CHAPTER 7. ERRATA

This chapter addresses errors and corrections to the text of the Phase 1 Draft EIS and is organized by Draft EIS chapter, section, and page number.

1) Chapter 1 – Introduction and Summary:

a) **Page 1-2, Paragraph 2, Lines 11-12:** The reference to Figure 1-1 incorrectly states that there is no 230 kV transmission line that reaches the center of the Eastside area. The reference should read that there is no 230 kV transmission line that provides the necessary capacity to the center of the Eastside area.

b) **Page 1-3, Figure 1-1:** The legend should read "Customers potentially affected by rotating outages" rather than "Customers affected by rotation outages."

c) **Page 1-31, Affected Environment, Paragraph 2**: PSE has stated that HPFF would not be used in underground lines. Therefore, the following text: "Hazardous materials are likely in electrical infrastructure (e.g., oil-containing transformers, High Pressure Fluid-Filled (HPFF) power lines used in some underground lines)" has been replaced with "Hazardous materials are likely in electrical infrastructure (e.g., oil-containing transformers)."

d) **Page 1-32, Mitigation Measures, Bullet One:** PSE has stated that their transformers would not use SF6. Therefore, the following text: "use vegetable-based oil for transformers rather than petroleum based oil or SF6," has been replaced with "use vegetable-based oil for transformers rather than petroleum-based oil."

e) **Page 1-54, Table 1-3:** Impacts for Recreation under Alternative 2 were incorrect and should have been stated as "Negligible to Minor" to reflect the findings of the recreation chapter.

2) Chapter 2 – Description of Project and Alternatives:

a) **Page 2-40, Paragraph 2**: To provide clarity, when using the term "storing," the text should refer to the MWh rating (225.6), rather than the power rating of 121 MW.

b) **Page 2-41:** The heading numbering scheme for the Peak Generation Plant Component and Construction subsections is incorrect. The headings have been changed from "2.3.3.1 Peak Generation Plant Component" and "2.3.3.3 Construction" to "2.3.3.5 Peak Generation Plant Component" and "2.3.3.6 Construction," respectively.

3) Chapter 3 – Earth:

a) **Page 3-16, Paragraph 2, Lines 3-4:** Water and sewer pipelines may also need to be provided. Text has been changed from "Depending on location, this could include replacing major gas mains to increase natural gas supply capacity" to "Depending on location, this could include replacing major gas mains (to increase natural gas supply capacity) and providing water and sewer pipelines."

b) **Page 3-17, Paragraph 5, Lines 5-7:** PSE would only need to integrate information and recommendations prepared by a geotechnical engineer. Text has been changed from "For the substation expansions under Alternatives 1 and 3, prior to the issuance of grading permits, PSE would be required to retain a Washington-licensed geotechnical engineer to design the project facilities to withstand probable seismically induced ground shaking at each location" to "For the substation expansions under Alternatives 1 and 3, prior to the issuance of grading permits, PSE would be required to retain a system designer that would integrate information and recommendations prepared by a geotechnical engineer to ensure that appropriate design considerations are made."

c) **Page 3-17, Paragraph 5, Lines 8-12:** Text has been revised to increase clarity. Text has been changed from "All grading and construction would adhere to the specifications, procedures, and site conditions contained in the final design plans, which would be fully compliant with the seismic recommendations of the Washington State Building Code and any local building code amendments. The required measures would encompass site preparation and foundation specifications." To "All grading and construction would adhere to the specifications, procedures, and site conditions contained in the final design plans, which would be fully compliant with the seismic requirements of the Washington State Building Code and any local building code amendments. The required measures would encompass site preparation and foundation specifications."

4) Chapter 6 – Plants and Animals:

a) **Page 6-11, Figure 6-6:** Corrected naming convention by renaming it Figure 6-7.

b) **Page 6-14, Paragraph 4, Lines 1–2:** The figure reference needed to be updated per change 4a. In addition, PSE's Vegetation Management Program removes mature trees equal or greater than 25 feet, not 15 feet. Text has been changed from "PSE's Vegetation Management Program would continue under the No Action Alternative (Figure 6-6). This program includes removal of mature trees greater than 15 feet tall that are located within the transmission right-of-way, (typically including the area directly under the wires (the wire zone), and 10 feet from the outer transmission wires (border zones)" to "PSE's Vegetation Management Program would continue under the No Action Alternative (Figure 6-7). This program includes the removal of mature trees equal to or greater than 25 feet in height that are located within the transmission right-of-way, typically including the area directly under the wires (the wire zone), and 10 feet from the outer transmission wires (border zones)."

c) **Page 6-15, Figure 6-6:** To increase clarity, Figure 6-6 has been moved (now Figure 6-7 per change 4a) "PSE Vegetation Management Program Zones" to Section 6.6.3.

5) Chapter 8 – Environmental Health and Safety:

a) **Use of SF6 (throughout Chapter 8):** PSE does not use SF6 (a gas sometimes used for insulation of electrical equipment) in transformers. However, SF6 is used in high-voltage circuit breakers, which are designed to protect an electrical circuit from damage caused by overcurrent/ overload or short circuit. Due to environmental and cost concerns over insulating oil spills, most new breakers use SF6 gas. SF6 gas absorbs free electrons, forms a negative ion, and quenches the arc between the fixed and moving contact of the circuit breaker. Special equipment is used when charging equipment with SF6 gas to prevent release to the atmosphere.

b) **Page 8-9, Sidebar:** SF6 is not a highly toxic gas. Deleted the following text: "SF6 is a highly toxic gas."

c) **Page 8-11, Paragraph 2, Line 1**: Incorrect reference was used. Changed reference from "Section 8.1.1" to "Section 8.3.1"

d) **Page 8-35, Paragraph 5, Line 3**: According to PSE, NESC does not direct how to shield lines with lightning protection. Deleted "according to NESC guidelines."

e) **Page 8-40, Paragraph 3, Lines 6-8:** The codes PSE designs to include IBC, ASCE, and ACI. The public utility commission is not involved in establishing code requirements. Text has been changed from "In addition, the state public utility commission has adopted seismic standards that utilities must follow, with structural requirements for poles that would be sufficient to resist anticipated earthquake ground motions." To "In addition, PSE would meet the structural requirements set by the IBC, ASCE, and ACI."

6) Chapter 9 – Noise:

a) **Use of "maintenance yards":** Throughout the chapter, the term "maintenance yards" should be "utility yards." Utility yards is the more commonly used term.

b) **Page 9-8, Paragraph 2, Lines 1-2**; Page 9-15, Paragraph 2, Lines 1-2; Page 9-17, Paragraph 2, Lines 4-5; and Page 9-17, Paragraph 4, Line 1: According to WAC 173-60-040(2)(b), electrical substations are subject to the state noise limits between the hours of 10:00 PM and 7:00 AM; however, they are not subject to the 10 dBA reduction. Text has been changed from "Electrical substations are exempt from the maximum permissible noise levels established in Chapter 173-60 of the Washington Administrative Code" to "Although electrical substations are subject to the noise state noise limits between the hours of 10:00 PM and 7:00 AM, they are not subject to the 10 dBA reduction (WAC 173-60-040(2)(b))."

7) Chapter 10 – Land Use:

a) **Page 10-24, Paragraph 1, Lines 1-2:** PSE owns the land that would be used for the Lakeside substation expansion. Changed text from "If the Lakeside site were chosen, PSE would need to purchase and develop land adjacent to the existing substation" to "If the Lakeside site were chosen, PSE would need to develop land adjacent to the existing substation."

b) **Page 10-26, Paragraph 1, Table 10–2:** Newcastle Use Restriction information was incorrect. It has been changed to say "utility facilities allowed in" rather than "utility yards not allowed in."

c) **Page 10-27, Paragraph 3, Lines 1–3:** It is unknown whether or not introducing a 230 kV line would be considered a new hazardous use if lower voltage transmission lines already exist. The following sentences have been deleted: "This option would have some of the same zoning consistency issues as Option A (Table 10-2) including potential for co-location with a high consequence land use, since it also crosses the OPL Company (OPLC) pipeline in places and is parallel to it in other locations."

d) **Page 10-27, Paragraph 6, Lines 2–3**: It is unknown whether or not introducing a 230 kV line would be considered a new hazardous use if lower voltage transmission lines already exist. The following sentence has been deleted: "An underground transmission line would have the same potential constraints as Option A's overhead line regarding co-location with OPLC's pipeline."

8) Chapter 11 – Views and Visual Resources:

a) **Page 11-20, Paragraph 3, Lines 2-5:** The following information has been updated with locally specific information provided by PSE. The text has been changed from: "The 12.5 kV lines distribute electricity directly to consumers. These lines are commonly constructed of wood poles up to approximately 60 feet tall; the shorter poles make the lines less visible from a distance (Antunes et al., 2006)." To "The 12.5 kV lines distribute electricity directly to consumers. These lines are commonly constructed of wood poles up to approximately 34 to 40 feet tall; the shorter poles make the lines less visible from a distance (PSE, 2016)."

b) **Page 11-20, Paragraph 4, Lines 1-3:** The following information has been updated with locally specific information provided by PSE. The text has been changed from: "Typically, 115 kV lines are suspended on single wood poles and are generally 70 to 90 feet above ground (Corbin, 2007). " to "Typically, 115 kV lines are suspended on single wood poles and are generally 60 to 80 feet above ground (PSE, 2016)."

c) **Page 11-21, Paragraph 1, Lines 1-2:** New information from PSE suggested that the following clarifying text should be added: "However, depending on the function of the conductor, configuration, and number of circuits, such poles could be less than 70 feet tall (PSE, 2016)."

d) **Page 11-21, Paragraph 4, Line 2:** The Westminster substation was a proposed substation. The following text has been deleted: "the Westminster substation and…"

e) **Page 11-34, Paragraph 4, Lines 4-6:** The following information has been updated with locally specific information provided by PSE. The text has been changed from: "Depending on topography the pole height may vary, with the tallest height being approximately 135 feet if a highway is crossed (Corbin, 2007)" to "Depending on topography, the pole height may vary, with the tallest height being approximately 130 feet if a highway is crossed (PSE, 2016)."

f) **Page 11-37, Paragraph 4, Line 4:** SCL has two 230kv lines in its existing corridor. Text changed from "The SCL corridor already contains a 230 kV transmission line," to "The SCL corridor already contains two 230 kV transmission lines,"

9) Chapter 12– Recreation:

a) **Page 12-2, Table 12-1.** Parks and Recreation Plans for Study Area Communities: Redmond's Transportation Master Plan, which includes pedestrian and bicycle system plans (2013), was not originally included in Table 12-1.

10) Chapter 15– Public Services:

a) **Page 15-13, Paragraph 1, Lines 1-2:** Water and sewer pipelines may also need to be extended to the peak generation plants. Text has been changed from: "Construction of peak generation plants would require construction similar to a substation, but would likely also require replacing or extending major gas mains for natural gas supply" to "Construction of peak generation plants would require construction similar to a substation, but would likely also require replacing or extending major gas mains for natural gas supply, and potentially extending water and sewer pipelines to the peaking facilities."

11) Chapter 16 – Utilities:

a) **Page 16-16, Paragraph 5, Line 1:** Error in text states that two substations may be needed. Changed text from "two new substations may be needed" to "two new transformers may be needed."

b) **Page 16-17, Paragraph 1, Lines 4-5:** Reference to the Bothell-SnoKing double-circuit 230 kV line should be to the Maple Valley-SnoKing double-circuit 230 kV line.

c) **Page 16-20, Paragraph 4, Lines 1-2:** The text incorrectly implies that the Westminster and Vernell substations are existing facilities. Text has been changed from: "The expansion of the Lakeside substation or the Westminster or Vernell substation sites would require construction of underground foundations to support the new transformer" to "The expansion of the Lakeside substation or the development of the Westminster or Vernell substation sites would require the construction of underground foundations to support the new transformer."

12) Appendix B – Potential Construction Equipment:

a) **Table B-1:** Crane added as a piece of equipment being considered for Alternative 1 (Options A and B) and Alternative 3 for the removal of existing wooden poles.