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Via Electronic Mail

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: Docket UG-143616
Comments of Puget Sound Energy, Inc. on Investigation of Natural Gas Distribution
Infrastructure Expansion**

Dear Mr. King:

Puget Sound Energy, Inc. (PSE) submits the following comments in response to the request in the Washington Utilities and Transportation Commission's (Commission) Notice of Opportunity to Submit Written Comments (Notice) issued in Docket UG-143616.

PSE is a combined electric and natural gas utility serving approximately 770,000 natural gas customers in six counties in Washington State including King, Kittitas, Lewis, Pierce, Snohomish and Thurston. PSE's natural gas distribution system includes approximately 12,192 miles of natural gas mains, 13,657 miles of service lines, 40 gate stations and two natural gas storage facilities located at Jackson Prairie in Washington State (partnership) and Clay Basin in Utah (contract operations). PSE, in partnership with contractor InfraSource, installed approximately 615,000 feet of new natural gas main in 2013. PSE receives approximately 77 percent of its gas supply from Canada and 23 percent from the Western United States.

1. What is the need or level of expressed demand in Washington to expand natural gas distribution infrastructure? Please describe the basis for this need or expressed demand.

While it is not possible to precisely quantify the total unmet need for natural gas distribution infrastructure in Washington State, several indicators show that there are areas that are underserved or not served with natural gas infrastructure.

First, within areas where PSE currently serves natural gas customers, not all customers have gas service. The table below shows the penetration of residential natural gas customers in the four largest counties where PSE offers natural gas service. PSE also offers natural gas service in Kittitas and Lewis counties.

	Number of Households ¹	Number of PSE Residential Natural Gas Customers ²	% of Household with Natural Gas Service
King County	851,261	403,982	47%
Snohomish County	286,659	120,401	42%
Pierce County	325,375	133,942	41%
Thurston County	90,665	44,530	49%

¹ 2010 Census

² December 2012

Second, PSE routinely encounters situations where customers desire natural gas service, but do not move forward with installing service. The following examples demonstrate the needs and challenges to extend additional natural gas infrastructure to these customers.

Customers routinely inquire about the availability of natural gas service for existing homes, commercial buildings, or parcels of land under development. PSE receives approximately 6,000 of these requests each year. Several factors impact the decision by the customer to install natural gas service including the distance from the natural gas main, costs to install the main or service, and costs to convert existing heating or water heating systems to natural gas. Customers consider the total cost of the gas conversion including their ability to pay upfront costs, payback for the conversion, costs borne by the landlord versus tenant, and time a customer expects to be in a certain location. This evaluation of the costs and benefits are from the customer perspective. However, it is important to

note that the benefit of having natural gas service to a site is likely to extend beyond the use of that particular site by that particular customer.

A second example of a customer desiring natural gas service but not installing service is when PSE routinely receives requests to extend natural gas service to or through areas of commercial development or redevelopment. Often times the request for gas service occurs while other utility projects and infrastructure is being installed. Generally, PSE does not extend its natural gas infrastructure without a specified customer applying for natural gas service. However, growing areas being redeveloped or “upzoned,” are highly likely to need infrastructure in the future. In some cases, not installing the natural gas distribution system in conjunction with other utility projects causes the installation to be more expensive for future customer requests. In other cases, not having the infrastructure in place hinders competitiveness of parcels in attracting businesses.

In these examples, the benefits and costs are evaluated for and by a single customer, though there may be other benefits from making gas available to other customers, both in nearby locations or future customers in the same location.

2. What costs and benefits should natural gas distribution companies and the Commission consider when assessing the need to expand natural gas infrastructure?

By no means an exhaustive list, below are several categories of costs and benefits associated with expanding natural gas infrastructure that should be considered by natural gas distribution companies and the Commission.

Costs

- Direct costs for construction include direct labor and materials to design and install new mains, services, and meters. Often times, direct costs are borne by the utility far in advance of any revenue generation created by the expansion.
- Related indirect costs for construction would include overhead costs for employee benefits, tools and equipment, and material procurement and inventory. All of these costs will generally be similar for similar work, regardless of location. Imposed costs are additional, and often significant, costs required by municipalities to expand infrastructure. These requirements, which vary by municipality, contribute a rising portion to the costs of specific projects. Imposed costs include:
 - permit fees

- paving and street restoration requirements
- municipal taxes on construction charges and time of day work requirements
- For example, cost increases resulting from paving and street restoration requirements in the City of Seattle have led to a 60% decrease in the rate of gas conversions in that area.
- Overhead costs include costs for PSE's general overhead, accounting, and shared service functions.

In addition to the direct costs of infrastructure for the utility and the customer, it is also important to note that customers face additional costs for equipment. Customers with existing structures must purchase new equipment for their home or building, which can exceed the cost of infrastructure expansion.

Benefits:

Benefits to consider when assessing the need to expand natural gas infrastructure could include:

- Additional use of fixed or shared costs across a larger customer base, which can reduce costs to all customers.
- Reduction in electric demand. Electric to gas fuel switching is considered in the PSE Integrated Resource Plan as a cost-effective measure to reduce electrical costs.
- Increased tax basis for Washington and local municipalities. This can be both the tax basis from the natural gas infrastructure, and indirect tax basis impacts through improved prices for property transactions or attraction of employers. Direct impacts are easy to quantify, while indirect impacts are more difficult.
- Lower energy costs for new customers. Where natural gas infrastructure exists, customers are likely to use it, unless the cost to convert is too high. The low cost per delivered unit of energy for natural gas provides a cost savings to these customers.
- Reduction of emissions in some areas. Some geographic areas of poor or marginal air quality could have emissions reduced by having natural gas available as a low emissions heat source and opportunities for customers to convert their heating to natural gas.

A final consideration for the Commission beyond the categories listed above should be how costs are imposed and benefits distributed. For example, many imposed costs may benefit a small number of customers through additional municipal revenues from permitting fees or reduced municipal paving budgets from increased utility street restoration requirements. These costs would be imposed across a broad base of customers if the system were extended. Conversely, emissions reductions or increased tax base may benefit a broad number of customers, but the costs are imposed on only a few customers.

3. Are there certain geographic areas, communities, or districts that present a higher priority for expansion than others? Why?

Priorities for expanding natural gas infrastructure should be set with a balanced approach to costs and benefits. Establishing criteria for balancing costs and benefits will assist utilities and the Commission in determining what expansion should be completed. While not exhaustive, below are some examples of areas where expansion could be prioritized:

- Expansion that results in cost savings by installing infrastructure in conjunction with other work, such as other utility expansions or road widening projects, even without a specific customer request.
- Expansion that results in cost savings to all customers through electric to gas fuel switching.
- Expansion to designated areas that have developed a long-term development plan likely to bring sufficient revenue to support the costs of the infrastructure installation.
- Expansion that results in broader societal benefits such as emissions reductions or tax revenues that outweigh the costs of expansion.

4. How should the expansion of natural gas distribution infrastructure be financed?

Generally, the current method for financing natural gas infrastructure expansion is user driven, in that a request for service triggers an expansion review by the utility. For each applicant, the ratio of expansion costs borne by the customer versus the utility depends on an economic analysis called the Facilities Investment Analysis ("FIA"). The FIA takes into account several factors such as the one-time investment to hookup appliances, how soon the service will begin, whether a main extension is required, how much main extension is required, the payback period, estimated annual consumption, number of gas consuming devices, number of initial customers requesting service along the same

main and other factors. PSE's Rule No. 7 gas tariff regulates the terms by which distribution facilities will be expanded to most new residential, commercial, or industrial customers.

If the goal is purely to expedite natural gas infrastructure expansion, the Commission could consider additional options for financing such as allowing greater socialization of costs, faster recovery mechanisms to recoup investment by utilities, more consideration given to the benefits of natural gas conversions such as reducing electric demand or improving air quality in some areas. These are just a few areas to consider.

5. What financing methods or cost recovery mechanisms are available to expand service to developed areas that cannot currently be served cost-effectively?

Given the current system, one example of a method to create greater certainty in the near-term for utility investment would be for the Commission to clearly articulate that it will not take an overly strict approach to the subsequent rate recovery of natural gas plant that is constructed in advance of need, but yet is still considered used and useful because it will likely be used in the future or installed as part of a company's long-range system planning. This is *one* method that the Commission could address quickly, that would give greater certainty that utilities be assured future cost recovery.

Other options for the Commission to explore that could promote and expand natural gas infrastructure are a universal service fund for system expansion, economic development or emissions reduction. The commission could explore rate designs that add a rate rider on new customers, return on equity adders for utilities, or allowance for total cost of energy contracts with customers. While many of these mechanisms have recently been considered or adopted in other states, further study is needed to determine their feasibility in Washington State.

6. Are there specific potential incentives that may encourage utilities to pursue and facilitate gas infrastructure expansion?

Again, given the current system, a Commission-issued policy statement or accounting guidelines that addresses cost and benefit balance could provide greater investment certainty for utilities. A policy statement or accounting guidelines that articulates an assured subsequent rate recovery of natural gas plant that is constructed in advance of need, but yet is still considered used and useful because it will likely be used in the future or installed as part of a company's long-range system planning. Further, any statement or guidelines should clearly address and balance costs and benefits. This is *one* method

that the Commission could address quickly that would give greater certainty that utilities be assured future cost recovery.

7. Is the existing transmission pipeline and storage capacity in Washington sufficient to serve expanded distribution infrastructure? If so, what is the potential additional demand that may be served within existing capacity? If not, where is additional transmission pipeline and storage capacity needed?

PSE currently has sufficient existing and anticipated new resource options to meet peak demand through approximately 2023. Beyond that, PSE anticipates that expanded transmission pipeline capacity will be needed. Based on discussions with Northwest Pipeline and other interstate transmission pipeline operators, expansion of existing transmission pipelines is feasible and can be cost-effective. The additional residential and commercial use envisioned in House Bill 2177 is expected to have a relatively minor impact on the need for new interstate pipeline and storage capacity. For example, if half the 50,000 residential gas conversions envisioned within the State are within the PSE service territory, it would increase the PSE annual and peak day forecasted load by less than 2% in 2025. The available new resources could be developed approximately one or two years earlier than currently envisioned if needed to meet increasing demand. Such expansions are driven by contract requests of utilities and end-users, and the pipelines have demonstrated the willingness to build to contract. PSE's Integrated Resource Planning process is updated every 2 years to respond to potential changes in forecast demand growth.

The Northwest Gas Association's (NWGA) 2014 Outlook contains a discussion of the forecast for regional system capacity. The key conclusions of that discussion are:

- The existing system of natural gas pipelines and storage facilities has reliably served the load requirements of the region for decades and is sufficient to meet today's needs.
- Additional capacity is likely to be required within the forecast horizon [2023] to serve new demand for natural gas, particularly on a peak (design) day. Industrial and electric generation demand above the expected case will amplify and accelerate the need for incremental capacity.
- Regional pipeline and storage expansions have been undertaken in the past to maintain and enhance system reliability in response to increases in base load and peak day demand.
- The timing, location and type of future capacity expansions or additions, and utilization of existing infrastructure, will depend on the changing nature of regional natural gas demand.

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8. To ensure a coordinated approach and comprehensive coverage, should the Commission require, subject to its approval, all regulated utilities and other stakeholders to identify unserved or underserved areas and develop a master plan for statewide gas infrastructure expansion?

No. Decisions whether to expand natural gas infrastructure should be based on clear and balanced criteria for costs and benefits that will allow each individual utility to prioritize and make prudent investments whether or not to expand natural gas infrastructure. It would be appropriate for utilities to identify unserved or underserved areas and provide the Commission with development plans for these areas, but on a utility by utility basis. This provides appropriate flexibility to allow for different costs and benefits in different areas and over time.

PSE appreciates the opportunity to provide these responses to the questions identified above in the Notice of Opportunity to File Written Comments. Please contact Nate Hill, Regulatory Affairs Initiatives Manager at (425) 457-5524 or myself at (425) 456-2110 for additional information about this filing.

Sincerely,



Ken Johnson
Director, State Regulatory Affairs

cc: Simon ffitch
Sheree Carson