

# **APPENDIX A. PSE CONSERVATION PROGRAM**

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Conservation means a reduction in energy demand. Conservation is achieved mainly by customers implementing voluntary energy efficiency improvements beyond those energy efficiency measures that are required by regulations.

PSE uses conservation goals as an important factor in developing load forecasts. For the Eastside, the current conservation goal is to conserve approximately 110 MW of power beyond the baseline load growth expected through 2024.

Table A-1 below shows the total conservation that PSE expects to achieve systemwide and for the Eastside. Values are for winter peak load. These loads are modeled on a typical winter cold spell of 23 degrees Fahrenheit. Values are shown for the entire PSE system and for the Eastside. “System Peak Net of 100% Conservation” means the peak load that would occur during a cold weather event, assuming PSE has attained its annual target for conservation measures. “System Peak 100% Conservation 2014” refers to the cumulative amount of conservation targeted to be attained by a given year, with 2014 as the baseline. Similar values are provided for the Eastside area.

**Table A-1. Energy Conservation Systemwide and for the Eastside through 2024**

	2014 System Peak Net of 100% Conservation	System Peak 100% Conservation 2014	2014 Eastside Peak Net of 100% Conservation	Eastside Peak 100% Conservation 2014
Year	MW (23° F)	MW (23° F)	MW (23° F)	MW (23° F)
2014-15	4,803	91	619	21
2015-16	4,820	177	641	31
2016-17	4,844	262	667	41
2017-18	4,891	341	688	51
2018-19	4,891	424	697	61
2019-20	4,904	490	708	74
2020-21	4,856	614	722	86
2021-22	4,850	694	730	96
2022-23	4,863	767	742	107
2023-24	4,888	832	764	110
2024-25	4,961	852	783	113

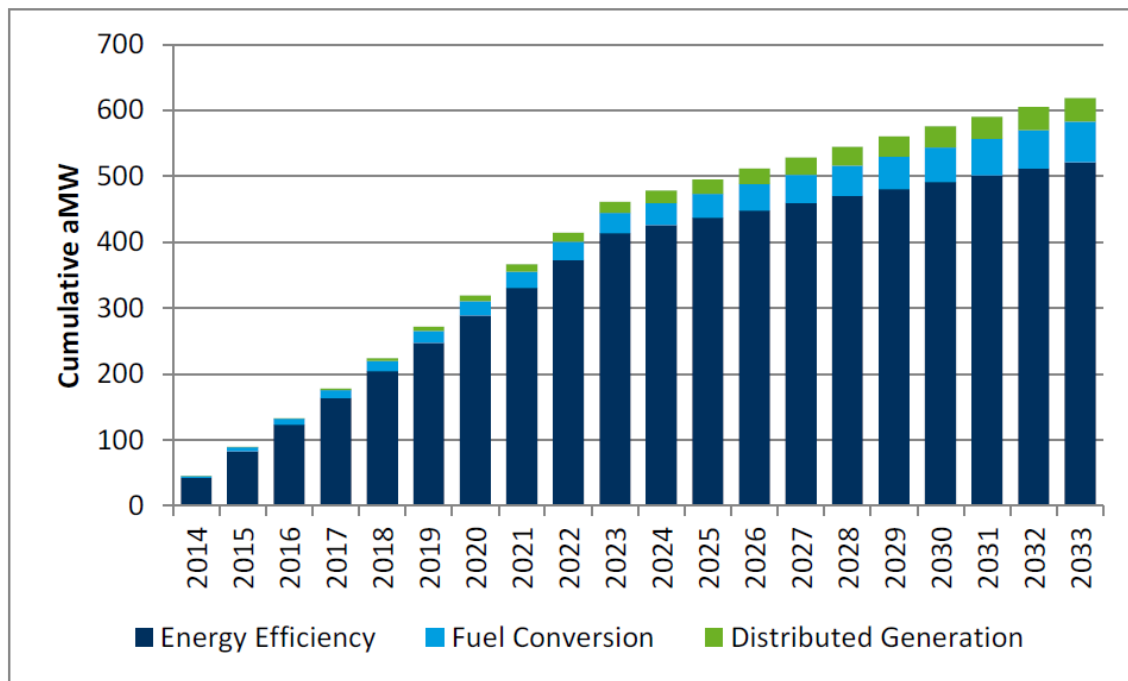
Source: PSE Solutions report

The types of conservation measures that PSE expects to implement to achieve its conservation goals include the following:

- Energy Efficiency: Weatherization, efficient lighting, etc.
- Fuel Conversion: Converting from electric to gas
- Distributed Generation: Customer combined heat and power (CHP), solar, wind, etc.
- Distribution Efficiency: Measures implemented on PSE distribution systems
- Demand Response: Capacity savings programs

Figure A-1 shows PSE’s projected potential for achievable electric conservation by resource type. Energy Efficiency is by far the largest contributor to total energy savings in PSE’s conservation program, accounting for approximately 90 percent of total energy saving systemwide by 2024. Distribution efficiency and demand response are included in the Energy Efficiency category in this chart.

**Figure A-1. Achievable Potential Electrical Conservation by Resource Type**



Source- PSE IRP 2013- Appendix N (Figure 2)

Fuel conversion (from electric to gas) and distributed generation (smaller sources of power such as solar, wind, and other generation types) represent a small but growing component of PSE’s conservation program. PSE does not consider distributed generation to be cost effective because it is expensive and therefore the projected energy savings from distributed generation is very small.

In the past, PSE has conducted pilot programs with demand response. Those programs are included in the forecast for future implementation as part of the energy efficiency component shown in this graph.