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January 25, 2008 2008001778

Mark Walker
Director of Public Affairs
Northwest Power & Conservation Council
851 SW 6th Avenue, Suite 1100
Portland, OR 97204-1348

Subject: Issues for the Sixth Pacific Northwest Power & Conservation Plan

Dear Mark:

Puget Sound Energy (PSE) appreciates the opportunity to comment on the Northwest Power and Conservation Council's "Issues for the Sixth Pacific Northwest Power and Conservation Plan". The following suggestions are offered for the Council's consideration. PSE agrees the major theme of the Plan should center on cost-effective reduction of the region's green house gas (GHG) emissions level. Overall, the major issues outlined in the Council's document are consistent with issues PSE believes need to be addressed through the regional planning process.

Climate Change and Policy Issues

Climate change and green house gas emission policies are creating a new challenge for regional energy planning. Various state, regional (Western Climate Initiative), and possibly federal-level green house gas legislation could affect the region's ability to deliver economical and reliable power. The Power Plan should address how these regulatory policies and legislative actions will affect energy costs and reliability for consumers in the Pacific Northwest. The region's policy-makers need to understand the economic impact of carbon reduction policies on the power system, how such polices could affect reliability, and the possibility of unintended impacts these policies may have on our region. For example, it is important for policy makers to clearly understand how retiring coal plants for new natural gas plants would affect the region's energy costs, cost risks, and year-to-year cost volatility.

Renewable Portfolio Standards

RPS policies are separate from Greenhouse Gas reduction policies, as there are separate state laws enacting RPS. Thus, PSE suggests there are policy issues that should be treated separately. Issues associated with wind integration or economically feasible

limits on renewable resources in the region are issues that should be specifically addressed. RPS issues will have to be addressed even if state/regional/federal greenhouse gas policies remain unsettled, as RPS laws have all ready been enacted. Considering the all-in cost impacts of RPS and possible GHG regulation would be reasonable. However, because RPS laws have been enacted while GHG regulations are anticipated, PSE suggests the issues be addressed as separate policy issues.

Meeting Loads on an Annual, Daily hourly and Intra-hourly Basis

The Plan should also provide guidance on meeting intra-day and intra-hour electricity demand in light of the region's growing acquisition of renewable resources. The Plan should address how the region will integrate, on an intra-day basis, intermittent resources when natural gas-fired generation is not an option because of the absence of an intra-day natural gas market and insufficient levels of natural gas storage. These issues were briefly discussed in the BPA/NWPPC Wind Integration Study but are worthy of additional analyses.

Expanding the Menu of Resource Options

The region's acquisition of resources is moving towards a future of renewables, principally wind, as well as power generated by natural gas. PSE supports the Council's interest in exploring resource options and developing technologies. Of specific interest to PSE are the following:

- The Council should attempt to differentiate new resources that are, or may reasonably become commercially viable, from those resources that are much more speculative.

- The Plan should provide insight on the level of investment necessary, at the regional level, to meet both adopted and proposed green house gas and carbon limits.

- Carbon capture and geologic sequestration are critical steps to reduce emissions for significant amounts of new base load generation. It will be helpful for policy makers to understand the value, as well as the costs, of carbon capture and sequestration technology for both coal and natural gas. This information may help prioritize the need for additional research, development, and demonstration funding from different sources as well as efforts to reduce other barriers.

- The Council should consider "responsible" nuclear generation. Additional coal plants, without carbon capture and sequestration, are not considered responsible by law makers in several states. Building nuclear power plants without long-term waste processing, storage, and disposal also seems irresponsible in the long-run. Similar to the value of carbon sequestration, it may be helpful if the Sixth Power Plan were to estimate the value to solving the fuel cycle issue, if other risks (such as long-lead construction, cost, and operation risks) would not otherwise eliminate nuclear power from consideration. Without a solution to the fuel cycle, nuclear power should conceptually be treated similar to coal without carbon sequestration.

- A continued emphasis on the region's efforts to acquire all cost-effective conservation savings is essential as a resource alternative and as a carbon mitigation strategy.

- Encouraging direct use of natural gas may reduce carbon emissions and reduce overall energy costs in the region, as direct use consumes much less gas to provide the same end-use than burning the gas in a generator. Conversions of electric heat and hot water heat to direct use of natural gas should be treated the same as any other electric conservation measure. Given that the Region will likely become increasingly dependent on natural gas for electric generation, responsible energy policy should seek to ensure that natural gas is used efficiently.

- The Council should explore in some detail its view of "smart grid" and demand response options as viable resources.

- The Plan should consider impacts that solar may have on the WECC, especially concentrating solar with thermal storage. Even if such technologies do not prove commercially viable for the Northwest, they might affect the region in terms of where various states seek to develop REC generators or carbon offsets; e.g., California turning to the Southwest for concentrating solar with thermal storage rather than to the Northwest for wind may have a significant impact on our region.

Transmission constraints and impacts on electricity market and resource development

The region's transmission system is becoming increasingly congested and constrained, just at the time when utilities and developers are seeking to site additional generating resources. The difference in lead times in developing a generating resource as opposed to building a high-voltage transmission line needs to be explored. In addition, the increase in renewable generation will further constrain the transmission system. Renewable resources typically operate a lower capacity factor than thermal or hydro resources. For example, compare the attributes of a 150MW combined cycle gas turbine to a 150MW wind farm. Both will require the same 150MW of firm transmission but the natural gas-fired CT, because of its higher capacity factor, will generate more energy than will the 150MW wind farm. This means that as additional lower capacity factor generators are constructed the relative relationship between the Region's energy production and transmission utilization will actually decline.

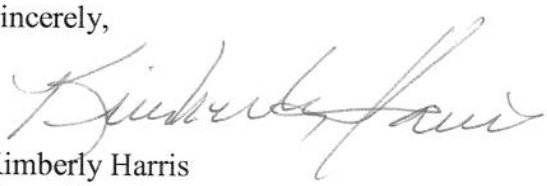
Beyond the integration of renewable resources to the existing grid, we believe the Council should further explore the need for new transmission resources to connect renewable resources to the existing Northwest transmission system. We agree with the Council that one possible option to consider for addressing this issue is the designation of renewable energy zones. We believe it would be appropriate for the Council to further analyze the primary areas of renewable energy potential in the Northwest and the existing transmission service available to them. Having such information included in the Plan

could assist Federal and regional policy makers as they consider proposals designate renewable energy zones and improve transmission resources for renewable generation.

Conclusion

Puget Sound Energy appreciates this opportunity to respond to the Council's request for comments on this important document. PSE believes that regional energy planning is at a critical junction. The need for the region to develop and deliver a cost-effective, reliable and environmentally responsible power system is more important than ever. PSE is looking forward to working collaboratively with the Council during development of the Sixth Power Plan.

Sincerely,



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