

Washington State Dept. of Agriculture (Kyrre Flege)

Dear Clean Fuel Standards Program,

Washington State Department of Agriculture works through service, regulation, and advocacy to support the viability and vitality of Washington agriculture while protecting consumers, public health, and the environment. Washington's climate programs are important part of that mission. WSDA submits these comments to support alignment with the state's commitments outlined in the Comprehensive Climate Action Plan (CCAP), investments by the Washington State Legislature (Legislature), as well as the livestock industry's goals for carbon neutrality. Reducing livestock emissions through manure management practices and technologies to avoid methane emissions with anaerobic manure treatments (Measures E.3.3 and E.3.4) is a focus of the CCAP's Agriculture section. These measures focused on manure management are projected to reduce up to 109,156 MT CO₂e/yr in the near term (2030), and up to 653,750 MTCO₂e/yr in the long term (2050).

The Legislature supported these commitments to reduce greenhouse gases through on-farm anaerobic digestion (AD) manure management technologies by providing funding to Department of Commerce (Commerce), who on April 28, 2026 awarded over \$13.8M dollars to support seven projects in five counties to build and upgrade AD systems to capture methane from dairy manure. The Legislature then provided an additional \$10.0M dollars for further AD development.

During the 2025 rulemaking for Department of Ecology's (Ecology) Clean Fuel Programs rules, a provision (WAC 173-424-630(6)(c)) was amended from 'may' to 'shall' when regarding adoption of energy conversion efficiency, stating: "Ecology shall adopt an efficiency adjustment factor for biogas to electricity pathways that include emissions reduction credits in order to maintain the programs incentive for energy efficiency." The concise explanatory statement provided by Ecology explains how the efficiency adjustment factor is applied to conversion of biogas energy to electricity to incentivize higher efficiency generators and to reflect the conversion efficiency of natural gas to electricity generating technologies. The proposed conversion efficiency factor in Ecology's draft rules is 50%, aligning with that of clean fuels programs in California and Oregon.

The 50% conversion efficiency is too high. Existing operating dairy ADs in Washington state would receive an increased CI score, reducing their incentives to continue operation. New AD projects would not receive a critical incentive for farmer investment to spur new projects and work toward Washington's climate goals.

Washington State currently has eight operational dairy ADs, all of which use an internal combustion engine for biogas-to-electricity generation. While less efficient (25-43% conversion efficiency), purchase and installation costs (\$500-800K) are within range for individual dairy farmers to consider as an investment themselves and cost share is accessible through state and federal programs for farmer-led projects. Alternative biogas to electricity technologies for dairy ADs such as linear generators (purchase cost and installation \$2.5M, conversion efficiency of 38-40%) and solid oxide fuel cells (purchase and installation \$6.6-7.2M, conversion efficiency of 50-52%) are cost prohibitive for farmer-led investment, and are not adequately supported by state and federal cost share programs to incentivize development.

This misalignment in the state's carbon market development conflicts with Washington's Climate Commitment Act funding for dairy ADs. The state should align priorities: identified dairy emissions reduction opportunities outlined in the CCAP, ongoing state investments in AD development, and ensure that business development is incentivized through the Clean Fuels Program rules. Ecology could adopt rulemaking that encourages innovation and adoption of affordable higher efficiency technologies over time using a tiered approach (for example: 40% by

2030, 45% by 2035, etc.). A tiered approach would encourage implementation of systems with higher conversion efficiency without directly penalizing existing farmers and AD operators.

Thank you for your time and attention to these concerns. If you have any questions or would like to discuss dairy AD project incentives, please reach out.

Sincerely,

Kyrre Flege, Program Manager

Nutrient Management Technical Services

Washington State Dept. of Agriculture

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STATE OF WASHINGTON
DEPARTMENT OF AGRICULTURE
P.O. Box 42560 • Olympia, Washington 98504 • (360) 902-1800

June 17, 2026

Abbey Brown, Lauren Sanner
Clean Fuel Standard Program
Department of Ecology

Re: Comments for Chapter 173-424 WAC and WAC 173-455-150 Clean Fuels Program Rules and Fees

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Thank you for your time and attention to these concerns. If you have any questions or would like to discuss dairy AD project incentives, please reach out.

Sincerely,

A handwritten signature in black ink, appearing to read 'Kyrre Flege', with a long horizontal line extending to the right.

Kyrre Flege, Program Manager
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Washington State Dept. of Agriculture
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