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To: <u>PUC PUC.FilingCenter * PUC</u>

Subject: Increasing affordable RNG - Comments on Workshop 4b

Date: Tuesday, October 26, 2021 7:45:08 PM

Good Evening Commissioners,

In response to the OPUC's efforts and the latest Natural Gas Fact Finding Workshop 4b, as the lead of RNG consulting firm Biomethane, LLC, I would like to submit two methods for lowering per unit costs of RNG. These are two of several options that warrant further exploration to greatly expand the availability of competitively priced RNG available to regulated utilities in Oregon and the Northwest as a whole:

- Using existing infrastructure to implement a 30% increase in gas production
- Enhancing the ability of utilities to sell gas into high-value markets prior to ramping up of customer demand

The near-term growth of RNG is based on achieving economies of scale, because economies of scale largely determine project financial feasibility. An often-overlooked means of achieving economy of scale in anaerobic digester projects slated to produce RNG is to ensure that the digester is optimized for gas production. Many projects, including wastewater plants and dairies, may not be optimized for gas production, because they are focused on water quality, or manure management, yet optimization is the single step that can determine the difference between financial feasibility and infeasibility for a biogas-to-RNG project. Optimizing gas production routinely results in a 30% or greater increase in gas production (as high as 100-300% increases in some cases). Applied across the stock of potential RNG sources, this represents a substantial increase in the RNG available to utilities across the state, as well as moving a substantial number of projects formerly deemed too small to be feasible into the realm of financial feasibility.

In another strategy to improve economies of scale, utilities who develop RNG projects or purchase RNG may take advantage of an opportunity to sell or resell gas in high-value markets in the near term, as a means to justify building larger projects before customer demand has risen to meet potential supply. Utilities and their customers are in a unique position to offer long-term stable 5-20 year pricing for RNG. This makes RNG projects bankable that would otherwise be subject to high-value yet fluctuating markets for their gas. However, in the near term, the relatively small voluntary gas customer demand for RNG means a risk of RNG purchased or produced under these contracts to remain unsold. In order to incentivize the construction of projects that are sized to meet future demand, utilities should be supported in finding high-value markets to absorb near-term supply. Conducted correctly, these markets would more than compensate the rates that utilities could hope to make selling gas to their own voluntary customers, and keep rates low for customers until their projects have largely paid off their capital expenditures.

I greatly appreciate your efforts and am happy to engage in further conversation on these and other strategies for making RNG more affordable and readily accessible to Oregon customers.

Warm Regards,



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