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August 1, 2025

Adam Saul
Climate Pollution Reduction Program
Washington Department of Ecology
P.O. Box 47600
Olympia, WA 98504-7600

RE: Draft Rule for Chapter 173-424 WAC – Clean Fuels Program (CFP)

Dear Mr. Saul,

Energy Vision, a national non-profit environmental research organization – with offices in Washington State – that focuses on advancing sustainable low-carbon fuel solutions, appreciates the opportunity to comment on the draft rule for Chapter 173-424 WAC – Clean Fuels Program (CFP) issued by the Washington Department of Ecology on June 16, 2025. We applaud Ecology for its continued commitment to decarbonization Washington's transportation sector, primarily through a robust Clean Fuels Program.

Since 2010, a major focus of Energy Vision's research has been to assess the technologies, policies and markets associated with the production and use of renewable natural gas (RNG) from a range of organic "waste" feedstocks. In addition to monitoring all of these important factors, we have also worked closely with the Transportation Team at Argonne National Lab (since 2016) to track all operational and under development RNG projects in the country, which has given us a unique perspective on this growing sector. Due in large part to favorable federal policy first (EPA's Renewable Fuel Standard) and then California's Low Carbon Fuel Standard, the production and use of RNG has grown exponentially over the past decade, from less than 60 projects in 2016 to more than 400 as of January 2025.

Over the years we have fielded countless questions from state and federal policymakers and regulators regarding the true potential of RNG to scale up – nationally and in specific states/regions. Several comprehensive feedstock assessments have been compiled, including a 2014 NREL study and a very recent American Gas Foundation/ICF report from July 2025. Needless to say, despite rapid growth over the past decade, the untapped resource potential – particularly with respect to livestock manure and food waste – is still immense; easily 10-15x current national production (estimated at ~136M mmbtu in 2024). According to the most recent AGF/ICF study, Washington State's annual RNG production potential ranges from 13.4M mmbtu to 55.4M mmbtu, depending primarily on enabling policy(s) and market conditions.[1]

Rather than reassess the energy production potential of RNG, Energy Vision embarked on a comprehensive study in 2023/24 to instead categorize the national methane reduction potential of

[1] AGF Renewable Natural Gas Supply Assessment, July 2025. https://gasfoundation.org/wp-content/uploads/2025/07/Renewable-Natural-Gas-Supply-Assessment_AGF-Report-July2025.pdf

anaerobic digestion, which led to the publication of *Meeting the Methane Challenge*[2] and a subsequent peer-reviewed perspectives article in BioFPR.[3] The findings were surprising (even to us) and compelling: the buildout of 4,700 new AD facilities nationwide would cut net US methane emissions by 13.6% (roughly half each from dairy AD and food waste AD).

Coverage and interest around these findings were significant and led to an opportunity to collaborate with Washington State Department of Agriculture to better understand the opportunities and obstacles around dairy sector anaerobic digestion in WA. (The report will be finalized soon; we would be happy to share the report with your team and/or schedule a time to brief you on the key findings.) Here is a brief summary of the key takeaways:

- Washington's agricultural sector is vital to the state's economy, representing 6.9% of the State's total greenhouse gas footprint. Within the ag sector, the dairy industry is a key pillar, typically ranked in the top three (usually 2nd) in value of production amongst all agricultural commodities in the state.

- While dairy is a relatively modest contributor to the state's GHG emissions, much of the potent methane from dairy manure management (1.7% of total statewide emissions) can be captured in anaerobic digesters (ADs) and used to produce renewable energy. ADs alone may provide incremental nutrient management benefits, which can be greatly enhanced when coupled with post-AD digestate processing technologies.

- There are just five operational ADs in Washington today (down from 9); another 80 dairies are deemed large enough to either build their own AD(s) or participate in multi-dairy "hub and spoke" ventures. **Unlike essentially all of the other dairy states in the top 10, no new dairy ADs have been built in Washington since 2015**, although a handful of new proposed projects have completed substantial development and may get completed in 2026-27 with the necessary certainty that appropriate markets remain viable and available.

- Through detailed surveys and direct engagement, farmers and developers told us that while there is clear interest and untapped potential for dairy ADs, the status quo is far from appealing in Washington State.

    - Most WA dairy farmers have considered building ADs but have decided not to because the economics are seen as too risky. The top reasons were "lack of clear

[2] Energy Vision, Meeting the Methane Challenge: How the US Can Meet Its 2030 (30x30) Goal. https://energy-vision.org/wp-content/uploads/2024/05/EV-National_AD_Report.pdf

[3] Michael Scott Lerner, "How the USA can feasibly cut methane emissions 30% by 2030: anaerobic digestion of organic waste and various measures in oil and gas production," *Biofuels, Bioproducts, and Biorefining (BioFPR)*, October 2024 https://scijournals.onlinelibrary.wiley.com/doi/10.1002/bbb.2685

financial returns" (70%), "upfront capital costs" (65%), and "ongoing maintenance costs" (55%).

- The overwhelming majority of leading developers see two obstacles to dairy AD buildout in the U.S. as the biggest by far: market volatility for renewable energy credits (90%) and lack of certainty around carbon accounting and associated environmental attributes (60%).

Through complementary research, outreach and empirical data collection, it is clear that market volatility and an overwhelming sense of uncertainty is making it difficult for capital providers, developers and feedstock generators (especially dairy farmers) to get comfortable making investment decisions under these conditions. **Furthermore, Ecology's proposed avoided methane crediting periods in WAC 173-424-610(16) have created additional concerns regarding the long-term economic viability of dairy anaerobic digestion.**

Based on these findings, we encourage Ecology to revisit the proposed avoided methane crediting periods in WAC 173-424-610(16). The current proposal of two seven-and-a-half-year crediting periods—totaling 15 years—for new avoided methane projects falls short of what is likely needed to unlock the necessary private investment in new anaerobic digestion facilities and related infrastructure. Anaerobic digesters are capital-intensive assets that typically require 20 to 30 years of crediting or contract certainty to justify construction and long-term operation. (Based on Energy Vision's research, we calculate that fully developing the state's dairy RNG resource – 80 candidate farms – would cost approximately $1.2B in capex.)

The rationale provided in Ecology's Preliminary Regulatory Analysis, which assumes that methane capture will eventually become "typical" and no longer require policy incentives, does not reflect the current market realities in Washington – which have held for many years and are extremely unlikely to improve without additional policy incentives. Without stable economic support, anaerobic digestion systems are unlikely to be built or maintained, as we have seen. Even when technically feasible, such systems face steep upfront and ongoing operational costs, particularly for agricultural (and food waste) projects. For reference, the International Energy Agency's 2023 Biomethane Outlook report supports a minimum 20-year investment horizon for these types of projects.[4]

Without revision, the proposed crediting structure would likely fail to catalyze any new investment in methane capture infrastructure in Washington. That outcome would severely constrain the supply of RNG available for various end-use applications in Washington State and severely limit the state's ability to reduce methane emissions—a short-lived climate pollutant with disproportionately large warming effects.

[4] IEA Special section: Biogas and biomethane, 2023 report. https://www.iea.org/reports/renewables-2023/special-section-biogas-and-biomethane

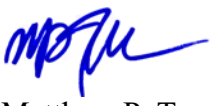
In contrast, California recently finalized new crediting rules under its Low Carbon Fuel Standard (LCFS) that offer 30 years of avoided methane credits for projects initiated before 2030 and 20 years thereafter. This policy was based on engagement with industry stakeholders, including developers, farmers, and capital providers. Ultimately, CARB concluded that long-term certainty is critical to ensuring timely investments in methane reduction and RNG production projects. And for reference, the California dairy industry's adoption of anaerobic digesters – supported by a number of sizable state grants and incentives – remains by far the state's most cost-effective methane abatement strategy.

We encourage Ecology to align its crediting periods with those adopted in California. Doing so would fulfill the legislative intent of HB 1409, which directs Washington to harmonize its clean fuels program with those in other leading jurisdictions. Moreover, adopting a 30-year crediting window for near-term projects and a 20-year window for post-2030 projects would provide the much-needed long-term certainty to stimulate new investment in anaerobic digestion and RNG infrastructure within the state.

In summary, Energy Vision supports the proposed Clean Fuels Program rulemaking and encourages Ecology to extend the avoided methane crediting period to better reflect the long-term financial needs of new infrastructure projects, which increasingly require institutional capital, consistent with the direction of HB 1409 and the crediting framework adopted by California.

We appreciate the Department's leadership and thoughtful approach to this critical rulemaking process. Thank you for the opportunity to submit these comments. Please don't hesitate to reach out if you have questions or would like to discuss further.

Sincerely,



Matthew P. Tomich
President