Twelve Benefit Corporation (Ira Dassa)

Please see attached for Twelve's [corrected] comments.

twelve

July 28, 2025

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

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

Re: Comments on Ecology's June 16, 2025, Clean Fuels Program Proposed Rule

Dear Mr. Saul:

Twelve™ Benefit Corporation (Twelve) appreciates the opportunity to comment on the Department of Ecology's (Ecology) June 16, 2025, rulemaking 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 proposed rule language and the accompanying *Preliminary Regulatory Analyses*.[1]

By way of reference, we submitted informal comments during various stages of the rule development phase of this rulemaking. Our December 13, 2024, October 2, 2024, and June 7, 2024, comment letters are all posted in the comment docket, and we incorporate them herein by reference. In our June 7, 2024, submission, we provided background information on Twelve and our proprietary electrochemical technology. An update to that information is certainly in order, so we are pleased to report that we are now in the final stages of construction of our demonstration-scale plant in Moses Lake, Washington. We anticipate beginning regular production of E-Jet®, our Power-to-Liquid (PtL) Sustainable Aviation Fuel (SAF), and E-Naphtha™, our PtL naphtha, at the facility by the end of this year or early next year, once the AirPlant™ has completed commissioning. That important step is slated to start this fall.

Our comments on the proposed rule follow. As you will see, they address several of the proposed definitions in WAC 173-424-110 and the proposed accommodation for "electrolysis process energy" in WAC 173-424-610.

I. New and Amended Definitions

With respect to the new and amended CFP definitions, we note first our support for the proposed definition of "alternative marine fuel" in WAC 173-424-110(9), and again express our understanding that the term "nonpetroleum sources" encompasses both biogenic carbon dioxide (CO_2) (e.g., CO_2 captured from an ethanol fermentation plant) and non-biogenic CO_2, and includes CO_2 captured directly from the air. We further understand that this necessarily means

[1] Posted at https://ecology.wa.gov/regulations-permits/laws-rules-rulemaking/rulemaking/wac-173-424.

the definition of "alternative marine fuel" includes watercraft fuel (having a lower carbon intensity than traditional marine fuel) that may be produced at our Moses Lake AirPlant through the PtL process, which watercraft fuel we refer to as our E-Marine™.

We also support the amended definition of "renewable hydrocarbon diesel" in WAC 173-424-110(136), and specifically applaud Ecology for continuing to define the term in a technology- and feedstock-neutral way such that drop-in diesel fuel produced through the PtL process from captured CO_2, water, and renewable electricity is included within the meaning.

We respectfully disagree, though, with the proposed definition of "renewable naphtha" in WAC 173-424-110(139). As we pointed out in our December 13, 2024, and October 2, 2024, informal comment letters, the hydroprocessing of lipids and biocrudes and biomass gasification followed by conversion to liquids using the Fischer-Tropsch process are *not* the only ways to produce non-petroleum naphtha. We reiterate that our Moses Lake AirPlant will produce E-Jet and also E-Naphtha. While we do not currently plan to sell the E-Naphtha as a gasoline blendstock, that possibility may arise in the future. Should we choose to sell it as a blendstock, we believe the E-Naphtha should be eligible for CFP credit. Hence, we reiterate our request for Ecology to broaden the proposed definition of "renewable naphtha" 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 hydroprocessing lipids and biocrudes, ~~or~~ from gasified biomass that is being converted to liquids using the Fischer-Tropsch process, or from captured carbon dioxide and renewable (or green electrolytic) hydrogen that is being converted to liquids using electrolysis and the Fischer-Tropsch process.

Alternatively, Ecology could opt to define the term as the New Mexico Environment Department (NMED) has recently proposed to define it for purposes of its new Clean Transportation Fuel Program, to mean "naphtha that is produced from non-fossil resources."[2] At the very least, Ecology should ensure that the CFP definition is neutral as to non-petroleum feedstocks and production processes. We are not aware of a sound policy rationale for excluding Twelve's E-Naphtha (or any other PtL naphtha used as a gasoline blendstock) from the CFP. In our view, doing so could unnecessarily constrain the program's effectiveness and its ability to foster innovation.[3]

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[2] *See* NMED, "Exhibit B – Proposed New Rule 20.2.92 NMAC," at 8 (proposed definition of "renewable naphtha" on line 7), available at https://www.env.nm.gov/opf/wp-content/uploads/sites/13/2025/05/2025-05-16-EIB-25-23-Petition-to-Adopt-20.2.92-NMAC-CTFP-pj.pdf. NMED's proposed definition, of course, is similar to the existing CFP definition. At the federal level, the U.S. Environmental Protection Agency has recently proposed to define "renewable naphtha" for purposes of the Renewable Fuel Standard program to mean "naphtha that is renewable fuel." *See* 90 Fed. Reg. 25784, 25859 (June 17, 2025). Under the CFP, Ecology could simply define the term to mean "naphtha that is alternative fuel."

[3] In addition, we once again take the opportunity to note that the definition of "renewable hydrogen" in proposed WAC 173-424-110(138) probably should be updated to reflect the correct citation to the

II. Proposed WAC 173-424-610(9)(n)

Twelve appreciates the proposed language in WAC 173-424-610(9)(n) that would effectively codify the Interpretive Statement that Ecology issued in early 2024[4] and enable producers of alternative jet fuel (AJF) or alternative marine fuel (AMF) to "use a utility-specific carbon intensity for electrolysis process energy."[5] That said, we reiterate our strong concern with Ecology's proposal to sunset this allowance at the end of 2033. While we recognize that the proposed sunset date would fall slightly more than a decade after the CFP's December 29, 2022, start date, we believe the more consequential consideration is that it would essentially limit to just eight years (i.e., 2026–2033, assuming the proposed rule is adopted on September 30, 2025,[6] and takes effect 31 days later) the period during which an AJF or AMF producer utilizing electrolysis could rely on a utility-specific carbon intensity. Under this provision, the E-Jet (or any E-Marine) produced with locally sourced hydropower at Twelve's Moses Lake AirPlant would not be eligible to generate CFP credits in 2034 and thereafter.

We urge Ecology to extend the sunset date at least through December 31, 2045, which would coincide with the date set forth in the proposed rule provision on physical traceability for pipeline-injected biomethane reported as a feedstock to produce AJF (i.e., proposed WAC 173-424-600(7)(c)). We respectfully but firmly disagree with Ecology's assertion that extending the timeframe to use a utility-specific carbon intensity "to 2046 or later . . . could potentially distort the credit market, especially as additional producers enter the market."[7] We do not see a reasonable basis for concluding that Twelve's ability to generate CFP credits over a longer period could materially affect the credit market – particularly since our Moses Lake AirPlant is a demonstration-scale facility with a nameplate capacity of five barrels per day. This volume is unlikely to ever have an appreciable impact on overall market dynamics.

Moreover, having commenced construction of the Moses Lake AirPlant more than two years ago, we contend it would be grossly unfair at this juncture for Ecology to arbitrarily limit Twelve, the first company to build a neat AJF/SAF facility in Washington, much less an innovative PtL SAF facility, to no more than eight years of CFP credits. As we have said previously, it is important not to overlook that the E-Jet fuel produced at our Moses Lake AirPlant will remain ineligible for Washington's AJF tax incentives until cumulative in-state production capacity

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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).

[4] Publication No. 24-14-013 (Jan. 4, 2024), available at https://apps.ecology.wa.gov/publications/SummaryPages/2414013.html.

[5] Consistent with the Interpretive Statement, which stipulates 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," *id.* at 4, we assume that "electrolysis process energy" necessarily includes the electricity that will be used in each electrolyzer unit (i.e., the water electrolyzer and the CO_2 electrolyzer) at our Moses Lake AirPlant.

[6] *See* CR-102 Form.

[7] *Preliminary Regulatory Analyses*, at 120.

reaches 20 million gallons of AJF per year.[8] Given the uncertainty around when that threshold will be met, the only meaningful state-level support available to our E-Jet for the foreseeable future will be through credits under the CFP.

Should Ecology nevertheless retain in the final rule the December 31, 2033, sunset date for use of a utility-specific carbon intensity, Twelve requests that Ecology add to WAC 173-424-610(9)(n)(i) language that would enable off-site renewable electricity to be sourced through book-and-claim accounting for at least some period of time after that sunset date. More specifically, we request that the requirement to use the statewide grid average or directly-connected renewable electricity be postponed until at least January 1, 2046, and that any fuel producers which rely on electrolysis be allowed during the intervening years (i.e., 2034-2045) to source the necessary electricity through Renewable Energy Certificates (RECs) associated with off-site renewable electricity. Twelve offers the following proposed revision to paragraph (i) in subsection (n) (underline indicates additions and ~~strikeout~~ indicates deletions):

> (i) Producers of alternative jet fuel, sustainable aviation fuel, or alternative marine fuel may use a utility-specific carbon intensity for electrolysis process energy in their pathway applications or annual fuel pathway reports through December 31, 2033. Beginning January 1, 2034, and through December 31, 2045, producers of alternative jet fuel, sustainable aviation fuel, or alternative marine fuel for which electrolysis is an integral part of their fuel production process may retire renewable energy certificates associated with off-site renewable electricity. After ~~that date~~ December 31, 2045, producers must use the statewide grid average or directly-connected renewable electricity.
> (A) RECs shall be registered in WREGIS and retired in the CFS program account each quarter, or the registered party must demonstrate they have been retired in the Washington utilities and transportation commission or Washington department of commerce program account.

Finally, we strongly encourage Ecology to broaden the breadth of the proposed utility-specific carbon intensity provision by extending it beyond AJF and AMF to other PtL transportation fuels as well, including the E-Naphtha we will be co-producing at Moses Lake and any PtL diesel fuel we may one day produce at the AirPlant. As noted above, we believe there is no sound policy rationale for excluding Twelve's E-Naphtha from the CFP when it is sold as a gasoline blendstock, particularly given that it is produced via the same electrochemical technology and inputs as our E-Jet fuel. Innovative PtL diesel – what we market as Electrol™ – likewise should not be excluded. In this regard, it is important to underscore that, as Ecology itself stressed in its July 22, 2025, public hearing presentation,[9] heavy-duty trucking, like aviation and marine, is considered a hard-to-decarbonize segment of the transportation sector.[10]

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[8] *See, e.g.,* RCW 82.04.436(1)(f).

[9] Posted at https://ecology.wa.gov/presentation-wac-173-424-7-23-25.

[10] *See, e.g., The U.S. National Blueprint for Transportation Decarbonization: A Joint Strategy to Transform Transportation*, at 43 (Jan. 2023) ("heavy road freight vehicles in particular can be difficult to

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Thank you for your thorough consideration of our comments. Please do not hesitate to contact me or Ira Dassa (ira.dassa@twelve.co) if you have any questions or wish to discuss them.

Sincerely yours,

Andrew Stevenson

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decarbonize"), available at https://www.energy.gov/sites/default/files/2023-01/the-us-national-blueprint-for-transportation-decarbonization.pdf; World Economic Forum, "'Hard-to-abate' sectors are reducing emissions, here's how they can accelerate progress towards net zero" (Dec. 12, 2024) (identifying trucking as a hard-to-abate sector), available at https://www.weforum.org/stories/2024/12/net-zero-hard-to-abate-sectors-decarbonization/#:~:text=Businesses%20can%20phase%20out%20fossil,across%20industries%20and%20supply%20chains.