



1400 K Street NW, Suite 905  
Washington, D.C. 20005  
Ph: (605) 965-2200  
[poet.com](http://poet.com)

February 2, 2026

Gopika Patwa  
Climate Policy Planner & Rule Lead  
Department of Ecology  
PO Box 47600  
Olympia, WA 98504-7600

Submitted electronically via: <https://ecology.commentinput.com/?id=6Pgt9kUcs>

**RE: POET Comments on Draft Language for WAC Clean Vehicles Program Rulemaking**

Dear Ecology:

POET appreciates the opportunity to comment on Ecology’s draft rulemaking language for Chapter 173-423 WAC Clean Vehicles Program (“CVP”). As the world’s largest producer of bioethanol and a key stakeholder in Washington’s transportation fuel supply, POET actively participates in Ecology’s rulemakings related to fuel emissions programs, such as the Clean Fuel Standard (“CFS”) program. POET offers the following comments in support of the CVP’s goals in achieving emissions reductions and improving air quality in Washington.

**I. Overview**

POET’s vision is to create a world in sync with nature. As the world’s largest producer of biofuel and a global leader in sustainable bioproducts, POET creates plant-based alternatives to fossil fuels that unleash the regenerative power of agriculture and cultivate opportunities for America’s farm families. Founded in 1987 and headquartered in Sioux Falls, POET operates 35 bioprocessing facilities across nine states and employs more than 2,600 team members. With a suite of bioproducts including POET Distillers Grains, POET Distillers Corn Oil, POET Purified Alcohol, and POET Biogenic CO<sub>2</sub>, POET nurtures an unceasing commitment to innovation and advances powerful, practical solutions to some of the world’s most pressing challenges. Today, POET holds more than 140 patents worldwide and continues to break new ground in biotechnology, yielding ever cleaner and more efficient renewable energy. Through technological innovation, investments in carbon capture and renewable energy, and programs to reduce on-farm emissions, POET is steadily lowering the CI of its fuel to meet the ambition of Ecology’s CFS as it continues to grow and evolve. We see the potential for bioethanol to become a net-zero carbon liquid fuel on a life-cycle basis, operating to further decarbonize on-road transportation and serving as a feedstock for the next-generation fuels that will power the aviation industry and other hard-to-electrify sectors of the economy.

## II. Low-CI Bioethanol Can Help Achieve the Goals Sought by Ecology’s Clean Vehicles Program

POET understands that under RCW 70A.30.010, Ecology is required to align its rules with certain California regulations relating to emission standards for new motor vehicles. In doing so, POET urges Ecology to recognize the role of bioethanol as a near-term solution for achieving meaningful emissions reductions. Although electric and zero-emission vehicles are an important long-term objective, internal combustion engine vehicles relying on liquid fuels will remain in Washington’s transportation fuel mix for decades still. Bioethanol can serve as an implementable strategy to reduce carbon emissions associated with internal combustion engine vehicles and advance Washington’s carbon-reduction goals during this transition.

Low-CI bioethanol offers significant air quality and GHG emissions reduction benefits compared to petroleum-based gasoline. Multiple studies show that blending bioethanol into the transportation fuel supply results in significantly lower lifecycle GHG emissions compared to petroleum-based gasoline. For example, studies show that emissions reductions attributable to bioethanol range from 41 to 46 percent compared to emissions associated with petroleum-based gasoline. According to the Department of Energy’s Argonne National Laboratory (“ANL”), typical corn ethanol provides a 44 percent GHG reduction compared to gasoline.<sup>1</sup> Similarly, researchers affiliated with Harvard University, MIT, and Tufts University conducted a meta-analysis showing that corn ethanol as of 2021 offers an average GHG reduction of 46 percent compared to gasoline.<sup>2</sup>

In addition to GHG benefits, a recent analysis from leading national experts found air quality and public health benefits associated with higher biofuel blends in gasoline, including reductions in PM, carbon monoxide (“CO”), and total hydrocarbons (“THC”).<sup>3</sup> This study was the first large-scale analysis of data from light-duty vehicle emissions that examines real-world impacts of bioethanol-blended fuels on regulated air pollutant emissions. The study found that CO and THC emissions were significantly lower for higher bioethanol fuels for port fuel injected engines under cold-start conditions. The study found no statistically significant relationship between higher bioethanol blends and NOx emissions. With regards to PM, studies show that emissions decrease by 15 – 18% on average for each 10% increase in ethanol content under cold-start conditions.<sup>4</sup> Analyses by professors at Tufts University show that the associated health benefits may be most significant in disadvantaged communities in areas of high traffic density and congestion.<sup>5</sup>

---

<sup>1</sup> Uisung Lee et al., *Retrospective Analysis of the U.S. Corn Ethanol Industry for 2005–2019: Implications for GHG Emission Reductions*, 15 BIOFPR 1318, 1328 (May 4, 2021), <https://doi.org/10.1002/bbb.2225>.

<sup>2</sup> Melissa Scully et al., *Carbon Intensity of Corn Ethanol in the United States: State of the Science*, 16 ENVIRONMENTAL RESEARCH LETTERS, at 16 (Mar. 10, 2021), <https://iopscience.iop.org/article/10.1088/1748-9326/abde08>.

<sup>3</sup> See Fatemeh Kazemiparkouhi et al., *Comprehensive US Database and Model for Ethanol Blend Effects on Regulated Tailpipe Emissions*, 812 SCIENCE OF THE TOTAL ENVIRONMENT, at 15 (Mar. 15, 2022), <https://www.sciencedirect.com/science/article/pii/S0048969721065049?via%3Dihublrli>.

<sup>4</sup> Kazemiparkouhi, *supra* note 5 at 5, 11, 13.

<sup>5</sup> See Tufts University Department of Civil and Environmental Engineering, *Air Quality and Public Health Comments to RFS* (Feb. 3, 2022).

The GHG emission and criteria pollutant reduction benefits associated with bioethanol are clear. POET therefore urges Ecology to consider bioethanol as an effective emissions-reduction tool that complements and supports Washington's air quality and climate goals.

### **III. Conclusion**

POET appreciates the opportunity to comment on the Clean Vehicles Program and looks forward to continued cooperation with Ecology. If you have any questions, please contact me at Paul.Townsend@POET.com or (605) 756-5612.

Sincerely,

A handwritten signature in black ink, appearing to read "Paul W. Townsend", is written over a thin red horizontal line.

Paul W. Townsend  
Regulatory Counsel