State of Oregon Department of Environmental Quality

Written Comments

Clean Fuels Program 2024

This document is a compilation of written comments received during the public comment period for the Clean Fuels Program 2024 Rulemaking that was open from Oct. 4, 2024, to 4 p.m. Nov. 21, 2024.

Comments

Translations or other formats

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1PointFive's Response to The Proposed Rulemaking for the Oregon Clean Fuels Program 2024

November 21st, 2024

Oregon Department of Environmental Quality
Proposed Rulemaking – Clean Fuels Program
(CFP.2024@DEQ.oregon.gov)

Introduction and Context

1PointFive (1PF) appreciates the opportunity to provide comments on the proposed rules for Clean Fuels Program. 1PF hopes to provide useful insight and advice on how to best implement carbon capture and storage (CCS) based on firsthand experience. We strongly believe that secure sub-surface storage of CO_2 captured from industrial emissions can create sustainable emission reductions. When paired with geologic storage, emerging engineered solutions for Carbon Dioxide Removals (CDR), such as Direct Air Capture (DAC), can create sustainable emission removals that are highly additional, measurable, verifiable, and can be shown to be securely stored at climate relevant timescales. Ensuring integrity and quality in such emission reductions and removals is a priority for 1PF.

The DAC technology we are deploying combined with secure geologic storage (DACCS) will play an increasingly important role in potential net-zero emissions pathways. The IEA Net Zero Emissions by 2050 Scenario estimates DAC technologies will need to annually capture more than 85 $MtCO_2$ in 2030 and around 980 $MtCO_2$ in 2050. This will require both rapid technological improvements and unprecedented growth for industrial-scale climate solutions. The rate of CDR adoption from 2050 onward will strongly depend on what is achieved for the first half of the century, with early inaction or emissions overshoot requiring steep adoption after 2050.[1] DACCS is already being considered in countries' high level policy plans, net-zero targets, and updated reporting frameworks. Rules that are both simple to implement and environmentally rigorous in their approach are greatly needed for DACCS to generate removal credits in the voluntary market as well as compliance markets. 1P5 therefore welcomes the opportunity to review and provide feedback on the proposed rulemaking, which includes aspects relevant to CCS. Because not only are these rules applicable to CO_2 stored from industrial capture but also help set the foundation for DACCS given the common sub-surface CO_2 storage element between these two climate solutions.

1PointFive's parent company, Occidental Petroleum (Oxy), has over 50 years of experience with integrated carbon management and large-scale carbon sequestration. Oxy has a unique net zero strategy, that includes a scope 3 ambition, which relies on Oxy's core competency in large-scale carbon management and sequestration to achieve.[2] Oxy has one of the largest CO_2 management operations in the world routinely and safely sequestering up to 20 million metric tonnes of CO_2 annually in secure geologic reservoirs as part of its ongoing operations in the Permian Basin located within the United States.

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[1] **https://www.wri.orainsights/unlock-potential-direct-air-capture-we-must-invest-now**

[2] Oxy announces target to reach net zero emissions associated with its operations before 2040 and an ambition to achieve net zero emissions associated with the use of its products by 2050. Oxy is the first US oil major to announce a net zero ambition that includes Scope 3 emissions – Link available here.

Definitions: Carbon Capture and Sequestration (CCS) Project

As per the proposed definition (pg. 32), a CCS project means a project that captures carbon dioxide by an eligible fuel producer. In our view, this should be revised to mean a project that captures carbon dioxide from a pathway eligible under the Clean Fuels Program by a fuel producer or credit generator. Through such expansion of the definition, the rules would also be applicable to removal pathways such as DACCS which are not physically tied to a fuel producing facility, were DACCS to become eligible under the program at a future date. The California Low Carbon Fuels Standard is one such example, which includes DACCS as an eligible pathway and the sub-surface storage of CO_2 is governed by the CCS protocol that also applies to CO_2 captured from industrial sources.

Reserve Account

1PF has examined the CCS project risk rating tool and believe the resulting contribution calculated from the equation laid out in the tool is too high at 8-16.5% of the credits being set aside.

A reserve account of this magnitude is far more than what should reasonably be withheld as buffer for secure geologic storage projects that undergo a thorough and rigorous site selection process that are inherently designed to mitigate leakage risk.

The 2005 IPCC report on Carbon Dioxide Capture and Storage estimates that appropriately selected and managed geologic reservoirs are very likely to have less than 1% leakage over a 100-year period[3].

- 1PF strongly believes that establishing a reserve account 8x-16x more than what is reasonably expected for a well managed storage site serves as an unnecessary financial barrier for well selected, developed, managed, and closed storage sites.
- The project risk tool scoring should strive to reflect the actual risk of carbon dioxide leakage from the storage site. Fundamentally, this is a function of both the probability and magnitude of the potential leakage risks.
- The current risk scoring is based on a simplified approach which attempts to balance ease of use with conservative scoring. We appreciate the balance CFP is attempting to strike in the current tool. However, we strongly believe that the project risk rating tool scoring should be performance based and should ultimately require project proponents to calculate expected leakage of the selected storage site by conducting an exhaustive leakage risk assessment of the project. Thereby, the program can incentivize selection, development of secure storage sites that are well managed.

[3] Working group III of the Intergovernmental Panel on Climate Change (IPCC). Carbon Dioxide Capture and Storage. Intergovernmental Panel on Climate Change, 2005.

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About 1PointFive and Oxy Low Carbon Ventures

1PointFive (1PF) is a Carbon Capture, Utilization and Sequestration (CCUS) platform that is working to help curb global temperature rise to 1.5C by 2050 through the deployment of decarbonization solutions. 1PointFive is a subsidiary of Occidental (Oxy). Visit our website for more information on the exciting things happening in Direct Air Capture at climate relevant scale.

Oxy Low Carbon Ventures, LLC (OLCV) is a subsidiary of Occidental (Oxy), is an international energy company with assets primarily in the United States, the Middle East and North Africa. OLCV is focused on advancing cutting-edge, low-carbon technologies and business solutions that enhance Oxy's business while reducing emissions. OLCV also invests in the development of low-carbon fuels and products, as well as sequestration services to support carbon capture projects globally.
Visit Carbon Innovation on oxy.com for more information.

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November 21, 2024

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Oregon Department of Environmental Quality (DEQ)
700 NE Multnomah Street, Suite 600
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Submitted electronically via CFP.2024@deq.state.or.us

RE: 3Degrees Group, Inc.'s Comments on DEQ's October 2024 Notice of Proposed Rulemaking

Dear Bill Peters and CFP team,

3Degrees Group, Inc. ("3Degrees") appreciates this opportunity to provide feedback on the proposed revisions to the Clean Fuels Program ("CFP"). The following comments are in response to the DEQ's October 4, 2024 Notice of Proposed Rulemaking.

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As experienced and expert participants in the CFP, aggregators with EV charger fuel supply equipment (FSE) should be eligible for less intensive verification on a yearly basis.

Less intensive verification under OAR chapter 340, division 272 is an important feature of the CFP, and we appreciate that the DEQ has prioritized balancing risk with administrative burden. Assurance of accuracy can be built into the rule with prerequisites for less intensive verification eligibility. Aggregators are a cornerstone of the CFP, fostering increased participation across many credit generation types. As such, these entities often know the most about the ins and outs of the regulatory requirements and are adequately resourced and prepared to meet them.

Further, a physical site visit to an EV charging station provides only a narrow benefit to a verifier's limited assurance of a positive verification outcome. That sort of site visit, at most, enables a verifier to conclude the FSE is real and to verify the serial number on the equipment. However, these same outcomes can be achieved by less burdensome desk review of aerial satellite imagery (i.e. Google Maps) and other available records. It follows that less intensive verification should be allowed every year, rather than only two years out of every three year period, for aggregators where EV chargers are the relevant type of FSE.

As DEQ continues to finalize OR-GREET 4.0, we recommend that both the model and the CFP regulation reference a pathway calculator for biomethane to electricity.

We appreciate that in the proposed regulations DEQ incorporated by reference the updated GREET 4.0 model in OAR 340-253-0400(135). However, the CFP 2024 webpage with

Supporting Documents fails to include a Tier 1 Simplified CI Calculator for Biomethane to Electricity from Anaerobic Digestion of Dairy and Swine Manure in its OR-GREET 4.0 model and associated simplified calculators, as was previously included in the set of OR-GREET 3.0 simplified models. The Tier 1 Simplified CI Calculator for Biomethane to Electricity from Anaerobic Digestion of Dairy and Swine Manure is instrumental in developing multiple Tier 2 pathways registered by 3Degrees and other groups, and removing the specified approach for calculation or adaption of the Tier 1 Calculator for Dairy and Swine Manure Biomethane will lead to confusion about the approach. We encourage DEQ to include a Tier 1 Dairy & Swine Manure Biomethane to Electricity pathway calculator in the GREET 4.0 model and to ensure that calculator is referenced accordingly throughout the CFP regulation and in the supporting documents. Including a reference to the calculator would better ensure that all participants are aware of its existence and are clear about its applicability in the program.

As stated in our earlier comments, 3Degrees urges DEQ to remove the requirement that renewable energy credits (RECs) retired for use in the CFP be Green-e® certified (OAR 340-253-0470(5)(a)).

3Degrees recognizes the value of Green-e® certification for the voluntary REC market and is generally highly supportive of the work of the Center for Resource Solutions. However, in the context of the CFP, outsourcing REC requirements to a third party that frequently revises their standard without consulting DEQ or other regulatory oversight bodies creates significant regulatory uncertainty. We suggest that DEQ establish its own criteria, similar to what California has done for their Low Carbon Fuel Standard program, rather than relying on the Center for Resource Solutions to maintain a standard that is acceptable to DEQ. Alternatively, we suggest that DEQ remove the reference to version 4.3 of the Green-e Renewable Energy Standard (the Standard), and instead include a less specific reference to the Standard, allowing for automatic incorporation of future Standard updates beyond version 4.3 into the CFP.

Thank you for this opportunity to submit comments. We look forward to continued participation in the development of the CFP rules.

Sincerely,

/s/ Lexi Concannon

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Oregon Department of Environmental Quality (DEQ)
Oregon Clean Fuels Program (CFP) | Stakeholder Feedback

This comment is intended to recommend the use of the carbon-14 testing method to determine the share of biogenic carbon content of feedstocks, fuels and emissions under Oregon's Clean Fuels Program. Biogenic content measurements following methods such as ASTM D6866 Method B currently provide critical value to existing clean fuel standard programs at the state and federal levels.

Included here you will find:

Recommendations for Oregon's Clean Fuels Program

Our recommendation is that Oregon's Clean Fuels Program (CFP) should include direct biogenic content testing requirements following the ASTM D6866 Method B standard for any fuels or feedstocks seeking recognition of renewable (biogenic) content. Routine direct biogenic testing requirements are the only reliable method of incentivizing the use of biomass derived content and guaranteeing compliance. Routine biogenic testing requirements currently play a critical role in Oregon's CFP and prominent similar programs. This comment follows up on our previous remarks for this CFP rulemaking process.

Oregon's CFP currently requires testing following ASTM D6866 for any fuels produced from co-processing or municipal solid waste (MSW). Several of the updates being considered by the program could benefit from the introduction of similar testing requirements and offer opportunities to strengthen the existing requirements. This comment is specifically meant to address OAR 340-253-0400 on Carbon Intensities, OAR 340-253-0450 on Obtaining a Carbon Intensity, and OAR 340-253-0600 on Records.

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We recommend that Oregon's Clean Fuels Program should require direct biogenic testing for any fuels produced from co-processing, municipal solid waste (MSW), biogas & renewable natural gas (RNG) and any other fuels for which the final biogenic content is unknown. Current requirements of routine direct testing following ASTM D6866 under similar prominent programs includes (please see specific rules hyperlinked):

- The US RFS currently requires routine direct testing following ASTM D6866 for fuels produced from co-processing, municipal solid waste (MSW), biogas & renewable natural gas (RNG).[1]
- California's LCFS requires routine direct testing for fuels produced from co-processing and recommends for fuels produced from MSW.[2]
- Washington's CFS requires routine direct testing for fuels produced from co-processing and MSW.[3]
- Canada's CFR requires routine direct testing for any fuels produced from co-processing and their co-products.[4]
- The EU's RED requires routine direct testing for any fuels produced from co-processing or biogas & renewable natural gas (RNG).[5]

Directly Include Routine Testing for Co-Processing in Refineries

Our first recommendation for this update is to directly include biogenic testing requirements following ASTM D6866 for any co-processed fuels claiming biogenic content. The current requirement for obtaining a carbon intensity under OAR 340-253-0450(7)(B) for "A detailed methodology for the attribution of biogenic feedstocks to the renewable products," is insufficient to regulate co-processed fuels in this program. Given that biogenic testing is intended to establish the fraction of co-processed products which can be claimed as renewable under this program, this section should specifically name direct testing as a required component of any methodology for determining biogenic content.

Refineries conducting co-processing are required to verify the renewable portion of their fuels under the US RFS, California's LCFS, Washington's CFS, Canada's CFR and the EU RED. We specifically recommend that DEQ review the Delegated Act on Co-processing under the EU RED as a relevant example which previously allowed co-processed fuels to be submitted exclusively using calculations and was forced to quickly adopt C-14 testing requirements after discovering a massive case of fraudulent fuels in 2023.

In addition to the regulations for other programs linked above, we also urge DEQ to review the following studies on co-processing conducted by the ASTM D02 Committee on petroleum products, liquid fuels and lubricants. We specifically recommend reviewing RR:D02-2052, which compares the results of ^{14}C

[1] 2023. "40 CFR Parts 80 and 1090– Renewable Fuel Standard (RFS) Program: Standards for 2023–2025 and Other Changes." *EPA*
[2] 2020. "Reporting Co-Processing and Renewable Gasoline Emissions Under MRR." *California Air Resources Board*
[3] 2022. "Clean Fuels Program Rule." *Washington State Legislature*
[4] 2022. "Clean Fuel Regulations: Quantification Method for Co-Processing in Refineries." *Environment and Climate Change Canada*
[5] 2023. "Renewable energy- method for calculating the share of renewables in the case of co-processing." *European Commission*

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and mass balance in co-processing facilities.[6] The table below shows an example of that study's key findings.

Standard	**Report #**					
D1655	RRD02-2052					
Findings						
Pre-Fractionation Blend Analysis						
	Component, vol %	**Blend 1 Pre**	**Blend 2 Pre**	**Blend 3Pre**		
	Petrochemical Stream	**60**	**80**	**80**	***This Pre-Fractionation verification of biogenic content of the blends demonstrates the accuracy of ASTM D6866***	
	Feed 1	**40**				
	Feed 2		**20**			
	Feed 3			**20**		
	D6866 Method B	**40**	**20**	**20**		
Biogenic %, per ASTM D6866 Method B	**Blend 1 Pre**	**Blend 1 Post**	**Blend 2 Pre**	**Blend 2 Post**	**Blend 3 Pre**	**Blend 3 Post**
	40	**17**	**20**	**7**	**20**	**5**
Standard	**Report #**					
D1655	RRD02-1886					
Findings						
Biomass Input 5%, yield in final product by ASTM D6866 2.1%						

The black font in the table shows the expected values of biogenic content based on mass balance calculations, while the red shows the actual values reported by direct testing. The study shows that mass balance consistently over-estimated the biogenic content which ended up in co-processed fuels because biomass does not behave the same as fossil feedstocks, and not all of the biomass inputs necessarily end up in the same output.[7]

We recommend further reviewing RR:D02-2052, as well as the rest of this collection of technical reports which includes RR:D02-1886, RR:D02-1929, RR:D02-2052, RR:D02-1739, RR:D02-1810, RR:D02-1776, RR:D02-1884, RR:D02-1828, and RR:D02-2039. Several of these studies specifically compare the results of ^{14}C and mass balance in co-processing facilities in the context of sustainable aviation fuel production in particular. These studies found that mass balance calculations are consistently unable to estimate the renewable portion of co-processed fuels and should not be relied on as the sole method of verification for clean fuel programs. All of these technical reports are available from ASTM upon request.

Require Biogenic Testing Throughout Biomethane Supply Chains

Our next recommendation for this update is to directly include biogenic testing requirements following ASTM D6866 throughout the supply chains of any biogas to biomethane/RNG fuels claiming biogenic

[6] 2023. "RR:D02-2052." *ASTM International*
[7] 2023. "RR:D02-2052." *ASTM International*

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content. As the biomethane industry accelerates in jurisdictions with clean or low-carbon fuel programs, properly regulating the industry in this early stage is key to its future success. Recent developments in the US RFS and EU RED have demonstrated best practices for regulating biogas, biomethane and renewable natural gas (RNG) based on these programs' early experiences with these fuels.

The only way to reliably differentiate biogenic biomethane from fossil fuel methane is to require mandatory routine test results following ASTM D6866 Method B for any entities seeking recognition of emission reductions from the use of biomethane. Since biomethane and fossil fuel methane are chemically identical molecules, the only way to differentiate the two is to perform carbon-14 testing of the fuels or the emissions after combustion to assess what percentage of the mixture was biogenic.

For OAR 340-253-0400(6) on carbon intensities for specified source feedstocks, we recommend requiring biogenic testing to qualify the renewable portion of fuels produced from the included feedstocks, particularly categories (A) used cooking oils and animal fats, (C) MSW, and (D)(b) co-processing and biomethane. Similarly we recommend adding biogenic testing requirements to OAR 340-253-0600(6) as an environmental attribute attestation for renewable electricity, biomethane and biogas. This would also enable the program to ensure biogenic content in these fuels have not been claimed by the US RFS, which requires this testing in the program's third-party engineering reports.

In this context we recommend that DEQ consider the Biogas Regulatory Reform Rule (BRRR) which the EPA included in the RFS Set Rule.[8] The BRRR requires testing at the point of biogas production, at the point of upgrading to a fuel and at the point of blending with any non-renewable components prior to pipeline injection.[9] This approach provides a simple but comprehensive framework to apply for waste feedstocks. By testing the initial feedstock, the fuel at the point of upgrading and the final blended fuel, there is a clear demonstration of biogenic content from the waste feedstock to the final product. Given that these feedstocks need initial verification and that biogenic content is lost during production, this approach provides a holistic way to incentivize only the renewable portion of fuels produced from these feedstocks.

Always Require Calculations to be Verified by Direct Testing

Routine testing requirements are a critical part of the third party verification process. As Oregon aligns its pathways with California's LCFS it is critically important that this program require direct testing rather than allow calculation based approaches such as mass balance, which make claims based on material inputs in production. These calculations allow producers to assume that all of their biomass inputs end up in their facilities' outputs, despite it being well understood in the industry that the input of renewable feedstocks is not the same as the output. Renewable feedstocks will often have different activity than

[8] 2023. "40 CFR Parts 80 and 1090– Renewable Fuel Standard (RFS) Program: Standards for 2023–2025 and Other Changes." *EPA*
[9] 2023. "40 CFR Parts 80 and 1090– Renewable Fuel Standard (RFS) Program: Standards for 2023–2025 and Other Changes." *EPA*

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their fossil counterparts and won't necessarily produce the same quantity of outputs.[10] By basing their calculations solely on production inputs rather than outputs these methods systematically over-report the renewable share of fuels.

We encourage DEQ to review the recent mass balance fraud challenges faced by the EU Renewable Energy Directive (RED) program as an example of this risk, particularly pertaining to waste feedstock attestation.[11] In July 2023 the program discovered rampant fraudulent biodiesel submissions from China which had been certified by ISCC mass balance. The discovery quickly "caused a dramatic fall in biodiesel prices in European markets."[12] In response to this situation the EU quickly updated the RED's rules to uniformly require routine direct testing, including for producers choosing calculation based approaches to verify their calculations.[13]

Oregon's Clean Fuels Program is a critical tool for the state's decarbonization journey and this update provides many opportunities to bolster the program. By implementing best practices for verification established by similar state, federal and international fuel decarbonization programs DEQ can protect and strengthen its ability to successfully achieve and measure the goals of this program. Routine direct testing following ASTM D6866 Method B is the most effective way to incentivize and validate biogenic content under this program.

What is Biogenic Testing (Carbon-14)?

Carbon-14 analysis is a reliable method used to distinguish the percentage of biobased carbon content in a given material. The radioactive isotope carbon-14 is present in all living organisms and recently expired material, whereas any fossil-based material that is more than 50,000 years old does not contain any carbon-14 content. Since Carbon-14 is radioactive, the amount of carbon-14 present in a given sample begins to gradually decay after the death of an organism until there is no carbon-14 left. Therefore, a radiocarbon dating laboratory can use carbon-14 analysis to quantify the carbon-14 content present in a sample, determining whether the sample is biomass-based, fossil fuel-derived, or a combination.

The analysis is based on standards such as ASTM D6866 and its international equivalents developed for specific end uses, such as ISO 13833. ASTM D6866 is an international standard developed for measuring the biobased carbon content of solid, liquid, and gaseous samples using radiocarbon dating.[14] There are also many specific international standards based on the use of direct Carbon-14 testing, such as ISO

[10] 2006. "Determining the modern carbon content of biobased products using radiocarbon analysis." *Bioresource Technology*, 97(16), 2084-2090.
[11] 2023. "ISCC Press Release July 27, 2023." *International Sustainability & Carbon Certification*
[12] 2023. "ISCC Press Release July 27, 2023." *International Sustainability & Carbon Certification*
[13] 2023. "Renewable energy- method for calculating the share of renewables in the case of co-processing." *European Commission*
[14] 2021. "Standard Test Methods for Determining the Biobased Content of Solid, Liquid, and Gaseous Samples Using Radiocarbon Analysis." *ASTM International (D6866-21)*

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21644, which is a European standard developed for measuring the biogenic carbon content of waste derived fuels as a fraction of total carbon content.[15]

Carbon-14 analysis yields a result reported as % biobased carbon content. If the result is 100% biobased carbon, this indicates that the sample tested is completely sourced from biomass material such as plant or animal byproducts. A result of 0% biobased carbon means a sample is only fossil fuel-derived. A sample that is a mix of both biomass sources and fossil fuel sources will yield a result that ranges between 0% and 100% biobased carbon content. Carbon-14 testing has been incorporated into several regulations as the recommended or required method to quantify the biobased content of a given material.

ASTM D6866 Method B - The Most Reliable Method

Carbon-14 is a very well-established method which has been in use by many industries (including the fossil fuel industry) and academic researchers for several decades.

Carbon-14 measurements done by commercial third party testing is robust, consistent, and with quantifiable accuracy/precision of the carbon-14 amount under **ASTM D6866 method B**. The EN 16785 is the only standard that allows a variant of the Mass Balance (MB) method of 'carbon counting' under EN 16785-2. The EN 16785-1 requires that the biocarbon fraction be determined by the carbon-14 method. However, when incorporating this EN 16785 method, certification schemes like the "Single European Bio-based Content Certification" **only** allow the use of EN 16785-1 due to its reliability and the value of a third-party certification. http://www.biobasedcontent.eu/en/about-us/

In ASTM D6866 method B, the carbon-14 result is provided as a single numerical result of carbon-14 activity, with graphical representation that is easily understood by regulators, policy makers, corporate officers, and more importantly, the public. The overwhelming advantage of carbon-14 is that it is an independent and standardized laboratory measurement of any carbon containing substance that produces highly accurate and precise values. In that regard, it can stand alone as a quantitative indicator of the presence of biobased vs. petroleum feedstocks. When carbon-14 test results are challenged, samples can be rapidly re-measured to verify the original reported values (unlike mass balance).

The quantification of the biobased content of a given product can be as low as 0.1% to 0.5% (1 relative standard deviation – RSD) based on Instrumental error for Method B (AMS). This error is exclusive of indeterminate sources of error in the origin of the biobased content, and manufacturing processes. As such a total error of +/-3% (absolute) has been assigned to the reported Biobased

[15] 2021. "ISO 21644:2021 Solid recovered fuels: Methods for the determination of biomass content." *International Standardization Organization*

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Content to account for determinate and indeterminate factors.[16]

It is also important that the program should always require ASTM D6866 Method B, rather than allow Method C for any use. Where ASTM D6866 Method B uses the AMS Instrument to measure ^{14}C, Method C uses Liquid Scintillation Counting (LSC). In Method B, the AMS Instrument directly measures the ^{14}C isotopes. However, in Method C, scintillation molecules indirectly absorb the beta molecules that release with the decay of ^{14}C and convert the energy into photons which are measured proportionally to the amount of ^{14}C in the sample. Since Method B directly measures the ^{14}C isotopes and Method C measures them indirectly, Method B is significantly more precise and should be prioritized in regulations.[17] LSC measurements, like those used in Method C, are commonly used as an internal testing tool when samples are limited and accuracy does not need to be extremely high.

About Beta Analytic

Beta Analytic was among the originators of the use of Accelerator Mass Spectrometry (AMS) for the ASTM D6866 biobased / biogenic testing standard using Carbon-14 to distinguish renewable carbon sources from petroleum sources. Beta began testing renewable content in 2003 at the request of United States Department of Agriculture (USDA) representatives who were interested in Beta's Carbon-14 capabilities for their BioPreferred® Program (www.biopreferred.gov). At their request, Beta joined ASTM under subcommittee D20.96. Beta's previous president, Darden Hood, was positioned as a technical contact for the USDA and within 3 months completed the ASTM D6866-04 standard. The Carbon-14 technique is now standardized in a host of international standards including ASTM D6866, CEN 16137, EN 16640, ISO 16620, ISO 19984, BS EN ISO 21644:2021, ISO 13833 and EN 16785. Carbon-14 analysis can be used on various types of samples (gas, liquids and solids). Beta Analytic continues to be a technical contact for ASTM D6866 with current president Ron Hatfield and is involved with all their latest ASTM D6866 versions.

The Carbon-14 standardized method is also incorporated in a variety of regulatory programs including the California AB32 program, US EPA GHG Protocol, US EPA Renewable Fuels Standard, United Nations Carbon Development Mechanism, Western Climate Initiative, Climate Registry's Greenhouse Gas Reporting Protocol and EU Emissions Trading Scheme.

We are currently technical experts on Carbon-14 in the following committees:

ASTM D6866 (D20.96) Plastics and Biobased Products (Technical Advisor)
ASTM (D02.04) Petroleum Products, Liquid Fuels and Lubricants (Technical Advisor)

[16]2021. Standard Test Methods for Determining the Biobased Content of Solid, Liquid, and Gaseous Samples Using Radiocarbon Analysis. *ASTM International (D6866-21)*. pp 1-19. doi: 10.1520/D6866-21.
[17]2022. "Testing the methods for determination of radiocarbon content in liquid fuels in the Gliwice Radiocarbon and Mass Spectrometry Laboratory." *Radiocarbon*

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ASTM (061) US TAG to ISO/TC 61 Plastics (Technical Expert)
USDA BioPreferred Program TAC (Technical Advisor)
ISO/TC 61/SC14/WG1 Terminology, classifications, and general guidance (Technical Expert)
CEN/TC 411 Biobased Products
CEN/TC 411/WG 3 Biobased content
CEN/TC 61/SC 14/WG 1 Terminology, classifications, and general guidance (Technical Expert)

ISO/IEC 17025:2017 Accredited Laboratory

To ensure the highest level of quality, laboratories performing ASTM D6866 testing should be ISO/IEC 17025:2017 accredited or higher. This accreditation is unbiased, third party awarded and supervised. It is unique to laboratories that not only have a quality management program conformant to the ISO 9001:2008 standard, but more importantly, have demonstrated to an outside third-party laboratory accreditation body that Beta Analytic has the technical competency necessary to consistently deliver technically valid test results. The ISO 17025 accreditation is specifically for natural level radiocarbon activity measurements including biobased analysis of consumer products and fuels, and for radiocarbon dating.

Required tracer-free facility for Carbon-14

For carbon-14 measurement to work, be accurate, and repeatable, the facility needs to be a tracer-free facility, which means artificial/labeled carbon-14 is not and has never been handled in that lab. Facilities that handle artificial carbon-14 use enormous levels relative to natural levels and it becomes ubiquitous in the facility and cross contamination within the facility, equipment and chemistry lines is unavoidable. Results from a facility that handles artificial carbon-14 would show elevated renewable contents (higher pMC, % Biobased / Biogenic values), making those results invalid. Because of this, Federal contracts and agency programs (such as the USDA BioPreferred Program) require that AMS laboratories must be 14C tracer-free facilities in order to be considered for participation in solicitations.

Areas where cross-contamination might occur include but are not limited to; biomedical or nuclear reactors, isotope enrichment / depletion columns, water, soil, plant, or air samples collected near or at biomedical / nuclear reactor sites, medical, industrial, or hazardous waste sites, samples specifically manipulated to study the uptake / fractionation of stable isotopes due to biological or metabolic processes. To learn more about the risks associated with testing natural levels Carbon-14 samples in a facility handling artificially enhanced isotopes please see the additional information provided after this comment.

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info@betalabservices.com

References

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Demand a Tracer-Free Laboratory for Radiocarbon Dating

As part of its commitment to provide high-quality results to its clients, ISO/IEC 17025-accredited Beta Analytic does not accept pharmaceutical samples with "tracer Carbon-14" or any other material containing artificial Carbon-14 (14C) to eliminate the risk of cross-contamination. Moreover, the lab does not engage in "satellite dating" – the practice of preparing individual sample graphite in a remote chemistry lab and then subcontracting an AMS facility for the result.

High Risk of Cross-Contamination

Pharmaceutical companies evaluate drug metabolism by using a radiolabeled version of the drug under investigation. AMS biomedical laboratories use 14C as a tracer because it can easily substitute 12C atoms in the drug molecule, and it is relatively safe to handle. Tracer 14C is a well-known transmittable contaminant to radiocarbon samples, both within the AMS equipment and within the chemistry lab.

Since the artificial 14C used in these studies is phenomenally high (enormous) relative to natural levels, once used in an AMS laboratory it becomes ubiquitous. Cross-contamination within the AMS and the chemistry lines cannot be avoided. Although the levels of contamination are acceptable in a biomedical AMS facility, it is not acceptable in a radiocarbon dating facility.

Biomedical AMS facilities routinely measure tracer-level, labeled (Hot) 14C samples that are hundreds to tens of thousands of times above the natural 14C levels found in archaeological, geological, and hydrological samples. Because the 14C content from the biomedical samples is so high, even sharing personnel will pose a contamination risk; "Persons from hot labs should not enter the natural labs and vice versa" (Zermeño et al. 2004, pg. 294). These two operations should be absolutely separate. Sharing personnel, machines, or chemistry lines run the risk of contaminating natural level 14C archaeological, geological, and hydrological samples.

Avoid the Risks

Find out from the lab that you are planning to use that they have never in the past and will never in the future:

- accept, handle, graphitize or AMS count samples containing Tracer or Labeled (Hot) 14C.

- share any laboratory space, equipment, or personnel with anyone preparing (pretreating, combusting, acidifying, or graphitizing) samples that contain Tracer or Labeled (Hot) 14C.

- use AMS Counting Systems (including any and all beam-line components) for the measurement of samples that contain Tracer or Labeled (Hot) 14C.

Tracer-Free Lab Required

Recently, federal contracts are beginning to specify that AMS laboratories must be 14C tracer-free facilities in order to be considered for participation in solicitations.

A solicitation for the National Oceanic and Atmospheric Administration (NOAA) has indicated that "the AMS Facility utilized by the Contractor for the analysis of the micro-samples specified must be a 14C tracer-level-free facility." (Solicitation Number: WE-133F-14-RQ-0827 - Agency: Department of Commerce)

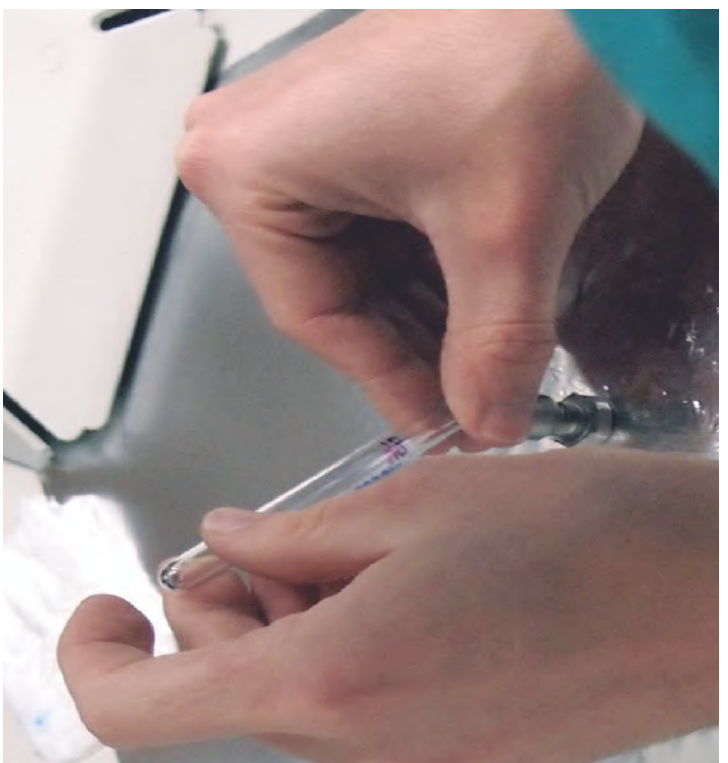
As a natural level radiocarbon laboratory, we highly recommend that researchers require the AMS lab processing their samples to be Tracer-free.

No Exposure to Artificial Carbon-14

According to ASTM International, the ASTM D6866 standard is applicable to laboratories working without exposure to artificial carbon-14 routinely used in biomedical studies. Artificial carbon-14 can exist within the laboratory at levels 1,000 times or more than 100 % biobased materials and 100,000 times more than 1% biobased materials. Once in the laboratory, artificial 14C can become undetectably ubiquitous on materials and other surfaces but which may randomly contaminate an unknown sample producing inaccurately high biobased results. Despite vigorous attempts to clean up contaminating artificial 14C from a laboratory, isolation has proven to be the only successful method of avoidance. Completely separate chemical laboratories and extreme measures for detection validation are required from laboratories exposed to artificial 14C. Accepted requirements are:

(1) disclosure to clients that the laboratory working with their products and materials also works with artificial 14C
(2) chemical laboratories in separate buildings for the handling of artificial 14C and biobased samples
(3) separate personnel who do not enter the buildings of the other
(4) no sharing of common areas such as lunch rooms and offices
(5) no sharing of supplies or chemicals between the two
(6) quasi-simultaneous quality assurance measurements within the detector validating the absence of contamination within the detector itself.

ASTM D6866-22 – Standard Test Methods for Determining the Biobased Content of Solid, Liquid, and Gaseous Samples Using Radiocarbon Analysis.



Useful Reference

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"... we certainly do not advocate processing both labeled and natural samples in the same chemical laboratory." "The long term consequences are likely to be disastrous."

2. Recovery from tracer contamination in AMS sample preparation. A. J. T. Jull, D. J. Donahue, L. J. Toolin. Radiocarbon, Vol. 32, No.1, 1990, p. 84-85 doi:10.2458/azu_js_rc.32.1253 (Open Access)

"... tracer 14C should not be allowed in a radiocarbon laboratory." "Despite vigorous recent efforts to clean up the room, the "blanks" we measured had 14C contents equivalent to modern or even post -bomb levels."

3. Prevention and removal of elevated radiocarbon contamination in the LLNL/CAMS natural radiocarbon sample preparation laboratory. Zermeño, et. al. Nuclear Instruments and Methods in Physics Research Section B: Beam Interactions with Materials and Atoms
Vol. 223-224, 2004, p. 293-297
doi: 10.1016/j.nimb.2004.04.058

"The presence of elevated 14C contamination in a laboratory preparing samples for natural radiocarbon analysis is detrimental to the laboratory workspace as well as the research being conducted."

4. High level 14C contamination and recovery at XI'AN AMS center. Zhou, et. al. Radiocarbon, Vol 54, No. 2, 2012, p. 187-193
doi:10.2458/azu_js_rc.54.16045

"Samples that contain high concentrations of radiocarbon ("hot" samples) are a catastrophe for low background AMS laboratories." "In our case the ion source system was seriously contaminated, as were the preparation lines."

BETA

Beta Analytic

www.radiocarbon.com

HNIDEY Emil * DEQ

From: Jim Groome <jgroome@carbonverificationservice.com>
Sent: Wednesday, November 20, 2024 3:00 PM
To: CFP2024 * DEQ
Subject: Verification of EV Charging Quarterly Fuel Transaction Reports

Carbon Verification Service, LLC respectfully submits the following comment with respect to proposed OAR 340-272-0110(4)(a)(B)(iv) which adds EV charging to the list of transaction types that require verification:

Require verification of EV Charging Quarterly Fuel Transaction Reports beginning with data year 2025 to be verified by August 31, 2026. This will allow sufficient time for DEQ to issue requisite guidance and/or training for verifiers. We are concerned that requiring verification of data year 2024 EV charging QFTR's by August 31, 2025 may not allow sufficient time for verifiers to become familiar with the verification requirements for EV charging.

Thank you for your consideration.

James J. Groome, President
Carbon Verification Service, LLC
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ChargePoint, Inc.
254 East Hacienda Avenue | Campbell, CA 95008 USA
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November 21, 2024

Oregon Department of Environmental Quality
700 NE Moltnomah St, Suite 600
Portland, OR 97232

Comments on CFP 2024 rulemaking

We would like to thank DEQ Staff for hosting public workshops and providing helpful insight into changes proposed to the CFP. We appreciate the work of Staff members to continue to improve the CFP and decarbonize transportation in Oregon.

ChargePoint is one of the world's largest electric vehicle (EV) charging networks and solution providers with more than 150,000 Level 2 and direct current fast charging (DCFC) stations on its network today. ChargePoint works with major employers, municipalities, utilities, fleet operators, real estate developers, and individual drivers to deploy and operate charging stations across North America and Europe.

We have two comments on the proposed rule changes, both intended to ensure a successful program for entities newly subject to verification requirements.

1) Site visits as part of verification for EV charging "network service providers"

   We recommend that DEQ clarify the requirements for site visits for EV charging "network service providers" by further amending 340-272-0420 (2)(d) to apply to aggregators and network service providers. This addition would clarify that site visits for network service providers are only required to take place at a central records location. Network service providers are similar to aggregators in that both types of entities may report fueling from EV charging stations that cover large geographic areas and contain thousands of individual charging site locations. Verification of such dispersed and expansive networks would be impractical and would not meaningfully address risks associated with inaccurate reporting. As with aggregators, site visits for network service providers' quarterly reports should take place at the central records location, with visits to additional locations left to verifier discretion.

2) Clarify when verification for newly covered entities will begin
   We recommend that DEQ specify when verification will begin for entities newly subject to this requirement, such as entities reporting EV charging. We recommend that DEQ follow California's timeline and begin verification requirements in 2027 based on 2026 data. This will allow sufficient time to issue additional guidance, train verification bodies, and ensure a smooth implementation.

Thank you for the opportunity to submit comments on the proposed rule changes. As always, we welcome further discussion as we both work toward the goal of transportation decarbonization in Oregon.

ChargePoint, Inc.
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Sincerely,

Nate Schuster

Manager, Clean Fuel Programs

CHRISTIANSON
CPAs & Consultants

November 20, 2024

Mr. Bill Peters
Oregon Department of Environmental Quality
700 NE Multnomah St., Suite 600
Portland, OR 97232

RE: Christianson Public Comments on Oregon DEQ's Clean Fuels Program Draft Rule

Dear Mr. Peters,

Christianson PLLP is a full-service public accounting firm based in Willmar, Minnesota, with over 30 years of experience serving the renewable fuels industry. We specialize in providing technical assistance and professional services that ensure compliance with regulatory programs and support sustainable practices.

As a third-party verification body working extensively with biofuel producers under state and federal low-carbon fuel programs, we appreciate the opportunity to comment on the proposed changes outlined in the draft rule.

We respectfully urge the Board to reconsider the requirement that verification bodies must adhere to 6-year rotation requirements.

Verification Body Rotation Requirements

We oppose the implementation of firm rotation requirements for verification bodies under the Clean Fuels Program. Mandatory firm rotation disrupts the continuity and quality of audits, creates inefficiencies for regulated parties and undermines the specialized expertise that verification bodies have developed. Our reasons for opposing firm rotation are detailed below, along with a recommendation for adopting lead verifier rotation or an exemption for licensed Certified Public Accountant (CPA) firms or similar firms that hold accreditations or licensure which require a third-party oversight body, as a more effective alternative.

Importance of Familiarity with Industry Sectors

Verification bodies often develop specialized knowledge of particular industry sectors, including the specific processes, documentation, interpretations and challenges unique to those industries. For instance, verification bodies become familiar with certain CI calculators and fuel types that align with their clients' operations. The use of simplified calculators—while beneficial for standardized reporting—requires an initial learning curve to understand their proper application, limitations and nuances.

Mandating firm rotation would force verification bodies into unfamiliar industry sectors, potentially compromising the quality and efficiency of the audits. It takes significant time for a verification body to build sector-specific expertise, and starting anew with each rotation disrupts this process. This learning curve not only impacts the verification body, but also places an additional burden on the regulated parties, who must devote resources to onboarding new auditors.

Audit Quality and Efficiency
Once an audit team is familiar with the client's operations and industry context, they are better positioned to identify problem areas or unusual activities. This familiarity contributes to an improvement in both audit quality and efficiency over time. Initial audits typically address major compliance issues, allowing subsequent audits to delve into more nuanced areas. Disrupting this continuity through firm rotation diminishes these benefits, as a new team would need to reestablish the foundational understanding of the client's operations.

CPA Firm Oversight and Standards
Licensed CPA firms and other certifying bodies differ significantly from consulting firms that are completing verification work. Certified/Accredited firms must adhere to rigorous standards and oversight at both state and national levels. These requirements ensure the highest level of integrity, quality, and accountability in their operations.

A CPA firm's license, specifically, is tied to all services it provides, not just LCFS verification services. Any violation of regulatory requirements could jeopardize the firm's license, impacting all aspects of its practice. This creates an inherent incentive for CPA firms to comply fully with all applicable standards.

Key Requirements for Licensed CPA Firms

- **Ownership by Licensed CPAs**: At least 50% of a licensed CPA firm's ownership must consist of licensed CPAs. Achieving CPA licensure requires passing a rigorous four-part CPA exam, completing substantial education requirements, fulfilling 1–2 years of work experience in most states and completing an ethics exam along with ongoing ethics related continuing education requirements.

- **Triennial Peer Review Audits**: CPA firms must participate in an approved peer review program, undergoing external reviews of their quality control systems in accounting and auditing every three years. These peer reviews, mandated by the American Institute of Certified Public Accountants (AICPA), ensure adherence to stringent professional standards. Peer review results are publicly available through the AICPA's Peer Review Public File Search.

- **State Boards of Accountancy Oversight**: Each state's Board of Accountancy (SBOA) oversees CPA licensing and regulations to ensure firms operate within their statutory scope. SBOAs conduct examinations, evaluate licensees and enforce compliance, adding an additional layer of scrutiny and accountability.

These rigorous standards, coupled with the triennial peer review process and SBOA oversight, distinguish licensed CPA firms from other verification bodies. Such firms bring a level of professionalism, quality assurance and ethical responsibility that aligns with the goals of the Clean Fuels Program.

Recommendation
We strongly recommend that DEQ adopt a **partner rotation** requirement rather than a firm rotation. This approach aligns with the standards for public companies in the U.S., which require lead engagement partner rotation every five years, not full firm rotation. Partner rotation would ensure both compliance and continuity, allowing verification bodies to retain the deep institutional knowledge necessary for high-quality audits.

If DEQ deems firm rotation necessary, we urge the adoption of an **exception for CPA firms** due to their adherence to more rigorous standards and the significant oversight they already undergo. This exception would recognize the unique role that CPA firms play in providing reliable and efficient verification services while ensuring audit quality is not compromised.

Thank you for the opportunity to provide comments. We are happy to answer any questions or provide further information to support our recommendations.

Sincerely,

Kari Buttenhoff, CPA
Partner, Christianson PLLP

Christianson PLLP
302 5th St. SW
Willmar, MN 56201

Clean Fuels
ALLIANCE AMERICA

November 19, 2024

Mr. Bill Peters
Clean Fuels Program Lead
700 NE Multnomah Street
Suite 600
Portland, OR 97232

Re: Comments on the CFP 2024 Rulemaking

Submitted electronically: CFP.2024@deq.oregon.gov

Mr. Peters,

The Clean Fuels Alliance America (Clean Fuels) appreciates the opportunity to provide written comments on the CFP 2024 Notice of Proposed Rulemaking. Clean Fuels is the U.S. trade association representing the entire supply chain for biodiesel, renewable diesel, sustainable aviation fuel, and Bioheat® fuel for thermal space heating. Our membership includes over 100 farmers, producers, marketers, distributors, and technology providers, and many are members of environmental organizations supportive of state and local initiatives to achieve a sustainable energy future.

For the CFP 2024 Rulemaking, Clean Fuels has the following comments:

OR-GREET 4.0

Clean Fuels appreciates the work that Oregon DEQ has done to update its OR-GREET 3.0 model to be consistent with CA-GREET 4.0. Having aligned versions of the GREET models will ensure that our fuel pathway holders can continue to rely on Oregon's process to recertify approved California pathways with minimal additional effort in the future.

This update will also help pathway holders to streamline the verification process between California and Oregon. We also support the proposal to transition from OR-GREET 3.0 to OR-GREET 4.0 during the 2025 annual fuel pathway reporting cycle that occurs in 2026.

Incorrect Tallow value

Clean Fuels remains concerned that the proposed OR-GREET 4.0 model contains an incorrect value for emissions related to the energy inputs for beef tallow rendering process. This error first appeared in GREET 2016 and was identified by the Argonne National Laboratory[1] and corrected in GREET 2017. The difference is about 8 gCO2e/MJ, about double what it should be. However, this

[1] Updates on the Energy Consumption of the Beef Tallow Rendering Process and the Ratio of Synthetic Fertilizer Nitrogen Supplementing Removed Crop Residue Nitrogen in GREET, Argonne National Laboratory, October 9, 2017.

correction was not made to OR-GREET 4.0. Clean Fuels is requesting that this modification be made prior to adoption in order to enable accurate GHG accounting for tallow-based fuels.

Thank you again for the opportunity to submit written comments at this time. Please feel free to contact me at cwind@cleanfuels.org if you have any questions.

Sincerely,

Director of State Regulatory Affairs
Clean Fuels Alliance America

CleanFuture, Inc.
P.O. Box 23813
Portland, OR 97281-3813
office: +1 503 427-1968
e-mail: john@CleanFuture.us

November 21, 2024

Bill Peters
Oregon Clean Fuels Program Manager
Oregon Department of Environmental Quality
800 NE Oregon Street
Portland, OR 97232
Comment Submitted via email to CFP.2024@DEQ.oregon.gov

RE: Recommendation to Avoid Unnecessary Costs, Impose Consistent Verification Obligations based on Nature and Size of Credit Generator, and Maintain Alignment with California Low Carbon Fuel Standard

Dear Mr. Peters,

CleanFuture appreciates the opportunity to provide written comments to the Clean Fuels Program ("CFP") 2024 Notice of Proposed Rulemaking ("2024 Rulemaking"). This letter provides comments highlighting the increase in costs and resulting decrease in overall program efficiency and net revenues for electric vehicle (EV) applications that would result from implementation of the proposed regulations pertaining to verification. Decreased CFP credit revenues in an already depressed credit market will increase the net cost of operating EVs and thereby impede Oregon's ambitious and important EV market penetration goals. Increased net EV operating costs will also increase the cost of reducing GHG emissions and make it more difficult to meet the aggressive GHG emission reduction targets of the CFP.

This letter also provides comments regarding the inequity of imposing differing verification obligations depending on what entity does the reporting on behalf of the Credit Generator. While there may be a sound basis for imposing variable verification obligations depending on the nature and size of a Credit Generator, there is no rational basis for imposing verification obligations on a Credit Generator only if a designated third-party is doing the reporting. To the contrary, designated third-party reporters who provide CFP compliance services and aggregate credits ("Aggregators) are more likely to provide accurate and comprehensive reporting than self-reporting Credit Generators. Aggregators are specialized service providers that have more experience fulfilling regulatory obligations than self-reporting Credit Generators do, and Aggregators have contractual obligations to conform to the regulatory requirements.

CleanFuture

Summary of Recommendations

CleanFuture's comments and recommendations are supported by the California Air Resources Board's ("CARB") rulemaking record from the California Low Carbon Fuel Standard ("LCFS"). The following regulatory provisions have been approved by the CARB Governing Board but remain subject to final approval by the Office of Administrative Law. A review of the LCFS rulemaking record and the CARB-approved LCFS regulations establishes the following determinations and regulatory approaches that warrant close review by DEQ:

- California will require verification of all electricity-based transactions,
- Implementation of verification of electricity-based transactions for 2026 will be verified in 2027,
- CARB has done a cost estimate of full verification requirements with findings of substantial costs for electricity verification, and as a result,
- To reduce costs, CARB will expand the threshold for deferred verification for up to 3 years for qualifying program participants that generate below 10,000 credits per year, and establish a less intensive verification standard for all qualifying program participants.

Implementing Verification of Electricity-based Transactions

With the non-specific timeline for verification in DEQ's Notice of Proposed Rulemaking ("NOPR"), CleanFuture is concerned regarding the proposed timeline for imposing verification obligations on electricity-based transactions. In CARB's Proposed Amendments to the LCFS, as reflected by the second 15-day rulemaking package released on October 1, 2024 (the "LCFS Proposal"), CARB will delay the implementation for electricity-based transactions by one year in subsection 95500(c)(1)(E) ("LCFS Electricity-based Verification Requirements Provision"). In response to public comments, this provision gives reporting entities additional time to obtain verification services. [1]

[1] CARB, Second Notice of Public Availability of Modified Text and Availability of Additional Documents and/or Information Proposed Low Carbon Fuel Standard Amendments, October 1, 2024, available at https://ww2.arb.ca.gov/rulemaking/2024/lcfs2024.

The operative language of the LCFS Electricity-based Verification Requirements Provision is as follows[2]:

> (E) For the following electricity-based transaction types, beginning in 2027 for 2026 data:
>
> 1. EV Charging except as specified under 95491(d)(3)(A);
> 2. eTRU Fueling;
> 3. eCHE Fueling;
> 4. eOGV Fueling;
> 5. Fixed Guideway Electricity Fueling; and
> 6. Forklift Electricity Fueling.

CleanFuture encourages similar implementation of verification for electricity-based transactions in the CFP to begin in 2027 for 2026 data.

Benefits of Implementing Comparable CFP Approach

The CARB LCFS approach allows reporting entities additional time to obtain verification services and verification bodies are provided additional time to prepare verification services. A comparable approach in Oregon would provide DEQ staff with more time to ensure a smooth launch of verification of electricity-based transactions for the CFP.

The CARB LCFS approach would also enable Oregon to conform with applicable Executive Orders. In particular, due to the foreseeable increased costs, the current DEQ verification proposal runs counter to Executive Order 20-04[3] which requires that:

- Regarding the General Directives to State Agencies, Agency Decisions, the Executive Order provides that agencies are directed to "Prioritize actions that reduce GHG emissions in a cost-effective manner (…)"

To maximize cost effectiveness while maintaining CFP program integrity, CleanFuture requests that the Department of Environmental Quality ("DEQ"):

1. Evaluate the changes to verification approved by the CARB Governing Board on November 8th in the LCFS rulemaking,[4]
2. Maintain a consistent threshold for triggering verification obligations for all program participants, both Credit Generators and Aggregators,

---

[2] This version shows in marked-up format all proposed changes made to the current LCFS regulation during the LCFS rulemaking process as reflected in Attachment A-1.2 referenced in the Notice as "Proposed Second 15-Day Modifications to Proposed Regulation Order (First and Second 15-Day Modifications and 45-Day Modifications combined and compared to existing regulatory text) in Alternative format as released with the second 15-day package and available at https://ww2.arb.ca.gov/sites/default/files/barcu/regact/2024/lcfs2024/2nd_15day_atta-1.2.docx

[3] https://www.oregon.gov/gov/Documents/executive_orders/eo_20-04.pdf

[4] CARB staff is currently completing the necessary rulemaking documents for submittal and approval by the Office of Administrative Law.

3. Not expand quarterly report verification requirements to electricity reporting, and
4. Establish objective risk-based standards to trigger full verification obligations in situations justifying more oversight and costs.

Review of CARB's Proposed Regulatory Changes to Verification

As previously noted, CARB is at the final stage of a major LCFS rulemaking that addresses program stringency and a wide range of additional issues.[5] The following LCFS regulatory text pertains to verification and is inclusive of all proposed changes to the current LCFS regulation including the original 45-day changes as well as the first 15-day changes and the second 15-day changes.[6]

Please Note the format for the following CARB Proposed Regulatory Language- Current regulatory language is shown in unmarked text with proposed deletions marked by ~~strike-out~~ and proposed new language marked by underline.

(Begin CARB Proposed Regulatory Language):

§ 95500. Requirements for Validation of Fuel Pathway Applications; and Verification of Annual Fuel Pathway Reports, Quarterly Fuel Transactions Reports, Crude Oil Quarterly and Annual Volumes Reports, Project Reports, and Low -Complexity/Low-Energy-Use Refinery Reports.[7]

(…)

(c) Verification of Quarterly Fuel Transactions Reports.

(…)

(2) Verification Schedule. Entities responsible for verification of Quarterly Fuel Transactions Reports must ensure a transactions data verification statement is submitted to the Executive Officer according to the following schedule.

(A) *Annual Verification.* The entity required to contract for verification of Quarterly Fuel Transactions Reports must ensure a transactions verification statement is submitted annually by August 31, beginning in 2021 for 2020 data, to the Executive Officer for the prior calendar year of data unless specified otherwise in sections 95500(c)(2)(B) or 95500(c)(2)(C).

Quarterly review of a Quarterly Fuel Transactions Report may only be included as part of annual verification services after the entity submits

[5] See CARB, "Proposed Low Carbon Fuel Standard Amendments, Rulemaking Page," at https://ww2.arb.ca.gov/rulemaking/2024/lcfs2024, and see also "Appendix A-1, Proposed Regulation Order," at https://ww2.arb.ca.gov/sites/default/files/barcu/regact/2024/lcfs2024/lcfs_appa1.pdf

[6] See specifically Attachment A-1: Proposed Second 15-Day Changes to Proposed Regulation Order (Proposed Sections for Amendments) at https://ww2.arb.ca.gov/sites/default/files/barcu/regact/2024/lcfs2024/2nd_15day_atta-1.pdf

[7] Id. at p. 349-253.

the report and attests that the statements and information submitted are true, accurate, and complete.

(B) *Deferred Verification.* Fuel reporting entities may defer annual verification of their Quarterly Fuel Transactions Reports up to two years if they do not generate 6,000 or more credits and 6,000 or more deficits in LRT-CBTS during the prior calendar year.

Any fuel quantity reported under a pathway with biomethane or hydrogen supplied using book-and-claim accounting pursuant to section 95488.8(i)(2) is not eligible for deferred verification.
The verification body must submit transactions verification statements to the Executive Officer for all prior unverified reports on or before August 31 of the year verification is required or conducted for the reporting entity.

For further clarification, note that under the LCFS program, "Fuel Pathway holders" are defined as follows:

> *"Fuel Pathway Holder" means a fuel pathway applicant that has received a certified fuel pathway carbon intensity based on site-specific data, including a Provisional fuel pathway.*

Under the LCFS program, a Fuel reporting entity is defined as follows:

> *"Fuel Reporting Entity" means an entity that is required to report fuel transactions in the LRT-CBTS pursuant to section 95483 or 95483.1. Fuel reporting entity refers to the first fuel reporting entity and to any entity to whom the reporting entity status is passed for a given quantity of fuel.*[8]

Thus CARB has expanded rather than contracted the eligibility of fuel reporting entities, including Credit Aggregators, to defer annual verification.

In addition, CARB has proposed to establish a new category of "Less Intensive Verification" similar to Oregon's Less Intensive Verification, to enable cost savings while maintaining program integrity with the following definition[9]:

> **"Less intensive verification" means the verification services provided in interim years between full verifications; less intensive verification does not require a site visit, and only requires data checks and document reviews of a submitted report based on the analysis and risk assessment in the most current sampling plan developed as part of the most current full verification services. This level of verification may only be used if the verifier can provide findings with a reasonable level of assurance.**

[8] Id. at p. 13, 14.
[9] Id. at p. 16.

Review of CARB's Basis and Reasoning for Reducing Verification Obligations

This CARB LCFS proposal is consistent with analysis contained in the Initial Statement of Reasons ("ISOR") for the LCFS rulemaking regarding cost and efficiency. Pursuant to California's Administrative Procedures Act,[10] the ISOR is a mandatory rulemaking document that provides analyses on a variety of key topics. The ISOR includes a summary of the economic impact of the Proposed Regulation as presented in the Standardized Regulatory Impact Analysis (SRIA) that is submitted by CARB the California Department of Finance. The ISOR contained the following cost summary pertaining to the specific changes that CARB proposed to verification in the LCFS Proposed Regulation:

> ***1. Verification Costs***
> *Staff updated the verification cost estimates to include the expected costs to companies that own/operate between 1 and 10 fueling supply equipment (FSE), provisions for deferred verification for companies generating less than 6,000 credits per year, and less intensive verification requirements for fuel reporting entities reporting only electricity transactions. This change resulted in approximately $2.25 billion less verification costs over the lifetime of the regulation.*[11]

This economic analysis is directly relevant to the proposed DEQ changes to the CFP and highlights the detrimental impact the changes are anticipated to cause in the form of massive costs. The proposed DEQ changes would effectively preclude aggregators from deferring verification and not allow less intensive verification for fuel reporting entities reporting only electricity transactions. Because California's LCFS market is considerably larger than Oregon's CFP market, the cost impact in Oregon would be smaller in terms of total dollar costs. However, the cost impact to the CFP participants would be the same on a per capita and proportional basis and have the same negative effect of decreasing efficiency and increasing costs of the program.

The burden from verification of electricity is significant; Figure 1 shows the recent collapse of the CFP credit price levels:[12]

[10] For an overview of California rulemaking requirements, see generally UCLA School of Law, "California Administrative Law: HOW CALIFORNIA REGULATIONS ARE MADE," (Last updated January 17, 2024), at https://libguides.law.ucla.edu/caladminlaw/rulemaking

[11] See CARB, "Proposed Low Carbon Fuel Standard Amendments, Rulemaking Page," at https://ww2.arb.ca.gov/rulemaking/2024/lcfs2024, and see also "Initial Statement of Reasons," at https://ww2.arb.ca.gov/sites/default/files/barcu/regact/2024/lcfs2024/isor.pdf, at p. 69 (emphasis supplied).

[12] https://www.oregon.gov/deq/ghgp/cfp/pages/monthly-data.aspx

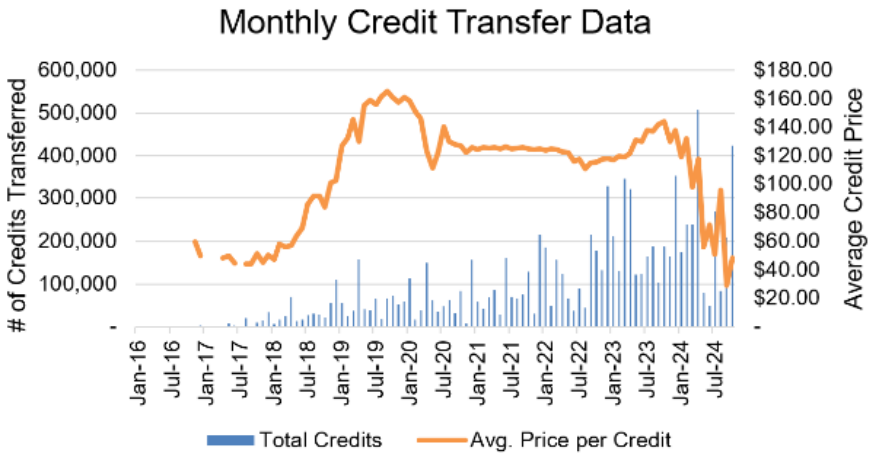


Figure 1 - CFP Monthly Transfer Data

The plunge in CFP credit price coincides with the growth of the credit bank, shown in green as the difference between all credits and deficits generated over time, as shown below in Figure 2.[13]

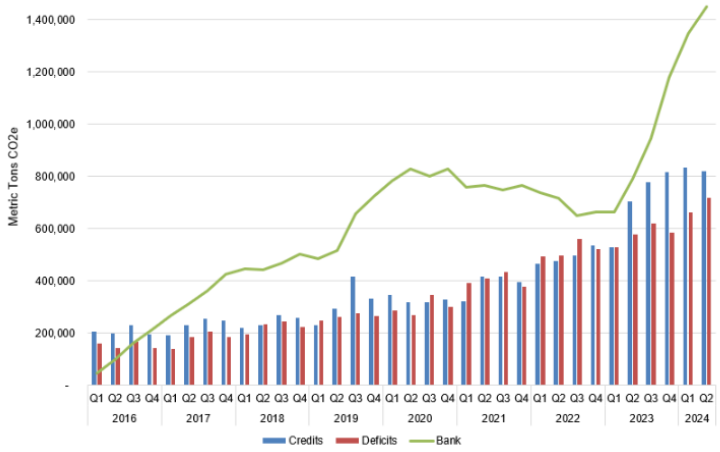


Figure 2 - CFP credits and deficits, Q1 2016 to Q2 2024

The increasing growth of the credit bank is mainly from renewable diesel (shown in light blue) in Figure 3.[14]

[13] https://www.oregon.gov/deq/ghgp/Documents/CFPQ22024DataSummary.pdf
[14] Id.

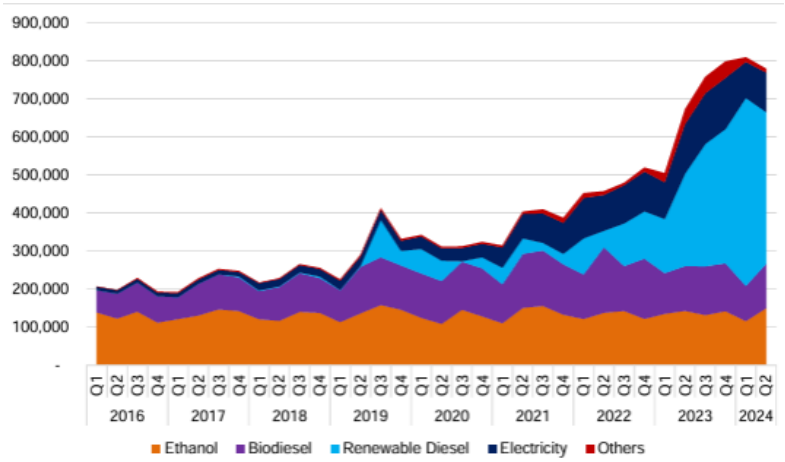


Figure 3 - CFP credits by fuel type, Q1 2016 to Q2 2024

Using a verification cost estimate of $0.006 per kWh as cited in the NOPR, then at the low CFP credit price levels the verification cost consumes about 24% of gross CFP revenue. This increase in costs and resulting decrease in overall program efficiency and net revenues for EV applications impedes the support provided by the Clean Fuels Program for electric vehicles.

Detrimental Impact on Oregon Electrification

In addition to increasing the cost of reducing GHG emissions and making it more difficult to meet aggressive GHG emission reduction targets, the verification proposal will decrease credit generation benefits to transportation electrifications which runs counter to E.O. 20-04(4)(B):

> "The EQC and DEQ are directed to advance methods accelerating the generation and aggregation of clean fuels credits by utilities that can advance the transportation electrification goals set forth in Senate Bill 1044 (2019)."

Recommended Measures to Contain Cost for Electricity Verifications and Reduce Net Costs for EV

Cost containment strategies are necessary and appropriate for third-party validation of electricity, given that limiting physical travel reduces verification costs and environmental impacts. Virtual site visits and desktop reviews reduce costs and carbon emissions from travel for verification of electricity. For these same reasons, Oregon DEQ rulemakings and hearings are all regularly conducted through remote platforms such as Teams and Zoom. CleanFuture encourages DEQ to similarly allow remote verification of electricity-based transactions to achieve these same benefits.

A robust credit price provides better support to Oregon's transportation electrification; CleanFuture urges DEQ to restore balance between deficits and credits in response to the CFP's overperformance in reducing transportation carbon intensity. CleanFuture encourages DEQ to revise standards to address the oversupply of credits, thus reduce net costs for Oregon's EVs.

Recommended Measure to Ensure Program Integrity

While CARB has proposed to generally provide more flexibility regarding verification, CARB has also proposed that heightened standards of verification be imposed across all credit generators if certain objective criteria have been met. In contrast, DEQ proposes to impose differing verification obligations on Credit Generators depending on what entity does the reporting on behalf of that Credit Generator. Specifically, DEQ has proposed to exempt self-reporting Credit Generators because these entities are below the threshold for verification despite the likelihood that individual self-reporting Credit Generators are more prone to inaccurate reporting and errors in comparison to Aggregators that provide compliance services to multiple program participants. Only Aggregators exceed the 6,000 credit threshold; individual Credit Generators bypass verification of electricity-based transactions. To ensure project integrity throughout the CFP, electricity transactions should be verified across all Credit Generators instead of only verifying the credit generation by Aggregators.

CleanFuture recommends that DEQ implement a parallel provision to the California LCFS in the Oregon CFP that equitably maintains program integrity across all program participants. There are multiple benefits to Oregon in aligning the CFP to the LCFS as has been the general rule since the inception of the program. These benefits include establishing a consistent program structure across two jurisdictions to simplify compliance, leveraging California's experience and staff resources to inform Oregon decision-making, and facilitating potential future linkage between the programs.

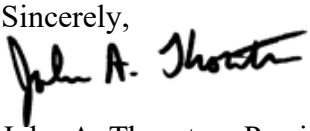
Conclusion

CleanFuture recommends that DEQ make the following changes to the proposed rules:

1. Evaluate the proposed changes to LCFS as well as the underlying rationale including economic impacts and maintain alignment of the CFP with LCFS program design to the greatest extent feasible,
2. Maintain a consistent threshold for triggering verification obligations between program participants and aggregators,
3. Not expand quarterly report verification requirements to electricity reporting.
4. Impose heightened standards of verification based on objective criteria suggesting higher risk of non-compliance.

Thank you for your consideration of these comments. Please advise if any further input on these issues would be constructive.

Sincerely,



John A. Thornton, President
CleanFuture, Inc.

November 21, 2024

Bill Peters
Oregon Department of Environmental Quality (DEQ)
700 NE Multnomah Street, Suite 600
Portland, Oregon 97232

RE: Electrify America comments on the Notice of Proposed Rulemaking to the Clean Fuels Program 2024

Dear Mr. Peters,

Electrify America appreciates the opportunity to provide feedback on the October 4th Notice of Proposed Rulemaking for the Clean Fuels Program (CFP). Electrify America is the nation's largest open network of DC fast chargers for electric vehicles (EVs), with over 4,250 fast chargers across more than 950 locations in North America, and over 140 chargers across more than 30 locations open to the public in Oregon.

The CFP plays a vital role in promoting EV charging infrastructure and advancing Oregon's transportation electrification goals. We commend DEQ staff for their efforts to amend the program to meet the market demands of today and ensure its future longevity.

Assess the causes of a decrease in credit values.

Electrify America supports a stronger carbon intensity reduction target as a mechanism to strengthen credit values. Across the Western states and in British Columbia, we have seen sharp declines in credit values in recent years. Given the growing surplus credit bank in Oregon, we urge DEQ to assess the causes of declining credit values and consider measures to ensure values are maintained at a level where the program is effective at driving investments in low carbon fueling infrastructure.

The verification process should reflect the distinct differences between EV charging stations and other fuel pathways.

Electrify America understands DEQ's need to validate and verify that fuel pathway holders are operating in line with CFP regulations. We support efforts to ensure accurate and transparent data sharing and have implemented robust data verification procedures internally to ensure accuracy of reported data. However, we have concerns that the language in §340-272-0420[1] pertaining to site visits does not address the EV charging use case.

[1] the proposed regulations require at least one site visit to the location where the aggregators records are stored, and additional site visits are to be performed at the verifier's discretion.

Electrify America supports the principle behind the proposed amendments to the EV fuel pathway verification process requirements, but we have some concern that the proposed regulatory language does not accomplish the underlying goal. Verification checks for EV charging, and electricity derived fuels, should be a separate process.

We look forward to continuing to work with DEQ on implementing this provision moving forward, and request that future rulemaking language provide the following clarifications:

- Clarify that the site visitation language only applies to fuel production facilities, and not EV chargers
- Clarify that where "aggregator's records are stored" does not mean the physical location (e.g., a data center), but can encompass company headquarters or another facility with access to appropriate data
- Clarify that for verifying EV charging data, verifiers have discretion to conduct remote "desktop reviews" of files and data, as well as remote staff interviews, rather than needing to physically conduct the review at a company's headquarters or other specified location. As charging records consist of electronic files, there is no equipment or process to physically inspect at the headquarters location as there may be with, e.g., a biofuels facility.

We understand the crucial need for DEQ to validate that fuel pathway holders are operating in line with CFP regulations and providing accurate data. This verification approach will better accommodate the operational realities of the charging station model while still effectively verifying the fuel dispensed at the charger level and will certainly be more cost-effective for DEQ. Electrify America has been an active stakeholder in California's Low Carbon Fuel Standard rulemaking, and adjustments have been made in CARB's Resolution,[2] which directs the Executive Officer to propose adjustments to verification requirements for electricity fueling before the next Scoping Plan Update. California recognized the importance of monitoring verification requirements for electric vehicle charging, and we urge Oregon to adopt a similar framework in future rulemaking language.

Electrify America remains committed to partnering with DEQ to advance Oregon's clean transportation and climate priorities. We look forward to continuing to work with DEQ to implement this critical program, including clarifying the items identified in these comments.

Sincerely,
/s/

Elisia Hoffman
State and Public Policy Affairs Lead, Government Affairs
Electrify America, LLC

[2] CARB Resolution 24-14, Public Hearing to Consider Proposed Low Carbon Fuel Standard Amendments, November 8, 2024, https://ww2.arb.ca.gov/sites/default/files/barcu/board/books/2024/11070824/24-14prores.pdf

November 20, 2024

VIA ELECTRONIC FILING

Bill Peters
Oregon Department of Environmental Quality (DEQ)
700 NE Multnomah Street, Suite 600
Portland, OR 97232

Re: Clean Fuels Program (CFP) 2024 Rulemaking

Dear Mr. Peters:

Neste appreciates the opportunity to provide these comments on the Clean Fuels Program (CFP) 2024 Rulemaking materials published by DEQ on October 4, 2024. Neste is the world's largest producer of renewable diesel (RD) and sustainable aviation fuel (SAF), over 90% of which are produced from waste and residues. During the past ten years, Neste's transformation journey has taken it from a local oil refiner to a global leader in renewable and circular solutions. Neste's goal is to achieve carbon neutral production by 2035 and supply Oregon with products that will enable the state to reach the climate goals outlined in Executive Order 20-04. We are in the business of combating climate change by producing effective climate solutions, and our vision is to create a healthier planet for our children.

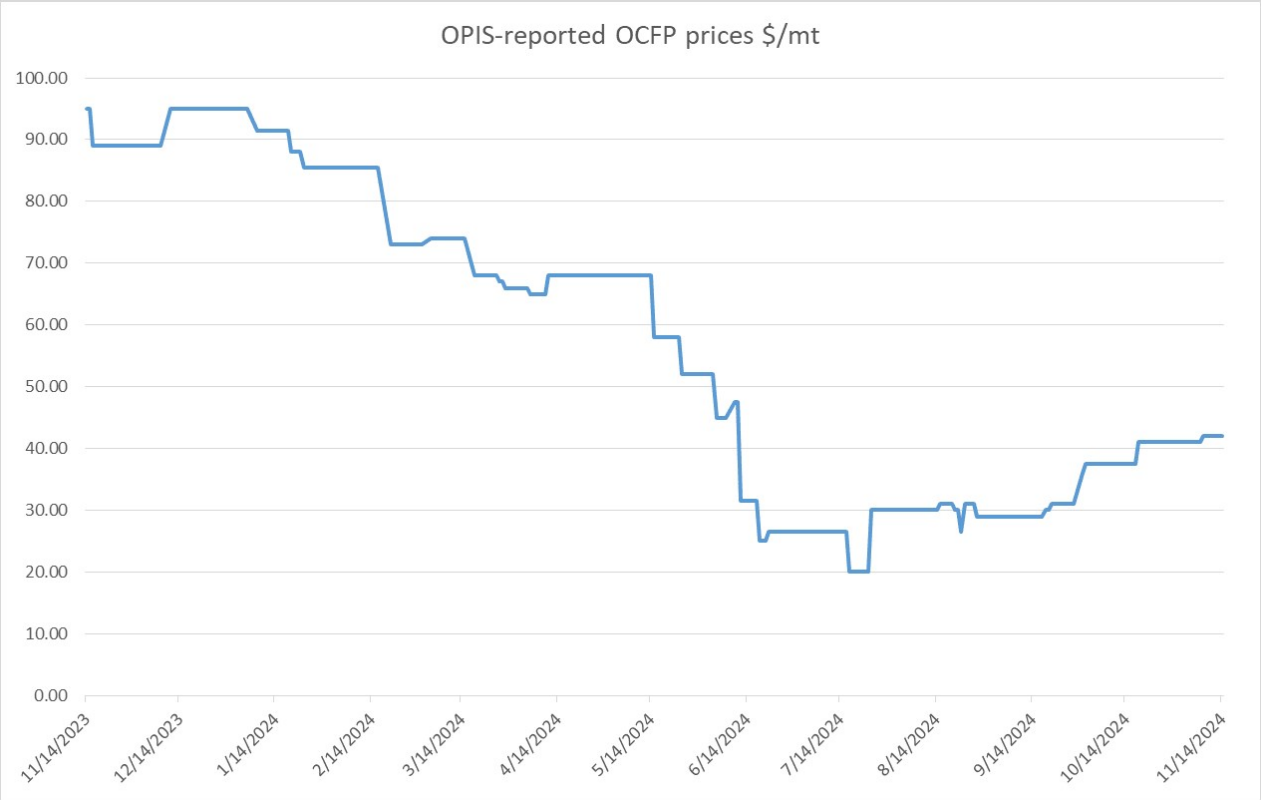
The comments below are regarding materials provided by DEQ in the October 4, 2024 CFP 2024 Rulemaking package. We look forward to continuing to work with DEQ on this rulemaking.

Step Down Carbon Intensity (CI) Reduction Is Needed Immediately to Stabilize the CFP Carbon Market:

The beauty of open markets is the price reflects the overall view of all participants. The recent sharp price declines of the Oregon CFP credit price demonstrate that the market likely believes that the current program goals are too easy to achieve. The market price reflects the understanding that there are too many credits available today and that the demand for those credits is probably not going to outpace supply in the near future. Oregon CFP credits have traded below $40/mt in recent weeks as market participants likely believe that the ongoing rise in the credit bank will only continue (See Figure 1 below). This oversupply in credits is further exacerbated by additional renewable energy coming online within the next few years and that will be available across the western US.

Weaker credit prices in related carbon programs, such as California's Low Carbon Fuel Standard (LCFS) program, have only increased the supply of renewable fuels in Oregon and weakened Oregon's credit market. Ongoing weakness in these credits discourages investing in new technologies that can help speed the energy transition. Inaction sends signals that regulators may support the status quo of low interest in investing in new low-carbon technologies. The plunge in credit prices to around $40/mt from even one year ago when prices were $165/mt shows a risk of investment in clean technologies, resulting in the slow down or actual exit of the state's lower-emissions energy sources as they become uneconomical. Market participants who are holding credits are selling them at lower and lower prices because the supply of Oregon CFP credits continues to outpace demand, as reflected by the continued increases in the credit bank quarter after quarter. Current market prices reflect the belief that CFP credit supply is likely to remain above demand in the coming quarters, and the longer Oregon waits to address this overperformance the longer it will take to resolve it.

Figure 1: Oregon CFP Credit Price Since November 2023 Through Today



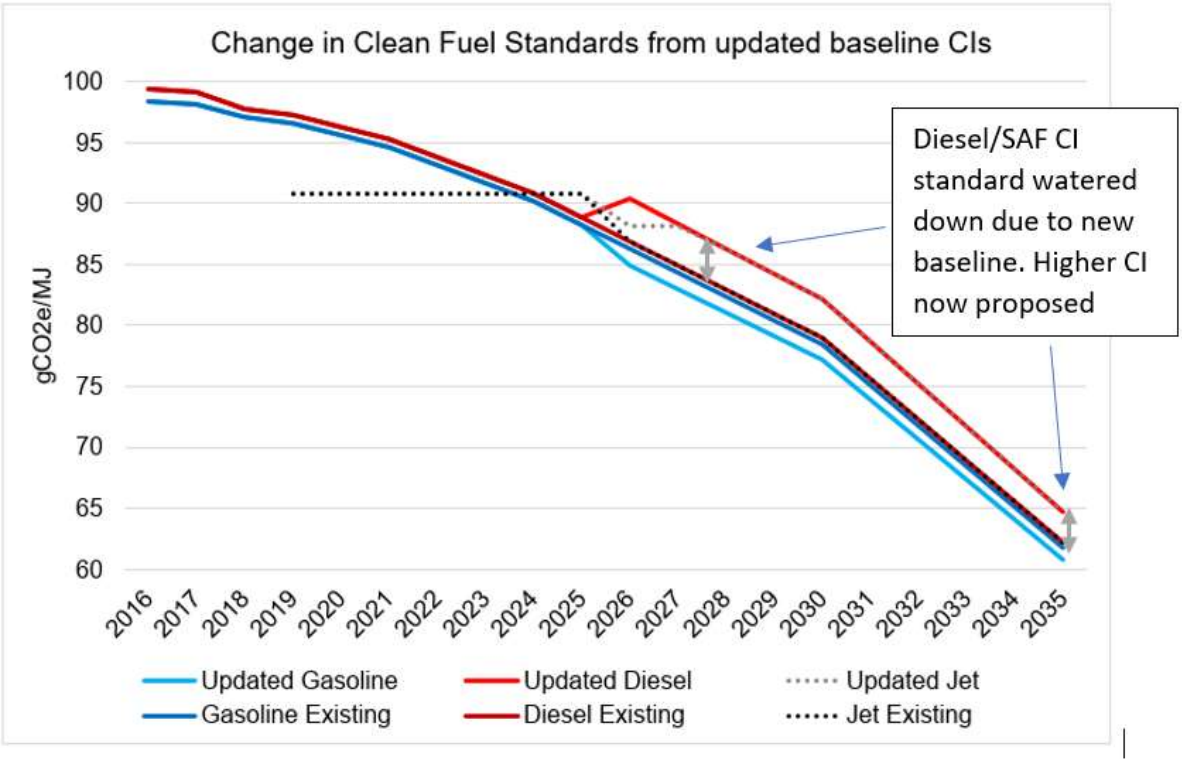
Neste sees an immediate step down in the CFP CI as integral to quickly addressing the overperformance of the CFP program and the depressed credit prices. This could also provide visibility to the industry that could bolster investments in future alternative energy projects. Overperformance is a lost opportunity for GHG reductions, and the longer the market overperforms, the longer Oregon passes up significant reductions in GHGs and harmful air pollutant emissions. Neste supports a CI step down of at least 9% for 2025 as was recently approved under the California LCFS[1] to account for the 3% CI increase of the CFP diesel baseline and to address the current Oregon CFP significant overperformance. For California, ICF found that a CI reduction of 25% in 2025 was needed to "ensure that the credit bank reverses and that the bank is drawn down to a level that is in line with a credit bank of only two quarters' worth of deficits"[2]. Overperformance in the CFP has contributed to the large decrease in Oregon CFP credit prices, and this is further compounded by overperformance in California that continues to have a spillover effect in Oregon. Therefore, a step down higher than 9% is possible in Oregon given the even lower credit price in the Oregon CFP compared to the California LCFS.

As part of this rulemaking, DEQ also updated the fossil diesel baseline from 101.74 gCO_2/MJ to 104.92 gCO_2/MJ, a 3% CI **increase** that waters down the CFP CI reduction goals proposed back in the CFP Expansion 2022 rulemaking[3]. The watering down of the diesel CI is very clear in the figure included on page 4 of the "OR-GREET 4.0 Memo"[4] prepared by DEQ for workshop in July 2024 (See Figure 2 below), which clearly

[1] https://ww2.arb.ca.gov/sites/default/files/barcu/regact/2024/lcfs2024/lcfs_fro_atta-1.pdf
[2] https://www.arb.ca.gov/lists/com-attach/7078-lcfs2024-VDVcNFIyVGsLdFQu.pdf
[3] https://www.oregon.gov/deq/rulemaking/pages/cfp2022.aspx
[4] https://ormswd2.synergydcs.com/HPRMWebDrawer/Record/6773512/File/document

shows the program de-accelerating by up to 2 years. Figure 2 below shows the newly proposed diesel CI reduction (top light red line) having a less aggressive CI reduction than what was previously proposed by DEQ in 2022 (bottom darker red line), resulting in the 2025 CI reduction goal now being similar to the previously approved 2023 goal. Neste has estimated that this watering down of the diesel CI standard will result in more than 500,000 extra credits annually starting in 2025, worsening the already large credit bank. The 1.449 million credits available in the bank as of 2Q2024 represents an oversupply that will continue to grow if current targets are maintained, and will grow more rapidly if the diesel compliance curve is weakened by adjusting the baseline carbon intensity without a corresponding step down in the compliance curve. Therefore, Neste recommends that **a CI step down of at least 9% CI must be made in 2025**.

Figure 2: Updated CFP CI Reduction Goals from "OR-GREET 4.0 Memo"



Neste also requests the assumptions and calculations used to recalculate the updated CI's, especially the updated fossil fuel baselines. The fossil diesel baseline changed by 3.18 gCO_2/MJ and Neste expects a change closer to 2.74 gCO_2/MJ based on the methodologies described by DEQ. To resolve this confusion, disclosure of all calculations used to recalculate all updated CIs is needed.

<u>The CFP Needs an Automatic Acceleration Mechanism (AAM):</u>

In the current environment, where the credit price is at historic lows and the credit bank is at a record 1.449 million credits, it is important that adjustments to the CI reduction targets are made through a predictable process and send credible, long-term signals to the market. Neste therefore recommends that DEQ incorporate an AAM into the CFP that will move up the CI standard by one year (and subsequent years) when triggered, resulting in a predictable impact on the longer-term fuel market. California has recently approved such a mechanism, and the Oregon CFP would benefit from it even more given the impacts of the overperforming California LCFS in Oregon. In years that Oregon and/or nearby LCFS

programs are overperforming, the AAM will allow DEQ to adequately address overperformance in the credit market and thus maximize emissions reductions.

Given the significant credit bank and the expected growth in renewable energy consumption in Oregon, Neste recommends that the AAM first be activated in **2025** (using 2024 data). It is essential that DEQ have this mechanism in place should overperformance persist, and to balance out the credit market more quickly so that renewable fuel producers can feel more confident investing in new production.

Climate Smart Agriculture (CSA) Can Drive Further Decarbonization:

Neste also believes that DEQ can further drive innovation by recognizing the emissions reductions from climate smart agriculture (CSA). These emissions reductions are already being certified and accounted for through several sustainability certification schemes such as ISCC. In fact, the IRS guidance accompanying the 40B SAF-GREET model allows some crop-based feedstocks to reduce their carbon intensity (CI) score if certain CSA practices were employed in their production. CI reductions for no-till, cover crop and enhanced efficiency fertilizer will be accounted for in CI calculations. Neste believes that recognizing CSA strikes the right balance between ensuring feedstocks are sourced sustainably and at the same time leverages available data to provide more value to those producers that are working towards decarbonizing their energy production.

The CFP Should Treat All Hydrogen the Same; Even When Used as a Feedstock

Hydrogen is a key feedstock in the production of RD and SAF, and Neste has invested in the development of hydrogen using low-CI electricity at our Porvoo, Finland refinery[5]. We hope to perfect this technology and eventually use it at all our refineries, including our Martinez Renewables Joint Venture plant in Martinez, California. Being able to leverage book-and-claim is essential because low-CI electricity or biomethane are not always available near production facilities to produce green hydrogen. Neste was under the impression that Section 340-253-0450 Part 9 allowed for green hydrogen produced from low-CI electricity or biomethane to leverage book-and-claim to produce lower CI RD and SAF. However, Tables 5 and 6 of the "Instruction Manual: Tier 1 CI Calculator for Hydroprocessed Ester and Fatty Acid Fuels" state that book-and-claim of biomethane and low-CI electricity are not allowed and that only direct delivery of both are allowed. Neste is disappointed that DEQ is treating hydrogen that is used as a fuel differently than hydrogen that is used as a feedstock, when they are both ultimately used as fuels. Neste requests that DEQ not stymie innovation and allow RD/SAF producers to use book-and-claim for the generation of green hydrogen. Efforts to produce green hydrogen for RD/SAF could bolster overall innovation around the production and use of green hydrogen.

Additional Proposals to Consider:

Neste suggests that DEQ consider the following additional opt-in sources of credit generation that are "drop-in" fuels that do not require significant infrastructure or investments to implement:

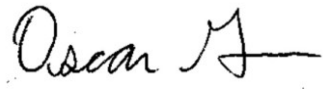
- **Ocean Going Vessels (OGVs):** Facing increasing CI reduction targets proposed by the International Maritime Organization (IMO), shipping companies are looking to renewable fuels as a way to reduce their emissions. DEQ should consider including fuel used in those ocean going vessels within the CFP to support and accelerate the decarbonization of large container ships, tankers, and other

[5] https://www.neste.com/en-us/news/neste-has-been-granted-energy-investment-aid-for-its-green-hydrogen-project-at-the-porvoo-refinery

OGVs. California has already indicated that it intends to include OGVs in its LCFS program[6], and Oregon should do the same.

- **Rail Opt-in:** The rail sector has indicated to Neste an interest in using lower carbon fuels if incentivized under the CFP. As a direct drop-in replacement of fossil diesel, renewable diesel could play an important role in decarbonizing the rail sector in Oregon if allowed as an opt-in fuel and incentivized by the CFP. Should the rail industry use renewable diesel, nearby communities would see added co-benefits of lower criteria and toxic air pollutant emissions.
- **Stationary Generators Opt-in:** The past several years have seen significant growth in the installation of stationary backup generators in several states, including Oregon. Operators of stationary generators have expressed to DEQ and Neste a strong interest in creating incentives to replace fossil diesel with renewable diesel. DEQ should add stationary generators as an opt-in use of renewable diesel to help decarbonize this growing source of reliable power. Similar to rail applications, nearby communities would see reduced air emissions if renewable diesel was used in these generators.

We appreciate your consideration and are happy to answer questions or provide additional information..



Oscar Garcia
Senior Regulatory Affairs Manager
Neste US, Inc.

[6] https://ww2.arb.ca.gov/sites/default/files/barcu/board/books/2024/11070824/24-14prores.pdf

NovoHydrogen, Inc.

NovHydrogen (“Novo”) is pleased to provide comments on Draft Rules 340-253 and 340-272 of the Clean Fuels Program (“CFP”) 2024 Rulemaking in response to the Oregon Department of Environmental Quality’s (“DEQ”) Notice of Proposed Rulemaking on October 4, 2024. We appreciate the opportunity to engage with DEQ staff during this process.

NOVO HYDROGEN

November 21, 2024

Bill Peters
Oregon Department of Environmental Quality
Clean Fuels Program
700 NE Multnomah Street, Suite 600,
Portland, OR 97232-4100

RE: NovoHydrogen's Comments on the Oregon Clean Fuels Program 2024 Rulemaking

Dear Mr. Peters,

NovoHydrogen is pleased to provide comments on potential changes to Oregon's Clean Fuels Program. We appreciate the opportunity to engage with the DEQ staff during this process.

Novo is a green hydrogen project developer based in the United States with several decades of combined renewable energy development and oil and gas experience throughout North America. Novo brings this expertise to the difficult-to-decarbonize industrial, transportation, and power sectors through the development and supply of green hydrogen. Novo's core areas of focus include the origination, procurement, project development, financial structuring, construction, and operation of green hydrogen production facilities.

Oregon is a key market for Novo. For example, we will own and operate a green hydrogen production facility at a mining operation in Eastern Oregon. The project is included as part of the Pacific Northwest Hydrogen Hub ("PNWH2 Hub"), which was selected for funding through the Department of Energy's H2Hubs program.

We commend OR DEQ's efforts to improve the CFP in support of Oregon's transportation decarbonization goals and we are strong supporters of this program. We urge DEQ staff to consider the following comments in advance of submitting the proposed rules to the Environmental Quality Commission.

Proposed Revision 1/2: Revise the carbon intensity ("CI") assumptions for electrolytic hydrogen production using zero or negative CI electricity

340-253-8010 – Oregon Temporary Fuel Pathway Codes for Fuels with Indeterminate CIs

According to fuel pathway code ORHYD703T in table 9 of OAR 340-253-8010, the CI of electrolytic hydrogen production using zero or negative CI electricity is 55 g CO2e/MJ, which roughly translates to 6.6 kg CO2e/kg H2. This assumption negatively impacts gaseous green hydrogen that is either produced onsite or transported within 100 miles. We urge DEQ to consider adopting CI values from other states with low carbon fuel standards such as California and Washington.

The proposed CI assumption for green hydrogen does not account for reasonable midstream distances of gaseous hydrogen. The majority of projects in Novo's portfolio involve co-location of electrolyzers with the end-user, which minimizes midstream distances and often involves delivery via short distance pipelines. The aforementioned PNWH2 Hub project, for example, is constructed this way. Using a carbon accounting methodology on a well-to-wheel basis, this type of "onsite" project will have a CI closer to 0 kg CO_2e/kg H_2 than 6.6 kg CO_2e/kg H_2 even when factoring in emissions associated with compression, storage, and pipeline delivery. Additionally, there are projects in Novo's portfolio that involve "offsite" production of green hydrogen and truck delivery via tube trailers. We work with an extensive network of tier-1 Original Equipment Manufacturers ("OEMs"), some of which include high-performance hydrogen storage and tube trailer OEMs, to execute our projects. These OEMs commonly say that the optimal distance for trucking gaseous hydrogen is between 100–150 miles. Beyond this range, the cost and efficiency of delivery becomes less practical, and other methods like pipelines or liquid hydrogen transport might be considered. As such, Novo and other green hydrogen project developers will typically seek to deliver gaseous hydrogen within 100 miles before exploring whether the development of a production facility closer by is warranted. We suggest that the assumed range of truck delivery for gaseous hydrogen be capped at 150 miles.

Moreover, fuel pathway code ORHYD703T simplifies project constructs in a way that harms developers who will not liquify their product. The proposed assumptions unfairly penalize gaseous hydrogen producers by factoring associated emissions from liquefaction into the CI outlined in table 9. To account for projects that involve liquefaction, we suggest creating separate fuel pathway codes for gaseous and liquid hydrogen production methods.

We encourage DEQ to consider adopting CI assumptions for electrolytic hydrogen production that other states with low carbon fuel standards have adopted. For example, under the HYER fuel pathway code in California, compressed hydrogen produced from electrolysis using solar or wind generated electricity has a CI of 10.51 g CO_2e/MJ. Under the WAHYER fuel pathway code in Washington, compressed hydrogen produced from electrolysis using zero CI electricity from solar or wind-generated electricity has a CI of 6.49 g CO_2e /MJ. These CI values include upstream and some midstream emissions, such as those from compression and storage. However, emissions associated with hydrogen delivery either from truck or pipeline are calculated separately in their respective GREET models. This approach gives project developers the ability to more accurately assume a CI that they will likely discover when collecting operational data prior to submitting a design-based pathway for credit generation. We suggest accounting for transportation emissions separately given the variability in midstream strategies of green hydrogen projects.

We are also curious to understand how the delta between the indicative CI in table 9 and the actual CI from the OR-GREET model will be dealt with in terms of generating credits for the first 9 months of operations if the CI from table 9 is different than the CI from OR-GREET.

Overall, the way the rules are currently structured creates substantial uncertainty for a hydrogen producer's capability of generating CFP credits. While producers will ultimately use the tier 1 hydrogen calculator to determine a project's CI, it is essential to be able to communicate some degree of expected CFP value for financial and commercial conversations, which depends on the accuracy of the fuel pathway lookup table.

Proposed Revision 2/2: Establish OR-GREET model for hydrogen production facility at start of construction

340-272-0110 – Requirements for Validation of Fuel Pathway Applications Submitted under OAR Chapter 340, Division 253 and Verification of Annual Fuel Pathway Reports and CFP Quarterly Reports submitted under OAR Chapter 340, Division 253

We would like to clarify the cadence of updating the GREET model for the purpose of generating CFP credits. Since the generator of credits must submit CI verification reports annually, is the expectation that they need to comply with the latest OR-GREET model? This will create substantial uncertainty for a hydrogen producer's ability to generate CFP credits.

Novo proposes that the most recent OR-GREET model as of the beginning of construction for a hydrogen production facility be in effect for that facility for the lifetime of the asset. Credit generators should then have the right (but not the obligation) to elect to adopt future versions of the OR-GREET model for the remainder of the contract period. Eliminating this source of uncertainty will encourage investment in clean hydrogen production facilities. We note that beginning of construction is a more suitable milestone than placed in service since construction periods can span tax years, which could result in a new OR-GREET model taking effect during construction, posing a risk to committed capital prior to beginning of construction.

We thank you again for the opportunity to provide these comments, and we look forward to continued engagement with DEQ staff.

Sincerely,

Manka Khanna
Chief Commercial Officer
NovoHydrogen

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November 21, 2024

Mr. Bill Peters
Oregon Department of Environmental Quality
700 NE Multonomah Street, Suite 600
Portland, OR 97232

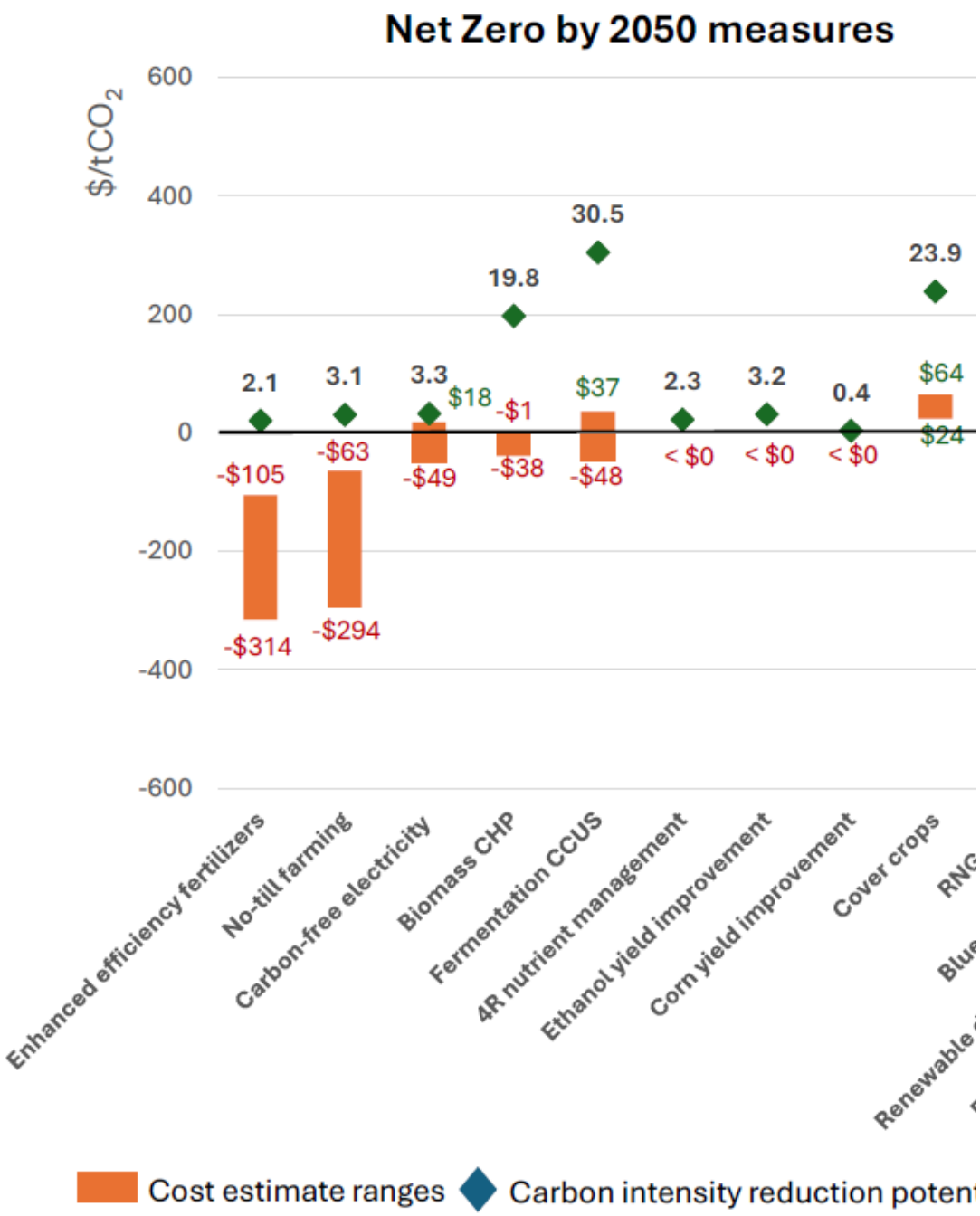
Submitted electronically via email to: CFP.2024@deq.oregon.gov.

RE: POET COMMENTS ON DEQ'S CLEAN FUEL PROGRAM 2024 RULEMAKING

Dear Mr. Peters:

POET appreciates the continued opportunity to participate in Oregon's Department of Environmental Quality's ("DEQ") Clean Fuel Program 2024 Rulemaking. POET supports DEQ's dedication to decarbonizing the transportation sector and is committed to delivering low-carbon biofuels that will help Oregon achieve its climate goals. POET has participated actively in DEQ's ongoing rulemaking, including through comments submitted this year on May 8, July 30, and August 28. POET reiterates its earlier messages and provides the following comments.

POET encourages DEQ to update its OR-GREET model to recognize and incentivize the carbon reductions available through the adoption of climate-smart agricultural practices. In previous comments, POET highlighted research demonstrating carbon-reducing opportunities for bioethanol production, including those associated with climate-smart agriculture. In September, former U.S. Department of Energy Secretary Ernest Moniz published a paper adding to this body of research and quantifying the carbon reductions the U.S. ethanol industry can achieve by leveraging climate-smart feedstocks. *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/ ("Moniz Study") (unabridged graph available on p. 7).



As summarized above, Dr. Moniz's study finds that climate-smart agricultural practices can drive dramatic reductions in the carbon intensity of ethanol. *Id.* at pp. 7, 36-40. Indeed, cover cropping practices alone can reduce the carbon intensity of corn ethanol by nearly 24 gCO_2e/MJ. *Id.*

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 OR-GREET model, DEQ can speed a transition to climate smart farms and lower carbon ethanol. By recognizing climate-smart farming and assigning well-established CI-reduction

values to the practices modeled in Argonne National Laboratory's R&D GREET model, *see* *https://greet.anl.gov*, DEQ can create a price signal that rewards farmers for lowering the carbon intensity of their operations.

The United States Treasury Department has already taken steps in this direction. Under the recently published Inflation Reduction Act § 40B SAF Guidance, the U.S. Treasury adopted a version of the GREET model that incentivizes sustainable aviation fuel ("SAF") production from corn ethanol, in part, by recognizing the carbon reductions associated with cover cropping, no-till farming, and enhanced efficiency fertilizers. *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. DEQ should adopt a similar approach, incentivizing the decarbonization of bioethanol as both a ground transportation fuel and a feedstock for SAF, and promoting sustainability on American farms.

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

CONCLUSION

POET appreciates the opportunity to comment and looks forward to continuing its work with DEQ to make the Clean Fuel Program a continued success for Oregon. If you have any questions, please contact me.

Sincerely,

Paul W. Townsend
Associate Regulatory Counsel

RPMG™ 1157 Valley Park Drive, Ste. 100
Shakopee, MN 55379

November 21, 2024

Bill Peters
Clean Fuels Program Lead
Oregon Department of Environmental Quality

Re: 2024 CFP Rulemaking Update Comments

Submitted electronically at cfp.2024@deq.oregon.gov

Dear Bill,

RPMG Inc. (RPMG) appreciates the opportunity to comment on the 2024 Oregon Clean Fuels Program regulatory update[1]. RPMG is a biofuel marketing company representing our owner and marketing partner ethanol facilities located throughout the Midwest. Our member facilities provide both ethanol and distillers corn oil (DCO) as essential inputs to Oregon's clean-fuels market in substantial quantities. Since the Program's inception, RPMG has supported Oregon's clean transportation fuel policy, and worked diligently with DEQ to improve the administration of the Program.

RPMG has four areas of comment that are detailed below. The first focuses on the newly drafted CCS language. The second area readdresses the issue of deregistering OFRS accounts. The third area revisits comments related to the OR-GREET update. And lastly, RPMG suggested edits for regulatory text in relation to commingled storage, production and transport.

Carbon Capture and Storage Provisions

DEQ has been a leader in the effort to certify and promote the use of CCS in the clean fuels space with the certification of the Red Trail Energy Tier 2 pathway and should be commended on this effort. With this rulemaking, it is important to continue that positive leadership for this necessary technology. RPMG previously submitted comments concerning CCS in the Rulemaking Advisory Committee process[2].

RPMG has reviewed the current proposed regulatory text and has the following suggested amendments to section 340-253-1060 (1), (2), and (4) for DEQ's review and evaluation to achieve clarity of DEQ intent and remove ambiguous terms.

> Section 340-253-1060 Reserve Account
>
> (1) DEQ shall establish a reserve account for credits that is under its control. ~~The purpose of this reserve account is to hold credits to ensure the environmental integrity of the Clean Fuels Program.~~

[1] https://www.oregon.gov/deq/rulemaking/Pages/cfp2024.aspx
[2] RPMG CFP Comment Letter dated August 28th 2024

~~This mechanism covers cases where the carbon reductions being awarded credits pose real risks of that reduction being reversed in the future, such as the risk that a carbon capture and sequestration operation is found to be ineffective (i.e., releases carbon).~~ DEQ will ~~permanently~~ hold credits indefinitely in the reserve account unless and until they are invalidated under section (4).

(2) Calculating contributions to the Reserve Account. For carbon capture and sequestration (CCS) projects, contributions to the reserve account will be calculated according to the DEQ methodology described in, "Determination of a CCS Project's Risk Rating for Determining its Contribution to the CFP Reserve Account," dated [insert date], adopted and incorporated herein by reference (copy available from DEQ upon request and at [insert webpage link]). In approving fuel pathways where the producer employs carbon capture and sequestration, DEQ will increase the certified CI score for the pathway by an amount necessary to contribute the required number of credits to the reserve account until the Reserve Account contains sufficient credits such that the CFP program would retain environmental integrity through the retirement of Reserve Account credits, after which additional credit deposits shall be stopped.

With respect to keeping a risk-based approach to reserve account requirements, RPMG agrees with, and supports the use of, the codification of the *annual* risk calculation, as explained in the Oregon Department of Environmental Quality Determination of a Carbon Capture and Sequestration Project's Risk Rating, Clean Fuels Program Reserve Account Contribution Determination, Version: September 2024[3]. Over the life of a CCS project, the 'banked' contribution to the reserve account may exceed the risk of an injection site 'release.' When that threshold is crossed, the program should no longer require additional reserve account contributions from the specific facility—as those contributions serve as a risk-mitigation and environmental integrity backstop. Perpetual contributions are not consistent with such a risk-based approach.

Section 340-253-1060(4) of the proposed CFP amendments relies on the term 'release' or 'released' from a CO2 sequestration project. RPMG recommends that credit invalidation be limited to atmospheric release. RPMG further suggests replacing "release" with a defined term such that a compliance entity can clearly understand the standard to which they are being held to. This would avoid ambiguity, as 'release' is not currently defined in the rule and can have various meanings in this context.

As an example, CARB's LCFS Protocol[4] used the following definition for 'leakage', and as can be seen, there are several distinct categories of a release ('leakage') outlined:

> *"CO2 leakage" means any movement of stored CO2 out of the intended sequestration zone and out of the storage complex.*

[3] ibid

[4] https://ww2.arb.ca.gov/sites/default/files/2020-03/CCS_Protocol_Under_LCFS_8-13-18_ada.pdf

"Atmospheric leakage" means the intended or unintended release of stored CO2 outside the storage complex to the surface and atmosphere.

"Subsurface leakage" means the vertical movement of stored CO2 out of the storage complex that does not reach the atmosphere."

OFRS Deregistering Trigger

The current CFP has inactivity provisions which require deregistering of an entity from their OFRS account. RPMG understands this provision is intended to prevent market manipulation from entities that are not active in the CFP. This deregistering has material and practical impacts as entities may have an active pathway but may not import fuel within that given calendar year. This especially causes issues for entities when they have credit balances in the system or pending verifications.

RPMG recommends updating section 340-253-0100 (14) to address this concern. The language suggested below is intended to provide DEQ with a path to exclude certain OFRS accounts from deactivation resulting from zero activity but where there are pending verification, or they are a related entity:

(14) Inactivity. If a registered party, that is not a related entity, does not have any fuel transactions reported in a calendar year, or pending activities within the current verification cycle, the party will:

(a) Be deregistered from the program, after notice from DEQ;

(b) Have its account in OFRS deactivated within 30 days of deregistering;

(c) Be able to re-register and have its account reactivated after having qualifying fuel transactions in Oregon; and

(d) Give up any credits remaining in its OFRS account to the Incremental Aggregator.

Tier 1 Fiber Ethanol Calculator:

RPMG understands the OR-GREET 'update' is the compilation of several embedded model updates, including OPGEE, EMFAC, and eGRID. In reviewing the proposed OR-GREET 4.0 Starch and Fiber Ethanol T1 Calculator, RPMG would like to address again from our previously submitted comment letter[5] to the DEQ to refine or provide further explanation of the following sections of the calculator:

1. A summary line should be added to the Site-Specific Input tab to aid in user reconciliation of aggregated monthly entries and Verifier reference in summarization detail.
2. It is recommended to remove "US Average" as an option to select under 3.2 Grid Electricity Region. Removing the "US Average" option will prevent pathway applicants from submitting

[5] RPMG CFP Comment Letter submitted July 31st 2024

incorrect data, and because the CA-GREET simplified calculator does not include this drop-down option it will further prevent any issues for applicants recertifying a CA pathway application in OR.

3. This iteration of the OR-GREET 4.0 T1 calculator should consider secondary and alternative energy directed to and allocated for co-product processing energy. For example, if an alternative energy source is consumed to operate only the drum dryer to bake Dried Distiller's Grain with Soluble, the entry field for co-products should be broadened to capture this alternative energy source emission factor for the relevant allocated proportion and not simply default to the assumed primary process energy emission factor as the only option for calculation.
4. The default value option for feedstock transport should be expanded to include more regions of biofuel production in addition to the present 9 state region identified. Identifying and producing records for harvest sites and collection sites is labor intensive. Without the option of a default value, certain applicants may choose simply not to participate due to this impediment. At the very least, the demonstration of feedstock transport mileage where a default value is not an option should be limited to a one-time Validation and not an on-going data collection exercise.

Additionally, RPMG strongly advises that the proposed regulations be revised to extend the use of indirect accounting mechanisms to all pathway types for process energy. The regulation provides preferential treatment to certain pathways but prohibits the indirect accounting mechanisms for renewable or low-CI process energy to reduce CI for all other low carbon fuel types.

Miscellaneous Rulemaking Language

In addition to the suggested rulemaking language noted in a previous section, RPMG also suggests language changes to section 340-253-0640(6)(a) to remove unclear terminology and simplify the language to account for all storage, production, and transport that occurs in Oregon:

> (a) For reporting liquid fuels that are being transferred in and out of a commingled storage ~~tank~~ or that are commingled in production or in transport, the reporting entity may mass balance transfers out of that commingled ~~tank or system~~ storage, production, or transportation by fuel pathway code based on the gallons input ~~into that tank or system in~~ for the current or prior quarter. Liquid gallons reported under a specific fuel pathway code may only be reported as transferred out of commingled storage, production, or transport if they were put into ~~a tank~~ storage, production, or transport two or more quarters prior if the reporting entity demonstrates to DEQ that the ~~tank~~ commingled storage, production, or transport has not fully turned over by the quarter it is reporting the volume being transferred out;

In Closing

RPMG looks forward to continuing these conversations and is available to clarify any suggestion provided in this letter. Please contact me with any questions or comments at (952) 465-3255 or jnowicki@rpmgllc.com

Thank you,

Jesse Nowicki
Regulatory and Compliance Specialist
RPMG Inc.

Nov. 8th, 2024

Mr. Bill Peters
Interim Clean Fuels Program Manager
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Bill.N.PETERS@deq.oregon.gov; CFP.2024@DEQ.oregon.gov
(503)863-6259

RE: Proposed Third-Party Verification

Dear Bill,

Smart Charging Technologies LLC (SCT) is an active player in the Oregon DEQ CFP program as a program administrator and credit aggregator for many companies using electricity to power fleets of forklifts, eTRU, eCHE, etc.

SCT comments are related to 3PV and electric forklift fleet registration.

- **SCT is closely following the 2024 rulemaking process, especially the part related to third-party verification (3PV). SCT understands the drivers for such a new rule, however, we have the following reservations:**
  - The cost of 3PV of ~$20k is a significant financial burden. Such a burden only leads to electric fleet operators and individual participants holding off any investment in the CFP program, and aggregators stopping their participation.
  - Recently imposed metering rules have significantly increased the financial burden on electric fleet operators and led many of them to opt out. 4Q23 eForklifts credits dropped by 91% compared to 4Q22. The resulting drop in incentives makes fossil fleet electrification a very unattractive investment. Adding a 3PV requirement would make the financial burden even worse.
  - The drop in credit prices also contributed significantly to a drop in incentives. The credit price of last September of $29 is a 70% drop MOM. The credit price of 3Q24 had a 53% drop QOQ.
  - In 2Q24, eForklifts credits ranked 4th among the four electricity categories, with 5% of total electricity credits, posing little risk compared to 50% of the other offroad EV charging. For such low risk, 3PV is a costly restrictive regulation that is hardly justifiable.
  - Electric equipment (e.g. forklifts, eTRU, eCHE, etc…) are charged by DC charging stations that are exempt from the measurement accuracy and load test tolerance requirements under the NIST Handbook[i] until January 1, 2028. Further, the measurement accuracy and load test tolerance requirements under the NIST Handbook do not apply to charging stations that do not involve customer charges or compensation. The absence of a measurement accuracy reference, for DC chargers, renders verifying their accuracy pointless.

    For all the above SCT urges postponing the proposed 3PV rule for electric offroad equipment, or at least increase the threshold to 10,000 credits. This would increase the chances of keeping/making the program a viable option for existing and future electric fleet operators, thus, help DEQ achieve the goals of the CFP program.

- Another area of concern is the additional requested info to register electric forklift fleets, namely, the proofs of ownership and operationality. The requested info seems redundant, becomes unnecessarily burdensome, and is not specified in the regulation.
    - Under the DEQ requirements for submitting meter registrations, it is required to submit proof of ownership and proof of operation for each FSE and the off-road equipment. The most recently updated guidance document versions from 2023 lack detail for how to meet these requirements, specifically regarding what is needed for off-road equipment.
    - In Chapter 6 of the FAQ document (version updated June 2023), there is guidance concerning acceptable proof of ownership and proof of operation on pages 35-36; however, the document language in those sections is specific to the 'FSE being registered' with no stated connection to the FSE details (i.e. off-road equipment). For example, in the section concerning acceptable proof of operation, the suggestion for inventory and maintenance spreadsheets specifies needing to include the "serial number of the FSE being registered," but not the serial numbers of the off-road equipment. All of the language in that section refers specifically to the FSE with no mention of acceptable supporting document standards for off-road equipment, which is an important distinction to make if that standard applies equally to the FSE and the off-road details.
    - The only document specific to the off-road equipment is the FSE detail sheet template; however, the description for Column N "Is the equipment currently operational at the facility?" only specifies that the information needs to be consistent with the supporting documents attached to the OFRS registration.
    - DEQ has rejected previous registration packages using a single signed affidavit to attest to the proof of ownership and proof of operation for off-road equipment even though utilizing a single affidavit for off-road equipment is consistent with the DEQ guidance. The FAQ document only specifies not being allowed to use a single affidavit to provide proof of ownership and operation of the FSE being registered.
    - As such, we have been required to submit photos of the serial plates of each individual forklift in addition to the chargers and meters at a facility to provide proof of operation for forklift equipment, which is cumbersome to collect given that facilities could have hundreds of forklifts in operation at a single time. These photos are also a redundancy to the fact that we are providing the metered charger data from the manufacturer with the registration and only operational forklifts would plug into the charger to generate the metered kWhs.

Respectfully,

maan altaher

Ma'n Altaher
Director, Regulatory & Program Management
Smart Charging Technologies LLC

[i] National Institute of Standards and Technology, "Specifications, Tolerances, and Other Technical Requirements for Weighing and Measuring Devices" (15 November 2023) ["NIST Handbook"].

1 Tesla Road, Austin TX 78725
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November 21, 2024

Submitted electronically via CFP.2024@deq.state.or.us

Bill Peters
Oregon Department of Environmental Quality (DEQ)
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Portland, OR 97232

RE: Tesla Comments on October 4, 2024 Notice of Proposed Rulemaking regarding the Clean Fuels Program

Dear Mr. Peters,

Tesla, Inc. (Tesla) appreciates this opportunity to submit comments on the Oregon Department of Environmental Quality (DEQ) Notice of Proposed Rulemaking filed on October 4, 2024. Tesla continues to support DEQ's leadership in implementing the Clean Fuels Program to achieve its goals of accelerating emissions reduction and improving public health. Including a few minor accounting and administrative modifications to recognize improvements in vehicle efficiency and simplify the process of third-party verification will support DEQ's broader goal of supporting clean fuels in Oregon. We respectfully submit the following recommendations for DEQ's consideration.

1. **The Energy Efficiency Ratio (EER) used for electric vehicles (EVs) should be updated to better reflect the difference in efficiency between EVs and internal combustion engine vehicles (ICEVs).**

One of the goals of this rulemaking is to update the OR-GREET model in alignment with recent updates to the CA-GREET model. The methodology to calculate EER was defined by the California Air Resources Board (CARB) in 2011, and subsequently, it utilizes vehicle efficiency data from over a decade ago. EV technology has improved significantly over the last 13 years, so it is appropriate and within scope of this rulemaking to utilize the existing methodology for calculating EER and re-perform the calculation using efficiency data from vehicles with model year 2024.

Simply updating the calculation using today's vehicle efficiency data would more accurately reflect the relative efficiency performance between EVs and ICEVs. Compared to 2011, when most EVs on the market were in the compact/sedan class, there are now ample SUV and light-duty pick-up truck sized EV options available that warrant comparison to their ICEV counterparts within the EER. Additionally, because direct comparisons can be made for vehicles of the same model (rather than vehicles that are comparably sized), an update to the EER will lead to more precise comparisons. For example, a side-by-side review of the 2024 Chevrolet Blazer AWD (combined 21 MPG) and 2024 Chevrolet Blazer EV AWD (combined 96 MPGe) indicates that the EV model is 4.6 times as efficient as the ICEV model.[1]

These changes in vehicle technology suggest that the EER of 3.2 used in OR-GREET undervalues the difference in average efficiencies between modern EVs and ICEVs. It is worth noting that Oregon has the lowest defined EER compared to several jurisdictions that have defined this metric,

[1] Side-by-side comparison data is available from the Alternative Fuels Data Center https://www.fueleconomy.gov/feg/Find.do?action=sbs&id=46879&id=47445 (accessed November 18, 2024)

including California (3.4)[2], Canada (4.1)[3], the Netherlands (4.0)[4], and the European Union (4.0)[5]. Tesla respectfully requests that DEQ include an update to the EER in the final rulemaking documents.

2. **It should be clear that in-person site visits conducted by third party verifiers may be performed at central records-keeping locations, rather than at each individual charging station location.**

Consistent with Tesla's comments submitted in response to the January 30, 2024, rulemaking workshop, we continue to be concerned that third party verification of credits generated via the EV charging pathway is unnecessary and duplicative of other state agency's responsibilities to ensure chargers accurately report the energy they dispense to drivers. However, should this rulemaking proceed to apply verification requirements to EV charging, DEQ should take care to reduce the cost and time burden of physical site visits as applied to EV charging stations.

Specifically, DEQ should clarify that in-person site visits of every EV charging station location are not necessary. Unlike liquid and gaseous fuels, which have a relatively small number of centralized distribution facilities, electricity does not become transportation fuel until it is dispensed at an EV charging station. Meaning, the requirement for physical site visits of charging station locations could be interpreted to require a verifier to make stops at dozens of sites across the state annually. This is neither practical nor scalable as more charging infrastructure is deployed over time.

In-person site visits by third party verifiers should be focused to visiting a single central records-keeping location (such as company headquarters) to reduce the cost and time burden of verification. It is our understanding that per CARB's recent modifications to the Low Carbon Fuel Standard to include third-party verification requirements to EV charging pathways, CARB Staff does not expect verifiers to physically visit each individual charger location. We respectfully request that DEQ set the same expectation for Oregon's Clean Fuel Program and not require individual site visits.

Tesla appreciates the opportunity to provide comments Please do not hesitate to contact us with questions.

Sincerely,

Mal Skowron
Sr. Policy Analyst
Tesla, Inc.

[2] https://ww2.arb.ca.gov/sites/default/files/barcu/regact/2024/lcfs2024/lcfs_fro_atta-1.pdf at page 94
[3] Page 86 of the Specifications for Fuel LCA Model CI Calculations, https://datadonnees.az.ec.gc.ca/data/regulatee/climateoutreach/carbon-intensity-calculations-for-the-clean-fuelregulations/en/Resources/?lang=en
[4] https://www.rijksoverheid.nl/documenten/kamerstukken/2022/12/22/beantwoording-kamervragen-over-wijziging-van-de-stimuleringsfactoren-in-de-regeling-energie-vervoer
[5] https://eur-lex.europa.eu/legal-content/EN/TXT/?uri=CELEX%3A32023L2413&qid=1699364355105

WSPA
Antonio Machado
Senior Manager, Northwest Regulatory Affairs and Fuels

November 21, 2024

Sent via e-mail to: CFP.2024@DEQ.Oregon.gov.

Mr. Bill Peters
Oregon Clean Fuels Program
Oregon Department of Environmental Quality
700 NE Multnomah Street
Portland, OR 97232-4100

Re: WSPA Comments Regarding OAR Chapter 340, Divisions 253 and 272

Dear Bill:

Western States Petroleum Association (WSPA) appreciates the opportunity to provide formal comments regarding the Oregon Department of Environmental Quality (DEQ) proposed permanent rule and rule amendments to Chapter 340, Divisions 253 and 272 of the Oregon Administrative Rules (OAR). WSPA is a non-profit trade association representing companies that create the energy we need today and for the future of transportation. This includes renewable diesel, biofuels, innovative solar and sustainable energy projects, and carbon capture and sequestration. WSPA member companies also produce petroleum products, which remain a vital source of energy in Oregon and beyond.

§ 340-253-0040 (143) - Used Cooking Oil. WSPA requests that DEQ correct the following regulatory language: "*UCO **includes: does not include** feedstock that contains any material other than fats, oils, or greases that were previously used for cooking or frying operations."* by striking the word *"includes." W*e also ask that the proposed regulatory language should further define what would be classified as "*processed UCO."* The mere skimming of solids in UCO for instance should not result in *"processed UCO*."

§ 340-253-0040(147) - Unspecified Source of Electricity. WSPA requests that DEQ clarify that the 0.428 metric ton per MWh factor is an emission factor of 0.428 metric ton of CO2e/MWh. In addition, we request that DEQ confirm if this emission factor corresponds to the emission for electricity produced from natural gas or if DEQ uses a different emission factor for electricity produced from natural gas.

§ 340-253-0040 - Proposed Definition for "Conventional/Conventionally". WSPA recommends that DEQ include definition for the terms "conventional" and alternatively "conventionally" as these terms are used in multiple sections of the regulation in different context: to qualify renewable feedstocks, petroleum jet fuel, refinery, alternative fuels, and fuel/vehicle technology.

§ 340-253-0400(6)(a)(D) - Specified source feedstocks. WSPA requests that DEQ clarify that specified source feedstocks referred to in § 340-253-0400(6)(a)(D) are those which are designated as such in the pathway's operating conditions issued by DEQ in accordance with OAR 340-253-0450(10)(d).

§ 340-253-0400(6)(f) - Requirements for Feedstock Attestation Letter. WSPA urges DEQ to avoid requiring additional attestation requirements, as specified source feedstocks are already subject to special data tracking and third-party verification requirements. It is burdensome to require especially for every supply chain entity, as the fuel producer must already maintain chain of custody information under OAR 340-253-0400(6)(d), which is verified by a third-party verifier. Therefore,

WSPA requests that OAR 340-253-0400(6)(f) should be stricken from the regulatory language.

If DEQ decides to include additional attestation requirements for specified source feedstock in the proposed regulatory language and retain § 340-253-0400(6)(f), WSPA has additional comments on following subsections of § 340-253-0400(6)(f):

> *"(A) The specified source feedstocks have not undergone additional processing, such as drying or cleanup, except as explicitly included by the fuel producer in their lifecycle analysis and pathway carbon intensity."*
>
> The provisions in subsection (A) are too stringent. Water content should be left to a minimum before transporting feedstock to minimize GHG emissions associated with transportation, as it is not effective to transport feedstocks with high water content. WSPA requests that the language of this section be modified to allow reasonable drying and cleanup of feedstocks before they are transported to a renewable fuel production facility and/or clarify that these processes are included in the default emission factors for these feedstocks.
>
> *"(B)(ii) Deliveries of the specified source feedstock(s) consist entirely of what is documented on the feedstock transfer documents and are not mixed or altered with any materials that do not meet the definition of that specified source feedstock."*
>
> Specified source feedstock should be allowed to be transported along and/or mixed with other renewable feedstocks, such as soybean oil or canola oil, as long as the quantities of each feedstock are appropriately documented on the feedstock transfer documents. DEQ should update the language of this subsection to allow commingled feedstocks by striking *"mixed"* from the above section.
>
> *"(B)(iii) The specified source feedstocks were not intentionally produced, modified, or contaminated to meet the definition."*
>
> WSPA requests that DEQ clarify the intent of this language, as some specified source feedstocks may be produced as co-product of other operations. The current wording of subsection (B)(iii) could be interpreted to mean that no specified source feedstock would ever qualify under the CFP.
>
> *"(C)(v) Include the following attestation that has been signed and dated:"*
>
> WSPA believes that the language in the attestation should be modified to allow for drying and cleanup of the feedstock and transportation with other renewable feedstocks, including soybean oil and canola oil.

§ 340-253-0400(9) - Transition from OR-GREET 3.0 to OR-GREET 4.0. WSPA requests that DEQ accept the OR-GREET 3.0 or CA-GREET 3.0 models through the end of 2026 to allow time to transition fuel pathways under OR-GREET 4.0 or CA-GREET 4.0 models. At a minimum, we recommend extending the deadline for CA-GREET 3.0 recertification applications to April 30, 2026 since March 31, 2026 is the deadline to submit annual fuel pathway reports (AFPR).

§ 340-253-0450 - Obtaining a Carbon Intensity. WSPA recommends that DEQ include in this section a requirement that DEQ completes the review fuel pathway applications within 30 days of the application date to guarantee a timely review of pending fuel pathway applications which will avoid backlogs of fuel pathway applications.

§ 340-253-0450(17)(a) - Transition to OR-GREET 4.0 or CA-GREET 4.0. WSPA requests that DEQ modify the regulatory language to indicate that OR-GREET 4.0 or CA-GREET 4.0 will be required starting with the annual fuel pathway report due in 2026, which will cover both years 2024 and 2025. Further, this section should be revised to specify that OR-GREET 3.0 or CA-GREET 3.0 may no longer be used for reporting as of January 1, 2027 (rather than January 1, 2026).

§ 340-253-0650(4)(b) - Annual Compliance Reports. WSPA believes that this subsection should be modified to allow corrections to be resubmitted within 15 days rather than 2 business days, to allow time for regulated entities to review the changes, make sure staff who have access to OFRS are available and submit the appropriate corrections instead of rushing through and possibly having to make more corrections subsequently.

§ 340-253-8010 - Table 9 Temporary FPC. In this table, DEQ proposes to set temporary CI values for alternative jet fuel and renewable naphtha at significantly higher values than renewable diesel or biodiesel temporary CI scores. WSPA does not believe that this proposal is justified as, renewable naphtha, alternative jet fuel and renewable diesel have the same CI scores when co-produced at a given facility. WSPA requests that DEQ sets the temporary CI of renewable naphtha and alternative jet fuel to the temporary CI values of renewable diesel (at 45 and 65 gCO2e/MJ depending on feedstocks).

In addition, distiller's corn oil is a specified source feedstock which has a lower emission factor than animal fat in OR-GREET 4.0. Distiller's corn oil should be included in the fats/oil/grease temporary pathways for alternative jet fuel and renewable naphtha, like it is for renewable diesel.

§ 340-253-8010 - Table 10 Indirect Land Use Change (ILUC) Values. WSPA requests that DEQ maintain the ILUC values as global and not limit the ILUC to specific regions of the world. If DEQ wants to implement regional ILUC values, DEQ should undertake a rulemaking to review the ILUC values and reset the ILUC values based on recent research in this field.

§ 340-272-0110 – Requirements for Validation of Fuel Pathway Applications and Verification of Annual Fuel Pathway Reports and CFP Quarterly Reports. WSPA believes that site visits should not be required for verification of the CFP quarterly reports. Remote meetings with computer screen sharing, using systems such as Webex, Microsoft Teams, Zoom, and similar systems are perfectly adequate to share information and support the discussion between regulated entities and third-party verifiers. There are no additional benefits to requiring the third-party verifiers to travel to an office building to look at a screen in a conference room. Furthermore, allowing remote meetings will save GHG emissions by reducing travel emissions, which is the goal of the CFP.

WSPA appreciates the opportunity to provide comments on this important rulemaking. If you have any questions regarding this submittal, please contact me at (360) 594-1415 or via email at amachado@wspa.org.

Sincerely,