

Promus Energy, LLC.

Please see comments attached.

December 13th, 2024

Washington Department of Ecology
Attn: Ms. Abbey Brown
Clean Fuel Standard Technical Lead
Post Office Box 47600
Olympia, WA 98504-7600

Dear Ms. Brown:

As a developer of dairy digester Renewable Natural Gas (RNG) and biogas-to-electricity projects for electric vehicle charging in West Coast states, Promus Energy appreciates the opportunity to participate in the fourth informal comment period for the Washington Clean Fuel Standard (CFS) rulemaking process. CFS programs, like those of Oregon and California, have historically driven the development of ultra-low carbon intensity fuels from dairy digester projects by adequately rewarding these projects for their substantial reductions in atmospheric methane emissions. Promus was the lead developer of the Augean RNG Project at the George DeRuyter and Sons Dairy in Outlook, Washington, and the financial feasibility of the project depends on the reliable, long-term, value of avoided methane emissions crediting offered by state CFS programs in California and Oregon.

As established by the [IPCC](#) and California Air Resources Board (CARB) in foundational climate science studies and emissions reductions plans (especially [CARB's Short-Lived Climate Pollutant Reduction Strategy](#), March, 2017), reducing potent methane emissions is a keystone element to mitigate and prevent worst-case climate change outcomes. CARB's Strategy highlights the importance, and cost-effectiveness, of targeting dairy waste lagoons to drastically reduce statewide methane emissions. CARB's follow up studies show that the allocation of less than 3% of California Greenhouse Gas Reduction Fund (GGRF) grant funds to dairy digester projects, in combination with the LCFS program, resulted in 29% of the State's GHG reductions. In CARB's April 2024 [EJAC Workshop](#), anti-dairy advocates proposed eliminating dairy methane emissions crediting. CARB staff pushed back, noting the EJAC LCFS proposal was much less effective in reducing GHG emissions, was much more expensive, and had negative health impacts compared to the CARB proposal that included continuation of dairy methane emissions crediting. Especially as CI reduction targets become more stringent, the power of ultra-low dairy digester derived fuels becomes increasingly critical as fewer types of fuels will be credit generators in the CFS. We trust Ecology's rules will reflect climate science and the strategic value of methane emissions avoidance.

Promus has numerous projects in its development pipeline in West Coast states and intends to add many more soon, provided that state CFS policies create sufficient confidence in the market to attract investors to the projects. Promus understands Ecology's desire to incentivize new production of dairy biogas projects, however, the proposed rules related to avoided methane crediting periods for new and existing projects do not adequately support the development of projects that will supply low carbon fuels to the state. State incentive programs are especially critical for biogas-to-electricity projects that do not yet have the benefit of a federal RIN credit ("eRIN") under the RFS.

The primary roadblock to dairy digester project development is insufficient confidence in dairy digester project's ability to obtain high value for avoided methane emissions crediting over a project's lifespan. The currently proposed two 7.5-year crediting periods for avoided methane emissions crediting are unworkable, as such a short crediting period will not adequately incentivize investment into dairy digester projects that sell their fuel into Washington

- Dairy digesters are expensive to build and operate, and the majority of dairy owners and digester developers do not have the capital to fund the projects without extensive outside investment. Most Promus projects cost between \$14m-\$22m to construction depending on project size and location.
- Dairy digesters are designed to operate at least 25-30 years, and investors in our projects expect an adequate return on their investment for at least 20 years. Investors lose interest in projects as the duration of the revenue generating period of the project goes below 20 years since it is not a long enough period for them to recoup their investment and earn a profit comparable to, or better than, alternative investments they could make.
- Dairy biogas projects benefit from scale, therefore smaller farms need even more crediting certainty for them to be developed than large farms.
- Promus is of the opinion that few, if any, new dairy digester projects will be developed that will sell their fuel into WA under the proposed rules.
- Even with more than a decade head start on decarbonizing the transportation sector, the California Air Resources Board (CARB), through the LCFS program, offers multiple 10-year crediting periods for dairy methane emission reductions and is developing additional incentives to prevent "backsliding" after current crediting expires.

Although dairy digester projects are among the most cost-effective and potent means of reducing methane emissions and decarbonizing the transportation sector, they are expensive to build and operate. The value of commodity gas or electricity sales is insufficient even to cover typical project operating costs. Avoided emissions crediting is required to support the operation of digesters long-term and to prevent emissions backsliding/project abandonment that would occur once crediting periods have expired

- Commodity electricity revenue on a Promus project currently under development in Eastern Washington would only cover approximately 30% of the expected annual operating costs for the project. Long-term avoided emissions crediting would fill this gap and ensure the future viability of the digester project.
- The current lack of a federal eRIN credit for biogas to electricity projects makes biogas-to-electricity projects from dairy digesters non-viable without the long-term support of avoided emissions crediting.
- CARB has stated repeatedly that additional incentive programs will be created in the future to support the continued operation of dairy digester projects and prevent emissions backsliding. Ecology must begin outlining those programs now if their intent is to phase out biomethane from the CFS in the long-term. The state's aggressive GHG reduction targets cannot be met or sustained if emission reductions are subject to reversal once avoided emissions crediting periods have expired.

Promus finds issue with the suggested deliverability requirements for biomethane and electricity to participate in the CFS

- Promus does not support restricting the book and claim of RECs starting in 2026 to only Washington, Oregon, and Idaho, while allowing for gaseous biomethane to flow in from states beyond the Northwest until later years. Ecology should align the REC deliverability requirements with those of other states such as California that allow book and claim of RECs from the Western Electricity Coordinating Council (WECC) region to ensure adequate supply and harmonization of the WA CFS with other state CFS/LCFS programs. Establishing a 50% physical flow requirement for biomethane used in transportation fuels, electricity generation, or as a feedstock for hydrogen, jet fuel, or renewable diesel is unnecessary at this early stage of Washington's CFS as it will restrict the supply and utilization of these critical low-carbon fuels.
- Promus encourages Ecology to include linear generators as eligible generation technology for book and claimed biomethane to electricity generation. Linear generators are a high-efficiency, non-combustion technology that meet the strictest air emission requirements. This is backed up by extensive publicly available data from dozens of source tests. The recently enacted California [AB 1921](#) recognizes linear generators in addition to fuel cells as renewable power technology that complies with California's Renewable Portfolio Standard program. Ecology should follow California's lead and put linear generators on equal footing with fuel cells to further harmonize programs across states.

In summary, Promus is enthusiastic about the creation of a CFS program in Washington State and intends to develop many dairy digester projects, including at smaller dairies as possible incentives permit, to substantially abate powerful methane emissions and increase the in-state supply of ultra-low carbon intensity fuels. A pragmatic, market-savvy CFS is essential to incentivize new project development. Unfortunately, the draft rules presented to date by Ecology do not yet provide the incentivizes required for digester projects to succeed. Promus anticipates productive changes to result from stakeholder engagement on this issue and looks forward to further connecting with Ecology as the rules are refined.

Sincerely,

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