/2015 5:29 PM
To: "Biggs, William" <biggs.w@ghc.org>
CC: "Baxter, Sam (Sam.Baxter@overlakehospital.org)" <Sam.Baxter@overlakehospital.org>, "'Shim, Edna' (edna.shim@seattlechildrens.org)" <edna.shim@seattlechildrens.org>, "Kim, Kyung (Kyung.Kim@seattlechildrens.org)" <Kyung.Kim@seattlechildrens.org>, David Pyle <dpyle@bellevuewa.gov>, Energize Eastside EIS <scoping@energizeeastsideeis.org>

Thank you for submitting comments for the Phase 1 Draft EIS. A summary of all comments submitted will be made available on the Energize Eastside EIS website later this summer (see www.EnergizeEastsideEIS.org). Individual responses to each comment will not be provided. Instead, your comments will inform the alternatives to be included in the Draft EIS and help define the environmental issues to be studied.

Reema Shakra
Energize Eastside EIS Team

On Mon, Jun 15, 2015 at 12:43 PM, Biggs, William <biggs.w@ghc.org> wrote:

> Attached please find scoping comments for the Phase 1 Energize Eastside EIS on behalf of the Bellevue Medical District (Overlake Medical Center, Children's, Group Health).
>
> Thank you.
>
> Bill Biggs
>
> **William Biggs** | Vice President, Administrative Services
> Administrative Services Division, Group Health Cooperative
>
> PHONE 206-988-7577 | CDS 600-7577
> E-MAIL biggs.w@ghc.org
>
> ---
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June 15, 2015

David Pyle
City of Bellevue
Development Services Department
450 110th Avenue NE
Bellevue, WA 98004

RE: Scoping Comments for Energize Eastside Phase 1 EIS

Dear Mr. Pyle:

On behalf of the Bellevue Medical District, we are writing to share brief scoping comments for the Energize Eastside Phase 1 EIS.

We must have power available to meet both the immediate and long-term demands of our emergency, surgical, intensive care and records systems in order to provide quality medical care to the people of the Eastside.

We ask you to review proven solutions that will ensure PSE can supply reliable electricity to serve our expanding Eastside region. As we have learned, PSE's infrastructure is not presently equipped to serve projected customer energy demands in Bellevue and throughout the Eastside, which will have a crippling effect on our ability to accommodate the health and safety needs of the local community. It becomes a major public safety issue if our hospitals and medical facilities are not powered in a consistent and reliable way. Every minute of every day, we depend on a steady delivery of power to our buildings, which cannot occur without reliable electrical infrastructure.

We support proceeding with environmental review of the four alternatives in a timely manner. While we understand a review of "no action" is required, this alternative would significantly undermine our ability to continue to provide consistent and critical care to the Eastside community.

We appreciate the opportunity to offer these comments and look forward to reviewing the Phase 1 Draft EIS.

Sincerely,

T. D. Sam Baxter
Vice President of Professional Services
Overlake Medical Center

Bill Biggs
Vice President, Administrative Services
Group Health Cooperative

Todd Johnson
Vice President of Facilities and Supply Chain
Seattle Children's

Subject: Re: PSE Energize Eastside EIS
From: Energize Eastside EIS <info@energizeeastsideeis.org>
Date: 6/15/2015 5:34 PM
To: Michelle Bates <michelle@bates.com>
CC: Carl Bates <carl@bates.com>, David Pyle <dpyle@bellevuewa.gov>, Energize Eastside EIS <scoping@energizeeastsideeis.org>

Thank you for submitting comments for the Phase 1 Draft EIS. A summary of all comments submitted will be made available on the Energize Eastside EIS website later this summer (see www.EnergizeEastsideEIS.org). Individual responses to each comment will not be provided. Instead, your comments will inform the alternatives to be included in the Draft EIS and help define the environmental issues to be studied.

Reema Shakra
Energize Eastside EIS Team

On Mon, Jun 15, 2015 at 4:23 PM, Michelle Bates <michelle@bates.com> wrote:

> May 15, 2015
>
> PSE Energize Eastside EIS Input
>
> We are writing to voice our opposition to Alternative 3 of PSE's Energize Eastside (EE) proposal. We live on 116th Ave NE along Segment B, north of SR 520.
>
> After spending over four months and viewing many homes in the Bridle Trails area, we found "the one" and moved our family to Bellevue in the summer of 1988. Some of the deciding factors were
>
> · the large, old growth trees, which we knew would be protected, due to the COB regulations in the Bridle Trails area thus maintaining the natural beauty of the surrounding neighborhoods
>
> · large pieces of property, maintaining 'horse acre' lots, again protected by COB regulations, allowing only one home, unlike what is being developed today all around us
>
> · and it felt like the country, while enjoying close proximity to the city.

The first Energize Eastside meeting we attended was about 6 months into the project. We had not been aware of EE and, just by chance, learned of it through a neighbor living a couple blocks away. We walked away from this meeting with heads swimming of statements including, but not limited to the following

- we were going to run out of power if PSE did not expand
- Segment C existing lines only had 4-5 years left and would need to be expanded/replaced at that time anyway
- current 115kv lines would need to be increased to 230kv
- the current 115kv line along 116th NE is not completely energized; PSE stated they couldn't tell us how much of it was not currently in use
- decision would need to be made as to where to locate these new lines
- poles would be quite high, 100 feet and higher
- undergrounding was not a possibility due to Washington state law that PSE had gotten changed
- undergrounding was cost prohibitive for the neighborhoods to absorb the cost
- WSDOT would not allow transmission lines to be placed along 405
- WSDOT would not allow transmission lines to be placed along the east side of 116th NE (Segment B), even though PSE's website photos portrayed these lines on the east side of 116th, when in fact, they would be placed on the west side causing a much greater negative impact to the households
- EMF is an issue, although a study was mentioned that stated otherwise
- Poles would need to be setback 15' from the edge of the right of way of our property
- There is a 30' easement on the edge of the right of way
- Trees on our property would be removed to accommodate the placement of these monstrous poles.
- There would be no compensation for decrease in property values, but the removal of the trees would be mitigated by replacing them with trees having a 15' height at maturity.
- If homeowners don't allow PSE to use their property, it was clearly stated by Andy Wappler that the eminent domain process would be used.

PSE

- has an aggressive timeline
- Although a utility, PSE is a privately held company, owned outside of U.S.
  - PSE has a responsibility to their shareholders, thus the need for them to increase their bottom line
    - § however, this comes at the expense of the households they have contracted with the COB to provide service to
  - the winners of PSE's proposed project are the investors;
  - the households are the losers
- PSE's investment is a 10 year horizon, ending in 2017
  - thus the hurry for them to push forward so fast
    - § How much of this project is for the benefit of the households PSE has contracted to provide service to?
    - § How much of this project is for the benefit of others? What is BPA's role in this? How much power will be sent to Canada or California?

· Although we are speaking specifically for those of us along Segment B and generally, for those of us along the 18-mile route from Redmond to Renton, we should not have to be negatively impacted for the benefit of others.

We are strongly against Alternative 3 for these reasons

· First of all, all of the arguments and positions used for Segment B to not have been chosen by the CAG previously still exist. Those arguments have not changed! Segment B was not chosen in the first place; it should continue to not be chosen.

- We are still concerned about the need for a project of this size and scope.
  - At one of the meetings, Councilmember Wallace likened this project to needing a can of Coke, but proposing a Super Big Gulp!

· The proximity of the new lines to our houses and structures impacted either by proximity, view, sight lines, environmentally or aesthetically. Our houses ***were never built with this project in mind.***

· The removal of hundreds of existing old growth trees along the route. This would definitely fall into the clearcutting category.

- Just as an example, our property would be left with only 2 trees from the existing 24 that are on the 116th route.

- These trees along 116th are also used to mitigate the sound from the ever growing freeway (I-405) as stated to us by WSDOT when they did analysis of freeway noise impacting our neighborhood.

- This would significantly change the character and feel of all of the neighborhoods affected that the COB and individual communities have been diligently focused on keeping Bridle Trails heavily treed to maintain the rural feel.

· With 116th running parallel to I-405, it has become an alternate route to bypass the 520/405 interchange as well as an option to enter 405 at NE 70th. More often than not, there is a line-up of cars from NE 60th south to almost Northup Way. With the removal of hundreds of trees along 116th, there will be nothing to buffer this, both from a visual perspective and noise abatement, as well as provide protection from the emissions.

· There is considerable and legitimate concern for EMF from the transmission lines as well as the corona discharge with the constant buzzing sound.

· It has been stated by real estate agents attending these EE meetings:

- Power lines are deal breakers, buyers have backed out of agreements

- Market values decrease 15 – 20% on properties near power lines taking several years to recover. PSE stated it would take about 5 years while the real estate agents stated it was closer to 10 years.

· About 50 homes have been identified along Alternative 3 less than 30 feet from the public street right of way. These homes were never designed & built with anything like this in mind.

· Utilizing the existing route, Segment C, with its utility easements makes the most sense if this project is truly needed. It utilizes an existing path requiring far less tree removal, and many of the houses along this path were designed and built with this easement and power lines in mind in term of setbacks, house orientation to lessen the impact these lines would have on their lives. The same cannot be said for any of the houses and properties along the Alternative #3 or Segment B. For example, none of the properties on 116th were situated or designed with these type of power lines in mind. OR were any of these houses designed to have a basic clear-cut along one side of their properties facing a major collector arterial (116th NE) and a major freeway (I-405).

· Utilizing the existing route and utility easement would also be the most cost

effective of the alternatives which is certainly something that should be of the utmost importance to all concerned. We have to believe that cost as well as time to complete would be significantly shorter using the existing route as opposed to trying to build a completely new route. We do support options that can be used to even further lessen the impact of these new lines on the existing route – i.e. undergrounding where possible.

· Since PSE originally stated that Segment C's life span was a 4-5 year horizon and it would need replacing at that time, it makes the most sense to choose that route.

In summation, the City of Bellevue needs to maintain our "city in the park" and protect and preserve each neighborhood's character. COB needs to provide for safe and affordable power with development that 'fits' our neighborhoods, including proper size industrial growth, but, not at the expense of environmental blight. Please consider the following:

· Is Energize Eastside even needed?

· If it is needed, many of the same concerns opposing building a 230 kV line along Segment B or Alternative 3 still valid with building a 115 kV line around the route. A summary of these arguments can be found at the following link:

  o http://segment-b.webs.com/

· If it is needed, all of the benefactors, i.e., the larger rate payer pool as well as other potential users of this power such as, BPA, Canada, California, etc., should help pay for this project and help mitigate the impacts. A larger pool of resources can provide the money to do it right, i.e. undergrounding.

· Are we truly using the best and most current means of delivery of the product to minimize the impacts to the residents along the route?

· Don't solve 21st century problems with 20th century technology.

· This projected Alternative 3 will substantially change the look, feel and livability of the affected neighborhoods. These neighborhoods were never created, designed and built with anything like what is proposed in mind.

· At one of the meetings attended, Daniel Wren noted a story about a boy who had done something wrong.

  o He said to his dad "I didn't try to do that".

  o The father's response "But you didn't try hard enough not to".

§ Let's not make this be the outcome for Bellevue.

Respectfully submitted by

Carl and Michelle Bates

11600 NE 36th Place

Bellevue, WA 98005

carl@bates.com

michelle@bates.com

Subject: Re: Energize Eastside
From: Energize Eastside EIS <info@energizeeastsideeis.org>
Date: 6/15/2015 5:28 PM
To: Kelly Yamaichi <kelly.yamaichi@icloud.com>
CC: David Pyle <dpyle@bellevuewa.gov>, Energize Eastside EIS <scoping@energizeeastsideeis.org>

Thank you for submitting comments for the Phase 1 Draft EIS. A summary of all comments submitted will be made available on the Energize Eastside EIS website later this summer (see www.EnergizeEastsideEIS.org). Individual responses to each comment will not be provided. Instead, your comments will inform the alternatives to be included in the Draft EIS and help define the environmental issues to be studied.

Reema Shakra
Energize Eastside EIS Team

On Mon, Jun 15, 2015 at 8:12 AM, Kelly Yamaichi <kelly.yamaichi@icloud.com> wrote:

> TO WHOM IT MAY CONCERN:
>
> We are firmly opposed to alternative 3 of where to place these lines. Too much land and trees will be taken along 116th Ave to place these poles. This is an environmentally bad idea and we hope you will consider other alternatives.
>
> Thank you for your consideration.
>
> Carlos and Kelly Pellegrini
> 11901 NE 36th Place
> Bellevue, WA 98005
>
> Sent from my iPad

Subject: Re: Opposition to alternative 3
From: Energize Eastside EIS <info@energizeeastsideeis.org>
Date: 6/15/2015 5:30 PM
To: Claire Knierim <claireknierim@gmail.com>
CC: David Pyle <dpyle@bellevuewa.gov>, Energize Eastside EIS <scoping@energizeeastsideeis.org>

Thank you for submitting comments for the Phase 1 Draft EIS. A summary of all comments submitted will be made available on the Energize Eastside EIS website later this summer (see www.EnergizeEastsideEIS.org). Individual responses to each comment will not be provided. Instead, your comments will inform the alternatives to be included in the Draft EIS and help define the environmental issues to be studied.

Reema Shakra
Energize Eastside EIS Team

On Mon, Jun 15, 2015 at 1:24 PM, Claire Knierim <claireknierim@gmail.com> wrote:

> I am a resident of the Bridle Trails neighborhood in Bellevue, and I am writing to voice my opposition to Alternative 3 .
>
> This opposition has been well stated by Dick Hwang in his E-mail dated June 14, 2015 about 115KV alternative paths.
>
> Claire Knierim
> 11920 NE 39th St
> Bellevue, WA 98005

Subject: Fwd: FW: Emailing - 2015-06-08 PSE Energize Eastside 230kV.pdf
From: Energize Eastside EIS <info@energizeeastsideeis.org>
Date: 6/15/2015 5:35 PM
To: Energize Eastside EIS <scoping@energizeeastsideeis.org>

---------- Forwarded message ----------
From: <CHelland@bellevuewa.gov>
Date: Mon, Jun 15, 2015 at 4:45 PM
Subject: FW: Emailing - 2015-06-08 PSE Energize Eastside 230kV.pdf
To: info@energizeeastsideeis.org

From: Kodani-Lee, Nancy
Sent: Monday, June 15, 2015 4:44 PM
To: Helland, Carol; Pyle, David
Cc: Berens, Mary Kate
Subject: Emailing - 2015-06-08 PSE Energize Eastside 230kV.pdf

Please find the attached the electronic version of the Puget Sound Energy “Energize Eastside” 230 kV Transmission Line Project Proposal EIS Scoping Letter signed by Mayor Balducci.

Attachments:

2015-06-08 PSE Energize Eastside 230kV.pdf	159 kB

City of Bellevue

City Council • Phone (425) 452-7810 • Fax (425) 452-7919
Post Office Box 90012 • Bellevue, Washington • 98009 9012

June 8, 2015

VIA E-MAIL & U.S. MAIL

Carol V. Helland, Environmental Coordinator
David Pyle, Senior Planner
City of Bellevue
PO Box 90012
Bellevue, WA 98009-9012

RE: Puget Sound Energy "Energize Eastside" 230 kV Transmission Line Project Proposal EIS Scoping

Dear Ms. Helland:

Below please find the Bellevue City Council's comments regarding the appropriate scope for the above-referenced transmission line project proposal (the "Proposal") in connection with the Phase 1 Environmental Impact Statement ("EIS"). While Bellevue has agreed to act as Lead Agency for purposes of environmental review, this project will cover area in up to five Eastside cities.

The Bellevue City Council on behalf of its citizens has an interest in the scope and thoroughness of the environmental review, and therefore it is appropriate that the City representatives provide comments to the Environmental Coordinator. The regulatory requirements for expanded scoping (the process being applied to the Proposal) are intended to be a flexible framework that encourages lead agencies to promote public participation, interagency cooperation, and use of innovative methods to streamline the SEPA process, as the lead agency deems appropriate. WAC 197-11-410.

Within this context the Bellevue City Council, operating in its role as representatives of the community, submits these comments on behalf of the City of Bellevue and its citizens to help ensure that the EIS adequately considers sufficient feasible and reasonable alternatives to the Proposal under the State Environmental Policy Act. The City of Bellevue engaged an independent analysis of the Energize Eastside Proposal (the Independent Technical Analysis, or ITA). This study validated the need for a solution to address growth in Bellevue, the reliability of the electric grid on the Eastside, and regional power flows. We would like the Phase 1 programmatic portion of the EIS to include within its scope the examination of the other potential solutions to the demonstrated need; including:

- Alternative infrastructure solutions;
- Alternatives to a wired solution (including advancements in new technology alternatives); and
- Alternative alignments for the Proposal.

In examining these solutions we would like the Phase 1 EIS scope to consider elements of the environment and environmental health, including earth, air, water, plants and animals, neighborhood impacts, visual impacts, aesthetics, land use, community character, feasibility considerations, compatibility with surrounding uses, safety and reliability.

The scoping notice does address the purpose of the EIS as follows: to evaluate the proposal to build, "as necessary" the project, to supply future electrical capacity and improve electrical grid reliability for the Eastside (including the principal permitting jurisdictions). It is our recommendation that the DEIS should provide a more detailed statement of purpose and need.

It is the Bellevue City Council's understanding that the current proposed draft scope of the Phase 1 EIS includes study of four alternatives. In analyzing these alternatives, the EIS scope should include the following:

1. **Alternative 1 – Adding a new 230kV to 115kV substation and connecting it with the Talbot Hill and Sammamish substations via a new 230kV transmission line**

    a. Comparative study of Alternative 1 with alternatives to this proposal which meet local need as identified in the Independent Technical Analysis, including alternative infrastructure solutions (the "right size" need) and alternative route alignments and voltage configurations to the Proposal informed by the following conceptual frameworks:

        i. Prioritizing alignment through areas driving growth and need;
        ii. Options for collocation with existing or proposed infrastructure that consider environmental health and physical safety impacts including those impacts associated with seismic events.

        Note: the City Council understands that as outlined in the notice of scoping period, in the event that Alternative 1 is selected during the Phase 2 of the EIS process for the Proposal, additional detailed impacts of alternate routes may be analyzed at a project level. Nonetheless, alternate routes should be considered as part of the Phase 1 analysis of proposed Alternative 1 with respect to potential significant adverse impacts, in order to allow an informed choice among Phase 1 alternatives.

    b. Analyze energy demand and use forecast methodologies, including methodologies for determining "right size" extent of need for new transformer and transmission line.

    c. Examine impact on elements of the environment of designing the Proposal to NERC Transmission Planning Standards TPL-001-4.

    d. Whether the Proposal's transmission line technology represents an industry standard amongst alternative infrastructure solutions.

    e. Explore as part of the alternative the impacts to the environment of undergrounding the transmission line including submerged routes (lake location), including entirety of line or segments of line.

    f. Analyze pole design considerations (height, form, location)

2. **Alternative 2 – Demand Side Reduction/Non-Wire Technologies**

    a. Explore use of new technologies and conservation efforts including:
        i. Grid management
        ii. Battery storage
        iii. Consideration of anticipated increases in distributed generation (e.g. rooftop solar)
        iv. Other alternatives that meet reliability standards

3. **All Alternatives (including Alternative 4, no action)**

   a. Combined, or hybrid alternatives should be identified and explored. These alternatives should consider combining or blending one or more elements of each of the four alternatives in light of the proposed objectives. For example, combinations of demand-side reduction and use of new transformers and existing transmission lines or regional alternatives (described below) should be included with the scope of analysis. Other examples of hybrid alternatives should be identified based on potential to mitigate reasonably anticipated significant adverse environmental impacts;

   b. Other alternatives examined through the Puget Sound Area Study Team (PSAST) including regional alternatives to determine transmission facility expansions to address south-to-north transfers including the existing Seattle City Light transmission line (Maple Valley-SnoKing 230kV);

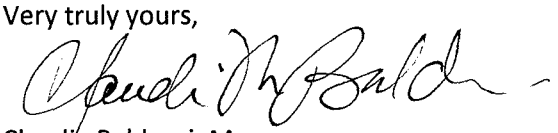
   c. AC/DC conversion technologies;

   d. Examine the feasibility of alternatives, including potential practical barriers to implementation and the potential financial impact to ratepayers of choosing one of the alternatives over the other alternatives; and

   e. Because this project is cast as a solution to solving both local and regional capacity and redundancy, it may be that BPA or other federal funding may be sought by PSE for construction of Energize Eastside. If federal funds are used, or federal permits are involved, the National Environmental Policy Act ("NEPA") does call for an analysis of economic impacts of the project. Therefore, if that is the case, for all the alternatives, examine the impacts during and after construction to adjacent property, including noise, traffic, visual impacts, vibration, public safety, and any other potential significant adverse impacts.

Thank you for this opportunity to provide comment regarding the scoping of this EIS. We understand that as the Environmental Coordinator you must evaluate all comments within the framework of SEPA and its regulatory guidance.

Very truly yours,



Claudia Balducci, Mayor
City of Bellevue

Subject: Fwd: Comments submitted into EE EIS Phase I scoping period process
From: Energize Eastside EIS <info@energizeeastsideeis.org>
Date: 6/15/2015 5:43 PM
To: Energize Eastside EIS <scoping@energizeeastsideeis.org>

---------- Forwarded message ----------
From: <NMatz@bellevuewa.gov>
Date: Fri, Jun 12, 2015 at 11:06 AM
Subject: Comments submitted into EE EIS Phase I scoping period process
To: info@energizeeastsideeis.org

David-

I am attaching here comments submitted for the EE EIS Phase I scoping process.

These comments are questions posed to the Independent Technical Analysis review process that were outside of the scope of services of the ITA contract scope of services. The city review process committed to submitting these questions, originally submitted under the Ask the Consultant community engagement task of services, as now submitted into scoping for the Energize Eastside EIS.

Thank you for your consideration in this matter.

Nicholas Matz AICP

Senior Planner

425 452-5371

One City
Committed to Excellence

Attachments:

Ask the Stakeholder comments documented in the ITA for EE EIS Scoping submittal.docx	22.3 kB

June 12, 2015

This lists questions posed to the Independent Technical Analysis review process that were outside of the scope of services of this contract. These questions, originally submitted under the Ask the Consultant community engagement task of services, are now submitted into scoping for the Energize Eastside EIS.

Q# = Ask the Consultant submitted question numbered for the report

ITA page= the location in the ITA of the question

ITA question= the text of the submitted question, **submitted to EIS scoping in this format**

ITA answer = the answer provided by USE Inc, noting here that it is not intended to be a scoping response.

Original Source (et al) = the source of the question (see attached reference sheet)

Q #	ITA page	ITA Section	ITA Question	ITA Answer	*Original Source/ Question or comment/ Date/**Filter***
Q5	26		Is PSE using all the available Demand Response initiatives/opportunities?	Available Demand Response initiatives/opportunities were evaluated as to whether they were achievable and technically feasible. Then PSE used a generation optimization tool to identify the lowest cost combination of resources that a) meet capacity need b) meet renewable resources/RECs need, and c) included as much conservation as was cost effective. (Once the capacity and renewable resources/RECs needs are met, the decision to include additional conservation bundles is simply whether that next bundle of measures increases the cost or decreases it. The IRP has the objective of providing reliable and least-cost electric service to its customers while addressing applicable environmental, conservation and renewable energy requirements. For example, Pacificorp states that the objective of the IRP is "…providing reliable and least-cost electric service to all of our customers while addressing the substantial risks and uncertainties inherent in the electric utility business." Energy Efficient West Virginia states that IRP is a process used by utility companies to determine the mix of resources that will meet electricity demand at the lowest cost.	*Borgmann Q4 2/3 **EIS***
Q18	37		What have been the highest actual aggregate winter peak loads on Eastside feeders and distribution lines …? How would they relate to PSE's forecast of future loads?	The aggregate peaks for the Eastside area are captured in the historical data shown in Figure 6.19. The historic loads are included in the regression analysis which results in the forecast of future loads.	*Merrill Q2 2/12 **EIS***

Q #	ITA page	ITA Section	ITA Question	ITA Answer	*Original Source/ Question or comment/ Date/**Filter***
Q26	39		Is it possible that the industry-standard methodology which PSE uses to forecast load growth has not evolved to reflect the realities of the current electricity marketplace? Are there any newer methodologies, or modifications to existing methodologies, which better reflect the realities of the modern electricity marketplace?	This question is outside the scope of this study; however, the IRP process continues to get attention, and frequently includes input from stakeholders, which is where Demand-Side Resources are evaluated and feed into the forecast process.	*Merrill Q4 2/12* ***EIS***
Q31	40		How does PSE justify an Eastside growth rate of 1.7% to 2%?	PSE used reasonable methods to develop the 2014 forecast by following industry practice (see Section 6.6). The forecast is built from the data inputs via regression analysis. The 2014 demand forecast shows a 2.4% growth rate for the Eastside area from 2014-2024 and a 2.5% growth for Eastside between 2014 and 2031. In comparison, the forecast shows a 1% growth rate for King County between 2014 and 2031. The Eastside area demand is projected to grow significantly faster than King County as a whole, which is in line with the land use Vision 2040 Regional Growth Strategy report. Whether the forecasted demand growth will be sustained through 2031 is unknown. Note: if the growth rate is calculated from the 2010 actuals through 2017, the growth rate is 2.2% for Eastside and 0.4% for King County. See Figure 6.18 and Figure 6.19. Note: SCL's "demand" forecast growth of 0.5% noted in their latest IRP update is actually an energy forecast. SCL's actual demand forecast from December 2013 to December 2034 has an estimated compound annual growth rate (CAGR) of 1.2%, based on an estimated 1180 MW in December 2013 and using their IRP demand graph as reference. PSE has a CAGR of 2.4% from winter 2013/14 to winter 2031/32 based on an estimated 615 MW in winter 2013/14.	*Borgmann Q3 2/13* ***ITA-EIS*** *Marsh Q7 2/10* ***EIS***
Q33	40		Please explain PSE's "Eastside Customer Demand Forecast" chart. A detailed quantitative analysis for the years is needed	Please see discussions in Section 6.2 on the economic and demographic data sources, the Vision 2040 Regional Growth Strategy, and Section 6.4 on Major Loads. Please see Section 4 on Energy vs. Demand and Q4 on potential impact of solar on a winter peak.	*Kim Q2-Q4 2/9* ***EIS*** *Alford 2/11* ***EIS***

Q #	ITA page	ITA Section	ITA Question	ITA Answer	*Original Source/ Question or comment/ Date/**Filter***
			on this chart. There have been several credible articles stating electrical usage is not growing but is flat, even declining in the United States. This trend is apparent over several years and is due to conservation and technological changes in production, usage and storage. How does Energize Eastside explain this disparity? Also, solar energy has been increasing on the Eastside.		
Q39	51		How are EE "need" and "reliability" related? How many outages in the next 10 years (2017-2027) are anticipated to be avoided by implementation of EE, due to transformer limitations or otherwise stressing system capacity due to local Eastside growth (excluding unpredictable weather events)?	EE need is related to reliability by the requirement that when overloads occur during a planning assessment under the contingencies that are required to be run (see the discussion of TPL-001-4 in the Independent Technical Analysis), there is by definition a need. This need is not necessarily EE, but something must be done to mitigate the overloads seen in the planning assessment. The question of how many outages may be avoided by implementation of EE is not relevant to the question of need. The Reliability Standards require that a defined set of contingencies be run on the system model. If overloads or other violations are found, then a Corrective Action Plan must be produced. The fact that a Corrective Action Plan is needed demonstrates that there is a need.	*Borgmann Q6 2/3 **ITA-EIS***
Q44	52		Questions about reliability, outages, contingency analysis.	As noted in responses to other questions, probability of an outage is not considered in determining need using the NERC TPL-001-4 Reliability Standard. When performing a planning assessment all outages need to be simulated and if there are any overloads or other violations, then a Corrective Action Plan must be developed. What is included in this Corrective Action Plan will vary depending on the type of outage and what sort of mitigation is allowed for that outage in the TPL-001-4 Reliability Standard. However, need is established as soon as a Corrective Action Plan needs to be developed.	*Marsh 2/10 **EIS***
Q49	58	9. Regional Issues related to EE	What is the connection between the need for EE and Columbia	The CG technical objective is to identify effects of multiple systems that prevent fulfillment of firm transmission commitments. Mitigating	*Borgmann Q5 2/3 **ITA-EIS***

Q #	ITA page	ITA Section	ITA Question	ITA Answer	*Original Source/ Question or comment/ Date/**Filter***
		Stakeholder Questions related to Regional vs. Local Need	Grid (CG) technical objectives?	transmission effects that do not involve multiple systems is not within the CG mandate. After the effects are identified, the multiple system owners are convened as a team facilitated by CG to identify mitigating alternatives and select the preferred alternative. The proposed 230kV scope of EE is identified by the CG facilitated team as a preferred alternative to reconductoring SCL's Maple Valley-SnoKing 230kV lines. EE at 230kV also changes the SCL scope of rebuilding the Bothell-SnoKing 230kV lines to reconductoring these lines.	
Q50	58		How are the technical needs of Columbia Grid prioritized and what criteria are used for evaluation and prioritization?	CG performs system assessments to determine forecasted transmission constraints to serving firm transmission commitments. A constraint that affects more than one member is the criteria for creating a study team, facilitated by CG, composed of the affected members. The study team mandate is to determine the mitigating alternatives and select the preferred alternative. Each study team determines their own evaluation and prioritization criteria. In the Puget Sound Area Study Team (PSAST), the criteria is a qualitative combination of cost and a planning metric (i.e. Transmission Curtailment Risk Measure or TCRM).	*Borgmann Q5 2/3* ***ITA-EIS***
Q51	58		Who has regulatory oversight of Columbia Grid?	There is no government regulatory oversight of CG. The oversight is by CG members, who have their own government regulatory oversight at state and federal levels. CG has no construction authority. The only CG authority is determining cost allocation, but this authority is only used if members do not agree on the cost allocation for a project they agree to implement.	*Borgmann Q5 2/3* ***ITA-EIS***
Q52	58		Is EE an "OPEN ACCESS" project?	No. An "Open Access" project provides new requested transmission service. This project provides service for existing firm obligations. (The longer answer is as follows: This answer assumes that "Open Access" refers to a transmission service request under a transmission provider's Open Access Transmission Tariff (OATT). These transmission service requests are for new transmission service that involve study requirements, facility addition determinations, and FERC pricing policies. Since EE is for load growth that falls under existing transmission service, it isn't "open access" because it is not new transmission service. .	*Borgmann Q7* ***EIS***
Q53	58		How are the merits of each need evaluated independently and which need takes priority?	The CG PSAST team evaluated the regional, multi-system needs for bulk power transfers independent of local load service needs. The local load service need is evaluated by the single systems. If a single system project	*Borgmann Q7 2/3* ***EIS***

Q #	ITA page	ITA Section	ITA Question	ITA Answer	*Original Source/ Question or comment/ Date/**Filter***
				(e.g. EE at 230kV) affects multi-system power transfer needs, then it is included in the multi-system evaluation. Firm commitments, regardless of bulk power transfers or local load service, are equal priority to be addressed and issues mitigated.	
Q54	59		Please describe how the need for EE and Power Wheeling are connected. What are PSE's power wheeling objectives for EE, and how much of the EE need is based on the ability to participate in additional power wheeling?	Wheeling is the transportation of electric power over transmission lines by an entity that does not own or directly use the power it is transmitting. (from PSE's Energize Eastside website, based on 2012 forecast) "PSE makes no profit on wheeling power. All revenue obtained from wheeling contracts is passed directly back to our customers in the form of lower rates. PSE does have contracts to wheel power across the region; those contracts bring in revenue of roughly $28 million a year. One hundred percent of this revenue is returned to our customers in the form of a rate reduction. As we stated in our presentation, 92-97% of the power flows on the Energize Eastside line will deliver electricity to local Eastside customers. The power flow studies show that the power used for regional purposes on the Energize Eastside project is 3 to 8% - not 38% (as was incorrectly stated at the meeting). This is the natural consequence of connecting a transmission line into an interconnected system." June, 2014 http://energizeeastside.com/Media/Default/CAG/Meeting3/2014_0609_CAGLetter_SCL.pdf	*Borgmann Q12 2/3* ***EIS-ITA***
Q63	70		Is EE a "BLENDED PROJECT" to satisfy the needs of Columbia Grid, BPA grid reinforcement (Monroe-Echo Lake bottleneck), Columbia River treaty "Canadian Entitlement" curtailments, Seattle City Light load needs, as well as PSE load growth?	The term "Blended Project" is not clear. However, the OTA results do show that there is a need for a project to satisfy local needs. A review of ColumbiaGrid documentation indicates that EE will also help satisfy a regional need which is why EE was included in the recommended transmission solution from ColumbiaGrid Puget Sound Area transmission planning activity.	*Borgmann Q5, Q7 2/3* ***EIS*** *Osterberg 1/15* ***EIS***

Subject: Re: My Comments on Energize Eastside Alternatives
From: Energize Eastside EIS <info@energizeeastsideeis.org>
Date: 6/15/2015 5:27 PM
To: philmalte@comcast.net
CC: David Pyle <dpyle@bellevuewa.gov>, Energize Eastside EIS <scoping@energizeeastsideeis.org>

Thank you for submitting comments for the Phase 1 Draft EIS. A summary of all comments submitted will be made available on the Energize Eastside EIS website later this summer (see www.EnergizeEastsideEIS.org). Individual responses to each comment will not be provided. Instead, your comments will inform the alternatives to be included in the Draft EIS and help define the environmental issues to be studied.

Reema Shakra
Energize Eastside EIS Team

On Mon, Jun 15, 2015 at 7:07 AM, <philmalte@comcast.net> wrote:

> With respect to Energize Eastside, I strongly oppose Alternatives 1 and 3.
>
> Alternative 1 would build an electric superhighway through Bellevue and the Eastside. It is overkill for providing electricity to the Eastside. (But it work great for moving many many megawatts of electrical power from the Columbia Grid to Canada and from Canada to California! Such a massive transmission system should NOT good through a highly urbanized area.) PSE has never played straight with folks about how much electrical power and energy the Eastside actually uses, so how can its forecasts be trusted. I strongly suspect that Eastside electrical power and energy needs could be met well into the future by the following:
> 1. Adding backup 230-115 kV transformers at the Sammamish and Talbot Hill stations.
> 2. Upgrading the existing 115 kV lines, without masively higher poles.
> 3. And perhaps running a new 115 kV line along the I-90 corridor from Lake Tradition to Lakeside station. I assume this would also require a new 230-115 kV transform at Lake Tradition. (Lake Tradition is an interesting site. Since it is very close to the main natural gas pipeline, a peaking gas turbine generator could possibly be located therefor, and run a few hundred hours per year to meet peak demand. These machines have low NOx combustors, and are widely used in the US.
>
> Alternative 3 is ridiculous: 50 miles of 115 kV lines running all over the place, destroying who knows how many trees. Who thought this up? Please take this off the table before terrible mistakes are made.
>
> The only Alternative that makes sense is the Non-Wires solution, relying on our intelligence to develop a rationale and realistic plan of Distributed Generation, Combined Heat and Power, Energy Efficiency, and Smart Grid Technology. The studies that PSE has so far commissioned on this don't go far enough -- don't do justice to this Alternative. This is an Alternative with low environmental impact compared to 1 and 3. It needs a much more careful and rigorous study than has been done so far.
>
> Phil Malte
> 11750 NE 36th Place
> Bellevue, WA 98005

Subject: Re: Energize Eastside (proposed PSE project) - Environmental Impact Statement
From: Energize Eastside EIS <info@energizeeastsideeis.org>
Date: 6/15/2015 5:35 PM
To: Richard Knierim <rhknierim@gmail.com>
CC: David Pyle <dpyle@bellevuewa.gov>, Energize Eastside EIS <scoping@energizeeastsideeis.org>

Thank you for submitting comments for the Phase 1 Draft EIS. A summary of all comments submitted will be made available on the Energize Eastside EIS website later this summer (see www.EnergizeEastsideEIS.org). Individual responses to each comment will not be provided. Instead, your comments will inform the alternatives to be included in the Draft EIS and help define the environmental issues to be studied.

Reema Shakra
Energize Eastside EIS Team

On Mon, Jun 15, 2015 at 4:35 PM, Richard Knierim <rhknierim@gmail.com> wrote:

> To whom it may concern:
>
> From Richard Knierim, 11920 NE 39th St, Bellevue, WA 98005-1250 (rhknierim@gmail.com)
>
> I strongly support the discussion sent by Dick Hwang June 14, 2015, including opposition to “Alternative 3” and additional consideration of underground option.
>
> I have expressed concern about incomplete / misleading information provided in the past by PSE employees.
>
> My major concern at this time, in view of information previously provided by PSE employees, is that misleading / incomplete information may have been presented by PSE employees about multiple issues, including underground options.
>
> Summary of one example of misleading / incomplete information presented by PSE employees:
>
> A June 9, 2014 letter from Ms. Kostek and Ms. Aliabadi described a 2.5 mile submarine cable in San Francisco Bay with 1 mile underground cable at a cost of $56.2 million per mile.
>
> Not mentioned by PSE employees:
>
> A 2010 New York Times article describes a 53 mile cable under San Francisco Bay at a cost of $9.53 million per mile. It also mentions a 33 mile cable under San Francisco Bay, cost not stated.
>
> http://www.nytimes.com/2010/03/17/business/energy-environment/17power.html?_r=0

Brief search June 15, 2015 found the following:

https://en.wikipedia.org/wiki/Trans_Bay_Cable

http://www.transbaycable.com/the-project/

http://www.ecmag.com/section/your-business/trans-bay-cable-completed-under-san-francisco-bay

http://tdworld.com/underground-tampd/beneath-bay

https://en.wikipedia.org/wiki/Submarine_power_cable

http://www.elp.com/articles/2014/05/transmission-company-files-for-underwater-underground-power-line-across-u-s-canada-border.html

Additional information:

I sent the following to Nicholas Matz, AICP, Bellevue Senior planner and members of Community Advisory Group (CAG) July 10, 2014:

To: Nicholas Matz, AICP, Senior Planner, Bellevue, WA

From: Richard Knierim, 11920 NE 39th St., Bellevue, WA 98005-1250

It is my opinion that Puget Sound Energy officials have provided incomplete and misleading information.

From New York Times, March 16, 2010:

Underwater Cable an Alternative to Electrical Towers

http://www.nytimes.com/2010/03/17/business/energy-environment/17power.html?_r=0

"a 53-mile cable under San Francisco Bay cost about $505 million" = $9.53 million per mile

"New York has not had a major new overhead power line in 20 years."

"...the underwater approach solves some intractable problems. In San Francisco, for example, old power plants that burn natural gas are about to be retired because a new transmission company has succeeded in running a line 33 miles across the San Francisco Bay."

From June 9, 2014 letter to Community Advisory Group (CAG) members and alternates:

...

3. Other undergrounding and submarine projects

A few people asked us to look into an underground project in New Jersey and a submarine cable project in San Francisco. We have provided a summary and links to project information below.

The North East Grid Reliability Project

Public Service Electric & Gas Company (PSE&G), a New Jersey utility, is upgrading its power service in the northern part of New Jersey from its current 138 kV to 230 kV. This project includes both overhead and underground lines. Specifically, they are:

- Upgrading 50 miles of 230 kV overhead line
- Installing 18.5 miles of new 230 kV underground cable

The project is estimated at $907 million. However, the project cost is not broken down by overhead and underground. We have contacted the project team at PSE&G and asked for a break down. Unfortunately, they declined to provide that as it is not public information.

Here's the link to the project site: http://www.psegtransmission.com/reliability-projects/northeast-grid- reliability-project

Embarcadero/Potrero Transmission Project (the San Francisco project)

Pacific Gas and Electric (PG&E), a California utility serving the San Francisco area, is constructing a new 230 kV underground and submarine transmission line in San Francisco between its Embarcadaro substation and the Potrero switch yard, which are located within the city of San Francisco. The transmission line is 3.5 miles in total, broken down as:

- 2.5 miles of 230 kV submarine cable (installed in the San Francisco Bay)
- 1.0 miles of underground 230 kV

The cost of this project is $196.8 million, which averages out to $56.2 million per mile. Here is the link to the project description http://www.cpuc.ca.gov/Environment/info/aspen/embarc- potrero /fmnd/4_project_description.pdf.

What is important to remember is that regardless of whether the cost to underground/submarine the transmission lines is $13 million or $56 million per mile, it is the decision of the community – and not PSE – whether to invest in underground/submarine power lines. If the community is amenable to undergrounding the power lines and provides the funds upfront, PSE will initiate the engineering and design of the underground lines.

We hope this information clarifies some of the questions asked. We'll be bringing additional information about completed underground transmission line project costs to the next meeting. Again, we would like to thank you for your participation in this important project for the community, and we will see you on June 25th.

Cordially,

Leann Kostek, Senior Project Manager

Gretchen Aliabadi, Communications

Responses about message to Mr. Matz:

Greetings Darius, and all...
Re: Underwater cable...for a portion, actually not misleading...
I agree with you that it was only suggested from I-90 south from the East Channel Bridge where there is already a submerged cable crossing to Mercer Is. (115KV) and there is another just on the south side of the Seahawk facility for redundancy.
This is the first I've heard of anything north of I-90...which as Floyd rightly suggests is not viable and not going to happen. However, the Lakeside Substation is actually quite close to I-90 and the East Channel route...I think just 12 blocks. And new underwater water jet technology exist that is capable of digging a 6' deep trench, significantly reducing costs..it has been done, is being done elsewhere and is quite possible for that segment. The lake bottom of Lake Washington is basically flat and mud.
I/we (CENSE) continue to believe this requires further study and consideration.
Regards,
Steve
Steve O'Donnell
2014 Pres. of the Somerset Community Assoc./CAG and Co-Founder of www.CENSE.org
(C) 206-953-6483

-----Original Message-----
From: Darius Richards
Sent: Mon, Jul 14, 2014 9:33 pm
Subject: RE: underwater cable projects and misleading information from PSE

I'm guessing that most people who have been promoting submarine cable were only envisioning it for the area south of I-90. To utilize it for the entire route, in the 'E' configuration described by Floyd, in the area north of I-90, doesn't make sense, for the reasons cited by Floyd. That idea wasn't even on my radar....don't know about the rest of you...

Darius Richards

From: Floyd Rogers

Subject: RE: underwater cable projects and misleading information from PSE
Date: Mon, 14 Jul 2014 17:50:09 -0700

Richard;

I wanted to reply directly, to you and all recipients, to call your attention to a serious oversight in people's consideration of under-water cables for Energize Eastside. I believe that the PSE people haven't mentioned it because an underwater option is not being seriously considered – for good reasons.

In plain words: using an under-water cable to connect the Renton and Redmond substations is a complete canard, and will not obviate the need for overhead or underground segments. (Sorry for the big words; one of my foibles!)

Take out a map and look at the overall system, with the Sammamish substation at the north, Taylor at the south, Lake Washington to the west. Locate the three potential sites for a new substation in Bellevue (Vernal, Westminster and Lakeside.) Remember: to accomplish the mission of this upgrade (reliability), at least one of those substations

must be built.

Now consider a Capital Letter “E” and overlay it on the map: it is obvious that the under-water portion (in Lake Washington) is the vertical stroke of the “E”, and that there must be three horizontal portions to connect any underwater cable to the three substations. Those three segments are each about 3 miles long. The northern one would need to go through heavily populated portions of Kirkland, the middle one near I90, 520 or central Bellevue, and the southern one via a portion of the L route.

Because of these considerations, an underwater solution will not be cheaper, will not solve routing problems (other than by shifting them to other neighborhoods than currently under review), and will be the longest and almost certainly the most costly. It is also probably the least amenable to any future expansion, as a new horizontal leg would have to be built to connect any new needed substation (beyond the one under consideration.)

Any discussion of underwater cables should not be considered at this time.

Floyd Rogers

Respectfully submitted,
Richard Knierim
11920 NE 39th St
Bellevue, WA 98005-1250
June 15, 2015, 4:35 pm

Subject: Re: EE EIS Phase 1 Scoping Period comment
From: Energize Eastside EIS <info@energizeeastsideeis.org>
Date: 6/15/2015 5:39 PM
To: "Steve O'Donnell" <sdofour@aol.com>
CC: David Pyle <dpyle@bellevuewa.gov>, Energize Eastside EIS <scoping@energizeeastsideeis.org>

Thank you for submitting comments for the Phase 1 Draft EIS. A summary of all comments submitted will be made available on the Energize Eastside EIS website later this summer (see www.EnergizeEastsideEIS.org). Individual responses to each comment will not be provided. Instead, your comments will inform the alternatives to be included in the Draft EIS and help define the environmental issues to be studied.

Reema Shakra
Energize Eastside EIS Team

On Mon, Jun 15, 2015 at 4:58 PM, <sdofour@aol.com> wrote:

> ***To: EE EIS and David Pyle,***
>
> ***Re: EE EIS Phase 1 Scoping Period Comment***
>
> ***I request that the EE EIS ConsultANT ESA study***
> ***the Building Codes for all Five Eastside Jurisdictions involved***
> ***with EE to determine deficiencies with respect to energy efficiency***
> ***for the nearly 40 projects planned in Bellevue CBD and the Bell-Red Corridor***
> ***in coming years as well as major projects in Redmond, Kirkland,***
> ***Renton and Newcastle to determine what Conservation Measures***
> ***could be put in place that would significantly diminish***
> ***and/or render EE unnecessary, if in fact it really is, by making all of the new building***
> ***and development much more energy efficient and reducing their electrical need.***
>
> ***Sincerely,***
>
> ***Steve O'Donnell, Pres.***
> ***CENSE***
> ***12819 SE 38th St. #294***
> ***Bellevue, wa. 98006***
>
> ***SDOFOUR@AOL.COM***
> ***(c) 206-953-6483***

Subject: Re: Newcastle Scoping Comments
From: Energize Eastside EIS <info@energizeeastsideeis.org>
Date: 6/15/2015 5:31 PM
To: Tim McHarg <TimM@ci.newcastle.wa.us>
CC: "David Pyle (DPyle@bellevuewa.gov)" <DPyle@bellevuewa.gov>, "records@EnergizeEastsideEIS.org" <records@energizeeastsideeis.org>, Energize Eastside EIS <scoping@energizeeastsideeis.org>

Tim,

Thank you for submitting comments for the Phase 1 Draft EIS. A summary of all comments submitted will be made available on the Energize Eastside EIS website later this summer (see www.EnergizeEastsideEIS.org). Individual responses to each comment will not be provided. Instead, your comments will inform the alternatives to be included in the Draft EIS and help define the environmental issues to be studied.

Reema Shakra
Energize Eastside EIS Team

On Mon, Jun 15, 2015 at 2:55 PM, Tim McHarg <TimM@ci.newcastle.wa.us> wrote:

> David:
>
> Please find attached the City of Newcastle's scoping comments on Phase 1 of the Energize Eastside EIS. Thank you.
>
> Tim McHarg, AICP
>
> Community Development Director
>
> City of Newcastle
>
> 12835 Newcastle Way, Suite 200
>
> Newcastle, WA 98056-1316
>
> (425) 649-4143 x112

CITY OF NEWCASTLE
12835 Newcastle Way • Suite 200 • Newcastle, WA 98056-1316 Phone 425.649.4444 • Fax 425.649.4363 • www.ci.newcastle.wa.us

June 15, 2015

David Pyle
Energize Eastside EIS Program Manager/Senior Land Use Planner
City of Bellevue
450 110th Avenue NE
Bellevue, WA 98004

Transmitted via email: info@EnergizeEastsideEIS.org

Dear David:

The City of Newcastle has the following comments on the scope for Phase 1 of the Environmental Impact Statement for the proposed Energize Eastside project:

1. Environmental Health and Risk of Explosion: Any alternative that proposes to construct and operate transmission facilities within the existing corridor for the Olympic Pipeline creates the potential for significant environmental health and public safety impacts as a result of increased risk of explosion.

2. Aesthetics and Scenic Resources: Any alternative that proposes to construct and operate additional overhead transmission lines, either 115 kV or 230 kV, creates the potential for significant impacts to aesthetics and scenic resources. To the extent that the construction and operation of the new overhead transmission lines require removal of existing mature vegetation, these impacts will be exacerbated.

3. Plants and Animals: Any alternative that proposes to construct and operate additional overhead transmission lines, either 115 kV or 230 kV, creates the potential for significant impacts to plants and animals as a result of the need to remove existing mature vegetation.

4. Project Purpose, Need and Timing: The Environmental Impact Statement should review Puget Sound Energy's and Utility System Efficiency's analyses of the purpose, need and timing of the Energize Eastside project to determine their validity relative to established industry standards and to develop additional alternatives for the project.

5. Additional Alternatives: There are other alternatives that meet the need for the project, including, but not limited to:

- An alternative that sites and constructs smaller scale peaking power plants to prevent overloads; and,
- An alternative that utilizes a joint planning process to result in cooperation and coordination between PSE and Seattle City Light to prevent overloads.

5. Other: The Environmental Impact Statement should address all comments received on the City of Bellevue Independent Technical Analysis that were directed to the Energize EIS as indicated in Appendix D, "Ask the Consultant."

Thank you for considering these scoping comments. The City of Newcastle looks forward to working with you and the other partner cities throughout the EIS process.

Regards,

Tim McHarg, AICP
Community Development Director

CC: Rob Wyman, City Manager
Dawn Reitan, City Attorney
David Lee, Senior Planner

ENERGIZE EASTSIDE ENVIRONMENTAL IMPACT STATEMENT

SCOPING MEETING COMMENT SECTION

6:00 p.m.
Tuesday, May 12, 2015
Bellevue City Hall
450-110th Avenue Northeast
Bellevue, Washington

BRANDICE L. PIVAR, CCR
NORTHWEST COURT REPORTERS
1415 Second Avenue, Suite 1107
Seattle, Washington 98101
(206) 623-6136
www.northwestcourtreporters.com

COMMENT SECTION NO. 1

MS. KAPELA: To David Pyle: Dear David, I have just been speaking to Carol, and she informed me that Joyce Nichols from governmental affairs would be the person for me to speak to. I think the law called "the tariff," which was the law enacted in the 1800s in Olympia, should be looked into by the City of Bellevue. The law is obsolete and should be updated. It's ridiculous to think that a city would get stuck with a bill for putting wires underground, period. That should be a cost of the power company, period.

The electrical wires are all underground in Arizona; they're underground in Europe. And this is ridiculous for this Australian company, PSE, to expect the City of Bellevue to pay for that cost.

So let's start the legal department of Bellevue looking into modifying, updating that 1800 law called the tariff, period.

Sincerely, Betty Lou Kapela.

MS. JUDKINS: I'm the current Somerset Community Association president, 4324-136th Place Southeast, Bellevue 98006.

I live on the Puget Sound Energy and Olympic Pipeline easement in Somerset off of Southeast 44th. This is a dead-end street; it's the only access to my driveway. The current power lines and poles run down this -- on each side

of this easement, they have to be, like, 15 feet from the Olympic Pipeline, which is underneath the easement. So my main concern, or one of my main concerns is that if this line is chosen, the J-line, and they are putting in these 135-foot towers -- and I've seen pictures of the process, and they're immense -- how long will I not have access to my driveway to my home while this project is going on? It makes me very unhappy to think that, basically, I'd have to go stay in a hotel, I guess, because I wouldn't be -- I have two dogs. I wouldn't be able to drive in and out to my home.

My other concern is there's a lot of underground streams in Somerset. And my concern is the soil's stability for putting in things on this line. After they replaced the poles in my yard about 6 years ago, the disruption to the soil and everything, a couple weeks later, huge arborvitae that were next to these poles toppled over onto my driveway.

And those are my main concerns. And I'm the Somerset Community Association president. We have 1,500 homes there, and everybody in the community is totally against the Energize Eastside project.

COMMENT SECTION NO. 2

MS. KAPELA: My name is Betty Lou Kapela. Do you want my address?

MS. WAGONER: Your address, please.

MS. KAPELA: 5652-132nd Avenue Northeast Bellevue, 98005.

To try and sum this up in a nutshell, I think most of the people here today really don't care about the statistics, all these charts out here; we're not in the energy business. I'm sure they have needs and don't needs. I've heard they were shipping energy from the Columbia River to Canada. This is a for-profit company; it's owned by an Australian man, not an American.

I think what we're here today is -- this is a high-end residential community. We do not want intercontinental power lines running crisscross through our city. It's bad enough with the old power line that we do have.

Back in the 1800s, a law was passed called "the tariff." I request that the City of Bellevue direct their legal department to analyze the situation. I've requested it before; I never got a phone call back. But I'm publically asking that the legal department look into the tariff law and see about changing and updating that law. It was done in the 1800s. It means that any city that wants upgrading to have to do it at their own expense.

I want all power lines put underground in a safe manner. Maybe not next to a gas line; maybe on another power line in Bellevue. But in a safe area.

So it's the tariff. And there is a woman in a department here. What's her name, Carol? What was the woman's name that we should call?

MS. HELLAND: I will get your comments on to the legislature.

MS. KAPELA: Okay. So she's in development. This is not the right department, the land department; it's in development. And I put it in my cell phone. I don't know if I can find it right now.

Carol, what is the woman's name that you told me to talk to?

MS. HELLAND: Betty Lou, we'll forward your comments to the legislature.

MS. KAPELA: But I want everybody here in this room to know the name because they can call the woman too. It's the department of development.

MS. HELLAND: We are the Department of Development Services; the person you are talking about is Intergovernmental Affairs, that's Joyce Nichols.

MS. KAPELA: Joyce Nichols, that's the woman's name that people in this room should call, Joyce Nichols, because she would be the one to go to Olympia and talk about the land, the tariff law done in the 1800s, needs to be updated. The City of Bellevue should not have to pay for undergrounding, any extra expenses.

So I hope everybody can write that name down and call that department.

MS. WAGONER: Thank for your comments. And our next speaker.

MR. HALVERSON: My name is Warren Halverson, and I live at 13701 Northeast 32nd Place in Bridle Trails. I could put this shirt on, but I'm speaking on behalf of myself and other people in Bridle Trails. I've lived there for 40 years, and the major reason I live in Bridle Trails is the environment.

I've prepared a statement here, and I'd like to make it. And I apologize for reading it, but maybe it will go quicker and everybody else will have some more time.

This is probably no surprise to anyone that the reason we live there is the environment. In fact, the City of Bellevue held their semi-annual neighborhood leadership gathering in October. Thank you.

And I thought Mike Humpelman (phonetic) was out here. At that meeting, there were roughly a hundred-plus leaders, and they felt the number one factor in defining neighborhood character was natural environment: trees, open space, natural beauty, views. Sound familiar?

In summary, answers to what is important to preserve and protect? The answer: Environment. Second only to safety. But I believe one of the most interesting questions

was this: What do you see is the greatest threat to your neighborhood character? By far, the greatest answer was Energize Eastside. Four times greater than even Sound Transit.

I would like to submit, and I will, this document from the leadership conference, a hundred leaders who spoke. So what is the impact of eastside on Bridle Trails -- Energize Eastside on Bridle Trails? The loss of several thousand trees, visual blight by 130 metallic poles -- 130-foot metallic poles buried in 30 feet of concrete with 5 inches of line, heavy lines dangling from them. Dangerous installation and safety concerns forever being built on top of two major pipelines. Nowhere in the United States do I think you're going to find that.

The immense noise impacts on plants, animals, birds, at a cost of $204 million, and a reduction in property values of 10 to 30 percent.

In all likelihood, Energize Eastside will be the most destructive project that Bellevue and our neighborhoods will ever encounter. It will affect neighborhood character, not just for property owners directly, but for all of us, from miles and miles away. Here are those poles. You can see them up on 152nd for miles. They go way over the tree level. I'll submit that too.

This can't be mitigated. The Energize Eastside project

as configured is unnecessary and will bring 130-foot poles of industrial 230kV lines through our neighborhood forever. There are better and less costly and more environmentally friendly alternatives. The City recognizes this fact, and even the most recent U.S.E. independent study with its many, many failures recognizes better alternatives exist.

This is Bellevue, an environmentally friendly and a futuristically-oriented city. No to PSE's current Energize Eastside project.

MR. JOHNSON: Am I next? I'm Larry Johnson. I live at the 8505-129th Avenue Southeast in Newcastle. I'm here because Bellevue is the lead agency. You obviously have a tremendous amount of influence on what's going to happen, and you'll see me again on May 28th in Newcastle. A lot of Newcastlers are here. I want to talk about process first.

I don't understand why you'd put a piece of the Internal Revenue code as a criterion of 5 minutes. I request 5 minutes. I'm the president of a nonprofit Washington organization, as Steve O'Donnell is for CENSE, which is also not a 501(c)(3), a 501(c)(4), that's what we are. So I ask right now: Can I have 5 minutes? Because I don't meet the Internal Revenue code requirement, but I am a nonprofit. I'm the president of Citizens for Sane Eastside Energy, and we're 67 people. A lot of them here.

MS. WAGONER: We will give you that.

MR. JOHNSON: We're there? This is great. We've already got a victory, folks. Bellevue's never given us that. Actually, once, but Ms. -- the mayor says, "I don't recognize you. I don't know who you are." I guess that was the criterion, but she gave me 5 minutes.

I want to talk about two things, but on the record -- and you'll be hearing a lot from me. I'm going to do a big data dump in the database you got. I'm assuming you have a database for this, right? I mean, this is all going to a database. Does it matter if a lot of people check the same box, or are you going to use the criterion of 50 or more people do it, we'll look at that seriously; if it's ten people, nah? What are you going to do if just one or two people say, "Well, will you look at this?" Are you going to look at everything the same? You can answer me.

MS. WAGONER: We're not doing a Q and A.

MR. JOHNSON: Oh, we don't get to do that?

MS. WAGONER: Comments are great.

MR. JOHNSON: Okay. Well, in an ideal world, I'd like people to answer questions when they're here to answer them.

MS. WAGONER: Just the comments, please.

MR. JOHNSON: Okay. If you can't play that game. Why is it every time we get 3 or 5 minutes, and I bet

you guys have had many meetings with PSE that have lasted hours? Same with the City of Bellevue. They have lunches; they have weekly meetings, where Ms. Helen is there, and they call it the "core group." They're all in this together, right across the street.

Okay. Well, since my time is limited, count me in as a yes for no: Alternative 4. Doing nothing is better than doing anything that is as insane as this project. And on this piece of paper you handed out, on the last page it says preliminary list of elements in the environment. Surface water, land and shoreline use, blah, blah, blah. Nothing here about people. There's nothing here about safety. Isn't safety part of the environment? How about exploding pipelines? How about killing people for a project that's not needed?

This pipeline that goes through our neighborhoods had an explosion in 1999 in Bellevue that killed three kids and destroyed dozens of homes. And I don't see safety here, unless we're under plants and animals. You know, I guess we're animals.

So consider that. The Olympic Pipeline people came to Newcastle, talked about their preference for not seeing this go through the so-called willow and oak thing that's now there. They said, "We would prefer it in lines that are no longer being considered along L and elsewhere, K, whatever

it is. The key thing is this shouldn't go in anybody's neighborhood. But, you know, PSE has this company under control, the Olympic Pipeline company, because when they came to speak, Kim West who is the project director for this pipeline was saying, "We don't want it," in a letter to one of the CHG people. When she was there, there was a big vice president boss standing next to her; he did all the talking and made sure she shut up.

So I want an independent assessment of the real dangers of the pipeline. Not by PSE, not by the Olympic Pipeline people, but people like you or people who know about pipeline safety. I don't know if you have that qualification or not. Thank you.

MS. WAGONER: Thank for your comments. Our next speaker.

MS. MEYER: Good evening. My name is Marlene Meyer, address is 2408-131st Place Northeast, which is near the Bridle Trails area, basically, part of the Bridle Trails area.

I will keep it succinct in just saying that I am in agreement with the last three speakers. I feel that they brought up some important points that really need to be taken seriously into account. But I'm going to bring it back up just a moment.

To take a look at the history of this area, the whole

Puget Sound area, and what we have done in allowing ourselves to be swayed in certain ways towards corporate directions for economic and monetary reasons. And I believe this is starting in that direction, where we are starting, if you will, with an analogy, I might say.

If we were to take a look at ghostbusting, we're looking at ghosts that possibly exist that we really don't know for sure based on the report, that I think we have found other parts to show there may not be this real issue that we're trying to resolve. And so if we start looking for ghosts that may not be there, then why even be bothered with what alternatives or what method we're going to find these ghosts?

So I'd like us all to step back a little bit and say, "Do we really have this issue, or are we only looking to promote economics? Do we need this right now in the Bellevue area? Can we stop?" And that's my vote. Let's stop a minute and back up and say, "Where did this start from, and is this really the direction that we need to be going in?"

And then I add the safety part from a personal standpoint. In my neighborhood with the school systems, the high wires, all of that has not yet been proven to be on the safety side in research that has been shown up, you know, on computer systems in other areas I've looked into. So my

vote is let's take a breath here. Let's not feel hurried. Let's stop and really assess where we're going on this situation. Thank you so much.

MS. WAGONER: Thank you.

MR. ADCOCH: James Adcoch, electrical engineer, 5005-155th Place Southeast, Bellevue, Washington 98006. Thank you for letting me speak tonight. Something that PSE in its prior meetings has consistently prevented me from doing.

I ask that all documents used by the City from PSE in the EIS process be made fully public on an equal basis to all sides, including interested citizens and residents of the area. The website already lists several documents which are only being made available on a partial basis, retaining significant sections as secret, a/k/a redacted.

Similarly, the City's consultants claim that the documents they referenced are available to the public, but I have attempted to obtain these documents as an electrical engineer; for example, from ColumbiaGrid. And ColumbiaGrid has not been responsive. Thus, in practice, these documents are not being made available on an equal basis to all interested parties. Rather, they are being kept secret from us citizens.

I believe that an EIS is required to be a public teaching. Documents used in an EIS must be made fully

public. Anything else is grossly unfair and inappropriate.

In addition, the EIS should actively identify any living residents within 100 feet of the cervical shadow of the proposed transmission lines. The original TetraTech analysis simply assumed that there were no homes within 100 feet, and if there were homes within 100 feet, PSE and TetraTech simply modified the GPS locations of any such home in their TetraTech analysis software to pretend that they were at a distance of 100 feet. We need to actually know about any homes within 100 feet as part of the EIS.

Destruction of scenic views. PSE continues to trivialize the destruction of scenic views, calling this not even an EIS issue, but rather, simply an issue of aesthetics. I disagree. Destruction of scenic views is a well-known environmental impact issue for utilities, including PSE, who have to deal with the issue of reasonable haze, for example, which destroys scenic views.

I suggest that the EIS must use a truly independent expert in order to quantify the economic loss due to the scenic-view destruction. King County Assessor assigns lower property values to homes with obstructed views compared to homes with unobstructed views.

PSE could have accessed these assessor records, but PSE refused to do so. Homeowners collectively stand to lose tens of millions of dollars because of the needless

destruction of scenic views by this project. I'm going to skip ahead.

Reading the existing literature lists many innovative ways/techniques to increase the look about the existing 120-volt kV lines without going to gigantic 130-foot tall 230-volt kV lines. Getting up to 120, 250 percent increase using existing low-volt technology by using such techniques as upconductoring, installing high-temperature conductors, software modeling of weather conditions to control the lines, installing gauge dynamics that measure line behavior, et cetera.

There's technical options. I'm out of time. I will not --

MS. WAGONER: Do you want to leave us with your written comments?

MR. ADCOCH: This is simply a project of opportunity that Puget Sound Energy is making a profit on. That's the only reason they're doing it.

MS. WAGONER: Thank for your comments.

So the next batch.

MS. BRADFIELD: All right. Up next we have Bruce Williams, Peter Saunders, James Sweet, Kathleen Sherman, and Suzanne Mekson.

MS. WAGONER: We'll listen for the absolute correct pronunciation when you come forward.

Thank you, Casey.

So our first speaker: Bruce Williams.

MR. WILLIAMS: My name is Bruce Williams, 8564-129th Avenue Southeast, that is in Newcastle in the Olympus neighborhood, 98056.

I thank you for kind of setting the tone, but you made a mistake a bit ago when you were speaking. 8,000 trees is not theoretical; it's real. It's not just that sight lines are going to be messed up; it's that the mental health of the people are going to be screwed up not being able to look at them.

Just some time ago, I was sitting in our kitchen having breakfast, and that's about 10 feet from the easement that PSE is going to use on this project. And I was looking out the window. I was looking across the way at some magnificent old fir trees, and they stand on just the other side of this right-of-way. And I noticed a large bird -- it was some species of raptor -- that was perched on the very top of one of those large firs.

That tree is one of those 8,000 that we're talking about tonight. And that tree is one of the trees that PSE intends to butcher for the sake of profit. Where will that bird sit to hunt when that tree's destroyed by PSE? I've not seen any wildlife of any kind choose to live on the transmission poles that are there.

That bird and all the other species that live in and hunt from those fir trees, where will they live? Where will my granddaughter and yours have to go to see -- they'll have to go to a zoo to see a hawk or an eagle if we don't stop this thing from happening.

The person that wrote these lines, was she a song writer or a prophet: They took all the trees and they put them in a tree museum and they charged the people a dollar and a half just to see 'em?

You live here and you can make a difference. This has got to stop. It's up to you right now, or you can pave paradise and put in a parking lot.

MS. WAGONER: Thank for your comment.

Peter?

MR. SAUNDERS: My name is Peter Saunders. I reside at 14001 Southeast 45th Court on the west slope of Somerset and just east of the PSE's 150 -- or 115, rather, kV Somerset easement. And before I get to my subject, I'd like to suggest that the preliminary list of elements of the environment include, as the other people said, view and public safety.

What I'd like to talk about today -- because I will be one of those people seeing the poles and the wires. Hopefully through Somerset, there'll be single poles, but most of this 18 miles is going to end up as ugly pylons just

like down in Factoria.

What I want to suggest is that we don't -- we enhance or we will continue to enhance the five cities and beautify them. And this project of putting a 230kV line through the middle of these five cities is just terrible in the 21st century.

Electricity is essential. And I got a feeling that this 230kV line will go through; it's going to be needed 50 years from now. I remember 60 years ago when 405 was designed and went in, and they put the speed limit at 70 because hardly anybody used it. Today it's bumper-to-bumper. And we can thank those people for thinking forward. So I hope you will think forward.

Is there an alternative to this line aboveground? Undergrounding isn't feasible, whether we like it or not, except in the center of cities, where it could be afforded. And not only that, the cable life is not very long because of the heat problem. It's much less length of life than the cables. So from PSE's standpoint, it's obviously the cables.

Is there an alternative? There is. For us on this 18-mile stretch, we're lucky enough to have an alternative right on our doorstep. It's been brought up several times with PSE, and they just brush past it. I want you guys to really look at it. And that is Lake Washington.

The technology to put cables underwater is good because there is built-in cooling, number one. The water in that lake is very friendly; its level stays pretty constant. No tides; absolutely no currents, hardly; no freighters with big anchors; no salt water. Laying of cables there is a really practical way to go.

MS. WAGONER: All right, sir. Your time is up. Do you have written comments you would care to leave with us?

MR. SAUNDERS: I will turn them in, yes.

MS. WAGONER: All right. Excellent. Thank you very much.

So our next speaker: Kathleen.

MS. SHERMAN: Hello. My name is Kathleen Sherman, and I live at --

MS. WAGONER: If you could speak into the mic, please. Thank you.

MS. SHERMAN: My name is Kathleen Sherman, and my first comment is about this PowerPoint, which was very helpful on how to send an online comment, but I can't tell if it goes to the City of Bellevue or Energize Eastside, if it's the power company or both.

MS. WAGONER: It goes to the City of Bellevue and the consultant team. It does not go to PSE.

MS. SHERMAN: Okay. Because you have the logo

for one side of this issue but no one else, and that looks kind of biased.

MS. HELLAND: I can just respond to that very quickly, if I had my microphone on.

We actually have a responsibility to maintain public records. So we created that email site, the website, so that it would be easily identifiable and people could find it and they could comment on it, and we would be keeping everyone's comments collected in one location so we could be very transparent and we can hand those records over.

With respect to the branding, we also want to let people know that we're doing something different than our typical project that would just require a permit, and that we're doing an EIS to draw attention to it. So this is, essentially, a branding for all five cities to be collaborating on this issue. So we hope it will help people see the signs and create visibility so that we get commenters like you.

MS. SHERMAN: Well, it kind of brands the City with the power company too; it may be unintentional.

And my other comment is, I was told that this issue, or this meeting was -- or whatever study was done did not involve property values or things like that. And I think the property owners have just -- have the right to maintain the value of their property as the energy company does to

make a profit.

And it also, by excluding that issue, it makes the City of Bellevue look like it's not interested in at least residential property values, which I don't think is a good idea. That's my comment.

MS. WAGONER: Very good. Thank you.

And next: Suzanne Mekson.

MS. MEKSON: Hi. My name is Suzanne Mekson, and I live at 13800 Northeast 40th Street. And I am happy to say that I have lived in the Bridle Trails area of Bellevue nearly all of my life. And I'm going to make this a little bit personal.

I absolutely love this area of Bellevue. It's unique in that it's rural, kind of a horsey area with walking trails and parks. I have a horse named Addy (phonetic), a yellow Lab named Bo; I have two little kids. We hike, we play, we use the trails in the outdoors all the time. But, yet, it's minutes from shopping centers and office complexes.

I also have more than a full-time job, and I'm 10 minutes from the office. So like many of my neighbors, I simply don't have enough time to do all the things I want to do. But as I watched what's unfolding and happening with the Energize Eastside debate, I felt compelled to come down and kind of share my thoughts today.

So professionally, I work in the network of planning and engineering organization of a major international network provider, and I lead a team of about a hundred engineers whose sole purpose is to introduce and implement new technology -- so architecture and design -- into our network. And relevant to the Energize Eastside debate is, as you can imagine, we have found that it's not economically viable to build whole new infrastructures and networks to meet forecast demands and reliability; it's just simply not affordable.

However, and I saw it in your presentation, there are alternative solutions to rip and replace and overbuild. There are solutions that are less invasive, less costly, and quite frankly, more effective. And I know this because I work directly with researchers and vendors and people in the network. And we do this every day, right? Capacity planning, forecasting, looking at triggers and exhaust, looking at assumptions and validating data. And looking for opportunities to be creative as we go about meeting the demands of our customers.

Technology advancements are occurring at such a rapid pace, it's really an exciting time. The ideas, the opportunities, it's absolutely mind-boggling. And I know that this can happen in the electrical industry. I saw a TV show, KIRO, headline just a couple of weeks ago titled,

"Self-healing power lines could shorten outages." And it was about the introduction of new technology by Seattle City Light that realtime detects outages. So it isolates the circuit, and then instantaneously reroutes the traffic when there's an outage, which I thought was pretty cool and very innovative.

So I guess, in my 3 minutes or less, what I want you to take away is that these ideas and my logic about innovation is not really futuristic; they're here today. These ideas can be implemented into current networks and provide growth and reliability, and I would simply ask that you have your staff or an unbiassed consultant please look into these and other viable solutions as you move forward in your EIS process, and certainly before you approve millions in expense to ratepayers and devastating irreparable damage to our neighborhoods.

MS. WAGONER: Thank you. And I believe I missed -- are you Mr. Sweet, James Sweet? Yes, my apologies. Yours was stuck under one of the others.

MR. SWEET: Does this move? Can I pull this around? It's makes me nervous having my back to the audience. I can't duck if they throw something at me.

MS. WAGONER: I would really like you to keep it forward and talk to our SEPA officials and those involved. Thank you.

MR. SWEET: My name is Jim Sweet, and I'm a retired engineer. I live at 4400-139th Avenue Southeast, and I've lived in and around south Bellevue on and off since 1960. And this is a shortened -- abbreviated version of a research paper that I'm going to be submitting to the EIS team in the next couple of weeks. I've been doing about 6 months of research on it.

And the bottom line of all this is both of these power line routes share a common flaw; it's a geophysical flaw. And I'm glad to see other alternatives up here that you're going to be looking at because this is screaming for an alternative to a power line route.

And the basic problem is both of these routes follow the Olympic gasoline pipeline where it crosses the Seattle Fault. And that's bad news, folks. The Seattle Fault is bad news; we should all learn more about it. If you're ever driving on I-90 in Bellevue, you're basically on top of the Seattle Fault. And the problem, one of the biggest issues with the Seattle Fault is, that unlike most of the other earthquake faults we have in this area, is the Seattle Fault is very near the surface. And what that means is when it cuts loose, which it does about every thousand years -- and it's been 1,100 years since the last one -- when it cuts loose, you often have surface fault. And specifically what happens is the south side of the fault rises relative to the

north side of the fault, that's why we have Somerset, Cougar Mountain.

So when it cuts loose, when that happens, what you get is often what's called an earthquake scarf, an instant cliff that's 10-feet high, 20-feet high. And examples of all these scarfs can be found all the way along the fault line.

So the problem is that we've got these Olympic gasoline pipelines which moves 13 million gallons of gasoline a day at a thousand psi. Pipelines don't like earthquake faults; they tend to break. There's examples from all over the world of earthquakes that have happened, surface faults that have broken pipelines.

And so with all that gasoline -- and there's going to be a big leak. And we know it happened in Bellingham in 1999: big fire, 200-foot flames, 2,000 degrees.

So both of these routes, the amazing thing about both of these routes is that they both follow the pipeline. The pipeline was first installed in 1965. The first phase went over Somerset, Eastgate. The second phase went in in 1973. For some reason they didn't use that first route; they went around it. They must have found something wrong with the Somerset-Eastgate route because instead, they went through Factoria. Well, both of the proposed power line routes follow the pipeline, these two pipelines. So they're both subject to the Seattle Fault.

So what's going to happen when you have 200-foot flames underneath a power line? Well, the Bonneville Power authority is very specific about saying you don't want to have big fires underneath power lines because what can happen -- numerous things can happen, and they're all bad. Probably the worst one in my mind is what's called "flashover."

Flashover is where the power in the power line can follow the smoke and use this smoke and the flames as a conductor and fault into the ground. So think about this power line. It's going to be able to move as much power as the city of Seattle uses. What's going to happen when we have a 230,000-volt spike that faults into a metal pipeline that's 300 miles long that's full of gasoline? Let me say that again: 300 miles long, full of gasoline gets a 230,000-volt spike from a power line. I don't want to be anywhere near it.

Folks, either find a different route or find a different approach. These are bad routes. That's all I have to say.

MS. WAGONER: All right. Our next speakers.

MS. BRADFIELD: All right. We have Mike Abel, Wolfgang Sixl, Brian Elworth, Steve O'Donnell, Sue Stronk.

MS. WAGONER: All right. If you'd come up, please. So Mike Abel, first.

MR. ABEL: Thank you.

I don't want to, in any way, minimize what Jim just said. I'm going to speak, basically, about similar things. Let me get a little closer here.

MS. WAGONER: Yes, if you could tilt the mic.

MR. ABEL: Is that better?

My name is Mike Abel. I live 4401-138th Avenue Southeast in Bellevue. I'm an engineer who has resided n the Eastside for over 30 years. I'm a past member of the Earthquake Engineering Research Institute. I've had frequent involvement with the U.S. National Science Foundation-funded network for earthquake engineering simulation. And in my work, I frequently communicate with key members of the Pacific Earthquake Engineering Research Center at UC Berkeley and the John Blume Earthquake Center at Stanford.

In my discussions with researchers at both Berkeley and Stanford, two key points have emerged. What Jim says is absolutely correct. A seismic event combined with the colocation of the Olympic Pipeline route and PSE's new 230 kilovolt power line would have catastrophic effects with significant loss to both life and property.

Secondly, and perhaps more importantly, these Berkeley and Stanford researchers went on to advise me that a more likely scenario would be damage to the pipeline causing

similar loss of life and property due to the construction activity associated with the installation of the new 230-kilovolt power line. As a result, I have spent several weeks studying the materials available from the U.S. Federal Department of Transportation Pipeline and Hazardous Material Safety Administration.

I will be submitting a more complete report of my findings, including references on the EIS comment page; however, I'd like to take a moment to share a few key bullet points resulting from my research.

Number one, as Jim says, the existing Olympic Pipeline consists of two parallel pipes: a 16-inch pipe with an age of 50 years, and a 20-inch pipe with an age of 42 years.

U.S. DOT Pipeline and Hazardous Material Safety Administration lists 2,700 pipeline incidents having occurred in the 20-year period from 1990 to 2009, with approximately 3 percent of those incidents, or approximately 81, that were considered to be serious, where serious is defined as involving fatality and/or injuries requiring hospitalization.

For all pipeline incidents, for the 2,700, the predominant failure caused for flammable liquid pipelines are corrosion, material-weld failures, both related to aging pipelines, and excavation damage. For incidents classified as serious, those causing death or hospitalization, the

leading cause was excavation damage.

PSE is proposing to construct along 18 miles of Olympic Pipeline route, assuming that they stay the course of 800-foot intervals, would result in at least 120 excavations adjacent to a gas pipeline. The potential for damage is very high.

Olympic Pipeline has not been involved in PSE citizens' advisory group process. Olympic only published comments resultant from an Olympic Pipeline representative's attendance at an Olympus Homeowners' Association meeting. At that time, Olympic expressed preference for routes that did not share their easement, citing safety, impact to landowners, future maintenance, and customer impacts as reasons.

In conclusion, I would urge the City of Bellevue to include as part of the EIS, a complete and thorough analysis of the risks associated with the construction of the Energize Eastside along the existing Olympic Pipeline route. This analysis should include, but not be limited to, a complete examination of Olympic Pipeline's past safety records and compliances with previously mandated safety processes, procedures, and reporting requirements.

Additionally, I feel it would be important for the Olympic Pipeline to be required to be an active participant in the process to demonstrate transparency by disclosing and

all communications they may have had with PSE regarding this project to date. Thank you.

MS. WAGONER: Thank you. No clapping, please. This is great.

Wolfgang Sixl. Thank you.

MR. SIXL: My name is Wolfgang Sixl. I live in Bellevue. I have three points to make.

Point No. 1: I want to express my gratitude to CENSE and CSEE because their great work of the volunteers and the expert and their dedication, they truly get behind the Energize Eastside to understand the agendas written and everything around. Together with actually the chart that has been up again today, where you -- they show forecasted just as kind of today's back data, which is typically something where I smell that something is being maybe a setup on the back of the people, citizens. That actually made me engage into looking closer into those things and being very close to the process. So thanks, again, to that great work. And that's, I think, also kind of the rally cry that you're seeing so many here because it resonates so much.

My second point is the opposite of that; it's actually the disappointment. I want to express my disappointment on the leadership and the diligence of the City of Bellevue on the Council side, as well as on the staff side. By having

so many great inputs and so many great questions -- which I do not know if the things are right and wrong, but they seem so credible the impurities, that the staff and the City of Bellevue takes it up and puts that into the process.

And another speaker referred to how things are done in business. I think the best practice that would've been done was to pressure-test the assumption from PSE to play the devil's advocate in a positive way to make sure if it's approved, that it's approved because it's the right thing. Also, maybe they identify better things. And I'm not seeing that.

I'm rather shocked that what we just learned from the disclosure of the records that the preference is to rather have the weekly meals with PSE instead of dedicating the time and putting that in the process.

So my expectation is actually a new step up of the leadership of the Bellevue part of that in making sure that the process with the consultants is running the right way, the right questions are asked, have the diligence kind of versus the benefits of the people of Bellevue in mind.

And so my last thing is actually -- and this is what I'm reading here from my legal advice, so to say, is that I support all the comments that are made here tonight, especially comments on the neighborhoods' character, on the 8,000 trees, on the destruction of the wildlife habitat, on

the pipeline safety, the earthquake fault zone.

And also, maybe let me do another comment on the property value. So I'm not putting that on the context of the personal property value, but there's one thing that I also learned, is that there's property tax. And the property tax is an amount which is set at a certain rate, and so if the property values of some property decrease to make the total property tax, the property tax rate needs to increase for everybody.

So this is not a property tax topic for individuals; this is a property tax topic for all citizens of Bellevue because they have to pay, then, a higher rate to make up that. So's the comment that -- the transparency I want to provide here.

So, again, I support all comments made here tonight, and want my name attached to them and to the record so if need be, I will have standing to sue in court about the EIS sufficiency of scope. Thank you very much.

MS. WAGONER: Brian Elworth, please.

MR. ELWORTH: For the record, I'm putting eight pennies on a stack on the table here. Do you all see that? I thought about that. I just put a stack of eight pennies on the table, for the record. I just want to point that out.

My name is Brian Elworth. I live at 8605-129th Court

Southeast, Newcastle. That's the Olympus neighborhood. I'm part of the Olympus Homeowners' Association. I did file for incorporation about 25 years ago. I did that personally. I can't remember the paperwork, so I don't remember if I'm a 501(c)(3).

AUDIENCE MEMBER: Speak into the mic.

MR. ELWORTH: This proposed project will pass directly through the middle of my neighborhood. It will pass through the backyards of dozens of my neighbors; it will pass through my backyard. Our association has three basic concerns: aesthetics; safety; and fundamentally, the need for the project.

Aesthetics: Newcastle is a city in a park. You've heard that term before. We are truly a city in a park. It is a treed environment; it is a small suburban community, not an industrialized commercial environment. We are the best small town -- we made the best-small-town list in Money magazine in 2013. There's a reason for that: We are a nice place to live; it's not an industrialized area. And it is not an appropriate place for international power line corridors.

The current utility we have hidden by trees, I know it's there because it's my backyard, but you stand away from it, it sort of fades away. You go down to Newcastle Park, it's kind of invisible. Those towers will be able to be

seen from miles around. It will definitely be a permanent scar and a permanent legacy.

Safety: We're coming up on the anniversary of the Bellingham explosion. That project had very intense scrutiny and a high degree of oversight; 5 years later, it blew up. I think that if we have the same diligence in this situation with a hundred volts, what are the chances? That's something I think you need to consider: What are the chances?

By my calculation, there's about 240,000 gallons of petroleum fuel underneath Newcastle in those two pipes. To the best of my knowledge, there's one shut-off valve on one pipe. What's the other pipe going to do? What's that pipe going to do when there's a rupture? Does anybody know? I think that needs to be looked at very, very, very carefully. That pipe is under about a thousand-psi pressure. I mean, that's no small potatoes when you're talking about high-pressure petroleum. Every single jet that they've got, takes off out of Sea-Tac Airport, fuel comes through that pipe.

Am I going to be allowed the five?

MS. WAGONER: I will give you 2 minutes. I see that you weren't certain whether you were a 501(c)(3), so I'll give you that one.

MR. ELWORTH: So I'll move ahead.

MS. WAGONER: So I'm going to watch the clock for the other 2 minutes.

MR. ELWORTH: The corridor is a hundred-feet wide. A lot of utilities, the prudent rule of thumb is when you put in 230 kilovolts, you have 150-foot-wide easements. In this case, since there's a corridor down the middle of 50-feet wide, you can't put infrastructure where the pipes are, so you've got to put it out in 25-foot margins. That puts the utility about 12-feet from the edge of this corridor. That's not a sufficient margin. That is completely an unacceptable location for those types of power lines.

End justifies the means, or does it? The stack of pennies there, that represents -- you know, it's Energize Eastside, not tolerate eastside. So let's talk about energy instead of power.

That stack of pennies represents the amount of energy based on PSE's claimed need for the 55 megawatts; it turns out if you look at the data, that about 28 hours average per year. You do the math, you come up with like 15-, 20-megawatt hours, something like that.

Now, look at what PSE wants to do to solve that problem. Take that stack of pennies, compare it to the height of the Space Needle. That is the difference between the problem PSE states we have, that stack of pennies, and

the height of the Space Needle. That difference is the difference between the problem we have and the way PSE wants to solve it.

There are a whole bunch more solutions than what's out there on the board. PSE has found probably the worst way possible, the most expensive way to underground wires. A simple solution is let's switch DC. You have three sets of conductors, DC, 40 percent increased capacity, better reliability. There's many solutions. Those boards don't even touch the tip of the iceberg. Thank you

MS. WAGONER: Thank you very much. Thanks.

MR. ELWORTH: You can have the pennies and use it as part of the study that's going to fund it.

MS. WAGONER: Is this Steve?

MR. O'DONNELL: Steve O'Donnell. Thank you.

My name is Steve O'Donnell. I've been in Bellevue and Somerset since the early '70s. I'm the immediate-past president of the Somerset Community Association, and I continue to serve on that board. And I'm the cofounder of CENSE, the Coalition of Eastside Neighborhoods for Sensible Energy, that's cense.org, along with many of our supporters and along with Don Marsh, our cofounder, and I hope he'll be speaking shortly.

Of course I agree with all of the comments that have already been made. I want to add a few.

What about vision? What is our vision for Bellevue for 2035, 2050? Bellevue has a 2035 planning vision. The PSRC, Puget Sound Regional Council, is just coming out, working on 2050 vision.

Let's all look at this from a bigger picture. Yes, Bellevue is -- does mean "Beautiful View." Bellevue is a city in a park. Lately recently, Bellevue's added a motto of one Bellevue, where people want to come; where people want to be.

But are we going to be like Dickens' tale, the Tale of Two Cities? Are we going to be one Bellevue, or are we going to be two Bellevues? Are we going to be the Bellevue west of 405 with few to no poles and wires? Or are we going to another Bellevue, another city east of 405 that looks like some sort of tangled spaghetti mess in Pakistan? I hope not.

Let's not go backward in our vision. This is a time to not add more above-wired solutions two to three to four or five times greater scale than what is needed on poles that are 135-feet tall, that are three times the size of existing poles running 18 miles from Redmond to Renton, including Kirkland and Bellevue; 9 miles through Bellevue, maybe 2 miles through Bridle Trails, major neighborhoods, some 40 neighborhoods, a mile or more through Somerset and a mile or more through Olympus and Newcastle.

Why would we make a 100-year-or-longer mistake like that when we have advancing technology coming at us like drinking through a firehose? Dean Kamen, the inventor of the Segway, the portable kidney dialysis machine, a brilliant man, has invented the Stirling engine. Now comes Elon Musk of Tesla to help us disconnect from the grid. Why we would not embrace these new technologies? Why would we add wires to Bellevue instead of seeking and adopting new technology and start to begin to eliminate the mess?

I want to talk about the pipeline franchise just for a second. The City of Bellevue just extended for 6 months; it needs to be evaluated. I agree with everything that everybody said. But we need to have more valves, both manual and automatic, and closer together. We're told on their own website it could take 1 to 2 hours to turn off a manual valve, maybe 5 to 8 minutes or 10 minutes to turn on an automatic valve. This is a thousand to 1,600-psi jet fuel. If we had a catastrophe, we would probably, in any one of the major neighborhoods, lose perhaps hundreds and hundreds of homes, who knows how many lives.

Why would we subject ourselves and allow ourselves to be poked in the eye with a sharp stick? Would anybody enjoy that? We'd have immediate and permanent loss of our property values, 10 to 30 percent. We have to live with the mess during the construction phase, live with it for the

rest of our lifetimes, and pay for it. And pay for it for 40 years or longer. And then the guys that perpetrated this whole mess get to collect 10 to 15 percent in a guaranteed return for 40 years. And the project of 200 million turns into a half a billion dollars, all so some offshore foreign hedge fund can make a bundle of money on our backs. Every single person in this room is going to pay for this. I say no. What do you say? Thank you.

And by the way, one last thing: I see I got a couple of seconds. Like Columbo, I guess.

I'm going to move -- I'm going to file with the Washington Utilities Commission to not allow the gag money to be -- all the marketing and spin, everything that PSE spent not to be rate-based. We should not have to pay for that.

Secondly, Jefferson County converted to PUD. 33 out of 36 counties in the state are PUDs, Public Utility Districts. We can do it, too, on the Eastside, east King County. Public Utility District, folks, for either Bellevue or the five cities or all of King County.

PSE spent millions of dollars to try to thwart the Thurston County effort, and they did it. But that doesn't mean they're done in Thurston County. And we can have a PUD here and get rid of these guys. These guys need to go back.

MS. WAGONER: Thank you for your time.

All right. Next speaker: Sue Stronk; is that correct?

MS. STRONK: I'm Sue Stronk. I live at 12917 Southeast 86th Place in Newcastle. And I'm a direct neighbor of Brian Elworth that just spoke. I live a hundred feet from his house on the other side of the easement, across the two 115kV lines that are now on 60-foot poles and the two gas pipeline. So I'm going to cut mine short because we've talked about heavy equipment and earthquake fault, so I just want to tell a story about what happened to me a few years ago with PSE.

They were going to replace a wood pole beside my house. And the contractor came to my door a few days prior and told me of the work that they were going to do and suggested that I not be home the day that they were going to change out that 60-foot pole. I got up that next morning and I thought about what he said: Should I stay or should I go? I decided to leave that day just in case. So that is PSE's testimony of what safety concerns we should have with either larger construction, heavier equipment, and digging this close to gas lines. Safety should be the number one criteria.

MS. WAGONER: Thank you.

MS. BRADFIELD: All right. If we could have the next five come up. We have Loretta Lopez, John Merrill, Betty Lou Kapela.

AUDIENCE MEMBER: She already spoke.

MS. KAPELA: I already spoke.

MS. BRADFIELD: Bob, did you want to speak?

MR. KAPELA: My wife spoke for me.

MS. WAGONER: Okay. Great. Thanks.

MS. BRADFIELD: So Adrian Ilieson, Floyd Arnesen. Thank you. And I guess I should grab one more name: Kelly Boch.

MS. LOPEZ: I'm Loretta Lopez. I'm the president of the Bridle Trails Community Club. We are a 501(c)(4). Still, I think, constituting the 5 minutes.

MS. WAGONER: We are giving you 5 minutes.

MS. LOPEZ: Thank you very much.

I want to raise our objections.

Objection No. 1: PSE did not provide meaningful or adequate notice with respect to this project and, in particular, to all of the scoping meetings. The basis for my objection, for our objection is this: The scoping signs which set forth and advertised this series of meetings only sets forth and refers to reliability. There is no reference to the effects of this, the massive construction that will need to be -- will need to be done. There is no statement with respect to alternatives. There is nothing. Our request is that Puget Sound Energy make meaningful, adequate notice of this entire project. If that means a delay, then

we want to delay.

Objection No. 2: We have asked, I specifically have asked before this EIS even started, that the City delay the EIS. The basis for that request is that the U.S.E. report was delayed, and the U.S.E. report and the discussions of the results of that report was not made public. That discussion was at the -- the discussion was not public until May 4th, at the City Council meeting.

I requested before this went on, before April 30th, that the City delay the EIS; Carol Helland responded no. I requested again; she responded for the second time no. CENSE requested, made a formal request to the City Council, that we delay, that the City delay the EIS; the City's response was no.

I object to the denial of the request to delay this EIS, to delay the start of it. Once again, the basis is, not adequate time for us, as citizens who are paying for all of this, to address the issues in the U.S.E. report. Not even enough time to get answers to the questions that we presented before the report was even produced. Unacceptable. And this should not have proceeded.

We should not be here tonight, given that we do not have all of the information. It is unacceptable. And I request that this EIS, we put this on pause until we have the information that is necessary.

In addition, I object, the Bridle Trails Community Club objects, that there is no reference to the economic impacts and the effects of this project on the citizens of all five cities. We object that there is no reference to the seismic element and the geotechnical elements of the project.

We object to the fact that we are going to, if PSE has its way, ruin the entire Eastside, all of our cities, with this unacceptable and unnecessary project.

And furthermore, I want to know, who is going to assess the alternatives? Is it the staff of the City? Is it the consulting company? And that statement, that answer should be posted on the website. And I thank you very much.

MS. WAGONER: Thank you.

John Merrill.

MR. MERRILL: Hi. John Merrill, 4800-134th Place Southeast in Bellevue. I've been a Bellevue resident for 25 years, and I've got to say at the outset that CENSE, and most of these good folks here tonight, do not want to stop this project. We want to support a project that allows growth to happen in Bellevue in a smart way, not in a way that is designed primarily to make PSE's foreign shareholders a profit.

This situation we find ourselves in is that there's huge information in asymmetry, meaning that PSE has all the information that it says showed that there is a need for

this project, and they alone know the best way to solve this supposed problem.

I would ask that economics be introduced into the criteria for evaluating each one of the alternatives. The issue of property values is not trivial; it's not something that can be ignored. It's the elephant in the room that PSE is trying very, very hard to ignore. They really can't ignore if this is going to be a fair process. And I know that there is law that governs this process, but I also know that there are other SEPA processes that have happened on analogous projects that have included economics as one of the criteria.

So property values, the impact on ratepayers from the half a billion, 500 million dollars, that this is going to cost us; the impact on the tax base that another speaker mentioned. When our property values go down, and which they will very significantly, the rate, the property rate, tax rate, is going to have to go up for all of us again, everybody else. It's not just people that are living near the lines that are going to be impacted.

And the other piece of the economic equation that needs to be looked at is PSE's profit for each one of the alternatives. Part of the information of asymmetry that I was talking about, that needs to be public knowledge. If this is really a transparent process, we need to know. And

that is a process that any economist worth their salt can do in a very, very short time. And the numbers are pretty black and white. We know that PSE will borrow money for a low interest rate; we know that the Washington Utilities Commission has approved a 10-percent-or-more return on PSE's investment for 40 years. That needs to be introduced in the process.

I'll finish up just by saying please go to the cense.org and donate. We are going to hire some professional help, because for all of the thousands, literally thousands of hours that so many of you have put into this project, the City really has not stopped this freight train that PSE started. So we are going to hire professionals to help us do that. So please, please go and donate to support this. Thank you very much.

MS. WAGONER: Thank you.

John Merrill? Oh, that's who just spoke. Sorry.

MR. MERRILL: I'll speak again.

MS. WAGONER: Adrian Ilieson?

MR. ILIESON: Yes. I live at 4930 East 43rd Street. I want to start by saying that I represent living proof of the public not being informed when this was set up. I came to ask to put my name in the bowl because I had a question, and assigning this format asked for testimony.

Mine is just a question to how your process is going.

You have, there, four options about people providing their testimony and feedback to you. But how do you elicit that input from the people? I haven't seen any outreach. I happened to come a week ago, walking on a street which I wasn't regularly circulating, and I see there's a post talking about the EIS and then about the power lines, so I started looking into it. I just happened to be curious about that and find about all this stuff. But none of my friends knew.

You can say that I am maybe some outcast; I live in the woods. But that's not the case. I listen to radio; I watch my fair amount of local TV. I haven't seen anything. I started researching on the local media; nothing about this stuff. But then there was something in Bothell, a report about it. But Bothell.

So I want to see from your committee, your EIS, what are you doing to elicit the public's opinion? You have here a hundred people, but this is affecting a hundred thousand people in Bellevue at least, right? So your reaching out should be in their face because that thing is going to be in their face, and it's going to be in their pockets. So you need to really respond to this in a very consistent manner.

I notice my time is up. I want to donate the remaining time to somebody else who has more -- but I want to leave you with one thought that came, which is, here we have --

this is maybe a riddle for you.

So you have this thing, which is sequestering carbon dioxide. Okay? It's in the soil; it's contributing to eliminating pollutants from the soil. It's creating a microenvironment there for plants, other animals, right? It's contributing to visual welfare for those people. And it's doing all this with 100 percent green energy: power from the sun.

The question is: Is this the power of 130-feet power grid, or is it the humble tree? And this stuff, what somebody else said, what is the vision for the city? Do we want to go back a hundred years and hold plans, make up highways for the electricity, or do you want to choose a city, not a park?

MS. WAGONER: Thank you.

Lloyd Arnesen?

MR. ARNESEN: I'm Lloyd Arnesen, 6515-128th Avenue Southeast, Bellevue 98006. We have lived in Bellevue now for over 40 years. My wife and I have been out of the country for 18 months, and when we returned, a few weeks after that, we found out about this project. And so we became concerned about it. But this is the first meeting now that we've attended, so I'm basically a neophyte in all of this. But in any event, I just wanted to address, briefly, some of the safety and construction aspects that

have been referred to here.

We had an experience in our home about 4 years ago, where one of the structures of the current existing power lines broke and the line came down; 12-foot-tall tree, hit the tree, came down right over the pipeline, petroleum pipeline, and transmitted, of course, electricity down into the pipeline and damaged the pipe.

So what happened after that, of course, is that Olympic Pipeline came out; they had to dig up the backyard, ours and the neighbors', had to replace a section of the pipeline that was damaged. My concern is mixing power with petroleum pipelines is not the best idea in the world. And I would say that we were very concerned, of course, at that time, that we would have a similar situation that had occurred in Bellingham some years ago.

So I, in that light, and along with many of the other points that have been made, I would just mention that as a particular problem and an experience that we have personally known in our own residence. Thank you.

MS. WAGONER: Thank you.

Kelly Boch.

MS. BOCH: Hi. I live at 12519 Northeast 29th Street in Bellevue. My name's Kelly Boch, and I'm a second-generation Bridle Trails homeowner. I've lived in Bellevue for 35 years. And public speaking isn't really my

thing, so forgive me when I read my notes.

When my husband and I looked at purchasing a house about 10 years ago, we looked in a lot of really great neighborhoods; we looked at Enatai, Mercer Island, along the West Lake Sammamish, over in Somerset. But what neither of us could deny was our natural draw to the Bridle Trails area, not just because of the schools, which is important to me, but mostly because of what Bridle Trails is truly defined by -- the space, the horses, the trees and trails. It really spoke to us.

When learning about the proposed project by PSE, there were a handful of things that concerned me; one of which is how dramatically this will forever change the landscape of my neighborhood. People might say, "Well, we'll just plant more trees." But do you really understand how long it takes for trees to grow to the height of the ones that will be cut down? That won't happen in my generation or even my children's generation, the animals that live in those trees and the ecological benefit of those trees.

The City has a documented goal of trying to increase the canopy in the city, yet PSE will be cutting down nearly a thousand trees in my neighborhood alone and perhaps up to 8,000 trees in total. But the number's actually not even known until they do their actual count of the trees. This takes away from our city's goal.

My neighborhood will be changed, also, by the size of the utility poles that are 135-feet tall, as we've all heard; our current poles are 40- to 50-feet tall. That makes these poles 30- to 40-feet taller than the trees themselves that, hopefully, will still be around, but most will be cut down. They'll stand out, not to just be obvious for the people in the neighborhood, but visible from far away, as well. And is this really the vision we want for our city?

The proposed plan not only decreases the value of my home, but also has me paying for it through my taxes for a number of years. So who is really benefiting from this plan? Is it Bridle Trails, Somerset, Newcastle? No. Does Bellevue benefit from it? I would argue no to that, as well.

Another concern of mine has to do with the health impact of these poles. I'm a pediatric ER nurse. I have cared for many families whose children suffer from a variety of illnesses. Can you tell me with certainty that the plan will not increase or negatively impact the health of our youth and our other citizens with the increase in EMF? PSE says that there is no impact, and that's an answer that I actually expect from them, even with current research. But here's the thing about it: The hard thing is about cancer, cardiac conditions, seizures, and other health problems is

that although our scientists work really hard, we don't have the answers. These answers generally come decades later, after a lot of work of trying to find and identifying a common thread in the patients, and sometimes it doesn't happen until subsequent generations.

So I would just ask: Can PSE, with a hundred percent certainty, guarantee that there's no adverse effect? And as a homeowner, a mom, a nurse, a second-generation Bridle Trails resident to ask PSE and the City of Bellevue to look at other options. The devastation from the neighborhoods, from the trees, the wetlands, the health implications are really solid reasons why this current plan is definitely not what is best for our city. It might be best for PSE, but what about Bellevue? What's best for us?

MS. WAGONER: Thank you.

MS. BRADFIELD: All right. We are ready for the next five. We've got Don Marsh, Kris Guerquin, Kelly Boch -- oh, maybe she signed up twice. Ronald Chatterton, and Ben Sharpe. And that is all.

MS. WAGONER: So, Mr. Marsh.

MR. MARSH: I think I mismarked that. That should be a 5-minute thing. I was classifying ourselves exactly as a 501(c)(4), but I think that is probably what you meant. So I'll take the 5 minutes.

MS. WAGONER: So we will give you five.

MR. MARSH: And I just want to say I am so impressed with the quality of the testimony that I've heard tonight. You've got massive brainpower in this area, and I think that it's really extraordinary just to sit back and watch all the great reasons and great research that people have come up with.

So anyway, I'm Don Marsh. I'm speaking for many hundreds of residents who support CENSE, the Coalition of Eastside Neighborhoods for Sensible Energy. We have opposed the Energize Eastside project for over a year. During this time, we've frequently been stymied by the way PSE is gaming our system of government, and we want to be sure this EIS project isn't similarly tainted.

For example, we are very concerned that this EIS leaves out extremely important evaluation factors, such as the impact on earth, housing, and economic vitality of our communities. Let me illustrate.

Suppose a resident is worried that the safety of her family is jeopardized by the huge poles and high voltages envisioned by this project in close proximity to the aging petroleum pipeline that has already claimed lives in our region. Supposed she is worried about the increased danger that this poses during a large and probably inevitable earthquake in the Pacific Northwest. Could she ask for this to be studied in the EIS? No, since the earth element is

currently excluded from the study. Her question is not considered relevant. This makes no sense.

Suppose a resident is concerned that the huge poles that need to be excavated to install these poles will change the flow of underground water springs in his neighborhood. As a result, his basement might begin to flood at certain times of the year. This question involves movement of the earth, and it will be ruled outside the scope of the EIS.

The fact that housing is excluded from the study during this EIS is a concern for many of us. Those living close to the poles will find that potential buyers for their homes may not qualify for FHA loan guarantees. That's because FHA disallows homes within striking distance of a falling pole, and the increased height of these poles will expand the danger radius by a factor of two to three. Many home loans are based on FHA criteria, so this will disqualify a lot of buyers, decreasing the value of the home.

In fact, the exclusion of economic effects is extremely worrisome to us. This transmission line takes a direct route through dozens of neighborhoods. We have an estimate from the King County Assessor that this could decrease the value of these properties by at least 10 percent and probably more. If you add up the total economic impact along the 18-mile route, we are talking about permanently destroying tens or hundreds of millions of dollars on top of

the hundreds of millions of upfront costs for the project. If you don't account for this impact, you can't properly judge the value of alternatives that don't destroy property values.

It is hard for us to understand how these important factors were left out of this EIS. Let us be clear about this: Residents of the Eastside cities will insist that earth, housing, and economic impact are studied in this EIS. If these factors are not added, this whole effort will be subject to litigation, wasting everyone's time and money. It will delay the ultimate decision and prolong the agony of residents who won't know what the future holds for their families and their neighborhoods. No one wants this outcome.

In closing, I want to assure all my neighbors who are gathered here tonight that CENSE will continue to vigorously oppose this project by every means possible: in the EIS, in the City Council in local elections, and if we have to, in court. Thank you.

MS. WAGONER: Thank you, Mr. Marsh.

Kris Guerquin.

MR. GUERQUIN: Thank you very much for allowing me to speak. I live in 3421-167th Avenue Southeast. It is Weowna Park area. And in spite of the fact that I am not affected directly by this line, I don't like it, and I think

it is big mistake to put it. To support my claim, I have three points and one small question on that for the end.

First of all, health impact: How the electromagnetic field created by these power lines will affect us. We don't know. Scientists say, "Oh, there is no proof that it is dangerous." Yeah, okay. But do you remember years ago DDT, so wonderful, miracle means to destroy pests which are taking away our fruit? They are killing all these pests, and it was fine. It appears it was not so fine because people were dying also. And we are sorry after it.

Similar stuff was with Agent Orange. People in Vietnam are dying till today for it. We are sorry, yes, but why are we using it? Because it was safe, it was good? Fine.

Do you remember lead in the paint in our apartments, in our homes, in our offices? It was safe, everything was fine. And after it, we are sorry. Scientists make mistakes. I'm sorry.

The same with asbestos. The same as with -- today with GeoMol, with Roundup, with vaccinations, you name it. We have to stop this chain of bad decisions because we are killing ourselves. It is bad. It is one point. I don't like it.

Next, I traveled in other places in the world. I know some cities in Europe, big cities, like Paris, like Brussels, like Berlin, Hamburg, Vienna, Warsaw. And I

haven't seen a power line so strong in the neighborhoods where people are living.

And now I have a question: If this project is so smart and good, are these people in Europe idiots? They don't know what's going on; it is dangerous? Look, we have access to the Internet, right? We can call them for free and ask.

Do they need electricity inside of the city? Of course, yes, they need it. How are they supporting this energy: with power lines, with high voltage? No. Ask them how they are solving this problem. Maybe they have some secrets which are preventing them, maybe. I don't know. But that's easy.

And the third thing: The base of this presentation was that there is a need for increased growth of Seattle. The growth from the previous years was interpolated. But look, today, growth of United States average is below 1 percent. Maybe Bellevue is a little above. How long, I don't know. Do we see the light at the end of the tunnel? No. There is nothing like that. It will stay that way, stagnation.

The growth which was 10, 15, 20 years ago in Bellevue cannot be interpolated and put into the future, oh, we need so much energy. Maybe we don't need it at all. It means maybe this case is dead.

And I have another question.

MS. WAGONER: If you can wrap up.

MR. GUERQUIN: I am sorry. I need to wrap up. Yeah, trees, cut trees. We know that trees are beautiful co2 eaters. If you cut the trees, we will have more co2, and there are some very strong people, by the way, but very strong voices to tax everybody for producing co2. It means we'll produce more co2 in Seattle. Who will pay for this co2 that's not eaten by these trees, cut trees?

MS. WAGONER: All right.

MR. GUERQUIN: Okay. Thank you very much.

MS. WAGONER: All right. We appreciate your comments.

All right. Ronald Chatterton.

MR. CHATTERTON: My name is Ron Chatterton. I live at 8449-129th Avenue Southeast in Newcastle, Washington. And the gas lines are right outside my back fence. And every day I think about those gas lines: What if one of those things blow up? All the jet fuel that flows from Bellingham down to Sea-Tac that was mentioned earlier, is going right in my backyard. And there's power poles out there now. A little earthquake, just a little one, those power poles are going to shake a little bit. Maybe one of those gas lines will blow up and kill somebody in our neighborhood, like they did in Bellingham.

I was waiting for the comment about electromagnetic frequencies. There was a gentlemen back here earlier that

said they worked for Puget Sound Energy 20 years ago, and that was a big deal. But still, they don't know what those do. Do they cause cancer? What health effects do those really have? And why, at this point, can't we figure that out and get some clear-cut answers?

It's interesting, one of the meetings we went to with the power company, the lines go around schools. They get higher, and they go around the schools. I found that pretty interesting, why they're lower at most points, but when they get to a school, they go up and around.

And on the board out here, there were things that we've heard from Puget Sound Energy, what they put on the board, but there wasn't safety on the board. That's just kind of blatant, isn't it, that safety isn't one of the main things that are on the board out here that we should all be concerned about that? That was all I had. Thank you.

MS. WAGONER: Thank you.

Ben Sharpe.

MR. SHARPE: Yeah, I'm Ben Sharpe. I live at 13622 Southeast Fifth Street in Bellevue. I guess I'm the last commenter, so I'll keep it quick so we can all go home.

MS. WAGONER: There's actually one more. Someone else signed up.

MR. SHARPE: So I want to thank everybody here, the two here specifically that I've been sitting behind, for

all their effort in putting together comments. I thought it was great and really educational. So thank you, thank you everybody for your time that you've put into this. I appreciate that, as does my family.

I have a couple of comments to add. I support and appreciate all the commentary on the safety consideration that have been raised tonight. I think that's a very important part of this process that needs to be considered. And I echo the comments of the last gentleman about why that's not been in the paperwork out on the boards or in the paperwork that we see on the boards that we drive by. It should be.

I'm also concerned about the environmental concerns and the destruction of the public property, of our property. These are parks. A lot of these areas -- I live by Kelsey Creek Park; it's a park. And I think putting these things in a park is destruction of public property. Destroying our views is a thing that I don't think makes sense. I think that needs to be considered.

The earthquake safety and the macroeconomic property tax increase that has been raised tonight, I think are also worthy of consideration of this process.

On a particular note, I found that the advertisements for public comment have been inadequate. All I've seen or heard about is the signs. I have several neighbors that

don't drive; they're elderly. I don't know how they'd know to be here, so I think that that needs to be improved on the part of the City.

I'm also concerned that a 2012 report cites a need, capacity issues by 2017; however, this process isn't going to be completed until 2018, according to what I saw earlier. So there has to be a better way that gets us to mitigate the outage concerns faster, right? I mean, if we're not even going to get there with all the dissatisfied potential power outage or capacity issues, it doesn't make sense why we'd go down that route in the first place.

I'm concerned about the implicit bias on the part of City of the Bellevue being in charge of making this determination, where, you know, the cost increase, if they decide not to favor this route, as the first commenter said, we, the City of Bellevue, would be responsible for the cost increase. I'm concerned that that's kind of like the fox watching the henhouse. If the City does, indeed, decide that this isn't the best solution and there's another solution that may be more costly, that they may not favor that because they would have to bear the cost, and that could increase the budget deficit for the City.

So I'm concerned with that process. And I think that there needs to be a bit more information and transparency in the whole process, but it sounds like others have commented

on, as well, about just how this works and how we, as citizens, can be assured that there truly is no bias in that process.

Lastly, I'd like to just ask as part of that, has the City's risk management department looked at this and the cost to us as citizens if there is an accident or something does happen, what -- you know, what the City's risk management department has done in terms of analyzing the cost and the impact of that on the City of Bellevue and us, its residents. Thank you.

MS. WAGONER: Thank you.

We've had three more people request to speak. So we have Nancy O'Brien-Abel, Todd Andersen, and Jan Arnesen.

So, Nancy, please.

MS. O'BRIEN-ABEL: Thank you for adding me on. My husband, Mike Abel, spoke earlier, the engineer that works with the Berkeley and Stanford sciences. My address, 4401-138th Avenue Southeast, Bellevue. And I just had an addendum to add to what he said, and I think it's important because there's been several comments today about the 1999 explosion in Bellingham, which everybody knows about. But there's another one that occurred in Renton 4 years later, 5 years later, in 2004, and the PI article -- people can pull it up and look at it, the May 24, 2004. And I just want to read a few paragraphs because, otherwise, I'll keep this

really, really short.

The heading is: "Wear caused gas leak in Olympic Pipeline. But source of spark that triggered the fire remains unknown."

And a couple quick paragraphs: "A pinhole-size leak caused by wear unleashed thousands of gallons of gasoline that fueled the Olympic Pipeline. Fire and explosion near Westfield Shopping Center, Southcenter, early Sunday, investigators said yesterday, but the source of the spark that ignited the gas remains unknown. The accident in Renton triggered an immediate shutdown of the pipeline that carries more than 11 million gallons of fuel a day in Western Washington."

It goes on and says, "Some critics said the accident demonstrated that Olympic" -- in other words, Olympic Pipeline -- "which sought protection from creditors and bankruptcy court last year, can't be trusted when it comes to safety. The company's spokesman responded that Olympic's safety procedures have been beefed up considerably since the oil giant BP, British Petroleum, began operating the company 4 years ago, but that no pipeline is risk free.

The leak occurred in a half-inch-wide tube of stainless steel that Olympic operators occasionally used to extract fuel samples from the system's 16-inch-wide main line. The flames erupted 20-feet high, engulfing a small building and

sending three firefighters to the hospital. A mile square area, which included a nearby fire station, was cordoned off. Olympic president, Bobby Talley, general manager, said the metal electrical conduit line apparently had been rubbing against the stainless steel sampling tube to open this pinhole leak that leaked 3,300 to 10,000 gallons of gas from the Renton pumping station on Lind Avenue Southwest."

And there's a little bit more to it, but I will end there.

MS. WAGONER: Thank you.

AUDIENCE MEMBER: What could possibly go wrong?

MS. WAGONER: Todd Andersen.

MR. ANDERSEN: Hi. Todd Andersen, Bellevue resident. I was a little surprised that this effort is being done as a state Environmental Impact Statement when it needs to be a national Environmental Impact Statement. And there's several criteria for this, but this would allow a lot more scope to increase. So all of you should be greatly in favor of that.

If you go into PSE's Needs Assessment document, and you look at all the failures for the need for this project, all of them are Bonneville Power authority except for two. Those two that are PSEs, which are less than 5 percent of the entire failures, there's only two of them that are PSEs. And you go look at the conditions that they result under,

they are for high north-south flows, that's a euphemism for high Canada-U.S. flows. So when you have power flows that go across an international border, you have to have a national Environmental Impact Statement.

When you have a hard-head Jew who is the head planner for Puget Sound -- used to be the head planner for PSE, he knows that he can't get this power, the new power that's coming on from dams -- Site C dams that's coming online in about 8 years -- down to California without -- by doing it through his planning process, because he would be forced to do an international -- do a national Environmental Impact Statement.

And then the last reason that this needs to be done, a national EIS, is that the U.S. government determined in a report in June 2014 that the Southern Resident Orcas that the reason why they're on the endangered species list is for hydrodam power operations. And any time you have an endangered species that crosses international borders, it has to be a national EIS.

So there's a plethora of reasons why this needs to be done. And that's why I'm here.

And then the last reason, the PSE needs to consider peaking generators. They claim that they looked at it, but the EPA wouldn't let them do it. But they never submitted any documentation to the EPA, to the state ecology to have

that done. And the environmental impact of that is in order of magnitude.

So it looks like I got some more time here. Is there anything else I could say?

You have 10,000 kilowatts of incandescent power just in this City Hall.

MS. WAGONER: And you are out of time.

MR. ANDERSEN: You have 250 kilowatts over at Whole Foods. If you add it all up using NIA -- write that down, Mark -- nia.org. When you use all the lightbulb demographics from nia.org and you take into account the Department of Energy's failure rate for compact fluorescents across 300 models, you will find that the remaining incandescent load that is just in the Puget Sound area, is 600 megawatts. And that's the entire usage right now that we're getting ready to go over.

There's a bunch more. I'll be submitting written testimony. So thank you for your time.

MS. WAGONER: Thank you. Thanks for that.

Jan Arnesen.

MS. ARNESEN: Hi. My name is Jan Arnesen. I live at 6515-128th Avenue Southeast in Bellevue. We live right on the pipeline. My husband spoke earlier and told you about the incident.

Our power lines and the pipeline both go through our

backyard. They are, what would you say, 15 feet apart at the most?

Also, in addition to that, there's a trail that goes there, and on the other side of the trail is wetlands, which could be a problem.

So we have a daughter who is a city planner. She says that power lines of this voltage normally, if they're anyplace else, they would be now put underground, which has not been even -- I don't know. Has it been addressed because of the cost, I'm sure? But then when you look at the cost of building all this and you have one accident, can you imagine the liability that you would be responsible for?

Anyway, the other thing that I wanted to comment on was when we had that little accident in the neighbor's backyard, I was talking to the fireman that was there that came. He said, "We just kind of, you know, put the tape out and block it off, and, you know, we can't go in and do anything because we don't want to get near that," because he said before he had worked out -- you know, where there were not residents, but he said that there was a similar situation where it hit a tree, the power went down -- and this is the high voltage, I'm talking about, not what we have now that's twice as much -- came down. And when they looked at it the next day, they found that the ground around the tree was petrified because of the high voltage. So I thought that

was important for you to know.

I just want to applaud the expertise of all of you and wonder why somewhere way back in the planning stages, our Bellevue expertise hadn't been asked to give some input that would've probably saved you much, much, much money and gotten us to a place where we could all come together and really press for a good project for our area. Thank you.

MS. WAGONER: That is our last speaker this evening. I want to thank you all for your thoughtful comments and, also, your courteous behavior.

And then I would like to see, would any of you like to say anything in closing?

MS. HELLAND: I would like to thank all of you. And thank you so much for waiting and being courteous; we really appreciate it because we do want to hear from you, and the lack of disruption, obviously, helps us have a better understanding of what your concerns are.

I do want to -- in my notes, I have taken many, but dispel two bits of misinformation. The first is the taxpayers are not paying for this EIS. The EIS, the City of Bellevue will be recouping those funds from PSE. The reason why we are operating this project is because we are the objective -- what did I say?

AUDIENCE MEMBERS: (Several speaking at one time.)

MS. HELLAND: Well, okay. But the point being made was that the City of Bellevue was paying for this. We are recouping those expenses from PSE, so I don't want you to think that there weren't -- anyway.

This second question/issue is, I don't want to leave anyone with the impression that any topic has been excluded from discussion, which got some -- just commented on by a couple of people. And we have more of the information packages, if anybody wants them, which we will -- I can hand out at the end here, too.

But especially with regard to the elements in the environment, the point of the scoping meeting was to hear from you about those elements of the environment. And this was a preliminary list to get people's kind of creative juices going. We've heard, clearly, tonight safety is an issue on people's minds that warrants analysis.

AUDIENCE MEMBER: We don't want to die.

MS. HELLAND: So what I want to say to you this evening is, your participation helps scope the nature of this analysis and your feedback is helpful.

AUDIENCE MEMBER: The point was that the initial research in this area wasn't there. Not that it wasn't here tonight. We thank you for listening to us tonight.

MS. LOPEZ: But, Carol, does this mean that we

will have this -- does this mean -- does your comment mean that we will have those elements which we've set forth, Don and a few others, that they will be accepted as elements in the EIS? That is the question.

MS. HELLAND: I can't answer it because we're going to list --

MS. LOPEZ: Who decides that, and when we will know? Will we know before the June 15th cutoff period? Because after June 15th, we cannot -- we do not have anything to say; they will not listen to us.

AUDIENCE MEMBER: We were told that you were the ultimate arbiter. Are you or are you not?

MS. HELLAND: So first of all, there are five cities involved.

MS. LOPEZ: I understand that.

MS. HELLAND: We will all agree jointly to the elements of the environment, and we will keep everyone informed. Your opportunity to comment does not stop on June 15th, and I don't know where you felt like you got that information.

MS. LOPEZ: It's the website --

MS. HELLAND: Can I finish?

MS. LOPEZ: Yes, you can.

MS. HELLAND: Can I finish?

MS. LOPEZ: But please explain carefully

because most of us, many of us, it is not clear. And we know from the 148th problem, and you know that was a problem, that all the council members and all the staff said, "We cannot do anything. The record is closed," and all of that. That has caused a lot of confusion.

Now, that may be a mistake, but your responsibility is to explain that to the citizens.

MS. HELLAND: I will explain that. In an effort to get out of here by nine o'clock like we said, that is how we will end the meeting.

With respect to this topic, the EIS is an evaluation process; it is not a permitting process. So I do want to make that completely clear. There will be a separate opportunity when those permits come in to comment on the permits based on the information that is disclosed on the EIS.

So the process right now is, we're at the very front end; we just started, just started putting up signs, just started, essentially, doing outreach. 45 days this process will be open. This is just for the scoping. This is just to say, "What do we include in the EIS?" And your feedback has been valuable this evening. There have been a lot of issues raised that don't necessarily fall neatly into the boxes that we described in these handouts. And for that, we appreciate your feedback.

The next step will be we will analyze issues in the Phase 1 piece of the EIS, which is, how are the various different alternatives being aligned to meet a problem that an applicant has said needs solving? And the City of Bellevue, in collaboration with the other four cities, will be doing that.

At the end, then we will look at preferred alternatives. There will be other comment periods as part of the preferred alternatives at our project levels, and then there will be permits. As Mark said earlier, it's about a 2-year process just for the EIS.

MS. LOPEZ: And I've followed many EIS processes --

MS. HELLAND: I understand that.

MS. LOPEZ: -- in the City of Bellevue, so I'm aware of that.

The June 15th deadline that is on the website, please explain what that means. On June 16th, can we come in here and tell you what we think about the status of the EIS, and will it mean anything?

MS. HELLAND: There will be plenty of times to comment. This comment period that's open right now is, how do we scope the first phase of the EIS?

MS. LOPEZ: And what does it mean how -- what does it mean by the first phase of the EIS? Because most of

us don't know that because we're not reading the WACs or the RCWs.

MS. HELLAND: And we're not trying to do that. And you know what? Like I said, in an effort to get out of here by nine o'clock, I'm going to actually --

AUDIENCE MEMBER: Could you answer the question? Because your answer was not the answer to the question. It was a very simple question. There are additional elements for the scoping that came in today. And what I tried to hear in answer tonight was there was 45 days where you would consider all additional elements for the scoping. So my very simple question is, when will be the final decision: 45 days, or what elements are part of the scoping, and who is deciding? Very simple question. Please answer that question.

MS. HELLAND: Ultimately, I will decide. So if you want to come to me and talk to me about it, you may contact me.

AUDIENCE MEMBER: Okay. Because I think it's good elements. So you're going to decide in 45 days. Is that what I hear?

MS. HELLAND: It won't be specifically at the end of the 45 days because we will be accepting comments and then we will have to, essentially, review all those comments.

AUDIENCE MEMBER: Okay. Within those 45 days, you're going to decide which elements you're going to consider, right?

MS. HELLAND: Not within the 45 days. We will be in-taking comments.

AUDIENCE MEMBER: Okay. So after the 45 days you're going to decide. Okay.

MS. HELLAND: And then we'll move on.

AUDIENCE MEMBER: So then how will this be communicated?

MS. HELLAND: The website. We have the website. The website is probably the very best way. And that information is included in this documentation.

AUDIENCE MEMBER: Okay. Thank you.

MS. LOPEZ: And, Carol, once you or you all decide this, once that decision is made, assume for example, you decide no, we're not going to allow the housing element or the economic impact, if you decide that, then do the citizens have the meaningful right to comment on the record that will be reviewed in the entire scope of this EIS?

MS. HELLAND: You have the draft EIS, which will be --

MS. LOPEZ: And that draft EIS, that comment period, is it 30 days or 45 days?

MS. HELLAND: Usually it's a 45-day comment

period.

MS. LOPEZ: But we will only be able to comment -- assume you omit that, assume you decide no. We will only be able to comment in a draft EIS; is that correct?

MS. HELLAND: I actually don't understand your question, Loretta.

MS. LOPEZ: All right. I'll say it again.

MS. HELLAND: It's 45 days.

MS. LOPEZ: No, no, that's not my question. Assume you do not -- you decide that you're not going to include the element -- the economic element in the EIS, assume that's your decision, okay? Then we get to the draft EIS in issue, and you said it is at that point that we can, then, comment on, in this case, the omission of the economic element; is that correct?

MS. HELLAND: That is correct.

MS. LOPEZ: And that means that at the time that draft EIS is issued, we have that 45-day period, and only that period, to comment that you -- we object that you haven't allowed that.

Okay. I think that's what people need to know because then it makes it clear.

MS. HELLAND: And I think Mark actually put up a slide that --

MS. LOPEZ: But it's really difficult -- and I thank you for trying, and I thank you for answering the questions. But it's really difficult to look at that and know what it means on the ground because most of the people here do other things than plan. We're the ones who are working so that we can pay for all of this. And so it has to be -- how shall I say?

AUDIENCE MEMBER: Digestible.

MS. LOPEZ: Yeah. So that we know, All right. Well, what does that mean? Because that 45-day-comment circle up there doesn't mean anything to us.

MS. HELLAND: Well, Loretta, we'll work on our graphics.

MS. LOPEZ: Thank you.

MS. HELLAND: Thank you for the feedback. It is now nine o'clock. I do want to thank you and give you all my appreciation for coming, and have a nice evening. Drive safely.

(EIS hearing concluded at 9:01 p.m.)

The EIS Scoping Process has started. What can I do to help fight Energize Eastside?

By CENSE - The Coalition of Eastside Neighborhoods for Sensible Energy

PSE has proposed building 18 miles of high voltage transmission lines on massive 130' poles through five Eastside cities: Newcastle, Renton, Bellevue, Redmond and Kirkland. This project would have a long term devastating impact on the entire Eastside. Everyone would be affected, not just those who live under the poles. Poles this size do not currently exist anywhere on the Eastside. Over 8,000 mature trees would be destroyed. The poles would be built atop an aging pressurized jet fuel pipeline that runs from Anacortes to SeaTac, in a seismically active zone. All of this sounds troubling, but is it something we must simply accept as a part of increasing electrical reliability for peak usage on the coldest days of the year?

CENSE is an all volunteer group of citizens who has spent thousands of hours doing research on this project, interviewing experts, engaging with the decision makers and informing the public. We sensed early on that the amount of power PSE seeks to bring to the Eastside far outweighs the need.

After nearly a year of effort, CENSE has reached the conclusion that **Energize Eastside is NOT necessary.** ***There are better, less costly, and more reliable ways to meet our energy needs.***

The time is NOW for the public to speak up. **The Environmental Impact Study (EIS) Scoping Phase runs now until June 15th, 2015.**

Q: *How can I help?*

By entering a formal comment in the EIS scoping phase. This can be accomplished three ways.

1. **Attend an EIS scoping meeting** and make your comment live and in person. There are 5 meetings scheduled. **You can attend any meeting, not just the one that is happening in your city.**
   The dates are:
   - **May 12, 6-9 p.m., Bellevue City Hall**
   - **May 14, 6-8 p.m., Renton City Hall**
   - **May 26, 6-8 p.m., Kirkland City Hall**
   - **May 28, 6-8 p.m., Newcastle Elementary**
   - **May 30, 2-4 p.m., North Bellevue Community Center**

2. Use the EIS comment form.
   Click here: http://www.energizeeastsideeis.org/scoping-comment-form.html

Q: *What should I say?*

The city of Bellevue wants to know what you think. Is this project the best way to improve electrical grid reliability for Eastside communities? What other types of solutions should be explored?

Comments on the Scope of Energize Eastside EIS

Energize Eastside EIS Scoping Meeting #1 Bellevue • May 12, 2015

Name Ronald Chatterton Address* 8499 129th Ave SE
Newcastle WA 98056

* *You must provide your physical mailing address to be considered a "party of record," eligible to appeal the adequacy of the EIS.*

(1) Safety! This project on 100 foot easements. Not one But TWO Gas lines... I can Happen again Bellingham People Died was that worth it? Huge 130' feet High Poles buried Deep 15 to 50' Feet!! Puget Sound is on Fault line Earth Quake Should be listed ~~for~~ by PSE.

(2) Property Devaluation 25%+ Feels like "Too Bad" For You!

(3) Power isnt need now. Look @ History of Temp Average Tempeture!

energize EASTSIDE EIS Environmental Impact Statement

COMMENTS:

Linda Young
12813 SE 80th Way
Newcastle, WA 98056

425 207 8084

Homeowner Olympus, Newcastle, WA

USE states on Page 56 that there is no governmental regulation of ColumbiaGrid, the consortium of utility companies that approved Energize Eastside. This is NOT correct. The Federal Energy Regulatory Commission is responsible for overseeing the activities of ColumbiaGrid.

How can Puget Sound Energy even think about putting huge poles and 230 volts over ancient gas lines belonging to Olympic Pipe Line? Who has the deep, deep pockets to pay out millions of dollars for burnt to death citizens of the Eastside?

What Puget Sound Energy wants to do is greed and more greed and not a single thought for the long-term health and safety of the public.

Comments on the Scope of Energize Eastside EIS

Energize Eastside EIS Scoping Meeting #1 Bellevue • May 12, 2015

Name Alison Dildine Address* 8455 128th Ave SE
Newcastle, WA. 98056

* *You must provide your physical mailing address to be considered a "party of record," eligible to appeal the adequacy of the EIS.*

I am strongly opposed to the Energize Eastside project proposed by PSE. I have attended the initial community meetings as well as Newcastle Council meetings. I do not believe this project is necessary and don't want the impact this project will have on the Eastside and our neighborhoods. The reduction of house values, removal of trees, increased pole height, increased radiation exposure, danger of digging close to the gas pipeline in Olympus and other neighborhoods are all reasons of concern. PSE's reasons for the need of upgrades now are not convincing based on the information they have given us. Please don't approve a permit for this project. — Alison Dildine

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Comments on the Scope of Energize Eastside EIS

Energize Eastside EIS Scoping Meeting #1 Bellevue • May 12, 2015

Name Carin Chatterton Address* 8449 129th AVE SE
Newcastle WA 98056

* *You must provide your physical mailing address to be considered a "party of record," eligible to appeal the adequacy of the EIS.*

It's shameful that a foreign held company can take down 8000 trees, disrupting people's views, animals — the environment!
It's also shameful that they've considering working, with large trucks. on a 50 year old pipeline. one that, if we need do drive on it with our cars are asked to not

the pipeline people know because of the danger of explosion in our neighborhood, we don't need this extreme amount of power — Look forward — there are better alternatives — batteries, etc...

Comments on the Scope of Energize Eastside EIS

Energize Eastside EIS Scoping Meeting #1 Bellevue • May 12, 2015

Name Michelle Hall Address* 4818 134th Pl. SE Bellevue 98006

** You must provide your physical mailing address to be considered a "party of record," eligible to appeal the adequacy of the EIS.*

- Has any other company determined future demand of Bellevue's energy need? other than PSE or a PSE affiliate?

- #1 Benefit of Bellevue: NEIGHBORHOOD ENVIRONMENT

* Using PSE's determination of Bellevue's energy needs is like: Asking a Dr. being sued for malpractice if he is a good Doctor!!

energize EASTSIDE EIS Environmental Impact Statement

Comments by James Adcock, electrical engineer, resident of Eastgate 5/11/2015

Thank you for letting me speak tonight, something that PSE in its prior meetings has consistently prevented me from doing.

I ask that all documents used by City, its Consultants, or PSE, in the EIS process be made fully public on an equal basis to all sides, including interested citizen residents of the area. The EIS site lists several documents that have only been made available on a partial basis, retaining significant sections as "secret" aka "redacted." Similarly City's Consultants claim that the documents they reference are available to the public. I have attempted to obtain these documents, as an electrical engineer, for example from ColumbiaGrid, and ColumbiaGrid has not been responsive. Thus, in practice, these documents are NOT being made available on an equal basis to all interested parties. Rather they are being kept "secret" from us citizens. I believe that an EIS is required to be a "public teaching." Documents used in an EIS must be made fully public. Anything else is grossly unfair and inappropriate.

Make public now all routes and possible solutions no matter to what depth PSE pursued these options, and explain why PSE did not pursue these other options. Let us see whether or not we agree. Let us get our own technical experts. Do not continue to keep these things "secret."

The EIS should actually identify any living residencies with 100 feet of the vertical shadow of the proposed transmission lines. The original TetraTech analysis simply assumed that there were no homes within 100 feet, and if there were homes within 100 feet, PSE and TetraTech simply modified the GPS locations of any such homes in their TetraTech analysis software to pretend they are at a distance of 100 feet. We need to actually know about any homes within 100 as part of the EIS.

Destruction of scenic views: PSE continues to trivialize the destruction of scenic views, calling this not even an EIS issue, but rather "aesthetics." I disagree. Destruction of scenic views is a well-known environmental impact issue for utilities including PSE, who have to deal with the issue of Regional Haze, for example, which destroys scenic views. I suggest that the EIS must use a truly

independent expert, such as a real estate agent practicing in the scenic view impact areas, in order to quantify the economic loss to these properties. Loss of scenic views IS an environmental and economic loss to these properties. This is known. The King County assessor assigns lower real dollar property value to homes with obstructed views compared to homes with unobstructed view. PSE could have accessed this assessor records. PSE refused to do so. Homeowners collectively stand to lose 10's of millions of dollars because of the needless destruction of scenic views by this project.

Quantify what percentage, and actual megawatt loads, on the proposed line, will actually be used to serve the Eastside, as opposed to be used to support "cut through load" – power being transferred through our bedroom communities but not actually being used in service to the Eastside. The proposed 230kV line will carry 5 to 10 times more load that the existing 120kv line, but Eastside load growth is only projected to be in the 20% region over the next decade. Please explain to us how this addition 480% to 980% capacity is going to be used – if not to service "cut through load" ??? If this project is not actually overwhelmingly being used to service the Eastside, then why does it have to run through our bedroom communities.

Environmental Justice: City of Bellevue planning code requires that transmission lines be located in the areas that benefit from that transmission line. City and PSE both acknowledge that the load growth is coming from business uses, not homeowners. Environmental Justice requires then that the lines be sited in business districts.

For some alternative approach examples, the existing literature lists many innovative techniques to increase the load capacity of existing 120kv lines without going to gigantic 130' tall 240kv power poles – up to 250% increase using 120kv low-pole technology -- including up-conductoring, installing high-temperature conductors, software modeling of weather conditions to dynamically predict load capacity of lines, installing strain gauges to actually dynamically measure line behavior, etc.

Another option includes disconnect of the North vs. South sections of the route at a proposed central Bellevue substation location in order to prevent non-Eastside load from being carried on this line in the first place.

In summary, PSE proposed routes are not necessary, they are a choice of convenience – and profitability -- for PSE. This is what PSE prefers to do because PSE totally ignores Environmental Impacts and thinks only of profits. They have simply totally ignored the impacts of their behavior on the community from day one. We need to go back and fairly examine, openly and honestly ALL possible technical solutions – including letting Seattle City Light take the lead in upconductoring – while at the exact same time examining, openly and honestly, and quantifying, the totality of environmental impacts of each of these choices.

James Adcock

5005 155th PL SE

Bellevue WA 98006

Comments on the Scope of Energize Eastside EIS

Energize Eastside EIS Scoping Meeting #1 Bellevue • May 12, 2015

Name Rebecca Kinnestrand Address* 7612 135th PL NE
Redmond, WA 98052

* *You must provide your physical mailing address to be considered a "party of record," eligible to appeal the adequacy of the EIS.*

Hello,

I am very concerned about the possible destruction of 6 cherry trees that directly border my property.

The trees have been numbered: 7932, 7933, 7935, 7936, 7937, + 7938.

The easement land due East of my property is the land that bordes my backyard. These trees and an azelea plant are within feet of my backyard, then there are other shrubs and blackberry bushes all of which provide privacy and territorial views from the house. Significant destruction for building would greatly affect the view and our property value.

How can I find out about specific tree cutting and planned work that will be happening next to my yard? Is there any way to assure the conservation of these trees?

Thank you,

Rebecca Kinnestrand

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Comments on the Scope of Energize Eastside EIS

Energize Eastside EIS Scoping Meeting #1 Bellevue • May 12, 2015

Name Michelle Hall Address* 4818 134th Pl. SE
Bellevue, 98006

* *You must provide your physical mailing address to be considered a "party of record," eligible to appeal the adequacy of the EIS.*

- I am concerned:

  - that any energy produced for these lines comes from a polluting source such as coal further destroying the environment.

  - that these power lines in such residential neighborhoods provide major health risks

  - these major power lines over jet fuel are a time bomb waiting to happen. ie Bellingham explosion w/2 killed

  - loss of trees that will also deteriorate our Bellevue fresh air.

  - Why are we deteriorating Bellevue's environment to provide Canada with a 3rd power source.

  - no long term thought of advanced technologies considered

energize EASTSIDE EIS Environmental Impact Statement

Comments on the Scope of Energize Eastside EIS

Energize Eastside EIS Scoping Meeting #1 Bellevue • May 12, 2015

Name DAVID F. PLUMMER Address* 14414 NE 14TH PLACE

BELLEVUE, WA 98007

* *You must provide your physical mailing address to be considered a "party of record," eligible to appeal the adequacy of the EIS.*

(1) The determination of significance is inadequate in that the alternatives to PSE's proposal are not sufficiently defined. For example, Alternative 2 could also include increased electric rates, time-of-use rate schedules, etc. There is no description of the type of batteries that might be used, nor how battery-storage of electrical energy reduces demand. There are no quantitative estimates of how the various demand management alternative will contribute to demand/energy reduction.

(2) The description for Alternative 4 is inaccurate, as PSE has not included "battery storage" in its proposal

Comments on the Scope of Energize Eastside EIS

Energize Eastside EIS Scoping Meeting #1 Bellevue • May 12, 2015

Name Cheryl Shannon Address* 6330-135th Ave NE. Kirkland, WA 98033

(pg. 1)

* *You must provide your physical mailing address to be considered a "party of record," eligible to appeal the adequacy of the EIS.*

I am a retired teacher, parent, and resident of Bridle View neighborhood.

I am vehemently opposed to increasing the voltage of the present power lines for safety and enviromental reasons. Alternative strategies must be found for the safety of our children & neighbors who will be exposed to unhealthy levels of electromagnetic radiation.

My doctors (naturopathic) from Bastyr University prescribe not even having a plugged in electric clock nor radio next to my head. (These doctors are Not paid by P.S.E. to concur that there are no ill effects from the electromagnetic field.) One of our junior high's, Rose Hill Jr. High, is right next to the present power lines and the current right-of-way. Increasing the voltage w. the same right-of-way will be putting all of our children in jeopardy with long-term consequences. Are these parents notified of the health risks that P.S.E is

Comments on the Scope of Energize Eastside EIS

Energize Eastside EIS Scoping Meeting #1 Bellevue • May 12, 2015

Name Cheryl Shannon Address* 6330-135th Ave NE
Kirkland, WA 98033

(pg. 2)

* *You must provide your physical mailing address to be considered a "party of record," eligible to appeal the adequacy of the EIS.*

exposing their children to? Is PSE prepared today for the lawsuits and healthcare that PSE will be responsible for in the future care of these children? As a electrical engineers who live in the affected area state: "It's like our children, we will all be living in a microwave!"

This is an unconscientable move - We will ~~not~~ pay nor approve to harm our children and neighbors for your profit!!!

The same old PSE ways will need to be replaced by creative, innovative solutions to preserve our health and beautiful environment!!

Comments on the Scope of Energize Eastside EIS

Energize Eastside EIS Scoping Meeting #1 Bellevue • May 12, 2015

Name W. Robert Moore Address* 4707-135th Pl. S.E.
Bellevue, WA 98006

* *You must provide your physical mailing address to be considered a "party of record," eligible to appeal the adequacy of the EIS.*

I am very concerned about the impact of Energize Eastside on the aesthetic and property values of a city that prides itself on maintaining a pleasing quality of life. I have lived in Bellevue since 1975 (40 years!) and never would has guessed PSE could become such a deceiving and damaging monster. What are the real motives of PSE? To increase the equity value for its foreign investors who have no interest in our community except financial returns? To ride on the backs of increased energy rates paid by its customers for stockholder gains?

There is considerable evidence that the increased electrical capacity is not needed. And alternative sources of less offensive sources are just around the corner if in fact more capacity is needed.

Stop this needless, stupid attack on the innocent citizens of the eastside communities!

W Robert Moore

EIS Environmental Impact Statement

Comments on the Scope of Energize Eastside EIS

Energize Eastside EIS Scoping Meeting #1 Bellevue • May 12, 2015

Name Margaret K. Moore Address* 4707 135th Pl SE
Bellevue, WA 98006

* *You must provide your physical mailing address to be considered a "party of record," eligible to appeal the adequacy of the EIS.*

I am deeply concerned that a major expenditure of resources by PSE will impact our Eastside neighborhoods beyond recourse. We will be forced to pay for energy construction that has not been proven to be either needed for current customers or necessary for future demand.

Further, it seems a shadow consortium of Australian and Canadian interests are enhancing their interests for personal reasons for which we will be paying both monetarily and aesthetically. We do not need 135' tall commercial obtrusive poles strung with 230 rated wire running through Eastside neighborhoods.

A PSE process did not allow all evidence and opinions to be considered. Any EIS process must be enlarged to examine options beyond those on the table and consider the irreparable damage →

the current proposal will do.

Please help us take this potential unnecessary blight off the horizon for all of us.

Dear Representatives,

Evidence compiled by CENSE indicates that the Energize East Side project is pushing an old paradigm which may be obsolete in the near future with the development of new technologies that will make it unnecessary to shunt energy from one end of the country to the other and internationally.

The technology is now available to decentralize the production of energy, therefore making these massive grid systems unnecessary. Energize East Side could become obsolete in the very near future, waisting millions of dollars of tax payers money.

Energize East Side, is a valiant effort by the utilities to lock down their market share, in the face of the growth of technologies that could make the global grid system obsolete. Is the project is simply the death throws of a dying industry?

Please do let let yourselves be swayed by slick corporate power point presentations, but please look much more deeply into this before making a decision. Please encourage PSE to invest in sustainable, decentralized, earth friendly and people friendly energy generation. The technology is here and needs to be supported.

This project is not in the community's best interest, but is in the best interest of cooperate bottom line, as CENSE outlines in detail.

Sincerely
Sandra Storwick
Kirkland WA

The following three articles have been included in support of my concerns. Thank you!

http://www.npr.org/blogs/thetwo-way/2015/05/01/403529202/tesla-ceo-elon-musk-unveils-home-battery-is-3-000-cheap-enough

Tesla CEO Elon Musk Unveils Home Battery; Is $3,000 Cheap Enough?
May 01, 2015 2:05 PM ET
Bill Chappell

In an ambitious bid to move beyond the electric car market, Tesla has announced that it will start selling large batteries to let homeowners store electricity. The Powerwall home battery starts at $3,000.

Tesla CEO Elon Musk unveiled the new batteries Thursday night, in a move that had been both highly anticipated and the subject of much speculation. With a sleek surface and a depth of only about 7 inches, the Powerwall can be mounted on a garage wall or another surface, indoors or outside. It's roughly 4 feet high and 3 feet wide.

Explaining the company's strategy of using solar power, Musk said: "We have this handy fusion reactor in the sky, called the sun. You don't have to do anything; it just works."

The unit is geared toward homeowners who want to do any combination of three things: store backup power, minimize peak-time use of utilities' electricity and get off the commercial power grid entirely.

The Powerwall is seen as having particular allure for people who have (or want) solar panels. The large battery could supply or supplement the energy a household requires when the sun's not out.

On its Powerwall website, Tesla says:

"The average home uses more electricity in the morning and evening than during the day when solar energy is plentiful. Without a home battery, excess solar energy is often sold to the power company and purchased back in the evening. This mismatch adds demand on power plants and increases carbon emissions."

Tesla is taking orders for the batteries now, Musk says, adding that the first deliveries will be made in three to four months.

In recent days, details of the new battery venture were the subject of speculation that ranged from Tesla's reinvention of itself as an energy company to the unit's cost to homeowners.

The Powerwall's price ranges from $3,000 for a 7 kilowatt-hour model and $3,500 for the 10 kwh version. Those prices don't include an DC-to-AC power inverter or installation, but they're still far lower than the $20,000 estimate that one analyst gave to NPR's Steve Henn in the days leading up to Tesla's announcement.

For a report on Friday's Morning Edition, Steve spoke to JB Straubel, Tesla's co-founder and chief technology officer, about the batteries that the company hopes will help revolutionize the electric grid. From Steve's story:

" 'It's amazing the electric grid can work as well as it does with no storage,' Straubel says.

"Think about it. There is no way to store electricity on the grid. If there's a surge in demand and you run an energy company, you have to fire up an extra power plant.

" 'It's an entire market for energy transaction that has no inventory and no buffer,' Straubel says. 'So every single thing is delivered instantaneously, just in time.'

"And that means there is an enormous amount of waste. So Tesla wants to sell its batteries to consumers, businesses, homeowners — even utilities."

Steve also spoke to battery skeptic Robert Bryce, an author and homeowner who said that for him, the batteries would have to be very cheap.

Forbes writer Christopher Helman says that with configurations that supply either 7 kwh or 10 kwh, "the implication is that a 10 kwh system could supply 1,000 watts of current to your home for 10 hours."

But after analyzing the costs and benefits of the system, Helman adds, "If you do not have a big enough solar system to get your home entirely off the grid, then there is simply no point whatsoever in paying 30 cents per kwh to get electricity via the Powerwall."

It remains to be seen whether, for many people, Tesla's starting price of more than $3,000 will be low enough to make the economics of solar energy add up.

The BBC's Richard Taylor sees "a strong commercial rationale for Elon Musk to leverage Tesla's expertise in building highly-efficient car batteries" to put them in houses. But he adds, "The business strategy is a bit like the battery itself: high impact, but a slow release which will really only reap significant benefits over time."

REVOLT AGAINST CLEAN ENERGY SWEEPS NATION

By Trip Van Noppen | Tuesday, February 11, 2014

Workers install rooftop solar panels on a home in Colorado.

DENNIS SCHROEDER / NREL

(Clarification: This column references a letter by California Public Utilities Commissioner Mark Ferron, who said public utilities would likely "strangle" rooftop solar if they could. In a separate part of the letter, he blamed the fossil fuel industry for preventing a national policy on climate change and energy, which as the column points out, is evidenced by the industry's national attack on distributed energy sources like rooftop solar.)
Last month, departing California Public Utilities Commissioner Mark Ferron sounded the alarm on an anti-clean energy trend gathering momentum across the U.S.

In a sharply worded letter to the commission, which regulates all of the state's privately owned electric and gas utilities, he warned that ~~The fossil fuel industry~~ public utilities would likely "strangle" the growth of rooftop solar energy if they could. Ferron advised his colleagues to avoid putting the interests of utilities over those of the public. He was referring to a growing war on solar being waged by utilities across the nation fearful of the threat to their basic business model.
From California to Colorado to North Carolina and other states, many generators of centralized fossil fuel energy are trying to prevent individual Americans from producing clean, renewable solar energy on their own roof tops. They would deny us the opportunity to participate in the greater goal of shifting away from polluting, climate-altering fossil fuels.
There is a simple reason for the utilities' action: They fear losing their monopoly hold on revenue from power production.

Rooftop solar is a game changer that lets consumers generate their own power, reducing the need for a centralized power system and cutting to the heart of the utilities' comfortable position of a guaranteed return. For more than 100 years, power companies have profited from a centralized energy model that distributes power from a fossil-fuel burning power plant out to users through a grid of power lines.
Rooftop solar transforms the system by letting residents and business owners generate their own energy and send extra energy to the grid to power their neighbors' homes and businesses. It allows us to exercise greater control over how much energy we use and from where it comes. People with rooftop solar save on their energy bills, they offer clean energy to others around them, and they reduce demand on the overall power system. They also save communities the risks and costs that come with fossil fuels: climate change, toxic air pollution, water pollution, stresses on community drinking water supplies and more.

Customers who send extra clean energy from their homes and businesses to the grid provide significant value and should be fairly compensated; but instead, utilities seek to penalize them in an effort to make this increasingly cost-effective resource appear uneconomic. Legislation is proposed in 25 states to limit, tax or fine rooftop solar and net metering, the billing arrangement that allows rooftop solar customers to get credit for providing energy to the grid.

Further, in their portfolio planning, utilities are deliberately undervaluing the benefits and overvaluing the costs of rooftop solar. Much of this is an orchestrated campaign by corporate lobby group American Legislative Exchange Council (ALEC) to promote legislation that encourages continued fossil fuel use and discourages competition from renewable energy sources. *The Guardian* reported that ALEC sponsored at least 77 anti-clean energy bills in 34 states in 2012.

In the face of this powerful, well-funded campaign, the individual consumer gets small comfort from government. Congress has utterly failed to address the issue with national policy, and there is weak oversight at the state level, even in California, which is considered a national leader in clean energy development. Ferron noted that California's PUC has been much more attentive to utilities' concerns than to innovative clean energy policies.

Earthjustice is defending against the war on solar with the goal of advancing a transition to clean energy. For example, after months of legal advocacy before Hawai'i's public utilities commission, we and our allies forged an agreement with electric utilities to greatly increase the number of rooftop solar systems connected to the grid. This should pave the way towards weaning that sunshine-soaked state from its 90-percent reliance on fossil-fueled energy generation.

In California, we helped bring about a groundbreaking decision to build innovative high-tech energy storage systems to lessen

the state's dependence on fossil fuels and expand the capacity of the grid to absorb the state's rapidly expanding solar use. And in Colorado, we are in court defending against an industry attack on the state's far-reaching renewable energy standard.
We're not going to stand for inaction in the nation's capital or for utility industry attacks in the states. We seek an energy grid that is open to the public, so that Americans can participate in and benefit from ending our reliance on fossil fuels and delivering clean energy. We're fighting towards that goal one roof at a time.

http://earthjustice.org/blog/2014-february/revolt-against-clean-energy-sweeps-nation

Rooftop Solar: Does It Really Need the Grid?

Robert B. Miller/ Shutterstock

Two views on the future of the electric grid

RenewEconomy, Giles Parkinson

April 25, 2014

In Australia's remote and distant outback, the development of micro- and mini-grids based on solar and battery storage seems a logical step to take, even an economically viable one. But the bigger question for network operators around the world is whether customers in more populated areas will eventually look to adopt similar measures.
At what point, for instance, will the ability of homeowners to buy the necessary equipment for power generation from their local home-improvement store challenge the future viability of the networks?
And at what point will it become possible for communities to pool resources and decide that it will be cheaper to look after their own electricity needs rather than stay on the grid? According to some groups, that point may not be so far away.

There are two technologies that will make this possible. The proliferation of rooftop solar is well documented, as is its continued cost decline. The second key element is battery storage.

As analysts at investment bank Bernstein noted in a recent report, the easiest way to dismiss battery storage (and, by implication, distributed solar) has been to observe that efficient, low-cost energy storage is least two years in the future -- and to believe that it always will be.
But as the experience with solar PV has shown, this can change with the combination of capital, scale and motivation. Whether it be the mandated 1.3 gigawatts of energy storage in California, the 170,000 plug-in vehicles now operating in the U.S., Tesla's planned gigawatt-scale battery plant, or the pull factor of frustrated consumers, the scale, the capital, and the motivation are now beginning to appear.
That will not only empower households and businesses (in both literal and a figurative sense), but it will also remove the ability of distribution

companies and retailers to dictate terms -- and tariffs -- once the sun goes down.

Competitively priced storage is likely to help put peaking power plants out of business, because there will effectively be no peak. But the bigger question is what happens to the grid, and the business models of the utilities that depend on it. How can it morph into what most see as inevitable -- a plug-and-play facility -- and how will it price its services? The Bernstein analysts have provided a fascinating account of a recent conference they hosted in the U.S. that introduced conflicting views of how this will play out.

David Crane, CEO of NRG Energy, the largest privately owned generation company in the U.S., believes that the grid is going the way of the U.S. Postal Service, which is still trying to deliver letters even as more and more people choose email and other forms of social media and technologies to deliver their communications.

The key to the grid's future is in cutting costs, as well as making a gradual change to its business model. Crane recently pondered why the modern grid should be built around 100 million wooden poles and wires. He says investing in more centralized generation and distribution is futile. (His company owns more than 40 gigawatts of centralized generation, it should be pointed out.)

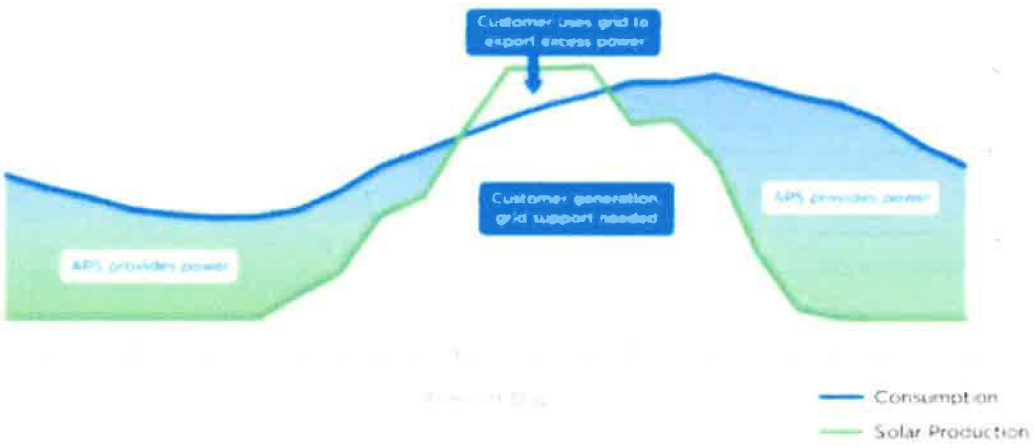
Crane says the inevitable advance of distributed generation, the increasing ability of consumers to meet their needs with a visit to Home Depot, and his preferred model of tying only to the gas grid all mean that the best option for the grid in the future is to act as a backstop source of reliable power.

But is that the future of the grid -- just to act as a backstop?

Ted Craver, the CEO of Edison International, a California-based power distribution company, naturally has a different view. He contends that utilities will remain a critical piece of the electricity puzzle.

He has several reasons for saying so. One is that many people simply won't have the option to take their homes or even their communities off-grid, particularly those who live in apartment buildings, or the owners of shopping centers and office buildings. Even those who can provide a lot of their electricity from rooftop solar cannot meet the pre-dawn and post-dusk demand requirements (until the widespread adoption of storage).

TYPICAL GRID INTERACTION FOR ROOFTOP SOLAR



The second reason is that the startup loads of electric motors, such as those used for air conditioning and pool pumps, can be twice as high as the load of those motors when operating. Rather than double the size of their PV systems and inverters, residential customers will find it more economic to draw power from the grid during startup periods.
The third is that utility-owned assets will be needed to transport renewable power from remote locations to load centers, and even distributed solar would require grid upgrades to accommodate changes in voltage, as would the widespread deployment of plug-in electric vehicles, whose charging load is comparable to that of an average home.

According to Craver, the grid will need to evolve to a plug-and-play system capable of sensing and accommodating two-way electricity flows while maintaining constant grid voltage.

But there are potential problems when it comes to determining how to price that service. As utilities respond to the growing adoption of solar, they will seek to cover their fixed costs -- but this in turn only enhances the attractiveness of distributed solar generation as an alternative to grid-supplied electricity, likely accelerating adoption and further eroding utility sales and revenues.

"The utilities...face a vicious cycle where the growth of distributed solar generation forces rate increases that accelerate the growth of distributed solar," the Bernstein analysts note. The utilities paint this as a growing cross-subsidy from their retail customers who lack distributed solar generation to those who do.

One option could be for the electricity utilities to embrace distributed solar distribution themselves, as the German energy giants RWE and E.ON are now proposing to do. As the Bernstein analysts suggest, utilities could one day achieve economies in customer acquisition, panel procurement, installation, maintenance and even financing that would make it difficult for competitors to match.

"How regulated utilities fare in the medium term will depend in large part on their ability to cushion the revenue impact of the growth of distributed solar generation," the Bernstein analysts write.

"For those utilities with the highest retail electricity rates, and therefore the greatest expected penetration of distributed solar, this will require a rapid restructuring of their residential and commercial electricity revenues in favor of fixed connection charges.

"To the extent regulated utilities are successful in preserving their base revenues, while passing through to their customers the savings from avoided fuel and purchased power costs, it will be the revenues of competitive generators that fall by the wayside. [...] It is the competitive generation industry that will be squeezed between stagnant power demand and rising renewable supply."

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Editor's note: This article is reposted from RenewEconomy. Author credit goes to Giles Parkinson.

http://www.greentechmedia.com/articles/read/rooftop-solar-does-it-really-need-the-grid

ENERGIZE EASTSIDE

ENVIRONMENTAL IMPACT STATEMENT

PUBLIC SCOPING MEETING/PUBLIC TESTIMONY

6:00 p.m.
Thursday, May 14, 2015

Renton City Hall
1055 South Grady Way
Renton, Washington

KIMBERLY MIFFLIN, CCR, CSR

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DAVID PYLE - Engergize Eastside EIS Program Manager

CAROL HELLAND - State Environmental Policy Act Lead

MARCIA WAGONER - Three Square Blocks

PUBLIC SPEAKERS

CYMVELENE LUMBAO

LORI ELWORTH

DON MARSH

SUE STRONK

BRIAN ELWORTH

FRED LUMBAO

DALE HALL

JENNIFER KELLER

CYMVELENE LUMBAO: Our concern is we just bought a house, you know, a brand new house for $600,000 less than 1,000 feet away. We've seen the power lines that were up and we had an EMF study done to make sure that it was safe. So our concern is, you know, the EMF that's coming out of there and how that's going to affect us, plus the view of bigger power lines drives our property value down. And those are our concerns. If we would have known beforehand that they were going to do this or they planned on doing it, we wouldn't have even bought a house there.

LORI ELWORTH: Hello, my name is Lori Elworth. I live at 8605 129th Court Southeast, Newcastle, 98056. I am opposed to Energize Eastside for a number of reasons. I will send written comments in. I have joined CENSE, C-E-N-S-E, .org. There is a lot of information on their site. There are a lot of smart people that have contributed to that site voluntarily. And we've been at this for over a year. There are some people here tonight that will speak, and I hope that the people that have attended will listen. Some of it they've heard before.

I'm kind of interested in knowing why this room isn't filled with people. I know Renton is a big city. I think a lot of people don't know about this project. I happen to know about it because I live along the easement

and I've lived in this area a long time.

I'm not a public speaker. I don't know how much longer I have, but I guess I'm done.

DON MARSH: My name is Don Marsh. I'm the Vice President of CENSE. And I'm going to be repeating remarks that I made on Tuesday night, partly because I was hoping we would have some new faces in the audience to hear them, but also because I'm talking about factors that should be evaluated in the EIS. And so far we've heard that maybe safety will be added, but there is some other ones that I'm concerned about.

So I'm speaking for many hundreds of residents who support CENSE, the Coalition of Eastside Neighborhoods for Sensible Energy. We have opposed the Energize Eastside project for over a year. During this time we've frequently been stymied by the way PSE is gaming our system of government, and we want to be sure this EIS process isn't similarly tainted.

For example, we are very concerned that this EIS leaves out extremely important evaluation factors, such as the impact on earth, housing and the economic vitality of our communities. Let me illustrate. Suppose a resident is worried that the safety of her family is jeopardized by the huge poles and high voltages envisioned by this project in close proximity to the

aging petroleum pipeline that has already claimed lives in our region. Suppose she is worried about the increased danger this poses during a large and probably inevitable earthquake in the Pacific Northwest. Could she ask for this to be studied in the EIS, hopefully with safety? Maybe. But since the earth element is currently excluded from study, her question may not be considered relevant. That makes no sense.

Suppose a resident is concerned that the huge holes that need to be excavated to install these poles will change the flow of underground water springs in his neighborhood. As a result, his basement might now begin to flood at certain times of the year. This question involves movement of earth, and it will be ruled outside the scope of the EIS.

The fact that housing is excluded from study during this EIS is a concern for many of us. Those living close to the poles will find that potential buyers for their homes may not qualify for FHA loan guarantees. That's because FHA disallows homes within striking distance of a falling pole. And the increased height of these poles will expand the danger radius by a factor of two or three. Many home loans are based on FHA criteria, so this will disqualify a lot of buyers, decreasing the value of the home.

In fact, the exclusion of economic effects is extremely worrisome to us. This transmission line takes a direct route through dozens of neighborhoods. We have an estimate from the King County assessor that this could decrease the value of these properties by at least 10 percent and probably more.

If you add up the total economic impact along the 18-mile route, we are talking about permanently destroying tens or hundreds of millions of dollars on top of the hundreds of millions of up front costs for the project. If you don't account for this impact, you can't properly judge the value of alternatives that don't destroy property values. It is hard for us to understand how these important factors were left out of this EIS.

Let us be clear about this. Residents of Eastside cities will insist that earth, housing and economic impacts are studied in this EIS. If these factors are not added, this whole effort will be subject to litigation, wasting everyone's time and money. It will delay the ultimate decision and prolong the agony of residents who won't know what the future holds for their families and their neighborhoods. No one wants this to be the outcome.

In closing, I want to assure all of my neighbors who are gathered here tonight that CENSE will continue to

vigorously oppose this project by every means possible, in the EIS, in the city council, in local elections and if we have to, in court. Thank you very much.

CAROL HELLAND: I would like to just take a moment to clarify, because I think it's possible that I may have been misunderstood the first time. I want everyone to know that tonight is scoping. There has been no decision made about things that are in the EIS or out of the EIS. I just don't want to leave the perception that there is anything that has been excluded.

The purpose of this evening is for you all to tell us, and we've now heard housing, safety and earth and economic vitality several times, so we appreciate hearing that. But that's exactly the type of feedback we like to hear. The things that we listed were things that we knew were going to be important to all of you. If there are other things, that's what we would really like to hear about. So we appreciate those comments. Keep them flowing in. But nothing is excluded at this point.

SUE STRONK: Hi. My name is Sue Stronk, and I live at 12917 Southeast 86th Place in Newcastle. I have an e-mail here from Kim West of Olympic Pipeline that was sent to David Edmonds who was our representative for the Olympus neighborhood.

It says, Hi, David. I would like to offer my

sincere thanks and appreciation for inviting us to your Olympus Homeowner's Assocation meeting on Monday, February 24. It was an opportunity for us to learn about our shared concerns over future projects in Newcastle.

Then it goes on to say. Olympic has two pipelines that run approximately the entire length of segment C, E, J and M in a shared easement with Puget Sound Energy's electric transmission corridor. The location of the pipelines may be found anywhere within the easement from the center of the right-of-way to either side and can run together or separate. The route selection will be our prime concern for a variety of reasons, including safety, impact to landowners, future maintenance and customer impacts to name just a few. Therefore, I feel that segments B, F, H and L best address the concerns mentioned above.

So these were insights from Mr. Ed Cimaroli, vice president of Olympic Pipeline, as discussed in our Olympus Homeowner's meeting. Then, again, it says, Hopefully this e-mail will be the first step in a process to work towards a project of mutual concern.

Since PSE has zeroed in on the existing shared utility corridor, both electrical and gas lines already co-exist along the chosen routes, C, E, J and M. These are the routes Olympic Pipeline prefers not to be used in

the PSE project. Both utilities exist in an easement of only 100 feet wide between homes. In the space currently are two gas pipelines, 16-inch and 20-inch diameter, as well as two sets of 60-foot tall double wooden poles with 115 kV lines on each set.

PSE proposes to replace those wood structures with 130-foot tall poles on each side of the gas lines which run in the center through our neighborhood. Each new pole will be set 15 to 50 feet underground right next to these gas lines on an earthquake fault zone.

Looking online, I saw some siting and design considerations for co-locating utilities. It says high voltage electric transmission lines have the greatest effect on other utility systems, and hence, pose the greatest problems in joint right-of-way usage. It says, placing an electric transmission line in a corridor along an existing gas pipeline presents a greater problem and hazard than placing a pipeline along an already existing power line.

The reasoning is that there is great possibility of pipeline damage from the installation of the tower footings and the heavy equipment driving over the gas lines for installation. Also, power lines can induce currents in metallic objects adjacent to the line. This effect is particularly prominent in corridors with long

parallels. I think Energize Eastside's 18 miles of paralleling these utilities, gas and electric, would qualify as a long parallel in this instance.

Also shown was a table of utility interactions and joint right-of-ways. The system effect of pipelines co-existing with electric transmission lines was ranked as a great safety hazard. The rankings that they had for choice were small, medium and great.

Safety is of utmost concern, the No. 1 priority. Experts say it's dangerous to locate power lines next to existing gas lines. Take heed. This is why when PSE replaced a 60-foot tall wooden pole several years ago beside my house, they told me it would be best if I was not at home the day of the installation. These gas lines are only three to five feet underground. The chance of damage is so great with digging and heavy equipment and footings as close to gas lines in an earthquake fault zone. I wonder what amount of insurance is prudent for PSE to carry in case a catastrophe were to happen along the shared route.

DAVID PYLE: If you can make sure to submit a copy of that e-mail into the record, that would be great, just electronically if you could just forward it in, that would be awesome. Thank you.

MARCIA WAGONER: I let you go a little longer

because I realized you were actually representing a group.

BRIAN ELWORTH: Hello, my name is Brian Elworth. I live at 8605 129th Court Southeast, Newcastle. I'm on the Olympus Homeowner's Association board and represent the Olympus Homeowner's Association. I'm also an electrical engineer and have been an electrical engineer for 30 years.

Last time I talked about the analogy of the stack of coins and the Space Needle. I wasn't kidding about that. The actual electrical demand as specified by PSE is represented by a stack of eight pennies in comparison to the height of the Space Needle which is the magnitude of the energy capacity that they propose in their solution. Since I can't enter the Space Needle as part of the public record -- the earth is bolted to it -- I thought I would bring in an example scaled down so that I could give it to you.

Here is a board, 20 inches by 30 inches. This represents the 22,425,600 megawatt power capacity, energy capacity, of the proposed solution. It's kind of hard to see so I've got a magnifying glass. But in this magnifying glass is a tiny, little piece of paper that is six-tenths of an inch long by sixty-four thousandths of an inch thick. That is the area that represents the

magnitude of the electrical energy shortfall that PSE proclaims we have. This is a problem. And I've got the magnifying glass so you can actually read the numbers. It's about forty thousandths of an inch, so you need a magnifying glass.

This is the size of the problem we need to solve. This is the magnitude of their solution in terms of electrical energy. So this is Energize Eastside. When you talk about power and you see that curve that's sort of doctored, that's a different parameter. This is energy. This is like fuel in your gas tank versus the whole power engine of your car. This is energy capacity.

So where does all that energy go? Why are we doing something for the residents of that magnitude? I think every single alternative out there is far superior to that from a cost standpoint, from a safety standpoint, any way you look at it, the proposed solution is way overkill.

I'd like to propose an alternative. I'd also like to first of all state that I understand you're trying to be unbiased, but there is an inherent bias in the process in that PSE has had many years to develop their concept and they've used who knows how many millions of dollars of rate payers' money to develop their concept. The victims at ground zero, like myself and I think most of

the customers, are victims when you see that kind of solution costing $200 million. The victims of this process have no funds available to us, very limited resources. You heard the people who want to get the information to analyze are precluded from doing so. We also have very little time. This EIS process is fairly short compared to the amount of time PSE was given. We don't have time to really develop and vet good alternatives. You've seen some good ideas, and I'll suggest one right now. Win/win situation.

You heard Sue talk about the coupling of the transformer effect of the parallel lines. If you ever take a piece of electronics equipment apart and lay it all out, you'll see -- in the transformer, you'll see two lines, a primary and a secondary. You pass alternating current through the primary. It creates an alternating magnetic field that induces a current in the secondary.

The overhead wires are the primary. The pipeline is the secondary. In the old days, nobody worried about the AC corrosion effects. Well, studies since the pipeline and power line came together have shown that that AC power line actually causes corrosion, and wherever there is a pin break in the insulation protecting the pipe from the surrounding terrain, you end up with a point source where current can flow through. That causes point

erosion.

You've heard about the little pinhole leak that was, I think, 10,000 gallons. A pipeline can't measure a leak that small. If it's less than 500 gallons an hour, it's not a leak. You can ask the pipeline guys what is their threshold for detection, you know, the pipe's surging, so they have sort of what are called false alarming where you ignore certain surges and whatnot. And you don't even detect things below 500 gallons an hour. That's pretty huge.

Anyway, so you have this transmission line effect, 18 miles of transformer in one giant -- essentially an 18-mile transformer.

MARCIA WAGONER: Are you close?

BRIAN ELWORTH: Can I propose my recommendation?

MARCIA WAGONER: All right.

BRIAN ELWORTH: What I recommend as an alternative, how about if we increase capacity to those lines 40 percent, we add 50 percent redundancy and we don't even touch those wires. What I recommend we do is we convert two three-phase circuits to three DC lines. What that does for us is those lines are 115 kilovolts AC. That's RMS. Is the electrical engineer here? He was here last time. He can explain all of this to you.

Anyway, there are 115 kilovolt lines. The actual peak voltage is 162 kilovolts. If you could look at it on an oscilloscope, you could see the peak is actually 162 not 115. DC you can run at 162. That's a 40 percent increase in capacity just by switching to DC.

Also, since DC only needs two wires, not three, you've got six wires up there, so you've got three circuits. So now you've got instant redundancy. You can have a failure of one of the circuits and you still have two left. That's a monumental improvement in reliability of PSE's network.

You also eliminate that transformer effect. If you put DC voltage in a transformer, nothing happens. There's no induced current in the secondary. It's an alternating field that causes that induction of current into the pipes. So you put DC through there, the problem goes away.

So there's three -- that's a homerun in my view, and that can be done. You don't even have to have a meeting. They can just go do that on the ends of the lines and not even tell us about it. So I recommend that be brought forward as an alternative.

Thank you. I'll leave the data and the pill bottle here because the size of the problem is so small.

FRED LUMBAO: So I'm Fred Lumbao. I live at

3735 Northeast 23rd Place. I actually just bought a new house with our life savings for $600,000. We're less than 1,000 feet from the current power line, and our concern was the EMF, you know, and the electromagnetic field causing cancer and stuff.

So we actually had an EMF study done before we ever bought. And we had no idea until the other day when we were walking our dogs that they were even proposing this. If we would have known that they were proposing this, we wouldn't have even bought there. Our concern is a big ugly line, and it's going to drive down the value of our property, but more of a health concern than anything and the cancer-causing effects of the power lines. And that's our concern.

DALE HALL: Hello, my name is Dale Hall, D-A-L-E, H-A-L-L. I live at 4818 134th Place Southeast, Bellevue, Washington. I just have to say, this is one idiotic project to do, idiotic. And it has to do with safety. I went to the placards outside, and safety is not even spelled out there. But this is just like a monumental catastrophe that's going to happen. If there is an accident here in a normal construction project, it's going to be labeled an accident.

But in this construction project, if there is an accident, it is going to be a catastrophe. It's going to

be on Fox, it's going to be on CBS, ABC, CNN and so forth. There's going to be an explosion. There's going to be homes destroyed.

There's gas probably already leaking within this area. And now we want to dig and have a lot of friction and construction companies. And I'm willing to bet that if we were to go ahead with this project that homes around these sites will have to be evacuated, that the construction companies will say, we're not going to be digging around these sites where we have children within hundreds of feet of the construction site. They're going to -- because of liability, they're going to want to get people away from this area. It's going to be a hazardous area. It's going to be a safety area. Safety is not even on the placard.

It's an idiotic project, idiotic. I just don't understand how these cities have got it to this point where we're in this situation of talking about this. The cities should have said no at the very beginning to Puget Sound Energy. Obviously, Puget Sound Energy has for the past two years dictated what they want to do. They're not even a U.S. company. They're a company out of Australia, I hear tell. It has no benefit to our community. We're going to pay for this thing, and the catastrophic impact, if there is a safety issue, is going

to be immense. It is your time to say no to this.

Thank you.

JENNIFER KELLER: Hello, my name is Jennifer Keller, K-E-L-L-E-R. My address is 115 146th Avenue Southeast in Bellevue, 98007. I see climate in the list of issues, greenhouse gasses in the list of issues. I just want to speak to that a little bit, three aspects that I just want to call out.

One is that building more transmission lines and the whole idea of non-distributed power system is the opposite direction that we need to go in terms of climate. We need to be able to generate power closer to where we use it and use all the new technologies that are available to do that as time goes on. So that needs to grow, our capacity to figure out how to use solar, wind, smart grid, bio gas, all of those things is really important. This is how we turn it around by beginning to use those and getting that curve, the changeover that we're in right now, getting that to really ramp up. So that's one thing. This is sort of backwards on that.

Another aspect is that trees, we need to reduce our emissions. We also need to be absorbing more of our carbon dioxide. We have cut down a huge amount of forest on the planet. It's kind of a known thing. A tree that is a little tree or a medium-sized tree, you think about

how much a tree puts on each year when it's sucking in carbon dioxide. And you think about a giant tree. A tree at the very end of its life isn't absorbing very much carbon dioxide, but a big tree is absorbing a lot of carbon dioxide. It is a huge impact to cut it down. This is something that is soaking up carbon dioxide in a way that we really, really need right now. That is another impact.

A third impact is just the way we think. So if we go with an alternative that helps everybody to understand if I can do my part in my home, I can reduce my electricity use or balance it out in a way or I can get a battery installed or I can get solar or whatever it is. It's the thinking of each person and of the cities and the utilities together to understand we need to make this shift over.

It's really interesting because we know -- these technologies are all known now. This is not like some secret mystery thing about how can we make the transformation from a fossil fuel-based economy to an economy where we're using less energy and we're using energy from sources that can go on and on and on into the future.

So we have the Colstrip plant that's providing some of our electricity. And the more that we can shift over

to solar and wind and bio gas and all of this, it gives our community the capacity to deal with what's coming in the future.

Thank you.

MARCIA WAGONER: Anyone else?

Then I will turn the meeting back over to Carol and David.

CAROL HELLAND: Just in closing, I would like to thank everyone for coming this evening and we appreciate your feedback and it will help us properly scope the range of issues to be discussed in the EIS and the alternatives that will be addressed in the EIS. We appreciate your time on such a nice, sunny day. Thank you.

(Meeting adjourned at 7:30 p.m.)

Comments on the Scope of Energize Eastside EIS

Energize Eastside EIS Scoping Meeting #2 Renton • May 14, 2015

Name Michelle Hall Address* 4818 132nd Pl. SE
Bellevue, WA. 98006

** You must provide your physical mailing address to be considered a "party of record," eligible to appeal the adequacy of the EIS.*

Please review these concerns

- Why is P.S.E. providing any information for this EIS?
- The P.S.E. is only offering the information that is benefial to this project, such as need.
- and the costs of other alternatives and locations - who else than PSE has provided these to Bellevue?

Please, please consider other alternative routes, new technology equipment and the need for the increased energy. Do not use PSE facts please!

Thank you

What really is PSE's need to increase the power lines? I think it is not really the U.S. but Canada!!
(Bellevue)

energize EASTSIDE EIS Environmental Impact Statement

May 14, 2015

Comments regarding Puget Sound Energy's "desire" to blight the Eastside.

Are you aware that runners are told not to run on the Olympic Pipe Line, which is directly under the current electric poles?

How does Puget Sound Energy plan to reimburse the homeowners for the loss of their property values?

When less and less money is raised due to decreased property values is Puget Sound Energy going to help King County with the deficit?

What happens if one of the proposed high poles carrying 230 volts is damaged in an earthquake and falls on a family home – what will Puget Sound Energy do for the family?

How much money does Puget Sound Energy have in reserve to pay out large lawsuits for people injured in their plans?

Being a good corporate citizen is a very commendable thing to be, but right now you are hated and despised by your long-suffering customers.

Lining the pockets of an off shore Hedge Fund Company that does not have a good reputation for its stock is really not a great idea.

Linda Young
12813 SE 80th Way
Newcastle, WA 98056

SUE STRONK – 12917 SE 86TH PLACE/NEWCASTLE
THIS E-MAIL COPIED PROVIDED AT RENTON EIS MEETING
5/14/15.

Hi David, (DAVID EDMONDS – WAS CAG REP. FOR OLYMPUS)

I would like to offer my sincere thanks and appreciation for inviting us to your Olympus Homeowners Association meeting on Monday, February 24. It is a rarity when people have the opportunity to gather together and communicate their differences face to face. It was an opportunity for us to learn about our shared concerns over the future projects in Newcastle. As a follow-up to the meeting, I would like to recap some of the highlights that Mr. Ed Cimaroli, Vice President of Olympic Pipe Line Company discussed.

Olympic has two pipelines that run approximately the entire length of segments C, E, J, and M in a shared easement within Puget Sound Energy's electric transmission corridor. The location of the pipelines may be found anywhere within the easement from the center of the Right-Of-Way to either side and can run together or separate.

The route selection will be our prime concern for a variety of reasons including safety, impact to landowners, future maintenance, and customer impacts to name just a few. Therefore we feel that segments B, F, H, and L best address the concerns mentioned above.

Should the pipeline be required to relocate, the pipeline design and precise impacts cannot be determined until PSE selects a final route and develop a final design. The schedule and timeline are also dependent on the route selection and as a recent example, a pipeline reroute was required because of the city of Bellevue's culvert relocation project at Coal Creek. It took over four years from conception to construction completion and involved many hours of working with property owners, permitting through wetlands and parks before we could complete the project. It is important to note that anytime a permit is required there can be a reiteration of the design before the final design can be created which can push out the project schedule.

Unfortunately we were running out of time at the end of the meeting and I wanted to mention that a source for locating pipelines in the state of Washington can be found at the Washington Utilities and Transportation, Pipeline Safety map website at:http://www.utc.wa.gov/regulatedIndustries/transportation/pipeline/Pages/pipelineMaps.aspx

Hopefully this email will be the first step in a process to work toward a project of mutual concern. Again, I would like to thank you for extending an invitation for us to hear your Homeowner's concerns. Please feel free to forward these discussion points forward to whomever you feel would benefit from knowing more about the Olympic Pipeline. I look forward to working together on this project.

Kindest regards,

Kim

Kim L. West,
Area Maintenance Engineer
BP Pipelines and Logistics (North America) Inc.
Operating Agent for Olympic Pipeline Co.
600 SW 39th ST, Suite 275

ENERGIZE EASTSIDE EIS

FILE NUMBER 14-139122-LE

PUBLIC SCOPING MEETING, KIRKLAND

PUBLIC TESTIMONY

6:00 p.m.
Tuesday, May 26, 2015
Kirkland City Hall
123 5th Avenue
Kirkland, Washington

CAROL A. CHIPMAN, CCR
NORTHWEST COURT REPORTERS
1415 Second Avenue, Suite 1107
Seattle, Washington 98101
206-623-6136
email: nwcourtreporters@iinet.com

(Public comment period commenced at 7:01 p.m.)

SPEAKER NO. 1: LORI ELWORTH

I'm Lori Elworth. My address is 8605-129th Court Southeast, Newcastle.

I oppose the project Energize Eastside. I feel it's too big, it's too expensive, it doesn't really need to be done for the Eastside residents. It sounds like it's a much larger project than that, to sell power to Canada and California, and I don't think that is a Eastside problem.

I also live along the shared corridor of the gas pipeline and the power line easement and I am concerned with safety, and I think that other people will be talking about that tonight.

I belong to CENSE, and there's a lot of good information, Cense.org.

Thank you.

SPEAKER NO. 2: SUE STRONK

My name is Sue Stronk. I live at 12917 Southeast 86th Place in Newcastle.

Safety is the number one concern. Issues to safety concern construction equipment and digging along two aging Olympic gas pipelines; setting new 130-foot tall poles dug 15 to 50 feet underground, right beside the gas pipelines,

with a 100-foot easement space house-to-house. Olympic Pipeline wants to know the type of any vehicle and its location if driven over any nonpaved section, according to Joe Stone, as pipelines are buried only three to five feet underground.

These two utilities coexist on this route for miles. Many neighborhoods are in danger, not just mine. We live along a major earthquake fault zone following the I-90 corridor. A catastrophe is not worth the risk.

Conservatively, those living along the route will lose 10 percent of their home values, and then we pay again in utility rate increases.

PSE, a foreign-owned for-profit company from Australia, is allowed to make 10.2 percent profit on any infrastructure costs. 8,000 trees are slated to be cut in the 18 miles. My trees and bushes are already tagged. A complete waste of our money since the project has not yet been approved or permitted. If this project is not approved, we will appeal to the WUTC that these costs prematurely incurred by PSE cannot be passed to ratepayers.

How a project gets to this point without state oversight is a major concern. It is overscaled for the local needs and there's several ways to address Eastside power with projects less offensive and cheaper for us, the ratepayers. The project title should be Energize Canada

instead.

The City of Bellevue hired an independent technical consultant for $100,000 to verify what PSE said is true. However, that consultant used numbers fed to them by PSE, hardly an independent study.

The CAG process, a community -- the Community Advisory Group, a moderated -- moderator-controlled process right down to the route PSE wanted chosen; a yearlong, one million dollar waste of time and money, where PSE hired Mark Williamson of PRW Communications, a PR firm from Madison, Wisconsin, quoted on his website, says that he has developed a strategic communications technique patterned on election campaigning, which are tools he employed for years to get utility projects approved.

Now it all makes sense. If you go to the website FollowTheMoney.org, you can find the PSE campaign contributions to our elected state officials. No wonder we don't get email responses from them regarding the Energize Eastside project. Are we, the ratepayers, paying for those campaign contributions as well, hidden in project costs?

PSE pays for this EIS process also. Maybe that is why our number one concern, safety, is still not listed on the EIS website drop-down choices for making comments. Even this process has flaws.

SPEAKER NO. 3: NORM HANSEN

I live in Bellevue, 3851-136th Avenue Northeast, and I have some comments regarding Alternative 1.

With regards to land use, we feel it's incompatible with residential use. Poles are substantially out of scale with the neighborhood character and height restrictions, and it substantially impacts neighborhood character.

Under plants, the tree canopy is drastically impacted by removing up to 8,000 significant trees. Removal of tree canopy on this scale is not compatible with the Bellevue Comprehensive Plan.

Number 3, social and economic. Existing property owners on Alternative 1 should not be asked to donate their property to meet new residents' needs. Any overhead route should utilize existing public right-of-way such as our many roadway routes.

4. Aesthetics and view. The residential view will be severely compromised. No neighborhood is left unscathed. Looking at a 100-to-135-foot pole tower with seven wires, including the communication line that's already there, is repulsive to most neighborhood residents. They did not locate their house for this industrial intrusion.

Number 5. Underground alternative. Undergrounding provides not only the best reliability but provides for needed security. Other jurisdictions are undergrounding as

the best practice:

Look at the utilities in New Jersey: 18 miles of 230 kV underground.

Washington, D.C. All 115 kVA lines currently being underground in an economic manner.

In Anaheim, California, 20-year program, underground electrical lines, especially as part of their roadway construction.

Undergrounding only takes a six-foot-wide trench and minimizes construction impacts. By locating two transmission lines in the trench, EMF can be further reduced.

Thank you.

SPEAKER NO. 4: STEVE WAGNER

Hi, my name is Steve Wagner. 13440 Northeast 45th in Bellevue, along the existing planned route for the five towers. We've lived there about 20 years. We've reduced our footprint over that time, and as far as I'm concerned, you could definitely use Alternative 2 to achieve all the goals of this project.

I used to work in environmental planning and they are almost always rigged so that there's only one alternative that is viable.

I would suggest that you should be adding alternatives

to this scheme of things so that we look -- really look at a buried alternative, we really look at costing alternatives that charge different amounts to new customers and existing customers, and that we break out the Alternative 2 into specific goals because PSE said in their study that they'd been doing all those things in Alternative 2 and yet they couldn't meet the goals of the project, so I really feel like it's kind of a trick to do an EIS, because we've got a lot of technical decisions to make, the environmental aspect of it is almost neither here nor there.

We really have to look at the cost of this. PSE doesn't deserve to make a 10 percent profit on whatever size project they decide to build. You know, I wouldn't mind paying more money than this project would cost if my power wouldn't go out in every storm and I wouldn't have to, you know, use my transfer switch and my generator to provide myself with power.

I think that the emergencies that they're talking about could be easily handled better than -- or more easily more for a shorter period of time than what it takes for me to deal with the storm situation.

So I find the buried alternative very appealing and would like to see that as a serious alternative in this plan. Thank you.

SPEAKER NO. 5: KEN HITE

So I'd like to comment on the EIS process up to this evening.

Whether you like PSE or not, the process they ran with the CAG groups was open and transparent. There was always lots of information on their website, they sent out emails detailing after every meeting what had occurred, and it was easy to follow it.

As of last Friday -- and I don't know where it is today -- but as of last Friday, Alternative Number 3 in the various routes wasn't on the website operated by this group.

And I think it's very opaque up to now, and I think it's a disservice to the community to hold a meeting like this and ask people to come in and give informed comment on the alternatives when you haven't really put them out to the public. And I think you, whoever "you" is, the City of Bellevue or your hired consultant, needs to do a lot better job of public communication because I think this is kind of a ridiculous scenario. Thank you.

Ken Hite, H-i-t-e. 18 Bridlewood Circle in Kirkland.

SPEAKER NO. 6: DEIRDRE JOHNSON

My name is Deirdre Johnson. Deirdre is D-e-i-r-d-r-e. And I live at 7538-125th Place Northeast in Kirkland.

I too would like to comment on Alternative 3.

While I know that the map we've seen in the lobby is not set in stone, but you can't get from the Sammamish station to Clyde Hill without going through (inaudible) and Bridle Trails, which I think it's unfortunate that we've just seen this information now. It would be nice to be able to get more information on the specifics of these alternatives earlier rather than later, and I think that adding 50 miles of 115 new kV lines is possibly even more damaging than adding 18 miles of 230 line.

So I participated in the Kirkland 2035 exercise where residents of the community came together and looked at the growth that was projected for the year 2035 throughout the City of Kirkland, and because of that, when I look at PSE's projections, I don't think they're too far off.

Thank you.

SPEAKER NO. 7: JENNIFER KELLER

My name is Jennifer Keller. My address is 115-146th Avenue Southeast, in Bellevue, 98007. And thank you for the opportunity to testify; appreciate it.

It's abundantly clear that we're in a time when any time we consider building energy infrastructure, we must consider climate impacts. Considering climate impacts encompasses so much. For example, whether we want to have

crippling summer droughts in Washington State all too soon, possibly starting this summer, we don't know. It means considering what happens to the Sound and the ocean; the impact of carbon dioxide, it dissolves in the ocean on tiny organisms like baby oysters, many other organisms that are so important to us for delicious seafood and for a healthy ocean.

I say this just to touch on how real these impacts are. They are not theoretical. They can't be ignored and should not be ignored.

What does that mean for this project? We should look at whether this project is aimed at the things we need most right now. Right now we need energy efficiency, a smart grid, rooftop solar, small-scale wind turbines, the fantastic batteries that even now are becoming more and more useful and more available. Alternative 1 is clearly backwards in this respect.

Right now we also need involved citizens who think about how to live well but use energy very efficiently. The more we offer tools that allow citizens at home to realize, you know, "Hey, if I make some changes, I can do my part to use less energy," Alternative 1 is clearly backwards in this also. It's really not focused at equipping citizens with ways to be more aware of their energy use.

And finally, right now we also need living trees. We need to keep the big beautiful trees we have, because each tree stocks away carbon in a layer of wood all over the tree every year. The bigger the tree, in general terms, the more carbon it's stocking away for us. We need not just the trees we have, we need to not cut them down. We need more than we have.

James Hansen himself emphasized that we need healthy trees and wetlands and so on to absorb carbon, not just -- we need to not just cut our emissions but absorb that carbon. Alternative 1 is also utterly backwards in that respect. It's wrong for the time we're in.

For each alternative, we should be considering whether it brings us these things that we need: energy efficiency and resiliency, the ability of people at home to realize how they can make a positive difference, and the numbers of big healthy trees we're growing.

Please consider these impacts carefully. Thank you very much.

SPEAKER NO. 8: JOHN MERRILL

Hi. John Merrill. I'm at 4800-134th Place Southeast in Bellevue.

What I'd like to do today in my three minutes is actually to ask you to add to the alternatives that you

have already put in; and I have four different -- actually, five different categories of alternatives that I would like to see added to the scope.

The first one is traditional wired alternatives, which PSE's alternative is one -- just one of two other traditional wired alternatives are, first of all, we have an existing transmission line on the Eastside that has plenty of capacity that is largely unused, that Energize Eastside would unnecessarily duplicate. It is -- the issue of who owns that line is totally irrelevant because it's here, we could use it and it is in the community's best interest to use it.

The second branch of the traditional wired alternatives is to install a new transformer at the Lake Tradition substation in Issaquah and run new 115 kV lines to an Eastside substation, presumably the Lakeside substation. This was actually the preferred alternative of PSE and ColumbiaGrid for many, many years before PSE was bought by foreign-owned corporations.

Undergrounding is a feasible alternative, as well as submerging in Lake Washington. I'd like to see those in the scope as well.

Second alternative is the local generation alternative, and there are three subsets to that.

First of all, we should fully utilize PSE's westside

peaking station. They have plenty of capacity. They have about 1400 megawatts of generated capacity to the north of us, that they did not include in the model, or only at a very, very low level. That is ridiculous because that's why PSE built them in the first place, was to turn them on during our very, very cold days. They're sitting there. There's no reason they can't run during our peak demand periods.

We could install a new gas-fired peaking plant on the Eastside. Right next to the Lakeside substation would be a place -- PSE also identified two other locations but quickly dismissed those two other locations. The EIS needs to look into those in a serious way.

Third, we could create a dispatchable diesel generator network on the Eastside, analogous to what the City of Portland and Portland Gas -- Portland General Gas and Electric, whatever the utility -- I always get them mixed up with a Southern California utility -- but they have 100 megawatt of dispatchable diesel generators that are all networked together; and the Portland utility there, all they have to do is flip a switch, they get 100 megawatts of peaking power on demand. There's no reason we can't do that on the Eastside as well.

The third alternative is to upgrade what we have. We know that if we quit -- if PSE quits pretending that it

energizes Canada during the time when we need the power, i.e., on those cold winter mornings and afternoons, that there is only one piece of equipment on our present system that is overloaded, and that's a transformer; there is absolutely no reason why that transformer can't be either increased in capacity or we can replace it with two transformers and run a new power line.

MS. WAGONER: You are out of time but if you can kind of wrap it up, that would be great.

MR. MERRILL: Okay.

MS. WAGONER: Thank you.

(Mr. Merrill continuing): So the fourth one is 21st century alternatives, and in the interests of time I'll just go through very, very briefly.

We could be much, much more aggressive about conservation and efficiency programs. One of PSE's contracts is to identify 56 megawatts of cost-effective power that PSE has totally ignored to date. We could install a dispatchable battery storage system from vendors like AES and Tesla. The cost of these things is coming down rapidly; and for the roughly 60 megawatts of power that we need for the next 10 years, it will be much, much less expensive than Energize Eastside.

We could also implement demand response programs, smart grid time-of-day pricing and the like.

And then the last alternative is that combinations of these four alternatives that I've read in can solve the problems much, much, much less environmentally destructively and much more cost effectively.

Thank you.

SPEAKER NO. 9: STEVE O'DONNELL

Good evening. My name is Steve O'Donnell. I'm the president and cofounder of CENSE, the Coalition of Eastside Neighborhoods for Sensible Energy, at Cense.org.

I'm at 13945 Southeast 47th Street, in Bellevue, since 1972.

I would echo the comments, the testimony already presented, and agree with everything that has been commented on.

Would add, would like to see some emphasis on studying submarine cables, both in Lake Sammamish and Lake Washington. I think that the cost-effective wired solution could be put down the west side of Lake Sammamish from the Redmond substation, it's a short distance to get there, and then across to the Lakeside substation, and then a short distance to the East Channel Bridge, and then run down Lake Washington to Gene Coulon Park and up to the Talbot Hill substation.

There's new technology for doing this. Those lakes

are [have a] relatively flat bottom, good bottom conditions; there's new trench technology. And so it could be done. It's being done. PSE's own consultant, Lowell Rogers, is out of Sacramento, is working on such a project for 230 kV line in the San Francisco Bay, as a redundant line for [an] earthquake situation. So I think that that is an important alternative to be studied.

Also, the safety issues have been brought up tonight, especially with not only health and EMF. EMF has kind of been looked over but I think that that needs to be part of the EIS, certainly pipeline safety. We've heard some of the concerns about the pipeline. BP Olympic Pipeline has their own concerns. We have a letter on file from them and I believe the City and PSE have that same letter.

I think that earth -- elements of earth, geotech and seismic, in addition to the tree canopy reduction of 8,000 trees, but definitely geotech issues, need to be studied.

The -- probably one of the single biggest issues is the degradation of neighborhood character of neighborhoods -- nearly 40 neighborhoods over 18 miles stretching from Redmond to Renton, running nine miles through Bellevue, approximately two miles through Bridle Trails, a mile plus through Somerset, a mile or two miles through Olympus and Newcastle; and these are issues of land use, issues of aesthetics, environmental degradation,

degradation of our neighborhood character. And I think that those are very important elements to be studied in addition to the natural environmental issues of hydrology and geology and seismic and migration of -- those should not be overlooked.

Finally, the building codes. I think the deficiency in building codes should be looked at. We've mentioned the Bullitt building in Seattle; it's been online, it has -- not only does it have a zero footprint, it has a positive effect back into the environment and to the grid. And I think that there could be architectural challenges and awards for some 40 projects in [the] Bellevue downtown core and the Bel-Red Corridor.

And some of these things need to be built into the codes with a very visionary outlook. That could include geothermal in the buildings, distributed generation in the buildings, really alleviating this peak demand issue, and would make Energize Eastside basically not necessary at all.

So I see my time is up. Thank you very much for the opportunity, and hope to see all of these elements in the study. Thank you.

SPEAKER NO. 10: JIM ERCKMANN

My name is Jim Erckmann. I live at 26 Bridlewood

Circle in Kirkland, and I am the president of the Bridle Trails Park Foundation which is a nonprofit dedicated to supporting and protecting Bridle Trails State Park.

I wanted to express our opposition to Alternative 3 as we understand it, and the key point here is "as we understand it," because we don't understand it very well. I -- we didn't hear anything about Alternative 3 until less than two weeks ago; and not for lack of trying, I have found out very little more about it. In fact, most of what I know about Alternative 3, I learned in the lobby outside tonight. It was not considered or discussed in any of the public meetings that were hosted by PSE early on, some of which I attended.

So this is kind of a new thing for us, and I wanted to reinforce what Ken Hite said earlier, that it's very difficult to assess Alternative 3 when you don't even know what it is. And I have to say, even though I did spend some time talking to the consultants before we met in here, that I still don't know what it is, because we don't know what the consequences of putting 115 kV lines through the 50 miles of neighborhoods actually amount to, how much clearing would occur, and so forth.

So I think, based on what I'm guessing is the alternative, since it will run across two sides of Bridle Trails State Park, that the impact would be quite

substantial to the park. It would probably entail cutting a lot of trees that are about 100 years old. There are wetlands along 116th Avenue, very, very close to 116th Avenue and trails, both of which could be severely impacted by this project; and it runs across 60th Street as well, to the north side of the park. So it could be very, very -- it could have very serious impacts to the park, and it also strikes me as having potential for serious impacts to neighborhoods throughout the 50 miles of 115 kV lines to be constructed or upgraded.

So again, it's very difficult to assess the alternative when one doesn't really understand what it is, so I would urge the consultants to be clear on what it is and kind of what's entailed with building lines of that capacity. We've got a pretty good idea of what would be entailed with building the 230 kV lines during the PSE project, but we're right now clueless about the 115 kV line.

So we will have more substantive comments and extensive comments at a later time when we do get a better understanding of what Alternative 3 is.

Thank you.

SPEAKER NO. 11: GARY DEVLIEG

Gary DeVlieg. I live at 13601 Southeast 7th Street in

Bellevue. I've lived there for 38 years.

We have an easement on our property through which the power lines run, and also through which the gas line runs. Also on that easement we have one of the rare shutoff valves for the gas line.

My principal concern is safety. Locating the new power lines near -- the new electrical lines near the current gas lines I believe is a significant safety hazard. Right on our property, a few years ago, Olympic Pipeline actually paid us to leave our homes for some period of time so they could go in and make repairs to the pipeline, because right at that point it's on a hillside and the hillside had -- was starting to suffer a landslide and was shearing the pipe and breaking the pipe.

And you can imagine that if you had an earthquake that then caused a landslide in that area and also brought a power line down, that that could cause a catastrophic safety issue in the area. I don't get the sense that this has really been adequately studied or included in the Environmental Impact Statement.

Just one other comment I want to make and that is it's unclear to me, where there are these four alternatives, whose alternatives are they? Are these the alternatives that were presented by various people in the community who are interested in how additional power could be brought to

the area, or are these filtered four alternatives that are coming from the power company? In other words, they are only putting forth the alternatives that are friendly to them?

Thank you.

SPEAKER NO. 12: BARRY ZIMMERMAN

Hi, I'm Barry Zimmerman. I live at 5007 Somerset Drive Southeast, Bellevue.

I've been a Bellevue resident for 25 years and I'm a degreed electrical engineer and I've been following this project rather closely, and I have a few remarks here on the EIS scoping, particularly directed at the leaders of the SEPA process.

During these meetings we've conducted to date, we've heard quite a broad number of comments from a cross section of the public who will be impacted by this project for the remainder of their lives in King County. However, with each new question and excellent point that's been made, I've come to recognize that the public doesn't know what they don't know, because there's a lot of complexity in this whole thing. Many of us who don't do this for a living don't know what questions to ask or how to filter and prioritize the flow of data that we are getting, however restricted it has been so far.

My remarks focus on the critical need for quality and completeness in the Environmental Impact Statement, particularly in the drafts where it will still be possible for the public and the industry experts that the public is going to hire, to provide feedback and drive changes required to properly assess and document the impact of this oversized regional and international transmission line project.

In a number of past projects throughout the nation, the power utility industry has commonly filed Draft EIS documents that are incomplete in ways that prevent the kind of detailed analysis that stake -- by the stakeholders. I will be impacted, along with many others, and not compensated for the very significant impact the construction of these oversized regional towers and power lines to the Eastside communities.

I am therefore making this request that the Draft EIS include all the details necessary for stakeholders to conduct further detailed analysis on the impacts of the Energize Eastside and Canada and California, and et cetera, et cetera.

To date, Puget Sound Energy is not really being held accountable by any government body for the lack of quality we've seen in the entire process over the past 18 months. While we can expect that large, long-term financial rewards

for PSE and their foreign investors to drive the kind of disingenuous relationship that they've developed so far, it's become increasingly clear that these same residents are the only people who are so far standing up to PSE to make them accountable for their shoddy work.

Therefore, my EIS scoping input to the City of Bellevue and the leaders of the SEPA process demonstrate -- that you demonstrate your leadership, and demand at least the following details be included in the Draft EIS.

Number 1. Provide detailed coordinates for the location of each new tower foundation along the 18-mile route. This is especially important to provide for later analysis of safety margins and easement with -- within the dangerous segments of the route that are proposed to be shared with the 50-year-old Olympic Pipeline.

Number 2. Provide discussion of possible conflicts between the proposed actions and the objectives of federal, state and local land use plans, policies and controls. Where inconsistency exists, the document should describe the extent to which the agency would reconcile its proposed action with the plan or law. This particularly applies to Alternative 1.

Number 3. Coordinate with federal agencies on the Endangered Species Act prior to releasing the DEIS, to fully assess impacts on endangered and threatened species.

Number 4. Include details on the decision-making process regarding the proposed actions. Include details [on] how the current alternatives were derived, and how other alternatives may be added for consideration during EIS review and approval process.

Number 5. Discuss in detail the remainder of the decision process. What happens after the DEIS and what criteria will be used to confirm the preferred alternative? Will this happen after the Draft EIS review? Will alternatives be reviewed in greater detail in the Final EIS or just cover the preferred alternative?

How exactly would the decision be made and by whom?

Number 6. What neighborhood evacuation plans will be in place, coordinated with cities and rehearsed with residents, prior to construction, particularly along the dangerous segments shared with the gas pipeline.

Number 7. The Draft EIS must include real project management, risk identification and mitigation measures, not the standard boilerplate or vague references to best management practices, yada yada yada.

Number 8. The proposed routes --

MS. WAGONER: Wrap up, you're past your time.

MR. ZIMMERMAN: All righty. Sorry, I'll finish up here in just a moment.

(Mr. Zimmerman continuing): The Draft EIS proposed

routes require substantial digging in areas near Coal Creek Parkway where old coal mines exist. We expect to see, along with the detailed coordinates of all the holes to be dug in point 1, the impact or the mitigation of risk in the lack of foundation strength because of the coal mines.

The point of my EIS scoping request here is to put the SEPA panel on notice that the people cannot accept to be determined or will wait for the Final EIS to add this scope in any draft document, because that makes a mockery of the review process. We want you to be accountable for their unrealistic proposal, we want PSE to be accountable for their unrealistic Alternative 1 proposal to build a regional power line solution under false pretenses at the expense of the people along the route. I'm just asking you to do your job.

Thank you.

SPEAKER NO. 13: BRIAN ELWORTH

My name is Brian Elworth. I live at 8605-129th Court Southeast in Newcastle. It's Olympus neighborhood. I represent the Olympus Homeowners Association.

Two safety items. If we're considering safety, I've got two I'd like to talk about.

PSE proposes replacing shorter, essentially insulated, structures with very tall conductive structures. Those

conductive structures are essentially lightning rods. Those lightning rods are grounded within dozens of inches of a petroleum pipeline, so we have lightning rod spark plug. At 70 -- at 700-foot spacing, that's about 270 lightning rod spark plugs we're putting along a hazardous petroleum pipeline. Nobody in their right mind would do that.

We want to know what is the mitigation for that. I think you're going to find there isn't any. You just don't do that kind of thing. Major safety issue.

Number 2. Those tall structures are essentially pry bars prying in the ground adjacent -- like I said, dozens of inches away from the pipeline.

So what are the constant forces on that pipeline due to these tall pry bars stuck in the ground?

What are the oscillating forces due to winds or whatever forces are applied to those?

Are there resonant frequencies? You know, when a tuning fork hits a resonant frequency, that's where the energy is strongest? Are there resonant frequencies that are going to cause additional vibration into the soil surrounding the pipe?

What's the response of the pipe materials and joints to that kind of force? Does it become more hardened and brittle?

There's essentially two different kinds of risks: bounded risks and unbounded risks.

If it's not a bounded risk and you don't understand it, it is an unbounded risk, and it is unacceptable to go forward with any project that has unbounded risk.

Scope. I ask that you include the CCOPS, as sanctioned by RCW 81.88.140, to get their relevant input to this pipeline safety and adjacent power line construction project.

The project itself should not pose any safety risks. What that means is PSE needs to provide a complete description of the mitigation and you need to assess the impact of all that mitigation. Three essential parts of that:

Electromagnetic. We have the corrosion; we talked about that last time, about the transformer effect. We've got a low-level corrosion going on right now that's eating those pipes due to the AC current being induced into that pipe along the length of the corridor.

We also have the high-energy events. Lightning. Arcing -- you heard stories about arcing. And also power line structure failing, where the power line hits the ground and now you -- you heard the person talk about the ground becoming basically petrified. Thermal. The transmission line has about 10,000 times the arc voltage

required to melt ductile iron. I've got a welder, a 26 volt arc voltage. I can cut that pipe like butter. 10,000 times that voltage is going to be going through those power lines. What's that going to do to the pipe when we get contact?

Mechanically-induced failures. There's immediate rupture; digging into the pipe and rupturing it immediately. There's the construction-induced latent failure; that's the Bellingham disaster. And there's also the long-term stress. I talked about those poles vibrating and putting constant pressure on the pipe.

Those need to be considered in the scope.

If PSE is required by law to provide complete truth, and I mean hand-on-Bible truth, hand-on-Bible truth, then I request that, as part of the EIS process, that PSE provide full explanation of all the safety risk mitigations they need to apply to make this a safe project.

In other words, what is PSE going to do to mitigate the safety risks. And if they are required by law to do this, to tell you the truth, then I ask that all PSE assertions must be fully explained, all PSE source data must be properly vetted, all reference standards must be current and not historical examples, all applicable regulations must be identified and properly dispositioned by PSE. All PSE alternative studies must be based on

current state of the practice technology, not obsolete methods of construction practices.

My font gets smaller and smaller as I had to cram this down --

MS. WAGONER: You're also out of time so if you can kind of wrap it up, I would appreciate it.

MR. ELWORTH: I don't get five minutes?

MS. BRADFIELD: Oh, we did give you five.

MR. ELWORTH: You gave me five?

MS. WAGONER: Yes.

MR. ELWORTH: Okay. If -- okay, I'll try to hurry this up.

(Mr. Elworth continuing): Given they're not going to tell you the truth, I ask that you use BPA standards. BPA standards, and I'll quote:

Pipelines and cables should not be installed closer than 50 feet to a BPA tower, any associated wires or grounding systems.

That means those 100-foot corridors, with 50 feet of gas pipeline running down the middle, are way too narrow. They need to be about 100 feet wider. In my neighborhood, that displaces 47 families and eliminates 47 homes in our -- that's probably about 20 to 30 million dollars of market value plus the displacements costs. That needs to be considered.

I suggest you use the BPA standards for safety. PSE doesn't publish their safety standards; I don't think they have any.

Thank you.

SPEAKER NO. 14: JIM McELWEE

My name is Jim McElwee. My address, 12907 Northeast 78th Place in Kirkland.

Just a very few, roughly two and a half comments with regard to the scoping of the EIS project.

I would suggest and ask that you choose items to work on that concentrate on system reliability. System reliability is extremely high in my point of view, or the need for it is extremely high.

And that leads me to point 1.5, let's say, and that is to say, minimize consideration and my dollars and your time on looking at unproven technologies. And I think you understand that unproven technologies would include, quite frankly with regard to the full Eastside system, they would include windmills, wind turbines, batteries, various and sundry things, even to the extent of undergrounding.

There are numerous reasons for that. There's the cost in dollars of actually achieving some of the goals that have been stated. If anything goes wrong, there are repairs and fees to be made, and total unknowns there.

There's also the issue of when things go wrong -- and we don't know what might go wrong -- there's lost revenue for our businesses.

And what this comes to is that we don't know what we don't know about these technologies. And in the aerospace business we would call those -- or did call those a number of years ago, "unknown unknowns" or "unk-unks." The unproven technologies, too many unk-unks.

I would also ask, point number 2, that in sorting out what issues and routes you might consider in the Final EIS, that you give no special consideration to residential values. My affordable home is of no less value to me than a two-million-dollar or a three-million-dollar home on some hill in Bellevue is to its owner. We simply are looking at human values here. We are not looking at one rich person versus one poor person, or one person of middle income.

So thank you. That includes my comments.

MS. WAGONER: Thank you. Is there anyone else that would still want to speak?

All right. Thank you for your comments.

(To Ms. Helland): Carol, did you have anything you'd like to say?

MS. HELLAND: Sure. I just would like to thank everybody for coming this evening. We very much appreciate it. We will have two more meetings; one in Newcastle on

Thursday night, and another one in North Bellevue on Saturday, from 2:00 to 4:00.

I did want to note Mark had put up on the screen the locations where you could provide comments on the handout that's available outside. Those notations are also available at the bottom of the handout, in case you didn't get those transcribed from the screen.

And I did want to let people know, just on the alternatives, that all of your feedback is great because we haven't put it out there yet. That's exactly what this meeting is about, to hear your feedback so that we can take that in and analyze it as part of the EIS moving forward. So we appreciate new ideas that you have given us this evening and some reiteration of some of the things that are of great concern to you, such as safety issues, which we've heard, so thank you very much again.

And thank you for our hosts from the City of Kirkland.

Goodnight.

(Public Scoping Meeting, Kirkland, concluded at 7:51 p.m.)

Linda Young
12813 SE 80th Way
Newcastle, WA 98056

Have you truly studied the size of 130 ft. poles that will carry 230 kV? Do you know the measurements of the base?
To get them down into the ground you need way more space than is available between the houses!
Add to that the fact you have the Olympic Pipe Line built in 1960 and 1970 not that far under the ground and you equal a DISASTER of major proportions!
Olympic Pipe Line tells residents NOT to drive even a truck on the Olympic Pipe Line area. Trucks have driven over the pipeline when they have been trimming trees and this really frightens Olympic Pipe Line.
Have you seen the equipment needed to bring in these poles and construct the holes to lower them into the ground?
It only requires one construction worker to make a mistake and there will be an explosion and people being burnt to death will be your responsibility and on your conscience. Do you really want that or do you care?

ENERGIZE EASTSIDE

ENVIRONMENTAL IMPACT STATEMENT

PUBLIC SCOPING MEETING/OPEN HOUSE

6:00 p.m.
Thursday, May 28, 2015
Newcastle Elementary School
8400 130th Avenue Southeast
Newcastle, Washington

ELAINE K. RIPPEN, CCR

NORTHWEST COURT REPORTERS

1415 Second Avenue, Suite 1107

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CAROL HELLAND - City of Bellevue SEPA Official

TIM McHARG - City of Newcastle Project Contact

DAVID PYLE - City of Bellevue Project Manager

MARK JOHNSON - ESA Consultant Team Project Manager

MARCIA WAGONER - 3 SQUARE BLOCKS

PUBLIC SPEAKERS

(Public comments commenced at 6:35 p.m.)

PUBLIC COMMENTS

MR. ZIMMERMAN: My name is Barry Zimmerman. I live at 5007 Somerset Drive Southeast in Bellevue.

I'm among thousands who will be seriously affected and not compensated for the very significant and permanent impacts that construction of oversized international regional transmission lines will visit upon the Eastside communities who are being asked to subsidize Alternative Number One for the benefit of PSE's foreign investors. Many of us who are not doing this for a living and don't know what questions to ask are being forced to waste valuable time overcoming the substantial omissions and outright censorship of the data that we are receiving. Therefore, we, the uncompensated public, are raising funds so we can retain our own independent experts to review the draft EIS documents and ensure the quality and completeness of this EIS is achieved, because somebody has to do this.

In a number of similar projects it's a common practice that power utility industries will file draft EIS documents that are incomplete in ways that prevent the kind of detailed analysis that we're going to do, and other stakeholders, that is necessary for an honest EIS product. Therefore, my scoping input is focused on quality and completeness of the EIS, particularly to ensure that the

Phase One draft includes all data necessary for stakeholders to conduct detailed analysis of the impacts so we get to having a meaningful Phase Two in this EIS process.

It's critical that the SEPA group demonstrate its leadership and demand that at least the following details be presented in the Phase One draft.

Number one, provide detailed geographic coordinates for the location of each new tower foundation proposed along the 18-mile route. This is critical to provide for analysis of safety margins and easement adequacy, particularly in those areas next to the dangerous 50-year-old high-pressure pipeline.

We want detailed maps of all access roads, drainage mitigation, and other utility relocations along the route.

Number three, we want to provide discussion of possible conflicts between the proposed action and the objectives of federal, state and local land use plans, policies and controls. Where inconsistencies exist, we expect PSE will reconcile its proposed action with the plan and the law.

Number four, include details on the decision making process regarding the proposed action. We want to see details on how the current four alternatives were derived, or however many there will wind up being, and what alternatives will be put forth for consideration during all

phases of the EIS.

Number five, we want a detailed discussion of the remainder of the decision process. What happens after the Draft EIS and what happens in Phase Two? What will the criteria be used to confirm the preferred alternative? Who does it? Is this going to happen in this phase or are we going to have to wait for the Final EIS for a lot of these decisions?

Number six, what neighborhood evacuation plans will be in place, coordinated with cities, and rehearsed with residents prior to construction, particularly along the dangerous pipeline segments?

Number seven, we want to see verifiable details of lightening mitigation plans.

Number eight, the Draft EIS must include real risk mitigation measures, not boilerplate and vague references.

I need to wrap up, all right.

Basically what we're saying is we, the public, will not accept phrases like "to be determined" or "details to be provided in the Final EIS" in the Draft EIS documents submitted for review, as this makes a mockery of the notion that this is a meaningful public review process. Complete EIS content is far more important than the EIS schedule, and the public is going to hold the SEPA panel and PSE accountable for complete and thorough content.

MS. WAGONER: Thank you. Please pronounce your name.

MS. KURAMKOTE: My name is Sangeetha Kuramkote. I live at 8613 129th Court Southeast, Newcastle.

We have been living in our house in the Olympus neighborhood since 1999. When we moved into our house, the power transmission line at the back of our house got us concerned about the long-term effects of having the high-powered line and the resulting radiation. Added to that, we have the Olympic pipelines running along side the power line.

The same year we saw the explosion of the gas pipeline in Bellingham and its disastrous effect on the houses, environment, as well as the pipeline, and the loss of precious life.

We are always living with the fear of radiation from the power line and an active pipeline in our backyard. It's right behind our house.

With the momentum being green energy and recent advancements that are happening in the areas of wind energy and solar energy, Puget Sound Energy should be leading the way towards green energy in this area and setting standards. By increasing the power transmission of the existing lines, we are taking a huge step back in the efficient energy advancement happening in the rest of the country.

Our request of Puget Sound Energy is abandon the Eastside energy project and embrace green energy initiatives. We are here to show support for all of those opposing Energize Eastside. There are many more people like us and we want our names to be added to all the positions for the scope EIS made here tonight.

We expect that Puget Sound Energy and the City of Bellevue as a lead agency to do an appropriately scoped and responsible environmental impact study, all that are here and not just at city hall. Thank you.

MS. WAGONER: I see a number of people come in. There's quite a number of available seats up here if any of you would like to sit down.

MR. CHUNG: My name is Randy Chung. I live at 8417 129th Avenue Southeast. This is my first time at one of these meetings, so if I go off topic or veer into some area that's not really appropriate for today's scope, sorry.

But a lot of what I've seen so far is a lot of PSE saying one thing and a lot of people either with CENSE or otherwise opposed giving counter-arguments, but it doesn't seem as if people are really responding to one another's claims. So, for example, we had the graph earlier about the projected energy needs. Likewise, I saw some other graphs that CENSE had put up with a different graph of alternative energy required. And it's not entirely clear to me as a lay

person where exactly these numbers come from, who really has the right information, because I have no expertise in these things.

What I see is I come home one day and I have a bunch of tags sitting in my trees in my back yard. My back yard faces the gas pipeline. And I'm later told that my trees may be getting cut down, my fence may be getting knocked over and moved around for the easement. This, of course, is very upsetting to me.

I grew up near some power lines as a kid down in L.A., and the constant hum was very irritating, to put it lightly. And having gotten away from that, having smaller power lines, at least it doesn't seem to draw too much of my attention anymore, but that's another one of those things that affects the quality of my life and what I want my home to be that hopefully gets taken into account with this sort of study, at least at some point it's in the process.

Really those are the main things that concern me, at least from an environmental point of view, my trees and the sense of sound and clarity in the air. So hopefully I'd like to see that addressed in some of the upcoming reports. That's it. Thank you for your time.

MS. WAGONER: Thank you very much.

MR. ZOERB: Good evening. My name is Mel Zoerb. I live at 8408 129th Avenue Southeast. Actually Randy and I

are living directly across from each other.

The one issue that I want to talk about tonight is the sound level associated with high voltage power lines, and I have a number of questions that I'd like to see addressed. I think most of them should be addressed by response from PSE. At any rate, the thing I'd like to know, first of all, is what sort of sound level predictions are they coming up with for this particular installation. I'd like to know decibel levels versus distance, whether they're talking about a certain number of hum or a certain amount of crackling. And I think any of us that have been out near high voltage power lines know pretty much what I'm talking about.

I'd like to know what sound level limits PSE would be willing to agree to never exceed or at least to never exceed very often. I understand that there has to be unusual -- or there will be unusual situations at times.

And I'd like to know what levels for the daytime and I'd like to know the levels of nighttime operations, because demands on the power system is obviously different in those two things, and also we care differently about things during the day versus at night.

I'd also like to know what would happen if this power line is built and PSE ends up exceeding the limits, perhaps even if they were limits that they agreed to in good

faith, what kind of corrective action is even possible and what kind of action would they be willing to take. And I'd like to know if any similar corrective actions have ever been taken anywhere else in their system.

I'm a little bit concerned that this is one of those situations where you'll end up with a power line and, once it's built, there's no way out. And that's one particular thing that I'd like to see addressed.

I'd like to know also from PSE what are the factors that affect the sound levels. Is it simply the power level, the kVA level, is it weather conditions, all these sorts of things. I think they need to come up with a comprehensive explanation.

And I'd also like to know where a representative installation is that we can go and observe. Perhaps it's something in their own system, maybe it's somebody else's system, but we need that opportunity to see what we're possibly getting involved with. Thank you.

MS. WAGONER: Thank you.

MR. HALVERSON: Good afternoon. My name is Warren Halverson. I've lived at 13701 Northeast 32nd Place for over 40 years. The major reason I live there and on the Eastside is the environment. This is probably not surprising to most of you. In fact, at every neighborhood leadership meeting in October, roughly a hundred leaders

felt that the number one factor in defining neighborhood character was natural environment, trees, open space, natural beauty, views. Sounds real familiar.

In a summary answer to what is important to preserve and protect, the answer was environment, second only to safety. But I believe the most significant question of the whole session that we had of a hundred people was what did you see as the greatest threat to neighborhood character. By far the greatest answer was Energize Eastside. Four times greater than even Sound Transit.

So what is the impact of Energize Eastside on Newcastle? The loss of several hundred trees. Visual blight by 130-foot metallic poles buried in 30 feet of concrete with five lines, five-inch lines dangling from them. And please remember that in most neighborhoods you can't have a four-story building. These are 13-story poles. Please remember that in most neighborhoods your trees are probably 60 to 80 feet high. These poles are 40 to 60 feet over them. The people that live on that property are not the only ones that are going to see this blight forever.

In all likelihood, PSE's first alternative of Energize Eastside will be the most destructive project that any of our neighborhoods will ever encounter. It will affect neighborhood character, not just for property owners directly impacted, but for all of us for miles around to

see. It cannot be mitigated.

Just as important, the Energize Eastside project as configured is unnecessary. It will blight so many neighborhoods forever. There are better, less costly, and more environmentally friendly alternatives. The city recognizes this fact. And even the recent U.S.E. independent technical analysis with its many failures, with its many flaws, with the many things that went wrong with that study, suggest there are many better alternatives. We can do better. Newcastle can do better.

Like yourself, I have difficulty understanding exactly what scoping is. I think I'm getting around to it because I'm not familiar with this kind of subject that much, but I appreciate very much that you're going to look at alternatives. And it isn't just going to be the four alternatives that were presented, the four that were up there. I hope that you will really look at creative solutions and the many, many talented people that you have in these neighborhoods that deserve a lot better. Thank you.

MS. WAGONER: I'm going to ask you gentlemen who are sitting up front, if you would return to your seats so we can have a spot for the next batch of speakers. Thank you very much.

MR. STARKS: My name is William Starks. I live at

8452 128th Avenue Southeast in Newcastle here. I've lived over there for 24 years and we've enjoyed our home, and we can say that we've tolerated the power line and the pipeline in the easement and it's been part of our lives. And to see it possibly evolve into something that can be characterized as nothing more than a blight to the community is a scary situation.

What I wanted to speak to, and I didn't have any prepared remarks, is when I saw the graphs up here, two things that I wanted to ask questions about was: One, in the growth that they projected for the Eastside, again somebody else pointed it out, where those numbers come from, and why it's not one of the alternatives in addressing this so-call problem that is projected is where is conservation as an alternative? You listed four alternatives and conservation of energy was not one of them. Neither was the green energy alternative that the other young lady spoke of. It was not one of the alternatives.

Also the growth that is projected, where is mitigating the growth and where is -- one of the things that PSE has talked about from the beginning in choosing the alternative that they've chosen is the cost, and they're looking at the most efficient alternative and the most cost efficient alternative. And what I'm asking is: Cost to who? Cost to them or cost to the homeowners in the area,

cost to the community?

There's other ways of mitigating costs. You can pass the cost on to the growth and spread this effort out to other areas by spreading the cost out over to where the growth is, much like Cities have to do with roads. They have road impact fees and require the developers to pay for the roads. So when they talk about cost and this is the most efficient way to deal with the cost by putting this infrastructure in where they're speaking of, I think it's just a cost savings for them. It's not a cost savings for the community, it's not a cost savings for the homeowners, and it's not -- and if that's what it is, then it should be passed on to who the cost will benefit. Thank you.

MR. CLIFF: Good evening everyone. My name is Gary Cliff, 8435 128th Avenue Southeast in Newcastle.

My comments are directed to the Newcastle City Council.

Dear City Council: Please schedule a community meeting to inform the citizens of Newcastle where you stand on the Energize Eastside project. If you agree with PSE, then just tell us. If you disagree, tell us what you have done and what you are planning to do to stop this project.

I hope I am wrong, but it appears our City Council is sitting on their hands while delegating the heavy lifting to other cities. Even the tiny City of Newcastle will be

impacted to a far greater degree than the other identified cities.

City Council, you are either part of the problem or you are part of the solution. There is no middle ground here. It is time for you to stand up and be counted.

Thank you.

MR. JOHNSON: My name is Larry Johnson and I live at 8505 129th Avenue Southeast, Newcastle. I'm the president of Citizens For Sane Eastside Energy, and I assume that gives me five minutes.

MS. WAGONER: Yes, you have five minutes.

MR. JOHNSON: And then you're going to sick these cops on me; right?

I want to say one thing that the previous speaker said. I really want to say that my feeling is the City Council people in Newcastle have given CENSE and our organization and the homeowners association for Olympus half hour presentations each on our opposition of this project. That's never been matched by Bellevue or any other city. And Tim McHarg sitting here has done a very courageous thing as the only representative of any of the cities to dissent to the phony so-called citizen advisory group, which is a stacked deck with only PSE's agenda, and he has signed the dissent saying this was not adequate. Thank you, Mr. McHarg.

And I'm so proud of Newcastle. Look at all of you here. This is 5,000 times the number of people that show up for council meetings. Look at this. And I thought we were going to get a new movie tonight.

CSEE started with just two or three people. It's now grown to sixty-seven. Most of us are from Newcastle, but we've gone in the background. We started an organization first, but when CENSE started with Steve and Don and others with their tremendous energy, we didn't want to even be considered competition. So there's not a bit of daylight between us and CENSE and we support everything they do and I'm proud to wear this orange.

Now, what's going on here? This seems so Kafkaesque. Every time you talk about Energize Eastside, oh, this is the project, and then we're going to look at this thing and we're going to look at that thing and we'll talk underground, and blah, blah, blah, blah. And then it's, oh, well, we've got this transmission capacity problem and so on.

I would have liked and I would have believed the credibility of the Puget Sound people if Kimberly Harris, CEO of PSE, got on TV and announced the project in this way: We plan to spend $200 million to tear up and blight 18 miles of densely populated Eastside residential neighborhoods with huge, dangerous 13-story steel towers that we will drop on

top of two aging gas piplines pumping jet fuel under a thousand-pounds-per-inch pressure. Those towers will go right on the Seattle fault where a future earthquake risk is the greatest. And, oh, while we're doing that, we'll be cutting down 8,000 trees.

Now that's the project. That's what they're talking about. What are we doing talking about alternatives? This is insane. That's why we call ourselves For Sane Energy.

And look at the process you're putting on here. It's a sham. It's just another CAG. You talk in this piece of the paper -- I was here May 12th in Bellevue and I said, You know, you're deciding -- you're picking and choosing what areas of the environment you want to talk about. And I'll quote from your own thing here: Preliminary list of elements of the environment lead agency has preliminarily identified as the following elements for EIS. And you know what? You picked about eight or nine things. Where is safety? Where is safety? You don't have it here.

I'm a lawyer. And I used to call myself a retired lawyer but, you know, that's over. I'm out of retirement. And I'm out and we're going to do something here.

Now, these criteria that you cherry picked, you've cherry picked illegally because WAC 197-11-444 has all the things you have here, but it's got two dozen more. And let

me read you a couple. You are supposed to be including, and you don't get an option on these elements of the environment defined by law, scenic resources, environmental health, risk of explosion. There's a good one. Releases or potential releases to the environment affecting public health, such as toxic or hazardous materials. I'd say jet fuel is pretty hazardous. And then, of course, you did bring in aesthetics. Well, good for you.

How can you even be talking about alternatives for a project when you don't even understand the project that PSE is trying to sell? You say, Mr. Pyle, well -- and you sent me this in an e-mail yesterday and you said it here tonight, and I want to quote you. You said: The project is intended to address an electrical transmission capacity deficiency that could begin in 2017.

That is not true. This project, when they talk about it among technical people, it's about a thing called reliability. What happens in a perfect storm? What happens when all these lines go down and we suddenly have generators not working? And there's a thing called NERC, it's the National Energy Reliability Commission, that says you have to design for this very rare dangerous moment. It is not about the increasing population and economic growth in the Eastside. That is bologna.

Despite those things, the flat line is there for

energy usage for the last eight years all over the county and the rest of the world because we have efficient appliances, we have conservation. This has nothing to do with growth. It has everything to do with capacity for reliability.

MS. WAGONER: Mr. Johnson, if you could wrap up your comments?

MR. JOHNSON: Yeah, I'll get there. Thanks for starting 40 minutes late so now you want to push our time.

MS. WAGONER: No, we started early with the public hearing.

MR. JOHNSON: The meeting said it would be from 6:00 to 8:00. That's what you said. But I'm not going to waste my last minute arguing with you about that.

The point is, this thing is being sold wrong. Those so-called four alternatives are made up by PSE and they just went, okay, we'll do what you say. How about what we say? I'll tell you, you put a new generator right across from the Lakeside substation right next to the Factoria Waste Management Transfer Station, you put in a peaker there that creates 550 kilowatts at $50 million and this problem is solved. We don't need 18 miles of transmission. You need generation at the source of the load. Look it up. And you know what? We will tell you more.

MS. WAGONER: Thank you.

MS. MESTON: Good evening. My name is Suzanne Meston and I live at 13800 Northeast 40th. I am a soccer mom and I have more than a full-time job working for an international network provider and I've been to a couple of these meetings. But like so many of my neighbors, I simply don't have enough time to do all the things that I want to do. But as I watch what's happening with Energize Eastside and the debate, I felt compelled to come out and share my thoughts.

So professionally I lead a team of engineers, about a hundred engineers, whose sole purpose is to introduce new technology, some new architecture and new design into our network. And relevant to the Energize Eastside debate is that, as you can imagine, we've found that it's not economically viable to overbuild or a build a whole new infrastructure in our networks to meet forecasted demand and reliability. It's just simply not affordable.

And, perhaps more importantly, is that there are alternative solutions to the rip-and-replace alternatives that are less invasive, less costly and, quite frankly, more effective. And I know this because I work directly with our vendors and our network people and we do this every day, write capacity forecasting, looking at triggers and exhausts, validating assumptions and demand forecasts, and making sure that the information and the assumptions that

we've made that have gone into those curves are really valid, looking for opportunities to be creative, and do what we need to do to stay competitive, and what's best for our company and our customers.

And I think that the woman who spoke first said it really eloquently. We need to press -- I would ask that you press PSE to really lead in this area. It's really an exciting time. The technological advances are occurring at such a rapid pace, the ideas and the opportunities, it's really mind boggling, and I think PSE could really lead in this area.

And it's interesting, a few weeks ago I saw a KIRO TV story titled "Self-Healing Power Lines Could Shorten Outages," and it was about the introduction of new technology by Seattle City Light that real time detects outages and isolates the circuits and then instantaneously reroutes the electricity. So I'm sure that this is just one example of opportunities and alternatives for innovation in the electrical industry.

I guess what I want you to take away is that these ideas and my logic about innovation is really not futuristic. They are here today and these ideas can be implemented into our current networks to provide for growth and reliability. And I would simply ask that you have your staff or an unbiased consultant look into these and other

viable alternatives as you move forward in your EIS process, and certainly before you approve millions in expense to rate payers and devastating irreparable damage to our neighborhoods.

MS. WAGONER: Thank you very much.

MR. ELWORTH: I haven't changed my name or moved since the last three meetings, but for the record my name is Brian Elworth. I live at 8605 129th Court Southeast in Newcastle in the Olympus neighborhood. I represent the Olympus Homeowners Association.

So the proposed project passes right through the center of my neighborhood, it passes through dozens of homes of my neighbors' back yards. I'd like to reiterate things I brought up in the first meeting. Three concerns: Aesthetics, safety, and fundamentally the need for the project.

Today you guys are at ground zero. This is my home town. This is the town that is impacted very deeply by this construction, proposed construction project. This is one of the best small towns in the entire U.S. This is a city in a park. I'd like you to take an opportunity sometime and look west and look at the rolling hills and the view. And I hope if you come back in ten years, you see rolling hills and the trees and the view, and not this testament to ignorance and stupidity of this power line project. 230-kilovolt

transmission lines do not belong here.

So last time I was talking about scope. I want to finish a point I brought up last time. If PSE is not legally required to be truthful and flat out does not comprehend the safety issues, I believe part of the EIS needs to include the impact of all the mitigation of all the safety issues. If they are not legally bound to be truthful or they just don't get it, then I ask that you base your impact on the Bonneville Administration, the BPA safety standards, and I quoted you last time what their safety standards are with respect to pipeline and power line distances.

Scope. Another issue I'd like for you to identify are the alternatives that are consistent with WAC 480-100-238, which is the integrated resource planning. Show how those alternatives are consistent with an integrated plan.

Remember Earth Day a couple weeks ago? That's where everybody wonders what somebody is doing about the environment and who's fixing the problems? It's all of you. It's me. It's all of us. The scope of this EIS should include the positive environmental impacts from some of these alternatives. Some of these alternatives are better than doing nothing at all.

PSE is the dirtiest electrical utility in the

entire state of Washington. You can go and look at the fuel mix reports and see that for yourself. This proposed solution of PSE does nothing, nothing to address that problem. Their dependency on coal strip is not impacted by this alternative that they're proposing.

Many of the alternatives we are looking at do help reduce the dependency on dirty energy sources. So I think the scope should include the benefit of some of these alternatives to the environmental condition.

Alternatives. I think I've demonstrated the Draconian scale of this solution compared to the real problem. A stack of pennies/Space Needle/little sheet of paper. I don't know if you took the magnifying glass to actually read it, but that was the amount of energy we needed versus that huge board which is related to the size of the energy capacity of their solution.

What I'm getting at is that we really need to cultivate right-size alternatives, and the best ones haven't even been thought of yet.

Cooperate with Seattle City Light. PSE wouldn't admit this publicly, but we found out privately and I actually tasked the City of Newcastle to find the data. I asked, Where is it documented where they formally wrote the request to Seattle City Light for the specific following points: If we have a major transmission light failure and

temperatures falls below 23 degrees, we need 55 megawatts. That's 28 hours a year. We'd probably be able to pay it back in the same day or probably within a week. By tying those two together, we could actually improve the reliability of both. Little impact in either case.

Make regional power requirements the highest priority for regional power utilities.

MS. WAGONER: If you could wrap up your comments?

MR. ELWORTH: Okay. One more.

Conversion to a PUD. Puget Power long ago fought this about 70 or 80 years ago to allow the state to create PUDs. They failed and PUDs are allowable. A PUD would allow us better forecasting, better management, better service, better efficiency, better environmental stewardship and better value. I'll end right there.

MS. BACH: My name is Kelly Bach. I live at 12519 Northeast 29th Street in Bellevue. Some of you have heard this before, but I feel so strongly about the message that I'm sharing that I would like everybody to hear it and to keep hearing it.

I am a second-generation Eastside homeowner. I've lived on the Eastside for the past 35 years, and public speaking, as I've said before, isn't my thing, so bear with me.

When my husband and I looked at purchasing houses

about ten years ago. We looked at a lot of neighborhoods all on the Eastside. We both work in Seattle, but we're so taken with, despite the commute, and it's only getting kind of worse, we're just drawn mostly to, not just the schools because we knew we'd have children, but the space, the trees, the trails. All of this really spoke to us.

When I learned of the proposed project by PSE there were a handful of things that concerned me. One of which is how much this is going to forever change the landscape of, not just my neighborhood, but all neighborhoods. People will say, well, plant more trees. But do you really appreciate how long it takes for the trees to grow to the height of which ones you're going to take down? It takes a very long time. The ecological benefit of these trees, the animals that live in these trees and those environments. The City has a documented goal of trying to increase its canopy, yet PSE will be cutting down about 1,000 trees in my neighborhood and 8,000 overall with this project. The total number is truly unknown until they do the actual count, so that number could actually even be higher. This takes away from our City's goal.

My neighborhood will also be changed by the size of the utility poles, like everybody else's will. The poles, as we've heard, are about 135 feet tall. Our current poles are 40 to 50 feet tall. These new poles are potentially 30

to 40 feet taller than our mature trees that will be cut down. They will stand out and be obvious, not just to the people whose yards that they sit in or are nearby, but to everyone. They'll be visible from far away. And is this really the vision that they want for our city?

The proposed plan not only decreases the value of my home and others that are here, but it also has me paying for a bunch of this, probably through taxes or increasing my energy bill from PSE for years to come. So I would just ask who's actually benefiting from this plan? Because it's definitely not our community.

My biggest concern actually has to do with health impacts. I am a pediatric ER nurse. I have cared for a lot of families whose children have suffered from a lot of different illnesses. And I would like to look at whoever the CEO of PSE is in the eyes and ask him or her, Can you tell me with a hundred percent certainty that this will not negatively impact the health of our youth with the increased EMF? Because I know, I know that you can't.

PSE says there's no impact on that. That answer is really to be expected. Even with current research, the hard thing about cancer or cardiac conditions or seizures or other health problems is that scientists work hard, but it takes decades or sometimes actually even generations to find out the negative impact that it has to them. EMF is a

documented concern for over 30 years. And the reason why there's still research on it is because they know there's a problem, they just can't quite find that answer.

My oath, if you will, is to help combat childhood illnesses and to care for those in need. I've been in many a room where parents learn of a cancer diagnosis. It is heartbreaking. It's a horrible place to be. I would like PSE to say with a hundred percent certainty, a hundred percent, that they can guarantee that there are no adverse health effects by this added EMF.

I'm asking as a homeowner, a mom, a nurse, a second-generation Eastside resident to have PSE, the City of Newcastle, Bellevue, Renton, Kirkland, everybody look at other options. They're out there. PSE might not be willing to find them. We will find them. And I will not stop coming to these meetings and talking about EMF because it is so important and yet somehow it is getting overlooked.

MR. MARSH: My name is Don Marsh. I'll be speaking for CENSE.

My comments tonight may have some bearing on the EIS, but I would really like to address the good people of Newcastle and other Eastside cities who have made attendance at this meeting a priority tonight. I think you deserve to know what's really going on with this project and how CENSE is going to challenge it.

I don't need to describe to you what a terrible project this is or how it would never have been proposed if PSE weren't going to make a lot of money off of it. We are used to dealing with corporations whose primary objective is maximizing shareholder value, no matter who or what gets in the way. What is disappointing to me, and probably to many of you, is how badly we have been served by city governments. Bellevue in particular seems to have swallowed PSE's marketing pitch hook, line and sinker. Even today I got an e-mail from a city staff employee working on this EIS that describes Energize Eastside as needed to address a capacity problem in 2017. Even PSE now says the date is later than that.

And it's not a capacity problem at all. The project is addressing a theoretical peak load problem under circumstances so rare that they will mostly likely never occur during our lifetimes. This isn't just something we're making up for dramatic effect. Our statements have been verified by experts that include the former vice president of Power Planning for Puget Power, which became PSE. We would love to educate both the staff and council members on what we know that they don't seem to have grasped, but we are never allowed to speak for more than a few minutes at council meetings. We have been denied the opportunity to give a presentation outside of council meetings.

I'd like to contrast that with the apparently cozy relationship PSE enjoys at city hall. For example, Carol Helland, the Bellevue official right here who is exercising enormous power in determining what is included in the EIS, sent an e-mail to a PSE employee on the eve of PSE's presentation to the council. She said she was still working on the packet that council members receive before their meeting, but that, quote, The council packet will align well with your presentation, end quote. PSE even asked for advice. Quote, Please let us know if you have any recommendations of what would resonate most with council, end quote.

This kind of access and cooperation is way beyond anything that citizens have enjoyed throughout this process. For this reason we are skeptical that the outcome of this EIS will be in our favor.

But I want to reassure my good neighbors. Even if the cards are stacked against us in this forum, we have other ways to challenge this project. We have recently drawn inspiration from the citizen action group in West Virginia that was successful in killing a transmission line that crossed three states. That group had considerably less technical expertise and resources than we have. We are going to follow their path and widen it considerably.

We have information that we believe will halt this

project in its tracks. This information shows collusion between civil utilities and the planning process that went off the rails. Our case is strong, but we just need the financial resources to bring it to a successful conclusion. So I ask you tonight, if you love your city and your neighborhood, please consider a donation of any size to CENSE.org. We will make good use of your money and defend your property, your city, and our collective environment. Thanks for your help.

MS. NEWING: Good evening. My name is Linda Newing. I live at 7912 115th Avenue Southeast in Newcastle.

I hear a lot of passion in this room about various issues related to this pipeline and I completely understand that it's an aesthetic issue. We have an Olympic pipeline going through the route of the proposed high voltage lines and these are huge concerns. We have no guarantee of safety of driving pilings near that pipeline. We have residents that are worried.

I grew up in this area. And as long as I can remember, the Eastside was considered a pretty influential area with higher level property desires, and people are truly interested in living on this side of the lake, and the high voltage power line could totally take that away from this community.

And I'd really like some feedback about the

additional safety issues with the pipeline and maybe review alternative energies. We're completely encouraged in everything we do to look at alternatives for more energy efficient, more cost efficient, just be responsible stewards of the environment. And I think it's a project that qualifies to do that type of -- be a responsible steward of the environment.

MS. STRONK: My name is Sue Stronk. I live at 12917 Southeast 86th Place in Newcastle.

Olympic Pipeline Company was pumping gasoline from Ferndale to SeaTac Thursday evening, June 10th, 1999, through the same 16-inch gas line that is currently in use just a half mile west from the school. The same pipeline dividing the Olympus neighborhood, as well as other neighborhoods along the Energize Eastside route.

A pressure release valve failed at 3:25 p.m. in Bellingham which led to a catastrophic rupture in the line. An hour and a half later the gasoline vapors exploded, creating a river of fire one-and-a-half miles down the creek to Interstate-5. The massive fireball sent a plume of smoke almost six miles high in the air visible from Anacortes to Vancouver, B C. Dense black smoke caused closure of I-5 for more than an hour. Gasoline migrated into the City's sewer system. The vapors were at explosive levels for an hour. The victims were three boys, two of them age ten and one

eighteen. Four hours later the major blazes were under control. Fortunately the fire did not travel west, as that saved downtown Bellingham.

The inferno, estimated to have reached 2,000 degrees, caused a high voltage power line in two substations to be shut down. Most of the property damage was broken windows in homes and businesses and a house leveled near the creek. The fuel spill occurred 150 feet in front of a water treatment plant. The explosion shattered all the windows and blew the doors off the building. The brick-and-concrete shell were left standing, but the control systems and even the fire extinguishers melted in the fire.

Many of our homes are only 50 feet from the gas lines, not 150 feet away.

After a three-year investigation, it was found the damage to the pipe was caused five years earlier in 1994 by a construction company doing excavation work. PSE repeatedly said safety is no problem working along the gas pipelines, we work around them all the time. Yet in 2008 the UTC fined PSE one-and-a-quarter million dollars for intentionally falsifying their own gas line safety inspection records over a four-year period. That was the biggest fine ever imposed on a utility in our state.

277,000 gallons of highly volatile gas escaped the pipe in Bellingham that day. Safety in our neighborhoods is

the first priority. Not PSE profits.

MR. SCHMIDT-PATHMANN: Good evening. I don't need too much time. My name, and that will probably take most of the time, is Philipp Schmidt-Pathmann. S-c-h-m-i-d-t, hyphen, P-a-t-h-m-a-n-n. My address is 12623 Southeast 83rd Court in Newcastle, Washington 98056.

I'm also representing the Vineyards Homeowners Association, which is the Division 4 of the Olympus. And I'm hearing a lot of things tonight and I'm interested -- I'm representing all the homeowners trying to figure out what kind of noise are we going to have in our homes.

We're talking about views, we're talking about safety. But what is unacceptable to me is wanting to build an infrastructure that will be outdated before it's even built. The problem is or the key words here are sustainable infrastructure. I do not believe that this kind of system proposed will really look at what is called a smart grid system. Smart grid system means if we want to do this in Olympus, and I'm speaking probably for both associations, if we want to put solar panels on our homes, this is coming, this is done in many other countries around the world, it's just a fact of time when this is going to come, we want to maybe put solar panels on our roofs, whatever it should be, and we want to feed that back into the system. The current system will not support that. Because a smart grid system

is a challenge that everybody faces today, so why should we incur a cost that is outdated which we have to pay for without having a smart grid, a future infrastructure in place? We're paying for things that are outdated. We need something in the planning process that will address this. And I think until then, this discussion should be over. Thank you.

MR. O'DONNELL: Thank you, Philipp. We can almost all go home after that.

I'm Steve O'Donnell. I've been in Somerset for 40-some-odd years in Bellevue. I'm the immediate past president of the Somerset Community Association. There are other past and current presidents here with us from Somerset to support all of you in Newcastle, our friends and neighbors. And I can't thank Larry Johnson and all of the leaders of the Olympus Homeowners Association and good people like Tim, and thank you all. Thank you for taking your time and your energy for coming out and thank you for supporting CENSE. I think we're on the right track.

What I want to share with you tonight is a couple of things that -- of course I agree with everything that's been said so far and really don't have anything new to add in terms of alternatives. We've covered a wide range and thank you all for doing that. You've done so well.

Tuesday night in Kirkland I kind of ran out of

time, but I did ask -- I direct some comments to both the City and to ESA to study the deficiencies in the building codes. I think that that's really critical moving forward into the future because we have had comments about don't go backwards, don't build something that's legacy that's a-hundred-year-old technology.

And to illustrate that, I mean, how many of you came here tonight by buggy with a horse whip? No one. How many people came by hybrid or electric car? Wow, look at that. How many people no longer use a princess phone and have a land line? How many people have a smart phone or an iPhone? Just about everybody. Isn't that amazing how the advancements of technology and trends are?

That's going to be my next thing to ask you guys to look at. We don't have all these old things of the past.

How many of you have taken advantage of conservation and converted your light bulbs to LED bulbs? Wow. How many of you in the last year have installed solar panels? How many of you are going to plan to install solar panels, had a contract or a bid or a proposal? Look at that.

If we do that along the 18 miles from Redmond to Renton over the next few years, that wipes out the need for Eastside Energy. Wipes it out, okay? I've had two proposals for solar panels on my house and have converted to

LED, thanks to the inspiration from Don Marsh and others that have been so helpful.

The Bullitt building in Seattle is not only a zero footprint that was built and came online a few years ago, it's a standard for the nation, if not the world, and it puts power back into the system. So not only is it not using any, it's producing power. And more and more of our homes are going to be doing that. But, more importantly, so are all of these commercial buildings.

We support growth and the job machine that helps contribute to Bellevue and our five surrounding cities in east King County because that is part of a vibrant and healthy community that we all want to be part of. But we don't want to see the degradation that this kind of industrial blighting project that anybody could have put up a hundred, a hundred and fifty years ago. Anybody could do that. But it's really something to come up with an iPhone or an electric car and solar panels and LED bulbs, something that's the new version of Einstein.

So I think it's really important that we encourage all the new buildings in downtown Bellevue and the Bel-Red corridor where the load is, where the need is, whatever that growth number is, we've got all kinds of fuzzy numbers, but those guys need to be doing the right thing. And if we have to do it in codes, that's where it should be.

Now, in trends, what I just talked about, no more horse and buggy whips. I think that Mark and ESA, I hope you will study trends. Because what you just saw from the hands that people raised is there's a movement going on, man. It's huge. And it's only just started. So again it's going to wipe out the need for Eastside energy.

Lastly, I would just say that we are willing to meet and sit down with officials at PSE, namely Kimberly Harris, the CEO, any time, anyplace, anywhere. We'll go to Australia, we'll go to New York City. We'll meet them anywhere, any time, and we'll talk about what is the right thing to do. Nobody should be doing what their current proposal is. Nobody. Thank you.

MR. BEERMAN: Hi. Gary Beerman. 12051 Southeast 76th Place, Newcastle. I've lived in this area for 48 years, went to Newport High School. I know I don't live here because I'm in dermatology, right?

A couple things. Everything was said, pretty much. The industrial blight is the thing that worries me the most. The pipeline runs right through our backyard, I mean literally in our back yard, and so do the power lines. I have a 14-year-old son and 10-year-old pit bull and my wife is here, too. And I don't know if people realize this, but it was a nick in the pipeline up in Bellingham that made that explosion. And that's all it takes is a nick in that

pipeline with that many pounds per square inch pressure. And I don't know what the exact depth they're going to drill these pilings are.

The blight, though, that changes our entire neighborhood is what bothers me. I don't think people realize this, but PSE is now owned by a Canadian company which is owned by an Australian holding company. In the dermatology profession, Valeant is a Canadian company and it just bought out a whole string of generic drug companies. If you're wondering why your drugs are more expensive now, they immediately raised up all the prices of the drugs. Doxycycline used to be $9.00 for 30 pills, now it's $150.00. It's because of Valeant, a Canadian company, bought out all the generic companies.

So I was told in an e-mail from PSE that they're going to sell power to Canada. And I have found out from a patient, which will go -- because I don't want to break the HIPAA rules, is that they said that they're also going to sell to California, too. So how much really do we need these pipelines?

Basically that's it and thank you for letting us talk.

MR. CRISPO: My name is Rich Crispo. I live at 14406 Southeast 89th Place here in Newcastle. I am a member of Newcastle City Council, but I am not speaking for them.

This is my comments purely.

EIS. I would like to talk impact and mitigation. And before I start that, I really think that the name of this project ought to change. It ought to change from Energize Eastside to Energize Downtown Bellevue and the Bel-Red Corridor. Because when you look and you talk to some of the people from the Bellevue City Council, that's what's on the plate. We're expanding downtown across 405 to the Eastside, we're going to rip up all the buildings in the Bel-Red corridor, rebuild them, we're going to put in a Sound Transit station, we're going to put in a yard, a work yard down there. They do have a requirement for increased electricity. Whether that generates the need for this line, I really can't tell you. I'm not smart enough. I'm an engineer, but electricity is not my area. Don Marsh knows a lot more than I ever will. And I believe that everything that he said is going to be looked at and reviewed as part of the analysis and that needs to happen.

But what I'm really looking at is no pain, no gain. If the gain is in Bellevue, and I'll say downtown Bellevue, not South Bellevue, so the Somerset people, you're not going to see it, Renton is not going to see anything, Newcastle doesn't see anything, Kirkland doesn't see anything. So the real benefit is in a very small area. Well, then the majority of the pain should be in that area. What are we

getting out of this?

So we talk about impacts, we talk about mitigation. I would really like to see as part of this scoping exercise when you're looking at the impacts, that you consider where the mitigations really ought to be. If we're talking about Energize Eastside, then any kind of an alteration that might work in your options should be covered by the entire Eastside.

Now, I'm sure you're aware that within the state the UTC has powers that say PSE has the right to design what they want and, if you want to make a change to that, you pay for it locally. Well, I don't see Newcastle being required to pay for undergrounding, if that came to pass, or to pay for putting a line in Lake Washington, if that came to pass, when we don't see the gain for it. And I think Kirkland would say the same thing, I think Renton would say the same thing, and certainly South Bellevue would say the same thing.

So as part of your analysis, your EIS, the impact portion, look at the mitigation. Look at the ways that if there is going to be something done and you're going to mitigate for the residents, that we spread that out so that we don't put it in a situation where we can't do anything and we are stuck with the design from somebody who really didn't care about the residents and the quality of life

where we are. Thank you very much.

MS. WAGONER: Thank you. Thank you all. That was the last speaker.

MS. LOPEZ: I'd like to speak.

MS. WAGONER: All right. You can have the podium.

MS. LOPEZ: I am Loretta Lopez. I'm president of the Bridle Trails Community Club. I've spoken at the Bellevue EIS scoping meeting, so I will try to address some of the other issues, different from the ones I addressed in the Bellevue meeting.

Number one, on the issue of the essential public facility. The EIS should address whether this project, this particular project constitutes an essential public facility for each city that it passes through, not just for Bellevue.

Number two, the EIS should address the issue of each permitting process, each comp plan, each zoning issue, all the zoning issues that need to be addressed in each city, not just Bellevue.

Number three, the EIS should address the issue of why the citizens in these five cities were not properly noticed with respect to what this project is. Not only do the EIS scoping signs that are placed not state any alternatives, the notice only states that this project is to assess and for the purpose of reliability. There is no mention of any opportunity to present alternatives on those

EIS signs that are posted in various places. And in addition to that, the signs -- the print on those signs is so small that even at a four-way stop at 60th and Northeast 132nd in the Bridle Trails area, there is no way to read those adequately without stopping, getting out of the car and going about two feet from the sign. And our position is that that is an unacceptable way to notify people of this massive project which will change forever the entire Eastside, and something must be done to address that.

I've asked the city council to put a pause -- the Bellevue City Council to pause this project. I've asked Carol Helland twice to stop this process while the City addresses these issues.

Number four, the EIS should address whether all the cities along this route are in agreement, whether all the cities believe that there's a need for this, not just Bellevue. Thank you.

MR. ARNESEN: I had spoken at the Bellevue hearing. Lloyd Arnesen, 6515 128th Avenue Southeast in Bellevue.

Like some of you, the pipeline and the power lines run right through our yard, so we've had first-hand experience with seeing all of the dynamics that are created as a result of those two passages through our property easements.

I would just relate an experience that I'd had that

I related when we were in the Bellevue hearing. About four or five years ago an incident occurred where the power line broke, came down, the line hit a tree in our neighbor's yard right between our yard and his. The tree caught on fire, went down through the ground and impacted the pipeline. Olympic Pipeline came out and they, of course, dug up the pipeline, they excavated it, put in a new section of pipe, basically. It took several days for that to happen.

The thing that concerned us was that had that little impact on the pipeline maybe penetrated the pipeline, that there would have been a terrible thing happen, an explosion.

And so my point is that power lines and pipelines, petroleum pipelines really don't mix. Thank you very much.

MS. JUDKINS: I'm Kathy Judkins, 4324 136th Place Southeast, Bellevue. I am the current president of the Somerset Community Association.

But what I wanted to bring up tonight is something that hasn't been brought up at any of the meetings. I live on the easement. It's a dead-end. So the only way, if they should choose to go through the easement in Somerset, for me to get in and out of my driveway is on the easement. And I have seen pictures of these massive -- are they six feet in diameter? I don't know how long it's going to take for them to place these things in, but it looks to me like it could

take weeks. I will have no access to my driveway and to get into my house.

MS. WAGONER: Thank you. Are there any other final speakers? Thank you very much.

(Public comments concluded 7:57 p.m.)

Energize Eastside EIS Scoping Comments

The Environmental Impact Statement (EIS) should take into account:

1. Any existing jet fuel or gas pipelines and the potential for interference along the corridor. Include the full cost of any accidents or ruptures during construction and long-term.

2. Any interference with any other utilities in the corridor along the rights of way.

3. Full study of land slide hazard areas using Lidar and all available information.

4. Environmental justice and the impact during and after construction on low income households, renters, or traditionally under-served segments of the population. Including the impact of natural areas, trees, and green space on children.

5. The potential for other energy sources to displace the need for new electric lines.

6. The long term benefits and costs of putting the system completely underground.

7. The potential for other utility providers to serve the same area with electricity.

8. How this could be paid for by impact fees from new construction or sprawling growth fees that drive the need for new electricity. (Existing residents should not have to bear the cost for electricity beyond what we currently use.)

May 28, 2015

Kristen Bryant

Bellevue, WA

kristenbry@gmail.com

Comments on the Scope of Energize Eastside EIS

Energize Eastside EIS Scoping Meeting #4 Newcastle • May 28, 2015

Name Juan Hatfield Address* 8421 - 128th Ave SE
Newcastle, WA 98056

Olympus resident

* You must provide your physical mailing address to be considered a "party of record," eligible to appeal the adequacy of the EIS.

I live across the street from the easement proposed by PSE. I have lived on the Eastside since 1972 and in my current home for 19 years. My husband and I have worked very hard to pay off our home, and now at age 66, I am proud to say that we own our home outright. The threat of this Energize Eastside project is now forcing us to think about leaving our beloved home and neighborhood because of the blight and danger looming if this project comes to fruition. To think of having to give up a home as a senior citizen, to start over in another home and mortgage, is devastating. Yet, the thought of excavation near the pipelines, with the potential of just one misplaced backhoe (so common and a frequent cause of explosions, fires, and death when excavation occurs near pipelines) frightens me, angers me, and disgusts me. The arguments against this project have been heard. Is the risk of one death worth this profit-hungry debacle?

This is insane!!!!!!

energize EASTSIDE EIS Environmental Impact Statement

Comments on the Scope of Energize Eastside EIS

Energize Eastside EIS Scoping Meeting #4 Newcastle • May 28, 2015

Name Lisa Stix Address* 13011 SE 84th Wy
Newcastle, WA 98056

* *You must provide your physical mailing address to be considered a "party of record," eligible to appeal the adequacy of the EIS.*

I am concerned about the proposed 230kV lines built through the north-south eastside corridor from Redmond to Renton. Below are my concerns.

- safety of neighborhoods through which the line will be built (230kV lines built next to gas lines in an earthquake zone)
- potential EMF concerns
- home devaluation
- noise from wires
- lines built partly to sell power to Canada
- cutting down 8,000 trees to build the lines

Comments on the Scope of Energize Eastside EIS

Energize Eastside EIS Scoping Meeting #4 Newcastle • May 28, 2015

Name Dee Mulford Address* 12733 SE 86th Pl
Newcastle WA 98056

* *You must provide your physical mailing address to be considered a "party of record," eligible to appeal the adequacy of the EIS.*

Although the population density in our region has increased, the energy load ~~and~~ demand has decreased! This is largely due to public awareness and to the fact that home design and also all appliances available today are energy efficient!

This project is not only a major blight to all of our communities but is entirely not necessary.

Dee Mulford

Comments on the Scope of Energize Eastside EIS

Energize Eastside EIS Scoping Meeting #4 Newcastle • May 28, 2015

Name Cavin Chatterton Address* 8449 129 Ave SE
Newcastle WA 98056

* *You must provide your physical mailing address to be considered a "party of record," eligible to appeal the adequacy of the EIS.*

- We need do be forward thinking & not put huge poles in backyards & communities. There are other choices, many way less invasive.
- the safety of putting these poles on yet more pipelines is so scary.
- Property values & the beauty of our city is going do be sacrificed.

Comments on the Scope of Energize Eastside EIS

Energize Eastside EIS Scoping Meeting #4 Newcastle • May 28, 2015

Name Claudia Mansfield Address* 5837 Pleasure Pt. Ln. Bellevue, 98006

* *You must provide your physical mailing address to be considered a "party of record," eligible to appeal the adequacy of the EIS.*

① Must enclose boundary lines. There is a viable alternative. To say that it isn't an alternative is limiting the scope illegally.

② Visual impact extends far beyond the immediate neighborhoods. All areas affected MUST be identified, based on terrain & distance from which the new bigger taller lines can be seen, without taking vegetation into effect.

③ Severe visual encumbrances, which will occur in most areas of the Eastside as a result of this line, has a significant negative impact on property values. This needs to be addressed.

energize EASTSIDE EIS Environmental Impact Statement

Comments on the Scope of Energize Eastside EIS

Energize Eastside EIS Scoping Meeting #4 Newcastle • May 28, 2015

Name Tomiko Teramoto Address* 8124 128th Ave SE
Newcastle 98056

* *You must provide your physical mailing address to be considered a "party of record," eligible to appeal the adequacy of the EIS.*

Against

energize EASTSIDE EIS Environmental Impact Statement

Linda Young
12813 SE 80th Way
Newcastle, WA 98056

I am a Newcastle homeowner and I have attended endless meetings regarding the EIS and the horrors of Puget Sound Energy's moneymaking plans.
Has anyone really thought this through? At the Kirkland Meeting an Olympus Homeowner Association Board Member spoke eloquently of many items it was obvious had not been considered.
As my home is behind Olympic Pipe Line's old pipes where Puget Sound Energy wants to put 130' poles carrying 230 kV I am scared.
You talk about EIS Meetings into 2017 and then what? This means hundreds and hundreds of families have to live under the shadow of not knowing what will happen next. It would cost PSE millions to re-locate us.
We get to live in fear and also contribute to Puget Sound Energy – do you understand why we are upset?

In my area here are a **few** of the issues Puget Sound Energy would have to deal with:

Young families with babies, young children and school age children
Elderly couples – some dealing with Alzheimer's
A Care Home with residents who are not capable of moving on their own
A lady who never leaves her home due to a debilitating illness

Also regardless of how dedicated the Newcastle Fire Department and Police Department are they could not handle a catastrophe. We are lucky if we have one police officer out in Newcastle at nighttime!

When Comcast came to lay additional cable near the Olympic Pipe Line it was obvious the pipeline company was concerned. Olympic Pipe Line had one of their employees sit in a truck close by the entire time they were laying cable. Not sure what he could have done in the event of an explosion – perhaps he would have had a moment or two to call for help.

One other point – the woman who directs the speakers and controls the time needs to know we are NOT children in elementary school. I am sure, by now, you know The Eastside is full of bright, intelligent, educated citizens and they have done their "homework" and you will NOT ride herd over them.

Comments on the Scope of Energize Eastside EIS

Energize Eastside EIS Scoping Meeting #4 Newcastle • May 28, 2015

Name Allison Dildine Address* 8475 128th Ave SE
Newcastle, WA. 98056

* *You must provide your physical mailing address to be considered a "party of record," eligible to appeal the adequacy of the EIS.*

I do not believe PSE needs to put 230V transmission lines through our neighborhoods and I oppose the upgrade.

My concerns are:

1. Property values decreasing
2. Health increased voltage & radiation damaging to health.
3. Aesthetics – unsightliness of poles interfering with beauty of neighborhoods & views!
4. Safety – gas lines already in proposed construction area! Very dangerous!!!
5. Trees to be removed a great travisty if done.

PSE has crammed the project down our throats with little alternatives due to cost of underground lines!

Shame on you.

energize EASTSIDE EIS Environmental Impact Statement

5/28/2015

To: Newcastle EIS

We are totally opposed to the 230 kV overhead power lines that PSE wants to run thru Newcastle:

1) PSE's CAG process was faulty, biased, unprofessional and dictatorial. Free speech and opposing opinions were not allowed.

2) Newcastle is a very small community which will be overwhelmed and dominated by approximately 135 ft tall and ugly poles which will be visible over the community and beyond. Territorial views and views of the mountains will be permanently destroyed.

3) Construction of the PSE proposed overhead power lines in the current easement which runs thru high density residential areas is foolish and irresponsible. The heavy construction equipment can easily damage the gas and fuel pipelines running in the same easement and result in explosive destruction of residential properties and human life. This has happened before.

4) Installation of approximately 135 ft tall poles in a residential area which is very close to the Seattle fault line is irresponsible and foolish. The risk that these poles will crash on top of homes in an earthquake is unacceptably high.

5) Installation of approximately 135 ft tall poles in areas where landslides cannot be ruled out is unacceptable.

6) Increasing the voltage from 115 to 230 kV will expose residences along the power line to stronger EMF 24 hours/day, 7 days a week. EMF is a known health hazard.

7) It has been proven that ionization associated with high voltage power lines results in higher concentration of air pollution underneath the lines. People and animals in the vicinity of the power line will be inhaling polluted unhealthy air.

8) In our humid conditions, power line noise can easily exceed 60 dBA, which will further destroy the quality of life of those living nearby.

9) It has been reported that 8000 trees will have to be removed along the corridor to accommodate the 230 kV lines. That is unacceptable. We prefer beautiful trees over ugly overhead power lines.

10) Overhead power lines of any kind is a bad idea in this area with wind storms and costly power outages.

11) Because of the above factors, the quality of life in Newcastle is destroyed and Newcastle will become a community to be avoided. Values of single family homes will be permanently impacted by 10-30%, as will other property values. The tax base will be reduced. Such significant impacts on property values will contribute to the overall decline of Newcastle.

12) Above concerns apply to the entire 18 mile long corridor where PSE wants to install 230 kV lines on approximately 135 ft tall poles. Considering that PSE's demand forecast uses questionable assumptions, that there are community friendly solutions which have not been evaluated by PSE and the fact that forward looking communities and states disapprove overhead power lines in residential areas, we request that the installation of 230 kV overhead power lines be disallowed.

A. Roosme
8324 127th PL SE
Newcastle
WA 98056

Comments on the Scope of Energize Eastside EIS

Energize Eastside EIS Scoping Meeting #4 Newcastle • May 28, 2015

Name Karla & David Herman Address* 8018 128th Ave SE
Newcastle, WA

* *You must provide your physical mailing address to be considered a "party of record," eligible to appeal the adequacy of the EIS.*

Safety is my highest priority.

How can you safely install high voltage lines over an aging gas line running through a highly populated residential area.

This is outside my bedroom window — my family lives in this environment.

energize EASTSIDE EIS Environmental Impact Statement

ENERGIZE EASTSIDE ENVIRONMENTAL IMPACT STATEMENT

SCOPING MEETING PUBLIC TESTIMONY

2:00 p.m.
Saturday, May 30, 2015
North Bellevue Community Center
4063 148th Ave Northeast
Bellevue, Washington

REBECCA E. DONLEY, CCR 3184
NORTHWEST COURT REPORTERS
1415 Second Avenue, Suite 1107
Seattle, Washington 98101
(206) 623-6136
E-mail: Nwcourtreporters@iinet.com

(Public comment period commenced at 2:45 p.m.)

SPEAKER NO. 1: SUZANNE MESTON

So first I want to apologize because I wasn't going to speak, and I got these new prescriptive sunglasses and I thought it was such a great idea, but what I didn't realize was that when you come inside, you can't see. So I either need to get right in your faces or I need to wear them, so I'm really sorry.

So my name is Suzanne Meston. I live at 13800 Northeast 40th Street here in Bridle Trails, and I am proud to say that I have lived in Bridle Trails all of my life. It is a really very special area. And that was my horse out front, Addy. She lives down on 32nd Place and she lives right under the power lines and has for ten years now.

And I wasn't going to testify. I've come and I've talked to you guys before, shared my thoughts about new technology. I work for an international network provider and I work with researchers and vendors and I have a team of engineers who do capacity planning, and so I've asked you to really please look at the demand forecasts and the assumptions that are baked into those demand forecasts, triggers and exhausts.

I've also talked a little bit about new technology, right, and asked you guys to really look at challenging PSE

to lead in the area of green energy. What can -- there are so many different solutions and we're going to this -- there are so many trends and things.

But what I wanted to -- I was having a conversation with a gentleman out front and I found myself, it was like I was talking about a child, right? I have a 6-year-old and a 10-year-old and we're always walking on the trails and playing outside. Bridle Trails is just a wonderful, wonderful area. But I started talking about the park, Bridle Trails State Park, which is about 500 acres. And we have a ranger there, and there are trails and there are walkers and horses. And growing up, right, it was mainly equestrians that were in the park, but there are runners and walkers and families.

I was talking about the field trips that -- my kids go to school right here, right, and so Ranger Mary and -- I forget the new ranger's name -- but talking about the trees: This is this kind of tree and what kind of animal do you think would live in this kind of tree? Just the education that goes on.

And so the reason why I wanted to talk a little bit today with you about this project is I would really encourage you to think about the project. Bridle Trails is such a special place with all the trees and all the walking trails, right, and I came back here after going to school

because I love the area and I love the community and I love the rural nature of the neighborhood.

I was in Newcastle on Tuesday and it's the same thing, right, trees and beautiful things. And I would just really encourage you guys to continue to look for alternative proposals, to look at alternative technologies and ways that we can not devastate entire neighborhoods for the sake of PSE. Thank you.

SPEAKER NO. 2: MIKE HALVERSON

Hi, I'm Mike Halverson, and that was my daughter and my riding partner, and I'm the one with the other horse that's outside. I am here today to read into the record something that a neighbor brought by. He intended to be here but some sudden family situation changed all that so he very quickly gave me some written material to read. His name is Ron Bromwell. He lives at 13650 Northeast 34th Place.

For clarification purposes the Olympic Pipeline was constructed in 1973. It is 42 years of age and has received no visible maintenance during the past 30 years according to the residents in the area. It is located within an easement of 100 feet shared with PSE. The pipes are located less than 50 feet from the center of the easement, with currently only a 16-foot setback from the first electrical cable. The combined easement forms a narrow corridor lined on both

sides by homes and some very large trees.

The pipes are buried in the ground but only at a shallow level of three to four feet. Their location is marked with posts bearing notices not to dig, because even relatively minor excavation activities like landscaping or fencing can cause damage to a pipeline, its protective casing or buried utility lines, as it says in the Olympic Pipeline's safety brochure.

Residents of this area are very much aware of pipeline infrastructure problems such as a local event on May 24th, 2004. It was reported that, quote, a pinhole-sized leak caused by wear unleashed thousands of gallons of gasoline that fueled the Olympic pipeline fire and explosion near Bellingham, Washington, end quote.

This accident caused three deaths and considerable damage. It was one of many such accidents in recent years. Wikipedia, the free Internet encyclopedia, has documented a list of 503 pipeline accidents and failures which have occurred in the United States in the last 15 years, not including the latest disaster of May 20th, 2015, in Santa Barbara, California.

And then he wrote this letter. It is addressed to the CEO of Olympic Pipeline:

Dear Sir: The residents of five cities in Washington State have been asked for input in the form of an EIS on the

significant environmental issues which will be affected by an 18-mile new energy development being promoted by PSE. We are sharing this information with you as we have not heard or seen representatives from Olympic Pipelines at the various meetings which have taken place. The safety of the pipeline is of vital importance to the many residents of the five cities along the route, as in many cases it runs very close to their homes, less than 50 feet in cases. Therefore we wish to have an opinion from your company concerning the safety of the pipeline considering the major construction which will take place to install many large over-100-foot towers.

I bring this matter to your attention in the hopes that your company will understand this development as potential for a disaster in the making and will insist that the Energize Eastside project be subjected to a re-evaluation with particular relevance to pipeline safety.

MS. WAGONER: Thank you. Could you leave those for the court reporter?

MS. HALVERSON: I will put these in an envelope, yes. He wanted me to leave them with you.

MS. WAGONER: That would be excellent, thank you.

SPEAKER NO. 3: STEVE O'DONNELL

Good afternoon and welcome to everybody who came today,

and thank you for supporting CENSE, cense.org, Coalition of Eastside Neighborhoods for Sensible Energy.

My name is Steve O'Donnell. I'm the president and co-founder of CENSE. I live at 13945 Southeast 47th Street in Somerset. I've been in Somerset for over 40 years, and I'm the immediate past president of the Somerset Community Association. We have about 1600 homes, about 6,000 people. The existing 115 lines on approximately 40-foot wooden H structures go right through Somerset about a mile in addition -- inside of that full 18 miles from Redmond to Renton and the 9 miles through Bellevue, couple miles through Bridle Trails, couple miles through Olympus in Newcastle.

And thanks to our friends and neighbors and supporters in Bridle Trails and Olympus that are here with us this afternoon and so supportive, and who turned out in big numbers Thursday evening in Newcastle. That was really terrific, so thank you very much. I think there was a tremendous amount of great information and new information from those folks brought forward.

I want to continue just on the theme of code deficiencies and trends a little bit. I asked for a show of hands Thursday evening of how many people came in their hybrid or electric car, and there was a dozen or so or more, and that probably wasn't the case even a year or two ago.

How many people still use the princess phone? Nobody. Now going back to the car analogy, nobody came by horse and buggy. Just about everybody in the room had a smartphone of one type or another, have converted to LED bulbs, are putting on solar panels.

But on the commercial side of things for code deficiencies, I think that that's something that both Bellevue needs to take a really hard look at, all five cities, and ESA in your studies that -- you need to take a look at what the comparison or the delta would be when we build out downtown Bellevue and the Bel-Red corridor over the next 30 or 40 years, that all of those new buildings are going to be very energy efficient, and should be and need to be, versus the existing businesses that are there.

So it appears that on a national level, a state level and a county level, electric utility use is flat to down. Americans have acquired about 1.2 billion devices -- I just mentioned smartphones -- in the last three years and yet electric utility use is down 12 percent. There's a reason for that and the folks at ESA need to study this. The City needs to be aware of this. That's only going to continue.

To the point of trends, and continuing, I just had the distinct honor and privilege two weeks ago to spend three days in Washington, D.C., with the Honor Flight Program as a guardian and chaperone for two 93-year-old World War II

veterans. It was quite an experience. But I will tell you that they too have smartphones, they too are driving hybrids, they too are putting solar panels on their homes at 93 years old up in La Conner at Shelter Bay and in Lake Stevens.

They're a part of the greatest generation, and if they're doing these things and the young people are doing these things, I think we could forecast in just a matter of several years there would be absolutely zero need for PSE's EE, what I termed a year and a half ago as industrial blighting of 18 miles above the tree canopy of 40 neighborhoods or more in an unnecessary project.

And if what Jens Nedrud and Gretchen Aliabadi and the PSE people say is true, this is a local project, well then, by golly, make it a local project. Study it as a local project. Require that it's a local project. Require that all the new buildings in downtown core, in the Bel-Red corridor, create and generate distributed generation and batteries and solar and utilize all the new technology at our disposal, because that's the trend in the future.

And so I would just say in closing, especially to all of you young people at ESA and you young people in the city of Bellevue: Be visionary, be innovative, be creative. I started my investment career over 40 years ago. I didn't want to do the old stuff. I didn't want to go backwards. I

didn't want to do legacy stuff. What these guys are proposing is something that's 20th century, 19th century. It's junk. Anybody could do it and --

MS. WAGONER: Okay, wrap up your comments.

MR. O'DONNELL: -- I didn't want to embarrass some of the young people. At a meeting we had somebody took me to task for challenging them, but a young person just joining PSE --

MS. WAGONER: If you can wrap up your --

MR. O'DONNELL: I will. Was that five minutes?

MS. WAGONER: You're through your five.

MR. O'DONNELL: Such a thin crowd, I think we have quite a bit of time.

But anyway, that's my point is look to the future, let's embrace technology. That's what it's for, okay?

And the last point I'd like to make is --

MS. WAGONER: A short point.

MR. O'DONNELL: -- DC Hydro is bringing on Site C Dam on the Peace River, and there isn't going to be any need for north -- south to north flow to Canada in just a matter of maybe eight years or so, however long it takes for them to get that dam building on line, and so it will be north to south flow. And who's going to be the gatekeeper? Well, maybe PSE wants to be the gatekeeper, maybe Seattle City Light. These guys need to work collaboratively together --

MS. WAGONER: Okay, I think you've got your point made.

MR. O'DONNELL: -- handle that power.

MS. WAGONER: Thank you very much.

MR. O'DONNELL: So thank you very much and I look forward to you doing the right thing.

SPEAKER NO. 4: BRIAN ELWORTH

Hello, I'm Brian Elworth. I live at 8605 129th Court Southeast in Newcastle in the Olympus neighborhood. This is my fifth three-minute sound bite. It's very hard to communicate messages in little tiny sound bites, but I'll continue that approach.

Importance of vetted data. Compare PSE's demand forecasts during the CAG process versus the new EIS version, the one you guys show. Per the PSE CAG graph, power demand was 650 megawatts in 2012. The EIS version shows less than 600 megawatt demand in 2014. So more than 50-megawatt reduction in two years. We apparently saved 50 megawatts by doing nothing but talking about it. That's pretty amazing. If we just have these meetings routinely, the problem will go away. In fact, in 20 years we will not need power lines, based on that projection.

So my point is, you could say -- you know, politely you could say the PSE data is a bit squishy. Realistically, you

could call it Ouija board pseudoscience, because that's what it is.

This really looks -- this project looks to me like Chicken Little saying: The sky is falling and we must build more power lines. You said that you have to figure out which alternatives to bring forward. The one that's most draconian in its solution and in its impact is Alternative 1. I recommend you not bother pulling that one forward.

Alternatives. We have a huge opportunity here. There's a lot of negativity. Everything I've said has been pretty much negative and everybody who's been up here has a lot of negative feelings about this and data to prove their points. This could be a catalyst for a new mindset. Think about embracing a vision of becoming a world leader in power management and distribution in Bellevue, Kirkland, Newcastle, Redmond and Renton. Experts from around the world would come to see how the technology leaders are doing it: Clean, renewable, affordable, reliable energy. We could do that. We could be the world model.

The Puget Sound region has a very high concentration, population, of scientists, engineers, mathematicians and technology experts. You know, a typical day at the office for people around here, they're solving problems no one else in the world can solve. We actually do that here. You may be numb to that, but that's what we do here in this area.

A previous generation of engineers that work in the neighborhood that I work in, they left a bunch of electronics in an abandoned vehicle. Maybe they shouldn't be too proud of that, but they left the vehicle on the moon. They did it 44 years ago. In contrast, why is their electric power utility just this side of the dark ages? It doesn't need to be. That's my vision statement.

Quality of the EIS. This is a little bit disappointing to me, from what I heard last time. The EIS should be a complete and unbiased impact assessment based on the best information available. The value of the EIS is based solely on the integrity of the process and the integrity of the responsible participants. The mere perception of bias or conflict of interest will taint the EIS and prompt consequent challenges.

I don't know if the City of Bellevue has standards for fairness in treatment of its residents codified or whatever, but there's an implied standard of fairness that the lead agency is obligated to follow with respect to the other impacted cities of Redmond, Kirkland, Newcastle, Renton, and all their residents. These other cities have nothing to gain by this proposed project, but they have a lot to lose.

So I ask that all participants involved in directing or authoring the EIS who have or will promote and advocate on the behalf of the proposed PSE project recuse themselves. I

also ask that, further, all participants who are under those people's directions also recuse themselves. Thank you.

MS. WAGONER: Thank you. Do you care to leave your notes or --

MR. ELWORTH: I would like to leave something else. I again drew the draconian chart. The rectangle is the magnitude of the energy capacity of their solution. This little teeny, tiny circle inside it, this little teeny, tiny rectangle, that's the magnitude of the energy shortfall they claim. So I'll leave you that, I'll leave you an 800 zoom of that corner there, and I'll also leave you my assessment of how those numbers are derived, including PSE's data and statements.

MS. WAGONER: Their methodology, okay. Thank you.

SPEAKER NO. 5: SARA BRANNMAN.

MS. BRANNMAN: Hope you don't mind if I bring my big 'ole laptop up here.

MS. WAGONER: No.

MS. BRANNMAN: Hello. My name is Sara Brannman and I actually live in Bothell at 24115 1st Place West, but I've been involved in the Redmond community for a long time. I've worked here for about six years and consider myself an involved stakeholder, so to speak.

First, let me say that I really appreciate and agree

with everything that's been previously stated, and I feel as though it has made my job much easier. And as a double major in environmental studies and public policy, as well as a member of this community, my concerns regarding any large construction project are numerous. Therefore, I'll try to keep it short and just keep it to three key points that I have. But I'm not here to necessarily voice an opinion on the project itself, but rather to encourage certain aspects to be considered within the EIS report. And I apologize if any of these concerns have already been voiced.

First, the greenest thing that we can do in almost any case is to use what we already have. If we assume that this project must be completed, I encourage the project managers to strongly consider alternatives to newly built lines such as double-circuiting lines that already exist, if the existing lines provide a viable opportunity to do so. Improving current lines will dramatically reduce land disturbance and could potentially cut costs. If possible, the improvement of existing lines could prove to be a worthwhile investment in our energy efficiency, our local aesthetics and the health of our natural environment.

I have noticed that Alternative 3 as listed on the project's website speaks of some similar alternatives, but I simply hope that the potential benefits of such a plan will be more closely examined, and I show my support for such an

alternative.

Second, if the new lines must be built, I hope that the EIS will include an assessment of how the land disturbance may exacerbate the spread of invasive species, such as the Himalayan blackberry, scotch broom, and butterfly bush, to name a few. While this project is focused around already-developed areas, there are many urban green spaces that may be affected. We had someone talk about the park, and that is a large area of concern for someone as invested in parks as myself. Invasive species take advantage of disturbed lands by rapidly spreading into newly cleared soil, and these species compete against our native plants with great success and often displace animal species, forcing them into new and possibly more fragmented areas, which puts them at further risk.

I hope to see that the effects of such disturbances will be considered with regard to invasive species specifically. If a risk exists, I propose a monitoring requirement that would routinely check on potential advancement of invasive species, as well as removal or restoration stipulations.

And finally, my last concern is one that I'm sure has been brought up before, and that is construction waste. If this project has to happen, there needs to be a comprehensive assessment of the type of construction waste

that this project would produce, where that waste will go, what that waste could potentially do to our water and soil in a release event. This includes an assessment of nearby surface water such as rivers, lakes, streams, and assessment of groundwater, as well. And I'm sure everyone in here agrees that runoff is a huge issue in this area, the Puget Sound, Lake Washington, Lake Sammamish. It's a large area of concern, and I hope that that will be very closely examined in this project.

Those are my foremost concerns regarding the pursuit of this project. Thank you for hearing me.

MS. WAGONER: Thank you very much.

SPEAKER NO. 6: JENNIFER KELLER

Hello, my name is a Jennifer Keller. I live at 115 146th Avenue Southeast, which is Lake Hills, and I've lived on the Eastside, some in Seattle, a lot on the Eastside for many years, and I thank you for this opportunity to speak.

We're in a changing time when our energy infrastructure must be built not just for the kinds of goals and plans that might have been created in the past, even the recent past, you know, 2010, 2012. What has become clear is that the climate issues that we face are extremely serious, and the national and international bodies that could have stepped up to the challenges so far haven't done much. So we need to

step up at a local level in every way we can as soon as we can. We have to choose a direction we're going to head in.

We can choose the self-destructive option of assuming that consuming and distributing energy in the same old ways as we have been is just fine. That's a choice where we don't change our thinking, don't investigate alternatives like Alternative 2 here. We don't give alternatives their full value and weight in that scenario.

Or we can choose to give the climate issues our full, serious attention, you know, thinking about around here things like having enough snowpack in the mountains during the winter, that we don't suffer serious droughts and devastating forest fires in the summer. So we need to think about all that.

This project is being proposed at a time when it's crucial that we ask serious questions about the things that are needed right now and that I've been talking about. Energy efficiency measures are better understood now and we have better technology, like LED bulbs. That's important. Solar power is becoming more and more affordable. Batteries for storing solar power are getting better and more affordable. Smart grid technology and the kinds of feedback devices that help customers conserve energy are all becoming more and more available. So now is the time to open up the doors for all of that and not invest in the old kind of

infrastructure.

James Hansen, climate scientist, himself has emphasized that what's necessary right now is not just a transformation of our energy infrastructure. We also need to create ways to absorb CO2, including wetlands, changing farming practices and planting billions of trees around the world. Many, many, many trees we need. And this project proposes cutting eight thousand trees, which is going the wrong direction completely. It's a serious action to cut a large tree. The large tree is making a layer of wood all over that big trunk and big branches every year.

So I urge that the scoping of this EIS take in the actual situation we're in today in relation to greenhouse gasses and climate. This is a time to turn our attention not toward the old-style ways, but towards the new, what we need for the future, which is shown the best in Alternative 2. Thank you.

MS. WAGONER: Thank you. That is our last signed-up speaker. It looks like we have two additional. Who would like to go first? All right, sir.

SPEAKER NO. 7: WARREN HALVERSON

MR. HALVERSON: Thank you very much.

MS. WAGONER: And again, if you will --

MR. HALVERSON: This is the growth on this tree

(indicating), five years old.

MS. WAGONER: If you will state your name and address, please?

MR. HALVERSON: My name is Warren Halverson. I live at 13701 Northeast 32nd place. I'm here representing the Canter Green Association, so I assume that I get five minutes, correct?

MS. WAGONER: Yes.

MR. HALVERSON: Thank you. I would just like to comment on three things, first on the EIS, second on alternatives, and third on the evaluative factors.

It is such a pleasant day outside. It really is. We live in such a beautiful area that it's hard to say some things that you really do mean constructively. They may not sound that way but let me say them. And I mean them, in all sincerity, constructively.

I do think that we all need to firewall ourselves a little bit. We need to firewall ourselves from ourselves and from some of our biases and some of our relationships. It would be my expectation in any organization, any corporation, that when you have a customer or a client or a vendor, you have a close relationship with them. And I think that's great. And I think the City has a wonderful relationship with Puget Sound Energy. At the same time, I have on occasion asked people a question and I've asked

myself: How do you firewall yourself? How do you firewall yourself from potential biases?

As you know, this group here and you, the City, hired an independent technical analysis to be done. As you know, one of the chief authors has a -- had a contract with Puget Sound Energy, had conflicts of interest. The study turned out to be not very useful, only useful from the standpoint of it educated all of us about a very complex matter.

However, Puget Sound Energy has now found that it endorses Energize Eastside in that 18 miles. How they came to that conclusion is beyond me, but I ask you to take a look, then, at yourselves and make sure you do firewall yourselves, that there are not conflicts of interest. Please don't do that, because people will recognize -- people are smart, they'll see that kind of thing.

So I didn't want to bring up a negative topic, but I do think you need to look at the EIS process. See that customer demand chart over there? It is not a customer demand chart. It's a peak chart. It's the peak. And even Mr. Wappler, the vice president for Puget Sound Energy, could not explain that chart, and I'll bet half of you in this room cannot explain that chart. It is for a peak situation, and we are trying to solve that peak situation with a mammoth project. A mammoth project. So the problem and the solutions aren't coming together here.

So let me just comment now about alternatives. I think it's really, really important that you look at other alternatives. I know there's been recommendation to the City that they hire an engineer to have on your staff, an electrical engineer. We don't have one. I'm not an engineer, nobody here is an engineer, and yet we have four alternatives that have been selected up there by somebody to be the four alternatives. I don't know where they came from. Where did those alternatives come from? Should they even be in there?

You will get a whole set, I'm sure, of other alternatives. I request, then, that when you get those alternatives and they are substantiated, that you take the evaluative factors, the same ones you've used for PSE's 18 miles, those evaluative factors, and run them against the new recommendations and alternatives that are going to be made. You really need to do that. It's going to be a lot of work, because I know what Puget Sound Energy has done on that 18 miles. They've done a lot of work, a lot of work in proving their alternative. So your evaluative factors need to do that.

I'm going to run out of time so I'm going to move a little bit faster. I think there are two evaluative factors you really need to have, and it's been brought up several times in every one of these meetings. Puget Sound Energy

does not want these alternatives -- or these evaluative factors. They are economics. What are the economics of these alternatives that you're looking at? How much are they going to cost? What is the opportunity cost on the money that could be saved? What are the property costs?

I can guarantee you that it's 10 to 30 percent reduction in your property value when you put in these lines. When we talked to the Eastside multiple listing agency with about 20 members, we asked them about power lines. Do you know what the woman said? Huge. That is what happens when you put these in. The impact is huge.

Another person said: If I have kids that are buying a house, I will not try to sell them that house because of leukemia. Another one said: It's the last thing I'll offer. Another one said: I won't offer houses where there are power lines. So we can't just deny that there are no economic impacts. There are. I think that should be part of the evaluative factors.

The last one -- and I'm running out of time -- is one that's been brought up, and that's that geoscience thing. Puget Sound Energy, one of your experts here that was talking over here was -- one of their experts they brought in before, I think Lowell something was the guy's name, looked me right in the face and said: Doesn't make any difference. You can put these things right on top of

pipelines.

MS. WAGONER: If you could, wrap it up.

MR. HALVERSON: I'll wrap it up, okay.

I belong to a water association. These pipes in the water association are the same age as that pipeline. We have two breaks usually, maybe -- we had two this year -- one or two a year. I ask people when they dig it up: What caused that? They say: I don't know. I don't know. It's a pinprick. It's a pinprick that goes in that old pipe and, bam, there it is, water out. In this case, an explosion. You're going to get explosions.

So please take into consideration these two other evaluative factors. Please look at the alternatives and make sure they're vetted right against them, and let's have really a good EIS process, please. Thank you.

MS. WAGONER: Thank you. We have our speaker here and then we have one more speaker who's also asked.

SPEAKER NO. 8: LORETTA LOPEZ

My name is Loretta Lopez. I'm president of the Bridle Trails Community Club, and therefore I request five minutes.

Number one, with respect to whether this project, this particular project, constitutes an essential public facility, at the Newcastle meeting I requested, I pointed out, that whether or not this project constitutes an

essential public facility must be addressed by all five of the cities. And what I want to add here is that I would like -- no, I request that in the DEIS that there is a review of all five jurisdictions and whether or not this particular project constitutes an essential public facility for each of those jurisdictions.

Number two, with respect to the type of data and studies that should be included in the DEIS, there should be load forecasting and the data that is used to do those forecasts should be transparent. The citizens have not been able to determine how the load forecasting by PSE has been done, and that is not acceptable.

Number three, with respect to the need for this project, the City, after much -- after many requests by citizens, finally hired a consultant, and in that study, that study set forth some information about the needs. However, that study was not complete. The citizens had many questions about that study; those questions were never answered, and therefore it is our position that that needs assessment has never been established by the U.S.E. report.

Number four, I requested at the Newcastle meeting that the comp plan and the zoning codes for each jurisdiction be reviewed. I request further that that review be set forth in the DEIS so all citizens can review the exact basis upon which the determination of whether or not this particular

project is consistent with the comp plan and zoning codes for each jurisdiction.

Number five, the EIS -- the DEIS should set forth the distinction between phase one and phase two of the EIS process. Currently it is not clear. Most citizens would not know the distinction between phase one and phase two. And it is important -- no, it is essential that this distinction be made clear in the EIS so that citizens can review and comment appropriately and with knowledge.

Number six, upon completion of phase one, it is our position that the City then should pause and have the city councils of each jurisdiction make a final decision after phase one of this process. Why? Because then it is clear exactly what is being decided, who is deciding it, and what the decision is. If we do not -- or if the City decides not to do this, then it's very unclear. Where does phase one end? Where does phase two start? Who's making the decision? When is that decision made? How is that decision made? What are the factors that are taken into account to make the decisions? And all of that should be transparent. The citizens should not be wondering how this major decision is going to be made. We should know that. It should be transparent. We should know it now. Thank you.

MS. WAGONER: Thank you.

SPEAKER NO. 9: SEBASTIAN HELM

I am Sebastian Helm. I live at 6052 137 Place Northeast, which is in the Sixty 01 complex, and I'm on the board of directors for the Citizens and Neighbors for a Sustainable Redmond, but I am not speaking on behalf of the organization, so I only claim three minutes.

I moved here for a big software company but also because of the really nice, green landscape which allows me to ride my bike between the cities and to commute between Redmond and Bellevue. And I am afraid that part of this green commute along 116th Avenue will be gone. That's one private concern that I have.

Another concern I would like to -- that came up in the speeches that I've heard here is the concern about transparency. I have made my experience with PSE myself. I was an energy auditor for two years and I applied for the -- to do audits on the Eastside with PSE. PSE got the money, taxpayer money, from the federal government. And the reply that I got from PSE was: Sorry, you are -- we already gave our -- we already filled our energy and auditor positions. You're not going into the program. We got so many applications that we had to go on a first-come, first-served basis.

There was no accountability, no transparency there. So now hearing these different concerns really raises a red

flag for me. So that's what I wanted to say. Thank you.

MS. WAGONER: Thank very much.

SPEAKER NO. 10: MARIA VLACHOPOULOU

My name is Maria Vlachopoulou. I live in Bellevue at 14708 Southeast --

MS. WAGONER: May I ask you for the spelling of your last name, please, so the court reporter can take that down?

MS. VLACHOPOULOU: Okay. V-l-a-c-h-o-p-o-u-l-o-u.

MS. WAGONER: Thank you very much.

MS. VLACHOPOULOU: So I was not planning on speaking today because I've not done my full homework. However -- so this is going to be a little bit rough around the edges. But I kind of -- I wanted to speak in more broad terms since this is phase one, so hopefully everything will make sense.

So I am actually an engineer. I am an electrical and computer engineer and also an operations researcher. I work for the Pacific Northwest National Lab in Richland, Washington, and the work that I do is basically a physical analysis of data. And in particular, when I worked at the Pacific Northwest National Lab, I worked in the energy infrastructure group so we did a lot of research. I developed algorithms and did research on how to integrate renewable technologies. And not just that. We did also research on load forecasting, peak shaving of energy demand

and distributed generation. So I know quite a lot about this topic.

So I don't want to take a specific -- I don't want to say it's a good or bad project because, as I said, I want to read all the facts that are out there. However, from a very quick glance, it really didn't seem very reasonable to me. But I will get back to that at some point. We have until June 15th to comment, so hopefully I'll finish all my research by then.

The thing that's surprising is that -- so research national labs are -- there are nine energy research labs in the United States, and our funding was coming from the Department of Energy. So a lot of taxpayer money went for research on renewable energy, and not just renewable energy, but helping to improve our conversion. Surprisingly to me, after all this money spent for research, utilities are very reluctant and very stubborn in adopting these suggestions that the researchers, the engineering researchers, have suggested.

In fact, we found -- so we worked very closely with BPA, but we found a lot more collaboration with ISO and companies from California, so we worked a lot more with Cal ISO, and we didn't find the cooperation that we were expecting from Washington State companies, which is very unfortunate.

So I just wanted to say that there are a lot of good technologies out there that we could use. I mean -- and utilities are monopolies, so they just don't have the incentive to take these new technologies. I just wanted to point out like in the aeronautical industry that's exactly what was happening with Lockheed and Boeing, and then SpaceX came and suddenly everything cost half.

So that's all I wanted to say, but I will get back to you with more facts and math.

MS. WAGONER: Do we have any --

MR. O'DONNELL: Just a quick note.

MS. WAGONER: Very quick.

MR. O'DONNELL: I failed to introduce Michelle Hilhorst who serves on the Bellevue Planning Commission, deputy director -- deputy --

MS. HILHORST: Vice chair.

MR. O'DONNELL: Vice chair of the Bellevue Planning Commission, and she's running for the open seat of the City of Bellevue council.

MS. WAGONER: Thank you. Do we have any other people who would like to speak?

(No audience response.)

MS. WAGONER: With that, then, we will close the hearing portion. Thank you very much. I will give the mic, however, to Carol, just to wrap it up.

MS. HELLAND: I just want to thank you again for coming this afternoon and for providing your comments. We will take those all into account as we move forward in the EIS process. So remember that if you received a copy of this document that there is contact information on the first page, so you may send your comments in. We will put those into the public record as well as the comments that were taken by the court reporter this afternoon. And we really appreciate your time coming out on such a lovely day.

(Meeting adjourned at 3:35 p.m.)

Comments on the Scope of Energize Eastside EIS

Energize Eastside EIS Scoping Meeting #5 Redmond • May 30, 2015

Name Eric Ng Address* 13612 SE 7th St. Bellevue WA 98005.

* *You must provide your physical mailing address to be considered a "party of record," eligible to appeal the adequacy of the EIS.*

We support alternative # 2, 3 or 4 and strongly oppose to alternative # 1. for the following reasons:

① Health concern associated with living near high voltage power lines

② Negative impact on property value as a result of ~~reduction~~ the appearance of the power lines.

③ Option 2 utilizes ~~more~~ newer technologies which should be considered as we move forward with a brand new project. The long-term benefit of newer technologies should be considered. Option 1 uses methods that's been around for decades, which may need another upgrade in the near future.

④ ~~Option 3~~ Compared to optin 1, optin 3 moves the high voltage powerlines to lower density area, which reduces the impact listed in ① & ② above.

PSE statements during CAG process and PSE documentation

- PSE states peak demand shortfall under a transmission line failure condition is 55 MegaWatts (MW)
- PSE projected demand is based on days where the air temperature is 23°F or lower.
- PSE states peak demand occurs in two 4 hour periods (8 hours total per day)
- PSE intends to add 3200 MVAR[1] (~2560 MW of additional capacity, 80% PF)

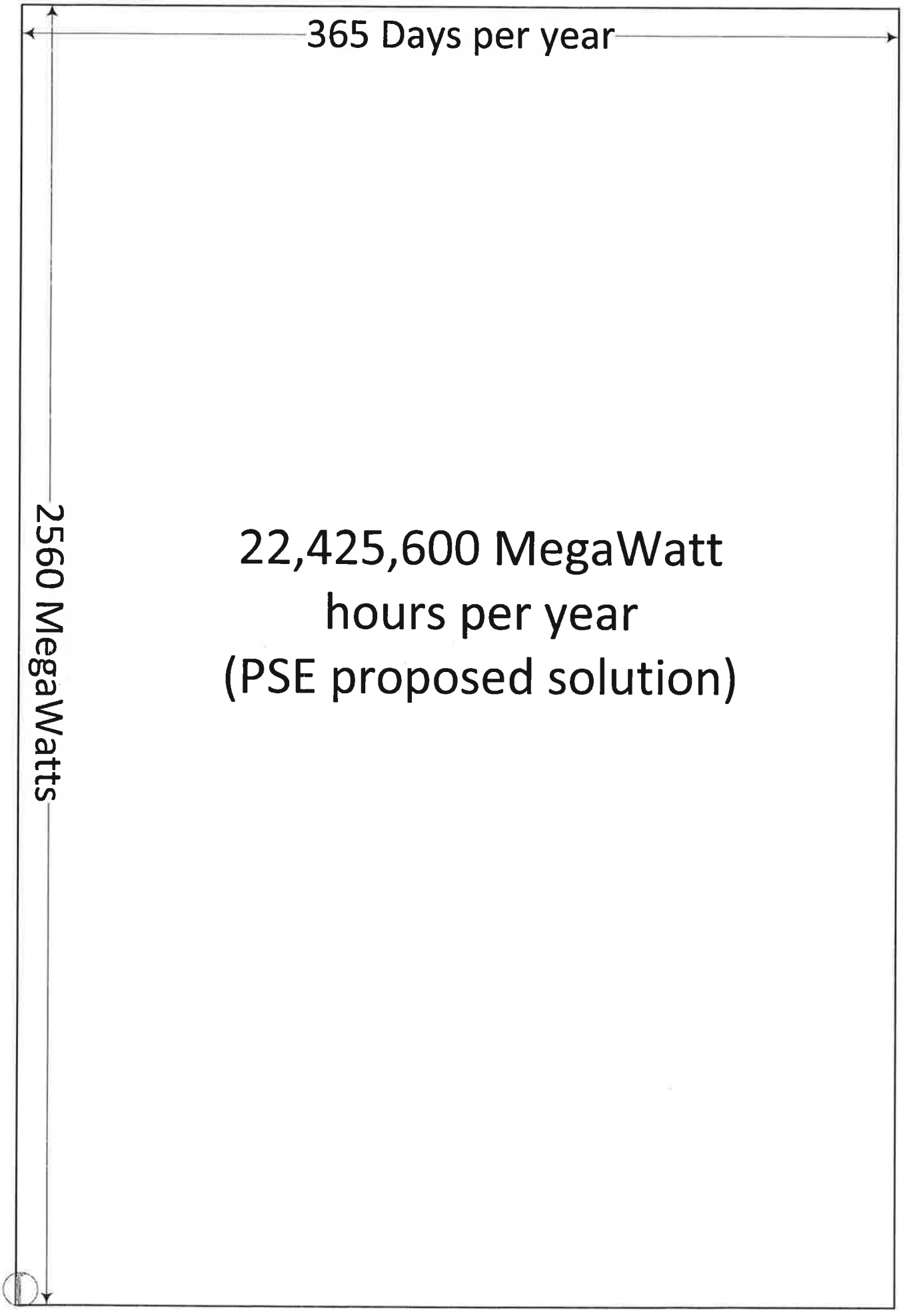
Background

- NOAA National Climatic Data Center has a database of daily minimum temperatures for Station GHCND:USW00024233 SEATTLE TACOMA INTERNATIONAL AIRPORT WA US.
- Summary of 16170 daily minimum temperature measurements in a period between January 1st 1970 and April 9th 2014 by NOAA indicates air temperature is at or below 23°F a total of 3.5 days on average per year

Analysis

- PSE claimed need: 55 MW x 8 hours/day x 3.5 days/year = 1520 MW hours (MWH)/year
- PSE intended increase in capacity: 2560 MW x 24 hours/day x 365 day/year = 22,425,600 MWH/year
- Percent increase in capacity vs need: 22,425,600 MWH/1520 MWH = 1,475,765%
- Conversely, percent increase needed vs capacity: 1520 MWH/22,425,600 MWH MWH = 0.0068%

[1]From PSE PROJECT NUMBER:130155 STL 085-1244 (SR-02) 130155 (03/31/2014) MM


365 Days per year
2560 MegaWatts
22,425,600 MegaWatt
hours per year
(PSE proposed solution)

Background to EIS response Energize Eastside.

On Tuesday, May 7 2015 a meeting was held at the City Hall, City of Bellevue, Washington; more than 200 people were present to participate in the first phase of an EIS (Environmental Impact Statement) relating to the proposed PSE project known as 'Energize Eastside'. Bellevue is the lead city in the development being the largest of the five cities and has 9 of the 18 miles of construction to deal with.

At the meeting many speakers representing opposition to this project questioned the need for the project including the major disruption it will cause in the loss of several thousand trees, the installation of giant poles with associated cables up to 100 feet in height, and the financial cost to the local community when it seems to many that the real motive is to serve out of state customers in Canada and California; and to develop income for PSE from state infrastructure incentives. It was also made clear that new alternative power sources are rapidly coming on-line which will make additional grid development unnecessary.

Despite the fact that many very large concrete piers will need to be constructed within feet of the pipeline to support the towers there has been no visible effort on the part of Olympic Pipeline to be present at the many meetings which have been held, therefore we question if Olympic is fully aware of the project or, it may imply that Olympic agrees with PSE that no danger is to be expected from heavy construction activity along the 18 mile section, when even at a spacing of say 300 yards between towers almost 100 towers would need to be constructed, or that the ongoing presence of high voltage power cables suspended at 100 feet could cause vibration from wind issues or other earth movement.

For clarification purposes the Olympic Pipeline was constructed in 1973, it is 42 years of age and has received no visible maintenance during the past 30 years according to residents in the area. It is located within an easement of 100 feet shared with PSE. The pipes are located less than 50 feet from the center of the easement with currently only a 16 feet set-back from the first electrical cable. The combined easement forms a narrow corridor lined on both sides by homes or buildings and in some areas by very large trees many of which are over 100 feet high; resulting in the creation of a wind tunnel effect during winter storms when trees and branches are frequently blown down and cause power outages, even a recent cable breakage. (See plat diagram enclosed).

The pipes are buried in the ground but only at a shallow level of three or four feet, their location is marked with posts bearing notices not to dig **"Because even relatively minor excavation activities like landscaping or fencing can cause damage to a pipeline, it's protective casing and / or buried utility lines"** as it says in the Olympic Pipelines safety brochure.

Residents of this area are very much aware of pipeline infrastructure problems such as a local event on May 24, 2004 – It was reported that: **"A pinhole-sized leak caused by wear, unleashed thousands of gallons of gasoline that fueled the Olympic Pipeline fire and explosion near Bellingham, Washington"**; this accident caused three deaths and considerable danger and damage. It was one of many such accidents in recent years. Wikipedia, the free Internet encyclopedia has documented a list of 503 pipeline accidents and failures which have occurred in the United States in the last 15 years, not including the latest disaster of May 20, 2015, in Santa Barbara, California.

We note that the business statement of BP Pipelines states - **"We strive to be an operationally excellent organization that has the right resources, skills, processes and tools to consistently deliver best-in-class performance."** We sincerely hope that this Modus Operandi will be demonstrated in the resolution of this event.

Major public protests against this development are recorded at a local website <Cense.org> (Coalition for Eastside Neighborhoods for Sensible Energy). (See brochure enclosed).

13650 NE 34th Place, Bellevue, WA 98005

425 883 1655

Chief Executive Officer

May 26, 2015

B P Pipelines (North America)

150 W. West Warrenville Road,

Naperville, IL 60563

Subject: **Potentially hazardous development at Olympic Pipeline location**

Dear Sir:

The residents of five cities in Washington State have been asked for input in the form of an EIS (Environmental Impact Statement), on the significant environmental issues which will be affected by an 18 mile new energy development being promoted by Puget Sound Energy (PSE). The project will install high voltage power lines and share an easement with the existing Olympic Pipelines dual gasoline pipes which are located in the area.

We are sharing this information with you as we have not seen or heard representatives from Olympic Pipelines at the various meetings which have been taking place. The safety of the pipeline is of vital importance to many residents in the five cities along the route of the projected development as in many cases it runs very close to their homes, less than 50 feet in cases. Therefore, we wish to have an opinion from your company concerning the safety of the pipelines considering the major construction which will take place to install many large towers 100 feet or more in height, with associated very large concrete foundations, then the on-going vibration and earth movements caused by strong wind factors, and possible lightning strikes.

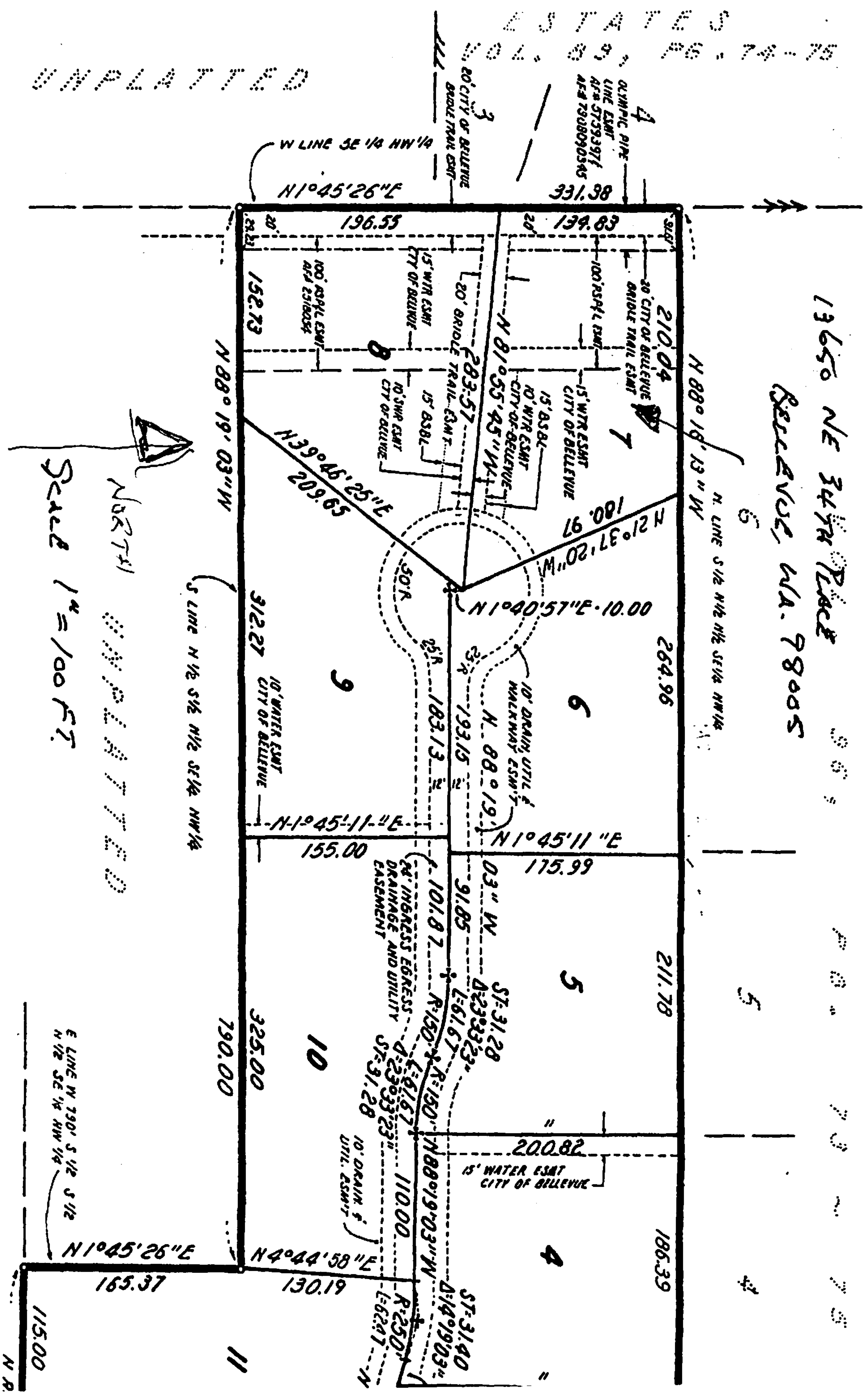
This project known as Energize Eastside has created a major wave of objections for a number of reasons, but the strongest critics have been speakers with knowledge of geological issues relating to earthquake and other earth movement factors who cited the extreme dangers of installing such a project across a known earthquake fault line and within feet of a major gasoline pipeline.

We bring this matter to your attention in the hope that your company will understand this development as potential for a disaster in the making and will insist that the Energize Eastside project be subjected to a re-evaluation with particular relevance to pipeline safety. At the very least we expect that a different route will be selected. We have provided additional details as an attachment to this letter.

A timely response will be much appreciated and your assistance in providing clarification on the steps contemplated by Olympic Pipeline to avoid potential dangers resulting from the subject Energize Eastside project will be welcomed by a large number of residents of the five cities affected.

Yours Sincerely,

The Bromwell Family, Barbara, Joanne and Ronald
13650 NE 34th Place, Bellevue, WA 98004


UNPLATTED
ESTATES
VOL. 83, PG. 74-75
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N39°46'25"E
209.65
N21°37'20"W
180.97
N1°40'57"E-10.00
20' BRIDLE TRAIL ESMT.
15' WTR ESMT CITY OF BELLEVUE
10' WTR ESMT CITY OF BELLEVUE
15' BSBL
13650 NE 34th Place
Bellevue, WA. 98005
NORTH
Scale 1" = 100 FT.
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26' INGRESS EGRESS DRAINAGE AND UTILITY EASEMENT
211.78
325.00
790.00
ST=31.28
Δ=23°33'23"
L=61.67
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15' WATER ESMT CITY OF BELLEVUE
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E LINE W 790' S 1/2 S 1/2 N 1/2 SE 1/4 NW 1/4
N1°45'26"E
N4°44'58"E
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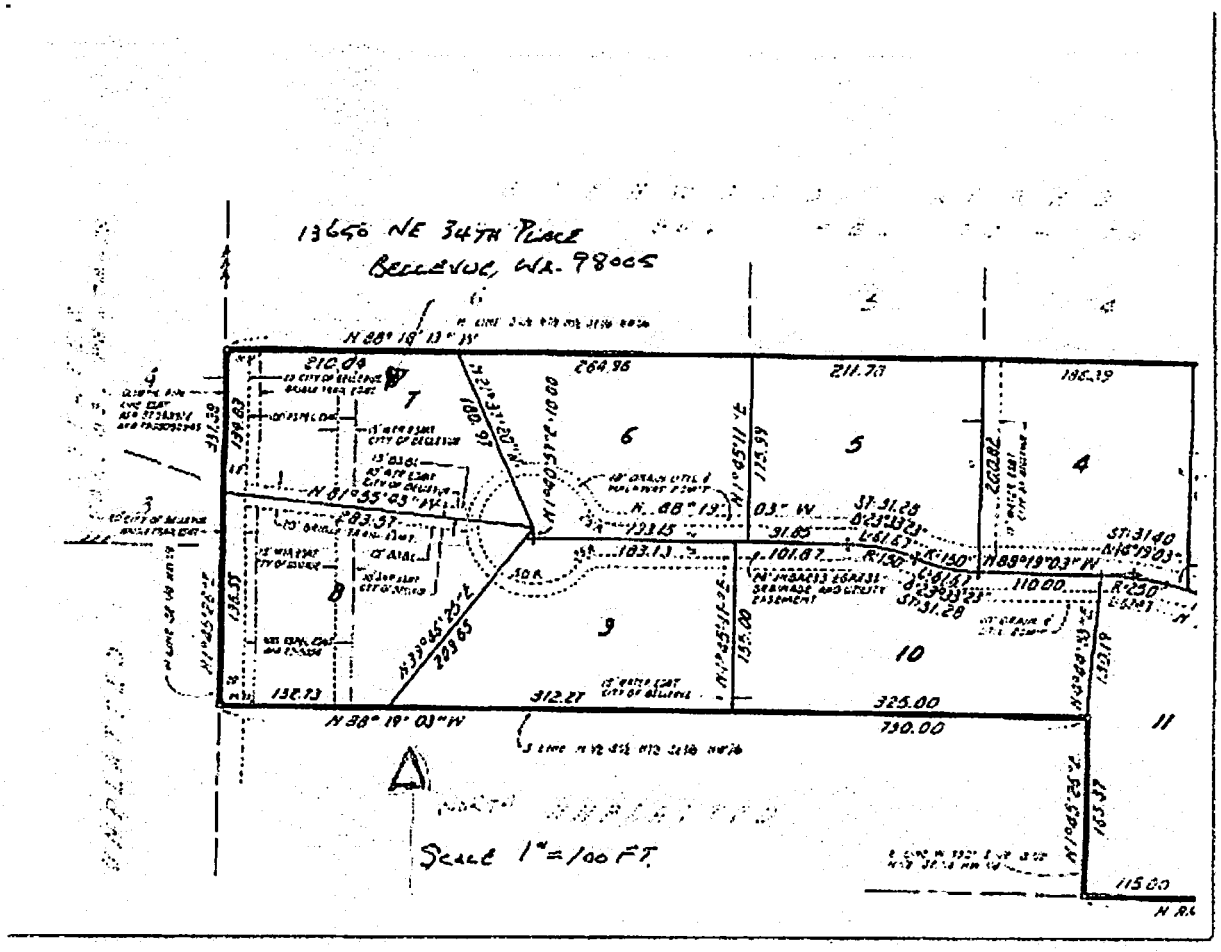
In order to ensure that this project is fully investigated by the appropriate organizations responsible for the oversight of pipeline safety copies of this letter have been sent to the following regulatory agencies listed in the Olympic Pipelines safety brochure:

Pipeline and Hazardous Material Safety Administration (PHMSA)

Federal Energy Regulatory Commission (FERC).



Timestamp	First Name	Last Name	Comment
5/22/2015 19:16:06	Mike	Abel	Category = Public Safety I am an engineer who has resided on the Eastside for over 30 years. I am a past member of The Earthquake Engineering Research Institute. I have had frequent involvement with the US National Science Foundation funded Network for Earthquake Engineering Simulation and In my work I frequently communicate with key members of the Pacific Earthquake Engineering Research Center at UC Berkeley and the John Blume Earthquake Engineering Center at Stanford. In discussions with Berkeley and Stanford two key points emerged. First, a seismic event combined with the co-location of the Olympic Pipeline route and PSE's new 230KV power line would have catastrophic effects. Significant loss of both life and property would most likely result. Secondly, and more importantly, these Berkeley and Stanford researchers went on to advise me that a more likely scenario would be damage to the pipelines causing similar loss of life and property due to the construction activity associated with the installation of the new 230KV towers. As a result I have spent several weeks studying the materials available from US Federal Department of Transportation's Pipeline and Hazardous Materials Safety Administration. I would like to take a moment to share a few key bullet points resulting from my research. •The existing Olympic Pipeline Consists of two parallel pipes. A 16" pipe with an age 50 years, and a 20" pipe with an age of 42 years. •The US DOT Pipeline and Hazardous Materials Safety Administration lists 2,700 pipeline incidents in the 20 year period 1990-2009 •Approximately 3% of those incidents or 81 were considered to be "serious" where serious is defined as involving fatalities and/or injuries requiring hospitalization •For all pipeline incidents the predominant failure causes for flammable liquid pipelines are corrosion, material/weld failures, and excavation damage •For incidents classified as "Serious" the leading cause was Excavation Damage. •PSE proposes construction along 18 miles of the Olympic Pipeline route. Assuming poles spaced at 800 foot intervals results in approximately 120 excavations adjacent to the gas pipelines. The potential for damage is very high. •Olympic Pipeline was not involved in PSE's Citizen Advisory Group Process •Olympics only public comment resulted from an Olympic Pipeline representative's attendance at an Olympus Homeowners Association meeting. At that time, Olympic expressed preference for routes that did not share their easement citing "safety, impact to landowners, future maintenance, and customer impacts" as reasons. A more thorough discussion of pipeline safety rsiks may be found here: https://primis.phmsa.dot.gov/comm/publications/PIPA/PIPA-PipelineRiskReport-Final-20101021.pdf In addition, I have spent many hours attempting to identify locations within the US where a 230KV electrical transmission line shares routing with a refined petroleum products pipeline. I was unable to find any instances where this situation exists. In conclusion, I would urge the city of Bellevue to include as part of the EIS a complete and thorough analysis of the risks associated with the construction of Energize Eastside along the existing Olympic pipeline route. This analysis should include but not be limited to a complete examination of Olympic Pipeline's past safety record and compliance with previously mandated safety processes, procedures and reporting requirements. Additionally, I feel that it will be important that Olympic Pipeline be required to be an active participant in the process and to demonstrate transparency by disclosing any and all communications they may have had with PSE regarding the project to date.

Timestamp	First Name	Last Name	Comment
5/8/2015 12:20:22	James	Adcock	preliminary comments, Forwarded for the record, at the suggestion of councilmember Jennifer Robertson: Hi, My names is James Adcock, an electrical engineer, graduate of MIT, residing in Eastgate. I have been following the Energy Eastside project, and have a long history working with PSE as a public participant in their Integrated Resource Planning. I have just watched the video of the council presentation on 5/4/2015. I want to express my frustration with this presentation -- a frustration I am sure at least some of you felt. I also could not follow some of the presentation because the video is blurry and some of the powerpoint slides used I cannot find online. As an electrical engineer, who has been following this project, I would agree with some of the statements made by the consultants, and strongly disagree with others. I have tried to give input at the public Energize Eastside meetings, and have tried to send documents and input via email to PSE's Energize Eastside projects, but have found that PSE consistently prevents me from speaking or giving input. I would call your attention back to ColumbiaGrid document: "Updated Transmission Plan for the Puget Sound Area to Support Winter South-to-North Transfers" April 25, 2011 https://www.columbiagrid.org/download.cfm?DVID=2168 (a PDF file) (summary version) Where the conversation between utilities basically went: Seattle City Light: "We want to increase the wire size on our existing 230kv lines to be able to carry more load Canada-California." PSE: "Wait wait -- don't do that -- first we want to upsize our 120kv to 230kv lines, because if you build yours first, then we won't be able to demonstrate the need!" See also: https://www.columbiagrid.org/PSAST-documents.cfm Re weather data: I think what being said here is disingenuous. In Integrated Resource Planning, PSE is using weather data going back to the 1920s. Prior to about 1960 climate change hadn't really caused any effect -- changes in the weather were just "natural variability" of the type the consultants refer to as requiring "normalization" to correct for year-to-year variability. But since the 1960s the coldest-of-the-cold days, the coldest day in any running 20-year period -- that standard measure has been increasing rapidly. Our "coldest-of-the-cold" winter days used to be zero degrees F in say the 1950, early 1960s. Over the last 20 years our coldest of the cold days have been 14 degrees F. In between the coldest-in-20-years measure has increased *monotonically* IE this is not "random natural variability", rather this is "climate change." What this means, is that by PSE's own standards (in their document before King County) that peak winter load transmission requirements have decreased by 20%. But PSE continues to pretend that coldest-of-the-cold weather from the 1920s could somehow happen here now today! Ask PSE what the one-hour-peak megawatt capacity of their two 120kv lines at 13 degrees F. Ask them what the highest one-hour cold-winter day peak load on these lines have been in the last 20 years -- and on what day and hour that happened. And ask them what the load in megawatts was being served to the Eastside was at that point in time, verses how many megawatts were being carried at that point in time for other regions. Finally I would have to complain about the use of proprietary documents in an EIS. I do not believe this is appropriate. When City has a consultant review the proprietary documents, report to council on those documents, but members of the public cannot reasonably get access to these documents to respond, then City unfairly excludes real and meaningful EIS participation by the public. I have gone through this once before with the Federal government, and they ultimately agreed that an EIS must be a "public teaching" -- i.e. documents used in an EIS, directly or indirectly, cannot be non-public. Sincerely, James Adcock
5/11/2015 13:16:34	James	Adcock	I wish to express my concern about PSE and City using "secret" documents, aka "redacted", including on this EIS site, not available to the public for review, in the EIS process. The City also has hired consultants given access to "secret" documents. Those consultants state that these documents are publically available. I have attempted to get them, for example from ColumbiaGrid, but to date I have not been able to actual get them. Thus they not in fact, in actual practice, publically available. I believe that EIS processes are required to be public processes, "public teachings," meaning that the documents and evidence used in developing and weighing the EIS must be made public to everyone, including those citizens of our democracy who perhaps disagree with PSE's plans, or with City's plans. One of the greatest part of the disagreements in this process has been how PSE chose what routes to use, and which routes to discard, and why. Whether the routes chosen are really necessary or not, or perhaps if PSE is inflating their claimed extreme need to use this particular route or that particular route and right now rather than at a more informed pace of development, and for what sound technical reasons -- if any! But this is the heart of what PSE is keeping secret in these "redacted" documents. The evidence behind these routing choices need to be made public. Again, I suggest that, no matter what excuse, the use of redacted documents, not available to the general public, whether as part of the EIS, or by City hired consultants, is wholly inappropriate. James Adcock Electrical Engineer Eastgate

Timestamp	First Name	Last Name	Comment
5/14/2015 15:20:50	James	Adcock	The following document gives a good explanation about how the Energize Eastside project *is not* needed to support the power needs of the Eastside, but rather is being proposed to meet "Operational Flexibility" in the regional transfer power on a "cut through basis" through the Eastside from BC down to California, or alternatively from California up to BC. Planning for Operational Flexibility Grid Transformation Workshop March 20, 2013 Gordon Dobson-Mack http://www.bpa.gov/Doing%20Business/TechnologyInnovation/ConferencesGridTransformationWorkshop/Planning_for_Operational_Flexibility_by_Gordon_Dobson_Mack.pdf
5/14/2015 15:28:21	James	Adcock	This region of Somerset has been used has a historical scenic viewing location resource for the last 50 years where the greater community has gathered -- not just Somerset -- to view fireworks, sunsets, Blue Angels, etc.
5/14/2015 15:31:37	James	Adcock	This is the location of a community pool where for the last 50 years the children of South Bellevue have learned how to swim. I believe that locating a 230kV line almost perfectly directly above this pool will frighten parents to such an extent they will no longer take small children to this pool to learn how to swim.
5/14/2015 15:39:59	James	Adcock	Earthquake Fault Zone where the line crosses steep slopes in this area.
5/14/2015 15:42:27	James	Adcock	Many homes here in this neighborhood located I believe within 100 feet of the project (contrary to PSE routing study claims), in fact many appear to be within 50 feet of the project!
5/26/2015 9:09:59	James	Adcock	I am concerned that I have been trying to obtain documents listed by City of Bellevue consultants as being "public documents" available from ColumbiaGrid for some weeks now, and my access to those documents have been blocked. It seems that PSE and ColumbiaGrid give access to these documents to those who support the project, but block access to those who oppose the project. This is contrary to a public EIS process, and prevents our fair and equal participation, as citizens of Bellevue, in the EIS process. I request that the comment period needs to be held open until ColumbiaGrid and PSE respond and provide documents on an equal basis to those who support vs. those who oppose this project.
5/29/2015 17:34:35	James	Adcock	As an electrical engineer living in South Bellevue, I have been trying diligently to see unredacted copies of the reports PSE has submitted in redacted form, or which City of Bellevue's consultants reference in their reports as being "publicly available." City of Bellevue in response to FOIA says that they do not have these documents. ColumbiaGrid has these documents, agrees that I as an interested party have a legal right to see these documents, but that PSE is blocking ColumbiaGrid from giving me these documents. The ColumbiaGrid site says that I can get access to these documents in two days. Due to PSE's own blocking efforts, I have been denied access to these documents for three weeks now. CEII does not allow blocking access to interested and affected parties, such as in a proceeding such as this EIS. It only blocks access to those without a reasonable need to know. Further, it does not allow blocking on a "one document at a time" basis. Since it is PSE itself which is causing these document release delays, I ask that the comment period be extended a time amount equal to the delay in release of these documents. Sincerely, James Adcock Electrical Engineer, South Bellevue

Timestamp	First Name	Last Name	Comment
6/9/2015 13:30:34	James	Adcock	EIS Alternative: Rebuild at 115kV, 50 foot towers, rather than 230kV, 130 foot towers By James Adcock, Electrical Engineer, Graduate of MIT Summary: PSE has proposed building a new extremely environmentally-destructive 230kV, 130 foot tall towers electrical “Superhighway” right through the bedroom communities of the Eastside. I counter propose, and explain, how the planned growth in office tower construction in Bellevue can be accommodated using existing environmentally-friendly 115kV, 50 foot tall tower technology. In the following discussion I will often resort to “freeway” terminology in an attempt to make friendly analogy to non-electrical engineers what PSE is really proposing, and what the real issues are in this proposed environmentally destructive construction. What PSE is proposing is replacing a two-lane country highway with a 10-lane superhighway, cutting right through some of our very nicest Eastside bedroom communities, with at least 7 of those 10 lanes carrying “cut-through” traffic, not local traffic, from the Columbia Gorge, right through our very nicest bedroom communities – placing these bedrooms right into the shadow-line of that 10-lane superhighway. PSE has claimed that the “only way” they can meet planned growth in Bellevue office towers is to put in a new 230kV, 130 foot tall towers, electrical “Superhighway” right through some of the nicest bedroom communities of the Eastside. This PSE claim is simply false. Such a system increases by roughly 5X the power carrying capacity of the existing 115kV line that it would be replacing, while the growth in load due to the office tower builds is less than a 50%, i.e. 1.5X load growth. The additional capacity in the 230kV line PSE is proposing to build is not necessary to support Eastside office tower growth, but rather is being “volunteered” by PSE in order to “fix” problems that Seattle City Light (hereafter “Seattle”), Bonneville Power Administration (hereafter “BPA”) and Snohomish County PUD (hereafter “Snopud”) are having with THEIR aging and undersized systems respectively. PSE is claiming that the proposed project is the “Preferred” project of ColumbiaGrid, but that claim is false, in that it only becomes the “Preferred” project of ColumbiaGrid AFTER PSE insists that they are going to build this project *whether or not* ColumbiaGrid found that it is the “Preferred” project – which ColumbiaGrid DID NOT. IE Seattle, Snopud, and BPA are saying “You want to build a project destructive of the environment of the Eastside that we can free ride on??? Destroying Eastside Communities and Environment so we don’t have to maintain our own systems??? You Bet We Like That – we are then only too happy to THEN vote this to be the ‘Preferred’ Project!!!” And in fact the historical documentation of ColumbiaGrid, [referenced at the end of this document] recently “publicly” released [after being heavily and improperly redacted supposedly based on terrorism threats] shows that PSE proposed project WAS NOT in fact the “Preferred” project of ColumbiaGrid – it was not even a top contender in the list of reinforcements that ColumbiaGrid had been proposing. It was not even a particularly good solution to the problems the other utilities were having! As such, the 230kV approach is a “Voluntary” project by PSE, not a “Required” project by ColumbiaGrid, and as such the need of Seattle to strengthen and bring up to date aging Seattle infrastructure, the need of Snopud to strengthen and bring up to date aging Snopud infrastructure, and the desire of BPA to sell virtually unlimited amounts of power to and from Canada regardless of how it impacts Eastside – without BPA spending their own money to upgrade their own systems to the appropriate 500kV lines for their purposes – these desires by other utilities to “free ride” on PSE – and the desire of PSE to allow these other utilities to “free ride” on the citizens of the Eastside – therefore justifying PSE overbuild – these desires do not form a justification for the proposed environmental destruction to Eastside bedroom communities. In particular, BPA has the appropriate corridors to support BPA’s appropriate expansion to 500kV lines which can appropriately support BPA’s desire to sell to/from Canada virtually unlimited amounts of power. BPA needs to support BPA’s own desire to sell power, NOT PSE, and certainly NOT Eastside Bedroom Communities! In particular, BPA is by law required to support the citizens of the PNW – NOT THE OTHER WAY AROUND!

Timestamp	First Name	Last Name	Comment
6/12/2015 11:50:01	James	Adcock	Our understanding of the local vs. regional needs to be met by the proposed Energize Eastside project should be informed by the following recently released document from ColumbiaGrid http://www.columbiagrid.org/basecases-results-overview.cfm 06/11/2015 Draft 2015 System Assessment (v: 1) See in particular: Page 2: "Second, all stations 230 kV and above with voltage violations (voltage excursions following contingencies that exceeded the WECC criteria of a 5% change for a Category P1 and P2 contingencies or 10% for a Category P3, P4, P5, P6, and P7) were identified with mitigation plans proposed. Voltage violations on lower voltage facilities were assumed to be addressed by individual facility owners." Meaning: PSE currently runs the "Energize Eastside" lines at 115kV. Thus PSE *does not* have a responsibility to use these lines to support the needs of other utilities, including Seattle City Light, and BPA. PSE has the right to maintain these lines at 115kV but upgrade their capacity AT that voltage in order to support desired expansion in Eastside Office Parks. As such, the desire of PSE to upgrade their lines to 230kV in order to support these other utilities is a VOLUTARY, "OPPORTUNISTIC" design of PSE to build more, and to build higher, than is necessary. Thus is it appropriate, when comparing environmental damages, to compare the damages caused by a high-quality 115kV line rebuild, to the damages caused by a VOLUTARY, "OPPORTUNISTIC" 230kV rebuild. Page 10: Quote: Of the external paths, the British Columbia-Northwest and the two California Interties are most crucial during peak load conditions. These paths are bi-directional and are often stressed differently during winter and summer conditions. The flow patterns on Montana-Northwest and Idaho-Northwest paths are also different since they are typically stressed more during off-peak load conditions and are less critical during peak load conditions. Conversely, the transmission paths internal to the Northwest are not scheduled. The flows on internal paths depend on factors such as flows on the external paths, internal resource dispatch, internal load level, and the transmission facilities that are in service. During the winter, returning the firm Canadian Entitlement to British Columbia is the predominant stress on the Puget Sound area and the British Columbia-Northwest path. The California interties were used to balance the load and generation modeled in the studies. This resulted in moderate imports in the five-year and ten-year heavy winter cases which are not uncommon in reality. In the summer, transfers on the British Columbia-Northwest and California interties are typically in the opposite direction. Surplus power from Canada and the Northwest are often sent south to California and the Southwest. End-Quote: Meaning: The proposed rebuild of these lines to 230kV is intended primarily to support the desire of BPA to sell to/from Canada, and to/from California. The VOLUNTARY upsize to 230kV IS NOT needed to support local need. It is a VOLUNTARY desire on the part of PSE to overbuild, and overcharge, PSE customers in order to support OTHER utility systems (including BPA) ! Quote: 1. Canada to Northwest Path The capacity of this path in the north to south direction is 2,850 MW on the west side or 400 MW on the east side with a combined total transfer capability limit of 3,150 MW. The total capacity of the path in the south to north direction is now 3,000 MW, with a limit of 400 MW on the east side. Both of these directional flows can impact the system ability to serve loads in the Puget Sound area. The Canadian Entitlement return is the predominant south to north commitment on this path and is critical during winter conditions. Although the total amount of commitment varies, 1,350 MW of firm transmission service commitments are projected for the ten-year studies. Puget Sound Energy also has a 200 MW share at full transfer capability into British Columbia, which translates to a 130 MW allocation at the 1,350 MW level. Bonneville has committed to maintaining this pro-rata share of the Northern Intertie above its firm transmission service commitments. Both of these firm transmission service commitments are on the west side of the path, thus 1,500 MW of transfers are modeled in the south to north direction in heavy winter cases. With reduced loads in the Puget Sound area in the summer, the return of the Canadian Entitlement is typically not a problem. The most significant stressed condition in the summer is north to south flows of Canadian resources to meet loads south of the border. Powerex has long term firm rights for about 242 MW for their Skagit contract, plus 193 MW to Big Eddy and 450 MW to John Day, for a total of 885 MW in the north to south direction. Powerex also owns 200 MW of transmission rights for the Cherry Point Project which is just south of the Canadian border and can be reassigned to the border. Puget Sound Energy has long term firm contracts for 150 MW and Snohomish has firm contracts for 100 MW. The total of all of these contracts is 1,335 MW. The Puget Sound Area Study Team has been planning the system in the Puget Sound area to maintain 1,500 MW in the north to south direction to cover these firm transfers. Bonneville is making commitments to increase the firm transactions to 2,300 MW through the Network Open Season that will show up in the five-year time frame. 200 MW of this new commitment is planned to be scheduled on the east side of the Northern Intertie at Nelway. Therefore, the heavy summer cases will model 2,300 MW to cover the additional commitments that are being made on the Northern Intertie including the 200 MW on the east side at Nelway. End-Quote: Meaning: The proposed rebuild of these lines to 230kV is intended primarily to support the desire of BPA to sell to/from Canada, and to/from California. The VOLUNTARY upsize to 230kV IS NOT needed to support local need. It is a VOLUNTARY desire on the part of PSE to overbuild, and to overcharge, PSE customers in order to support OTHER utility systems (including BPA) !

Timestamp	First Name	Last Name	Comment
5/28/2015 14:33:28	Gary	Albert	Since the USE report identified downtown Bellevue and Bel-Red corridor as the primary areas needing to be served by the EE project, neighborhoods should not have to bare the impact to serve these areas and all of the PSE rate payers should not have to bare the costs. Impact fees and a smaller scaled projects, like brining in energy from Lake Tradition to Lakeside or installing small gas fired plants in downtown or the Bel-Red corridor, would make more sense. All you have to do is do a search online for 'Distributed Generation' or 'Industrial Natural Gas Fired Turbines' or 'Microturbines' to learn how others in Canada and Germany are already doing this. The Federal government and the BPA need to resolve their own problem with delivering power to Canada without involving Bellevue and its citizens and PSE ratepayers. It is also not reasonable to ask homeowners to live with the danger of PSE constructing huge power poles near Olympic fuel pipelines now and into the future. That lesson should have been learned by now.

Timestamp	First Name	Last Name	Comment
6/2/2015 7:26:31	Curtis	Allred	The EIS should reject PSE's proposed solution outright, as it is not a reasonable solution to the stated problem. It is evident that PSE wants the cheapest and easiest way to move power through the region, and stringing it through our neighborhoods along the pipeline route is the cheapest way. They knew it was going to be a tough sell to the region so they fabricated an energy demand forecast to try to make us believe we need it for future power demands in the region. PSE also knows that with alternative energy sources becoming reality, its going to get harder and harder to justify this project, so they better push it through as soon as possible. PSE's proposed solution (Alternative 1) is a crime, it is an antiquated solution to a non-existent problem, and will create an ugly scar on our beautiful city for many generations to come. Thank you.
6/2/2015 7:29:34	Curtis	Allred	The EIS should give environmental issues higher weight and favor modern solutions, rather than antiquated industrial solutions. Solar panel installations are growing at an exponential rate. It is now possible to supply all of your power with a system that pays itself off in 5 to 10 years. Within 20 years or less, I believe solar power will be everywhere, with most houses generating all the power they need. Power storage and small-scale fuel-cell power plants are also becoming economical, allowing cities to be powered with little or no energy from long distance transmission lines. By the time PSE's proposed power line project is finished, it will be obsolete. PSE will likely find a way to abandon the power line and make us pay to tear it down. The $500M+ could be used to fund incentives for even faster adoption of alternative energy technologies and eliminate the need for transmission lines forever. Thank you.
6/2/2015 7:52:58	Curtis	Allred	Property value loss must be included in the EIS. This represents very real economic loss; to individuals, property tax revenue, and associated economic activity. Total project impact and viability of alternatives cannot be properly evaluated without factoring in property value loss. PSE knows this, which is why they want it off the table. I've heard comments that property value loss cannot be estimated. Ask any Realtor or real estate expert and they'll quantify the major impact that power lines have on property value. In some cases, real estate agents will not show a house near power lines due to safety issues. So property value loss and associated economic fallout can and must be estimated as part of the EIS. It's already happening in neighborhoods around the proposed routes in anticipation of Alternative 1. Thanks
6/2/2015 8:08:29	Curtis	Allred	The EIS must include more public outreach and notification about this project. Turnout at public meetings seems low. I find it hard to believe there are not more people outraged about this project, given the widespread impact and visual blight it promises. The high visibility of the power poles, property value impact, safety issues, and construction disruption will impact families for miles around. Have they all been notified? The street signs are inadequate. They are not readable from a car on the street. I think everyone within at least a mile of the proposed routes should be notified by mail. Thank you.
6/15/2015 9:02:50	Curtis	Allred	The EIS should evaluate the possiblity of using existing industrial corridors and power poles. There are already large transmission lines running through factoria. Why do we need another set of lines? Because Seattle City Light and PSE cant cooperate? This is absurd. Do we have to have a separate set of redundant power lines for every utility company?
6/15/2015 9:06:22	Curtis	Allred	PSE seems to be gaming our regulatory and public scrutiny processes. They are exploiting protections and financial perks that are given to utilities. They are trying to present this project as a local need, breaking up the bigger project into small pieces to avoid a national EIS and scrutiny. This is really an international grid upgrade issue and needs to be treated as such.
6/15/2015 9:08:41	Curtis	Allred	I would like to second this statement sent by a friend: The citizens of Bellevue and the east side wish to be on the leading edge, not the antiquated tail of energy solutions. The eastside is riddled with dangerous and ugly overhead power lines that transmit fossil fuel based power. We need to demonstrate we can move beyond this outmoded method of energizing our planet. As presented by CENSE at the May 4, 2015 Bellevue City Council Meeting there are viable alternatives, such as Alternative 2 that can meet the future energy demands of the east side. There are other solutions to meeting the cross-region needs for Canada. PLEASE do the right thing and pursue a solution other than stringing more wire and promoting the use of fossil fuels.

6/15/2015 15:40:36	todd	andersen	Repeat of email sent to scoping@EnergizeEastsideEIS.org Date: June 14, 2015 Email Subject: Energize Eastside EIS - Scoping input and requirement for use of NEPA vs SEPA To: City Manager and Council From: Todd Andersen, Jennifer Steinman 4419 138th Ave SE, Bellevue WA 98006 My feedback on scoping comes in three areas. These are summarized below, with supporting details following. 1. UNANSWERED CENSE QUESTIONS While I was initially encouraged that Bellevue was acting in the best interest of its citizens by approving the “Independent Technical Analysis of Energize Eastside, April 29, 2015 by Utility System Efficiency, Inc.”, I am deeply disappointed that we have wasted more taxpayer money on a study that failed to answer the fundamental questions many of the citizens of Bellevue have been asking. These questions and incongruities were recapped in CENSE.org’s response “Cense rejects U.S.E’s report on Eastside Energy, May 4, 2015.” Most importantly, an independent load forecast was not created based on more realistic parameters for demand/growth, local generation, energy savings and trends, and north-south transfer. It is critical these questions be carried forward into the input and scope of the EIS. Without this, the entire EIS is based on a shaky foundation that doesn’t have community support. 2. FEDERAL / NEPA RULES It’s clear from reading Bonneville Power Administration(BPA), Seattle City Lights(SCL) and Columbia Grid consortium (BPA, SCL, PSE) documentation that we can’t consider Energize Eastside (EE) as an independent or local project to be governed by SEPA. BPA, a federal agency, is the driver of this, and as EE is a subset of a federal effort and should fall within Federal / NEPA jurisdiction. Columbia Grid documents clearly show EE is only one possible way to address North-South Transfer Reliability and is only part of the broader picture of the grid /bulk power planning spanning Canada, Pacific Northwest, California. Also, the majority of power and energy sent over the proposed lines are from hydro operations both in the US and Canadian, and for some of the cases conditions PSE/BPA/ColumbiaGrid are using for justification of EnergizeEastside(EE) ALL power/energy are from hydro operations. Hydro operations are specifically called out in the US government’s 10 year review of threat to the Salish orca (a.k.a Southern Resident Orca) listed as an endangered species As such, the EIS for EE should clearly be governed under NEPA / Federal guidelines and possibly be expanded to look at the broader Columbia Grid plans. Legal challenges arise when large-scale projects are broken up into smaller projects to avoid federal oversight. It is my understanding that under NEPA (versus SEPA), the scoping impact would primarily mean EE would need to be evaluated in the context of the regional strategy as a whole and alternatives would need to be considered more broadly. • Under NEPA, more comprehensive inclusion of the impacts should be weighted including the evaluation of the impact of international endangered species, the risk of massive build out on top of an aging gas pipeline that already sits on fault line (when an safer alternative exists with SCL), and degradation of property values in cost calculations. • Under NEPA, broader consideration should be given to alternatives such as SCL (Maple-Valley SnoKing) improvements/re-conductoring to support N-S Transfer or alternatives for balancing peak loads with PSE. Today, the only alternatives being promoted by PSE are minor route permutations. 3. ALTERNATIVE SOLUTIONS Please make sure a thorough analysis of demand side reductions are not only investigated but as stated before, factored into the demand forecast. These solutions are key to why cities keep growing but their traditional energy needs do not. a. Grid Batteries to manage peak load b. Solar Power for continual cost reduction c. Geothermal as cost effective alternative d. Building Materials (e.g. LED Bulbs, Canada/UK Window Standards vs California) Under the guise of EE, BPA benefits as their reliability challenges are solved by PSE despite more cost effective solutions being available, PSE can charge higher rates with a 40-year guarantee of profits on their investment, and PSE customers (who already pay 28% higher rates than those served by cooperatives, municipalities or public utility districts) will bear the burden, not only of higher costs but also the negative impact to their neighborhoods. Lastly, I wanted to make you aware of two “off-the-record” comments that I have heard in recent months that highlight the possible collusion that goes on within these organizations – the City of Bellevue, PSE, BPA. These are the types of comments that erode public confidence. • Hardev Juj – formerly with SCL & PSE, is VP or Transition Planning and Asset Management at BPA. He actually made the comment that EE is largely to serve BPAs needs and BPA would be swapping costs on other projects. Seems Mr. Juj expectantly retired from BPA this month and this author finds that very odd. As BPA is a federal agency, which BPA itself is/was under several federal sanctions for misbehavior, EE should be a NEPA supervised project. • Nicolas Matz – City of Bellevue Senior Planner. I commented that EE’s need is about keeping PSE (a Bellevue company) solvent. Nicholas’ response was “that was a need as well”. Given PSE’s rates per NEEA are 28% higher than all other utilities in WA maybe that is not a need as clearly public utilities are better run for the ratepayers. SuPPORTING MATERIAL 1. UNANSWERED CENSE QUESTIONS – The biggest unanswered question has to do with the supply / demand forecast. PSE states demand will exceed supply in 2017 based on the chart below, but there are many issues with their analysis that remain unanswered. An independent forecast was requested but not completed. 1. The next series of charts comes directly from PSE’s own documentation “Eastside Needs Assessment Report – Transmission System – King County, October 2013”. i. Since its original publication, PSE has redacted (hidden) the details behind their assumptions posted on their website, however, I downloaded a copy before they hid the few facts they show, so can highlight specific questions. Comments in yellow. ii. This first chart is an overview that explains the high-level flow of the Northern Intertie path. 2. This second chart below shows the Puget Sound Generation Capability that was “used” in the PSE modeling. This is a key input into their model and will be discussed below. 3. This third chart below shows the Assumptions used in their models to calculate the capacity gap and overload percentages. This is a key input into their model and will be discussed below. a. For Northern Intertie, the full amount is included in PSE’s calculations, however, several areas should be checked:

i. Why is PSE EE being proposed when it highest overload is 127.8% for a 115kV line when SCL's Maple Valley-Snoking- line overloads at 157.8% see table 6-5 below. SCL's line is a 230kV line carrying 4 time the power. Fixing that first is cheaper by rewiring with modern higher load lines like ceramic core and solves BPA's issues. Beside BPA already leases those lines from SCL, with any known compensation to SCL. Maybe EE is SCL's payment from BPA? Is that legal?
ii. Assumes the full amount during an overload situation. What are the Columbia River Treaty rules for power transmission during an overload scenario? Thought there was flexibility.
iii. What is the status/details of the renewal of the treaty, which expires here in 2015/16 or so. Local & national press report the US wants to scale back power sent back to Canada by 90%. As such, this number in the model is high.
b. For PSE/SCL Westside Generation, winter was reduced to 0.
iv. The base case, is 2858 MW
v. The low generation scenario was 1031.
vi. How can zero be justified as a good parameter? Unless PSE decides to behave like Enron and turn off the power as they did during California's energy crisis!
4. This fourth chart (snapshot) below shows the "Eastside" overloads predicted for 2017/18 are based on these assumptions at specific substations – all based on the above faulty assumptions.
a. In addition, the data shows overload trends at specific sub-stations, however, the modeling was done another "cherry picked" at a point in time? What are the loads and power factors at each substation going back 10-15 years for the winter and summer peaks? Electric car charging is improving this power factor with capacitive load, how much? There are mitigations at the sub-station level that are far cheaper than a $1 billion dollar power line ($280M plus $800 million in profit interests and O&M). Grid batteries and electric cars need to be modeled for power factor effects.
5. FEDERAL / NEPA RULES – The following documents provide evidence that Energize Eastside should not be considered as a local project subject to SEPA rules, but rather part of a broader strategy across BPA, a federal agency, and PSE, a for-profit utility, for overall international energy plans that should fall under Federal or NEPA jurisdiction.
1. Columbia Grid documentation clearly shows EE is part of their broader plans. I have highlighted key points in yellow.
i. EE is part of the larger project to increase international power flows between Canada and the US as required by Bonneville Power Authority (BPA), treaty obliterations, and to prepare for Canada's "Site C" dam coming on line with ~1,200 MegaWatts of power. A NEPA process is required for international projects, which both BPA and Canadian power authority want to deny, but is clearly the case.
ii. Furthermore, using PSE's own document "Eastside Needs Assessment Report Transmission System King County", EE is for reliability of the grid SOLEY for BPA purposes. If one takes out BPA's bulk power flow to Canada OR not use a falsified low power generation case of shutting off all the northern gas turbine generators at the exact same time as all the hydro dams are off, then EE's business case falls apart. PSE/BPA went extraordinary lengths to get the model to show overloads.
iii. The new hydro dam will further stress the endangered species listed as the Salish Orca (aka as Southern Resident Orca). A 10 year study published by NOAA in June 2014 states expanding hydro dam use threatens the habits of several endangered species including pacific salmon and the last remaining 77 Salish Orca (these Orca are 1 million years distinct for other Orca) which are an international endangered species further supporting NEPA review.
Below are the case study assumptions causing "PSE's" "overloading". Sure looks like BPA power to Canada and all generators "West of the Cascades" off causing the "problem". yet PSE can magically generate 2171MW in Summer both 2014 and 2018 when they want to. Winter is Bellevue/Eastside's greatest local power need, summer is much lower locally. Power headed to California is at its greatest in summer as the 2850 MW import numbers above show.
casualities.
Here is Columbia Grid comments on what EE is for. Even the reliability issues are BPA's as PSE's 81 page "Eastside Needs" report clearly shows.
https://www.columbiagrid.org/download.cfm?DVID=2157
See Site C dam progress at https://en.wikipedia.org/wiki/Site_C_dam
More on EIM, CA-ISO's energy market, which even Hardev Juj, BPA's head of grid planning touch on, see very end.
This is a screen shot below from NOAA's 10 year study on the endangered Orca whales, with only 78 leave in the entire world. This alone forces the EIS to be a NEPA not a SEPA as issues cross international boundary with Canada.
http://www.nwfsc.noaa.gov/news/features/killer_whale_report/pdfs/smallreport62514.pdf http://www.nwfsc.noaa.gov/news/features/killer_whale_report/pdfs/bigreport62514.pdf
www.nmfs.noaa.gov/pr/species/mammals/whales/killer-whale.html http://www.nwfsc.noaa.gov/news/features/killer_whale_report/
2. PSE announces plans to join EIM (Energy Imbalance Market) in 2016. Again, key points are highlighted or underscored.
i. As PSE operates primarily in Puget Sound's East Side (and near British Columbia), Bellevue needs to question if the proposed highly expandable, and much taller 230kv lines are really to serve Bellevue's needs or to prepare for expansion efforts to maximize profit via North-South Transfer expansion and EIM agreement. PSE will need to have the capacity to sell/transport bulk high voltage power from Canada. PSE has no other plans for expansion that could support this outside of EE, so we can only assume the ulterior motive. Again, the Energize Eastside project is a small part of a much bigger picture.
i. Even with PSE's inflated demand picture, an alternative is to install 50 foot poles (+5 feet from today) to support the 230kv and easily meet their demand projections for next 40 years. PSE argues that it is more cost effective to install fewer 130 foot poles (+85 feet from today); however, it is out of character for a residential area, and would end in deadly disaster with the added stress to the and aging gas pipeline running directly underneath.
The real reason to go with larger poles is that they can easily be expanded to carry 500kv with no additional permissions or pole installation required. Again, not needed to meet Eastside demand, only needed for North-South Transfer. The picture below (Antelope-Pardee corridor in Lancaster) shows unsightly 500kv being proposed by PSE. These are typically rural not urban.
And, PSE can add a wireless cable company to the area and expand the poles to 150feet with new federal rules without even have to ask the City of Bellevue permission.
http://www.cpuc.ca.gov/Environment/info/aspen/antelopepardee/photos.htm
6. ALTERNATIVE ENERGY
a. Grid Batteries / Storage – Lots of press and real world examples on this – New York, California, Hawaii are examples. Many states have already implemented this as alternative to infrastructure / power line build out, and more cost effective way to achieve reliability. With this trend, it's hard to believe we are even having a discussion around EE.
b. Solar – Given solar is now cheaper than grid in 20 states (including WA Hydro) what are the projections of solar displacing utility power? Major banks are now funding hundreds of utility scale solar projects in the 50 states.
i. See Deutsche Bank's work reference in on page 3/12 of Tech & financial issues with PSE Energize Eastside1.4w.o.affil.doc
ii. References Edison Electric Institute's, (the lobbying group for the utilities) urgent call to action in their 2013 report Disruptive Challenges: Financial Implications and Strategic Responses to a Changing Retail Electric Business.

iii. This was sent to the City of Bellevue on 2/12/2014 for the independent consultant review.
c. LED bulb replacement - Confirm via statistically significant survey that there is at least 600MW (calculated in detail by this MSEE for PSE service area) at peak load of incandescent bulbs inside PSE's territory per NEEA.org numbers when accounting for the 45% first year failure rate of compact florescence bulbs as determined by the Dept of Energy reports across +300 bulb models sold. I look forward to comparing numbers to what the NEPA EIS gets. Fix the current 11kW of incandescent waste at City Hall!
d. Windows – Washington currently only sells hot climate windows in Washington State wasting at least 100 aMW/year. These windows would retain heat reducing peak load in winter. What is PSE's share of saving when hot climate windows are banned in WA and only cold climate ones allowed? New building code proposals are with the Washington legislature.
e. Geothermal – My former employer let a 280 MW geothermal power plant be installed on our Navy Lab without cost to it in 1986, assuming the research and develop lab with 5000 employees (China Lake) got all its power for free and what was left over, then the California Energy Inc, could sell the rest. PSE's territory is as close, if not lot closer, to geothermal in terms of drilling depth. The major cost here is replacing heat exchangers; far cheaper over 40 years than $1 billion dollars of new power lines. Please fully detail that option. May need to confirm if BLM land is available for this purpose. The Navy had to have ownership transferred from BLM to Navy which Clean Air Act 111D and related rules can expedite transfer to City of Bellevue or other state/city government agency.
f. Callable Power - Solve PSE's inflated power needs with reverse Demand Response "call to turn on power" from distributed from electric car batteries to solve peak power loads. See more on flatten peak loads with Energy North West below.
g. Please evaluate all power options in the National Association of Clean Air Agencies (NACAA) May 2015 many of which have been testified to the WA State House and Senate committees . This is the +400 page document of menu items for states to get onto better energy resources.
www.4cleanair.org/sites/default/files/Documents/NACAA_Menu_of_Options_HR.pdf
h. What is the total cost of EE including profit, interests and assumed operation & maintenance fees over the 40 year payback period? And how does this compare to lifecycle costs for distributed generation or Demand Response (ability to call-to-turn-off-as-desired) actual project and potential projects by the likes of Stan Gent, CEO of Seattle Steam Company (just bought by the largest US private equity for renewable energy Brookfield and is now called Enwave Seattle, but for WA Senate/House invited presentations search with Seattle Steam) & WSU's Energy Program specialist Dave Sjoding or Energy North West's John A. Steiger's 509-377-4547 (the civil service guys running the grid/nuke facilities in eastern WA) 100MW Demand Response project in WA. All these folk of whom invited to give presentations to WA House and Senate Energy Committees represent the future. Demand Response is measured in 1000s of MegaWatts in East coast which is far more advanced than WA which has just 100MW which John A. Steiger has put together for sale to utilities even PSE. How about Overlake Hospital get more reliable power like Huston's medical center did with co-heat-power and ditched ALL of their emergency generators.
i. Peaking generator. PSE's technical consultants claimed to have asked Dept of Ecology for permission to install a peaking generator but was turned down. Please detail why and the cost and environmental impact to install a peaking generator at say the lite rail garage/system or in the Spring Business District as co-heat-power systems.
j. Heliostats = $300 dollar self powered sun tracking mirror reflecting 500Watts of sun energy into home. What if PSE bought all it electric heating homes one? Costs & impact?
k. What are Canada's site C dams impacts for any WECC or other computer modeling?
7. Investor owned utility (primarily PSE) customers already pay 28% higher rates than those served by cooperatives, municipalities or public utility districts.
i. PSE is happy to take on capital investment projects. They are guaranteed profits for 40 years through their contracts with the state and can pass the costs (with profit margin) along to their customers.
ii. With the profit protection in place, there is no downside to this investment, and only possible upsides with North-South Transfer expansion.
Here is another reason why PSE & BPA are obfuscating the real need behind Energize Eastside in BPA's Hardev Juj's own words. See above for Energy Imbalance Market (EIM) What is being said here is we MASSIVELY over Build.
Is Hardev Juj foreshadowing Energize Eastside destabilizing the Olympic pipe line? With no automated shut off and carrying all liquids it will result in hundreds of deaths unlike the natural gas pipeline explosion in San Bruno CA fire which killed 8. A liquid spill will flood neighborhoods quickly and instead of just 100 homes damage or destroyed there will be a thousand

Timestamp	First Name	Last Name	Comment
6/11/2015 14:37:26	Lynda	Ardern	It is hard to know where to begin.I have devoted significant time to read about Energize eastside and go to meetings etc and am adamantly opposed to this project because firstly and foremost it has little to do with Eastside's needs and all to do with PSE owning and having control over a 230kV line for servicing Canada and others.Of course the Eastside is growing but so are alternative energies and conservation. PSE has shown no interest in implementing obvious solutions because this would not be in their best interests. Please view Cense's latest video (June 6th) for the alternatives that make sense and that I support. Go to Cense.org and click on Video. I believe if all the residents of the Eastside knew there were viable alternatives without destroying our neighborhoods and environment there would be mass rallies opposing PSE's plan. The problem is that they don't know about it . I recently door knocked at over 100 homes in the Bridle Trails neighborhood and found about 50% of residents knew almost nothing about it. Another 35% knew something about PSE saying we needed more power and they had a plan to provide - but had no idea of the size of the poles and the fact that we dont need them and about 10% knew about the poles and thought there was no way to stop them. Only 5% knew the what was really going on. The problem is that Cense has not had the $$$ to spread the word. Pse has spent millions on sugar coating their plan and abusing the public trust by distorting studies to create the appearance of overload in their system. I beg you to put a hold on this project and study the alternatives that Cense's experts and others have put forward.

Timestamp	First Name	Last Name	Comment
6/15/2015 16:27:38	Christina	Aron-Sycz	The EIS for Energize Eastside should include the following additional elements of the environment. 1. Earth- Not only are there Seismic issues on the route but there are geologic and water related issues that are significant. the Earth Element must be added to the list of elements to be evaluated. 2. Housing (Sub element during Land Use) - The current proposed action and alternatives include a number of routes that will go through residential areas. This section should include both a discussion on multifamily and single family residences. 3. Economics- Although this is not a requirement of SEPA, it is often included in an analysis such as this and enables a comprehensive analysis to occur during the EIS process. The economic analysis will assist with the evaluation of the proposed action, alternatives and specifically the significantly impacted areas. The reduction in property values, economic and social impacts on property owners are significant, the economic value of the 8000 trees being removed from the Renton – Redmond area (e.g. Inclusive of the value of the trees, property damage due to the removal, value of the habitat destruction and reduction of the bird (migratory and resident populations) and fauna,) and etc. It should also be noted, that the Canopy in Bellevue is now less than 40% which makes is less than any other key city in the PNW. Furthermore, as someone who has spent months of intense study on this issue, I can say beyond a doubt that Energize Eastside AS PROPOSED or any of the currently proposed alternate solutions are NOT the best solution to the Eastside's energy needs. EE as proposed is grossly oversized and the enormous impact it would have does is not balanced with the benefit that all of the Eastside's residents would receive. It is a complex issue, and I am fully aware of the nuances that most of the public does not understand. EE is not about transmission, which sadly is how PSE has been selling it to the public, but about meeting extreme winter need. It is shameful that a company who is charged with the duty of providing such an essential service as electricity would resort to obfuscating tactics with the aim of scaring the public into supporting an infrastructure plan which is based on completely flawed studies. In the studies PSE uses to support EE, it shut of ALL of its local generation facilities - facilities which were purchased with the express aim of providing power in extreme circumstances. Yet the public is led to believe that due to an increase in population, we are simply running out of power. It is also shameful that PSE claims that they have met 100% of their conservation goals and that no more can be gained through conservation. Guess who set these goals? PSE. Within 30 mins of internet research you can find information and be well versed on what nearby cities like Portland are doing in regards to conservation - 10 times over what PSE would ever do, because it's not as profitable as building a $200M project that the ratepayers will pay for and then earn a whopping 10.2% interest over the next 35-45 years. PSE assures you that they know best on how to solve electricity issues. Yet their own former VP of transmission planning, J. Richard Laukhart, has blown the whistle on them not because he is receiving any money or glory, but because he knows the system and our local grid inside and out and knows that what they are doing is essentially fraud. I urge you to listen to the voice of reason and support all documentation formally submitted by both CENSE and CSEE. Respectfully, Christina Aron-Sycz Bridle Trails

Timestamp	First Name	Last Name	Comment
6/3/2015 23:43:51	Elya	Baches	This project requested by PSE is nothing more than an attempt by PSE to create a transmission line to run power between Canada and California, so PSE can collect money from tranmitting that power. This is a half baked, but very expensive idea at best. With the amount of power people are using decreasing every year, the question that must be asked is if PSE can make enough money over time to pay for this project, or will they raise rates to do so? Odds are that they will raise rates, because their actions during this entire Energize Eastside Project to date have consistently shown them to be unscurpulous, arrogant, greedy, selfish, lying, cheeting, sons of you know what. They have lost all credibility.

Timestamp	First Name	Last Name	Comment
6/8/2015 17:08:13	Charles	Barnes	Locating unsightly and unneeded tall transmission lines in the Somerset area of Bellevue will translate into a marked decrease in the quality of life for many Bellevue residents and directly impact the value of real estate values, including my property. Utilizing laughably-called "community advisory group," actions of the Bellevue City Council have been a complete sham and have not protected the interests of citizens. A good faith effort at a fair evaluation has not been conducted by the city's consultant to date and it is questionable whether an honest and fair effort will be made related to this EIS. All potential impacts need to be studied!

Timestamp	First Name	Last Name	Comment
6/15/2015 10:17:33	Bob, Kris, Shawn	Baugher	Of course we are concerned with the impact of the potential impact of this huge change. The power lines are just across from our back yard.

Timestamp	First Name	Last Name	Comment
6/11/2015 11:30:52	Stephen	Baum	Alternatives 2,3 and 4 should be given the highest priority over the construction of new, higher voltage transmission lines. New 230 kV lines would certainly introduce the probability of negative impacts to the surrounding property owners. Of most significance would be the health impacts resulting from increased EMF and the negative impact to property values resulting from both the aesthetic damages and perceptions from future property owners about the EMF exposure. The option to introduce new 230 kV lines must be mitigated through exploration of alternatives including options 2,3 and 4 along with the possibility of underground power lines.

Timestamp	First Name	Last Name	Comment
6/10/2015 18:20:00	Jacqueline	Becker	The Energize Eastside project is not necessary. PSE has not shown that this gigantic project is needed to provide power to the local areas. They should not be permitted to run giant power poles near a gas pipeline for very obvious safety reasons! Also, the fact that there is currently an easement through Somerset/ Bellevue for power lines is not license to locate the newly contemplated gigantic lines there. That would surely be an extreme overburdening of the existing easement. Law does not allow PSE to turn a walking path type easement into a superhighway! PSE is a FOR PROFIT company and stands to make a lot of money from this project at the expense of our health, safety and aesthetics. This project truly is not for the benefit of local residents and this project cannot be allowed to proceed as contemplated.

Timestamp	First Name	Last Name	Comment
6/15/2015 14:05:13	Rick	Bell	I am still very concerned about the dangers of EMF near where I live.

Timestamp	First Name	Last Name	Comment
6/15/2015 22:49:18	Patrizia	Bellisari	This comment concerns many categories. We are concerned about our and the whole community's health, first and foremost, though there are many other concerns. We believe this is premature and detrimental to all, especially homeowners along the designated areas in which these transmission lines would go. Not to mention it would affect home values and be aesthetically horrible. In addition, there is no demonstrated need for this in our area and it would serve Canada and your own interests.

Timestamp	First Name	Last Name	Comment
6/15/2015 17:03:56	Jason	Berry	I don't think building new higher power lines over a petroleum pipeline is safe

Timestamp	First Name	Last Name	Comment
6/3/2015 9:58:56	Craig	Bevan	I am opposed to alternatives 1 and 3 and the proposed 50 miles of new power lines is totally unacceptable and not a worthwhile option.

Timestamp	First Name	Last Name	Comment
5/13/2015 10:25:31	Deandra	Bishop	My concerns regarding this project cover so many areas I could not choose just one category. I live along the power transmission easement in Somerset and the primary access to my home is along the easement. There is a private road, a block long, within the easement that is maintained by the homeowners for whom it allows access to their homes. With the size of the poles that are envisioned for this project, I am concerned that my access will be permanently blocked. I am also concerned that my access would be significantly disrupted for many months during the construction. I am also quite certain that the installation of the new transmission lines in my neighborhood and in fact in my front yard, will signifcantly lower the value of my property. When I purchased this property over 35 years ago the value was impacted by the power poles, but we knew what we were buying and we accepted that. I would certainly have never purchased property with the industrial size installation that is proposed. Such a large installation should never go through any residential area unless it is underground. In addition I am concerned about the impact of the installation on the gas pipeline that also shares has an easement within the exact same space as the PSE easement. I do not understand why residents along this easement are being asked to bear the burden of additional electricity not for our neighborhood, our neighborhood has been established for 50 years, and the per household of electrical energy is being reduced. To impose on us the burden of the infrastructure of this project is grossly unfair. Please avoid blighting not only my Somerset neighborhood but any residential neighborhood. Do not go forward with this plan. You have alternatives that are much less costly to the environment that will meet your objectives for regional power.

Timestamp	First Name	Last Name	Comment
4/30/2015 20:32:05	Mike	Blodgett	Why is PSE not using current right of way that has power like news between 123 and 122 in Newcastle? A new route dies not only change views and aesthetics but seems invironmentally perverse. And the proposed route endangers the nearby neighborhoods by building on a fragile pipeline. Does anyone at PSE really care what the citizens want within their communi
6/15/2015 10:37:45	Mike	Blodgett	It seems very irresponsible to locate the new power line along the pipeline access. The size of the power towers are not within appropriate heights for Newcastle. PSE already has a right of way between 123rd and 124th. Why is this not being utilized?? PSE is being environmentally irresponsible by destroying yet another landscape. The proposed route using the pipeline right of way will destroy the use of this as a Walking trail. I personally don't care that the cost would be increased for PSE but they should do the right thing by using underground wiring they can afford it if they would use their enormous profits they have annually. I also have little faith that PSE is acting in good faith by requesting citizen input. I believe they are being subversive.

Timestamp	First Name	Last Name	Comment
5/7/2015 13:19:31	Russell	Borgmann	I have several questions and attachments that I will be submitting via info@energizeeastsideEIS.org. I would like verification from the City of Bellevue that my comments and questions were received and will be included as part of the public record during this EIS process. My contact information is supplied by means of filling out this form. Sincerely, Russell Borgmann (text below is a cut/paste of what will be submitted via info@energizeeastsideEIS.org) Below are programmatic EIS questions regarding the need for “Energize Eastside” 1.On Puget Sound Energy’s “Customer Demand Forecast” graph, what are the ACTUAL numbers for 2012, 2013, and 2014? Data shown are forecasts, NOT actuals. 2.On PSE’s “Customer Demand Forecast” graph, please provide justification/rational for the “System Capacity” line. 3.How does PSE justify an eastside growth rate of 1.7% to 2%? The Puget Sound Regional Council projects a growth rate of about 1%, in keeping with studies for Seattle, Portland, and other fast-growing Pacific Northwest regions. PSE growth projections are nearly double the PSRC projections. Please explain the rational. 4.Is PSE doing everything possible with respect to Demand Response initiatives? Have they implemented the suggestions by their own consultants, E3 and The Cadmus Group, that could delay/negate the need for Energize Eastside? Are there opportunities that have not been taken advantage of yet? Please examine PSE’s IRP and appendices (specifically Appendix N/13) and provide rational why PSE has avoided taking action on Demand Response initiatives that other utilities are finding effective. 5.What is the connection between the need for Energize Eastside and ColumbiaGrid technical objectives? How are the technical needs of ColumbiaGrid prioritized and what criteria is used for evaluation and prioritization? BACKGROUND: BPA has stated that if Energize Eastside is NOT built, BPA will proceed with the Monroe-Echo Lake #2 project. The Monroe-Echo Lake #2 project was shown to be the most reliable and BEST technical solution: the lowest TRCM and highest TTC (April 2011 PSAST Report). Yet ColumbiaGrid decided to proceed with an inferior solution (Energize Eastside), based on cost (PSAST Report page 16). The costs of the projects were NOT evaluated against the size of the affected customer base. The Monroe-Echo Lake #2 project costs far less per capita when spread across tens of millions of ratepayers in BPA’s territory. The cost of Energize Eastside per capita (spread across 1.1 million PSE ratepayers) is unduly expensive to PSE ratepayers. PSE ratepayers are paying for a BLENDED PROJECT yet only deriving a fraction of the benefit of this project. Assuming BPA were to build the Monroe-Echo Lake #2 project, what smaller, scalable, less expensive solutions can be implemented by PSE to meet the local needs to support eastside growth? 6.Who has regulatory oversight of ColumbiaGrid? What is the connection between the need for Energize Eastside and ColumbiaGrid financial objectives? 7.PSE has also stated the need for Energize Eastside is due to reliability. According to the EXPONENT Report on Bellevue Electrical Reliability, Bellevue and the eastside are more than 3X better than the WUTC stated reliability goals (frequency of outages, as well as duration of outages). How are Energize Eastside “need” and “reliability” related? How many outages in the next 10 years (2017 – 2027) are anticipated to be avoided by implementation of Energize Eastside, due to transformer limitations or otherwise stressing system capacity due to local eastside GROWTH (excluding unpredictable weather events)? 8.Is Energize Eastside an “OPEN ACCESS” project? Who are the beneficiaries? For whom is it USED and USEFUL? Is Energize Eastside need a PRUDENT project for PSE ratepayers? Is Energize Eastside a “BLENDED PROJECT” to satisfy the needs of ColumbiaGrid, BPA grid reinforcement (Monroe-Echo Lake bottleneck), Columbia River Treaty “Canadian Entitlement” curtailments, Seattle City Light load needs, as well as PSE load growth? How are the merits of each need evaluated independently, and which need takes priority? BACKGROUND: The “Blended Project” objectives have been verified by examining Memoranda of Agreement between BPA, Seattle City Light, and PSE. 9.What percentage of North-South flow-through load (to Canada/California) will be carried on Energize Eastside during a N-1-1 event (failure of BPA bulk main PLUS a second transmission line failure)? What is the probability of a N-1-1 event?

Timestamp	First Name	Last Name	Comment
			10. Is PSE exploring alternatives that satisfy LONG-TERM needs - solutions with longevity? PSE has stated the usable life of Energize Eastside may only be 15 years. To satisfy long-term needs what REALLY needs to be done beyond transmission lines? More transformers? Where are the REAL bottlenecks to satisfy eastside needs? "A hammer tends to see every problem as a nail". Is this a case of a utility company seeing the ONLY WAY to solve this need with transmission lines? (Reference: PSE's Op-Ed article titled, "Energize Eastside, the only way") 11. How is the need for Energize Eastside linked to the continuation/suspension of coal-generated power at PSE's Colstrip Generating Facility? EIS assessment of the need for "Energize Eastside" must include plans for the certain, eventual retirement of PSE's Colstrip Generating Facility which will impact electricity generation and transmission in the Puget Sound region. 12. Please describe the connection between the NEED for Energize Eastside and PSE's financial objectives for Energize Eastside? Is the NEED for Energize Eastside driven by a need to achieve a specified rate of Return on Equity? Will PSE be applying for an additional FERC rate of return on projects related to grid reinforcement, and if so, how does this factor into the need for Energize Eastside? 13. Please describe how the need for Energize Eastside and Power Wheeling are connected? What are PSE's power wheeling objectives for Energize Eastside, and how much of the Energize Eastside need is based on the ability to participate in additional power wheeling? The following questions have arisen as a result of examining the U.S.E. Inc. Independent Technical Analysis for "Energize Eastside": 1. Escalating Growth Projections: PSE revised predicted rate of demand growth from 1.7% to 2.4% - a 41% increase in the rate of growth since their last forecast 3 years ago. Please explain the rationale for a dramatic increase in PSE's growth projections. 2. Is Bellevue Growing Twice as Fast as Seattle? Seattle City Light is predicting 1.2% annual growth in demand for Seattle. PSE expects Eastside demand to grow at twice Seattle's rate. Please provide rationale for Bellevue growth doubling Seattle's growth, given Seattle's expansive South Lake Union and SODO growth. 3. Delayed Need. Despite a significant increase in the growth projection, the "problem" date is now delayed 3 years (from 2017 in PSE's literature to 2020 in the U.S.E report). Please provide rationale for this changed timeframe for potential impact. 4. E3 56MW Savings Unaccounted. USE did not include 56 MW of savings found by PSE's own consultant, E3. Please provide rationale for this omission. 5. Divergent Growth Trends. The USE report (pg. 20) shows population projections of less than 1% per year and employment growth projections of 1.7% per year. How do these trends combine to produce overall demand growth of 2.4% per year? The only obvious explanation is the expectation that residents will start using more electricity per person in the coming years, which is contrary to all data collected over the past decade by the EIA. Please explain this rationale. 6. Does a Bellevue-centric problem warrant an Essential Public Facility designation? The USE Report (pg 30) lists 39 major projects slated for construction in downtown Bellevue and the Bel-Red corridor in coming years. No projects are listed for other Eastside cities. The USE Report only addresses expansive growth of Bellevue. The City of Bellevue has conferred "Essential Public Facility" (EPF) status on the Energize Eastside project. However, there are 4 other jurisdictions affected by Energize Eastside: Renton, Newcastle, Redmond, and Kirkland. Why is there is no mention of growth in the other 4 jurisdictions contributing to the need for Energize Eastside? How can Energize Eastside be considered an EPF when clearly it has NOT been shown to be essential to the other 4 impacted jurisdictions? 7. Updated/Detailed Electricity "Heat Map". The USE report did not provide a more accurate map of peak electricity usage on the Eastside. The "heat map" provided by PSE is very misleading. It was created using data from 6 years ago that combined multiple worst case days (hottest day ever on record, 7/29/2009, along with the coldest day of 2009). When have electricity consumers ever run their electric heat and air conditioning at maximum levels simultaneously? Why are Mercer Island and Cougar Mountain shown at the same critical usage levels as downtown Bellevue? Please provide a more detailed, accurate map to provide areas of opportunities for savings and where improved policies could help. Please provide historical annual peak loads for all Eastside substations. Peak loads on these substations is crucial to transmission line system analysis.

Timestamp	First Name	Last Name	Comment
			8. Frequency of Outages. Please provide detailed information about the type of outages Energize Eastside is designed to handle: Transformer overload? Adverse weather? Reliability concerns? Please provide the probability of occurrence associated with each type of event. 9. Why was local generation turned OFF? The USE report (pg 51) continues PSE's practice of turning OFF all local generation west of the Cascades during power flow simulations. What is the justification for simulating this condition? It provides an unrealistic snapshot of the system being subjected to an unrealistic, improbable stress. PSE's own contractors state that this was an artificial scenario without merit. Please provide rationale for continuing to promote this scenario. 10. Energize Eastside can be delayed. The USE report concedes that Energize Eastside could be delayed by 6 months, so the need isn't as urgent as PSE has indicated. Why is the City of Bellevue and PSE rushing through the EIS process? Why did USE not recommend a delay that allows more facts from independent sources to continue to be analyzed? 11. Did USE have access to independent CEII data sources? During USE's contract with the City of Bellevue to independently analyze the need for Energize Eastside, the City deemed that Mr. Gordon Comegys was crucial to this analysis. Also during USE's contract with the City of Bellevue, Mr. Comegys departed from USE, Inc. (situation undisclosed). Did Mr. Comegys' departure compromise the access to independent CEII data to corroborate or refute PSE's claims for the need for Energize Eastside? Is USE in breach of contract with the City of Bellevue? Did the City of Bellevue obtain a thorough, accurate, and comprehensive analysis, or was USE forced to simply rely on data supplied by PSE to draw its conclusions? 12. Canadian Entitlement Required by the Columbia River Treaty. If Canadian service was dropped to zero, only one transformer is overloaded. This overload can be resolved via other less costly, les impactful solutions: installing an additional transformer at Talbot Hill, and/or incorporating savings found by PSE's own consultant, E3. Please provide the rational why these alternatives were not considered. Canadian Entitlement can be addressed via other means, including BPA's Monroe-Echo Lake #2 proposed solution (the BEST technical solution studied by ColumbiaGrid). 13. Demand Response. As alternatives are explored in the programmatic EIS phase, USE did not explore demand side response alternatives (e.g. shift load from peak to non-peak hours). Demand-side response programs are widely used and accepted in the utility industry. PSE's own IRP Appendix N (13) describes many demand-side response initiatives that could be taken, yet PSE has chosen not to implement these. PSE even conducted a trial of time-of-day pricing. It resulted in a profitability loss for PSE, so PSE discontinued this program. Please provide rationale for avoiding alternatives that save consumers money over choosing solutions guaranteed to raise consumers' electricity rates and increase PSE's profitability. 14. One-Line Diagrams and Assumptions. Without providing standard "one-line diagrams" (http://en.wikipedia.org/wiki/One-line_diagram), the USE report cannot clearly articulate the assumptions that were made during the transmission studies and analyses. Please provide clear one-line diagrams and detailed assumptions in the programmatic EIS. 15. PSE's Forecasting Model is a Black Box. PSE's forecasting model does not permit analysis by the general public. Data is input, and data is output. But the algorithms, scaling factors, primary, secondary, and tertiary algorithmic terms are obscured. The Sierra Club said, "PSE selectively withheld, obfuscated, or failed to produce underlying data… PSE presented the results as a "black-box" analysis without providing an opportunity for the public to verify or refute the methodology or results… As a result, the public must accept, without the ability to verify, that PSE's assumptions are valid and that PSE executed its analysis properly. PSE's IRP results must therefore be viewed cautiously. Without public transparency, PSE's results and conclusions run the risk of being self-serving justifications for the preexisting internal business plans of the company…" How are PSE's forecasting software models tested, verified, and validated? When was the last change made to PSE's forecasting software models? How were those changes tested, verified and validated? Recently Avista admitted that software changes to their rate-charging algorithms resulted in overcharging customers (http://www.spokesman.com/stories/2015/may/04/software-error-caused-avista-overestimate-rate-req/). Why should we take PSE's forecasting model at face value? Is there an opportunity for software errors to produce forecasting errors that indicate an excessive demand/need/growth beyond what is truly warranted?
			I look forward to these questions being answered in the programmatic EIS. I ask that these questions be included, verbatim, as part of the public record and the City of Bellevue's transparent process to evaluate the eastside's future electricity needs, as these questions are also germane to the SEPA review. Additionally, these questions apply to a NEPA review as part of the "Blended Project" needs to address trans-national grid reliability, as referenced in numerous BPA Memoranda of Agreement and BPA Reports. Sincerely, Russell Borgmann

Timestamp	First Name	Last Name	Comment
6/12/2015 13:52:46	Bruce	Bostick	I do not want larger power lines installed behind my yard. Prefer to do underground (even if more expensive) or alternative #3.

Timestamp	First Name	Last Name	Comment
5/31/2015 18:36:58	Michelle	Bowers	We do NOT want the new power lines. They will destroy the character of our neighborhood and we don't need it just for emergency back up system protection. We utilize the greenbelt in Bridle Trails, Bellevue daily and are devastated that these enormous lines are even a possibility. Our neighborhood resoundingly votes NO!

Timestamp	First Name	Last Name	Comment
5/30/2015 8:05:12	Rebecca	Bratlien	Alternative number 2

Timestamp	First Name	Last Name	Comment
5/5/2015 6:15:46	Barbara	Braun	The citizens of Bellevue and the east side wish to be on the leading edge, not the antiquated tail of energy solutions. The eastside is riddled with dangerous and ugly overhead power lines that transmit fossil fuel based power. We need to demonstrate we can move beyond this outmoded method of energizing our planet. As presented by CENSE at the May 4, 2015 Bellevue City Council Meeting there are viable alternatives, such as Alternative 2 that can might the future energy demands of the east side. There are other solutions to meeting the cross-region needs for Canada. PLEASE do the right thing and pursue a solution other than stringing more wire and promoting the use of fossil fuels.
5/21/2015 6:36:18	Barbara	Braun	The transmission lines should not be places anywhere near the pipeline. Please include an independent 3rd party review of the safety aspects of installing and maintaining lines near pipelines including the safety records of PSE and Olympic pipeline. Also include global statistics and consequences of accidents.
5/21/2015 6:39:07	Barbara	Braun	We need the review to include an independent assessment of the earthquake risks and dangers and how these would be mitigated. This should include the conclusion that the current transmission lines should be removed
5/22/2015 13:15:16	Barbara	Braun	Need: The demand projections PSE have presented have not been validated. The third party consultant did not estimate the demand projection rather only said the methodology PSE used followed standard practices. We need a truly independent review of the demand requirements done using the combined region-wide suppliers capacity.
5/31/2015 6:35:16	Barbara	braun	•Please include an evaluation of the safety issues of both the construction in the Olympic pipeline easement, but also the maintenance in the easement. Please do a survey of the history of human caused accidents and consequences by these 2 companies as well as similar projects around the world by all companies. Please also include weather related and seismic related accidents and dangers. Include Olympic in the EIS. Make all decisions with Olympic at the table. Insure a truly independent assessment of both PSE and Olympic findings, calculations and recommendations. Both are huge multinational for profit identities that don't necessarily represent local community interests. Clearly both companies have a reputation for accidents and lack of proper safety measures and practices. Both companies have a history of unconcern for communities or the environment. Thank you!
5/31/2015 6:37:57	Barbara	Braun	What is the operating plan for the Olympic Pipeline during construction? How will ALL safety risks be mitigated? How will BP be included in this project? Thank you!
5/31/2015 6:40:01	Barbara	Braun	Include a thorough seismic evaluation in all alternatives. Bellevue should actually require the removal of all existing power lines in the pipeline corridor and the upgrading of the pipeline to insure the safety of its community and citizens from the massive earthquake we are going to have. Thank you!
5/31/2015 6:41:58	Barbara	Braun	Make the cutting of trees an off limits criteria for any alternative. We cannot replace the climate protection capacity of 8000 trees with new seedlings. We cannot wait 100 years for this to be restored. This is antiquated thinking. The trees should be given higher value and weighting in any analysis. Thank you!
5/31/2015 6:43:34	Barbara	Braun	This is not a local project. Our EIS should make decisions as a region, a nation, and an international partner with Canada. A national EIS is needed. We know that Alternative 4 can be accomplished with better collaboration across energy suppliers, with conversation measures, and with implementation of new technologies, building codes and building standards. We know the changing energy landscape and other projects will eliminate the need for this project, such as the Site C Dam on the Peace River. Thank you!
5/31/2015 6:44:59	Barbara	Braun	We should pursue Alternative 4 or 2 by making Bellevue and the other eastside communities national leaders in energy conservation and management. We should upgrade our city codes, ordinances, building standards and zoning rules for both commercial and residential. For example, implementing LEED standards for ALL new construction. Requiring buildings to retrofit. Requiring retrofits and remodels to comply with LEED or other energy conversation and management standards. Requiring all new construction to be net zero construction. Bellevue could lead the country and the world for the most net zero energy buildings! Be leaders in innovation and creativity not installers of antiquated technology. This is NOT what Bellevue is about! Thank you!
5/31/2015 6:46:26	Barbara	Braun	We need to revisit the demand forecast of need. Will this be done? We cannot passively stand by and let PSE tell us we have already validated the demand numbers. WE HAVE NOT! The consultants retained by Bellevue DID NOT conduct an independent review of demand. They simply said PSE didn't make any math errors in their calculations. Bellevue can do better than this. Please stand up and represent your citizens as you are elected and/or employed to do. Thank you!
5/31/2015 6:48:02	Barbara	Braun	I hate to say this, but it appears Bellevue and the other municipalities are in collusion with PSE. Bellevue city representatives – elected and employed, need to be accountable to the citizens of Bellevue and represent our interests, not PSE's or any corporation's interests. The city elected and employed representatives, and their hired consultants, need to firewall themselves from these conflicts of interest. We need to be transparent in how we're doing this. We need to recuse those who receive any moneys – directly or indirectly from PSE. The citizenry needed to have an explicit review of how we are maintaining impartiality during this process. Thank you!
5/31/2015 6:49:59	Barbara	Braun	Many citizens are providing technical assessments and technical alternatives for this project to make alternatives 4 or 2 feasible. The Bellevue citizens have spent countless hours and their own money to do this. Please listen to them. Please engage them and other experts in helping to develop plans for alternative 4 or 2 if we cannot rely on PSE to do this for us. Thank you!
5/31/2015 6:51:25	Barbara	Braun	All EIS alternatives need to fully assess, address and mitigate carbon emission and sequestration issues. Not only should NO trees be cut for this project (i.e. we must insure NO net reduction in carbon sequestration capacity in our city), but we need to require carbon offsets for all incremental fossil fuel based power that flows through our community. We should in fact require that all new projects provide carbon offsets in "arrears" for all existing fossil fuel power flowing through our community as a requirement to implement any incremental fossil fuel projects. Let's lead the nation in being a green city! Thank you!
5/31/2015 6:53:01	Barbara	Braun	There have been repeated requests for unbiased evaluation of the needs and the development of alternatives by the citizens of Bellevue as well as the citizens of the other eastside communities. Consultants hired to date have not completed an independent evaluation of load demand, nor have they developed alternatives to PSE's proposal. When will this happen? When are we going to seriously review the demand and develop alternatives? Where in the process does this happen? We need to understand these issues and clearly establish plans and dates for these things. Thank you!
5/31/2015 6:55:22	Barbara	Braun	We need to do a side by side comparison of all alternatives. Apples to apples. We need to actually evaluate the alternatives, which has not been done. We need to insure the evaluation of alternatives have a clearly established, transparent and complete set of criteria for evaluation including – economics, property values, climate change, environment, safety, seismic, aesthetics, etc. We need to do this at a regional, national and international level, not a PSE or local only level. Thank you!
5/31/2015 6:56:33	Barbara	Braun	We need to understand if this project constitutes an essential public facility for each participating jurisdiction load.
5/31/2015 7:03:21	Barbara	Braun	We need a fully transparent decision making process and timeline. We need to understand who is creating alternatives, who is evaluating them, what decisions are being made, who are the decision makers, what is the timeline for decision making, specific dates and public participation for each decision, what recourse citizens will have, etc. Thank you!
5/31/2015 7:04:42	Barbara	Braun	The process of addressing public comments and questions for Phase 1 AFTER you complete Phase 2 makes no sense. We need to stop and address ALL these issues before proceeding to Phase 2. It makes no sense to discuss the details of implementation before we have established the need for any of the alternatives.

Timestamp	First Name	Last Name	Comment
6/8/2015 20:58:25	Lisa	Breckenridge	Hello, Thank you for listening to feedback from residents in Bellevue. As a long time residents of Newport Hills, we value community building and neighborhood beautification. We have served on various community building committees in Bellevue for over a decade. Our family, friends and clients have objections to the proposed installation of huge transmission lines running through our beloved Newport Hills neighborhood. We work in Bellevue and pay significant property taxes in Bellevue. Because we both work in the rel estate industry, we are aware of homeowner's and home buyer's unfavorable perception of EMF's and transmission lines in general. Installing more transmission lines in charming neighborhoods throughout Bellevue will have a detrimental effect on the resale of surrounding homes. This could adversely effect a homeowner up to $50,000.00 when trying to sell their home. A valid perspective to consider. Please do not install more transmission lines in Newport Hills! Thank you for listening to our thoughts on this controversial subject.

Timestamp	First Name	Last Name	Comment
6/13/2015 14:30:24	Lindy	Bruce	As a former alternate to EnergizeEastside's CAG, I have comments and concerns in several categories. My first general comment concerns the lack of inclusion of the category of safety, including construction constraints, for all alternatives. My second general comment concerns overburdening the ROW easement that PSE currently shares with the Olympic Pipeline. With regard to Alternative 1, there are significant adverse impacts from the following: 1. Construction along the pipeline (most of the 18-mile route) was addressed by PSE's consultant to require a tandem set of poles between 80-120' in height, bridging the pipeline. To build the large, deep retaining vaults for these poles, how far from the pipeline will this construction have to occur? How close to the edges of the ROW will these poles be placed? And how far would the potential fall line of a 120' pole be if it fell in a storm or earthquake? This route is lined with homes that could be affected by such a fall line. Would the ROW have to be expanded to address these significant safety issues? And what would those condemnations of property cost PSE's ratepayers? 2. Will parks or parks with children's play equipment under the 220kv transmission lines have to be moved, eliminated or mitigated with much taller poles? This is an EMF health issue, that, while not formally determined to affect those will play or live under or near the poles, still affects the way they are currently placed in other areas in the country - just in case future studies undeniably prove that EMF health effects are documented. 3. Writing on behalf of the affected neighbors, there are concerns about access to the ROW from their backyards for the sizable construction project Alternative 1 would be. 4. It has been documented by Lloyd Hara that properties adjacent to utility poles, particularly tall transmission lines, lose between 10-30% of their value. This not only will affect hundreds of properties along the ROW, it will affect the values of entire neighborhoods that will suffer the effects of diminished neighborhood character, as well as King County's and individual cities' property tax revenues. I believe that Alternative 1 is, by far, the worst alternative to take because of the substantial adverse impacts on individual property owners, neighborhoods and cities. An alternative that I hope the EIS will consider is the possibility of a submerged 220kv line. There is precedent for this in San Francisco and several parts of the East Coast, and, although it would take a while to work through the Shoreline Management Act and several cities' land use codes, it would set a precedent in this area for a project that does not blight neighborhoods. I would also like to see attention spent on Alternative 2, which can only become meaningful with changes in land use codes for new development in the cities involved. P.S. On the map below, you identify SE 20th St. as 134th Pl. Please note that my marker applies to the area at the end of SE 20th St. and 135th Pl.

Timestamp	First Name	Last Name	Comment
5/23/2015 12:10:20	Chris	Burges	I attended the scoping meeting at City Hall last week. The process is one-way and is, I think, broken. There should be an open public debate between PSE officials, opponents, and independent third parties (such as those who've studies the claims of both sides), moderated by Bellevue City Council. It felt very much like the decision has already been made and the current process is just pro forma.
5/23/2015 13:00:26	Chris	Burges	PSE is a private company whose first priority is satisfying its investors. I do not believe they have the best interests of the community or of the environment at heart. There are several reasons their proposal is a very bad idea. First, they have not even studied the alternatives. I asked PSE reps in person last week (at the City Hall meeting) what fraction of their customer's lighting is LED and what fraction is incandescent. None of them knew. This means they don't even know what 'head room' there is left for conservation measures. LEDs use between a factor of 5 and 10 less power than incandescents. If they spent some of that $200M on better incentive programs it could solve the problem right there, or at least buy us more time while solutions using better technologies rapidly evolve. Second, security. The gird is worrisomely insecure, as evidenced in congressional testimony recently. Is PSE doing anything about this? The people from PSE I talked to had no idea. This insecurity is a strong reason to invest in distributed alternatives and avoid more investment in a centralized solution. It seems that a few well placed explosives (on, say, the hundred largest transformers in the grid) would bring the entire grid down for up to a year. Even if terrorists were not a threat, the sun is: we know that a large solar storm will hit at some point in the future, that could easily destroy the grid if no steps are taken now. But a company that cares mainly about making money for its investors has little incentive to spend money even studying threats like this, let alone countering them. Third, need. There are so many better alternatives! For example if that $200M were spent on purchasing Tesla 10kWh Powerwalls for each home and business in Bellevue (at $3.5K each), that would amount to approximately 570 MWh of stored energy that could be used to reduce peak load very significantly. The need for these new power lines is not driven by the average amount of power needed but by the peak power needed. We would not even need to install alternative sources like solar cells, although having distributed storage would lead naturally to that solution in the future. Fourth, the quality of living in Bellevue. These new pylons would be 130 foot high and visible for many miles, obscuring views permanently. Shouldn't one of the council's main concerns be maintaining and improving the quality of life of its constituents? This proposal goes far in the opposite direction. A related issue is property values, which are projected to drop by between 10 and 30 percent for the many homes along the proposed route (and raising taxes for all the other property owners). Fifth, safety. PSE wants to put these new pylons along a pipeline route. I checked with the pipeline's owners. Those pipelines carry diesel, gasoline and jet fuel at over 1000 psi. (In fact the pressure was just last month increased to even higher values, after a 9 year moratorium after the Bellingham leak). Never mind the risk due to earthquakes: the chances that one of PSE's back hoes would cause a leak are just too high to take this risk. I have not done the computation of how much energy would be released if one of these pipelines flooded the area with jet fuel at high pressure (and apparently the only shut-off valve in Bellevue is manual and takes over an hour to close?). We are talking about a major firestorm. Even if the pylons were installed without incident, having 230KV lines above a pipeline that will break someday (when the overdue Seattle fault earthquake strikes) will ensure a major disaster. Bellevue City Council - please take your constituents seriously. We are serious people with serious concerns about preventing an enormous mistake to be made that will impact our quality of life negatively for decades, that introduces major safety issues, and that takes us in exactly the wrong direction regarding both security and sustainability, all because PSE's top priority is to satisfy its investors.

Timestamp	First Name	Last Name	Comment
5/23/2015 13:00:28	Chris	Burges	PSE is a private company whose first priority is satisfying its investors. I do not believe they have the best interests of the community or of the environment at heart. There are several reasons their proposal is a very bad idea. First, they have not even studied the alternatives. I asked PSE reps in person last week (at the City Hall meeting) what fraction of their customer's lighting is LED and what fraction is incandescent. None of them knew. This means they don't even know what 'head room' there is left for conservation measures. LEDs use between a factor of 5 and 10 less power than incandescents. If they spent some of that $200M on better incentive programs it could solve the problem right there, or at least buy us more time while solutions using better technologies rapidly evolve. Second, security. The gird is worrisomely insecure, as evidenced in congressional testimony recently. Is PSE doing anything about this? The people from PSE I talked to had no idea. This insecurity is a strong reason to invest in distributed alternatives and avoid more investment in a centralized solution. It seems that a few well placed explosives (on, say, the hundred largest transformers in the grid) would bring the entire grid down for up to a year. Even if terrorists were not a threat, the sun is: we know that a large solar storm will hit at some point in the future, that could easily destroy the grid if no steps are taken now. But a company that cares mainly about making money for its investors has little incentive to spend money even studying threats like this, let alone countering them. Third, need. There are so many better alternatives! For example if that $200M were spent on purchasing Tesla 10kWh Powerwalls for each home and business in Bellevue (at $3.5K each), that would amount to approximately 570 MWh of stored energy that could be used to reduce peak load very significantly. The need for these new power lines is not driven by the average amount of power needed but by the peak power needed. We would not even need to install alternative sources like solar cells, although having distributed storage would lead naturally to that solution in the future. Fourth, the quality of living in Bellevue. These new pylons would be 130 foot high and visible for many miles, obscuring views permanently. Shouldn't one of the council's main concerns be maintaining and improving the quality of life of its constituents? This proposal goes far in the opposite direction. A related issue is property values, which are projected to drop by between 10 and 30 percent for the many homes along the proposed route (and raising taxes for all the other property owners). Fifth, safety. PSE wants to put these new pylons along a pipeline route. I checked with the pipeline's owners. Those pipelines carry diesel, gasoline and jet fuel at over 1000 psi. (In fact the pressure was just last month increased to even higher values, after a 9 year moratorium after the Bellingham leak). Never mind the risk due to earthquakes: the chances that one of PSE's back hoes would cause a leak are just too high to take this risk. I have not done the computation of how much energy would be released if one of these pipelines flooded the area with jet fuel at high pressure (and apparently the only shut-off valve in Bellevue is manual and takes over an hour to close?). We are talking about a major firestorm. Even if the pylons were installed without incident, having 230KV lines above a pipeline that will break someday (when the overdue Seattle fault earthquake strikes) will ensure a major disaster. Bellevue City Council - please take your constituents seriously. We are serious people with serious concerns about preventing an enormous mistake to be made that will impact our quality of life negatively for decades, that introduces major safety issues, and that takes us in exactly the wrong direction regarding both security and sustainability, all because PSE's top priority is to satisfy its investors.

Timestamp	First Name	Last Name	Comment
6/15/2015 16:06:29	Jeffrey	Byers	As a Bellevue resident with a home at 12989 SE 46th Place, I live close to the proposed route for the Energize Eastside transmission lines and the Olympic gas pipeline. The project has me very concerned about my family's safety, the huge cost of the project (I've seen estimates of $800 million over the 40 year lifetime of the project), the destruction or disfigurement of 8,000 trees, and the impact of mega towers visible for miles planted in the middle of our beautiful city's residential neighborhoods. This is not the legacy that the residents of this city or it's elected representatives should leave to future generations. The local need for the project seems to be built on unrealistic assumptions and viable alternatives for this project that are less invasive and less expensive have been disregarded. Regarding the local need for Energize Eastside, PSE's studies assume that no local generation plants are operating during an infrequent arctic winter event. This is an unrealistic assumption, because many of those generators were acquired by the company to serve exactly this scenario. The report by the Independent Technical Analyst studied a scenario where about half the generators were turned on, and it found that the need for Energize Eastside was reduced, but not eliminated. I would like a study that shows what happens when all the generators are turned on. This is the normal way to conduct such a study, so this is not an unusual request. PSE's studies also assume a huge amount of power is being transmitted to Canada. Canada doesn't need this power, and could be compensated in other ways. Bellevue's analyst studied what would happen if no electricity was flowing to Canada during these emergencies, and concluded that 80% of the system overloads would disappear. We ask ColumbiaGrid to explain why PSE's customers are exclusively responsible for paying for Canada's electrical service. Finally, we remind PSE and ColumbiaGrid that they are required to plan the grid as if it belonged to one utility. There is already an under-utilized 230 kV transmission line through the Eastside. ColumbiaGrid identified it as the best choice to serve Canadian electricity. However, this option was inexplicably taken off the table when PSE said they wanted to build a second 230 kV transmission line, parallel to the first one, about a mile to the east. This is not something a single utility could justify, and therefore it is not allowable under current regulations. Regarding alternatives to Energize Eastside, the Coalition for Eastside Neigbhors for Sensible Energy (CENSE) proposes the following approaches, which would be safer, cost less money, provide better reliability, save thousands of trees, and spare our neigborhoods and cities from defacement by electrical transmission mega towers: 1) Add a transformer at Talbot Hill substation 2) Peaking plant at Lakeside substation 3) Follow PSE's consultant's recommendation to save 56 MW of energy through electrical efficiency and demand side management 4) Work with BPA to renew PSE's current lease for the 230 kV line that passes through Sammamish Grid energy storage should also be considered as an alternative. This can take a number of forms, such as flywheel energy storage or pumped hydroelectric storage, but perhaps the most promising approach for our area would be grid batteries. The cost of grid batteries is falling as the technology improves and demand increases. This is why more and more utilities have put them in place to accommodate peak demand with great success.
6/15/2015 16:49:58	Jeffrey	Byers	Assuming that our region actually needs the extra transmission capacity that PSE says is needed, an alternative to Energize Eastside could be battery packs installed in homes and businesses. Elon Musk recently unveiled Tesla's plans for batteries aimed at residential, commercial, and utility customers, but similar storage systems are also being sold by Nissan, Mercedes, and others. I believe that many residents on the Eastside would be willing to pay for such storage systems to fend off new power poles and transmission lines, have an emergency power supply, and potentially take advantage of variable electricity rates in the future. It might even be wise for cities and the state to waive permitting fees and sales tax to encourage people to install a technology that opens the door to using cleaner energy (e.g., storing solar electricity) and obviates the need for an expensive, disruptive, and unsightly infrastructure project. For that matter, perhaps PSE could use even a small fraction of the hundreds of millions of dollars needed for Energize Eastside to subsidize the purchase of home batteries in lieu of an Energize Eastside project that would scar our region for decades.

Timestamp	First Name	Last Name	Comment
5/29/2015 17:54:16	Celina	Calado	I am protesting the plan to build 230kV power lines through my backyard, & through anyone's backyard, for that matter. There has been no demonstrated public need for this unhealthy & ungainly project & it would diminish our health & our property investment. There are absolutely no plans to address either of those losses, thus I commence a rigorous campaign against this project. If PSE would like their capital gains from selling power along the California to BC, you must invest in undergrounding. Expecting to socialize the cost of this privately profitable infrastructure is unacceptable, thus my protest. The lines being within 20 feet of our residence would make it inhabitable, but have had no offer from PSE to buy our property at current market value. As PSE has stated on the public record that this project would not affect market value, I will expect such in a settlement. Plan on my rigorous campaign against.
5/29/2015 17:54:24	Celina	Calado	I am protesting the plan to build 230kV power lines through my backyard, & through anyone's backyard, for that matter. There has been no demonstrated public need for this unhealthy & ungainly project & it would diminish our health & our property investment. There are absolutely no plans to address either of those losses, thus I commence a rigorous campaign against this project. If PSE would like their capital gains from selling power along the California to BC, you must invest in undergrounding. Expecting to socialize the cost of this privately profitable infrastructure is unacceptable, thus my protest. The lines being within 20 feet of our residence would make it inhabitable, but have had no offer from PSE to buy our property at current market value. As PSE has stated on the public record that this project would not affect market value, I will expect such in a settlement. Plan on my rigorous campaign against.

Timestamp	First Name	Last Name	Comment
6/15/2015 14:50:01	Brian	Calado	The original Eastside power demand heat map chart provided by PSE that shows consumption by area is deeply flawed and not accurate. This can be verified by the simple observation that high power consumption is indicated inside the Bridle Trails state park - which cannot be accurate. Since this was one of the original assets used to justify the Energize Eastside project, the entire project justification must be re-evaluated to determine where and how much power is actually being consumed. Only then can accurate scoping and planning be completed.

Timestamp	First Name	Last Name	Comment
5/13/2015 22:01:55	Thomas	Cezeaux	I am disheartened to learn of PSE's failure to provide valid rationale for the Energize Eastside project. At every turn they appear to fail to follow the law and create unrealistic scenarios to justify the project in order to ramrod the project through for the sole purpose of increasing profits without commensurate benefits for the communities that the project will destroy. I live near one of the proposed lines and am also concerned about the health effects of high voltage transmission lines through residential neighborhoods. Within 100 yards of our home, there are at least 15 young children whose homes are going to be under or near the possible transmission lines. The concern of parents along the lines is palpable and should be taken into account when considering the project. To sacrifice children's health and lives for the profits of a company owned by foreign interests does not seem like a project the community wants. Some of the reasons to doubt the veracity of PSE's reasons for the project include: 1. PSE has revised their predicted rate of demand growth from 1.7% to 2.4%. That's a 41% increase in the rate of growth since their last forecast just 3 years ago! PSE doesn't explain the rationale behind the sudden and dramatic jump in PSE's prediction. 2. PSE expects Eastside demand to grow at twice Seattle's rate. After repeated requests, PSE has failed to provide any basis for such a prediction. It also contradicts the growth rate estimated by the King County. 3. Despite the huge jump in the growth rate, the "problem" date has now moved forward 3 years from 2017 to 2020. This should be enough of a reason to stop this process and thoroughly vet alternatives. 4. PSE hired a consultant named E3 to do an analysis of usage. E3 found an opportunity for PSE to save 56 MW of energy which would also save its customers $40M. PSE has ignored this opportunity because it is not profitable. 5. Diverging growth trends. USE shows a population and employment graph for the Eastside on page 20. Population is predicted to grow at less than 1% per year, while employment is predicted to grow at 1.7% per year. It's not clear how these trends combine to produce demand growth of 2.4% per year unless residents start using more electricity per person in the coming years. The report doesn't make this claim. 6. Big projects in Bellevue. On page 30, USE lists 39 major projects that will be built in downtown Bellevue and the Bel-Red corridor in coming years, implying they will require more electricity. No projects are listed for other Eastside cities. Will neighborhoods be required to sacrifice their quality of life to support these aggressive growth plans? 7. No demand map. USE failed to create a more accurate map of peak electricity usage on the Eastside. This was a major request so we could get a better idea of where opportunities for savings or improved policies might help. We are extremely disappointed that this was not included in the report. 8. Rare outages. The probability of the kind of outage Energize Eastside is designed to prevent is once in every 3 or 30 years. We will have to live with the new poles and wires every minute of every day for the next 40 years (at least). 9. No local generation. USE continued PSE's practice of turning off all generation west of the Cascades during their power flow simulations (page 51). We have it on good authority that there is no reason for simulating this condition except to increase stress on the system. PSE's own contractors pointed out that this was an artificial scenario that was without merit.

Timestamp	First Name	Last Name	Comment
			10. No oversight. USE states on page 56 that there is no governmental regulation of ColumbiaGrid, the consortium of utility companies that approved Energize Eastside. This is not correct. The Federal Energy Regulatory Commission is responsible for overseeing the activities of ColumbiaGrid. 11. Project delay. USE admits that this project could be delayed by 6 months, so the need isn't as urgent as we've been told. But they don't recommend delay. 12. Canadian service. If Canadian service was dropped to zero (and it would be significantly reduced by reconductoring Seattle City Light's line), only one transformer is overloaded. This overload could be solved through other means, such as E3's savings, or by installing an additional transformer at Talbot Hill. These options would cost much less than Energize Eastside and would have much less detrimental impacts to neighborhoods and the environment. 13. CENSE is disappointed that USE did not gather historical annual peak load for all Eastside substations. It is the peak load on these substations that is the key to transmission line system studies. 14. CENSE is disappointed that USE did not consider the alternative of using the Seattle City Line existing 230 KV lines on the east side. Columbia Grid studied that option in 2010. Columbia Grid states on its web site that "Columbia Grid provides single-utility based transmission planning for the combined network of its participating utilities." Single-utility based transmission planning refers to the concept of the transmission grid being planned as if one utility owned all the transmission lines. That is what FERC insists owners of transmission lines do and is one reason that FERC orchestrated the formation of Columbia Grid. 15. CENSE is disappointed that USE did not look at installing a third transformer at Talbot Hill. Since a major outage contingency is the outage of one of the two 230/115 KV banks at Talbot Hill, a logical fix to that problem is installing a third transformer at Talbot Hill so that if one transformer is forced out of service, there is another transformer already in place to carry part of the load and thus eliminate the overload on the remaining transformer. 16. CENSE is disappointed that USE did not look at demand side actions that can shift load from peak hours to non-peak hours. The kinds of demand side actions that do this are programs that allow the utility to interrupt home owner water heating demand for short periods of time. These programs are widely used in the industry. 17. CENSE is disappointed that USE did not provide detailed output reports from their transmission studies and did not provide the standard "one-line" diagrams that show the input/output of these kinds of transmission studies. http://en.wikipedia.org/wiki/One-line_diagram. Without those, it is not clear exactly what assumptions were included in the transmission studies and what detailed results are and there is no way to provide even a cursory check of the results they provide in their report. For these reasons, I implore you to take control of this process and force PSE to tell the truth in justifying this project. Sincerely, Tom Cezeaux

Timestamp	First Name	Last Name	Comment
6/9/2015 15:37:45	Barbra	Chevalier	This project is simply too big, too expensive, too risky and ultimately unnecessary. The loss of 8,000 mature trees to make way for 130 foot tall steel poles is ridiculous. Shoving the costs for such a project onto Washington customers so that PSE can generate profits in California is greedy and unjust. Building a huge electrical network near aging gas pipelines is asinine. Trying to get all this done to fix a problem that could be solved with increased investment in energy conservation would be completely mind-boggling were it not for the clear financial motivations on PSE's part. I'm not opposed to PSE turning a profit. I'm opposed to them doing so at the expense of generations of customers who have no choice but to use them. It's shameful business practice that has the potential to make the entire Eastside irreparably worse. Alternative 2 or 3, or both, are clearly preferable in the eyes of anyone not blinded by the potential profits PSE stands to make.

Timestamp	First Name	Last Name	Comment
5/13/2015 9:53:24	Jane	Chung	I am not an expert in this field, like most people but I question whether this project really needs to be built. I do NOT want massive power lines and towers in my neighborhood. You will cut down many trees (over 8,000) and it will scar the landscape FOREVER. I have been attending the meetings. The CAG was a complete waste of time and a JOKE, something that PSE engineered to make themselves appear as though they were bringing in the community for their input. But that was not the case. I work full-time as does my husband and we just want a SAFE place to raise our children without massive power lines looming over our heads, buzzing (they WILL be buzzing). Please reconsider these alternatives: 1) Stop the project altogether. 2) Find a way to underground lines... I've heard using Lake Washington would be a good alternative. 3) Give people incentive to install solar power to help bring energy into the grid. Instead of spending the money on power lines, spend it on solar panels. 4) Find other alternative technologies where power lines and towers are not installed above ground. 5) We need to become a Public Utility. The fact that PRIVATE Investors are trying to make money off our power is absolutely absurd. I am concerned for our safety with the oil pipeline being underneath these proposed lines and towers. We have voiced our concerns. If you choose to ignore them and a catastrophe happens, then what?

Timestamp	First Name	Last Name	Comment
5/12/2015 17:02:46	Sean	Cox	The safety of having tall towers with heavy cables that can fall on houses needs to be addressed since this transmission line will run through residential areas that sit between two faults.
5/12/2015 17:10:53	Sean	Cox	The National Electric Safety code recommends a 150ft right of way (ROW) for a 230kv transmission line. The existing ROW for the 115kv line is 100ft. A 150ft ROW is needed in order to safely construct and operate these new lines. Adding 25ft to the existing ROW puts it into many homes along the way. This must addressed and the minimum ROW enforced as PSE is claiming they can work within the exiting ROW. This brings up safety concerns.
5/12/2015 17:15:42	Sean	Cox	New transmission lines that sit on 130 foot towers running through Bellevue's beautiful landscape of parks and trees goes against the character of the city. it will turn Bellevue into an industrail community and degrade the quality of life and values of the community. PSE has not provided defendable information to justify the need of this project nor have they investigated new solutions which are available today to meet the eastside energy needs going forward.
5/12/2015 17:20:03	Sean	Cox	PSE needs to update its forecast in line with the other utilities in the PNW and then evaluate the solutions that are currently available versus going with outdated technology that the city will have to live with for the next 50 years.
5/12/2015 17:23:00	Sean	Cox	The Somerset hillside has numerous natural springs which will be impacted by the construction of this project and will result in changes to the water flow causing flooding and other water issues for the residents.

Timestamp	First Name	Last Name	Comment
6/12/2015 14:33:27	Anna	Coy	It appears that there is enough information gathered in the research to prove that this is an unneeded and damaging plan and should be abandoned!
6/12/2015 14:33:48	Anna	Coy	It appears that there is enough information gathered in the research to prove that this is an unneeded and damaging plan and should be abandoned!

Timestamp	First Name	Last Name	Comment
5/6/2015 12:49:58	Judy	Cui	My name is Judy Cui, M.D. I am very concerned about the effects of CHRONIC EMF on children and pregnant women in CLOSE PROXIMITY. One of the routes if chosen is going to run through my backyard and many other people's backyards. There is evidence suggesting that chronic EMF in close proximity can cause detrimental health problems especially in children and pregnant women including leukemia, birth defects and learning disabilities. I pose a questions for you. Would you want to become pregnant or let your children grow up in a house with high voltage power line running through the backyard? I hope you seriously consider alternatives such as upgrade BPA or divert to SCL, and go through routes that are not so residential. Financial savings cannot be the reason for not considering valid alternatives. Money cannot buy health.

Timestamp	First Name	Last Name	Comment
6/15/2015 15:19:12	Paula	Doe	Seems to me that realistic energy demand could be met with much less environmental impact by simply adding a transformer at the Talbot Hill station and adding another natural gas plant for peak needs, saving significant materials consumption, tree removal, slope stability issues, and potential risks of a major construction project of digging along an aging high pressure petroleum pipeline. Or it would also be less environmental impact if PSE could just renew its lease and continue to use the already existing 230kV line nearby. The actual conditions when the forecast energy needs would occur seem too unlikely to be worth this environmental risk and expense, with its assumptions that half the transmitters would fail at 7am or 6pm on very cold winter work day, and none of the available supplementary local generation would be turned on, but full capacity of MW would still be sent to Canada. As an aside, it also seems to me that the regulatory system that encourages utilities to invest whether it makes the most environmental sense or not needs to be changed to something more suitable to the technology options of our times. The route selection process also seems to make no sense. The stated top priority is to avoid residential neighborhoods, but that is defined as only areas within 25 feet of houses.

Timestamp	First Name	Last Name	Comment
6/7/2015 14:37:30	Sirisha	Dontireddy	Hello, we live in Somerset, Bellevue. Our house is close to the existing power lines. I am very concerned about the proposed high- powered transmission lines and the electromagnetic radiation exposure. There is enough research showing a link between living close to the power lines and increased risk of leukemia, children are especially vulnerable to this effect. These high-powered transmission lines should not go through residential neighborhoods and schools where children spend most of their time. Even if you discount the research, youshould err on the side of caution. Also, for the record, I want to state that above mentioned alternatives 1 & 3 are not acceptable. Thank you for your consideration! Sirisha.

Timestamp	First Name	Last Name	Comment
5/31/2015 22:37:20	Thomas	Dudler	Here are my comments regarding the “Energize Eastside “ Project PSE, the proposal sponsor asserts that, based on their electricity consumption growth projections, existing transmission capacity will not meet future demand. I reject their proposed solution of a new high voltage transmission lines for the following reasons: 1. PSE attempts to solve a 21st century problem with 20th century mindset. The advent to the information age has enabled us to greatly increase GDP per capita without a corresponding increase in energy consumption relative to GDP. The same applies to population growth. While the eastside population will likely grow dramatically over the coming decades, energy consumption should increase only modestly, provided the appropriate public policies are adopted. Demand is a function of price, and if demand exceeds existing infrastructure capacity, tiered pricing should be introduced to shift consumption from high demand to low demand times. We already do this with our toll road. The same can be done for electicity. 2. PSE proposed to solve a 21st century problem with 20th century technology. While the eastside population will likely grow dramatically over the coming decades, energy consumption should grow only modestly, if the appropriate public policies are adopted. However, should demand exceed supply carrying capacity in spite of best effort, there are novel and creative solutions to this problem. a. Energy storage: Tesla and others companies are building devices for energy storage solutions at a fraction of the cost of a new transmission line capacity. Energy storage further helps alleviate supply/demand imbalances. Local energy storage can be implemented at much lower cost than the new transmission lines b. Local energy production Solutions based on locally produced renewables should be considered. The cost of photovoltaics (solar panels) has decreased dramatically over the last decade. These devices can make meaningful contributions to electricity production in climates less favorable than ours (see Germany) . It stands to reasons that the very same solutions can be applied in Puget Sound – at a fraction of the cost of the proposed PSE project In short, even if PSE’s optimistic needs projections are correct , there ecologically and economically better are better solutions for eastside residents than what PSE has proposed

Timestamp	First Name	Last Name	Comment
5/12/2015 18:29:53	Cristina	Dugoni	I favor the City of Bellevue lobbying the State legislators to force PSE to put their lines underground as is already required in many states and Europe. PSE is making its billions in profits off of our backs by charging us some of the highest rates in the country and devaluing our land and quality of life with large transmission lines in our backyards. I support meter buy-backs to encourage people to implement alternative energy sources; I encourage transformer rather than substations.

Timestamp	First Name	Last Name	Comment
5/11/2015 10:38:07	Natalie	Duryea	Bellevue is an amazing and lovely city. I'm quite dubious about adding an existing high voltage line through the center of it when one already exists. Bridle trails is an especially sensitive area with it being one of the remaining neighborhoods that has older growth trees. I haven't been convinced of the urgent need of this upgrade and current plans to blight the city with giant powerpoles aren't appealing. Let's come up with a workable solution for the energy needs of our region and include Seattle City Light in the discussion.
6/15/2015 16:39:15	Natalie	Duryea	The premise of this project doesn't seem to be fully vetted. The need for such a robust solution is not clear to me at this time and seems to sacrifice the beauty and wellbeing of our community for the good of PSE business plan. PSE does not seem to be working with the citizens as their first priority here. Please don't allow this line to be built before a more reasonable solution is found.

Timestamp	First Name	Last Name	Comment
5/30/2015 14:56:47	Bernice	McAuliffe	I have lived at my address in Newport Hills for 48 years.I agree with the 8 concerns of Newcastle's Olympus area and am against PSE's listed plans for the 18 mile installation.Please tell us what would be planned if you use Alternative 1,2 or 3 instead.Denuding our area of 8000 trees and the large poles placed next to the old gas pipelines,the possibility of more leukemia and the loss of home value are very distressing to us.10.2% profit for you and profit for shareholders are important but there must be a better way for us,too.

Timestamp	First Name	Last Name	Comment
6/15/2015 13:26:22	Nancy	Eastham	I believe that there is enough evidence to suggest that PSE should not proceed with their proposed project on the eastside and that they haven't been honest about why they really want to put up these gigantic and intrusive towers. I am strongly against it for both what it would do to the aesthetics of our area and property values but also the fear of what they would emit.

Timestamp	First Name	Last Name	Comment
6/15/2015 12:11:51	Lori	Elworth	The City of Bellevue and PSE need to complete the Phase 1 programmatic process before continuing. Prepare a final EIS before continuing. The City of Bellevue with other local governments need to conclude the decision of Phase 1 alternatives and then decide whether a hardwired alternative is necessary, or even appropriate at this time. NO Phase 2 scoping or review should take place until the Phase 1 decision has been made. All questions should be discussed and answered. Is there a clear distinction between Phase 1 and Phase 2 with a complete explanation identified in the Scoping Notice? Phase 1 alternatives and environmental impacts should be investigated thoroughly. Has the scoping identified all the appropriate alternatives, including the need for this project? Is this project an essential public facility in any of the impacted jurisdictions? Have all required permits, including required permits for the alternative projects been identified at the federal, state, and local levels, as well as criteria for their issuance? Is the proposal consistent with each community impacted regarding their comprehensive plans and zoning codes? What are the time frame constraints for completing Phase 1 and Phase 2 DEISs? Again, I insist that the City of Bellevue and PSE complete the Phase 1 programmatic process by preparing a final EIS. Following that EIS the cities of Bellevue, Kirkland, Newcastle, Renton (all local jurisdictions) should come to a decision on the Phase 1 alternatives and then determine if a hardwired alternative is necessary or appropriate. Only after Phase 1 is completed (with a written decision) should Phase 2 scoping or review begin. Phase 2 may not even be necessary. "Energize Eastside" should be appropriately renamed "Energize PSE". PSE has clearly developed their project with their shareholders best interests in mind and this project is not what the people of the Eastside communities need. The amount of energy needed using PSE's formula was demonstrated during a few of the scoping meetings by an electrical engineer. The amount of energy needed in comparison to what energy the "Energize Eastside" project is designed to supply equals a stack of eight pennies in height next to the height of the Space Needle. If the PSE preferred plan is implemented then from the top of the Space Needle the view looking towards the east "Energize Eastside" project infrastructure of 130 foot tall poles all along the landscape from north to south all along the Eastside cities where thousands of trees will be gone. The elimination of an estimated 8000 trees was mentioned several times during the scoping meetings by an environmentalist. She indicated the loss of old growth trees and the impact that has on the air and water quality and how that continues with a trickle down effect on other plant and animal habitat. There were several others who spoke on the effect on wildlife and the effects on people due to the loss of trees. There was much concern over safety and the proximity of power-lines in a shared corridor with the high pressured gas pipelines. The governments need to insist on the protection of the people, the communities, and the environment. PSE doesn't have proper standards in place to guarantee safety. The route through Newcastle is not wide enough between homes in Olympus with the gas pipelines to accommodate 130 foot poles and 230 kV power-lines. This is not acceptable it equals disaster on every level. The option of possible PUD was suggested. This seems to be a good idea and one where innovation and solutions of future technologies can be implemented. We live in a rich and diverse community of brilliance. Lets explore this now and go with Alternative 4: No Action with PSE, we saw what they offered with the CAG process (Newcastle did signed the minority report) and now with scoping. I agree with CENSE.org and lets meet the needs of the people and maybe that would be a PUD.

Timestamp	First Name	Last Name	Comment
6/14/2015 19:07:31	Jim	Erckmann	These comments are submitted on behalf of the Bridle Trails Park Foundation, for which I am President. Our major concern is with any alternative that would create transmission lines adjacent to Bridle Trails State Park. Some routes that may be variants of Alternative 1 for the proposed 230 KV lines could run along 116th Ave NE and have substantial impacts on the park, resulting in the loss of many mature trees, the loss of trails, and impacts to a Class 2 wetland. Alternative 3, with about 50 miles of 115 KV lines through many neighborhoods, would also have substantial impacts on the park, of the same kind. One of the 115 KV routes would run along two sides of the park, west and north. Because so little detail for the alternatives is available at this point, it is very difficult to respond in a more specific manner. Thus, elucidating those details is key to a fair and complete evaluation of alternatives. The clearance (for safety) for any transmission lines must be considered a key environmental impact, as that will affect the degree of loss of vegetation and impacts to other important environmental elements, such as wetlands and recreational infrastructure. Bridle Trails State Park is one of the finest natural areas in the region, and many of the potentially affected trees are on the order of 100 years old. It also has an extensive network of trails and a significant wetland in the northeast corner of the park, which would be impacted by some of the transmission line alternatives. Please consider the spacing and voltage of any transmission lines that would be routed adjacent to Bridle Trails State Park, as those elements would determine the magnitude of impacts to the park by dictating the needed clearance. The Foundation strongly opposes any such routing because of the potential for significant environmental impacts.

Timestamp	First Name	Last Name	Comment
5/21/2015 14:47:24	Karen	Esayian	Consistently ignored in presentations by PSE regarding the Energize Eastside proposed project: impact on people/residents, quality of life of residents, view property and the effect of industrial sized power transmission line poles on residential lots. Nor have these factors been added to the: Preliminary List of Elements of the Environment...to be discussed in the EIS, from Development Services Department, Environmental Coordinator. But, perhaps the intent is that people can be discussed under the "Plants and Animals" section? Or is it suggested that view property and industrial power grid poles could be discussed under "Aesthetics"? The residents along the 18 mile stretch identified by the Energize Eastside proposed project are at the heart of this project. IF the suggested need is to serve the residents - the impact of any solution should be considered first and foremost. The only mention of safety refers to the electric and magnetic fields, in the Preliminary List of Elements of the Environment. But do not forget that there are also two aging pressurized fuel pipelines along this proposed Energize Eastside route. It has been noted that they are buried only 3-6 feet underground. Please think again of the foolhardiness of excavating and shoving a 130 foot high power pole into the soil around the pipelines. One more thing - there is nothing mentioned, nor allowance made, to study the impact of what an earthquake would do to the stability of these power grid poles. There is this thing called an earthquake fault line running under and alongside I-90, which happens to be in close proximity to residential neighborhoods along the PSE proposed project route. In addition to these concerns, there are elementary schools and high schools along this 18 mile stretch of the proposed Energize Eastside project. These children are the future residents and support for the communities involved. Their health and safety should be a primary concern - this year and for the future legacy we leave. There are ALTERNATIVES to PSE's suggested resolution. As early as January of 2012 the reliability of the regional electric grid was studied and discussed between BPA, PSE, Seattle City Light and Snohomish Public Utility District. In a news memo from that date it is acknowledged that BPA delivers energy through the Puget Sound area to Canada to fulfill the "Canadian Entitlement" agreed to in the 1964 Columbia River Treaty. It is understood that BPA proposed a solution for this potential problem, but allowed PSE to take over the project and will be paying them a sum of monies for resolving the Canadian Entitlement power commitment. IF this is a regional problem or IF this is in context of an agreement between Washington State or the U.S. government and Canada - then it should not be resolved on the roofs of the residents from Bridle Trails down through Renton. At the very least, BPA could use their current right of way east of Lake Sammamish and develop Lake Tradition for transmission of energy to Canada. In addition to this, one recommendation made in the review of the Columbia River Treaty (from U.S. Entity Regional Recommendation for the Future of the Columbia River Treaty after 2024, dated December 2013) is that the U.S. government "proceed with a renegotiation of the Treaty with Canada in order to modernize the Treaty by incorporation the objectives in this regional recommendation". (page 7) On page 14 of this memo, under Recommendation Details, it is stated: "The United States should pursue rebalancing the power benefits between the two countries to reflect the actual value of coordinated operations. This rebalancing is necessary because the present Treaty power benefits are not equitably shared and Canada is deriving substantially greater value from coordinated power operations than the United States." If this proposed Energize Eastside project is not specific to the resident home owners, the resident home owners should not bear the burden alone, neither physically nor financially.
5/21/2015 21:25:12	Karen	Esayian	The zoning laws and guidelines for the cities along the proposed 18 mile route for Energize Eastside need to be taken into consideration. The Generalized Zoning Map for the City of Bellevue illustrates that the PSE proposed route for industrial sized power grid poles and transmission lines will tower over areas primarily zoned as residential; a higher percentage of this route is residential versus commercial. At the May l8, 2015 Bellevue City Council meeting, the CAC for "Livability Effort" with respect to land use code and height restrictions was presented and discussed for building in downtown Bellevue and residential areas. One comment stood out: the importance of the view toward Mt. Rainier from Bellevue. I ask you to consider what that view would be if the distance between were cluttered with 130 foot high industrial sized power grid poles. It is commendable that the City of Bellevue is planning its downtown growth and concentration of growth toward the center of the City. All residents appreciate your considerations and for adding parks and green spaces to compliment the "City within a Park". But this consideration will be contradicted if the residential neighborhoods are asked to sacrifice their quality of life to subsidize development needs in downtown Bellevue and along the Bel-Red corridor as proposed by PSE with the Energize Eastside project. The visual blight of industrial height power poles contradicts the vision of "A City within a Park". In the Utilities Element of the Comprehensive Plan for Bellevue: ~ on page 95 under Goals, it is stated: "To encourage new technology that improves utility services and reliability while balancing health and safety, economic, aesthetics, and environmental factors". ~ on page 111, under Policy UT-72: it states "Work with Puget Sound Energy to implement the electrical service system serving Bellevue in such a manner that new and expanded transmission and substation facilities are compatible and consistent with the land use pattern established in the Comprehensive Plan. Discussion: Where feasible, electrical facilities should be sited within the area requiring additional service. Electrical facilities primarily serving commercial and mixed use areas should be located in commercial and mixed use areas, and not in areas that are primarily residential." ~ on page 103, Non City-Managed utilities, Authority, it is stipulated: "The City of Bellevue has the authority to regulate land use and, under GMA, the requirement to consider the location of existing and proposed utilities and potential utility corridors in land use planning." There are multiple, less impactful, means of solving an energy shortfall on the coldest day of the year. If, as part of the Columbia River Treaty, power is needed to flow to Canada - this does NOT have to happen on PSE lines. The utility consortium Columbia Grid previously endorsed a project, less expensive, to upgrade lines on Seattle City Light's 230 kv line that runs through the Eastside. There is also the BPA corridor that could accommodate additional 230 kv lines. In addition, there are non-wire options; central battery storage, diesel backup generators to name only two. We encourage our City planners and decision makers to keep the stated vision of "City within a Park" in mind and support the residential neighborhoods in their commitment to keep parks, not power poles, in their neighborhood. Karen Esayian 4601 135th Ave SE Bellevue, WA 98006

Timestamp	First Name	Last Name	Comment
5/21/2015 21:48:11	Karen	Esayian	Over 80 years ago a narrow easement running through some of the residential properties in the neighborhood of Somerset was granted to the company now know as Puget Sound Energy. The houses on these streets, along this easement, were mostly built in the mid 1970's. The home we have lived in for 40 years was built in 1976 - on 135th Avenue SE. All residents all along these streets have developed and landscaped their properties and in our block of homes have dug a rain creek to accommodate heavy rainfall on the hillside. This has made even this very narrow easement into a habitat for not only family, but for wildlife of all kinds. We have always felt that the City of Bellevue valued residential neighborhoods like ours; the appreciation in property values in Somerset definitely reflect the pride of owning a home here. The project as proposed by PSE does not belong on an easement granted some 80 years ago. Transmission line poles 130 feet in height and between 3 to 6 feet in diameter at the base are not compatible with a 100 foot easement running through homeowners back and front yards. The Energize Eastside project as proposed by PSE does NOT belong in an easement shared with a pressurized 50 year old jet fuel pipeline. A power grid of the size proposed by PSE belongs on a right of way - away from any residential area; consider the BPA corridor east of Lake Sammamish which already accommodates a 230 kv transmission line. In the year of 2015 the City of Bellevue should be planning a 21st century infrastructure, not reusing the plans of the past century. If pride is taken that Bellevue attracts high-tech companies that produce cutting edge product - it follows that any proposed power grid should include cutting edge technology such as large scale battery storage systems, a gas fired peaking plant or diesel backup generators for the coldest days. I cannot spell out a plan - but you can contact experts who can. The Energize Eastside proposed project is totally out of scale with Bellevue's Comprehensive Plan which seeks to preserve neighborhood character. Policy UT-72 on page 111 of the current Comprehensive Plan states: "Discussion: where feasible, electrical facilities should be sited within the area requiring additional service. Electrical facilities primarily serving commercial and mixed use areas should be located in commercial and mixed use areas, and not in areas that are primarily residential." Karen Esayian 4601 135th Ave SE Bellevue, WA 98006
6/11/2015 19:33:18	Karen	Esayian	Alternative 2 in this list is the only acceptable offer. There are alternative solutions to any potential power supply problem. Please consider non wire, generators....21st century solutions for Bellevue, a City in a Park.

Timestamp	First Name	Last Name	Comment
5/30/2015 9:21:20	Samuel	Esayian	My name is Sam Esayian and I live at 4601 135th Avenue, SE, in Bellevue 98006. I have been a resident of Bellevue for 40 years. My comments are for the public record on the phase 1 scoping of the EIS for the PSE Energize Eastside project. In that connection I submit the following: •Consistently ignored in presentations by PSE regarding the Energize Eastside proposed project: impact on people/residents, quality of life of residents, view property and the effect of industrial sized power transmission line poles on residential lots. •Over 80 years ago a narrow easement running through some of the residential properties in the neighborhood of Somerset was granted to the company now know as Puget Sound Energy. The houses on these streets, along this easement, were mostly built in the mid 1970's. The home I have lived in for 40 years was built in 1976 - on 135th Avenue SE. All residents all along these streets have developed and landscaped their properties and in our block of homes have dug a rain creek to accommodate heavy rainfall on the hillside. This has made even this very narrow easement into a habitat for not only family, but for wildlife of all kinds. We have always felt that the City of Bellevue valued residential neighborhoods like ours; the appreciation in property values in Somerset definitely reflect the pride of owning a home here. •The project as proposed by PSE does not belong on an easement granted some 80 years ago. Transmission line poles 130 feet in height and between 3 to 6 feet in diameter at the base are not compatible with a 100 foot easement running through homeowners back and front yards. The Energize Eastside project as proposed by PSE does NOT belong in an easement shared with a pressurized 50 year old jet fuel pipeline. A power grid of the size proposed by PSE belongs on a right of way - away from any residential area; consider the BPA corridor east of Lake Sammamish which already accommodates a 230 kv transmission line. •The zoning laws and guidelines for the cities along the proposed 18 mile route for Energize Eastside need to be taken into consideration. The Generalized Zoning Map for the City of Bellevue illustrates that the PSE proposed route for industrial sized power grid poles and transmission lines will tower over areas primarily zoned as residential; a higher percentage of this route is residential versus commercial. At the May l8, 2015 Bellevue City Council meeting, the CAC for "Livability Effort" with respect to land use code and height restrictions was presented and discussed for building in downtown Bellevue and residential areas. One comment stood out: the importance of the view toward Mt. Rainier from Bellevue. I ask you to consider what that view would be if the distance between were cluttered with 130 foot high industrial sized power grid poles. •It is commendable that the City of Bellevue is planning its downtown growth and concentration of growth toward the center of the City. All residents appreciate your considerations and for adding parks and green spaces to compliment the "City within a Park". •But this consideration will be contradicted if the residential neighborhoods are asked to sacrifice their quality of life to subsidize development needs in downtown Bellevue and along the Bel-Red corridor as proposed by PSE with the Energize Eastside project. The visual blight of industrial height power poles contradicts the vision of "A City within a Park" •In the Utilities Element of the Comprehensive Plan for Bellevue on page 95 under Goals, it is stated: "To encourage new technology that improves utility services and reliability while balancing health and safety, economic, aesthetics, and environmental factors".

Timestamp	First Name	Last Name	Comment
			• On page 111, under Policy UT-72: it states "Work with Puget Sound Energy to implement the electrical service system serving Bellevue in such a manner that new and expanded transmission and substation facilities are compatible and consistent with the land use pattern established in the Comprehensive Plan. Discussion: Where feasible, electrical facilities should be sited within the area requiring additional service. Electrical facilities primarily serving commercial and mixed use areas should be located in commercial and mixed use areas, and not in areas that are primarily residential." • On page 103, Non City-Managed utilities, Authority, it is stipulated: "The City of Bellevue has the authority to regulate land use and, under GMA, the requirement to consider the location of existing and proposed utilities and potential utility corridors in land use planning." • The only mention of safety refers to the electric and magnetic fields, in the Preliminary List of Elements of the Environment. It should be noted that there are also two aging pressurized fuel pipelines along this proposed Energize Eastside route. It has been noted that they are buried only 3-6 feet underground. Please think again of the foolhardiness of excavating and shoving a 130 foot high power pole into the soil around the pipelines. • There is no mention, nor allowance made, to study the impact of what an earthquake would do to the stability of these power grid poles. There is an earthquake fault line running under and alongside I-90, which is in close proximity to residential neighborhoods along the PSE proposed project route. In addition to these concerns, there are schools along this 18 mile stretch of the proposed Energize Eastside project. These children are the future residents and support for the communities involved. Their health and safety should be a primary concern - this year and for the future legacy we leave. • There are alternatives to PSE suggested resolution. • Important information was presented in the analysis performed by the City of Bellevue's consultant , USE that growth would be in the downtown and Bel-Red corridor. PSE has not provided any plans as to how the power will be supplied to the downtown and Bel-Red corridor. The required load can be served directly from the Sammamish and Talbot Hill substations via underground as an alternative to building 230 kv lines on 130 foot poles through areas not driving the growth. • As early as January of 2012 the reliability of the regional electric grid was studied and discussed between BPA, PSE, Seattle City Light and Snohomish Public Utility District. In a news memo from that date it is acknowledged that BPA delivers energy through the Puget Sound area to Canada to fulfill the "Canadian Entitlement" agreed to in the 1964 Columbia River Treaty. It is understood that BPA proposed a solution for this potential problem, but allowed PSE to take over the project and will be paying them a sum of monies for resolving the Canadian Entitlement power commitment. IF this is a regional problem or if this is in context of an agreement between Washington State or the U.S. government and Canada - then it should not be resolved on the roofs of the residents from Bridle Trails down through Renton. At the very least, BPA could use their current right of way east of Lake Sammamish and develop Lake Tradition for transmission of energy to Canada.
			• In addition, one recommendation made in the review of the Columbia River Treaty (from U.S. Entity Regional Recommendation for the Future of the Columbia River Treaty after 2024, dated December 2013) is that the U.S. government "proceed with a renegotiation of the Treaty with Canada in order to modernize the Treaty by incorporation the objectives in this regional recommendation." (page 7) On page 14 of this memo, under Recommendation Details, it is stated: "The United States should pursue rebalancing the power benefits between the two countries to reflect the actual value of coordinated operations. This rebalancing is necessary because the present treaty power benefits are not equitably shared and Canada is deriving substantially greater value from coordinated power operations than the United States." • If the proposed Energize Eastside project is not specific to the resident home owners, the resident home owners should not bear the burden, neither physically nor financially. Sam Esayian 4601 135th Avenue, SE Bellevue, WA 98006

Timestamp	First Name	Last Name	Comment
5/19/2015 22:01:03	Wenhong	Fan	I think this energize eastside EIS process is too fast and very less public announcement was made which points to PSE do not want listen public opinion and just want to go ahead with whatever they want to do without considering residents' opinion. Second, there are almost no option for people to choose. Only OAK and WILLOW. There are not much difference between the two. We do not want any of these. PSE need to think about other options.

Timestamp	First Name	Last Name	Comment
6/9/2015 15:22:23	john	farrell	Hi, I live next to the old washington dinner train track by 1-90. I would not like to have any power lines going where the track is now. Thanks, John

Timestamp	First Name	Last Name	Comment
5/14/2015 19:13:38	Jeffrey	Fiedler	I believe that consideration should be given to the following options: 1) upgrade existing lines and towers to provide more energy -- the rationale is that people and businesses are already near power lines, so the change in land value should be minimal 2) bury any new power lines -- it would be good to know the cost different between above ground and below ground regarding the initial installation and maintenance; this can reduce the amount of trees, vegetation, and animal ecosystems being diminished 3) It should be made clear just how "long" each option will be able to meet the projected demand. The projected demand chart goes out to 2022, so is that the target demand that is intended to be satisfied by these options? It seems that some analysis for a longer range target should be made to try to avoid having to do this again in 7 years. For example, if new towers need to be built can they be designed as extensible to add additional lines more cheaply later?

Timestamp	First Name	Last Name	Comment
6/4/2015 14:38:58	Andrea	Figueroa	The following best fit my comments: EIS Process, EMF, Views & Aesthetics, Noise, Plants/Animals and Overall Health of our Community. Alternatives 1 and 3 are completely unacceptable. I would like to see an underground solution explored and an honest evaluation of this projects necessity, specifically for the Eastside Community. The solutions proposed thus far are ridiculous, antiquated and wholly unacceptable for our community.

Timestamp	First Name	Last Name	Comment
5/26/2015 7:33:28	David	Franceschina	I have lived in the Olympus neighborhood of Newcastle Washington for 27 years. I vigorously oppose the Puget Sound Energy "Energize Eastside" Project. The potential danger this project posses to the adjacent neighborhoods and surrounding environment is irresponsible. The impact of the project will negatively affect the quality of life for those living in neighborhoods and communities near the project corridor during the construction phases and forever after. The loss in property values resulting from the obtrusive power poles and lines is staggering and our territorial views will forever be destroyed. I implore PSE to address Eastside power needs with less offensive and safer options. Sincerely, David Franceschina

Timestamp	First Name	Last Name	Comment
6/3/2015 15:28:31	Amy	Frieden	Options 1 and 3 are unacceptable. PSE is better than these proposals; PSE should be focusing on the future of energy not ugly, environmentally harmful power lines run through family neighborhoods or any neighborhoods. No convincing evidence has been shown these measures to be be necessary. And no long term studies have proven that power lines do not cause any negative health effects. No, no, no. Not for our children, not for our neighborhoods, not for our future!

Timestamp	First Name	Last Name	Comment
5/30/2015 10:20:53	Kathleen	Friedman	I do not have any idea of the costs of each of the four alternatives but I favor a heavy emphasis on demand side reduction. I don' t know how PSE can help the community implement these but I don't see enough effort being made to encourage there use. Instead of transformers could we implement solar or wind technology at the proposed sites?

Timestamp	First Name	Last Name	Comment
6/13/2015 19:55:53	Daniel	Gautam-pratap	I hate noise!

Timestamp	First Name	Last Name	Comment
6/9/2015 15:32:26	Steven	Geagan	A number of people have questioned the safety of building hundreds of tall power poles withing a narrow easement next to the 50-year-old Olympic Pipeline. I would like to add my comments about that. The Olympic pipeline explosion in Bellingham that killed three people in 1999 is well known. Then there was another explosion of the same pipeline in Renton in 2004. In Texas in 2010, workers drilling a hole for a high-voltage power line, like the ones PSE wants to install, accidently struck a natural gas pipeline, causing a massive explosion and fire. One worker was killed in that accidents, but fortunately, unlike Energize Eastside, there no homes nearby, or the damage could have been much worse. PSE says not to worry, that they've done projects like this before along the Olympic Pipeline, and know how do it safely. Maybe so, but can they really say the risk is zero? Accidents can happen. Given the close proximity of these power poles and pipeline to homes, and the tremendous destruction to people, property and the local environment that would result from an accident like the ones mentioned above, I think at the very least an analysis of the safety risks of Energize Eastside compared with other alternatives needs to be included as part of the EIS process.

Timestamp	First Name	Last Name	Comment
6/3/2015 9:43:09	Andrea	Gilchrist	My husband and I are opposed to the Energize Eastside expansion project to change the power poles out in our neighborhood. We have extreme safety concerns for our small boys as this project utilizes the same area as the existing gas pipeline. We have read other reports of explosions and deadly gas leaks occurring during similar endeavors. This would also devalue our house as it would significantly affect our view of Lake Washington.

Timestamp	First Name	Last Name	Comment
6/8/2015 14:01:56	Andrew	Goss	As a resident of Newcastle, I appeal to you to consider alternatives other than the proposed new lines. PSE's Energize Eastside proposed plans will impact everyone who live in Kirkland, Bellevue, Newcastle, and Renton. If approved, our safety, property esthetics and values, and the environment will be negatively impacted... forever. There has to be an alternative that works better environmentally, financially and aesthetically.

Timestamp	First Name	Last Name	Comment
6/6/2015 11:33:14	Robert	Gruber	The greenbelt area running parallel to 134th Avenue NE and east of that road is a nature walk in the middle of a fully developed suburban/urban area. The installation of high voltage power lines will effectively turn this area from a well used natural area to a series of towers that overshadow the entire length of the right away. Is there a less obtrusive alternative?

Timestamp	First Name	Last Name	Comment
5/12/2015 18:50:03	Kris	Guerquin	I have a lot of concerns about this high power line. It WILL affect lives of people living along. Not having "scientific" proof of compromised safety of electromagnetic field doesn't convince me. There is a long list of "mistake" done by very "scientific" bodies supporting governmental decisions: think DDT, Agent Orange, asbestos as insulators, lead in paints, recently GMO, very safe Round-up, plasticizers in many synthetics - the list is going on, and on, and on. When we will stop this craziness? Why wise conclusions are coming so late, after so many people's suffering? Why we have to be sorry after disaster? Decision-makers will not be around. Why we are not thinking ahead of time? Why there are cities around the globe (I am familiar with European cities) where there are no high power lines going through the densely populated areas (or even through suburbs)? Why we are not able to ask them? It is so easy (think Internet!). I am definitely opposing this type of venture. I don' care if it is a nice and convenient solution to the big corporations.

Timestamp	First Name	Last Name	Comment
5/5/2015 21:14:34	Julie	Gurrad	I am writing to voice my concern over the use of 70th Ave NE as a route for power lines. First in each picture you have posted you have totally misrepresented the impact of the surrounding environment. Your photos do not depict the amount of vegetation loss at each site a pole is placed. The main entry point to our neighborhood will lose much more vegetation and have an impact on our neighborhood. The city of Kirkland took great in the 90's to place all utilities underground and now we will have to deal with these huge unsightly poles. I still do not understand why these enormous poles and lines be placed along side or on top of the existing poles the area already has. Please reconsider.

Timestamp	First Name	Last Name	Comment
5/31/2015 12:21:59	Dale	Hall	Safety is a huge concern to this massive boondoggle project. It is idiotic to consider building this massive electrical transmission project over an existing jet fuel pipeline that has shown to have Catastrophic explosions. This project will be built within feet of homes/families/lives.
5/31/2015 12:22:16	Dale	Hall	Safety is a huge concern to this massive boondoggle project. It is idiotic to consider building this massive electrical transmission project over an existing jet fuel pipeline that has shown to have Catastrophic explosions. This project will be built within feet of homes/families/lives.
6/3/2015 21:32:42	Dale	Hall	SAFETY Don't assume that the firm ground below this boondoggle of stupid construction site is stable enough for a construction project. Please, Please consider what just happened in California http://news.google.com/news/url?sr=1&ct2=us%2F2_0_s_3_1_a&sa=t&usg=AFQjCNGgTtKGQWOLHTmylk8BuVGPPhRcNw&cid=52778861189760&url=http%3A%2F%2Fwww.foxnews.com%2Fus%2F2015%2F06%2F04%2Fcalifornia-pipeline-that-spilled-gallons-oil-into-pacific-was-badly-corroded%2F&ei=ktNvVYjHH5C1mQLR4QE&rt=HOMEPAGE&vm=STANDARD&bvm=section&did=-3581620380515926 96&sid=en_us-n&ssid=n&at=dt0 Dale
6/15/2015 12:39:52	Dale	Hall	Views and aesthetics must be full vented for this boondoggle of a project. Hundreds of homes will have sever aesthetic and view alter consequences. Property values will decline. personal investments will be lost. Belleview (Beautiful View) will be marred
6/15/2015 12:43:52	Dale	Hall	Financial du diligence ought to be considered for this boondoggle. The amount of benefit the community will receive to does not measure out to cost the community and homeowners will incur

Timestamp	First Name	Last Name	Comment
6/15/2015 10:00:23	Michelle	Hall	Please, independent of PSE, determine the health risks for current & future generations from these increased power poles over the citizen's heads. Evaluate the safety risks that increase significantly when additional power is thrust over the old pipes of jet fuel. What devastation might a small problem cause physically to citizens, to property and environmentally. Why is this being done in residential neighborhoods? What are the alternative routes and alternative methods of transmission? PSE only tells the Bellevue City Council what PSE wants the Council to hear. These questions need to be analyzed by a source totally independent of PSE. Remember PSE's raison d'etre is to make a profit, NOT to maintain Bellevue's quality of life. Thank You, Michelle Hall

Timestamp	First Name	Last Name	Comment
5/26/2015 15:27:42	Norman	Hansen	Impacts land use, aesthetics,plants, social/economic and EMF' Energizeeastside EIS Scoping Comments May 26,2015 Issues to consider for Alternatives 1 and others as appropriate: 1/ Land Use Incompatible with residential use. Poles area substantially out of scale with neighborhoods character and height restrictions. Substantially impacts neighborhood character. By vacating the existing 115 line, approximately 9,500,000 square feet of property that could be potentially used to provide for housing growth. 2/ Plants The tree canopy is drastically impacted by removing up to 8000 significant trees. Removal of tree canopy on this scales is not compatible with the Bellevue Comprehensive Plan. 3/ Social/economic Property owners should not be asked to donate their property to meet new resident needs. Any overhead route should utilize existing public right of such as our many roadway routes. 4/ Aesthetics/view The residential view will be severely compromised. No neighborhood is left unscathed. Looking at a 100 too135 foot pole tower with 7 wires (including the communication line) is repulsive to most neighborhood residents. They did not locate their house for this industial intrusion. 5/ Underground Alternative Undergrounding provides not only for the best reliability but provides for needed security. Other jurisdictions are undergrounding as the best practice. Look at utilities in New Jersey(18 miles of 230 KVA underground),Washington DC (All 115KVA lines currently being undergrounded in an economic manner) and Anaheim, Ca (20 year program to underground electrical lines especially as part of their roadway construction).Undergrounding only takes a 6 foot wide trench and minimizes construction impacts. By locating two transmission lines in the trench EMF can be further reduced. Norman Hansen 3851 136th Ave. NE Bellevue,Wa 98005

Timestamp	First Name	Last Name	Comment
6/1/2015 13:36:25	Karin	Hargrove	Putting 230kV 130ft tall poles over existing gas pipelines is too risky. There are plenty of other options to meet increased demand without destroying habitats, risking disaster or ruining peoples property values and way of life. Consider safe alternatives and more focus on reducing energy consumption.

Timestamp	First Name	Last Name	Comment
6/10/2015 14:27:37	Linda	Haslam	We are next to the Olympic pipeline. We do not want any kind of disturbance near it. We also are concerned about the thousands of trees that could potentially be cut down.

Timestamp	First Name	Last Name	Comment
6/15/2015 12:59:41	Bert	He	I appreciate your effort to collect public opinion on this project. However, I firmly believe that the proposed transmission line through Somerset will have negative impact on both people and environment in the area. Transmission lines are one of the major sources of magnetic field. In recent years, electromagnetic field (EMF) interference with surface and buried pipelines has garnered much attention within the industry and among the public. The consensus now is that the EMF interference on pipelines and other large metal parts located in utility corridors creates real and serious problems for the safety of residents nearby and pipeline operators as well as for the underground pipeline integrity itself. Specifically, a high-voltage AC transmission lines subjects all large metal objects such as pipelines to induced AC voltages. This can be caused by an imbalance in the transmission system, and by high voltages near transmission tower grounding systems resulting from lightning strikes and phase faults. When a long-term induced AC voltage exists, it can be dangerous and potentially life-threatening for people touching the metal objects. In addition, corrosion of underground pipes can also result from AC discharge. If the pipe happens to be for gas transportation purpose, there could be gas leakage, leading to fire hazard and explosion. As you know, Somerset is a densely populated area. A lot of the houses were built 50 years ago, when it was common to use steel and copper pipes for water, gas, and sewer in the house construction. In addition, aluminum windows and steel beams were also widely adopted. Furthermore, there is a long underground gas pipeline immediately below the proposed electrical transmission line through Somerset. It was built many years ago and most likely to be made of steel. Thus, building a more powerful electricity transmission line produces a clear and present danger for residents in the Somerset area, gas pipeline operator, and the local environment. It is true that we have an existing transmission line going through Somerset now and there might have not been a reported incident attributing to EMF yet. But once PSE put in place a much more powerful AC transmission line, the situation will be completely changed. The chance of a disaster outlined above will be significantly magnified. In addition, we have not even seen any serious study on EMF induced corrosion of underground gas conduit and other pipes due to the existing transmission line. Thus, I respectively request that the local government and PSE to act responsibly with the “Energize Eastside” project.

Timestamp	First Name	Last Name	Comment
6/14/2015 13:25:46	William and Sallie	Herling	We are concerned by the proposed project by Puget Sound Energy (PSE) to route 230 kV transmission lines over 130 ft supporting poles through the high density population area of the Eastside. My concerns can be grouped into three major categories: project justification, project safety and project impact on environmental quality. All of these concerns should demand and require independent assessment of each of these major issues and the subelements described below. The requirements for selection of independent consultants should also be established and published as well advertised public record allowing for public consideration and feedback. Minimum requirements should include technical expertise to assess all aspects of the proposed project including but not limited to justification, alternative solutions, safety and environmental impact up to Federal levels of requirements. This should require unfettered access to all relevant PSE data and decision processes. The reviewing entity should be required to critically assess the credibility of this information, apply its own decision processes, delineate uncertainty in PSE assessments, recommend additional technical alternatives for consideration, assess all alternativees and supply its own conclusions. Given the scope of impact across multiple local government jurisdictions, on shoreline management and the marine life therein and on international treaty, this review process must include state and federal participation in the EIS process. Subelements of my major concerns are listed below. Concerns with project justification There is no doubt that generation of need justification by and for a for-profit power company is a conflict of interest. As such, these need justifications require careful, transparent scrutiny by all levels of government, local, state and federal. Growth projections for power requirements seem inflated by comparison to other major regional cities. Justification of advertised growth curves needs to be established by publishing detailed rationale of the estimating process. The numbers are a couple of years old now which affords the opportunity to cross check projected growth with actual growth over that time frame. This should be done. Justifying project need on the basis of international treaty with requirements for redundancy should automatically involve federal review and approval of project justification and impact. Concerns with public safety The impact of an earth quake on the structural integrity and potential failure of 130 ft 230 KV support poles and transmission wires should be added for EIS consideration. Routing through high population density areas which exposes potential for significant property damage and potential loss of life must be considered. In addition, the EIS is not currently considering the potential impact of routing these transmission lines coincident with a 50 year old, pressurized pipeline carrying flammable jet fuel. The impact of installation and potential failure of these transmission lines on this pipeline must be included for EIS consideration. Impact on public safety must be included in the EIS. Concerns with impact on environmental quality Elements including major loss of mature tree growth, destruction of wildlife habitat, and visual blight with corresponding degradation of neighborhood character should all be included as EIS elements of the environment. The loss of over 8,000 mature trees to make way for the installation of 130 ft support structures will further degrade Bellevue's tree canopy which has already fallen below recommended thresholds. With this loss of tree life would also come the destruction of nesting areas and habitat for many protected animals such as eagles that have only recently begun to show a resurgence, great horned owls, and migratory and resident wildlife. The erection of 130 ft tall poles would be visible from nearly anywhere on the Eastside. The resulting destruction of neighborhood character is totally out of scale with Bellevue's Comprehensive Plan and in direct contradiction with Bellevue's mantra of "A City Within a Park". The resulting impact on quality of life, not only wildlife but human life, in our neighborhoods and associated losses in property value must be included in the EIS. Their is no hesitation to include these elements in tax assessments so they certainly should be included for study of the impacts of this proposed PSE project.

Timestamp	First Name	Last Name	Comment
5/12/2015 12:45:11	lyndon	Heywood	I support this project and the way it is proceeding

Timestamp	First Name	Last Name	Comment
5/12/2015 18:38:58	Bruce	Hildyard	Bellevue city need to conduct a full cost analysis of the project including the 30-50% reduction in value of houses 3-4 deep on each side of the proposed lines. This reduction in house value results in a reduction in property taxes which over the life of the project is significant. The loss in revenue to Bellevue city will impact other community facilities in our neighborhoods. This loss in revenue is part fo the economic impact of this proposal.
5/12/2015 18:42:11	Bruce	Hildyard	Has Bellevue city investigated the latest battery options announced week of 5/1 by Tesla which they state store enough power to run a small town. the alternative solutions are being ignored by PSE.
5/12/2015 18:44:30	Bruce	Hildyard	Has a valid assessment been made with the Olympic pipeline company to assess and publish the risks of colocation of the high voltage lines with the petroleum pipeline?
5/12/2015 18:47:15	bruce	hildyard	Has a full review of the property easements been completed to understand if this proposed line meets property easement allowances?
5/12/2015 18:50:00	bruce	hildyard	PSE's route selection was biased and flawed. Have Bellevue completed an independent assessment of routes and looked at colocation with existing high voltage lines, specifically along the I405 where visual pollution would be less than through neighborhoods and parks.

Timestamp	First Name	Last Name	Comment
5/12/2015 20:23:21	Kate	Hildyard	I do Not Want high voltage lines going through the Bridal Trails I oppose energize East Side 100% PSE go someplace else, WE ARE NOT INTERESTED, WE WANT TO PROTECT OUR FAMILIES, OUR NEIGHBOURHOOD, OUR WILDLIFE AND MOTHER EARTH.....HOW CAN YOU RUIN THIS PLACE OF NATURAL BEAUTY.....GREED AND POWER IS NOT ON OUR AGENDA.....

Timestamp	First Name	Last Name	Comment
6/15/2015 12:40:05	Claudia	Hirschey	I am requesting that the analysis include an evaluation of thresholds for under-grounding the lines. The East side is rapidly urbanizing and this project will be constructed for well in to the future. Many urban areas do not have overhead wires, such as downtown Seattle, Capitol Hill, and many other urban neighborhoods. Obviously, at some point under-grounding the power lines was an option. The threshold analysis should include example areas around the Puget Sound area as well as other cities in the U.S. The threshold analysis should consider the eastside urbanization at 20 to 30 years from now.

Timestamp	First Name	Last Name	Comment
6/2/2015 9:51:28	Alice	Holcomb	PSE proposed plans does not serve the needs of the east side community now or in the near future. They should not destroy our tree canopy for hideous transmission lines. What will the impact be when it rains? What will the impact be to our water tables and water quality? How will the digging affect petroleum pipelines? How will the poles impact property values? When did one of the most livable communities in the United States become a conduit for Canadian energy? There must be 21st century ways to address our energy needs and I am certain it doesn't come in the form of giant poles, technology that was developed how long ago?

Timestamp	First Name	Last Name	Comment
5/12/2015 9:42:28	Ladan	Homayoon	Why do we let a foreign-owned entity destroy our neighborhood to make an extra buck? We all know this is not to prevent poweroutages. This is to make more $$$ for PSE and Macquarie Consortium.

Timestamp	First Name	Last Name	Comment
6/9/2015 9:25:11	Claire	Huehnerhoff	I would like to request that the lines be sited in such a way that a minimum of tree canopy needs removing. we need to retain as much of our precious trees as possible because they provide necessary filtering of pollutants in the environment.thank you

Timestamp	First Name	Last Name	Comment
5/23/2015 15:22:17	K.L.	hussey	High energy lines should not run through residential neighborhoods. Long term exposure is not desirable The solution...put the lines underground. Yes, the cost is more, but the lines would not expose the public to danger and the lines would not be objectionable from the viewpoint of neighborhoods. It is wrong to construct such objectionable eyesores after residences are already in place. To subject the residents to such a project at this time is not fair. People did not purchase their homes in the affected areas knowing that such a line would be encroaching on their home site.

Timestamp	First Name	Last Name	Comment
6/1/2015 17:37:46	Sue	Irving	This unnecessary project with its 130' poles stretching 18 miles through a clear-cut landscape will be a visual blight on our communities. There is also the danger of gas explosions when these poles are placed near the fuel pipeline. PSE customers will be asked to pay millions of dollars for energy that is not needed and will be directed elsewhere. PSE must find an alternative plan and alternative energy sources in keeping with the actual power needs of its customers. They must not be allowed to push through this destructive and dangerous plan.

Timestamp	First Name	Last Name	Comment
6/15/2015 10:54:42	Jessaca	Jacobson	I am concerned with all of the above including a demonstrable need for this change and demonstrable proof that this is the only viable solution. I simply cannot believe that this can be the case. Some of the key concerns that I have include: - Safety - particularly given the proximity to the Olympic pipeline. Much concern has been expressed about the potential for damage to the pipeline and potential hazard of explosion (as occurred in Bellingham) - Noise of the power lines - Safety of the emissions of the power lines - this is particularly concerning as my child has epilepsy and I see no inconclusive proof that these lines won't have detrimental impact to current and future health of the population residing near these lines. - Industrial blight caused by the sheer Height (10 stories) and scale of the towers and the destruction of tree canopy from Redmond to Renton. This is an outrage. Our entire communities will be destroyed. This is a bad solution to a purported problem. Alternatives must be considered. - Decrease in property values (which could be impactful if taxes need to be increased to compensate for lost tax revenue)

Timestamp	First Name	Last Name	Comment
6/15/2015 12:29:58	Robin	Jacobson	My property sits at the juncture of Newport Way and SE Allen Road.....there are 10 rental units that occupy that space and provide an income for me. I have owned this property for 35 years and never have I been confronted with a challenge so daunting as to the placement of these horrible and harmful power lines!! What PSE is proposing, by installing these High Voltage Power Lines, would impact me drastically!! The sheer height of these poles and power lines would not only be aesthetically un-appealing, but the safety factor from the emissions given off and the noise they present is an alarming concern to me and could reduce my ability to rent my units and remain competitive! In addition, the value of this property would drop drastically...possibly 30%. My income and livelihood would be reduced considerably. This is shocking and un-acceptable!!!. Not only am I affected, but countless others that have lived on the Eastside...who love it here in because of it's natural beauty that Mother Nature provides. Many more issues are important and need to be addressed...such as the creation of an "Industrial Blight", the destruction of property and 8000 trees to be sacrificed, a decrease in property values and more! So much must be Lost?? We must find a better way and preserve what has become so valuable to all Eastside citizens.

Timestamp	First Name	Last Name	Comment
6/14/2015 20:32:41	erik & jennifer	jensen	We live in the Somerset neighborhood and we're concerned with the location and proposed height of the new power lines. For decades residents in Somerset have limited the building heights and landscaping heights to preserve the views we all cherish. The views are one of the main reasons people choose this neighborhood - it's why we choose it. Given the unique landscape of Somerset and location of these power lines they will tower over everything and as a result they will be visible from most homes. While we are a couple streets away from where the new lines would go, due to their height they will become a prominent feature of our now unobstructed view - which could negatively impact our home value. If it drops ~10%, which some realtors have mentioned, we could lose ~$100K. We're one of many neighbors whom face this situation, so this could easily add up to $ millions in lost property value for the residents of Somerset. The new lines would forever negatively impact the character of the Somerset neighborhood, and burden it with a significant financial cost. It's been clear from the beginning PSE prefers the Somerset route as it's the easiest and cheapest for them. However, PSE doesn't factor in the long term impact their decisions have on the surrounding neighborhoods (i.e. property values). Putting up power lines at these heights right through the heart of the Somerset neighborhood will be devastating for it and we would hate to see such a unique and special neighborhood ruined for current and future residents.

Timestamp	First Name	Last Name	Comment
6/14/2015 12:27:42	Larry	Johnson	Regarding the EIS scope for the project PSE calls "Energize Eastside," I wish to propose the following: The project needs to be stripped of its "Eastside" designation and properly evaluated from the perspective of what the alleged real claimed need is, confined to downtown Bellevue. The only reason Energize Eastside seeks to tear up 18 miles of mostly residential neighborhoods and ruin our environment is due to its refusal to consider seriously any solution that doesn't require new transmission lines. These lines would be unnecessary if generation of needed power were simply placed where the load is, in or near downtown Bellevue. This is Power Planning 101, but such a simple solution doesn't make PSE the big bucks. PSE is working against even its own self-interest. The WUTC requires it to come up with a staggering 1500 MW of additional needed electricity generation resources by 2018, according to PSE's own documents. PSE has actually let its generation resources diminish. So PSE's building a peaker plant in Bellevue could kill two birds with one stone. As Rich Crispo, councilman from Newcastle, pointed out at the Newcastle EIS Scoping meeting, PSE's proposed project should rightly be called "Energize Downtown Bellevue." From Newcastle's point of view, there are many better alternative ways to meet rare extreme peak load demands, arguably though doubtfully caused by Bellevue growth, that leave Newcastle and the other affected cities completely out of this, free from the Godzilla Energize Eastside "solution." An EIS scope that legitimately reduces the geographic scope of pain to downtown Bellevue should not only be considered but required. Who was it, anyway, who decided this was an "Eastside" problem? PSE! The only issue is one of reliability, and that is almost exclusively a downtown Bellevue problem. Build a gas-fueled peaker plant next to the Factoria Solid Waste Management Transfer Station right across from the Lakeside substation, as former Puget Power Vice President for Power Planning, Rich Lauckhart, recommends, and any legitimate Eastside reliability problem in 2018, to the extent one might even exist, is solved. Such a plant may run 5 hours out of every 5 years from fuel stored on site, creating minimal-duration noise and pollution. And it costs a fraction of PSE's pet project and can be built within three months. The only reason PSE keeps up its relentless hard sell for Energize Eastside is so that it can cash in on a 10.3% guaranteed return on infrastructure investment, even if in this case it is the equivalent of a huge, destructive bridge to nowhere. PSE's Australian and Canadian investor-owners don't live here and obviously don't care about the far-away consequences of their acts. While the EIS should expose the harm such greed has already done and could do, a real solution will only come when we create our own King County PUD and rid ourselves forever of PSE. June 14, 2015 Larry G. Johnson, personally, and for Citizens for Sane Eastside Energy Attorney at Law 8505 129th Ave SE Newcastle, WA 98056

Timestamp	First Name	Last Name	Comment
6/15/2015 9:50:56	Deirdre	Johnson	Regarding Alternative #1: I don't believe the Energize Eastside project is being built to sell power to Canada. I believe that the Eastside will have tremendous growth and a tremendous need for additional energy. More specifically, I think the 520 corridor, with the addition of light rail, will see explosive growth and development. While I was very disappointed that alternative energy sources were not a viable option, I think that the PSE overhead solution is necessary. We need additional power which is reliable and proven, and agree that we can't risk waiting for future technologies to solve our rapidly increasing demands. Putting the new transmission lines along the already existing transmission line route will be least impactful to the Eastside.
6/15/2015 10:22:27	Deirdre	Johnson	Regarding Alternative 2 - Demand Side Reduction/Non-wire Technologies: I was hoping there would be a clear non-wired solution but I have yet to see any viable model. I don't think batteries are the answer as current technology can't fill the bill and the region can't risk waiting for some future breakthrough. I was a big fan of battery power and was one of the first people in the area to get a Nissan Leaf. The car was great for zipping around town in good weather, but when I really needed it - like in the dead of winter to go to SeaTac to pick up my kids - it would be a very long, cold, precarious trip in the slow lane because I couldn't run the heater and make it home without draining the batteries. When my lease was up I decided to turn the car back in, hoping that maybe next year, the technology will be better. And maybe the next year, Tesla will have a lower priced model. And maybe the next year . . .
6/15/2015 10:34:43	Deirdre	Johnson	Regarding Alternative #3 - New Transformer at Existing Substation: I believe zig-zagging fifty miles of new 115 kV lines through many Eastside neighborhoods would be more impactful than running 18 miles of 230 kV lines along the existing transmission line.
6/15/2015 10:41:21	Deirdre	Johnson	Alternative 4 - No Action: I don't believe "Views" should be a considered as a factor in deciding the program. All properties are view properties. One neighborhood's views are not any more valuable than another's.

Timestamp	First Name	Last Name	Comment
6/11/2015 21:52:35	Pamela	Johnston	Please consider other alternatives. This project is highly impactful to the Eastside. That should not be necessary. Stop now and consider lower impact alternatives. If lower impact alternatives cannot be found that are cost effective, see what the lowest amount of this project is needed and do it overtime, under grounding as you go. Bridle trails already has several power lines and a pipeline, Speak more to how this project will be done safely.

Timestamp	First Name	Last Name	Comment
6/14/2015 19:54:00	Elizabeth	Jolley	I would like to voice my opposition to both Alternatives 1 and 3. I didn't select a category above because I think 'All of the above' probably best fits my comments. From everything I have read, PSE's Energize Eastside plan is unnecessary, poorly planned and overpriced. In addition, I seems like PSE's primary mission in developing this plan is to enrich their coffers at the expense of Eastside ratepayers and residents; I find this unacceptable. As someone who has called Bellevue home for most of my life, I am well aware of the growth that has and will continue to happen in the Greater Eastside area, but there are better alternatives to address the growing need that will not degrade the beautiful neighborhoods that make this area such an attractive place to live. The proposed 230 kV lines and the required poles will permanently mar not just the neighborhoods they will traverse, but the sight lines of many Eastside communities. Why are we considering a plan that will be so detrimental the the citizens of this area only to put money in the pockets of PSE?

Timestamp	First Name	Last Name	Comment
6/9/2015 9:58:57	Jackie	Jordan	Alternative 2: Demand Side Reduction/Non-wire Technologies

Timestamp	First Name	Last Name	Comment
5/22/2015 20:22:53	Mary Ann	Joy	We do not need big electric towers in our neighborhood, they will dominate the view. The electric lines should either be buried or run along the I405 utility corridor.

Timestamp	First Name	Last Name	Comment
5/24/2015 11:36:49	Pamela	Jphnston	This process has not had due notice of the EIS. Eastside residents should not have to pay for proper installed transmission lines, and make them in accordance with Bellevue law. The type of massive construction that is necessary to install 135 foot towers will forever change the landscape of the entire Eastside. It is possible to create a reliable power system and not injure the environment or damage our Eastside cities.This is not about keeping lights on. Reliability for eastside residents has other viable options. Underground - PSE should not get exceptions to this. How do you intend to provide power which is by digging 18 miles of public and private land to install 135 foot towers.?

Timestamp	First Name	Last Name	Comment
5/25/2015 22:25:25	Merzin	Kapadia	Hello, I am against adding new high voltage transmission lines. The current route that PSE is proposing has the following direct impact to my home: 1. These new transmission lines will literally go directly through my backyard. 2. The tall industrial size electrical poles will be visible from nearly every single room in my home as it's right though my yard. 3. Given the super close proximity to these power lines, my home value will be significantly impacted by these lines. 4. EM waves have been known to cause health issues, especially in children and I certainly don't want my children to be exposed to these wires that are literally above our yard and 20 feet from their rooms. Who will be responsible for any medical issues impacting my children in the long run that stem from these power lines? 5. There are old underground Olympic gas lines that add to the safety concern with the project. 6. Cutting down thousands and thousands of mature trees will also have a significant environmental impact, with many homes losing natural shade and other benefits of trees in our backyards. There are numerous alternatives that have been proposed and need to be considered, even if monetary costs for these may be higher. We need to do the right thing; not cut corners with no regard to homeowner and community concerns. Thank you, Merzin Kapadia 8819 129th Ave. SE Newcastle, WA 98056

Timestamp	First Name	Last Name	Comment
6/5/2015 23:07:05	Abdul Magid	Karkutly	NO to PSE energy east-side proposal. Please consider a comprehensive evaluation of other alternatives such as non-wire technologies, alternative energy and conservation. Energize Eastside would: devastate neighborhood character create visual blight increase risk of pipeline explosion exceed actual energy needs expensive to deliver, cost nearly $500 million reduce property value

Timestamp	First Name	Last Name	Comment
5/14/2015 7:40:28	Anne	Kim	I am retired and moved to Somerset to be closer to my children and grandchildren who also live in the neighborhood. I am greatly concerned about our safety if this PSE project moves forward with the building of 130 foot towers and poles on top of the oil pipeline. If this PSE project moves forward, then there must be a way to shut off the oil flow IMMEDIATELY and AUTOMATICALLY so that lives and homes are not in danger of being blown to pieces. I would start with that first before you even consider allowing PSE to build above the oil pipeline. Not only will thousands of trees be cut down to make way for these poles and wires but animals may not return here. On our street, there is a family of quail and their babies that come to nest every year. On top of that, there will be many inconveniences, 1 being noise, and delays in and out of the neighborhood due to construction. These poles and towers do not belong in our neighborhoods and backyards. I would like for you to consider other alternatives such as undergrounding or other technologies like solar panels.

Timestamp	First Name	Last Name	Comment
6/1/2015 13:41:40	Rebecca	Kinnestrand	There is no SAFETY category to choose from, nor is there an "all of the above." Putting these poles in the middle of these neighborhoods over existing 50 year old gas pipelines is insane and extremely dangerous. PSE is pushing this through as THEY need the lines not the Eastside. I'd like to see an independent study to verify "facts" given to us by PSE. I put the PIN where my house is located, but this project is crazy all the way around. There are much better alternatives.

Timestamp	First Name	Last Name	Comment
5/10/2015 18:24:45	Lee	Klastorin	My concerns encompass too many of your categories. I am opposed to the tree - cutting proposed along the Oak and Willow routes, in fact anywhere along 148th. I realize that there are costs associated with routing the transmission lines underground, but feel that the cost to the residents of the cities involved by cutting trees is greater than just dollars. As the areas around these cities are more and more urbanized (and de-nuded of existing vegetation) there is both an ecological and aesthetic diminution in the quality of life overall. For those who live near, walk on, or drive on these heavily traveled projected route s) this plan is devastating.The cities involved like to tout their livabilty. With mandated zoning plans for greater density, (and I realize that this is the issue PSE and the city planners are trying to address)but this plan is a huge an assault. When the trees and ancillary vegetation go, there is no going back and undoing the ecological and aesthetic damage. There is no shade, there is no pollution reduction, no sound buffer, no light butter, there is no visual respite from urbanization without the trees. Wetland mitigation projects are not sufficient by themselves. Also; having lived with many power outages on the Eastside due to weather events (or animal events) I am not convinced that PSE lines will not fail above- ground as they have done for years. Simple summation: I vote no for tree removal. Sincerely, (Ms) lee Klastorin

Timestamp	First Name	Last Name	Comment
6/1/2015 8:12:29	Robbin	Krause	High voltage transmission lines and 130 ft high poles running through a highly populated area of Bellevue is inappropriate, such transmission lines if really necessary should be placed in rural areas of the county.
6/1/2015 8:12:35	Robbin	Krause	High voltage transmission lines and 130 ft high poles running through a highly populated area of Bellevue is inappropriate, such transmission lines if really necessary should be placed in rural areas of the county.

Timestamp	First Name	Last Name	Comment
5/12/2015 7:57:55	Stephanie	Kristen	I live in Somerset and while my view will not be affected I believe the whole project is an eyesore on what is a beautiful city. My greater concern is living below the pipeline and building massive powerline poles on top of this aging infrastructure seems unwise and very risky. Please take in to account the concerns of the Pipeline in your consideration.

Timestamp	First Name	Last Name	Comment
5/26/2015 17:10:52	DONGFANG	KUANG	the proposed project pose great environmental and health threat to our home. We have 2 young children and would really appreciate an alternative approach.
5/26/2015 17:10:52	DONGFANG	KUANG	the proposed project pose great environmental and health threat to our home. We have 2 young children and would really appreciate an alternative approach.
5/26/2015 17:10:54	DONGFANG	KUANG	the proposed project pose great environmental and health threat to our home. We have 2 young children and would really appreciate an alternative approach.

Timestamp	First Name	Last Name	Comment
5/13/2015 9:57:48	Frida	Kumar	I suggest the plans be reset/redone & the transmission lines either be buried or run along the 1-405 utilities corridor. We don't need high-transmission lines running above-ground through our woods common green-lands and neighborhoods. We should spend the money to do the thing properly. I am concerned that precisely during a period when there is rapid development in grid optimization and battery technology PSE and the municipalities are looking at sinking many millions into unsightly and dangerous old-tech/above ground transmission lines.

Timestamp	First Name	Last Name	Comment
6/2/2015 15:09:24	Ellen	Kurek	Energize Eastside's proposed monster transmission line is totally unnecessary and an obvious attempt by a foreign-owned company to increase the value of its transmission lines before selling out for top dollar and pulling out of our area. Despite what the "independent" assessment found, Eastside does not need these massive transmission lines. Of course the "independent" assessment provider substantiated PSE's claims; after all, they used PSE's data. How independent can they be if they didn't take the time and spend the money to get the best data for themselves independently but instead used PSE's "handy" data? City of Bellevue really got hosed on that one. The monstrous transmission line will not only uglify out neighborhoods permanently and add to our already high burden of electromagnetic pollution but will also cause tremendous noise, dust, and traffic disruption as it is being installed -- and our neighborhoods are undergoing a great deal of development-related disruption already. Plus the monster line will provide no benefit to the local population who must shoulder all of the burdens including the increased cost of electricity to pay for it. PSE, or, more likely, the idiots who buy PSE, probably won't even be able to use the transmission lines to sell power to California and Canada because these areas will be able to generate enough power on their own. Thus, the entire upgrade proposed by PSE is a monstrous white elephant that helps nobody and nothing but PSE's sale price. We'd do just fine with a new transformer at an existing substation. Shame on PSE for even threatening to blight out neighborhoods with these unnecessary monster transmission lines. SHAME! If PSE really wants to spend money, why can't they spend it on improving reliability to ensure that Newcastle never again has to endure a week-long power outage like the one we had after the Hanukkah Eve storm. I was in fear for my life that week, and PSE never advised us when power might come back on, so in desperation I moved to a hotel the day before the power came back on. I still live in fear of an extended power outage like that one. And monster transmission lines will just cause more and heavier debris to fall in our neighborhoods when the next severe windstorm hits. PSE's behavior is a testament to the need for the Eastside to own and operate its own electricity generation and transmission system. That seems to be the only way we'll ever get dependable electricity sensibly generated and transmitted at a fair price. We'll never get it from a greedy, callous, self-serving privately owned entity like PSE.

Timestamp	First Name	Last Name	Comment
6/1/2015 21:55:39	Jonathan	Kurz	I would prefer that we consider demand-side reduction and possibly a smaller transmission line footprint. I do not trust the assessments by PSE or the "independent" investigation that did not do any independent research of its own.

Timestamp	First Name	Last Name	Comment
6/11/2015 16:19:42	Dennis	Kvidera	I DO NOT favor the PSE's Energize Eastside proposal. It is unnecessary. I demand a comprehensive evaluation of other alternatives such as non-wire technologies, alternative energy and conservation. Thank you.

Timestamp	First Name	Last Name	Comment
6/14/2015 18:25:05	Brenda	Landon	The current plan will reduce property values in Bellevue.

Timestamp	First Name	Last Name	Comment
6/7/2015 19:56:40	Dong	Lee	I prefer options 1 or 3.

Timestamp	First Name	Last Name	Comment
6/14/2015 18:10:31	Faye	Lermond	Not happy about: 8000 Trees being down, with Height and noise in winter, property tax devaluation, TOO MANY CHANGES IN A SHORT PERIOD OF TIME I've been here 48 years: it was quiet and peaceful--NOT ANYMORE!

Timestamp	First Name	Last Name	Comment
6/13/2015 18:33:34	Marcia	LeVeque	First and foremost, I believe in honesty and getting a true picture when change is needed. PSE has proposed that we need a change due to the need of more electricity in our Bellevue area. It is a fact that Bellevue is growing and along with that would come the need for more electricity to accommodate growth. Is the growth in the business section of our city or in our neighborhoods? Who should be responsible for paying for the need for more electricity in a booming business district or our neighboring country of Canada? I don't believe it is the residential customers. I believe it is important for PSE to use current data that analyzes varied outdoor temperatures and correlates it to the current electricity usages and predictions of what will be needed in the future in the specific areas of our city. The data should show actual scenarios rather than using distorted studies that don't represent true electricity usage in our specific area. It is disappointing to learn that PSE doesn't seem to care about their residential customers. In one PSE scenario, my neighborhood will lose trees, 60-foot poles will be replaced with 130-foot poles (which will be seen for miles throughout all of Bellevue), and my home value will certainly decline. I also worry about construction of new tall poles next to a petroleum pipeline where one mistake could be disastrous. Isn't there a more realistic solution that can be developed in our progressive city that doesn't harm our beautiful environment? On the City of Bellevue's homepage it states, "…much of Bellevue retains a small-town feel, with thriving, woodsy neighborhoods and a vast network of green spaces and recreational facilities that keep people calling the place "a city in a park." PSE's solution certainly doesn't match this vision of Bellevue. Will it be necessary to change our city's vision due to a PSE solution that works only to the benefit of PSE. It is important for us to protect our neighborhoods with better options than tall 130-foot poles through our city. It is important to consider a new comprehensive study to evaluate alternatives that are being used in other areas of the country such as non-wire technologies; which are more realistic and less expensive that those suggested by PSE. Please take the time to explore factual data for our area. It's important to ask the customers that are using the electricity to pay their fair share, but not ask us to pay for electricity that will be leaving our area. I challenge PSE to share a photo of another neighborhood anywhere that has the proposed 130 foot poles with 230kV lines towering over their city that can be called a beautiful, thriving, safe neighborhood for families to live.

Timestamp	First Name	Last Name	Comment
5/18/2015 14:40:04	Bruce	Lieberman	Our Neighborhood is concerned about this project for many reasons. We vote for the choice of do nothing until more is studied. We are concerned about our neighborhood safety and loss of property value.

Timestamp	First Name	Last Name	Comment
6/3/2015 12:22:45	elisabeth	lind	This is a horrible idea. Power lines like this are dangerous to health and on top of that they destroy land and animal habitats. I cannot believe I am hearing that this is in the works this is the worst idea I've heard in awhile. Do not do this please! !!!!

Timestamp	First Name	Last Name	Comment
5/21/2015 14:55:56	Carrol	Loehrer	To decrease the present property values by obstructing views with transmission lines for additional electrical power that is not needed is a total waste of rate payers money. When you consider that a large part of the electricity generated is being sold to Canada there is no reason that if an outage occurs or if more electricity is needed for this area's needs that sales across the border cannot cease. If PSE has the present capacity to sell excess electricity to Canada there is no reason that additional power requirements should be needed at this time. It should also be noted that there has been a substantial increase in residential solar roof top power panel installations and Elon Musk just announced that his electric car company, Tesla, is to begin manufacturing batteries for homes which should expand the appeal for solar by making it possible to store spare solar electricity by storing it in those batteries which could enable users to get off the grid altogether benefitting the utility company by providing the availability of additional electricity for those without solar or at peak demand times.

Timestamp	First Name	Last Name	Comment
6/11/2015 13:03:44	Jim	Long	My name is Jim Long and I am a general manager for Urban Renaissance Group, a local commercial real estate concern that invests, operates, and builds office buildings in areas throughout the Pacific Northwest including Bellevue. We presently operate 18 buildings including hi-rise offices in downtown Bellevue and office campus' along the I-90 Corridor (Eastgate area). Over 7,000 employees come to work in our properties every day. As commercial property owners and managers, we feel very strongly that the existing 50+ year old distribution must be improved in order to meet growing demand Eastside AND ensure reliable service to the existing base of energy consumers. We believe the need for the system has been proven and that we need to act quickly: reliable, adequate power is critical for the businesses that operate in our buildings. East King County and the city of Bellevue have and continue to attract a healthy mix of businesses – many centered on technology. We need a reliable, predictable energy infrastructure – not untested technology - to ensure our markets remain competitive within the region and state. We feel strongly that doing nothing is not a prudent option: it comprises the future of businesses that provide good jobs to so many in our market. We urge you to move ahead with Alternative 1 – a New Transformer and Transmission Line.

Timestamp	First Name	Last Name	Comment
6/11/2015 21:55:02	Chris	Lonowski	The area needs to control growth. Politicians need to listen to the public. We don't need more power lines, lanes, buildings and people. The people here like it the way it is (was). We don't want to give up quality of life in exchange for more cars, more traffic, more light, air and noise pollution, more crime, longer commutes. Politicians and city managers and planners need to stop thinking growth is the main goal. We will never have enough transportation and land and the quest to grow, grow, grow and then later try to tax and build alternatives to the problems that come with growth after the fact is a failed plan. I have lived in CA, CO, WI and several other places and I have seen the universal failure of politicians and city managers. Growth must be managed and managed completely, not just for reelection and business.

Timestamp	First Name	Last Name	Comment
6/15/2015 13:02:25	Cindy	Ludwig	I am opposed to PSE's supersized 'Energize Eastside' proposal. It is inconsistent with the comparable growth models/forecasts published by major NW cities, Seattle, Bellevue and Portland, and lacks supporting evidence for such extreme, imminent action by PSE. There has been overwhelming public pushback across the Eastside to this proposal and I urge the City of Bellevue to reject the current proposal as unjustified by factual data. PSE could easily establish an underground electrical infrastructure within budget if they adjust their calculations using accurate growth and timelines to forecast electrical needs. Proceeding with the current proposal will NOT provide more reliable electrical power but it will burden residents and business owners with greater ongoing costs of maintenance. As CENSE has demonstrated, this just doesn't make sense! Please do not proceed with this flawed Energize Eastside proposal! We are sitting in the hub of technology, certainly PSE can come up with something more innovative that enhances our Cities and provides more value for our $$'s!! I'm disappointed the $$'s spent on this 'study' didn't yield something more suited for a 1st world society. The visuals look more like a temporary fix in a disaster preparedness plan where all of the aging overhead lines are knocked down - that's what we need to prevent! Please use all of the valuable feedback you've received and put in more time to develop a more viable, consumer friendly solution. Thank you!

Timestamp	First Name	Last Name	Comment
6/15/2015 16:56:14	Patricia and Gerald	Magnani	There is a pervasive concern in the community that PSE is advancing "Energize Eastside" to meet the needs of its investors at the expense of Eastside residents, and that a certain amount of biased collusion with city staff is allowing this to happen. The City of Bellevue has a responsibility to investigate alternatives to Energize Eastside as well as the many concerns raised by citizen opposition groups, including the well-organized CENSE which has raised significant doubts about the oversized nature of a project that will benefit PSE financially as well as BPA and other interested parties over the actual energy growth needs of the Eastside, its residents, and PSE ratepayers. PSE is gaining an increasingly negative reputation among the highly-educated, high-tech, environmentally progressive Eastside community because of the way it has branded this project and its slick campaign of selling it to the public at large. Furthermore, construction of double 130 feet high mega poles along an aging Olympic petroleum pipeline through dense residential neighborhoods is a potential disaster waiting to happen. Alternatives to EE have been proposed by CENSE in conjunction with industry experts and need to be investigated as to if they will solve the energy growth needs of Downtown Bellevue without needlessly destroying the beauty of Eastside cities so that PSE and the private corporation that owns it can prosper at our expense.

Timestamp	First Name	Last Name	Comment
6/3/2015 17:56:29	Phil	Malte	With respect to Energize Eastside, I strongly oppose Alternatives 1 and 3. Alternative 1 would build an electric superhighway through Bellevue and the Eastside. It is overkill for providing electricity to the Eastside. (But it work great for moving many many megawatts of electrical power from the Columbia Grid to Canada and from Canada to California! Such a massive transmission system should NOT good through a highly urbanized area.) PSE has never played straight with folks about how much electrical power and energy the Eastside actually uses, so how can its forecasts be trusted. I strongly suspect that Eastside electrical power and energy needs could be met well into the future by the following: 1. Adding backup 230-115 kV transformers at the Sammamish and Talbot Hill stations. 2. Upgrading the existing 115 kV lines, without masively higher poles. 3. And perhaps running a new 115 kV line along the I-90 corridor from Lake Tradition to Lakeside station. I assume this would also require a new 230-115 kV transform at Lake Tradition. (Lake Tradition is an interesting site. Since it is very close to the main natural gas pipeline, a peaking gas turbine generator could possibly be located therefor, and run a few hundred hours per year to meet peak demand. These machines have low NOx combustors, and are widely used in the US. Alternative 3 is ridiculous: 50 miles of 115 kV lines running all over the place, destroying who knows how many trees. Who thought this up? Please take this off the table before terrible mistakes are made. The only Alternative that makes sense is the Non-Wires solution, relying on our intelligence to develop a rationale and realistic plan of Distributed Generation, Combined Heat and Power, Energy Efficiency, and Smart Grid Technology. The studies that PSE has so far commissioned on this don't go far enough -- don't do justice to this Alternative. This is an Alternative with low environmental impact compared to 1 and 3. It needs a much more careful and rigorous study than has been done so far.

Timestamp	First Name	Last Name	Comment
5/29/2015 12:55:54	Claudia	Mansfield	You MUST consider buried lines as a viable alternative. This is clearly MOST RESIDENTS' PREFERRED ALTERNATIVE, yet it is not included as an alternative. Even if PSE insists that residents must pay for this, for the purposes of an environmental review, it does not matter who pays for it. That can be determined separately. It is a strongly viable alternative that MUST be considered if this is to be an unbiased environmental review.
5/29/2015 13:00:51	Claudia	Mansfield	VISUAL IMPACTS The visual impacts of overhead transmissison lines needs to be included in the scope. This significant adverse impact extends well beyond the immediate neighborhoods. ALL AREAS EFFECTED need to be identified, based on terrain and distance, from which the new taller lines could possibly be seen, without taking vegetation into account. PROPERTY VALUES These bigger taller lines will create severe visual encumbrances to nearly all citizens of the Eastside due to direct views onto a transmission line. This exerts a significantly negative impact on property prices with depreciations ranging from 5% to well in excess of 20%.

Timestamp	First Name	Last Name	Comment
6/15/2015 11:10:27	Jerron	Marshall	We have a number of concerns about the proposed Energize Eastside project. We would like to see PSE investigate and consider the Alternative 2 and 4 as they seem to be less risky in terms of: 1. Safety - Running higher transmission lines over a gas pipeline seems very questionable and quite possibly negligent. Also, running higher transmission lines over residential and school properties would put the health of citizens at risk for potential negative side effects. 2. Property Values - Running higher transmission lines will destroy property values of impacted property owners. This is an unfair burden to force onto those people unfortunate enough to live near the final route as the project allegedly will benefit many. If many will benefit, many should share the burden of the solution, not just a few. 3. Environment/Aesthetics/Plants - People chose to live on the Eastside to enjoy the trees and views. Running higher transmission lines will ruin views and destroy many wonderful trees and plants, creating an eyesore and ruining the feel of impacted residential neighborhoods. 4. Need - It is not clear how much of the projected need is accurate and this project may far exceed the need, ruining the Eastside for no good reason.

Timestamp	First Name	Last Name	Comment
6/15/2015 7:15:20	Lynette	Martin	We live in the corridor for the proposed project. We are deeply concerned about the environmental impact, safety, property values and overall need of the project. We have the Olympic pipeline running under the current power lines. This line is old and the safety aspect is real. What other alternative forms of energy have been explored? There are alternatives that are far less costly and environmentally friendly. We have an easement on our property...this new proposal does not fit in the guidelines of our current easement. Is PSE truly willing to jeopardize the safety of citizens along the corridor for this project. Destroying habitat, and wildlife? Please consider alternatives that are less impactful to your citizens.

Timestamp	First Name	Last Name	Comment
6/10/2015 9:39:14	Maggie	Martos	Very unhappy about the health impacts of the high power lines proposed. It will lower my property value, make it harder to sell my house, and adversely effect our health. Don't do it!

Timestamp	First Name	Last Name	Comment
5/28/2015 18:32:16	F	Matu	There are already 2 230kv lines in the area plus the 115kv line. Adding another one seems multiply unnecessary. Put another 115kv line in - why is there such a limit to capacity? I'd vote for taking more risk of power outages than to keep adding more lines - of course this is because more people & businesses are coming to the eastside. Bigger than all of us and most annoying. If you have to put them in, I don't want to see them.

Timestamp	First Name	Last Name	Comment
6/8/2015 20:32:51	Stephanie	McCord	I live near a large tower and am concerned with increasing the size or amount of energy going right near my property. Because of past health problems (cancer twice) I am concerned about the increase in the EMF. I have children and animals and know that it isn't really good for any of us.

Timestamp	First Name	Last Name	Comment
6/3/2015 21:37:23	Sally	McCray	The EIS review process should find Alternative 4 or Alternative 2 to be the most appropriate solution to the POTENTIAL reliability or demand problems PSE has projected. Due to the incredible detrimental effect on the Aesthetics of our beautiful cities, PSE's preferred solution #1, and Alternative #3 should be removed from consideration. Part of what makes our area unique and valuable is the incredible environmental beauty. It is just plain wrong in this day and age to propose a boondoggle project, that MIGHT be needed, which would do so much destruction to our natural environment. Even if this project was clearly needed, right here right now, this amount of aesthetic environmental damage is unacceptable. I am not talking about for the damaged views for the unfortunate individuals who live along the proposed route. I am talking about for all of us. Please drive along I-405 from just south of Renton to I-90; the ugliness of the crisscross of lines is an eyesore along the busiest freeway in Washington. It impacts millions of commuters a day! Please contrast that experience with that of driving from I-90 north through Bellevue. Which City is thriving? The one with or the one without power poles lining and crossing it's freeway? Even in Bellevue compare Factoria with Bellevue Square. It doesn't take much to see that spoiling the environment also makes it "lower class" and less desirable and enjoyable to be in. Really, Factoria is much easier to get to, but its ugliness has kept it the discount shopping mall, continually struggling for retail tenants. Public utilities like neighboring Seattle City Light, didn't even propose a wired solution to their increasing power demands in South Lake Union. Why? Because it doesn't make sense, and as a public utility they don't have a profit motive. Their solution is an underground solution, because it is the only solution that adds more value to the city (increased electrical transmission) without a negative impact that outweighs the benefit. The Eastside should do everything possible to preserve the great advantage it has over competing areas, the incredible natural beauty of our area. If we dirty our nest, we'll become another declining region. People have choices of where to live. Business have choices of where to headquarter themselves. When the negatives of this area outweigh the benefits, it will be hard to change the momentum. Projects like PSE's proposed gargantuan towers, through the heart of a residential and business area don't get undone. They will be here to stay. Please, don't let the EIS process be yet another bureaucratic process for PSE, which though expensive and time consuming, ultimately gives it the stamp of approval, because it is too hard to stand up to the juggernaut. PSE's preferred solution, and Alternative #3's purported benefits in reliability clearly do not outweigh the incredible environmental impact on the aesthetics of our beautiful area.

Timestamp	First Name	Last Name	Comment
6/15/2015 14:59:52	Diana	McMillen	To whom it may concern, I am against the power lines that are proposed from Redmond to Renton. There are many cases of birth defects and issues along power lines and don't feel this is a good project. With all the new technology that's happening, I'm sure there is a better way to provide electricity for the east side. The large lines that are proposed seem outdated. I am also against these lines since they will be ugly and will bring down the value of homes along the power lines. Which will have a detrimental affect on home owners and cities in-general. Thank you, Diana McMillen

Timestamp	First Name	Last Name	Comment
5/12/2015 11:57:35	Sean	McNamara	I have many issues with the Energize Eastside project as it seems more about creating revenue streams for PSE than it is about meeting real demand. If PSE disagrees with my point of view, then the burden of proof is theirs and they have not sufficiently addressed the below concerns: 1) PSE has revised their predicted rate of demand growth from 1.7% to 2.4%. That's a 41% increase in the rate of growth since their last forecast just 3 years ago! PSE doesn't explain the rationale behind the sudden and dramatic jump in their prediction. 2) PSE expects Eastside demand to grow at twice Seattle's rate. After repeated requests, PSE has failed to provide any basis for such a prediction. It also contradicts the growth rate estimated by the King County. 3) Despite the huge jump in the growth rate, the "problem" date has now moved forward 3 years from 2017 to 2020. This should be enough of a reason to stop this process and thoroughly vet alternatives.

Timestamp	First Name	Last Name	Comment
6/15/2015 16:48:54	Janis	Medley	Energize Eastside construction will increase the risk of catastrophic failure to the 50-year-old Olympic Pipeline. My concern is that pipeline fractures will result from the earth movement and stress caused by the heavy equipment required to dig 25-35 feet deep foundations for the much larger-than-existing poles. Also of concern is that the pipeline and proposed new 130' poles and transmission lines share a very narrow right of way in many densely residential areas. SOURCE: Bellevue WA Fire Department Standards of Response Coverage (p. 66): Given that pipeline incidents continue to occur in this country, and many for undetermined reasons, the community is still at risk. The combination of: a highly flammable liquid, in large quantities, and in urban environment translates into a significant consequence risk that approaches the "catastrophic" level. Response and recovery from a significant pipeline event would deplete the response and mitigation abilities of the jurisdiction. Given the high consequence classification, this hazard is a "high/special" risk. SOURCE: Hazard MitigationPlanning:Practices for Land Use Planning and Development near Pipelines 2015 Prepared by the Pipelines and Informed Planning Alliance (PIPA) Sponsored by the U.S. Department of Transportation, Pipeline and Hazardous Materials Safety Administration (PHMSA) and the U.S. Department of Homeland Security, Federal Emergency Management Agency (FEMA) (p.1) Land development in close proximity to hazardous liquid and gas transmission pipelines increases the likelihood of damage to the pipelines and the potential for impact to the community from a pipeline failure. Additionally, without appropriate planning, land development can impede access needed for the safe operation and maintenance of the pipeline and for emergency response in the event of a pipeline accident. Figure 1 illustrates how expanding suburban land development into previously rural areas brings people and pipelines into close proximity. (p2) In densely populated and other high-consequence areas (HCA), pipeline operators take additional protective measures as necessary, including providing extra depth of cover over the pipe, establishing lower allowable operating stress levels, and monitoring. As the Federal agency primarily tasked with regulating the safety of gas and hazardous liquid pipelines, the U.S. Department of Transportation (DOT) Pipeline and Hazardous Materials Safety Administration (PHMSA) continually evaluates pipeline operator inspection and accident data to determine when operational practices and requirements need to be enhanced or when other corrective actions must be taken.

Timestamp	First Name	Last Name	Comment
5/29/2015 16:09:49	Prabhat	Menon	I would like more demand side reduction (alt 2) or (alt 3) which involves updating transformers, though I don't see how that will held reduce power needs. Pmenon30@gmail.com Also, I'd like to oppose adding new power lines through Bellevue, since I believe that would affect negatively neighborhoods they pass through and I am wary of the true need of more power lines at this point.
5/29/2015 16:10:07	Prabhat	Menon	I would like more demand side reduction (alt 2) or (alt 3) which involves updating transformers, though I don't see how that will held reduce power needs. Pmenon30@gmail.com Also, I'd like to oppose adding new power lines through Bellevue, since I believe that would affect negatively neighborhoods they pass through and I am wary of the true need of more power lines at this point.
5/29/2015 16:10:34	Prabhat	Menon	I would like more demand side reduction (alt 2) or (alt 3) which involves updating transformers, though I don't see how that will held reduce power needs. Pmenon30@gmail.com Also, I'd like to oppose adding new power lines through Bellevue, since I believe that would affect negatively neighborhoods they pass through and I am wary of the true need of more power lines at this point.

Timestamp	First Name	Last Name	Comment
4/30/2015 14:10:41	John	Merrill	The Preliminary List of Elements, by which the alternatives will be judged, is inadequate. The preferred alternative must also be judged by its costs, including its cost to the Eastside community in either increased or decreased property values.
5/31/2015 2:30:24	John	Merrill	Powering Eastside Growth: Alternatives For Study In The Energize Eastside Environmental Impact Statement Submitted by: John Merrill 4800 134th Place SE Bellevue, WA 98006 May 31, 2015 Alternative 5: “Use Existing 230kV Transmission Lines (With New Connections To Bellevue)” Use one or both of the two existing, parallel and under-utilized 230kV transmission lines already in operation of the Eastside, one of which stands just west and one further to the east of PSE’s preferred route for Energize Eastside, to supply another source of peak capacity to Bellevue during rare peak demand events. Leave PSE’s existing, but likely upgraded, Eastside 115kV transmission “backbone” in place. Alternative 6: Local Generation a. Fully utilize the existing (or an upgraded), PSE-owned “Westside Peaking System” which has approximately 1,400 MW of capacity, during the Eastside’s rare peak demand hours. PSE’s Westside Peaking System consists of multiple, large, natural gas-fired generators which are designed to operate only during rare peak demand events. PSE built, and its customers pay for, the Westside Peaking System specifically for this purpose. To date, PSE has not fully utilized these generators in its analysis of need; and/or b. Install one or more new “Peaking Generator Stations” on the Eastside itself, as near as possible to the biggest loads; and/or c. Create a “dispatchable” Backup Generator Network on the Eastside similar to the 100 MW system in operation in Portland, Oregon. Many Eastside buildings, like hospitals and data centers, already have backup generators which can be networked together and remotely controlled by PSE to run during rare peak demand events. See https://www.portlandgeneral.com/business/medium_large/products_services/dispatchable_standby_generation.aspx d. Leave PSE’s existing, but likely upgraded, Eastside 115kV transmission “backbone” in place.

Timestamp	First Name	Last Name	Comment
			Alternative 7: Upgrade Existing System a. Upgrade PSE's existing 115kV system to increase its capacity and reliability (utilizing existing or new wooden poles) to bring additional power to Bellevue during rare peak demand events; and/or b. Relieve (hypothetical) stress on PSE's existing 115kV system by eliminating power flows to Canada (or California) during (simulated) rare peak demand events (but continue such supply during non-peak demand time periods). PSE has no legal obligation to deliver power to Canada or California during rare Eastside peak demand hours. Alternative 8: 21st Century Solutions a. Install on the Eastside at PSE's expense, proven energy conservation and efficiency systems, to reduce the amount of demand during rare peak demand events, including the 56 MW of cost effective peak demand reduction identified by industry expert E3 in its 2012 Reliability Study for the City of Bellevue; and/or b. Build one or more, large "dispatchable" battery storage projects on the Eastside of the type installed by AES Energy Corporation and its competitors. There are about 100 utility-scale battery storage systems currently operating in the U.S. and they are falling rapidly in price. And/or install at PSE's expense, distributed/residential battery systems similar to the Tesla Powerwall; and/or c. Implement modern "Demand Response" program or programs to minimize peak loads during rare peak demand hours using one of many cloud-based control solutions currently available from companies like Opower. d. Leave PSE's existing, but likely upgraded, Eastside 115kV transmission "backbone" in place. Alternative 9: Combination Combine two or more of the above alternatives to minimize environmental impact, optimize reliability and reduce economic costs to the Eastside communities, King County taxpayers and all PSE ratepayers. Multiple solutions, particularly non-centralized solutions, are inherently more reliable and less vulnerable than a centralized solution like Energize Eastside.

Timestamp	First Name	Last Name	Comment
6/15/2015 8:46:22	Melinda	Miller	Any EIS should consider whether the proposed work is actually necessary and beneficial to those parties immediately impacted by that work. This includes those homes and neighborhoods in which any planned utility would operate. Is the work an essential public facility and what happens if the proposed solutions, and their alternatives, are rejected? Have any and all alternative solutions been identified and investigated? Have the long term financial and environmental impacts on impacted neighborhoods been thoroughly identified and have are adequate mitigations in place to address those impacts? Have any of the conflicting utilities, such as the existing Olympic Pipeline, been identified and has the impact on those in-place utilities been studied?

Timestamp	First Name	Last Name	Comment
6/12/2015 12:47:54	Esther	Moloney	June 11, 2015 Dear Bellevue City Council, My husband and I have enjoyed living in the Somerset community for 37 years have been reading more and more about the potential health threat of the EMFs produced by power lines and especially those carrying 230 kV. I am well acquainted with the effect they may have on children and their families. My nephew grew up in a Somerset home adjacent to our current power line. When he was eight years old we was diagnosed with a type of bone cancer that is documented to occur in children living near such power lines and power stations. Fortunately it was diagnosed early and could be cured but it was still a painful ordeal for him and his family. Please vote against allowing PSE to place 130 ft. with 230 kV power lines in our community. Much of the data distributed and available to us was printed in 2002 and no doubt ended years prior to 2002. This was before increased use of electronics: computer/monitors, HD TVs, modems, routers, cell phones, game consoles, leaky microwaves, increased use of air conditioning and heating systems, electrical appliances etc. , etc. Many children are in contact with many of these devices for many, many hours each day. Even in 2002, the articles admitted that much more and updated data was needed, and that much of their data was suggestive but inconclusive. Indeed there have been some recent studies that have related the exposure of EMFs* to increases in leukemia in children and various other cancers in children and adults. Currently power lines in Somerset are located over a community pool, a number of homes and very near a Middle School. These homes and facilities "must" be protected from the threat of magnetic fields.** On another note, Yesterday, I accompanied my husband to a Doctor's office located on the 9th floor of a building next to Overlake Hospital. The Reception room had a large window overlooking Somerset and to the East. One gentleman looked at the view and said it was one of the most beautiful views he had seen of Bellevue. This view is also seen from many other buildings in Bellevue and from cars traveling east on I90, boats on Lake Washington, residents of east Mercer Island and Seattle and even airplanes landing at Boeing and SeaTAc Airfields. Wow, a lot of people enjoy this view!!! IS PSE GOING TO BE ALLOWED TO DESTROY THIS VIEW????? Thank you for not allowing PSE to destroy our beautiful city. Sincerely, Esther Moloney, 4551 135th Pl. SE, Bellevue, 98006, Somerset Resident, esmolnn@outlook.com *Electric and magnetic fields (EMFs) are areas of energy that surround any electrical device, power lines, electric wiring, and electrical equipment. Electric fields are produced by voltage and increase in strength as the voltage increases. A ** magnetic field results from the flow of current through wires or electrical devices and increases in strength as the current increases. Magnetic field can pass through buildings, humans and most materials. Since magnetic fields are most likely to penetrate the body, they are the components of EMFs that are usually studied in relation to cancer.

Timestamp	First Name	Last Name	Comment
6/12/2015 12:49:52	Robert	Moloney	June 11, 2015 Dear Bellevue City Council, My husband and I have enjoyed living in the Somerset community for 37 years have been reading more and more about the potential health threat of the EMFs produced by power lines and especially those carrying 230 kV. I am well acquainted with the effect they may have on children and their families. My nephew grew up in a Somerset home adjacent to our current power line. When he was eight years old we was diagnosed with a type of bone cancer that is documented to occur in children living near such power lines and power stations. Fortunately it was diagnosed early and could be cured but it was still a painful ordeal for him and his family. Please vote against allowing PSE to place 130 ft. with 230 kV power lines in our community. Much of the data distributed and available to us was printed in 2002 and no doubt ended years prior to 2002. This was before increased use of electronics: computer/monitors, HD TVs, modems, routers, cell phones, game consoles, leaky microwaves, increased use of air conditioning and heating systems, electrical appliances etc. , etc. Many children are in contact with many of these devices for many, many hours each day. Even in 2002, the articles admitted that much more and updated data was needed, and that much of their data was suggestive but inconclusive. Indeed there have been some recent studies that have related the exposure of EMFs* to increases in leukemia in children and various other cancers in children and adults. Currently power lines in Somerset are located over a community pool, a number of homes and very near a Middle School. These homes and facilities "must" be protected from the threat of magnetic fields.** On another note, Yesterday, I accompanied my husband to a Doctor's office located on the 9th floor of a building next to Overlake Hospital. The Reception room had a large window overlooking Somerset and to the East. One gentleman looked at the view and said it was one of the most beautiful views he had seen of Bellevue. This view is also seen from many other buildings in Bellevue and from cars traveling east on I90, boats on Lake Washington, residents of east Mercer Island and Seattle and even airplanes landing at Boeing and SeaTAc Airfields. Wow, a lot of people enjoy this view!!! IS PSE GOING TO BE ALLOWED TO DESTROY THIS VIEW????? Thank you for not allowing PSE to destroy our beautiful city. Sincerely, Robert Moloney, 4551 135th Pl. SE, Bellevue, 98006, Somerset Resident, esmolnn@outlook.com *Electric and magnetic fields (EMFs) are areas of energy that surround any electrical device, power lines, electric wiring, and electrical equipment. Electric fields are produced by voltage and increase in strength as the voltage increases. A ** magnetic field results from the flow of current through wires or electrical devices and increases in strength as the current increases. Magnetic field can pass through buildings, humans and most materials. Since magnetic fields are most likely to penetrate the body, they are the components of EMFs that are usually studied in relation to cancer.

Timestamp	First Name	Last Name	Comment
6/15/2015 15:38:48	Karin	Morgan	I would like to submit my comments regarding the proposed Energize Eastside project by PSE, specifically Phase 1 of the scoping process. I would like to see what kind of data, studies and investigation is done in regards to environmental impacts. Has the scoping notice identified all the appropriate alternatives? Is the proposed project an essential public facility in any of the impacted jurisdictions? I would like to see all of the permits required for the project identified at the federal, state and local levels, as well as the criteria for their issuance. Is this proposal consistent with the comprehensive plans and zoning codes of each community impacted? I would like to request that the City and PSE complete the Phase 1 programmatic process by preparing a final EIS. Following that EIS, Bellevue and other local governments should come to a decision on the Phase 1 alternatives and then determine whether a hardwired alternative is necessary or appropriate. The Phase 2 scoping or review should not take place until the Phase 1 decision has been made. Thank you for taking my comments.

Timestamp	First Name	Last Name	Comment
6/9/2015 17:43:00	Ashley	Moseby	My husband and I have a lot of issues with the proposed Energize Eastside. To summarize the issues: - View and aesthetics - the proposed 230 foot power lines will obstruct views of all east side. They are unnecessary based on the information posted showing that they will produce 4-5 x the amount of electricity that based on historical run rates will not be needed for 100+ years. - Safety - building on the Olympic pipeline poses significant risk to homes. - Trees - cutting down hundreds of trees for this project is horrible. - Profits - PSE has the ability to generate ROI of 10% on the project, which will be collected from the community via increased energy rates. Why are we cutting down trees, obstructing views, having homes potentially decrease in value to generate profits for PSE in an unnecessary project. -How are we not reviewing additional options?

Timestamp	First Name	Last Name	Comment
5/7/2015 15:39:41	Hal	Mozer	My comment relates to the alternatives currently shown for consideration. There is at least one more that should be considered. The U.S.E. report shows most of the growth driving the need for the Energize Eastside project to be growth in the Downtown area and the Bel-Red corridor. The proposed 230 kV transmission line would not impact any of this area, but the area that would be impacted is not driving much of the project need. It is not clear how power will be delivered to the Downtown area from the Energize Eastside Project as now proposed. Perhaps one or more 115 kV or 230 kV underground transmission lines like Seattle City Light has and is planning more, could deliver the power more directly from Sammamish and Talbot Hill Substations to the downtown and Bel-Red Corridor instead of building EE through areas not really causing the need for EE. How service will be provided to the major load center driving the load growth, downtown Bellevue, should be considered in the EIS and might reveal another alternative that would eliminate the need for the 230 kV transmission line now being proposed

Timestamp	First Name	Last Name	Comment
5/12/2015 18:34:44	Dale	Naeseth	It seems inconceivable that PSE would extremely high voltage lines over a gas pipeline. In addition PSE should use the existing Seattle City Light easement a few miles to the west that already have the very tall towers already. Lastly, this would require moving hundreds of trees, in an area that the city of Bellevue does not allow home owner to remove one tree with difficulty.

Timestamp	First Name	Last Name	Comment
6/4/2015 18:12:54	Gabriele	Neighbors	I stand opposed to the Energize Eastside project's proposed plan to build 230kV high-voltage power lines through Eastside communities. This plan is both unnecessary and dangerous. Those at risk from this project are all those who live, work, and attend school along the many miles of the proposed lines. These lines will follow the Olympic gas pipeline, an aging pipeline that happens to cross the Seattle Fault in several places. One accident in construction or maintenance, one car accident at one of the many intersections that cross the proposed route, or one earthquake could have devastating, catastrophic consequence for hundreds or thousands in our community. To approve this project is to put the lives of Eastside citizens in constant danger. The Eastside does not need these new power lines. Research presented at the scoping meetings by citizens and citizen organizations showed that PSE's demand forecasts are out of date and wildly inflated (see www.cense.org). The report PSE commissioned from E3 showed that improved efficiency would solve the energy needs of the Eastside community. The Columbia Grid plan doesn't require the new lines either (again, see www.cense.org). The Energize Eastside plan will benefit one group and one group only -- PSE and its investors. Will the City of Bellevue and the surrounding city governments put the lives of their citizens at risk simply to line the pockets of a private corporation? If they truly represent the citizens in their jurisdictions, they will not. I oppose Alternative 1 (PSE's "preferred route") and strongly endorse Alternative 2.

Timestamp	First Name	Last Name	Comment
6/5/2015 11:54:54	Thomas	Neighbors	I stand opposed to the Energize Eastside project's proposed plan to build 230kV high-voltage power lines through Eastside communities. This plan is both unnecessary and dangerous. Those at risk from this project are all those who live, work, and attend school along the many miles of the proposed lines. These lines will follow the Olympic gas pipeline, an aging pipeline that happens to cross the Seattle Fault in several places. One accident in construction or maintenance, one car accident at one of the many intersections that cross the proposed route, or one earthquake could have devastating, catastrophic consequence for hundreds or thousands in our community. To approve this project is to put the lives of Eastside citizens in constant danger. The Eastside does not need these new power lines. Research presented at the scoping meetings by citizens and citizen organizations showed that PSE's demand forecasts are out of date and wildly inflated (see www.cense.org). The report PSE commissioned from E3 showed that improved efficiency would solve the energy needs of the Eastside community, and the Columbia Grid plan doesn't require the new lines either (again, see www.cense.org). The Energize Eastside plan will benefit one group and one group only -- PSE and its investors. Will the City of Bellevue and the surrounding city governments put the lives of their citizens at risk simply to line the pockets of a private corporation? If they truly represent the citizens in their jurisdictions, they will not. If my granddaughter, daughter, and son-in-law are injured or their assets are damaged as a result of the City of Bellevue approving this project, the council members that approved this project are culpable since they have been informed about the risk. As a result, I will file lawsuits against the City of Bellevue and the people that approved the project. There is no limit on the liability in this case. I oppose Alternative 1 (PSE's "preferred route") and strongly endorse Alternative 2 (demand-side reduction and non-wire technologies).

Timestamp	First Name	Last Name	Comment
5/29/2015 22:32:51	Jingxia	Ni	Hello, We just bought the house at bridle trails area and our house is just next to the jet fuel pipeline and current existing power lines. We have a 5 years old who is active and running outside play. We bought the house and moved to the neighborhood for the natural beauty and safe environment. adding a high voltage transmission lines will increase the risk of a catastrophic pipeline explosion and also permanently reduce our property value. I don't think it is necessary to add another high voltage transmission line that will damage our environment. I vote for non-wire technology which should be the way for future planning of our energy use. thanks

Timestamp	First Name	Last Name	Comment
6/15/2015 15:40:27	Ken	Nichols	See emailed attachment from EQL Energy, for CENSE.

Timestamp	First Name	Last Name	Comment
5/11/2015 21:33:51	Shawn	Nickerson	As a local Bridle Trails resident, I support the Alternative 4: No Action

Timestamp	First Name	Last Name	Comment
6/3/2015 10:39:30	Margaret	Niendorff	This project is unnecessary and detrimental to the Eastside. The project's purpose is not local, but regional and national. Local eastsiders should not have our communities degraded, at our expense (!) for Columbia Grid and BPA needs. These needs should be handled by regional and federal authorities under a FERC review.

Timestamp	First Name	Last Name	Comment
6/12/2015 12:23:27	Oswald	Norton	I am opposed to the implementation of a new any new line upgrades. Instead, I'm for: Alternative 2: Demand Side Reduction/Non-wire Technologies Alternative 4: No Action From the beginning your company had sought to create an atmosphere of fear, and tried to use local entertainment personalities to try and sell us on this need, instead of engaging in a real dialog with your users. I find this troubling and wish we had an alternative to using your services.

Timestamp	First Name	Last Name	Comment
5/26/2015 15:46:59	Elizabeth	Olson	I have not yet been provided with an understandable explanation as to why PSE believes we need these wires and why these wires need to be placed through the Eastside. I have heard general explanations about a future increased need for power, but no concrete justification for their projections. I also understand that some of this power is not for us, but for Canada; why would power being transported to Canada be transmitted through one of the highest population density areas in the state?

Timestamp	First Name	Last Name	Comment
6/3/2015 9:04:11	Monica	Ortega	The Energize Eastside project & transmission line that removes many trees does not benefit Bellevue neighborhoods in any way. PSE is forcing a useless project on the Bellevue residents for their own profit.

Timestamp	First Name	Last Name	Comment
5/11/2015 12:23:12	J	pearson	I am writing to voice my concern over the use of 70th Ave NE as a route for power lines. It is a bit difficult to truly understand all of the impact this route will have on the surrounding neighborhoods. First in each picture you have posted it appears that you have possibly misrepresented the impact of the surrounding neighborhoods and environment. Your photos do not clearly depict the amount of vegetation loss at each site a pole is placed. The poles would be detrimental to the overall neighborhood. The main entry point to our neighborhood will lose much more vegetation and have a big adverse impact on our community. The city of Kirkland took great effort in the 90's to bury and hide many utilities underground to ensure a healthy environment. Unfortunately, now the neighborhood community will have to deal with these huge unsightly poles. Please reconsider the current plan and try to come up with a plan that would have less impact on the neighborhood, community and environment.

Timestamp	First Name	Last Name	Comment
5/15/2015 18:46:37	Katharine	Phelps	I'm very concerned about the large number of trees that are going to be destroyed for this project. Not only is this going to ruin some of the natural beauty of this area, but it seems like a slap in the face to our great parks system, and to the residents of this area. The amount of power we need and use, and the current increase in power needs do not appear to line up with the amount PSE has suggested is necessary. We don't need or want this project. Alternatives, like underground lines, should be considered.

Timestamp	First Name	Last Name	Comment
5/23/2015 13:12:23	Joy	Phelps	IF the 230kv lines are really needed, then why not locate them on the existing poles adjacent to I-405? The right of way is already in place, and the lines would not be close to the pipeline.

Timestamp	First Name	Last Name	Comment
5/31/2015 19:42:22	Alan	Pickrell	These huge towers and transmission lines going through Bellevue and other eastside neighbor hoods would significantly impact the beauty of our neighborhoods and certainly are not necessary for this area. Our property values would be reduced and surely we don't need this much energy. There must be a better way for PSE to serve our area.
5/31/2015 19:42:40	Alan	Pickrell	These huge towers and transmission lines going through Bellevue and other eastside neighbor hoods would significantly impact the beauty of our neighborhoods and certainly are not necessary for this area. Our property values would be reduced and surely we don't need this much energy. There must be a better way for PSE to serve our area.

Timestamp	First Name	Last Name	Comment
6/3/2015 16:13:36	Sarah	Powers	Alternates 1-3 are not acceptable. Bellevue can do better.

Timestamp	First Name	Last Name	Comment
6/11/2015 21:58:35	Harvey	Ries	This project is being imposed on the community as a solution to potential energy problems that could be faced in the future by the involved communities. The envisioned planned project has no actual or potential benefits to the affected communities, but rather allows Puget Sound Energy to use the pretext for providing massive electric transmission routes for power to be routed through the communities to other destinations at devastating costs to our communities with no benefit to us. These costs include devastating environmental effects, cutting large numbers of trees, a key essential part of our community as well as huge unsightly power transmission poles and lines doing nothing for the community power needs, present or future, but having extremely negative effect upon our communities and residents. I respectfully request support of a plan which will respect the integrity and environment of our communities while truly correlating construction and implementation with our communities and regions energy needs in a productive non destructive manner. Thank you for your consideration regarding this matter.

Timestamp	First Name	Last Name	Comment
5/30/2015 10:21:14	marilou	rolfe	Opposed to Energize Eastside EIS - NO

Timestamp	First Name	Last Name	Comment
5/20/2015 21:10:27	A.	Roosme	Comparison of charged nanoparticle concentrations near busy roads and overhead high-voltage power lines. Jayaratne ER1, Ling X1, Morawska L2. Author information Abstract Overhead high-voltage power lines are known sources of corona ions. These ions rapidly attach to aerosols to form charged particles in the environment. Although the effect of ions and charged particles on human health is largely unknown, much attention has focused on the increasing exposure as a result of the expanding power network in urban residential areas. However, it is not widely known that a large number of charged particles in urban environments originate from motor vehicle emissions. In this study, for the first time, we compare the concentrations of charged nanoparticles near busy roads and overhead power lines. We show that large concentrations of both positive and negative charged nanoparticles are present near busy roadways and that these concentrations commonly exceed those under high-voltage power lines. We estimate that the concentration of charged nanoparticles found near two freeways carrying around 120 vehicles per minute exceeded the corresponding maximum concentrations under two corona-emitting overhead power lines by as much as a factor of 5. The difference was most pronounced when a significant fraction of traffic consisted of heavy-duty diesel vehicles which typically have high particle and charge emission rates. Copyright © 2015 Elsevier B.V. All rights reserved. Per the above air pollution can be substantially higher below overhead power lines. In other words, they do not belong in residential areas.
5/21/2015 8:18:50	A.	Roosme	EMF from the 230kV power line will be much stronger than from the current 115 kV line. People living next to the power line easement will be bombarded 24 hrs a day. EMF is a health hazard or forward looking nations/communities would not ban overhead power lines in residential developments. Besides, many nations have restrictions on EMF exposure because it is a health hazard. OVERHEAD POWER LINES DO NOT BELONG IN RESIDENTIAL AREAS.
5/21/2015 8:19:00	A.	Roosme	EMF from the 230kV power line will be much stronger than from the current 115 kV line. People living next to the power line easement will be bombarded 24 hrs a day. EMF is a health hazard or forward looking nations/communities would not ban overhead power lines in residential developments. Besides, many nations have restrictions on EMF exposure because it is a health hazard. OVERHEAD POWER LINES DO NOT BELONG IN RESIDENTIAL AREAS.
5/21/2015 8:28:19	A.	Roosme	Overhead power lines are dead ugly and do not belong in residential areas. We would rather live next to a landfill or sewage treatment plant which are out of sight than in a community where the views are dominated by approx 130 ft tall poles and wires between the poles. It is ridiculous that overhead lines are even being considered since there are community friendly solutions. TOXIC LANDFILLS AND NUCLEAR WASTE DEPOSITORIES DO NOT BELONG IN RESIDENTIAL AREAS.AND NEITHER DO OVERHEAD POWER LINES.
5/21/2015 8:28:25	A.	Roosme	Overhead power lines are dead ugly and do not belong in residential areas. We would rather live next to a landfill or sewage treatment plant which are out of sight than in a community where the views are dominated by approx 130 ft tall poles and wires between the poles. It is ridiculous that overhead lines are even being considered since there are community friendly solutions. TOXIC LANDFILLS AND NUCLEAR WASTE DEPOSITORIES DO NOT BELONG IN RESIDENTIAL AREAS.AND NEITHER DO OVERHEAD POWER LINES.
5/21/2015 8:35:28	A.	Roosme	Pacific Northwest has the highest average humidity in the US. In humid and wet conditions power line noise can exceed 60 dBA. That is reason enough to ban overhead power lines in residential communities.
5/21/2015 8:35:48	A.	Roosme	Pacific Northwest has the highest average humidity in the US. In humid and wet conditions power line noise can exceed 60 dBA. That is reason enough to ban overhead power lines in residential communities.
5/21/2015 8:59:52	A.	Roosme	Overhead power line easements thru residential areas waste enormous amount of expensive land while permanently reducing the value of all homes in the vicinity of the power line due to: 1) Aestethics, 2) Ruined views, 3) Power line noise, 4) EMF, 5) Air pollution, 6) Safety issues. Several hundred million dollars worth of home values will be destroyed along the 18 mile long corridor if the 230kV line on approx 130 feet tall poles is allowed. There are other community friendly solutions for this increased capacity, if at all needed, which would also allow the removal of the existing 115 kV overhead line. OVERHEAD POWER LINES DO NOT BELONG IN RESIDENTIAL COMMUNITIES.
5/21/2015 9:00:03	A.	Roosme	Overhead power line easements thru residential areas waste enormous amount of expensive land while permanently reducing the value of all homes in the vicinity of the power line due to: 1) Aestethics, 2) Ruined views, 3) Power line noise, 4) EMF, 5) Air pollution, 6) Safety issues. Several hundred million dollars worth of home values will be destroyed along the 18 mile long corridor if the 230kV line on approx 130 feet tall poles is allowed. There are other community friendly solutions for this increased capacity, if at all needed, which would also allow the removal of the existing 115 kV overhead line. OVERHEAD POWER LINES DO NOT BELONG IN RESIDENTIAL COMMUNITIES.
5/21/2015 9:07:02	A.	Roosme	The current 115 kV overhead power line shares the easement with high pressure fuel pipelines. Installation of approx 130 ft tall poles in the same easement could very well damage the pipeline with disastrous results to adjacent homes and casualties. This has happened before and can happen again. This area is also prone to earthquakes. To allow overhead power lines and pipelines in the same easement is irresponsible. OVERHEAD POWER LINES DO NOT BELONG IN RESIDENTIAL AREAS. OVER

Timestamp	First Name	Last Name	Comment
5/12/2015 13:51:02	mike	roser	No matter the route bury the lines!

Timestamp	First Name	Last Name	Comment
6/1/2015 13:24:54	Mark	Ryker	I live very near the power line in Newcastle. I would like to know what kind of safety studies have been made with the co-existing gas line. Also I want to know if PSE will be reimbursing residents for the devaluation of their houses. Finally, what type of alternative conductive studies were made besides using power lines?

Timestamp	First Name	Last Name	Comment
6/10/2015 21:33:22	Chuck	Scheinbaum	I am very much opposed to the proposed route for the new transmission lines. The proposed new lines will not provide benefit to people in this area and will severely impact the value of our property as well as the views from our homes. If new lines are absolutely necessary, please put them underground or in undeveloped areas.

Timestamp	First Name	Last Name	Comment
6/15/2015 14:58:44	Sandy	Scheinbaum	I am very concerned about construction on & next to the pipe line ~ don't want another incident like in Bellingham. Additionally, this will impact our property values, and take down beautiful trees and eliminate homes for some of the deer near our home.

Timestamp	First Name	Last Name	Comment
6/10/2015 12:53:03	Kyle	Schouviller	This will do nothing to increase reliability of power, and will significantly impact our communities with no benefits to us. Reliability is an issue during storms, and more overhead lines will do nothing to solve this, as overhead lines being impacted by storms seems to be the primary cause of outages.

Timestamp	First Name	Last Name	Comment
6/15/2015 16:37:10	Catharine	Simon	I have been participating in the Energize Eastside public forums and as a mother of two, and 33 year resident of Bellevue, I still remain incredulous that an oversized regional transmission line is being proposed through residential neighborhoods on the eastside. There is no credible evidence that a 230Kv line is needed to address occasional peak loads in Bellevue. I am therefore requesting that Alternative #1 be removed from further consideration, and that, if an oversized transmission line for California and Canada must be routed up the eastside as PSE Claims, that PSE bear the cost to run the line underwater in Lake Washington. Seattle area Eastside residents will not pay for a solution to a regional and international transmission capacity problem, either in dollars or aesthetic value. The current proposed EIS scope has a glaring omission with respect to Safety issues, particularly for Alternative #1. PSE is proposing to erect 18 miles of 135 foot metal towers in a narrow corridor with a high-pressure petroleum pipeline through residential neighborhoods in earthquake country. That strikes me as a proposal demanding Safety at the top of the list, yet the Bellevue SEPA team omitted Safety altogether. Because of this, my neighbors and I have a lack of confidence that the interests of impacted residents is being considered by the SEPA process team. For this reason, I endorse the hiring of truly independent experts by neighborhood associations to provide me with the truth about the real needs for additional power. All evidence to date strongly suggests that a 115Kv distribution enhancement and/or a small gas-fired peaking plant will address the real needs of the Eastside for at least 30 years. So that independent subject matter experts can assess the EIS alternatives that “make the cut”, for Phase 2, it is imperative that the Draft EIS for Phase 1 incorporate all data necessary, including how the proposed alternatives are engineered for Safety. This includes at least: 1)Historic growth curves for actual Eastside power consumption going back to year 2000 or earlier, not starting at 2014 as PSE has done. 2)Plat drawings of each wiring route under consideration (including under Lake Washington as a new Alternative), showing tower locations, and precise proximity to the Olympic Petroleum Pipeline. 3)Descriptions of engineered solutions for lightening and earthquake risks at each tower location, particularly in sections co-located with the Olympic pipeline. 4)Detailed description of evacuation plans, as approved by all municipalities along the proposed route, should an accident occur with any tower during or after construction resulting in danger to the Olympic pipeline and/or nearby property. 5)Reconciliation of the proposed Alternatives with Federal, State and local land use plans. The Phase 1 Draft EIS should not include blank spaces in lieu of hard data necessary to complete a detailed analysis of the merits of each alternative currently under consideration, plus additional alternatives added as a result of this initial scoping period. The City of Bellevue, as leaders of the SEPA process, must begin to hold PSE accountable, and look after the interests of residents, businesses and communities along the entire route. To date, it is clear that this has not been happening.

Timestamp	First Name	Last Name	Comment
5/12/2015 14:52:51	Johann	Sorenson	Putting giant electric transmission towers through a residential neighborhood is out of character with the profile of the Eastside. In particular, putting towers in front of properties that were purchased for their views is highly undesirable. Alternate technologies such as wireless and downsizing demand should be employed. Reducing the values of properties by adding giant towers is basically antagonistic and does not serve the community or PSE well at all. A clear statement of the true needs for added power and real alternatives to towers is needed.

Timestamp	First Name	Last Name	Comment
5/25/2015 18:07:14	Nathan	Stix	I am opposed to this project due to safety concerns building these enormous towers beside the gas pipelines. I am also opposed to this project due to concerns with it negatively impacting our property values.

Timestamp	First Name	Last Name	Comment
6/2/2015 13:39:33	Sue	Stronk	Thank you Bellevue City Council for hearing our concerns about Safety and economic impacts to neighborhoods--which so many have been vocal in this process. And realizing this project is more about Canada and treaty needs than the "Eastside" need. So interesting in your drop down list above for choices to comment--nothing that negatively impacts the residents is listed! (Gee--hate to stir the pot and give residents any clues to their rights or how negatively this project may impact them!!) Suppose that is another PR move by PRW communications-Mark Williamson -- hired by PSE to get this project through--"on time and on budget" and master of the CAG process--a waste of time and money. Read about the "false" eastern power project called PATH--recently shut down by FERC--in W. Virginia, Virginia and Maryland--that project masterminded by the same Mark Williamson hired by PSE. Check out his web-site--from Madison Wisconsin. What--are there no good PR firms here locally to employ?? With Campaign contributions to all of our state officials by PSE--it is no wonder we can't get a reply e-mail from any of them re:EE! Laws have to change soon in WA state--why is there no oversight to a project like this before the people are tasked to prove it bogus. PSE has been most influential to grease the path to success! I trust all the council will make the right decisions--as you now are beginning to see truth in this complex issue. It is a shame the city had to hire a ITC and all have to spend their time in this 2 year EIS process--when the outcome already is so clear--let's just fast forward to the end and make your decision without all this waste of time and energy spent in the meantime by so many. Even Newcastle has gone on record--our city will not benefit from this project--therefore we shouldn't have to be burdened with the mess it creates and safety issues for our area. PS--next EIS phase--please list all pertinent info--negative or not --to this process for people to comment.
6/3/2015 12:46:23	Sue	Stronk	Alternatives 1 and 3 are totally unacceptable. The City of Bellevue and this Scoping process has to force PSE to acceptable Eastside solutions for a Bellevue problem. Easy to do--Listen to those that know what can be done (not just PSE) to find solutions- not only benefiting the PSE bottom line-- solutions for less money and less area destruction! Also Carol Helland is definitely biased and has too much "attitude" at all meetings to be trusted. She is not an impartial player in all this--so obvious!! And she perhaps carries too much influence in this process for a comfortable outcome. As Bellevue Council said--they are the "BOSS" in this process--not Carol Helland and the EIS team!

Timestamp	First Name	Last Name	Comment
6/2/2015 18:09:32	James	Sweet	The two transmission line routes selected by the Community Advisory Group in 2014 ("Willow" and "Oak") both share a common and potentially serious flaw: they both follow the Olympic Gasoline Pipeline where it crosses the Seattle Fault Zone in South Bellevue. The Seattle Fault has experienced surface ruptures during past earthquakes, which could cause the Olympic Pipeline to break and catch fire. Large fires beneath power lines are considered a major hazard in the utility industry, as they can cause the line to fail, break, and/or "flash-over" to the ground. A flashover from a 230,000 volt, 1 gigawatt power line to a metal pipeline could cause serious problems far from Bellevue. Please refer to my research paper titled "Energize Eastside and seismic risks in South Bellevue" for a detailed exploration of this topic.

Timestamp	First Name	Last Name	Comment
6/3/2015 14:29:54	Randy	Tada	Energize Eastside far exceeds our actual energy needs and will devastate the character, beauty and livability of Bellevue and other cities on the Eastside. What bothers me the most is that many people will suffer permanent losses in property value if the taller poles are constructed in/near residential areas. We will never be able to get our pristine views back. In addition, it appears that some of the excess power that is generated will be transferred to Canada. If Canada or any other locale needs the additional power, they alone should have to pay the extra costs involved in putting future power lines underground or in using alternative energy sources; PSE rateholders should not have to share in any costs when they will not receive any of the benefits. We need to seriously demand a comprehensive evaluation of other existing alternatives that will meet our energy needs, are safe, and will not cause unnecessary visual blight for the Eastside. If the eventual decision is made to build the taller poles, they should be located in industrial/commercial areas, which are already home to a number of unnattractive features. There are no expectations that an industrial/commercial area be attractive to homeowners like our current residential areas, so the impact would be minimal. Let's combine "blight with blight," instead of introducing new "blight" to an area where it does not belong.

Timestamp	First Name	Last Name	Comment
6/8/2015 16:56:40	Ariel	Taylor	Attachment including comments sent to info@EnergizeEastsideEIS.org

Timestamp	First Name	Last Name	Comment
6/15/2015 16:50:24	Michael	Tena	I am deeply concerned about the impact to Newcastle neighborhoods from this project and very skeptical about the need for it. My specific concerns include overall aesthetics (particularly the height of the proposed wires), safety, and home values. The number of trees to be removed is a great concern as well, from an environmental perspective. Based on the hypothetical "before and after" pictures posted by PSE, this would be neighborhood blight on a horrible scale. In terms of whether the project - and in particular Alternative 1 - is needed, PSE has not made a strong and compelling case in my opinion, despite all its expensive advertising. I would like to see more impartial study and evaluation, and if improvements in grid reliability are truly required, safe solutions that are less devastating to the environment and home values. Based on all I've seen and read, Alternative 1 sounds like a terrible and extreme solution to a "problem" that has not yet been adequately proven and documented.

Timestamp	First Name	Last Name	Comment
6/4/2015 13:25:16	Ellen	Tennis	The alternatives one and three put forth in the EIS will not work for our communities.

Timestamp	First Name	Last Name	Comment
6/11/2015 14:34:08	Lisa	Tintinger	I am worried about the pipeline being damaged or causing an explosion. I am worried about the noise of the power lines. I can already hear the ones we currently have as I walk my dog. I worry about my pets and children and the safety of the emissions. Kids play at the park right under the power lines. I worry about the destruction of so many trees. I am not excited about the decrease in property values. Lastly, I am not happy with how it will effect the look of the city of Newcastle and my neighborhood.

Timestamp	First Name	Last Name	Comment
6/9/2015 21:40:18	Kathy	Tsuchiyama	I think it unsafe for obvious reasons to be digging to install your power poles near/at the existing pipeline. Why was route L declined? Or following along 405?

Timestamp	First Name	Last Name	Comment
6/2/2015 13:37:48	Ingrid	turner	The environmental impact will be huge, with the loss of a great number of trees and impact on streams and natural areas. The area I'm familiar with is Coal Creek Park and Newport Hills. The line will cut right through the park which the City of Bellevue has been working on the last few years to create a natural area. We need to minimize invasive actions in this park. It will also run along the pipeline which people use a recreation area for running, walking and biking. We are aware that this is the path of the pipeline, but it is great that recreation is a side benefit and this mitigates the fact that a pipeline is running through the area. With the reduction in aesthetics and natural areas along the path of powerline, recreation will be impacted. The area will no longer be desirable for walking and running.

Timestamp	First Name	Last Name	Comment
6/1/2015 12:49:00	Tjeerd	Veninga	This is in response to the plan to install 18 miles of high voltage (230kV) transmission lines on 130' high poles throughout the Eastside. We strongly urge you to look at alternative solutions. Do we need that massive capacity, could there not be any alternative solutions? Other than aesthetics, we are very concerned about safety, starting with the fact that you'd be drilling and building on top of a jet fuel pipeline running through Bridle Trails. In addition, chopping 8.000 trees when we may not have to seems out of proportion. Finally, the neighborhood is obviously concerned about the impact on property values. Please work on alternative solutions, this feels like using a canon to kill a fly....

Timestamp	First Name	Last Name	Comment
6/3/2015 20:52:59	Clair & Maxine	Voetberg	Please stop PSE from destroying our beautiful neighborhood/city with ugly power lines that are unnecessary.There are other possibilities! PSE is simply reluctant to make any other considerations. We cannot fear the giants roar and let them trample on our entire neighborhood. Our elected officials need to stand up for the people they represent and stop this nonsense. I have contacts that keep me informed as to the progress so please no emails.

Timestamp	First Name	Last Name	Comment
5/29/2015 7:39:02	Stephen & Suzie	Wagner	Both Suzie and I have worked as environmental consultants and written and reviewed EISs in the past. The purpose of an EIS is to impartially consider all viable alternatives, weighing the pros and cons of impact and cost. In reality, EISs are very unlikely to be unbiased, and this one is no exception. PSE engineers and analysts are paid full time to work on this; the EIS consultants are paid full time to work on this, but don't have the necessary expertise to analyze the alternatives; and of course the public is not even paid to consider these alternatives. The result is a flawed process. We discuss alternatives below, but in brief, we suspect that some of the current alternatives are included primarily because they are not viable. By the same token, viable alternatives have already been rejected by PSE without serious consideration and are not, so far, included in the EIS. The materials provided thus far are insufficient for us to analyze the proposed EIS, starting with the forecasting (which is now three years old), including the lack of safety considerations, and ending with no discussion of costing and funding alternatives.
5/29/2015 7:40:42	Stephen & Suzie	Wagner	There is no question that many controversies exist regarding energy, especially as regards load forecasting and viability of alternative energy approaches. Funding of conservation measures surely benefits both reduced energy growth and conservation of natural resources, yet this is not quantified in any of PSE's documentation. There is little or no evidence that the threat of global warming, the safety considerations and risks to the environment of a capital project like this, and the impact to existing customers vs. future customers have even been considered in the materials generated so far.
5/29/2015 7:43:09	Stephen & Suzie	Wagner	PSE is an out-of-area for-profit entity. This is perfect example of local government inappropriately outsourcing a public service. Like many electric power utilities, PSE benefits from enhancing their transmission lines due to loopholes in the regulatory structure, according to this recent Wall Street Journal article : Utilities' Profit Recipe: Spend More (April 20, 2015, Rebecca Smith at rebecca.smith@wsj.com, http://www.wsj.com/articles/utilities-profit-recipe-spend-more-1429567463). As the article discusses, progressive parts of the country are beginning to close this loophole. Washington State should follow suit. PSE should not be trusted and must be required to provide a service to Eastside residents rather than to line its own pockets. We believe in conservation and make every effort to reduce our energy footprint. We have lived at this address for twenty years. In that time, we have : done PSE energy audits added additional insulation replaced our incandescent bulbs with fluorescents, then replaced our fluorescents with LEDs installed energy-efficient windows replaced our house and water heating units with more efficient units added a generator and transfer switch to deal with the power outages we must endure almost every winter and more frequently at other times of the year Do our power rates go down ? No. Wearing our engineering and environmental consulting hats, we are well aware of the price elasticity of power demand, since we've reduced partly to avoid paying PSE more as our rates increase. The public utilities commission should look at solutions involving price, as we discuss below. New customers should be required to adopt the most forward-thinking and innovative techniques in their buildings and energy-consuming equipment.

Timestamp	First Name	Last Name	Comment
5/29/2015 7:45:55	Stephen & Suzie	Wagner	Discussion of alternatives Alternative 1- New Transformer and Transmission Line (new electric substation and approximately 18 miles of 230 volt transmission lines from Renton to Redmond). As conscientious Bellevue citizens, we consider Alternative 1 to be grossly unfair, ill advised, and extremely outmoded. We would, if anything, expect to see a project that reduced the impact of, or eliminated, our existing power lines. Reduction or elimination is certainly possible, given modern technology. This alternative is too expensive, unsafe, and does not serve existing residents of the Eastside in any way. It will only serve to increase our rates, but not benefit us. We already suffer outages due to storms that are worse than the outages PSE projects. Any capital project that is pursed should focus on that current condition rather than on boosting power availability to projected customers, Canada, and California. Alternative 2 – Demand Side Reduction/Non-Wire Technologies. PSE claims this will not work – this alternative is an example of providing an alternative that is not viable. From PSE Needs Assessment (December 2013) http://www.energizeeastside.com/Media/Default/Library/EastsideNeedsAssessmenReportTransmissionSystem-final_v2.pdf : "CONSERVATION HELPS…BUT DOES NOT SOLVE THE PROBLEM PSE has adopted the most stringent conservations method available and investigated all options to serve this expected increase in electrical energy. We have factored in improvements in energy efficiency. These options, however, are not sufficient in and of themselves to satisfy the anticipated need." My wife and I disagree. There is no question that a combination of these various technologies, along with differential time-of-day and consumer-category rate structures could easily overcome the projected deficit. This could be done with proven technology at much less cost than Alternative 1. Alternative 3 – New Transformer – Existing Substation (additional new 115kV transmission lines would be required). This alternative is apparently another not-viable approach that is not well thought out. I have heard many concerns about the impact of this approach in our neighborhood because of the large number of additional 115-volt lines that would be required, especially around Bridle Trails Park. Once we understand what is proposed, we are sure we will oppose this approach on environmental, cost, and lack of benefit grounds. Alternative 4 – Null alternative. In many ways, this is the best alternative, since it combats global warming, is safe, and keeps the Eastside on a course of living within its means. The existing infrastructure may not be perfect, but it is sufficient to satisfy the projected demand from PSE. This alternative should be carefully assessed, in particular by revising the projected power usage numbers. Other alternatives must be considered in the EIS. No alternative should be thrown out only because of cost. Since PSE automatically gets a 10% plus profit on any project it develops, why worry about cost ? Since costs to ratepayers can only be amortized through the rate structure, even a much higher cost project won't really be felt by rate payers, especially if a capital recovery surcharge is extracted from new consumers as opposed to existing consumers. A higher cost project is warranted if it is safer and less disruptive to residents. Each of these additional alternatives should be analyzed in the EIS : -buried lines -in-lake 230-volt lines -utilization of the Seattle Light 230-volt route -expanded differential time-of-day and consumer-type rate structuring, especially for new PSE customers. -capital recovery for new PSE customers

Timestamp	First Name	Last Name	Comment
5/26/2015 19:43:19	Maureen	Watanabe	I am very concerned about safety. Building new electrical towers over gas lines seems like a catastrophe waiting to happen. I am also concerned about home devaluation in our Olympus neighborhood. This project seems to only profit a corporation but does not take into account the homes and lives of people impacted.

Timestamp	First Name	Last Name	Comment
5/1/2015 12:16:13	Keith	Watts	Tesla just announced the PowerWall Battery for homes, businesses and utilities. Please consider the cost / benefit analyst of using $350 per khw batteries for solving this problem. Is there a way? http://www.washingtonpost.com/news/energy-environment/wp/2015/04/30/why-teslas-announcement-could-be-such-a-big-deal/ "A late 2014 study by the Brattle Group, prepared for mega-Texas utility Oncor, found that energy storage “appears to be on the verge of becoming quite economically attractive” and that the benefits of deploying storage across Texas would “significantly exceed costs” thanks to improved energy grid reliability. Oncor has proposed spending as much as $ 5.2 billion on storage investments in the state. California, too, has directed state utilities to start developing storage capacity – for specifically environmental reasons." Thanks, Keith H. Watts
5/19/2015 10:07:52	Keith	Watts	Regarding energy conservation to solve this problem.... scientist say we have a big global warming problem and electric cars would help reduce carbon emissions. So suggesting that we conserve on electricity on the Eastside encourages people to not buy electric cars which seems like bad policy. I think building a high capacity grid for the future electric car adoption should be an investment we make in our infrastructure now. Considering we have abundant low cost hydroelectric power generation and we have not started using solar locally or batteries, having lots of electric cars and buses on the road makes sense. Doing nothing to improve our low capacity grid does not make sense (unless hydrogen fuel cell cars trumps electric cars).

Timestamp	First Name	Last Name	Comment
6/14/2015 9:50:03	Donald	Westerberg	As a 40 year resident of the Bridle Trails Area I take great pride in having been able to live in this area for so long. To disturb the beauty of the area by implementing towers to server other areas of the country is a major shame. Please vote down PSE's request to do this.

Timestamp	First Name	Last Name	Comment
6/9/2015 16:57:29	Robert	Wiley	Regulated public utilities exist to provide vital services of a natural monopoly. The fact that PSE's hedge fund owner can get a guaranteed 10% rate of return with cost of money close to 0% makes me seriously question the motivation behind this project. It smacks of gaming the system, raising our rates in the future and of course, leaving behind terrible esthetics. PSE and Energize Eastside should welcome a full EIS to win the argument on the merits. Anything short of this will mean at best a short term profit gain with a long tail of resentment, distrust and bitterness. A privately held company can more easily ignore and thwart the popular will when public pressure on a public company might prevent it. All the more reason to do the right thing and support the full-blown EIS.
6/9/2015 16:57:26	Robert	Wiley	Regulated public utilities exist to provide vital services of a natural monopoly. The fact that PSE's hedge fund owner can get a guaranteed 10% rate of return with cost of money close to 0% makes me seriously question the motivation behind this project. It smacks of gaming the system, raising our rates in the future and of course, leaving behind terrible esthetics. PSE and Energize Eastside should welcome a full EIS to win the argument on the merits. Anything short of this will mean at best a short term profit gain with a long tail of resentment, distrust and bitterness. A privately held company can more easily ignore and thwart the popular will when public pressure on a public company might prevent it. All the more reason to do the right thing and support the full-blown EIS.

Timestamp	First Name	Last Name	Comment
6/4/2015 12:07:24	Bruce	Williams	The Energize Eastside project is not needed sine the proposal is premised on inaccurate and false data. The damage, environmental, visual, financial and quality of life to the communities is overwhelming. PSE is attempting to make a residential community into an industrial corridor.

Timestamp	First Name	Last Name	Comment
5/12/2015 13:08:01	Jennifer	Wilson	I am deeply concerned about the safety of running these new lines on our residential communities, but most concerned about the fact that the Willow segment would run right over Tyee Middle School. Already an aging gas pipeline runs underneath the property, and now you propose high-voltage power lines to tower over the very building itself. Our children spend roughly 8 hours a day, if not more, at that school. They'll be exposed to the EMF for those 8 hours per day, and any small accident to the power lines could have catastrophic consequences. If new lines are needed at all -- and based on the discussion at the most recent Bellevue City Council meeting I don't think it's been proven that they are -- why were other options sidelined? Why pick the option that has the greatest downside, and greatest danger, to the local communities and local citizens? Why not use the nearby 230kV transmission lines -- which I have been told are currently underused -- instead of spending tens of millions to build another set of lines so close by?
6/8/2015 16:31:32	Jennifer	Wilson	I have concerns about the scoping process and the process for citizen input regarding Energize Eastside. On the Energize Eastside scoping website, the scoping stage offers four "alternatives." If alternative one is truly just an option, why did a citizen at the Newcastle Elementary scoping meeting report that PSE has already tagged trees in his backyard that will be cut down for construction of a 230kV power line? Why is PSE already moving forward with tagging trees along a proposed route if that alternative has not been approved? Why does the Energize Eastside website only speak of one alternative -- the 230kV power line, and not the possibility of three other alternatives? Is this entire EIS process offering four options and asking for citizen input legitimate? Are these alternatives truly alternatives, or is this entire process simply meant to rubber-stamp PSE's "preferred" alternative (#1)?
6/12/2015 13:25:06	Jennifer	Wilson	I submitted a comment regarding general safety in May, but after attending scoping meetings and doing further reading, I now have additional concerns: I am strongly in favor of Alternative 2 and completely opposed to Alternative 1. Alternative 1 and its proposed plan to build 230kV high-voltage power lines through residential Eastside communities is both unnecessary and dangerous. Those at risk from this project are all those who live, work, and attend school along the many miles of the proposed lines, such as the students who attend Tyee Middle School (directly below one of the proposed routes). These lines will follow the Olympic gas pipeline, an old pipeline that happens to cross the Seattle Fault in several places, including in Bellevue. One accident in construction or maintenance, one car accident at one of the many intersections that cross the proposed route, or one earthquake could have devastating, catastrophic consequence for hundreds or thousands in our community. To approve this project is to put the lives of Eastside citizens in constant danger. Those who will pay the monetary costs of this project are the PSE rate-payers on the Eastside, who will be paying for this project for decades to come. The Eastside does not need these new power lines. Research presented at the scoping meetings by citizens and citizen organizations showed that PSE's demand forecasts are out of date and wildly inflated, based on unrealistic scenarios that include turning off power generators during times of peak need (see www.cense.org). The Energize Eastside plan will benefit one group and one group only -- PSE and its investors. Our local governments need to stand up for the interests of their citizens. They should make decisions with the well-being of their citizens in mind, and not make decisions with the profits of a private corporation in mind. That means opposing Alternative 1 and endorsing Alternative 2.

Timestamp	First Name	Last Name	Comment
6/14/2015 21:10:49	Ron	Wilson	I am strongly opposed to Alternative 1. Alternative 1 and its proposed plan to build 230kV high-voltage power lines through Eastside communities is both unnecessary and dangerous. Those at risk from this project are all those who live, work, and attend school along the many miles of the proposed lines. These lines will follow the Olympic gas pipeline, an old pipeline that happens to cross the Seattle Fault in several places, including in Bellevue. One accident in construction or maintenance, one car accident at one of the many intersections that cross the proposed route, or one earthquake could have devastating, catastrophic consequence for hundreds or thousands in our community. To approve this project is to put the lives of Eastside citizens in constant danger. Those who will pay the monetary costs of this project are the PSE rate-payers on the Eastside, who will be paying for this project for decades to come. The Eastside does not need these new power lines. Research presented at the scoping meetings by citizens and citizen organizations showed that PSE's demand forecasts are out of date and wildly inflated and based on unrealistic scenarios (see www.cense.org). Conservation and new technologies are the logical choice for the Eastside. The Energize Eastside plan will benefit one group and one group only -- PSE and its investors. Our local governments need to stand up for the interests of their citizens. They should make decisions with the well-being of their citizens in mind, and not make decisions with the profits of a private corporation in mind. That means opposing Alternative 1.

Timestamp	First Name	Last Name	Comment
6/15/2015 11:49:15	William	Wilson	It is unbelievable that in 2015 in a beautiful sophisticated city that we are having the discussion about building 130' high voltage lines through residential neighborhoods and parks.I travel internationally frequently and have never seen high powers lines running through cities in 1st or 3rd world countries.In fact there is a noticeable absence of all power lines. What is the point of having a city council if it does not have the power to stop PSE's energize eastside plan and use alternative means to ensure the Eastside does have power for the future. PSE used phony simulations to scare us. Their marketing graph is completely misleading as it doesn't tell us that they are assuming 1/2 the transformers are out or that the backup generators have not been turned and that they have not turned off the feed to Canada.PSE should be sued for misleading the public and City councils. There are many options to implement to ensure the Eastside will not run out of power such as building a Peaking plant at Lakeside substation and adding a transforming at the Talbot Hill station. And how about immediately implementing what PSE's consultant E3 recommended. It is so blatantly obvious that PSE's desire for the Mega power lines is all about the financial return they will make off them and from the power supplied to Canada and California. The problem is only a very small % of the Eastside population know these facts. Most people have no knowledge of the devastating effect of PSE's plan on our city and the fact that it is not necessary. It would cost millions to spread the word which Cense does not have so I don't think you will receive tens of thousands of comments for this reason. We are therefore depending on our city councils to learn all the facts and make the right decision for the residents on the Eastside and so NO to PSE. Bill Wilson

Timestamp	First Name	Last Name	Comment
5/26/2015 15:57:47	Michael & Tracia	Wong	We join the many voices on the eastside opposing the PSE Energize Eastside project due to the danger of installing 130-foot towers right on top of existing Olympic gas lines (the same ones that exploded and took lives in Bellingham). We have no desire to pay through rate increases, for an over-scaled project to benefit PSE's bottom line. Safety issues and home devaluation are only 2 of many concerns we are raising.

Timestamp	First Name	Last Name	Comment
6/10/2015 9:56:55	Larry	Woo	Our preference would be alterative 3 - erecting poles this height would be such an eyesore to the entire Eastside let alone the hazards involved. There has to be a better solution - let's move forward, not backward.

Timestamp	First Name	Last Name	Comment
6/10/2015 16:56:33	Barbara	Woo	NO for PSE's Energize Eastside proposal and PLEASE implement a comprehensive evaluation of other alternatives such as non-wire technologies, alternative energy and conservation.

Timestamp	First Name	Last Name	Comment
5/29/2015 7:05:34	Brian	Wood	I would like to see Alternative 2: Demand Side Reduction/Non-wire Technologies explored in lieu of more above ground lines.

Timestamp	First Name	Last Name	Comment
5/28/2015 0:10:40	Yong	Zhang	Why have to cross Liberty Ridge? Please consider going strait towards south to avoid passing through Liberty Ridge community where lots of human people living there. I'm wondering the EMF & view impact on my property, it will definitely decrease its value.

Timestamp	First Name	Last Name	Comment
5/24/2015 15:35:59	xing	zhao	PSE should study more alternatives before deciding on the two chosen transmission lines. 1. Is there a real need to do the project? It seems that the current system can cope with all the requirements if no electricity is transmitted to CANADA. PSE has hid its REAL motivation of the project from the public. 2. There are several alternatives of transmitting electricity to CANADA. However, PSE chose to ignore them. 3. The future electricity need proposed by PSE is overly exaggerated. 4. The only purpose of this project seems to be profit to PSE.

Timestamp	First Name	Last Name	Comment
5/12/2015 1:28:59	Eric	Zhuang	Ten years ago, it is unimaginable to have cars driven at 50+ miles per gallon. The advances of technology, especially the new renewal energy, fuel cells, energy efficient LED and appliances will change how we think of electricity traditionally. It is the easiest route for PSE to put up the poles and lines. It is the traditional way and business as usual. However, once put up, the poles and lines will be there forever. Trees will be cleared and forever cut as long as the lines are there. They look like big scars on the otherwise beautiful face of the emerald city. Driving by the ugly poles and towers and looking at the lines cutting through the blue sky and green mountains, we will regret a too high price paid for something may never be needed. 1. There is not enough study on the effect of demand considering the green / renewable technology upward trend. 2. Demand Side Reduction/Non-wire Technologies

Timestamp	First Name	Last Name	Comment
6/15/2015 13:37:02	Barry	Zimmerman	My EIS scoping input is focused on quality and completeness of the EIS, particularly to ensure that the Phase-1 Draft EIS include all data necessary for stakeholders to conduct detailed analysis of the impacts of proposed Alternative #1. It is critical that the SEPA group demonstrate its leadership and demand that at least the following details are present in the Phase 1 DRAFT EIS (D1-EIS) document so there is sufficient time for detailed analysis that can support meaningful reviews in Phase 2. 1. Provide detailed geographic coordinates for the location of each new tower foundation proposed along the 18 mile route. This is critical to provide for analysis of safety margins and easement widths, particularly in the dangerous segments of the route that are proposed to be shared with the 50-year old High-Pressure Olympic Pipeline. 2. Provide detailed maps of all new access roads, drainage mitigation, other-utility relocations, and required for construction and operation of the proposed Transmission Lines. 3. Provide discussion of possible conflicts between the proposed action and the objectives of federal, state, and local land use plans, policies and controls. Where inconsistencies exist, the document should describe the extent to which PSE will reconcile its proposed action with the plan or law. 4. Include details on the decision-making process regarding the proposed action. Include details on how the current alternatives were derived, and how other alternatives may be added for consideration during the EIS review and approval process. 5. Discuss in detail the remainder of the decision process. What happens after the D-EIS, and what criteria will be used to confirm the preferred alternative. Will this happen after the D-EIS review? Will all alternatives be reviewed in greater detail in the Final EIS (F-EIS)? Or will the F-EIS just cover the preferred alternative? How exactly will the decision between Alternatives be made, and by whom? 6. What neighborhood evacuation plans will be in place, coordinated with cities, and rehearsed with residents prior to construction, particularly along the dangerous segments shared with the gas pipeline? 7. Provide engineered and verifiable details of lightening mitigation plans for these 135 foot metal towers that will be the tallest structures in every part of the proposed route. Tall lightning rods next to a high-pressure gas pipeline is not a recipe for safety. 8. The D-EIS must include real project risk mitigation measures, not boilerplate or vague references to best management practices etc. This includes construction risk, earthquake risk, and safety risks associated with proposed co-location with a high-pressure gas pipeline. 9. The proposed routes require substantial digging in areas where old Coal Mines exist. The D-EIS must include risk analysis for these areas as part of the detailed tower locations provided in my point 1 above. 10. Coordinate with federal agencies on the Endangered Species Act prior to releasing the D-EIS to fully assess impacts to endangered and threatened species from the thousands of trees to be destroyed by Energize Eastside. 11. The D-EIS should address anticipated impact to wildlife (e.g. Owls, Black Bear, Cougar, etc.) along the route The point of my EIS Scoping input is to ensure that the SEPA process incorporates the required quality and accountability standards into the DRAFT EIS documents so that there are no surprises or major additions to the Final EIS (F-EIS) such that the changes cannot be reviewed, discussed, or modified prior to approval of the F-EIS. We, the public, will not accept phrases like “To Be Determined” or “Detail to be provided in the Final EIS” in Draft EIS documents submitted for review, as this makes a mockery of the entire notion that the public can review and provide feedback to “the” EIS.