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Submitted electronically via: https://aq.ecology.commentinput.com/?id=bS4tQR6WV

RE: POET COMMENTS ON WASHINGTON'S DEPARTMENT OF ECOLOGY'S CLEAN FUEL STANDARD RULEMAKING

Dear Mr. Saul:

POET appreciates the opportunity to participate in Washington's Department of Ecology's ("Ecology") Clean Fuel Standard ("CFS") Rulemaking. POET has participated actively in this rulemaking through the submission of comments and engagements with Ecology's staff. POET reiterates its previously submitted written comments and provides these additional comments regarding the formal proposed rule released on June 16, 2025 ("Proposed Rule").

I. Book-and-Claim Accounting

POET supports Ecology's action to authorize book-and-claim accounting for renewable electricity used to produce low-carbon transportation fuels; however, the restrictions Ecology proposes will have the effect of excluding most low-carbon fuel producers from this new program feature and undermine the amendment's goal of promoting greenhouse gas ("GHG") reductions.

There are two essential problems with Ecology's proposal. First, Ecology proposes a restrictive regionality requirement, on top of an additionality requirement, that dramatically narrows the pool of eligible renewable energy projects from which producers can purchase renewable electricity certificates ("RECs"), making it nearly impossible for most producers to invest in qualifying projects. *See* WAC 173-424-630(5). Second, biofuel producers are prohibited from claiming the GHG reductions associated with RECs under Washington's CFS if those producers also claim benefits from the same RECs under the Inflation Reduction Act's ("IRA") federal tax credit program. POET recommends that Ecology reconsider these restrictions and adopt a book-and-

claim accounting rule that will genuinely drive investment in renewable electricity and promote Washington's GHG reduction goals.

An effective book-and-claim rule is vital both to Washington's sustainable aviation fuel (SAF) ambitions[1] and to meeting the increased stringency requirements recently established through legislation[2]. Bioethanol is a recognized SAF feedstock, and producers like POET are well positioned to supply low-CI ethanol for this emerging sector. Limiting pathways for bioethanol decarbonization by excluding most producers from book-and-claim accounting undercuts the state's goals of building a low-carbon aviation sector and stalls progress toward broader decarbonization.[3] Similarly, if the book-and-claim accounting provisions effectively exclude biofuels, Washington will struggle to meet the ambitious CFS stringency goals required by the state's newly adopted law. POET thus strongly urges Ecology to revise the book-and-claim provisions to remove the regionality requirement and to allow RECs to be used for both CFS and IRA crediting.

A. Proposed Regionality Requirement

Book-and-claim accounting is designed to decouple geographic proximity from environmental benefits associated with renewable electricity generation. One goal of book-and-claim accounting is to support the development of new renewable electricity projects, thereby leading to further decarbonization of the electrical grid. Recognizing this goal, many existing low-carbon fuel programs that allow for book-and-claim accounting include an additionality limitation requiring qualifying renewable electricity generation projects to have come online after a certain date. This program feature necessarily limits the supply of qualifying RECs available to fuel producers.

Ecology's proposed regionality requirement exacerbates this supply problem and arises from misguided policy considerations. Although the United States has made significant strides in renewable electricity generation since 2019, the Pacific Northwest has struggled to add renewables at the same rate as many other states.[4] In fact, many projects in Washington and Oregon completed

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[1] *See* S.B. 5447; S.B. 5601; https://governor.wa.gov/news/2025/making-things-happen-sustainability-and-jobs-port-walla-walla-secures-state-support-ramp-sustainable; https://ecology.wa.gov/about-us/who-we-are/news/2025/june-16-new-incentives-for-clean-aviation-heavy-duty-trucking-proposed-in-updates-to-clean-fuel-s.

[2] *See* H.B. 1409 § 1(5)(a)

[3] "Book and claim is a mechanism that will help scale up SAF deployment efficiently, thereby accelerating the industry's decarbonization efforts." https://atag.org/industry-topics/sustainable-aviation-fuel. "[T]he introduction of industry book-and-claim programs is the tool that is going to greatly advance [SAF's] production and adoption." https://www.ainonline.com/aviation-news/business-aviation/2024-09-03/book-and-claim-crucial-saf-expansion.

[4] *See* https://www.opb.org/article/2025/05/12/oregon-washington-green-energy-bonneville/. According to OPB's analysis of U.S. Energy Information Administration data, Washington ranked last in the nation and Oregon ranked 47th in net growth of nonhydrogen renewable electricity generation between the periods 2005–2014 and 2015–2024. During that decade-to-decade comparison, Oregon's nonhydrogen renewables grew only about 4%, while

well before 2019 are still waiting for approval to connect to the electrical grid.[5] With so few projects coming online, the pool of RECs available to lower the CI of biofuel sold into Washington would be extremely limited. And under Ecology's proposed rules, there would be no incentive to purchase RECs from outside the Pacific Northwest because the CI reductions associated with those RECs would not be recognized. In other words, Ecology's proposal is so limiting it undermines the objectives of the CFS.

The stated purpose of the CFS is to "curb carbon pollution from transportation, the largest source of greenhouse gas emission in Washington, by reducing these emissions from the production and supply of transportation fuels."[6] Purchasing renewable electricity and investing in renewable electricity development, regardless of where it is generated, represents decarbonization and is one way for biofuel producers to help Washington achieve its goal.[7] Thus, POET respectfully urges Ecology to remove the regionality requirement from the proposed rules**.**

B. Restrictions on Applicability of RECs

POET is also concerned about language in the CFS that appears to constrain producers from claiming the CI benefits associated with RECs for both CFS credit and IRA tax credit purposes. Currently, the CFS forbids low-carbon fuel producers from claiming "the environmental attributes embodied by [a] REC or RTC" if it was "used or claimed in any other program or jurisdiction with the exception of the federal RFS and the Climate Commitment Act (chapter 173-446 WAC)." WAC 173-424-400(i). This language could be read to prohibit a bioethanol producer from selling a gallon of low-CI ethanol into Washington for CFS credit if the producer also claimed tax credits under Section 45Z of the IRA for that same gallon of fuel relying on "the same environmental attributes embodied by a REC." This language creates confusion and could frustrate Washington's CFS goals.

Federal tax credits under 45Z attach to any gallon of biofuel produced in the United States having a CI below a certain threshold.[8] The current language of the CFS may force producers to choose whether to obtain credits through the CFS or federal tax credits through 45Z and, in view of the incentives offered under 45Z, will likely result in producers choosing not to participate in Washington's CFS. As a result, a bioethanol producer's least carbon-intense biofuel will find

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Washington's declined 3%, placing both far behind most other states in expanding wind, solar, geothermal, and other renewable sources.

[5] *See* https://www.opb.org/article/2025/05/12/oregon-washington-green-energy-bonneville/.

[6] https://ecology.wa.gov/air-climate/reducing-greenhouse-gas-emissions/clean-fuel-standard

[7] POET is supportive of Ecology's desire to promote clean energy development and deployment in the Pacific Northwest, but the CFS is not the place for such a policy. Ecology should pursue that objective through separate renewable energy policies or initiatives, including through policies or initiatives aimed at allowing for the connection of renewable projects to the electrical grid.

[8] *See* https://www.irs.gov/credits-deductions/clean-fuel-production-credit.

markets outside Washington and cannot contribute to SAF development in the state, an outcome conflicting with the goals of the CFS and this rulemaking.

Because 45Z federal tax credits are a recent development, POET believes Ecology may not have intended to bar producers from applying the benefits of RECs to fuel earning 45Z tax credits and Washington CFS credits. But because the language currently implies otherwise, POET urges Ecology to revise the proposed rules to clarify that low-CI fuel sold in Washington may rely upon RECs to earn both CFS and 45Z tax credit.

II. Credit Modifications and Penalties

POET remains concerned with Ecology's overly punitive approach to credit modifications and penalties. Inconsistencies between WAC 173-424-610(9)(1) and WAC 173-424-700(3)(a)(i) create uncertainty for credit generators regarding potential penalties. Specifically, Ecology proposes a fixed penalty of four deficits for each invalid credit when the verified operational CI exceeds the certified CI. And in cases involving invalid credits, Ecology proposes a sliding scale of penalties from 1:1 to 4:1, along with the threat of additional enforcement. These rules impose disproportionately harsh penalties for minor errors, unforeseen events, or circumstances beyond a generator's control, and the current *force majeure* provision in WAC 173-424-610(13)(c) offers minimal comfort or guidance for such events.

POET has previously raised concerns about the overly punitive nature of the proposed penalties, in particular the potential for overlapping penalties when an operational CI exceeds the approved CI of a certified pathway. In such circumstances, WAC 173-424-610(9)(l) should apply. But an operational CI exceedance occurring likely means either incorrect information was used to calculate the certified CI, or the biofuel was produced or transported in a manner inconsistent with an approved pathway, both of which trigger WAC 173-424-700(3). The latter situation is especially possible due to *force majeure* events, such as the extensive flooding in the Midwest in 2024. Yet based on the proposed rules, a credit generator could potentially be punished under either, or both, sections of the rules, depending on Ecology's enforcement decision making. This murky outcome is an unfortunate and likely unintended result of the proposed language as currently drafted.

POET appreciates the need to deter intentional misreporting but urges Ecology to adopt a more balanced approach, particularly for self-reporting entities. For self-reported violations and operational CI exceedances, a reasonable enforcement approach would be to claw back all incorrectly generated credits on a one-to-one basis regardless of the number of credits at issue. For unreported violations, Ecology should continue to wield its current authority under WAC 173-424-700 on a case-by-case basis. This would simplify compliance and ensure fair, predictable enforcement.

III. WA-GREET Model

Finally, although POET understands fuel pathway modeling is not part of the current rulemaking, POET urges Ecology to swiftly open a new rulemaking to make much-needed changes to the WA-GREET model to account for the most up-to-date science on CI values associated with indirect land-use change ("ILUC") and climate-smart agriculture ("CSA"). Washington's goal of becoming a SAF hub and requirement to reduce GHG admissions by 45% by 2038 both ultimately depend on the same thing: low-CI liquid fuels. For Washington to meet its SAF goals, which will require significant volumes of SAF produced through alcohol-to-jet pathways, it will unquestionably need large volumes of bioethanol as a feedstock. And although electric vehicles represent part of a path to the 45% decrease in GHG emissions by 2038, the current federal landscape will likely slow electric vehicle uptake throughout the country, including in Washington, meaning biofuels will play an important role in achieving the stringency target. Ecology, therefore, should update the WA-GREET model to more closely align with the publicly available science regarding the decarbonization capabilities of bioethanol.

Ecology originally adopted the overly punitive ILUC penalty for corn ethanol previously adopted by California *over a decade ago* as part of its Low Carbon Fuel Standard, despite the more recent science pointing to much lower ILUC emissions associated with corn ethanol. Contrary to California's outdated value, the U.S. Department of Energy's Argonne National Laboratory ("ANL")—who developed the GREET model—has continuously revised the ILUC penalty *downward* for corn ethanol based on the most recent and best available science. In the latest version of the R&D GREET model, published on January 10, 2025, ANL assigns corn ethanol an ILUC penalty of 6.1 gCO_2e/MJ.[9] This modeling reflects a downward adjustment of 2.5 gCO2e/MJ from the 8.6 gCO2e/MJ ILUC penalty incorporated into the 2023 R&D GREET Model.[10]

Other biofuels programs have adopted ILUC penalties aligned with ANL GREET. Most recently, on January 15, 2025, the U.S. Treasury Department adopted a model (45ZCF-GREET) intended for use in the implementation of the federal 45Z Clean Fuel Production Credit, §45Z(B)(1)(B)(ii) and §45Z(B)(1)(B)(iii)(II) of the Inflation Reduction Act.[11] The 45ZCF-GREET model assigns to corn ethanol an ILUC penalty of 5.8 gCO2e/MJ.[12] Oregon's version of the GREET Model used to established carbon intensities for its Clean Fuel Regulations assigns corn ethanol an ILUC penalty

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[9] *See* H. Kwon, X. Liu, S. Kar, H. Cai, M. Wang, *Expansion of Carbon Calculator for Land Use and Land Management Change from Biofuels Production (CCLUB) to Address Induced Land Use Changes and Other Indirect Effects of Clean Fuel Production for R&D GREET 2024,* 8 (Table 4) *available at* https://greet.anl.gov/publication-cclub_update_2024.

[10] *See* X. Liu, H. Cai, M. Wang, H. Kwon, *Updates to Carbon Calculator for Land Use and Land Management Change from Biofuels Production (CCLUB) for the GREET Model*, Dec. 2023, *available at* https://greet.anl.gov/publication-cclub_update_2023.

[11] *See* Guidelines to Determine Life Cycle Greenhouse Gas Emissions of Clean Transportation Fuel Production Pathways Using 45ZCF-GREET, *available at* https://www.energy.gov/sites/default/files/2025-01/45zcf-greet_user-manual.pdf.

[12] *Id.*at 26, Table 9b.

of 7.6 gCO_2e/MJ.[13] Other programs, such as Canada's Clean Fuel Regulations, do not assess an ILUC penalty at all.[14] In view of the best-available and most-recent science, Washington's significant ILUC penalty is simply not supported by fact and should be modified.

Ecology should also take the opportunity to incorporate other exciting carbon-reduction opportunities into the WA-GREET model, specifically those associated with climate smart agriculture ("CSA"). As part of its recent Inflation Reduction Act § 40B SAF Guidance, the Treasury Department adopted a GREET model that incentivizes SAF production from corn ethanol.[15] Treasury's guidance recognizes that no-till farming, planting cover crops, and applying enhanced efficiency nitrogen fertilizer are all climate smart agricultural practices that help reduce carbon intensity (CI) for crop-based feedstocks such as corn.[16] Adding onto Treasury's guidance, the USDA published a CSA interim rule on January 15, 2025, adopting a Feedstock Carbon Intensity Calculator (USDA FD-CIC) that would allow biofuel producers to verify, quantify, and calculate the emissions associated with a range of agricultural practices.[17] Other research reinforces the carbon-reduction opportunities available to bioethanol producers through various methods, including practices such as enhanced-efficiency fertilizers, no-till farming, and cover crops.[18]

Although some farmers employ climate-smart practices now, the costs associated with implementing these techniques are a barrier to widespread adoption. Through simple changes in its WA-GREET model, Ecology can speed a transition to climate-smart farms and lower-carbon ethanol. By recognizing CSA and assigning well-established CI-reduction values to the practices modeled in ANL's R&D GREET model, Ecology can create a price signal that rewards farmers for lowering the CI of their operations.

The recent and best-available science continues to demonstrate the carbon-reduction opportunities through which the bioethanol industry can help Washington meet its net-zero and SAF-hub goals. POET thus urges Ecology to update the WA-GREET model to recognize these opportunities and provide incentives to drive the investments necessary to meet these goals.

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[13] *See* OAR-253-8010 (Table 10).
[14] *See* Canada's Fuel Lifecycle Assessment Model, *available at* https://www.canada.ca/en/environment-climate-change/services/managing-pollution/fuel-life-cycle-assessment-model.html.
[15] *See* U.S. Department of Treasury, Notice 2024-37, § 40B SAF Credit Guidance (April 30, 2024) (§ 40B Guidance) *available at* https://www.irs.gov/pub/irs-drop/n-24-37.pdf.
[16] *Id.*
[17] *See* U.S. Department of Agriculture, 7 CFR Part 2100, RIN 0503-AA82, [Docket No. USDA-2024-0003], Technical Guidelines for Climate-Smart Agriculture Crops Used as Biofuel (January 15, 2025) *available at* https://www.usda.gov/sites/default/files/documents/7CFR2100_FINAL_1_15.pdf.
[18] *See* Moniz, Ernest, et al., *A Strategic Roadmap for Decarbonizing the U.S. Ethanol Industry,* EFI FOUNDATION at pp. 2-7, 28-42 (Sept. 2024) *available at* https://efifoundation.org/foundation-reports/a-strategic-roadmap-for-decarbonizing-ethanol-in-the-united-states/.

IV. CONCLUSION

POET appreciates the opportunity to comment and looks forward to working with Ecology to make the Clean Fuel Standard a continued success for Washington. If you have any questions, please contact me at Paul.Townsend@POET.com or (605) 756-5612.

Sincerely,

Paul W. Townsend
Regulatory Counsel