July 31, 2025

Department of Ecology
Climate Pollution Reduction Program
Adam Saul
PO BOX 47600
Olympia, WA 98504-7600
Electronically submitted

RE: Chapter 173-424 WAC, CR 102 Clean Fuels Program Rule

Dear Mr. Saul:

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 comment on the proposed rules for the Washington Clean Fuel Standard (CFS). Low carbon fuel programs, like those of California and Oregon, have historically driven the production of ultra-low carbon intensity fuels from dairy digester projects by rewarding them for their powerful reductions in atmospheric methane emissions. These high-impact projects are also high-cost, requiring significant third-party investment, and investor confidence in healthy, sustained credit markets. By harmonizing policies and market access with the more mature low carbon fuel programs of California and Oregon, Washington state can further drive and maximize the emissions reductions these programs provide across the West Coast.

Reducing methane emissions from dairies is one of the fastest and most cost-effective ways for the state to achieve its emissions reduction and Clean Fuel Program goals. The California Air Resources Board (CARB) and Legislature spent years evaluating this issue. In the seminal *Short-lived Climate Pollutant Reduction Strategy* (2014, updated 2017), CARB highlighted the critical importance of reducing methane emissions as part of their mandate to dramatically reduce GHGs. Dairy digesters were identified as one of the most potent, cost-effective tools for meeting GHG reduction targets. Based on this science and strategy, the CA legislature adopted SB 1383, which created a robust incentive-based program to promote dairy digesters. The results have been dramatic. The allocation of less than 3% of CA's Greenhouse Gas Reduction Fund grants to dairy digesters, in combination with LCFS credits, have resulted in the construction of over 243 dairy digesters and 29% of CA's total GHG reductions in the transportation sector. In less than six years, virtually all fossil natural gas in the natural gas vehicle (NGV) sector has been replaced with ultra-low carbon intensity (CI) renewable natural gas (RNG), mostly from dairy digesters, reducing the average CI for the NGV fuel sector from approximately 70 gCO2e/MJ for fossil natural gas to below -190 (*negative*). See Exhibit 1 below.

Some critics of modern dairying argue that methane emission reductions from dairy waste lagoons should not receive credit in a project's CI calculation because it makes dairies more viable or able to expand. But this ideological approach disregards current law and practical realities. Since the 1990s, dairies in Washington have been required to build waste storage lagoons to prevent water pollution, and individual dairies have been required to spend millions lining lagoons and increasing storage capacity. Almost all dairies in WA have nutrient management plans that require wastewater storage in engineered lagoons. Methane emissions from these lagoons are real and measurable. Dramatic reductions in these emissions due to a digester project are also real and measurable, along with improvements in air quality across the board – methane, sulfur dioxide, odor. As long as waste lagoons are a practical and regulatory reality, dairy methane emission reductions must be part of the CI calculation.

During 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, much more expensive, and had negative health impacts compared to the CARB proposal that included continuation of dairy methane emissions crediting (see Slide 31). 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 under 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 more soon *provided* that state CFS policies create sufficient confidence in credit markets to attract investors to the projects. 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. Harmonized 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 Renewable Fuels Standard.

Promus offers the following comments on specific sections of the rulemaking:

Ecology's currently proposed two 7.5-year crediting periods for avoided methane emissions crediting are unworkable for project developers, investors, and dairy farmers, as such a short crediting period will not provide adequate security, cost recovery, and return on investment for dairy digester projects that sell their fuel into Washington (Pages 91-92 of the proposed rule).

- Dairy digesters are expensive to build and operate and typically require extensive outside investment. Most Promus projects cost between $14m-$22m to construct depending on project size, location, and complexity.
- 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.
- Dairy biogas projects benefit from scale, therefore smaller farms need even more crediting period certainty than do larger farms.
- Promus is of the opinion that few, if any, new dairy digester projects will be developed that will primarily sell their fuel into WA under the proposed rules.
- Even with more than a decade head start on decarbonizing the transportation sector, CARB, through the LCFS program, offers multiple 10-year crediting periods for dairy methane emission reductions and is developing additional incentives to prevent "backsliding" of emissions reductions after current crediting expires. Deviating from CARB's crediting periods would add complexity and confusion as West Coast states seek to harmonize low carbon fuel program rules and markets.

The value of commodity gas or electricity sales alone is insufficient to cover typical digester project operating costs. Healthy, sustained CFS credit values are required to support the construction and operation of digesters long-term

- Commodity electricity revenue on a Promus project currently under development in Eastern Washington would only cover about 30% of the expected annual operating costs for the project.
- While a 30% federal Investment Tax Credit (48e IRC) is available for eligible power production equipment used in biogas-to-electricity projects, the current lack of a federal eRIN credit for biogas-to-electricity projects makes strong, reliable state CFS credit values critical for project financing and long-term viability.
- The increased stringency in carbon reduction targets under HB 1409 and Ecology's mandate to monitor and adjust targets in upcoming years in response to market imbalances is an important step toward sustaining healthy CFS credit values and program performance. CARB's new Automatic Adjustment Mechanism (AAM) is a good example of such a tool that was created in response to the flood of renewable diesel that swamped the CA LCFS market starting in 2022, depressing prices to ruinous levels for four years and counting. We encourage Ecology to develop tools sufficient to manage market imbalances in the future.
- To prevent abandonment of legacy digesters, the CFS must recognize, through continued emissions crediting or other incentive program, the ongoing value of these digesters.
- CARB has stated that additional incentives will be created in the future to support the continued operation of dairy digester projects and to prevent abandonment and emissions backsliding once avoided emissions crediting periods have ended. Ecology should begin outlining those programs now if their intent is to phase out avoided emissions crediting 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 urges Ecology to reevaluate the deliverability requirements for biomethane and electricity in the CFS and harmonize market access with other low carbon fuel program states (Page 96 of the proposed rule).

- Promus opposes restricting the book and claim of RECs starting in 2026 to only Washington, Oregon, and Idaho. Ecology should align the REC deliverability requirements with those of other states, such as California that provide a pathway to book and claim RECs from the Western Electricity Coordinating Council (WECC) region to ensure adequate supply and harmonization of the WA CFS with other state low carbon fuel programs. The proposed rule prevents market participation for electricity from projects outside of WA, OR, and ID, which is contrary to the requirement that Ecology harmonize the WA CFS with its counterpart programs in OR and CA. Additionally, lack of market access for biomethane and electricity from outside of the Pacific Northwest, particularly for these fuels with low CI scores, creates risk that a shortage of locally produced low carbon fuels will make program targets unachievable.
- Imposing deliverability requirements on both biomethane and electricity to encourage sourcing of these fuels from the Pacific Northwest creates an unlevel playing field between different fuel types in the CFS program. Other fuels such as renewable diesel, ethanol, or hydrogen can be shipped to WA from locations across the country without needing to be sourced from the Pacific Northwest, giving producers of those fuels an advantage in the market compared to producers of biomethane or electricity.

Incentives for non-combustion technologies, such as fuel cells, should be extended to other efficient, non-combustion technologies, such as linear generators (pages 78 and 143 of the proposed rule)

- Promus encourages Ecology to make other efficient, non-combustion technologies, such as linear generators, eligible for book and claimed biomethane to electricity generation and to extend provisional electricity CI scores for dairy biogas-to-electricity to projects using technology such as linear generators. Linear generators are a high-efficiency, non-combustion technology that meets 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 and increase clean power generation options.

In summary, Promus looks forward to the creation of a CFS program in Washington State that supports a thriving low carbon fuels industry and dramatic reductions in GHG, as CA and OR have demonstrated. We urge Ecology to ensure that program rules and incentives are sufficient to support dairy digester projects that produce the lowest carbon fuels (RNG, electricity, SAF) available. Strong long-term incentives and will enable smaller dairies to participate in digester projects, accelerating GHG reductions and in-state fuel production. The largest source of carbon emissions in Washington is the transportation sector, and the state can rapidly decarbonize the sector with a science-based, market-savvy CFS and harmonized CFS program.

Sincerely,

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EXHIBIT 1: Rapid Decarbonization of the CA Natural Gas Vehicle Sector because of Dairy Biomethane (compiled by Stillwater)

Figure 7: CNG & LNG and RNG Trends