

Agenda Date: February 11, 2016
Item Number: A1

Docket: UG-152164

Company: **Puget Sound Energy**

Staff: Elizabeth O'Connell, Regulatory Analyst.

Recommendation

Suspend Puget Sound Energy's Schedule No. 88R for Interruptible Distribution System Biomethane Receipt Service.

Background

On November 12, 2015, Puget Sound Energy (PSE or company) filed Schedule 88R with the Washington Utilities and Transportation Commission (commission). Under this schedule "biomethane customers" (actually "producers" of biomethane¹) would be allowed to inject the gas into PSE's distribution system and sell it directly to an end-user. After injection, the product will be transported to a delivery location on PSE's distribution system under a transportation rate schedule. PSE includes in Schedule 88R a Gas Quality Agreement (GQA) which specifies the Constituents of Concern (COCs) that are found in biomethane. ("Constituents" are impurities found in natural gas. The impurities in "biomethane" may be different than natural gas from wells). King County's South Wastewater Treatment Plant (WTP) has been producing and injecting biomethane into PSE's natural gas pipelines for over twenty-five years. Numerous stakeholders have submitted formal comments opposing the tariff.

Discussion

Biomethane tariff components

PSE requests the approval of Schedule 88R natural gas tariff for interruptible distribution system biomethane receipt (injection) service. Under this tariff PSE will provide a service that gives customers the ability to inject the biomethane into its distribution system and sell the product to end-users who contract with the biomethane producer. The company will bill biogas suppliers solely for biomethane receipt service.² PSE will not take possession of the biogas and customers like WTP will be responsible for all aspects of the sale of its product to third parties.

By the terms of this tariff, once injected into the system the biomethane will be transported to a delivery location. PSE will bill end-use biomethane customers for transportation service under a

¹ Staff may use the term "biogas" interchangeably with "biomethane".

² The term "receipt service" refers only to the injection of biomethane into the distribution system and it does not include transportation services. The receipt service includes recovery of a basic charge per month (for metering, nominations and billing costs), gas quality monitoring charges per month; and, receipt service costs (this includes the payment of any costs related to the purchase, installation, operation, maintenance, repair, and replacement of equipment dedicated to the biomethane customer).

separate transportation rate schedule (i.e., Rate Schedules 31T, 41T, 85T, 86T, 87T or Special Contract for transportation service). The transportation service is interruptible per the conditions stated in Rule 23. Balancing services clauses correspond with Rule 29.

Schedule 88R basic charge is aligned with the basic charge of Schedule 41T and Schedule 141 (Expedited Rate Filing rate adjustment).

The biogas gas quality monitoring charge supports the quality control functions done by the company after the biogas has been injected into the pipeline. It complies with PSE's revenue requirement and rate base. Staff's analysis of the support provided for Schedule 88R confirms that the tariff recovers costs associated with gas quality monitoring functions directly linked to the injection of biomethane into PSE's distribution system at the "Point of Receipt" and puts the financial burden on the biomethane customer.

Transportation of biomethane

"Biomethane for Transportation: Opportunities for Washington State," a report written for the Western Washington Clean Cities Coalition (WWCCC), indicates that the conversion of biomethane to transportation fuel involves three major processes: cleanup, pressurization into compressed or liquefied natural gas, and transportation from the source to an end user.³ Transport via pipeline is the preferred transportation method.⁴ Pipeline injection, which requires higher levels of purification and can significantly impact cleanup costs,⁵ is the only method by which PSE has received biomethane produced at WTP. Currently, PSE's biomethane (produced in WTP and acquired pursuant to a purchase agreement) is incorporated with and into the larger natural gas supply received from the interstate pipeline and then sold by PSE to its unbundled natural gas customers.

Environmental attributes

The federal government has deemed that there are environmental benefits to using biogas as a transportation fuel. A producer of biomethane may monetize these environmental attributes by registering the biogas product and receiving "Renewable Identification Numbers" (RINs) specific to the units of production. The nature of the product and the final purpose of its use (fuel for motor vehicles) is crucial to qualifying for RINs. According to the information provided to staff by the Company, PSE will not participate nor benefit from any of these attributes, because its services will be limited to reception and transport of the biomethane. King County expressed its intention to supply biomethane to natural gas vehicular fuel consumers and therefore be able to extract more value from its water treatment plant.

³http://www.energy.wsu.edu/Documents/Biomethane_For_Transportation_WWCleanCities.pdf

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http://www.arb.ca.gov/energy/biomethane/documents/FINAL_AB_1900_Staff_Report_&_Appendices_%20051513.pdf

⁵ http://www.energy.wsu.edu/Documents/Biomethane_For_Transportation_WWCleanCities.pdf

Gas Quality Agreement.

The GQA is a legal instrument used to ensure that preinjection biomethane supplied by customers meets minimum gas quality requirements as determined by PSE. It is comprised of health COCs and pipeline integrity COCs (and their levels). The agreement applies to biomethane originated in landfills, dairies, and other organic waste sources, including from publicly owned wastewater treatment works. The commission Pipeline Safety section has reviewed the operations and gas production of the WTP and is satisfied the product does not endanger the integrity of the gas mains. PSE based their gas health quality standards on a California Public Utilities Commission Report: “Recommendations to the California Public Utilities Commission Regarding Health Protective Standards for the Injection of Biomethane into the Common Carrier Pipeline.”⁶

Summary of Staff Concerns

Staff’s concerns are primarily with the health COCs section of the GQA. First, the UTC has no jurisdiction regarding enforcement of air quality regulations or standards; this responsibility falls within the jurisdiction of other state agencies. Therefore, staff is concerned that PSE has unilaterally imposed air quality requirements in its tariff that have not been reviewed or adopted by Washington agencies authorized to adopt and enforce air quality rules. Second, staff is concerned that PSE’s inclusion of GQA has the potential to impede the development of the biogas market by possibly limiting the supply of biomethane to the market. Staff has concerns about the following issues:

1. **The California Public Utilities Commission (CPUC) Health Protective Standards for the Injection of Biomethane into the Common Carrier Pipeline.** The company reviewed the merits of incorporating portions or all of several gas quality standards. Ultimately PSE modeled the GQA after air quality standards that California adopted through a rulemaking process. Legislation adopted by California (Assembly Bill-1900) required that the California Public Utilities Commission (CPUC) develop standards for constituents in biogas to protect human health. To staff’s knowledge, there is no law in the state of Washington requiring the commission to develop standards that address the atmospheric combustion products arising from the burning of biomethane and their impact in human health. In California the recommendation regarding health protective standards for the injection of biomethane into common carrier pipeline came directly to CPUC from the Office of Environmental Health Hazard Assessment and the Air Resources Board. Staff has reached out to the Washington Department of Ecology to determine if Washington has health protective and air quality standards applicable to biomethane. Staff could not verify the existence of state or federal biomethane regulations for the control of these particular health COCs applicable to Washington. Also the Washington State Department of Ecology was unable to provide any additional

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information in this matter. PSE has not discussed the proposed tariff with other departments or agencies of Washington State government, to staff's knowledge.

2. **Adoption of standards.**

PSE stated that WTP agreed to utilize the biomethane quality gas standard identified in Schedule 88R as a frame of reference for acceptable levels of COCs and levels that do not represent a health or safety hazard to the company's employees or to the general public. Additional monitoring of COCs carries additional investment from the biomethane customer, which negatively impacts its cost structure. It is effectively a cost barrier to entry into the common carrier distribution pipelines. There is a variety of options for injection and monitoring systems. Some regulators and companies have facilitated the injection of biomethane by adopting simpler injection systems. Others require a more rigorous monitoring and complex structure. In California the requirements to monitor the combustion products of biomethane "stifled the growth of the biomethane industry,"⁷ and purportedly put biomethane at a competitive disadvantage with other state-subsidized renewables. Also, Schedule 88R requires the customer to pay for the costs of the interconnecting line which may be considered as another potential anticompetitive barrier to entry.

3. **Constituents of Concern.**

Current standards for biomethane injection produced in WTP do not require monitoring of health-protective COCs. PSE's existing contract with WTP states: "...Pipeline Quality Gas shall meet or exceed the specifications for 'pipeline quality gas' set forth from time to time in the applicable tariff of Northwest Pipeline Company or any of its successors. The testing protocol is a continuous instrument monitoring of: Btu, Specific Gravity and Moisture. Monthly lab testing of: Hydrogen Sulfide, Carbon Dioxide, Total (Combined) Non-Hydrocarbons, Oxygen, and Corrosion Causing Bacteria." These testing procedures are aligned with the pipeline protective standards filed in Schedule 88R. The current long-time business relationship between PSE and WTP only requires monitoring pipeline integrity constituents. PSE does not currently require monitoring of health COCs for natural gas injection, but Schedule 88R introduces this new monitoring process for the producer. Based on the information provided by PSE and WTP, staff was not able to identify any justification for additional biomethane quality gas standards under current state and federal regulations.

4. **Other biomethane producers:** The biomethane GQA is a blanket agreement that applies to biomethane customers (like WTP), including landfills, dairies, and other organic waste sources. The different feedstocks available in Washington could produce as much as 512,418 gas gallon equivalents (GGE) of biomethane per day.⁸ This output would be

⁷ *Id.*

⁸ http://www.energy.wsu.edu/Documents/Biomethane_For_Transportation_WWCleanCities.pdf

generated by 20 landfills, 14 wastewater treatment plants, municipal solid waste facilities and several dairies (digesters) across the state.⁹

Staff suggested PSE edits to the tariff and gas quality agreement to remove all sections referring or addressing tests for Health Protective Constituents of Concern. PSE presented a possible resolution Monday, February 8 removing from the tariff the Health Protective COCs, but re-inserted the same language in service contracts to accompany the tariff. While this action would remove the requirement for any tariff provisions, staff suggests a broader review with the interested parties before forwarding it to the commission for a decision.

Stakeholder Comments

As of the drafting of this memo, staff has received many formal comments from other biomethane injection customers, industry groups, and members of the public submitted as a result of a meeting held on February 4, 2016, with PSE. The Coalition for Renewable Natural Gas, Promus Energy, LLC, Regenis and the American Biogas Council expressed their opposition to the tariff. See Attachment A for the specific comments. In their opinion, the tariff in its current form, will inhibit the development of the renewable gas industry due to the costs associated to compliance with PSE's requirements, leaving it in disadvantage compared to fossil fuel-based natural gas industry projects (which do not require certain COCs monitoring like Siloxane). These costs range from testing and monitoring to processing equipment. It is also mentioned that California's intent behind the development of these particular standard was to encourage the development of biogas projects and it has done exactly the opposite.¹⁰ These standards are being contested and are most likely to change in the near future.¹¹

Conclusion

While PSE's Schedule 88R is a tariff intended to facilitate the development of biomethane as a transportation fuel with benefits to the biogas producers and to end users, staff is recommending that the tariff be suspended because it requires that adoption of air quality regulations that have not been adopted by the necessary Washington agencies and in doing so, may unnecessarily limit the supply of biomethane in Washington.

Recommendation

As a result, staff recommends the commission suspend Puget Sound Energy's Schedule 88R for Interruptible Distribution System Biomethane Receipt Service to discuss more comprehensively the Gas Quality Agreement with the potential for this tariff to return to an open meeting with terms agreed upon by various interested parties.

⁹ *Id.*

¹⁰ Not one single renewable gas project has been constructed, nor has any renewable gas been injected into California's natural gas pipeline system since the adoption of these standards according to the Coalition For Renewable Natural Gas formal comments.

¹¹ According to Coalition For Renewable Natural Gas formal comments.