February 5, 2016

Washington Utilities and Transportation Commission (UTC)
PO Box 47250
Olympia, WA 98504-7250

RE: Puget Sound Energy Proposed Tariff as It Relates to WA Biomethane Injection to Shared Pipelines; Docket UG-152164

Dear Chairman Danner and Commission Members:

The American Biogas Council has a number of concerns with the current proceeding which leads us to ask the WA UTC to deny the proposed tariff from Puget Sound Energy (PSE) at this time so that PSE may work with industry to create an improved tariff that will not prove detrimental to the RNG industry and limit project development as this one will.

In addition, the American Biogas Council, along with several other organizations which are also drafting letters requesting denial, had a very productive, collaborative discussion with PSE staff just last night. As such, we are in the process of revising this letter to help it to more exactly reflect the concerns PSE has and to help guide the development of a better tariff. We are glad to note that it appears PSE and the ABC are mutually interested in creating a tariff that will protect the pipeline, pipeline customers, provide guidance to all RNG producers in Washington and also encourage new RNG projects, not discourage them as the current proposed tariff will.

However, we also understand a staff report is being put together today and want the major points in this letter to be able to be included in that report. So we are submitting this letter now with our major concerns outlined below and will provide an updated letter shortly that will add more detail and constructive suggestions to these comments.

COMMENTS:

Recently, in UTC Docket 152164 Puget Sound Energy (PSE) proposed a new tariff for injection of renewable natural gas

(RNG, biomethane or upgraded biogas) into pipelines, recommending use of standards similar to those adopted by the State of California, although not yet in use.

This letter is in response to PSE's proposed new tariff, advising the Washington UTC that adoption of such a standard would not only be premature, but also prove detrimental to the nascent RNG industry in the State and is unwarranted from a scientific and existing practice perspective. As such the ABC requests denial of PSE's proposed tariff in Docket 152164 so industry can work with PSE to create an improved tariff that will encourage and help RNG project development, not stop it, like we have already experienced with a similar tariff in California. The proposed tariff contains draconian constituent control, and high testing and injection costs which would negatively impact biomethane and renewable energy projects within the state. The lack of scientific and evidentiary foundation has already been recognized in California and there is already an initiative to revise it. The proposed tariff is also inconsistent with FERC rules due to its biased treatment as compared to fossil natural gas, and the barriers it creates to this source of gas supply.

It is asked that the Washington UTC, while responding to this issue, adequately address King County's fervent desire to finalize a ruling for their RNG, but do so in such a way that establishes pipeline standards and fees that do not discriminate or unduly burden their project or the RNG industry. A tariff should be established that provides a fair and reasonable practice, using nearly two decades of RNG pipeline injection experience from noteworthy programs that already exist within the state, British Columbia and across the US.

Washington State is internationally recognized as a leader in the RNG industry, both for having one of the longest operational RNG systems in the world at the King County WWTP, and one of the largest RNG installations worldwide at the Cedar Hills landfill. It is very important to note that, since inception and continuing to date, in both cases the RNG has been received by the local distribution company with no concerns and is indistinguishable from other sources of natural gas. This is not surprising as prior to pipeline entry RNG is treated from its raw biogas form with equipment similar to that used to clean raw fossil natural gas prior to its insertion. Any small compositional differences are mitigated via dilution by the predominant fossil natural gas flow, consistent with FERC regulations to use blending as a means of expanding natural gas supply while ensuring pipeline integrity and consumer safety. As a result, RNG is fully interchangeable with conventional natural gas, forming a combined flow that maintains consistent and reliable qualities—all of which have allowed for no unusual operational problems within the natural gas infrastructure of Washington State for decades, distributing the gas throughout either project's operational life with a proven and effective approach.

Similar approaches treating RNG no differently than fossil gas have been replicated in other jurisdictions in the US, Canada and around the world, as hundreds of RNG to pipeline projects have come online in the last couple of decades. Specific to our region, just north of the border in British Columbia, a number of RNG projects have been installed in the last 10 years, with two of these within 10 miles of the border, and the RNG produced has been distributed to Washington State without incident.

These success stories stand in stark contrast to California that has minimal RNG pipeline injection project history. Without supporting science or data, California utilities were able to gain approval for a standard which unfairly treats RNG differently than fossil natural gas, requiring conservative controls and an extremely expensive gas testing regime, far more rigorous than the controls and tests required for conventional natural gas. Notably, since enactment of the standards there have been zero new RNG-to-pipeline projects in California. The amount of RNG produced in the state has actually decreased since its adoption, despite the state's aggressive organics diversion and zero waste policies.

Industry groups and regulators within California have already recognized the negative implications of the adopted tariffs (Rule 21 and Rule 30) and both regulatory and legislative initiatives are underway to resolve concerns and increase access of RNG to pipelines for meeting the State's ambitious climate goals. The RNG industry is continuing to work with stakeholders, including the natural gas pipeline utility companies, the California Public Utilities Commission, and the Legislature to resolve the primary regulatory impediments, both operational and economic, to RNG project development in the State.

The major deficiencies in the adopted tariffs include:

Constituents of Concern: The California Air Resource Board (CARB) and the California Office of Environmental Health Hazard Assessment (OEHHA) identified 12 constituents of concern related to biogas, resulting in requiring RNG to meet tight controls for these constituents and to bear costly on-site continuous monitoring and frequent laboratory expenses. The problem with their review is that they inappropriately identified the constituents from a review of **raw biogas** rather than the scrubbed or treated biomethane that would actually enter the pipeline. Had they done so, scientific analysis would have shown little to no presence of those constituents of concern. In fact, the agencies acknowledged the error in a Joint Report, stating that after *'a review of the available data, the majority of the constituents of concern in the biogas were either not detected or reduced to concentrations below the OEHHA recommended health protective levels during the upgrading process to biomethane indicating that from a public health perspective, the injection of biomethane does not present additional health risk as compared to natural gas.'* Clearly from a Washington UTC perspective, costly testing and monitoring for constituents of concern that are in reality not present in RNG is a waste of time, funding and resources.

Unfair Playing Field: In assessing proposed tariffs, the UTC is urged to focus on other more reasonable quality tariffs, consistent with those for other sources of natural gas. The proposed PSE tariff, by incorporating provisions of California's adopted tariffs, would arbitrarily impose ongoing testing and monitoring requirements on RNG suppliers that are not imposed on fossil natural gas suppliers. Ironically, it is important to note that if unprocessed fossil natural gas had similarly been evaluated, an even greater list of constituents of concern would have been developed. RNG is molecularly and substantively natural gas, but does not contain constituents now common in fossil natural gas – higher hydrocarbons – that can jeopardize pipeline integrity. Reports from the industry's own scientific body, the Gas Technology Institute, conclude that pipeline quality biomethane '*is at least equal to and often exceeds the quality of traditional natural gas*.' Given FERC rules requiring fair and equitable treatment for gas pipeline entrants, it is clear that the UTC

should give strong consideration to alternate standards that would fully comply with FERC rules.

Heating Value: California's two adopted biomethane quality tariffs both require a minimum heating value of 990 BTU/ft^3 – a standard that is the most stringent in the United States. A survey of 21 pipelines servicing California, the Northwest US, and neighboring Canada show a mean required minimum heating value of 969 BTU/ft^3. The higher heating value requirement for RNG is clearly discriminatory and arbitrary since it provides no scientific rationale for why RNG should be required to exceed that of other sources. In many cases, RNG facilities would require cost prohibitive supplementation using purchased higher hydrocarbons (such as propane) to increase the heat content, reaching a level above the vast majority of gas being conveyed by the vast majority of pipelines. This approach is in direct opposition to FERC regulations stipulating that utilities should facilitate new sources of gas by blending smaller amounts of gas with the preponderance of flow to mitigate any aspects which may be of lesser quality without adverse impact to consumers of the gas.

Oxygen: California's two adopted biomethane quality tariffs also include the more stringent standards for maximum oxygen content when compared to the same 17 prevalent sources. In this case, the mean maximum oxygen value for the survey of pipelines is 0.4%, while California's biomethane quality tariffs are maximum 0.1% and 0.2% oxygen content. These lower specifications require RNG facilities to include additional and often cost prohibitive gas processing steps that are not required for other gas sources. This could halt project development due to project economics.

Siloxanes: California's two adopted biomethane quality tariffs also include testing and monitoring protocol for siloxanes, establishing levels so stringent they fall below most laboratories' capability for detection and measurement, calling into question the ability to implement the adopted levels. Specifically:

- The CARB/OEHHA report of May 15, 2013 (including errata of November 4, 2014) established six siloxane compounds, which were to be monitored collectively to assess hazard risk. Therefore, a speciated analysis is required but the total value is used to determine compliance.
- No test method for the named compounds or unspeciated siloxanes is contained in the CARB/OEHHA report or other CPUC document. Therefore, a wide variety of test methods and equipment were surveyed, including published studies and reports by governmental and private entities. EPA Method T015, for instance, has a minimum detection limit for five of the six siloxanes of 0.084 ppmv.
- The survey concluded that both the trigger level of 0.01 mg/m^3 and the lower action level of 0.1 mg/m^3 contained in Rule 21 are below reporting limits for the six siloxane compounds and for unspeciated analyses using best available analytical techniques. A Reporting Limit (RL or RDL) is the limit of detection for a specific target analyte for a specific sample after any adjustments have been made for dilutions or percent moisture. In contrast, the Method Detection Limit or MDL is lower than the RL and is a *statistical calculation*. Since the MDL is below the point of calibration, results reported down to the MDL are not reliable and must be qualified as estimated values. Therefore,

for the purposes of determining levels of named siloxane compounds only reported values at or above the RL for the combined six compounds (0.34 mg/m^3) should be considered above the trigger level. Values below the RL should be considered non-detected (ND). By rule, a reported value at or above the RL should also be deemed above the lower action level.

ABC RNG Purity Recommendation:
Through our membership, the ABC has this consensus RNG Purity Recommendation to address situations where a utility wants to provide an RNG producer guidance on gas quality but doesn't know where to start; the utility wants to protect their pipeline and customers, but doesn't want to limit the development of new RNG projects. This purity recommendation accomplishes that, is compatible with gas pipelines and aligns with specifications from utilities in other states that are not restrictive like the proposed tariff from PSE. The biogas industry agrees that if a specification like this is used by utilities, industry can meet it and develop new projects.

ABC RNG Purity Recommendation
http://americanbiogascouncil.org/biogas_purityspecs.asp

Physical Property	Units	Lower Limit	Upper Limit
Heating Value	BTU/ft3	960	1100
Carbon Dioxide	mol %		2
Oxygen	mol %		0.4
Total Inerts	mol %		5
Hydrogen Sulfide	gr./100 ft3		1/4
Total Sulfur	gr./100 ft3		1
Water	lbs/mmSft3		7
Siloxanes	ppm(v)		1
Hydrocarbon Dew Point	Fahrenheit		-40
Temperature	Fahrenheit	50	120
Dust, Particulate			commercially free*
Biologicals			commercially free*
Heavy Metals			commercially free*

*Commercially free is defined as equal or less than the levels present in conventional natural gas

Renewable Identification Numbers (RINs): It is our understanding that PSE in the past has used access to the pipeline as leverage to require a producer to hand over part or all of the value of the RINs generated by the producer. In no instance should access to the pipeline be used as leverage to gain ownership of RINs or RIN revenue. Any share of the RIN value that a utility gets should be a point of negotiation between the utility and the RNG producer, who is the generator of the RINs, not determined through a tariff.

In summary, the proposed PSE tariff is arbitrary and discriminatory, and not based on scientific evidence or experience over the last 20+ years. We strongly urge the UTC to continue to treat RNG fairly regarding both costs and pipeline interconnection regulations and to deny the proposed tariff.

With Washington State pursing carbon emission reduction strategies, the market for carbon offsets and renewable fuels is expected to dramatically increase. RNG is an excellent pathway to generate offsets within the state. RNG projects also provide diversification opportunities for dairy farmers, food processers, and other industries. By converting organic waste to energy, these businesses help meet State sustainable development goals.

Sincerely,

Patrick Serfass
Executive Director