



December 13, 2024

Submitted electronically at <https://aq.ecology.commentinput.com/?id=47sSbFWVp>

Mr. Adam Saul  
Clean Fuel Standard Rule Lead  
Climate Pollution Reduction Program  
Washington State Department of Ecology  
P.O. Box 47600  
Olympia, WA 98504-7600

Re: Informal Comments on the November 26, 2024, Clean Fuel Program Draft Rule Language

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Dear Mr. Saul:

Twelve Benefit Corporation (Twelve) appreciates the opportunity to provide these additional informal comments on the Department of Ecology's (Ecology) forthcoming proposal to update the Clean Fuels Program (CFP) Rule (i.e., Chapter 173-424 of the Washington Administrative Code (WAC)), and in particular on the draft rule language that Ecology released on November 26, 2024, as well as the materials it presented during the December 5, 2024, rulemaking workshop.<sup>1</sup>

I. Renewable Naphtha Definition

We note initially that the "renewable naphtha" definition in WAC 173-424-110(129) is unchanged from the draft rule language that Ecology released on August 30, 2024, and would define the term to mean "naphtha that is produced from hydrotreated lipids and biocrudes, or from gasified biomass that is being converted to liquids using the Fischer-Tropsch process." As we indicated in our October 2, 2024, submission, the hydrotreating of lipids or biocrudes and biomass gasification with Fischer-Tropsch are not the only ways to produce non-petroleum-based naphtha. Again, the AirPlant™ that Twelve is constructing in Moses Lake, Washington (and our future commercial-scale plants) will produce not only E-Jet®, our Power-to-Liquid (PtL) Sustainable Aviation Fuel, but also E-Naphtha,™ which we may sell as a gasoline blendstock. Therefore, we reiterate our request for Ecology to broaden the proposed definition so that it also encompasses the E-Naphtha to be produced by Twelve. We suggest the following amendment to the first sentence of the proposed definition (underline indicates additions and ~~strikeout~~ indicates deletions):

"Renewable naphtha" means naphtha that is produced from hydrotreated lipids and biocrudes, ~~or~~ from gasified biomass that is converted to liquids using the Fischer-Tropsch process, or from

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<sup>1</sup> Our June 7, 2024, informal comment letter, which is posted in the docket, provided background information on Twelve and our electrochemical technology. Our October 2, 2024, informal comment letter is also posted in the docket.

captured carbon dioxide and renewable hydrogen that are converted to liquids using electrolysis and the Fischer-Tropsch process.<sup>2</sup>

At the very least, Ecology needs to ensure the definition is neutral as to non-petroleum feedstocks and production processes. There is no sound reason for excluding Twelve's E-Naphtha, or any other PtL naphtha when it is sold as a gasoline blendstock, from the CFP, especially since doing so would unnecessarily limit the effectiveness and innovation-fostering aspect of the Program.

## II. Renewable Diesel Definition

In a similar vein, we observe that the latest draft rule language includes in WAC 173-424-110(126) an unexplained proposed revision to the current CFP definition of "renewable diesel." Although Twelve's Moses Lake AirPlant will focus on the production of E-Jet and E-Naphtha, our electrochemical technology is also capable of producing PtL diesel and marine fuels.<sup>3</sup> For this reason, we likewise request that Ecology at least define "renewable diesel" in a technology- and feedstock-neutral way such that drop-in diesel fuel produced through the PtL process from captured carbon dioxide (CO<sub>2</sub>), water, and renewable electricity is not excluded.

## III. Alternative Marine Fuel

Twelve supports the proposed inclusion of "alternative marine fuel" as a credit-generating fuel under the CFP. Regarding the proposed definition in WAC 173-424-110(164), we assume that the term "nonpetroleum sources" encompasses both biogenic CO<sub>2</sub> and, except when it is derived from a petroleum source, non-biogenic CO<sub>2</sub>, but we encourage Ecology to provide any necessary clarification on the latter point. (For example, it is unclear whether marine fuel produced via the PtL process from CO<sub>2</sub> that is captured directly from air would qualify as watercraft fuel made from nonpetroleum sources.) We also assume the three-mile limit set forth on slide 27 of the December workshop presentation is grounded in federal law, and suggest that Ecology provide clarification on this matter as well.

## IV. Mass Balance Accounting

Twelve supports the proposed mass balance accounting provision in WAC 173-424-420(6)(d). We believe the inclusion in the CFP of such a commingling provision is warranted.

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<sup>2</sup> In addition to this suggestion, we again note that the current definition of "renewable hydrogen" in WAC 173-424-110(128) probably should be updated to reflect the correct citation to the statutory definition of that term, RCW 19.405.020(31) rather than (32), as well as the correct citation in the final sentence, RCW 19.405.020(33) rather than (34).

<sup>3</sup> See <https://www.twelve.co/efuels>.

V. WAC 173-424-420(11)

While we welcome and support the proposed language in WAC 173-424-420(11) that would effectively codify the Interpretive Statement that Ecology issued in January 2024 and enable a producer of alternative jet fuel (or alternative marine fuel) to claim a utility-specific carbon intensity for “electrolysis process energy,” we strongly disagree with Ecology’s proposal to sunset this opportunity at the end of 2033.<sup>4</sup> As Ecology staff pointed out during the December 5 workshop, this sunset date would be a decade from the CFP start date, but far more important is the fact that the credit mechanism would only be available for approximately eight years (assuming the CFP rule is formally proposed early next year, gets adopted in the summer, and takes effect in August 2025). Under this provision, then, the E-Jet (or any E-Marine™) fuel produced with locally sourced hydropower at Twelve’s Moses Lake AirPlant would not be eligible to generate CFP credits in 2034 and thereafter.

Simply put, we fail to see the need for Ecology to impose such a time constraint.<sup>5</sup> If Ecology is nevertheless insistent on having a temporal limitation, it should at least extend the sunset date to December 31, 2045, so that fuel from Twelve’s AirPlant will be able to earn CFP credits for closer to 20 years. In this regard, it should not be lost on Ecology that alternative jet fuel produced in Washington is unable to benefit from the highly touted tax credits adopted in 2023 through Senate Bill 5447 until Ecology “verifies that there are one or more facilities operating in [Washington] with cumulative production capacity of at least 20,000,000 gallons of alternative jet fuel each year.”<sup>6</sup> At present, there is no telling when this in-state cumulative production capacity figure will be reached, which necessarily means that for the foreseeable future, the E-Jet we produce at our Moses Lake AirPlant will only benefit at the state level from CFP credits. It would be grossly unfair at this stage, long after Twelve began construction of the Moses Lake facility, for Ecology to arbitrarily limit us to no more than eight years of CFP credits.

In addition, we urge Ecology to consider broadening the breadth of the proposed provision by extending it beyond alternative jet fuel and alternative marine fuel so that it also covers other PtL transportation fuels, including, for example, the E-Naphtha we will be co-producing at Moses Lake. As indicated above, there is no sound reason for Ecology to exclude Twelve’s E-Naphtha, when it is produced with locally sourced hydropower and sold as a gasoline blendstock, from the CFP.

VI. Book-and-Claim Accounting for PtL Fuels

Finally, we strongly encourage Ecology to consider including in its formal proposal an amendment to subsection (5) of WAC 173-424-630 (“Determining the carbon intensity of electricity”) that would enable off-site renewable electricity (e.g., solar, wind, hydropower) used

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<sup>4</sup> Consistent with the Interpretive Statement, which explains that “[t]he utility-specific carbon intensity can be used for the total electricity consumed by electrolysis equipment in an integrated SAF production process, if the equipment co-produces other chemicals, in addition to electrolytic hydrogen, that are used as feedstock to produce SAF,” we assume that “electrolysis process energy” necessarily includes the electricity that will be used in the water as well as the CO<sub>2</sub> electrolyzer units at our Moses Lake AirPlant.

<sup>5</sup> It bears noting that the Interpretive Statement does not contain a sunset date.

<sup>6</sup> See, e.g., RCW 82.04.436(1)(f).

in the production of PtL fuels like Twelve's E-Jet to be sourced through book-and-claim accounting, specifically via the Renewable Energy Certificate mechanism. The amendment, which would be simple, straightforward, and narrowly tailored, would revise the introductory clause of subsection (5) so that it read as follows (underline indicates additions):

(5) **Offsite renewable electricity.** In order to lower the carbon intensity of electricity claimed as a vehicle fuel in the clean fuels program or used to produce a Power-to-Liquid fuel that is claimed as a fuel in the clean fuels program through book-and-claim accounting, credit generators and aggregators may retire renewable electricity certificates that meet the following qualifications:

A corresponding definition of the term "Power-to-Liquid Fuel" could be added to the CFP's definitional provision, providing as follows: "Power-to-Liquid Fuel' means alternative jet fuel, alternative marine fuel, or transportation fuel produced from captured CO<sub>2</sub>, water, and renewable electricity."

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Thank you for your consideration of our comments. Please do not hesitate to contact me or Ira Dassa ([ira.dassa@twelve.co](mailto:ira.dassa@twelve.co)) if you have any questions about them. We look forward to Ecology's issuance of the formal rule proposal next year.

Sincerely yours,

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