

September 13, 2024

Mr. Adam Saul
Clean Fuels Program
Washington State Department of Ecology
via email

Dear Mr. Saul:

The purpose of this letter is to follow up on a verbal comment I made during Ecology's September 9 public meeting regarding the WAC 173.424 rulemaking. Specifically, I had expressed concern regarding the penalization of first offenses under subsection 700(3) "Credit/Deficit Modification Ratios."

I am the principal Hammerschlag LLC, a Washington single-member limited liability company in business since 2013. Hammerschlag LLC's primary book of business is life-cycle assessment of fuels, and to this end I am familiar with the risks of shepherding Tier 2 fuel pathways through California's Low Carbon Fuel Standard ("LCFS") and occasionally through Oregon's Clean Fuels Program. My comments are unique to this perspective, reflecting the concerns of the novel fuel pathway developers who are typically my clients.

One intent of Washington's Clean Fuels Program ("CFS") is to "Create jobs and spur economic development based on innovative clean fuel technologies."¹ That is, the CFS should be designed to encourage innovation, which is by definition risky. The subsection 700(3) penalties apply irrespective of subsection 700(2) error source: an incorrectly estimated CI leads to the same penalty schedule as, for example, misreported fuel transactions. So, the subsection 700(3) penalty schedules have special meaning for novel fuel pathway developers, who are exposed to technology risks additional to the other risks of CFS participation. I recommend the following four changes toward protecting the CFS intent to support innovation:

1. Decouple penalty from size of variance. Each penalty schedule in proposed subsections 700(3)(a)(i) and 700(3)(b)(i) is indexed by offense count in its columns, and by quantity of illegitimate credits or unclaimed deficits (hereinafter "variance") in its rows. Variance correlates poorly with justice for three reasons:

- a) Variance as used to index the penalty schedules is absolute, disregarding project size. When reporting fuel transactions, an 11-credit variance is clearly material for a project generating 100 credits per quarter but perhaps a rounding error for a project generating 10,000 credits per quarter.

¹ RCW 70A.535.005(3)(c).

- b) Indexing by variance penalizes errors in CI estimation disproportionately to errors in transaction reporting. An error in CI estimation multiplies through *the entire chain of volume computation* for at least one calendar year, while an error in transaction reporting may affect just one small transaction in one quarter. A schedule that nonlinearly applies penalties to larger variances is particularly threatening to developers of novel fuel pathways who, though equally able to control the precision of their fuel transaction reporting, are far less able to control the precision of their CI estimate.
- c) Justice is already self-correlating with variance. Since penalties are expressed as multiples of variance, higher variance produces higher penalties. Increasing the multiple according to variance index produces a nonlinear, accelerating penalty relative to variance. This is an unnecessary complexity.

Nonlinear, accelerating penalties are a norm in judicial settings (for example, “three strikes and you’re out” policies). But the CFS can express this sense of justice without indexing by variance: increasing the variance multiple as a function of offense count achieves the same goal handily.

2. Do not penalize first offenses. For developers of novel fuel pathways, credit volume forecasts are fraught for several reasons:

- a) The new technology is not well-understood. This may be the first commercial-scale implementation.
- b) Biological processes make the process inherently indeterminate. Many low-CI fuel pathways depend on biological processes: anaerobic digestion, fermentation, or crop growth. These processes depend on weather and the behaviors of communities of plants, animals, and bacteria, which are far harder to forecast than the parameters of a conventional oil refinery.
- c) The pathway proponent may be inexperienced with the CFS. Novel pathways are typically advanced by specialists in the underlying technology, rather than seasoned fuel manufacturers. These new proponents are prone to make unintentional errors when using WA-GREET for the first time.

All of these reasons can produce errors in CI that will propagate to variance, none of them intentional. Because innovation is a goal of the CFS, it is counterproductive to design penalties that are likely to be triggered by emerging technologies, biological variability, or inexperience. For first offenses the variance multiplier should be 1:1, that is the response should be corrective not punitive.

3. Decouple penalty from first observer. The current draft of subsection 700(3) assigns different penalty schedules to errors found through “self-reporting” versus “Ecology finding.” I recommend removing this distinction entirely for the following reasons:

- a) An error's first observer is often ambiguous. Multiple staff from each of: Ecology, the pathway applicant, and the verification body, all interact in various formations during application and annual reporting. Disputes about who "saw it first" are inevitable.
- b) In my work with fuel pathway applicants, I have never observed deliberate falsification of data. Variances are almost always the result of uncertainties during the first years of a pathway's existence, or the luck of whatever biological process underlies fuel production. The first observer approach implies there is more "fault" if the applicant didn't notice the error first, but often there is no "fault" to begin with.
- c) The system of CA-GREET models and the system of WA-GREET models that is being derived from it, as well as the regulatory language we are discussing right now, as well as the credit and debit accounting infrastructure that supports the CFS, are all complex. Ecology staff work with these CFS components every day. Novel fuel pathway applicants, in contrast, are often CFS novices. Ecology has a profound advantage in their ease of discovering unintentional errors that is, in a word, unfair.
- d) Several times in California and Oregon, I have observed a fuel pathway developer and the regulator work collaboratively to create adaptations in rules or calculators, that pave the way for new fuel technologies. The first observer approach infers Ecology's distrust of fuel pathway applicants that are presumed to be evasive. It sets up an adversarial, even hostile, relationship between the two parties that discourages innovative collaboration.

The solution is, again, to rely on offense count as the primary driver of punitive escalation. Who found the error first should have nothing to do with it.

4. Consider a CI "true up" paradigm. Current LCFS rulemaking includes a California Air Resources Board proposal allowing the program to "true-up" a pathway's credit generation.² The true-up credits are awarded when and if the verified annual fuel pathway report indicates a CI lower than the CI as certified. This allows a novel pathway developer to estimate their CI conservatively without hurting their access to revenue.³ Without a true up provision a novel pathway developer is forced to base their business decisions on an expected CI rather than a conservative CI, risking CFS penalty provisions. Once again, that suppresses innovation.

In summary, from the perspective of novel fuel pathway developers, the only morally safe index of penalty is offense count. Multiple offenses are a reasonable indicator of at the very least

² See §95488(10)(b) in: State of California Air Resources Board, Notice of Public Availability of Modified Text and Availability of Additional Documents and/or Information, Proposed Low Carbon Fuel Standard Amendments, ATTACHMENT A-1.2, Proposed 15-Day Changes and 45-Day Changes Compared to the Current Regulation. Public Availability Date: August 12, 2024.

³ Several commenters in the current LCFS rulemaking have elaborated on potential structures for true-up provisions. See for example the comments submitted by the Coalition for Renewable Natural Gas dated 2022-01-07, 2022-08-08, and 2022-09-18.

carelessness, and at worst malice. Moreover, offense count is a well-accepted index of justice in legal systems around the world. In contract, the first observer of an error, the size of the variance, and mistakes the first time out are all very poor indicators of carelessness or malice. Depending on these latter indices is at odds with the CFS as a tool for innovation.

Sincerely,

A handwritten signature in black ink, appearing to read "Roel", with a large, sweeping flourish above the name.

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