



Puget Sound Energy
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November 14, 2017

Via Web Portal and Federal Express

Steven V. King, Executive Director and Secretary
Washington Utilities and Transportation Commission
P.O. Box 47250
1300 S. Evergreen Park Drive S.W.
Olympia, Washington 98504-7250

**Re: 2017 Integrated Resource Plan
UE-160918 and UG-160919
WAC Required Report, WAC 480-100-238 and
WAC-Required Report, WAC 480-90-238**

Dear Mr. King:

Attached for filing is Puget Sound Energy’s (“PSE”) 2017 Integrated Resource Plan (“2017 IRP” or “IRP”). Ten hard copies are being provided at Commission Staff’s request. This document presents information and analysis to comply with both the electric utility integrated resource planning requirements under WAC 480-100-238 and the natural gas utility resource planning requirements under WAC 480-90-238. It also meets the requirements under RCW 19.280.030.

Regulatory Requirements

As noted in Appendix B, this IRP meets all the requirements of WAC 480-100-238 and WAC 480-90-238. The following table is a summary of the electric requirements under WAC 480-100-238 and the corresponding chapter(s) or appendices in the PSE IRP that address that requirement:

Statutory or Regulatory Requirement	Chapter and/or Appendix
WAC 480-100-238 (3) (a) A range of forecasts of future demand using methods that examine the effect of economic forces on the consumption of electricity and that address changes in the number, type and efficiency of electrical end-uses.	Chapter 4, Key Analytical Assumptions Chapter 5, Demand Forecasts Appendix E, Demand Forecasting Models

Statutory or Regulatory Requirement	Chapter and/or Appendix
<p>WAC 480-100-238 (3) (b) An assessment of commercially available conservation, including load management, as well as an assessment of currently employed and new policies and programs needed to obtain the conservation improvements.</p>	<p>Chapter 6, Electric Analysis Appendix J, Conservation Potential Assessment</p>
<p>WAC 480-100-238 (3) (c) An assessment of a wide range of conventional and commercially available non-conventional generating technologies.</p>	<p>Chapter 6, Electric Analysis Appendix D, Electric Resources and Alternatives Appendix K, Colstrip Appendix L, Electric Energy Storage Appendix M, Washington Wind and Solar Costs</p>
<p>WAC 480-100-238 (3) (d) An assessment of transmission system capability and reliability, to the extent such information can be provided consistent with applicable laws.</p>	<p>Chapter 8, Delivery Infrastructure Planning Appendix I, Regional Transmission Resources</p>
<p>WAC 480-100-238 (3) (e) A comparative evaluation of energy supply resources (including transmission and distribution) and improvements in conservation using the criteria specified in WAC 480-100-238 (2) (b), Lowest reasonable cost.</p>	<p>Chapter 2, Resource Plan Decisions Chapter 6, Electric Analysis Chapter 8, Delivery Infrastructure Planning Appendix I, Regional Transmission Resources Appendix N, Electric Analysis Appendix J, Demand-side Resources</p>
<p>WAC 480-100-238 (3) (f) Integration of the demand forecasts and resource evaluations into a long-range (e.g., at least ten years; longer if appropriate to the life of the resources considered) integrated resource plan describing the mix of resources that is designated to meet current and projected future needs at the lowest reasonable cost to the utility and its ratepayers.</p>	<p>Chapter 2, Resource Plan Decisions</p>
<p>WAC 480-100-238 (3) (g) A short-term plan outlining the specific actions to be taken by the utility in implementing the long-range integrated resource plan during the two years following submission.</p>	<p>Chapter 1, Executive Summary</p>
<p>WAC 480-100-238 (3) (h) A report on the utility's progress towards implementing the recommendations contained in its previously filed plan.</p>	<p>Appendix B, Legal Requirements and Other Reports</p>

Statutory or Regulatory Requirement	Chapter and/or Appendix
<p>WAC 480-100-238 (4) Timing. Unless otherwise ordered by the commission, each electric utility must submit a plan within two years after the date on which the previous plan was filed with the commission. Not later than twelve months prior to the due date of a plan, the utility must provide a work plan for informal commission review. The work plan must outline the content of the integrated resource plan to be developed by the utility and the method for assessing potential resources.</p>	<p>2017 Integrated Resource Plan Work Plan filed with the WUTC July 14, 2016, and Updated Work Plan filed April 7, 2017.</p>
<p>WAC 480-100-238 (5) Public participation. Consultations with commission staff and public participation are essential to the development of an effective plan. The work plan must outline the timing and extent of public participation. In addition, the commission will hear comment on the plan at a public hearing scheduled after the utility submits its plan for commission review.</p>	<p>Appendix A, Public Participation</p>
<p>RCW 19.280.030 (e) An assessment of methods, commercially available technologies, or facilities for integrating renewable resources, and addressing overgeneration events, if applicable to the utility's resource portfolio.</p>	<p>Appendix H, Operational Flexibility</p> <p>Overgeneration events are not applicable to PSE.</p>

The following is a summary of the natural gas requirements under WAC 480-90-238 and the corresponding chapter(s) or appendices in the PSE IRP that address that requirement:

Statutory or Regulatory Requirement	Chapter and/or Appendix
<p>WAC 480-90-238 (3) (a) A range of forecasts of future natural gas demand in firm and interruptible markets for each customer class that examine the effect of economic forces on the consumption of natural gas and that address changes in the number, type and efficiency of natural gas end-uses.</p>	<p>Chapter 4, Key Analytical Assumptions Chapter 5, Demand Forecasts Appendix E, Demand Forecasting Models</p>
<p>WAC 480-90-238 (3) (b) An assessment of commercially available conservation, including load management, as well as an assessment of currently employed and new policies and programs needed to obtain the conservation improvements.</p>	<p>Chapter 7, Gas Analysis Appendix J, Demand-side Resources</p>

Statutory or Regulatory Requirement	Chapter and/or Appendix
WAC 480-90-238 (3) (c) An assessment of conventional and commercially available nonconventional gas supplies.	Chapter 7, Gas Analysis
WAC 480-90-238 (3) (d) An assessment of opportunities for using company-owned or contracted storage.	Chapter 7, Gas Analysis Appendix O, Gas Analysis
WAC 480-90-238 (3) (e) An assessment of pipeline transmission capability and reliability and opportunities for additional pipeline transmission resources.	Chapter 7, Gas Analysis Appendix O, Gas Analysis
WAC 480-90-238 (3) (f) A comparative evaluation of the cost of natural gas purchasing strategies, storage options, delivery resources, and improvements in conservation using a consistent method to calculate cost-effectiveness.	Chapter 7, Gas Analysis Appendix O, Gas Analysis Appendix J, Conservation Potential Assessment
WAC 480-90-238 (3) (g) The integration of the demand forecasts and resource evaluations into a long-range (e.g., at least ten years; longer if appropriate to the life of the resources considered) integrated resource plan describing the mix of resources that is designated to meet current and future needs at the lowest reasonable cost to the utility and its ratepayers.	Chapter 2, Resource Plan Decisions
WAC 480-90-238 (3) (h) A short-term plan outlining the specific actions to be taken by the utility in implementing the long-range integrated resource plan during the two years following submission.	Chapter 1, Executive Summary
WAC 480-90-238 (3) (i) A report on the utility's progress towards implementing the recommendations contained in its previously filed plan.	Appendix B, Legal Requirements and Other Reports
WAC 480-90-238 (4) Timing. Unless otherwise ordered by the commission, each natural gas utility must submit a plan within two years after the date on which the previous plan was filed with the commission. Not later than twelve months prior to the due date of a plan, the utility must provide a work plan for informal commission review. The work plan must outline the content of the integrated resource plan to be developed by the utility and the method for assessing potential resources.	2017 Integrated Resource Plan Work Plan filed with the WUTC July 14, 2016, and Updated Work Plan filed April 7, 2017.
WAC 480-90-238 (5) Public participation. Consultations with commission staff and public participation are essential to the development of an effective plan. The work plan must outline the timing and extent of public participation. In addition, the commission will hear comment on the plan at a public hearing scheduled after the utility submits its plan for commission review.	Appendix A, Public Participation

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Requests

In addition to the regulatory requirements listed above, the 2017 IRP includes responses to requests included in Order 01 in the above-referenced dockets.

Conclusion

PSE looks forward to presenting the 2017 IRP to the Commissioners, when it is most convenient for the Commission. PSE looks forward to a dialogue and receiving feedback in order to improve and refine its resource planning process. If you have any questions about the information contained in this filing, please contact Phillip Popoff, Manager, Integrated Resource Planning, at 425-462-3229 or myself at (425) 456-2110 for additional information about this filing.

Sincerely,

/s/ Kenneth S. Johnson

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cc: Sheree Carson

Attachments: UE-160918-UG-160919-PSE-2017-IRP-Chapters-(11-14-17).pdf
UE-160918-UG-160919-PSE-2017-IRP-Appendices-(11-14-17).pdf