Attachment A

Stakeholder Comments for UG-152164

From:	Patrick Serfass
To:	UTC DL Records Center
Cc:	Bernie Sheff (bsheff@es-online.com); Craig Frear; Norma McDonald (norma.mcdonald@ows.be); Sean Mezei (smezei@dekanyconsulting.com)
Subject:	ABC Letter to Deny to Docket #152164
Date:	Friday, February 05, 2016 12:28:03 PM

[A copy of this letter on ABC letterhead is enclosed for filing. Please reply when received.]

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 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

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BEFORE THE UTILITIES AND TRANSPORTATION COMMISSION OF THE STATE OF WASHINGTON

Revises Tariff WN-U2, Sheet 88R, to offer an optional service allowing the injection of biomethane gas into Puget Sound Energy's pipeline for the sale of biomethane from producers to third-party customers

Filing UG - 152164
(Filed November 12, 2015)

Dated: February 4, 2016

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BEFORE THE UTILITIES AND TRANSPORTATION COMMISSION OF THE STATE OF WASHINGTON

Revises Tariff WN-U2, Sheet 88R, to offer an optional service allowing the injection of biomethane gas into Puget Sound Energy's pipeline for the sale of biomethane from producers to third-party customers

OPENING COMMENTS BY
THE COALITION FOR RENEWABLE NATURAL GAS, INC.

I. Introduction

Pursuant to the November 12, 2015 filing by Puget Sound Energy (PSE) proposing to revise the WN-U2 Tariff Schedule 88R for PSE's natural gas service, the Coalition For Renewable Natural Gas, Inc. (RNG Coalition or 'RNGC') respectfully submits the following comments to the Utilities and Transportation Commission (UTC). For the record and concerning Docket #UG – 152164, we request that the PSE's proposed tariff revision be denied on February 11, 2016 to allow the RNG Coalition and stakeholders to work with and address outstanding concerns directly with PSE.

The Coalition for Renewable Natural Gas is the non-profit trade association providing public policy advocacy on behalf of the renewable natural gas industry in North America. We advocate for the increased utilization of renewable natural gas (RNG, biomethane or upgraded biogas) so that present and future generations will have access to domestic, renewable, clean fuel and energy supply. We represent an international membership of leading companies operating in each sector of the industry, including waste collection, waste management and recycling companies, renewable energy project developers, financiers, engineers, organized labor, law firms, technology manufacturers and service providers, gas

and power marketers, gas and power transporters, environmental advocates, research organizations, and natural gas utilities. Our members produce 90% of the RNG in North America from more than 50 projects in 16 different states. Historically, over the last thirty years, RNG has been produced by our industry to generate renewable electricity, heat and power. However, recently RNG has been recognized as the lowest carbon-intensity (CI) transportation fuel available. As such, RNG is increasingly being produced as an ultra low-carbon, renewable alternative transportation fuel that can be blended with or substitute for conventional natural gas. In 2015, RNG Coalition members produced 98% of the Cellulosic Biofuel (D3) Renewable Identification Numbers (RINs or credits generated per ethanol gallon equivalent) under the federal Renewable Fuels Standard Program (RFS2) – with production expected to nearly double by the end of 2016. Most of this RNG is injected into and transported intra- and or inter-state via the existing natural gas distribution system.

Unfortunately, as PSE was only able to accommodate a meeting with RNG Coalition Staff and stakeholders yesterday, we have not had sufficient time to fully evaluate and respond to the practical and legal implications of the proposed tariff revision. Respectfully, we submit the following comments on behalf of the renewable natural gas industry to request that PSE's tariff be denied on February 11, and rescheduled to afford stakeholders the opportunity to work directly and more comprehensively with PSE to resolve outstanding concerns with their proposed tariff.

We appreciate the Utilities and Transportation Commission's (UTC) engagement and consideration of our comments. We look forward to the opportunity to work with PSE and interested stakeholders to achieve increased development, pipeline injection, transportation,

and utilization of RNG in the State of Washington.

II. Description of Service

For reasons articulated in our introduction the RNG Coalition looks forward to working with PSE and to fully supporting the *purpose*[1] and intent of PSE's filing, to the extent that a tariff revision will actually *encourage the production of renewable sources of natural gas such as biomethane*[2].

Similarly, the RNG Coalition looks forward to working with PSE and the UTC to ensure that a tariff revision actually a) provides an option for RNG suppliers to inject biomethane into PSE's distribution system, b) provides an opportunity for RNG suppliers to sell biomethane to end-use customers, and c) provides an opportunity for RNG suppliers to maximize the value of biomethane[3].

III. Availability

We believe provisions set forth in the Availability section of contradict the purpose and intent of the proposed tariff. Perhaps this provision was drafted to benefit and codify PSE's existing relationship with King County, but restricting pipeline access only to RNG suppliers who enter into a Service Agreement with PSE for a minimum term of ten years[4], and or only to RNG producers who supply more than 100,000 therms[5] on an annual basis will limit the number of projects that interconnect with PSE's pipeline and discourage the production of

[1] PSE Cover Letter, UG – 152164, at 1-2.
[2] Ibid, at 1.
[3] Ibid, at 2.
[4] PSE Tariff, at 188R.
[5] Ibid.

smaller RNG projects in Washington State, for reasons not articulated in the proposal.

Respectfully, we request that the UTC deny PSE's tariff revision proposal on February 11 to enable RNG industry stakeholders to work with PSE to address these issues, to amend and file a request for an appropriate tariff revision accordingly.

III. Established California Public Utilities Commission Biomethane Standards

We also strongly object to the concentration standards for various gas constituents required in PSE's proposed Gas Quality Agreement. Admittedly, the PSE proposed standards are modeled after the human health and safety, and pipeline and facility safety and integrity standards recently adopted by the California Public Utilities Commission (CPUC)[6]. Before moving forward to further consider and potentially approve a proposed tariff that is modeled after those recently established in California, the UTC should closely consider the following:

A) purpose and intent of PSE's proposed filing to encourage production of RNG

B) problems with patterning Washington RNG pipeline injection standards after CA

C) preferred pipeline injection standards (other states) that encourage RNG production

A. The purpose and intent of PSE's proposed filing. The RNG Coalition wants to believe that the purpose and intent for this filing and proposed tariff revision is to encourage the production of renewable sources of natural gas (RNG), to enable suppliers (producers, developers) to inject RNG into PSE's distribution system and to make RNG available as a product for sale to prospective end-use customers. We agree with PSE that a tariff – albeit an

[6] PSE Cover Letter, at 2.

appropriately crafted tariff - will enable RNG suppliers to maximize the environmental and economic value of biomethane. The RNG Coalition is hopeful that the proposed tariff revision, and specifically the pipeline injection and gas constituent standards patterned after the regulations adopted in California, are indicative of a general desire by PSE to establish proper human health and safety and pipeline facility safety and integrity protocol. If that be the case, the RNG Coalition supports this direction, but would like to work with PSE to make the necessary adjustments to the non-human health and safety related standards that, as is, will make it virtually impossible for RNG to be injected into PSE's distribution systems. Recent history relative to the adoption of California's biomethane pipeline injection regulations should prove helpful for context, to underscore our point and better understand our position.

B. The problems with patterning Washington's RNG pipeline injection standards after California. In 1988 a vinyl chloride (carcinogen) leak from a hazardous waste landfill in southern California caused large public outcry and created a perfect politician-celebrity opportunity for then Senator Tom Hayden and his wife (Jane Fonda) to step-in and 'save the day'. Hayden passed legislation that resulted in the natural gas utility companies adopting tariffs that effectively banned the injection of all landfill gas into California's natural gas pipelines, not just from hazardous waste landfills. In 2011, the RNG Coalition's Executive Director interviewed former Senator Hayden, who candidly shared that he expected the CPUC and Energy Commission to ferret out the details. Without an industry advocate to ensure proper regulatory implementation of legislation in California, those details were never processed. Consequently, the RNG industry developed elsewhere across the country, constructed RNG projects and interconnected them with natural gas pipelines virtually

everywhere except California. In 2011, the RNG Coalition was responsible for the introduction of Assembly Bill 1900 (AB 1900) - legislation to amend the existing quarter-century old statute. The intent of the bill, introduced by Assemblymember Mike Gatto and signed into law by Governor Jerry Brown, was to distinguish the difference between hazardous and non-hazardous landfills and create new human health and safety, and pipeline and pipeline facility safety and integrity standards, and to promote the in-state development and injection of RNG from a variety of sources. Throughout nearly three years of regulatory proceedings, rhe RNG Coalition worked diligently with the California Air Resources Board (ARB) and the Office of Environmental Health Hazard Assessment (OEHA) to develop and arrive at consensus standards for gas constituents and testing and monitoring protocols related to human health and safety. In our final comments, we asked that the CPUC defer to and adopt ARB/OEHHA's recommendations.

The RNG industry's point of contention exists in California, and for purposes of PSE's proposed tariff revision in Washington, not with the aforementioned human health and safety standards, but with the minimum heating value requirement and purported pipeline and pipeline facility safety and integrity standard specifically concerning siloxane levels. Ironically, since the adoption of regulations implementing AB 1900, a bill designed to promote the development and increased utilization of in-state RNG, not one single RNG project has been constructed, nor has any RNG been injected into California's natural gas pipeline system. Herein lies the first problem with patterning Washington's pipeline injection requirements after California. The net effect would be in direct conflict with the purported purpose of the tariff revision, and discourage the production of renewable natural gas, and eliminate pipeline injection as a viable option for RNG suppliers in Washington to transport

and deliver their product to prospective end-users, and prevent them from maximizing the environmental and economic value of RNG.

Second, it would not make sense to pattern Washington's RNG injection standards after California's, when California's regulations are on the brink of being changed. Concerning heating value, the RNG Coalition has consistently communicated the fact that RNG lacks the higher-chain hydrocarbons that give a gas its heat content or value. In order to achieve a 990 btu minimum heating value requirement, RNG would have to be blended with another gas that contains higher-chain hydrocarbons – like propane, or even conventional natural gas. This is very costly, and in some cases the costs are prohibitive. Furthermore, California is the only state with a 990 btu minimum heating value requirement. Most other states require a heating value between 950 – 975.

Concerning siloxanes, California's standards are the most stringent. Throughout the US, siloxanes are not typically listed in natural gas pipeline quality specifications. In the few instances where there is a siloxane standard, they are achievable. The current siloxane standard required by SoCalGas and PG&E in California are so stringent that engine manufacturers will not guarantee their equipment to remove siloxanes to the prescribed standard. Compounding the issue is the fact that the siloxane standard is set at levels below most laboratories ability to consistently detect. From a testing, monitoring and reporting perspective, this flaw begs the fundamental question – "how can you enforce, much less monitor or measure something you cannot consistently detect?" From a developer's perspective, if you fail to meet the prescribed siloxane standard a certain number of times in a given period, your entire revenue stream (RNG) is shut out of the pipeline. If an engine or

technology manufacturer will not guarantee project equipment will reduce siloxanes to the required level, then the developer cannot guarantee a potential financier a consistent revenue stream or opportunity to predictably realize a return on the investment – which is why no RNG projects have been constructed in California to date since the AB 1900 pipeline injection regulations were adopted.

In recognition of these facts, the CPUC has asked the RNG Coalition in December 2015 to provide empirical data to substantiate an adjustment to the heating value requirement and siloxane standard. The RNG Coalition is nearing completion of this project and hopes to achieve a reduction of the current minimum heating value requirement and siloxane standard in California as a result.

Similarly, we look forward to working with PSE and UTC to achieve consensus on the exact RNG pipeline injection standards, including for heating value and siloxanes, to encourage increased development, pipeline injection, transportation and utilization of in Washington.

C) preferred pipeline injection standards (other states) that encourage RNG production. Rather than adopting pipeline injection standards patterned after a state (California) that has impeded the development of RNG projects and realized zero RNG pipeline injection as a result, we strongly urge the UTC and PSE to work with the RNG Coalition and industry to instead adopt pipeline injection standards reflective of other states that actually support RNG project development, pipeline injection and realize the associated environmental and economic benefits. In a subsequent filing we look forward to providing the information we are preparing for the CPUC, including a list of the minimum heating value and siloxane standards from natural gas utility pipeline companies, many of whom

have safely and successfully transported RNG for more than 30 years, from the more than 50 RNG projects currently operating in the United States.

IV. Conclusion

The Coalition For Renewable Natural Gas appreciates the opportunity to provide comments responding to Puget Sound Energy's proposal to revise their natural gas service WN-U2 Tariff Schedule 88R. Respectfully, and for reasons detailed above, we request that the UTC consider PSE's purpose for filing a tariff revision, the problems with adopting RNG pipeline injection standards patterned after California, and deny PSE's proposed tariff revision on February 11, 2016 to allow the RNG Coalition and stakeholders more time to work directly with PSE and UTC to resolve our industry's outstanding concerns.

This concludes the Coalition For Renewable Natural Gas' Comments.

February 5, 2016

Washington Utilities and Transportation Commission (UTC)
1300 S. Evergreen Park Dr. SW,
Olympia, WA 98504-7250

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

Dear Chairman Danner and Commission Members:

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, which has been the subject of broad-based criticism within California, has blocked RNG development in California, and is therefore likely to be reformed in the near future.

The PSE proposal is potentially consequential, with important policy and precedent-setting implications for Washington State and the nation, as we attempt to reduce carbon emissions and support renewable energy production. We urge the Commission to deny this proposal at this time to allow for the careful consideration and revision required to achieve a thoughtful outcome; one that could help put Washington State in the forefront of low carbon fuel producers.

As a developer of RNG, Promus Energy was founded on the opportunity to supply to the energy market this ultra-low carbon intensity (CI) drop-in transportation fuel, which has compelling environmental, economic, and community benefits. We also have learned, the hard way, the hurdles that stand in the way of broader production and distribution of RNG. One of the principal hurdles is pipeline access.

We have five principal concerns regarding the PSE RNG injection proposal, which is:

1. Based on a) a flawed model (California) and b) a worst case approach:
    a. Restrictive California pipeline injection law (from the 1970s) and policies have virtually eliminated RNG development in the state; noting the powerful carbon reduction opportunities associated with dairy-derived RNG (assumed CI below -100)[1], the California Air Resources Board has advanced a strategy to address pipeline injection impediments for RNG;

[1] See California Air Resources Board draft Short-Lived Climate Pollutant Reduction Strategy, September 2015, esp. page 46. http://www.arb.ca.gov/cc/shortlived/shortlived.htm

b. The PSE standard appears to be designed to protect against the worst case, in which RNG is injected into the end of a distribution system without the benefit of blending with ambient gas, instead of a standard that provides greater flexibility where blending occurs.

2. Discriminatory vis-à-vis fossil natural gas: setting standards for RNG that are more restrictive than those for fossil natural gas or ambient gas already in their pipelines.
3. Unfair to RNG producers who should be entitled to the valuable environmental attributes for this ultra-low carbon fuel but would be at a severe disadvantage in negotiating pipeline access agreements with pipeline owners who can use a restrictive tariff as powerful leverage.
4. Precedent-setting and could help to eliminate development of RNG projects in Washington State and beyond:
5. Unduly burdensome in terms of costs for testing and monitoring, especially where measures, such as real-time gas chromatograph monitoring and automatic shut-off, provide gas quality protection.

We also have several general recommendations that would help encourage, rather than discriminate against, RNG production and injection:

1. Recognize the site-specific nature of RNG injection with a base tariff that incorporates broadly accepted standards (i.e., the RNG industry's proposed pipeline standards) where there is ample blending with ambient gas and no harm; and a non-discriminatory but more stringent standard where there is little if any blending and the potential for site-specific gas quality concerns.
2. Establish RNG injection policies that make Washington State a national leader in the production of RNG, with attendant carbon reduction, local air and water quality improvements, and economic benefits.
3. Support minor adjustments in several specific standards that can go a long way toward accommodating RNG injection: for example, increasing the .2% oxygen limitation to the more common .4% specification would significantly reduce the capital and operating costs for most dairy digester projects; establishing a siloxane standard for landfill projects that is not below detectible levels; and recognizing that RNG, which is essentially pure methane, will naturally have a heating value that is somewhat lower than fossil gas, which typically contains varying amounts of liquid petroleum gases (such as propane and butane) that boost heating value.

The principal question before the UTC is whether it will approve pipeline access standards that discriminate against RNG -- one of the cleanest and lowest CI energy sources available when Washington State is striving to do its part as a member of the Pacific Coast Collaborative to reduce greenhouse gas emissions -- or whether it will adopt fair standards that make Washington State a leader in

the production of this sustainable fuel. We strongly urge the UTC to take the latter course.

Sincerely,

Dan Evans, Principal
Promus Energy LLC

REGENIS
AN ANDGAR COMPANY

February 5, 2016

Washington Utilities and Transportation Commission (UTC)
1300 S. Evergreen Park Dr. SW,
Olympia, WA 98504-7250

RE: PSE Proposed Tariff for Bio-methane Injection into Shared Pipelines; Docket UG-152164

Dear Chairman Danner and Commission Members:

This comment is in regard to some concerns we as a company have regarding Puget Sound Energy's (PSE) proposed new tariff for injection of renewable natural gas (RNG, bio-methane or upgraded biogas) into pipelines—UTC Docket 152164.

Regenis, a Washington State company located in Ferndale, is a leader in on-farm anaerobic digestion and manure management, having constructed 13 projects on farms across Washington, Idaho, Oregon and California. Regenis takes great pride in these installations, not only for their production of renewable energy, either in the form of electricity or RNG, but in the multiple air, water, soil and climate benefits that these projects provide to both the environment and the agricultural community. We would of course like to build more digesters and make more of an impact on farm economics, as well as national needs for increased renewable energy production, however on-farm project economics are tight, particularly for electricity projects given the current low received pricing for generated electricity. Therefore, of keen interest to us is development of projects that upgrade the biogas to RNG for injection into pipelines and receipt of federal (RIN) and state credits (LCFS) generated by use of RNG as a transportation fuel. When combined, these credits can effectively swing project economics towards financial viability. Hence our interest in the proposed PSE tariff.

Our industry's trade organization, the American Biogas Council (ABC), has worked diligently with companies and stakeholders such as Regenis to develop a recommended set of RNG purity standards. Based upon the best existing injection standards from across US and Canada, these recommendations will effectively protect human health and pipeline integrity while not overly burdening RNG projects already facing with tight project economics.

When compared with the proposed PSE tariff injection requirement, taken in large part from California standards known to inhibit RNG project development, it is clear PSE has chosen injection requirements that will make compliance by RNG projects quite difficult due to costly testing/monitoring requirements and processing equipment. This is extremely concerning to us, as a goal of PSE, the UTC, Washington State and the nation should be to open up infrastructure such as pipelines to renewable energy/fuel development. It is our future, and accommodations not barriers, should be put in place for such renewable energy/fuel development.

Of course human health and pipeline integrity must be maintained but Regenis and ABC assert that existing injection standards used elsewhere across US and Canada, as well as a wealth of practical and scientific experience, show less onerous and worst-case scenario implementation of injection specifications are possible while maintaining these health and pipeline goals. Put

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another way, do not snub or put unfair burden on renewable energy project development through implementation of a California-like standard that is known to not be viable and instead work with ABC and other RNG interests to modify the proposed tariff amendment.

The differences between ABC's proposal and the California-like PSE tariff are not huge. In particular, Regenis suggests the following modifications: 1) reduce minimum heating value from 985 (PSE) to 960 (ABC), 2) increased oxygen content from 0.2% (PSE) to 0.4% (ABC), 3) increase total inert content from 3% (PSE) to 5% (ABC), and 4) increased siloxane content from .01 (PSE) to 1 (ABC). The gaps between these values are not large, and given the scale of most RNG projects injection is only a small percentage of overall pipeline flow. Therefore dilution should make adjustment of these values to less onerous specifications quite acceptable. In sum, PSE appears to be proposing a worst case scenario standard that can be adapted on a project-by-project basis, whereas we propose less stringent standards more indicative of the majority of project applications that can be adjusted upwards in the rare cases where dilution is not present.

Two other topics are of interest to Regenis. First, the proposed testing and reporting regimen will be quite costly to implement for farm-based projects not supported by municipal resources. Therefore, we interested parties be given time to work with PSE on ways testing and reporting protocols might be adapted for both cost savings and continued maintenance of health and pipe integrity. The second issue is our belief that any environmental credits associated with the biogas (RINs, LCFS, RECs, carbon credits) are owned by the producer of the biogas, and as such any purchase or agreement in regard to those credits should be at the behest of the producer, not the utility. The proposed UTC tariff should focus on pipeline specifications and testing, not on proscribed ownership of environmental credits by the utility. This cannot be overstated. While a utility might request a portion of environmental credits, they should not be allowed to demand ownership of those credits merely by supplying a transport mechanism. Purchase or sharing of credits should be on a project-by-project basis at the sole initiative of the biogas producer.

In summary, PSE has proposed a tariff which, given its likeness to California regulations, is a known killer of renewable energy projects. Washington State needs to embrace the future and open infrastructure to renewable energy projects. This should never be at the expense to human health and pipeline integrity, but it is our belief any proposed modifications to the tariff which would assist project developers are in-line with existing US and Canadian pipeline specifications, especially since substantial dilution in the vast majority of cases. We also believe testing and reporting schedules should be modified to address potentially burdensome costs to the project developer. Lastly, environmental credits in any form should be owned and used at the discretion of the biogas producer.

While we are optimistic for agreement and desire to work with PSE and the UTC to modify some aspects of the tariff to accomplish all parties goals and desires, at this time we must request that the UTC deny this proposed tariff amendment so improvements can be made that more adequately protect renewable energy projects and the interest of the state and all parties.

Sincerely,
Craig Frear
Director of Research and Technology

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King County
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Director's Office
King Street Center
201 S Jackson St, Suite 700
Seattle, WA 98104-3855

October 30, 2015

Washington Utilities and Transportation Commission
P.O. Box 47250
1300 S. Evergreen Park Dr. SW
Olympia, WA 98504-7250

Dear Chairman Danner and Commission Members:

I am writing to express support for tariff Schedule 88R filed by Puget Sound Energy (PSE). The proposed tariff schedule would allow companies and organizations to produce biomethane within Puget Sound Energy's service territory, and transport the gas within PSE's gas tariff to consumers.

Encouraging the production and subsequent sale of biomethane offers significant benefits to the environment and for the economy. The movement of biomethane to selected end users has the potential to provide greater economic value for biomethane producers and greenhouse gas reduction benefits for the consumers. Producers of biomethane may also be able to benefit from the economic value of environmental attributes related to the sale of the biogas, such as Renewable Identification Numbers (RINs).

Raw biogas can be generated by landfills, dairy farms, wastewater treatment plants, and through anaerobic and other processes. Historically, much of the biogas that has been generated by landfills and wastewater treatment facilities across the county has been flared into the environment. After raw biogas is "scrubbed" of impurities, the resulting biomethane is interchangeable with pipeline natural gas and can be directly injected into a common carrier natural gas pipeline. The use of such biomethane is a direct offset of other natural gas consumption, with biomethane resulting in an 80% or greater reduction in greenhouse gas emissions, compared to pipeline natural gas.

Puget Sound Energy's proposed tariff schedule includes extensive requirements for gas quality testing by the producer, which includes testing for many constituents beyond the testing typically performed for pipeline natural gas. The tariff-proposed gas constituent testing, and the corresponding gas diversion protocol for out-of-specification biomethane, will ensure that

biomethane produced does not have any adverse impacts to PSE's system or to PSE's natural gas customers.

For over twenty-five years, King County's South Wastewater Treatment Plant has been producing and injecting biomethane into PSE's natural gas pipelines. To date, this gas has been sold to PSE and has been integrated into PSE's natural gas supply. Upon approval of the tariff schedule, we look forward to the opportunity to contract for the gas to be transported, per PSE's tariff, to a natural gas vehicle fuel consumer. The result will be a significant reduction in greenhouse gas emissions for the vehicles fueled by the end users of the gas, and the potential for increased revenue for King County that would help offset the significant costs associated with producing the biomethane. Beyond King County, we hope the approval of the proposed schedule will encourage others to generate biomethane from biogas, and take advantage of the environmental and potential financial benefits of doing so.

We appreciate the opportunity to comment on this filing, and encourage you to approve Puget Sound Energy's proposed tariff Schedule 88R.

Sincerely,

Christie True
Director

cc: David Broustis, Energy Manager, Department of Natural Resources and Parks