



State of Oregon Department of Environmental Quality

Comments

Clean Fuels Program 2024, Advisory Committee Meeting 1

This document is a compilation of written comments received in response to the Clean Fuels Program 2024 Rulemaking Advisory Committee meeting held April 17, 2024.

Comments

3Degrees Group, Inc.....	2
Beta Analytic.....	5
Christianson PLLP.....	15
Clean Fuels Alliance America.....	19
Growth Energy.....	21
National Oilseed Processors Association.....	24
POET.....	28
Smart Charging Technologies LLC.....	30
Western States Petroleum Association.....	32

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May 8, 2024

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

RE: 3Degrees Group, Inc.'s Comments on DEQ April 2024 Rulemaking Advisory Committee #1 Meeting

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 Rulemaking Advisory Committee (“RAC”) Meeting #1.

—

3Degrees recommends that third-party verification requirements account for the unique feasibility considerations of electricity fueling activity.

In general, we recognize the benefits and welcome the addition of third-party verification of electricity charging activity. With the proposed introduction of new verification requirements for electricity crediting types, we think it is important that DEQ does not take a one-size-fits-all approach to site visit obligations. Furthermore, site visits should not be required for metered residential charging due to practical and privacy implications for homeowners that likely outweigh assurances gained by a visual inspection of the meter.

The updated rule should be clear that any verification provider’s sampling plan for electric fueling supply equipment (FSE) of any type does not need to require site visits for every charging station. It would not be reasonable to expect individual site visits for the thousands of disparate sites containing FSE, particularly for designated aggregator entities. In the case of designated reporting entities or entities with more than a certain number of registered FSE, verifiers need only visit the designated reporting entity’s central location for recordkeeping plus a subset of facilities based on a carefully-crafted sampling plan. As was discussed during the RAC meeting, some form of guidance for third-party verifiers – in addition to straightforward language in the regulation – would help ensure consistent treatment of electricity applications.

As experienced and expert participants in the CFP, aggregators should be eligible for less intensive verification.

Less intensive verification under OAR chapter 340, division 272 is an important feature of the CFP, 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.

If an aggregator has demonstrated that they have the right processes to ensure compliance with one set of clients, it's reasonable to assume they will apply the same level of precision for new ones. In order to address new clients within an aggregators' purview, 3Degrees recommends that DEQ encourage verifiers to target a mix of new clients' FSE along with previously registered FSE when implementing a sampling plan. This would ensure continued program integrity in a way that is proportional to the work done by aggregators and feasible for verifiers.

Further, 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. A physical site visit to an EV charging station only provides a narrow slice of benefit to the verifier's limited assurance of a positive verification outcome. A site visit, at most, enables the verifier to conclude the FSE is real and verify the serial number on the equipment. However, these outcomes can also be enabled by aerial satellite imagery (i.e. Google Maps) and other records available for desk review. It would be financially and logistically prohibitive to expect a verifier to visit every parking lot with a charging station in any one year, so we urge DEQ to include an exception within OAR 340-272-0100(4)(b).

As DEQ continues to finalize GREET4.0, we recommend that the regulation align with the latest pathway processes available.

With respect to GREET4.0, we suggest that DEQ incorporate by reference the Tier 1 Dairy & Swine Manure Biomethane to Electricity pathway calculator into the regulation. Currently, it is not referenced in the CFP regulation, making it unclear whether it is acceptable to use this in place of the Tier 2 application. Including a reference to the calculator would better ensure that all participants are aware of its existence and applicability in the program.

Though not a topic discussed at this RAC meeting, 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 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.

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

Sincerely,

/s/ Helen Kemp

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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	1
What is Biogenic Testing (Carbon-14)?	4
ASTM D6866 Method B - The Most Reliable Method	4
About Beta Analytic	5
ISO/IEC 17025:2017 laboratory	6
Required tracer-free facility for Carbon-14	7
References	7

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.

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.



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Routine testing requirements are a critical part of the third party verification process. As Oregon aligns its pathways with California’s LCFS it is critical that the CFP maintain its current testing requirements for MSW. California requires routine testing for co-processed fuels, but only recommends testing for fuels produced from MSW.¹ Given the heterogeneous nature of MSW, it is critical that routine testing requirements be maintained to make sure the program only rewards the renewable portion of those fuels.

Oregon’s decision to require testing for these fuels is in line with the requirements of the US Renewable Fuel Standard (RFS), Canada’s Clean Fuel Regulations (CFR) and other leading programs.² As DEQ seeks to align Oregon’s pathways with California’s, it is important to maintain testing requirements for fuels produced from MSW and to encourage CARB to improve their policy from a recommendation to a requirement.

The discussion of carbon capture and storage (CCS) is an important area of the proposed updates where new testing requirements would be the best practice for the program. We recommend reviewing the EPA’s recently passed [standards for fossil-fired power plants](#), which included landmark requirements for CCS as the best system of emissions reduction (BSER) for fossil-fired plants which plan on continuing to operate long term.³ Under this BSER any biogenic content involved in CCS at these plants will be required to submit quarterly biogenic testing as evidence under the EPA’s Greenhouse Gas Reporting Program (GHGRP). We recommend that DEQ incorporate the same requirements for any biogenic content involved in CCS which seeks recognition under Oregon’s CFP.

We also recommend that the program include CCS options beyond geological storage using biogenic testing. We specifically recommend reviewing the EPA’s proposed [Label Program for Low Embodied Carbon Construction Materials](#) as an example of innovative approaches to long term embodied sequestration, as well as agricultural sequestration through products like biochar.⁴ Requiring routine biogenic testing for facilities using CCS can enable the program to authorize and verify these long term and circular pathways for biogenic carbon.

As Oregon’s CFP phases out the crediting of fossil natural gas over the next several years, we recommend reviewing the [Biogas Regulatory Reform Rule \(BRRR\)](#) which the EPA included in the RFS Set Rule.⁵ This update establishes routine testing requirements for biogas and RNG in line with the RFS and CFP

¹2020. “Reporting Co-Processing and Renewable Gasoline Emissions Under MRR.” *California Air Resources Board*

² 2010. “40 CFR Part 80 Subpart M– Renewable Fuel Standard.” *National Archives Code of Federal Regulations*

2022. “Clean Fuel Regulations: Quantification Method for Co-Processing in Refineries.” *Environment and Climate Change Canada*

³ 2024. “40 CFR Part 60- New Source Performance Standards for Greenhouse Gas Emissions from New, Modified, and Reconstructed Fossil Fuel-Fired Electric Generating Units” *Environmental Protection Agency*

⁴ 2024. “Draft Approach for Implementation of the EPA Label Program for Low Embodied Carbon Construction Materials.” *EPA*

⁵ 2023. “40 CFR Parts 80 and 1090– Renewable Fuel Standard (RFS) Program: Standards for 2023–2025 and Other Changes.” *EPA*



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requirements for co-processing and MSW. The comprehensive testing requirements included in the BRRR are the most effective way to promote the renewable portion of these fuels without encouraging unsustainable practices or leaving the program susceptible to greenwashing and fraud.

We recommend that DEQ also consider the BRRR Set Rule update when updating the program's requirements for feedstock attestation as well. 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.⁶ 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.

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 their fossil counterparts and won't necessarily produce the same quantity of outputs.⁷ 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.⁸ 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."⁹ 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.¹⁰

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

⁶ 2023. "40 CFR Parts 80 and 1090– Renewable Fuel Standard (RFS) Program: Standards for 2023–2025 and Other Changes." EPA

⁷ 2006. "Determining the modern carbon content of biobased products using radiocarbon analysis." *Bioresource Technology*, 97(16), 2084-2090.

⁸ 2023. "ISCC Press Release July 27, 2023." *International Sustainability & Carbon Certification*

⁹ 2023. "ISCC Press Release July 27, 2023." *International Sustainability & Carbon Certification*

¹⁰ 2023. "Renewable energy- method for calculating the share of renewables in the case of co-processing." *European Commission*



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.¹¹ There are also many international standards based on the specific use of direct Carbon-14 testing, such as ISO 13833, which is an international standard developed for measuring the biogenic carbon content of stationary sources emissions.¹²

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

¹¹ 2021. "Standard Test Methods for Determining the Biobased Content of Solid, Liquid, and Gaseous Samples Using Radiocarbon Analysis." *ASTM International (D6866-21)*

¹² 2013. "ISO 13833:2013 Stationary source emissions: Determination of the ratio of biomass (biogenic) and fossil-derived carbon dioxide." *International Organization for Standardization*



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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 remeasured 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 Content to account for determinate and indeterminate factors.¹³

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 ¹⁴C, Method C uses Liquid Scintillation Counting (LSC). In Method B, the AMS Instrument directly measures the ¹⁴C isotopes. However, in Method C, scintillation molecules indirectly absorb the beta molecules that release with the decay of ¹⁴C and convert the energy into photons which are measured proportionally to the amount of ¹⁴C in the sample. Since Method B directly measures the ¹⁴C isotopes and Method C measures them indirectly, Method B is significantly more precise and should be prioritized in regulations.¹⁴ 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

¹³2021. 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.

¹⁴2022. “Testing the methods for determination of radiocarbon content in liquid fuels in the Gliwice Radiocarbon and Mass Spectrometry Laboratory.” *Radiocarbon*



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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)
- 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)

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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.

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.

References

2006. "Determining the modern carbon content of biobased products using radiocarbon analysis." *Bioresource Technology*, 97(16), 2084-2090.

2010. "40 CFR Part 80 Subpart M– Renewable Fuel Standard." *National Archives Code of Federal Regulations* <https://www.ecfr.gov/current/title-40/chapter-I/subchapter-C/part-80/subpart-M>

2013. "ISO 13833:2013 Stationary source emissions: Determination of the ratio of biomass (biogenic) and fossil-derived carbon dioxide." *International Organization for Standardization*

2020. "Reporting Co-Processing and Renewable Gasoline Emissions Under MRR." *California Air Resources Board* https://ww2.arb.ca.gov/sites/default/files/2020-09/MRR_coprocessing-slides_Sept_2020.pdf

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.

2022. "Clean Fuel Regulations: Quantification Method for Co-Processing in Refineries." *Environment and Climate Change Canada* <https://www.canada.ca/en/environment-climate-change/services/managing-pollution/energy-production/fuel-regulations/clean-fuel-regulations/compliance/quantification-methodco-processing-refineries.html>

2022. "Testing the methods for determination of radiocarbon content in liquid fuels in the Gliwice Radiocarbon and Mass Spectrometry Laboratory." *Radiocarbon*, 64(6), pp.1-10. DOI:10.1017/RDC.2022.35

2023. "Renewable energy- method for calculating the share of renewables in the case of co-processing." *European Commission* https://ec.europa.eu/info/law/better-regulation/have-your-say/initiatives/12711-Renewable-energy-method-for-calculating-the-share-of-renewables-in-the-case-of-co-processing_en



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2023. "40 CFR Parts 80 and 1090– Renewable Fuel Standard (RFS) Program: Standards for 2023–2025 and Other Changes." *Environmental Protection Agency*
<https://www.govinfo.gov/content/pkg/FR-2023-07-12/pdf/2023-13462.pdf>

2023. "Oregon Clean Fuels Program." *Oregon Department of Environmental Quality*
<https://secure.sos.state.or.us/oard/viewSingleRule.action?ruleVrsnRsn=293938>

2023. "RSB Standard for Advanced Fuels." *Roundtable on Sustainable Biomaterials (RSB)*
https://rsb.org/wp-content/uploads/2024/03/RSB-STD-01-010-RSB-Standard-for-advanced-fuels_v2.6-1.pdf

2023. "ISCC Press Release July 27, 2023." *International Sustainability & Carbon Certification*
<https://www.iscc-system.org/news/press-release-27-july-2023/>

2024. "40 CFR Part 60- New Source Performance Standards for Greenhouse Gas Emissions from New, Modified, and Reconstructed Fossil Fuel-Fired Electric Generating Units" *Environmental Protection Agency*
https://www.epa.gov/system/files/documents/2024-04/eo-12866_111egu_2060-av09_nfrm_20240424_final.pdf

2024. "Draft Approach for Implementation of the EPA Label Program for Low Embodied Carbon Construction Materials." *Environmental Protection Agency*
<https://www.federalregister.gov/documents/2024/02/15/2024-03083/draft-approach-for-implementation-of-the-e-pa-label-program-for-low-embodied-carbon-construction>

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 ^{14}C 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 ^{14}C 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 ^{14}C . Accepted requirements are:

- (1) disclosure to clients that the laboratory working with their products and materials also works with artificial ^{14}C
- (2) chemical laboratories in separate buildings for the handling of artificial ^{14}C 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

1. Memory effects in an AMS system: Catastrophe and Recovery. J. S. Vogel, J.R. Southon, D.E. Nelson. Radiocarbon, Vol 32, No. 1, 1990, p. 81-83 doi:10.2458/azu_js_rc.32.1252 (Open Access)

"... 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 ^{14}C should not be allowed in a radiocarbon laboratory." "Despite vigorous recent efforts to clean up the room, the "blanks" we measured had ^{14}C 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 ^{14}C 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 ^{14}C 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 Analytic

www.radiocarbon.com

May 3, 2024

Mr. Bill Peters
Oregon Department of Environmental Quality
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RE: RAC member comments to OR-DEQ's 2024 Rulemaking

Dear Mr. Peters,

Christianson PLLP is a full-service public accounting firm located in Willmar, Minnesota and has worked with renewable fuel producers for over 35 years, providing technical assistance and professional services that promote industry compliance.

We are honored to be the chosen and trusted fuel pathway third-party validation and verification body for several biofuel producers across our nation that participate in the various clean transportation programs offered in the U.S.

We are writing to share our perspective from our years of experience as an accredited validation and verification body by the California Air Resources Board (CARB) Low Carbon Fuel Standard (LCFS) and Mandatory Greenhouse Gas Reporting Regulation (MRR), as well as the Oregon Department of Environmental Quality (DEQ) Clean Fuels Program (CFP).

We aim to focus our comments below on the following topics:

- Partner rotation within verification bodies;
- Pathway Validation Process Timetable, and;
- Sustainability Requirements

Partner Rotation

The concept of adding rotation requirements of verification bodies for either a partner rotation or firm rotation has been proposed in U.S. low carbon fuel programs. A partner rotation allows the verification body team to retain its client by switching out the lead verifier. This allows for the retention of the team's knowledge built from extensive time spent understanding the regulated party processes, contributing to an efficient and effective audit.

Once an audit team becomes familiar with the various aspects of the client and their documentation, it then allows an auditor to find problem areas or unusual activity more easily for the client.

The audit quality and efficiency improve as the auditor becomes more familiar with the client and their processes. Upon resolution of major items in the first years of a new client audit, the auditor can redirect their time and energy towards other areas, thereby uncovering additional issues that might have been overlooked in the initial year of review.

Currently, public companies in the U.S. are required to rotate only the lead engagement partner for financial audits every five years. There is no requirement for a whole firm rotation. In addition, the American Institute of Certified Public Accountants (AICPA) stands against an audit firm rotation, stating that a mandatory firm rotation comes at a great expense to audit quality.

A firm rotation rather than a partner rotation is highly disruptive and costly to producers, especially when there is a small pool of accredited verification bodies available. This problem is further exacerbated with lookback periods in place in other states, making it more difficult for producers to find a quality verification body who has also not been utilized in previous verifications or in a consulting capacity.

Our company requests that if there is a desire to implement rotation requirements, that it be a partner rotation rather than a firm rotation, meaning the person leading the verification organization's services for a client be rotated every six to ten years and not the entire verification firm.

Additionally, if the desire remained for a full firm rotation, we strongly advocate for an exception for verification bodies that are also licensed CPA firms. Of the 30 CARB approved LCFS verification bodies, there are only four licensed CPA firms with those same 4 firms registered as verification bodies under the Oregon Clean Fuels Program

An approved verification body, that is also a licensed CPA firm, exceeds the standards in place for verification bodies and is already subject to additional oversight on the entity's quality control system in accounting and auditing practices through the required AICPA peer review process.

A licensed CPA firm differs from other consulting agencies by adhering to more rigorous standards and oversight at a state and national level. If a verification body were to violate a Lead Verifier rotation requirement, it would put the firm license at risk. The firm license is required for all services provided by the firm, not just the LCFS verification services, thereby ensuring adherence to requirements.

We understand many of the verification bodies are not firms licensed under a separate set of professional standards. If DEQ feels that firm rotation is necessary overall, we would like to suggest a partner rotation, rather than a firm rotation, for professionally licensed firms, such as CPA firms, that are subject to other professional standards and oversight.

Pathway Validation Process Timeline

As DEQ considers updates to its CFP to align with California's LCFS, Christianson advocates for the following adjustment addressing a timeline for the pathway validation process.

Proposed amendments to the current LCFS regulations in California aim to refine the validation process for submitted applications. Currently, validations must occur within six months of the submission date. However, the proposed amendment initiates the timeline from the moment the verification body receives the application from CARB, following the staff's application review.

This revised timeline allows the verification body a full six months to meticulously verify data and complete the validation, instead of requiring both staff review and third-party validation within the initial six-month period.

Additionally, the amendments introduce new requirements regarding the timeliness of data within the application, stipulating that data must be current within one quarter of the submission date.

These changes to the validation process ensure a process with a defined timeline, the most current CI calculations in establishing new pathways, and allows verification bodies and producers adequate time to complete the application. We believe implementing similar timelines will be advantageous for new pathways entering the program.

Sustainability Requirements

The concept of sustainability requirements for biofuels has recently emerged in California as a potential safeguard against land conversion to farmland. A similar initiative was introduced and implemented into Canada's Clean Fuel Regulations (CFR) program, which imposes stringent criteria for land use changes.

It is important to highlight that U.S. feedstock is exempted from Canada's Crops-Excluded land criteria based on the U.S. Environmental Protection Agency's (EPA) aggregate compliance approach, citing that "the U.S. Code of Federal Regulations provides a sufficient level of environmental protection with respect to the land on which the feedstock is harvested."

Furthermore, the USDA released its 2022 Census of Agriculture in February, revealing a 14 million-acre (4%) decrease in cropland across the U.S. since 2017. This decline reflects a longstanding trend in the U.S., rendering the argument of additional safeguards for cropland irrelevant to U.S. crop producers.

Considering the limited availability of accredited third-party verification bodies and the fact that renewable fuel producers already must qualify through the U.S. EPA's Renewable Fuel Standard aggregate compliance, imposing additional sustainability guardrails on renewable fuels produced in the U.S. is unwarranted.

We at Christianson PLLP thank you for your time and consideration and are grateful to be involved in the rulemaking process. Please contact us with any questions.

Sincerely,



Kari Buttenhoff, CPA
Partner, Christianson PLLP

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



Clean Fuels
ALLIANCE AMERICA

May 3, 2024

Re: Comments on the CFP 2024 Rulemaking Advisory Committee Meeting #1

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

Bill Peters, Interim Clean Fuels Program Lead

The Clean Fuels Alliance America (Clean Fuels) appreciates the opportunity to provide written comments on the CFP 2024 RAC Meeting #1. 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 RAC #1 meeting, Clean Fuels has the following comments:

Updates to OR-GREET - We appreciate the work that Oregon DEQ is doing 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.

In order to fully understand the changes that are occurring, Clean Fuels requests that Oregon DEQ:

- schedule a meeting when a draft OR-GREET 4.0 is available in order to review the changes that are being proposed.
- provide a document that details the changes between OR-GREET 3.0 and OR-GREET 4.0.

Sustainability Certifications - Clean Fuels has been actively participating in CARB's rulemaking process over the last 3 years and were deeply disappointed that the additional sustainability guardrail provisions were not properly workshoped and socialized with key industry stakeholders prior to their inclusion in the Initial Statement of Reason. We believe that CARB has not properly laid out the science nor reasoning behind these additional requirements and Clean Fuels will be requesting that these not be included in the current rulemaking unless and until there is a sufficient attempt to involve affected parties in those discussions. Because that matter has not been settled in California yet, Clean Fuels requests that Oregon DEQ wait until there is agreement amongst the parties involved prior to considering how or if the Clean Fuels Program should be modified.

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Validation - Clean Fuels supports Oregon DEQ's argument that validation should be required for original Tier 1 and Tier 2 pathway applications submitted to Oregon DEQ. We also appreciate Oregon DEQ's willingness to accept validation statements completed for California pathway applications to meet the proposed validation requirements. Our primary concern is with respect to the timing of when the validation statement is required within the application submission and approval process and hope that you will work with pathway holders on those details.

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,

A handwritten signature in black ink that reads "Cory-Ann Wind". The signature is written in a cursive, flowing style.

Director of State Regulatory Affairs
Clean Fuels Alliance America



May 8, 2024

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

Mr. Peters,

Thank you for the opportunity to provide comments on the Department of Environmental Quality's (DEQ) 2024 Clean Fuels Program (CFP) rulemaking. Growth Energy is the world's largest association of biofuel producers representing 97 U.S. plants that produce 9.5 billion gallons of cleaner-burning, renewable fuel annually; 119 businesses associated with the production process; and tens of thousands of biofuel supporters across the country. Our ultimate objective is to work together to bring better and more affordable choices at the fuel pump, improve air quality, and protect the environment for future generations. We remain committed to helping our country diversify our energy portfolio in order to grow more green energy jobs, decarbonize our nation's energy mix, sustain family farms, and drive down the costs of transportation fuels for consumers.

Growth Energy has previously submitted extensive comments demonstrating the vital role low carbon biofuels and higher biofuel blends can play in meeting Oregon's ambitious climate goals. We appreciate the opportunity to provide further comments on the proposed rulemaking and how expanded E15 use can help the state achieve its objectives.

Consideration of Sustainability Certification

In response to the April 17th CFP's Rulemaking Advisory Committee meeting, we request the Department not consider the proposal on sustainability certification for crop-based biofuels currently under consideration by the California Air Resources Board (CARB). We have a variety of concerns with the proposal, which we have detailed in comments to CARB.

The proposal's sustainability certification for crop-based fuels cites concerns regarding land use change (LUC) factors that are unfounded relative to corn starch bioethanol. In fact, the United States is planting grain corn on roughly the same number of acres as was planted in 1900.¹ At the same time, the per acre yield has increased more than 600%.²

Additionally, the LUC concern is already addressed in the CFP's carbon intensity (CI) modeling. Corn starch bioethanol is given an automatic 7.6 gCO₂e/MJ penalty for indirect land use change (ILUC). Adding the proposed sustainability criteria to the current ILUC score amounts to an unfair

¹ https://www.nass.usda.gov/Publications/Todays_Reports/reports/croptr19.pdf,
https://www.nass.usda.gov/Charts_and_Maps/Field_Crops/cornac.php

² <https://www.agry.purdue.edu/ext/corn/news/timeless/YieldTrends.html>

double penalty for corn starch bioethanol. We also believe the 7.6 gCO₂e/MJ penalty is outdated and not based on the most up to date research. A review of more recent science indicates a decreasing trend in land use values with the newer data indicating values closer to 4 gCO₂e/MJ.³

Further, the proposed sustainability certification will add onerous and costly requirements on biofuel producers and farmers. Yet CARB's economic analysis of the proposal does not discuss the sustainability requirement's financial burden of implementation. Nor will the requirement allow bioethanol producers to use important tools like climate-smart agricultural practices for CI reduction. Some of these practices include precision application of fertilizer, use of low CI fertilizer, no or low-till farming practices, and the use of cover crops.⁴

Finally, with respect to CARB's proposed sustainability audit, the proposal's audit requirements address issues, while important to environmental and social justice, fall outside the scope of the LCFS. The proposed sustainability audit process would require auditors to conduct: "review of management systems", "review of social practices", and an assessment of the "economic sustainability of the applicant." These items have no bearing on GHG reduction. Furthermore, if the proposal is adopted, crop-based biofuels would be the only feedstock for which these criteria would be audited.

Carbon Capture and Sequestration

New innovations at biorefineries throughout the United States allow pure, biogenic carbon dioxide (CO₂) to be captured at a massive scale, and multiple projects are already underway that repurpose, reuse, or provide a permanent storage solution for the majority of that CO₂. We appreciate DEQ's leadership on the issue of carbon capture utilization and sequestration (CCUS) and the approval of Red Trail Energy LLC's Tier 2 application including CCUS last year. We encourage DEQ to continue broad allowance for credit generation from CCUS.

We applaud DEQ's efforts to recognize the value of carbon emissions reduction via CCUS. We also understand and appreciate that DEQ will accept pathways with non-onsite CCUS approved or recertified by the California Air Resources Board, we request DEQ works to ensure all CCUS operations remain eligible for CI crediting by maintaining current eligibility provisions. Restricting CI crediting only to on-site sequestration prevents the vast majority of biorefineries from benefiting as most plants' locations do not have the geology necessary for Class VI CO₂ injection wells. Many of these bioethanol facilities will eventually be utilizing CCUS via a CO₂ pipeline. Whether on-site or transported safely via pipeline to be sequestered elsewhere, carbon dioxide is removed from the atmosphere and contributes to the emissions reduction benefits of bioethanol. Those facilities should not effectively incur a penalty due to the geology of their location when other CCUS opportunities remain.

³ <https://iopscience.iop.org/article/10.1088/1748-9326/abde08/pdf>

⁴ <https://growthenergy.org/policy-priority/climate-smart-agriculture/>

Expanded Use of E15 and Higher Blends

We applaud Oregon allowing the sale of E15, gasoline containing up to fifteen percent ethanol, in 2021.⁵ We encourage the state to adopt policies that encourage the expanded use of E15 as well as higher blends such as E85. More than 96% of all vehicles on the road today can take advantage of E15, which if replaced E10 statewide, would result in more than 190,000 tons in GHG reductions.⁶ This is the equivalent of removing more than 41,000 vehicles off Oregon's roads without impacting a single driver.

Additionally, E85 is currently available at only five sites in the state⁷. With an existing fleet of more than 186,000 Flex Fuel vehicles (FFVs)⁸, Oregon can utilize E85, which will promote even greater reductions in GHG emissions in addition to reductions in air toxics. We encourage Oregon to incentivize the use of FFVs and invest in infrastructure expanding access to E85 in the state. Doing so would achieve multiple goals: improve air quality and GHG emissions, reduce the state's dependence on fossil fuels, and provide consumers with an affordable choice to power their vehicles.

Thank you for the opportunity to provide input on the 2024 CFP rulemaking. The CFP is a critical tool to addressing climate change, and we look forward to working with DEQ to ensure the role of biofuels in making Oregon's fuel mix more sustainable and help the state achieve its progressive climate goals through the expanded use of bioethanol. Additionally, we are happy to make ourselves available for any questions DEQ may have.

Sincerely,

A handwritten signature in blue ink, appearing to read "Chris Bliley". The signature is stylized and cursive.

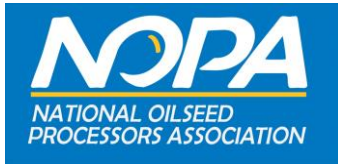
Chris Bliley
Senior Vice President of Regulatory Affairs
Growth Energy

⁵ <https://growthenergy.org/2021/12/02/oregon-finalizes-e15-rule-to-take-effect-in-january/>

⁶ <http://www.airimprovement.com/reports/national-e15-analysis-final.pdf>

⁷ <https://getbiofuel.com/fuelfinder/>

⁸ <https://afdc.energy.gov/vehicle-registration>



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May 8, 2024

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

Via electronic submission

Re: Department of Environmental Quality 2024 Clean Fuels Program Rulemaking

Mr. Peters:

Thank you for the opportunity to comment in response to the Oregon Department of Environmental Quality's (DEQ) 2024 Clean Fuels Program (CFP) Rulemaking. The National Oilseed Processors Association (NOPA) appreciates being able to share our observations. NOPA members have a vital interest in these issues.

NOPA encourages DEQ to not consider the proposal currently under consideration by the California Air Resources Board (CARB) on sustainability certification for crop-based biofuels. NOPA has a number of concerns with the proposal, which we have detailed below and in comments to CARB.

Background

Organized in 1930, NOPA represents the U.S. soybean, canola, flaxseed, safflower seed, and sunflower seed-crushing industries. NOPA's membership includes 15 members that are engaged in the processing of oilseeds for meal and oil that are utilized in the manufacturing of food, feed, renewable fuels, and industrial products. NOPA member companies operate a total of five softseed and 62 solvent extraction plants across 21 states. NOPA members crush approximately 95% of all soybeans processed in the U.S.

NOPA members' oilseed processing operations yield protein-rich meal for human and animal nutrition, as well as vegetable oil that is used as an ingredient in food manufacturing and as a feedstock for renewable fuels such as biodiesel, renewable diesel and sustainable aviation fuel (SAF). These sustainably produced biofuels help reduce carbon dioxide equivalent (CO₂e) greenhouse gas emissions and the carbon intensity of transportation fuels in use today. NOPA is uniquely qualified to respond to the rulemaking given the number of markets that NOPA members serve, including the food, feed, fuel, and industrial markets.

Sustainable Oilseed Processing Feedstocks and Investments

NOPA members are committed to producing sustainable feedstocks. Many of our members have made sustainability commitments and net-zero deforestation pledges. NOPA and the United Soybean Board (USB) also recently published a study which demonstrates the following carbon reductions since 2015:

- 19% decrease for U.S. Soybean cultivation
- 6% decrease for U.S. Soybean Meal production
- 22% decrease for U.S. Crude Soy Oil production
- 8% decreased for U.S. refined soy oil production

NOPA members are also making significant investments to produce sustainable vegetable oil supplies to meet all the demands of biofuel, feed, and food customers. As critical feedstock suppliers to the renewable fuels industry, our industry has announced well over \$6 billion in soybean crushing capacity investments since 2021 encompassing some 20 or more expansions or new facilities. These projects are currently on track to increase soybean crush capacity by over 30% between 2023-2026. Collectively, these projects will provide enough additional feedstock to support a 1-billion-gallon increase in BBD capacity over the next several years, **without impacting food or land use.**

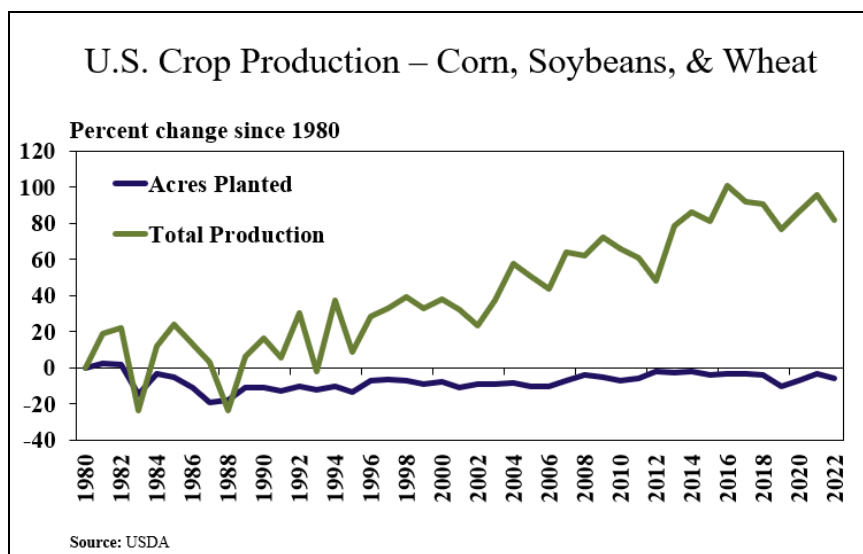
This increased capacity will be largely supported by improving the yields from existing acreage already farmed with oilseed crops, increasing the amount of oil produced by such crops and regenerative farming practices, such as cover crops, which reduce the carbon intensity of agricultural practices.

CARB's Proposed Crop-Based Biofuels Sustainability Criteria

NOPA has urged CARB to adopt a more risk-based approach to addressing deforestation by recognizing the sustainability requirements already provided for under the RFS. By not recognizing that the RFS already requires certification of all the sustainability criteria proposed by CARB, it would have the unintended consequence of disadvantaging regions of crop-based feedstock production with low-risk of deforestation (U.S. and Canada) at the expense of feedstocks produced in regions with a significantly higher risk of deforestation where segregated supply chains are more prevalent due to those risks.

As noted in Figure 1, total U.S. agricultural land use today is lower than it was in 1980; lower than it was when the RFS was created; and lower than it was when the CA LCFS was created. And total crop production has increased on roughly the same amount of land by over 80%.

Figure 1



Not only is U.S. agriculture producing more with less and on fewer acres, it continues to do so at the lowest costs due to its comparative advantage in the world through our efficient bulk commodity, aggregation and transportation system. Layering additional cost and segregation on U.S. producers could have the effect of increasing demand for feedstocks from regions with the highest risk of deforestation.

Further, the program has already overly accounted for land use impacts in the development of the LCFS through the incorporation of indirect land use change penalties (iLUC) – values which continue to be significantly overestimated, and by default provide additional guardrails.

RFS Compliance with CARB's Proposed Sustainability Criteria

As noted, NOPA urged CARB to recognize that fuels produced and certified under the RFS meet CARB's newly proposed sustainability criteria. As demonstrated below, the RFS already meets the sustainability requirements proposed under the LCFS amendments:

Proposed Feedstock Sustainability Requirements	RFS Feedstock Sustainability Requirements
Must not be sourced on land forested after Jan. 1, 2008	Must not be sourced from agricultural land cleared or forested after Dec. 19, 2007
Maintain continuous certification	Maintain continuous certification
Certification system must be recognized by an international, national, or state/provincial government for at least 24 months.	The RFS was approved by the U.S. Congress on, and has been in effect since, Dec. 19, 2007
Certification system must consider environmental, social and economic criteria	Factors addressed by U.S. EPA during annual rulemakings to establish Renewable Volume Obligations (RVOs) under the RFS include: <ul style="list-style-type: none"> • Impact on the environment • Impact on cost to consumers and cost to transport goods, and job creation • Soil Quality • Environmental Justice
Certification system standard-setting process is participatory, and consensus driven – convening groups of economic, environmental and social stakeholders in both formal and informal manners; and creates a representative steering committee technical working group(s) and advisory group(s)	The passage of the RFS through Congress was by definition consensus driven, which allowed for the input by all stakeholders as afforded during the legislative process. EPA's annual rulemakings to establish RVOs allow for public comment by all stakeholders, both formal and informal. This process includes input from EPA's Clean Air Scientific Advisory Committee (CASAC) – an independent advisory group of non-EPA scientists, engineers, economists and social scientists.
The certification system must have clear, accessible, and transparent processes;	The development of the implementing regulations for the RFS and each subsequent rulemaking to establish RVOs went through a transparent and public comment process before finalization.
The certification system must publish procedures, guidance, certificates and audit report summaries on its website;	All RFS regulations, certificates, and compliance reports are available at https://www.epa.gov/renewable-fuel-standard-program
The certification system must be science based, provide clear targets to reach, and support demonstrable means of evaluation;	The development of the implementing regulations for the RFS and each subsequent rulemaking to establish RVOs by U.S. EPA go through a transparent and public comment process before finalization, based on specific scientific criteria and evaluation.
The certification system must demonstrate that requirements that are additional to the	The passage of the RFS through Congress was by definition consensus driven, which allowed for the

requirements of this subarticle are vetted via a multi-stakeholder process to mitigate potential stakeholder bias;	input by all stakeholders as afforded during the legislative process. EPA’s annual rulemakings to establish RVOs also allow for public comment by all stakeholders, both formal and informal. This process includes input from EPA’s Clean Air Scientific Advisory Committee (CASAC) – an independent advisory group of non-EPA scientists, engineers, economists and social scientists.
The certification system must maintain an effective auditor training program to ensure auditor competency;	The RFS compliance and audit program is maintained by U.S. EPA and can be found at https://www.epa.gov/renewable-fuel-standard-program/compliance-overview-renewable-fuel-standard-program
The certification system must include an effective grievance mechanism to ensure that problems are resolved;	EPA’s annual rulemakings to establish RVOs also allow for public comment by all stakeholders, both formal and informal. A petition process is also afforded under the RFS, which has been utilized by stakeholders. https://www.epa.gov/renewable-fuel-standard-program/other-requests-under-renewable-fuel-standard
The certification system must include sanction mechanisms for participating feedstock suppliers and auditing bodies to ensure conformance with its system requirements; and	The RFS compliance and audit program is maintained by U.S. EPA and can be found at https://www.epa.gov/renewable-fuel-standard-program/compliance-overview-renewable-fuel-standard-program . The RFS and Clean Air Act also establish penalties for non-compliance.

Ensuring Integrity of Imported Feedstocks

NOPA notes that imports of Used Cooking Oil (UCO) and other low carbon feedstocks have significantly increased since 2022. NOPA appreciates DEQ’s consideration of additional scrutiny and monitoring of imported feedstocks. Such actions will ensure continued program confidence and compliance.

Conclusion

NOPA is eager to continue working with DEQ to support the role of agriculture in diversifying the fuel supply through more sustainable feedstocks and thereby supporting cleaner fuel options in Oregon and beyond. On behalf of America’s soybean processors, we appreciate this opportunity to comment, and look forward to collaborating with DEQ and other relevant stakeholders to enact policies that will address climate change while expanding the use of soy-based biofuels and market opportunities for soybean farmers.

Sincerely,



Kailee Tkacz Buller
President & CEO
NOPA



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poet.com

May 8, 2024

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

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

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

Dear Mr. Peters:

POET appreciates the opportunity to participate in Oregon's Department of Environmental Quality's ("DEQ") Clean Fuel Program 2024 Rulemaking through workshops, advisory committee meetings, and the submission of comments. POET supports the 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's vision is to create a world in sync with nature. As the world's largest producer of biofuel and a global leader in sustainable bioproducts, POET creates plant-based alternatives to fossil fuels that unleash the regenerative power of agriculture and cultivate opportunities for America's farm families. Founded in 1987 and headquartered in Sioux Falls, POET operates 34 bioprocessing facilities across eight states and employs more than 2,200 team members. With a suite of bioproducts that includes POET Distillers Grains, POET Distillers Corn Oil, POET Purified Alcohol, and POET Biogenic CO₂, POET nurtures an unceasing commitment to innovation and advances powerful, practical solutions to some of the world's most pressing challenges. Today, POET holds more than 80 patents worldwide and continues to break new ground in biotechnology, yielding ever-cleaner and more efficient renewable energy. POET is also a leading champion for nationwide access to E15, a renewable fuel blend made with 15% bioethanol.

POET appreciates DEQ's proactive approach to exploring future amendments to Oregon's Clean Fuel Program. During the April 17, 2024 Advisory Committee Meeting, DEQ indicated that the agency was evaluating California's proposed sustainability requirements for crop-based feedstocks. Although DEQ made clear it is not proposing to add similar sustainability requirements in the current rulemaking process, it requested feedback on the potential for such program features in the future. Several oral commentators stated, and POET agrees, that including sustainability requirements for crop-based feedstocks would be unnecessarily burdensome and require a significant rulemaking process of its own. POET addressed the flaws with California's sustainability certification proposal in a detailed [comment](#) submitted to CARB on February 20, 2024, and we summarize our primary concerns below.

First, California’s proposed sustainability requirements appear to be driven by perceived concerns that growing demand for oil-based feedstocks used in biomass-based diesel fuels presents higher risks of land use change and deforestation. But California’s proposed rules would apply to all crop and forestry-based feedstocks—not just feedstocks of particular concern. POET believes that CARB’s proposal is not an appropriate measure as applied to corn starch ethanol, which presents none of the concerns raised in California’s rulemaking process and is already subject to an indirect land use change penalty under the GREET model.

Second, although California’s current proposal does not define “sustainability,” it appears to require certification under systems developed for compliance with the European Union’s RED II protocol. Compliance with these standards presents significant costs and logistical challenges which could translate to an increase of several cents per gallon in gasoline prices when passed down to the consumer and could constrict the supply of ethanol to California’s transportation market.

Finally, California’s proposed sustainability requirements present an all-or-nothing mandate for crop-based feedstocks to conform to certain as-yet-undefined standards of sustainability. POET believes this approach is misguided, and that agricultural sustainability could be better achieved through clean fuels programming that provides incentives for farmers to adopt to climate smart agricultural practices—an approach recently embraced by the U.S. Treasury Department under the Inflation Reduction Act. *See* U.S. Department of Treasury, Notice 2024-37, §§ 40B SAF Credit Guidance (April 30, 2024) available at <https://www.irs.gov/pub/irs-drop/n-24-37.pdf>.

CONCLUSION

POET appreciates the opportunity to comment and looks forward to working with DEQ to make the Clean Fuel Program a continued success for Oregon. If you have any questions, please contact me at Josh.Wilson@POET.com or (202) 756-5612.

Sincerely,



Joshua P. Wilson
Senior Regulatory Counsel



May 6th, 2024

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

RE: Proposed Third-Party Verification for Electricity

Dear Mr. Peters,

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.

SCT is closely following the 2024 rulemaking process, especially the part related to third-party verification. SCT understands the drivers for such new rule, however we have the following reservations and concerns:

1. Recently imposed rules related to metering have significantly increased the financial burden on our clients operating electric forklift fleets, and at the same time significantly reduced the number of credits. Recently, DEQ released 4Q24 Data Summary which showed a major drop in Electricity – Offroad eForklifts credits, from 11,071 credits in 3Q, to 2,724 credits in 4Q, a whopping 75% drop.
2. Imposing a third-party verification will increase the financial burden even further.
3. Such financial burdens and the significant drop in credits eat away the CFP incentives fleet operators may get. Thus,
 - a. leading fleet owners to question their involvement in the CFP program.
 - b. force aggregators to exit the program.
4. The proposed 3rd Party Verification rule is adding another layer of vetting on top of the vetting being done by aggregators while registering fleets.
5. The rule presents a heavy-handed approach to prevent the repeat of issuing false credits to one fraudulent participant who was not under the umbrella of an aggregator.
6. Though such approach may prevent recurrence, its high cost will:
 - a. disincentivize legitimate fleet operators.
 - b. jeopardize the opportunity to electrify a significant fossil-fuel forklifts market share, and hinder achieving the goals of the program.

To alleviate some of the above concerns, SCT would like to propose the following:

1. Electric fleets/reporting should not be subject to site visits. Unlike liquid fuels or RNG, where more than one type of feedstock, each having its own CI, is used in the end fuel production, eForklifts are charged from the grid. The grid CI is already defined by DEQ CFP. Thus, the eForklifts charging activity is much less complex than liquid fuels or RNG production. Which renders site visits cost unjustifiable.
2. If site visits are to be mandated, given the simplicity of the eForklifts charging activity:

- a. Using live video streaming site visits should serve the purpose. Such site visits yield significant cost savings and reduce the amount of greenhouse gas emissions from traveling to site visits for our many clients spread out throughout the state.
 - b. Only visit the aggregator's place of records.
3. It seems that this rule is targeting aggregators primarily, despite their efforts vetting and reviewing sites before registration, and during reporting. This is evident on the handful of aggregators that made the cut on the imposed threshold. Imposing a threshold on aggregators alone is an incentive to fleet owners to forsake aggregators and go solo to avoid verification. To avoid such a scenario, we propose a suitable threshold on fleet owners as well, or to increase the threshold for aggregators.
4. **Is there a need for additional rule language around electricity verification in terms of monitoring plans, data checks, etc.?**

One of the purposes of verification is to assure the accuracy of the measuring/metering devices. According to NIST Handbook 44-2024, published by the United States National Institute of Standards and Technology Specifications, Tolerances, and Other Technical Requirements for Weighing and Measuring Devices:

- a. the NIST Handbook does not apply to *“Electric Vehicle Supply Equipment (EVSEs) used solely for dispensing electrical energy in connection with operations in which the amount dispensed does not affect customer charges or compensation.”*¹ Given that eForklifts fleet operators use chargers for their own operations and do not charge any customers for the dispensed electricity, then the NIST accuracy requirements do not apply to electric chargers used by fleet operators.
- b. unlike alternating current (“AC”) electric vehicle charging equipment, DC electric vehicle charging equipment is exempt from the accuracy testing requirements and load test tolerance requirements under the NIST Handbook until January 1, 2028². eForklifts fleet operators deal exclusively with DC charging stations. As such, no measurement accuracy or load test tolerance requirements will apply to calculating the quantity of supplied electricity by such charging stations until January 1, 2028.

SCT hopes that the above suggestions increase the chances of keeping/making the program a viable option for existing and future eForklifts fleet owners. Thus help ODEQ achieve the goals of the CFP program.

Respectfully,



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

¹ NIST Handbook, s 3.40, A.2(b).

² NIST Handbook, s 3.40, N.3.2 and T.2.1.



Antonio Machado

Senior Manager, Northwest Regulatory Affairs and Fuels

May 8, 2024

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

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

Re: WSPA Comments regarding April 17, 2024 DEQ CFP RAC Meeting #1

Dear Bill:

Western States Petroleum Association (WSPA) appreciates the opportunity to provide the Oregon Department of Environmental Quality (DEQ) with our feedback from the Clean Fuels Program (CFP) Rules Advisory Committee (RAC) Meeting #1, held on April 17, 2024. 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.

Provided below are WSPA's comments on the DEQ staff presentation during the RAC meeting. In addition to these comments, attached is the WSPA comment letter of February 16, 2024 pursuant to the January 30, 2024 DEQ CFP 2024 Rulemaking Workshop #1 which identifies additional items for DEQ consideration as part of the RAC review process.

OR-GREET 4.0 Model – Crude Oil (Slides 10 and 11)

It is important to recognize that not all products delivered into Oregon are produced by Washington State refineries. If DEQ wanted to establish an accurate impact crude oil's Carbon Intensity (CI), it would need to evaluate imports of products coming from refineries located outside Washington and out of the country to determine a crude slate representative for the products delivered into Oregon. As this effort may result in a limited impact to the average crude CI, DEQ may consider a simplified alternate approach to establishing crude oil CI values.

OR-GREET 4.0 Model – N₂O Emissions (Slide 12)

WSPA requests that DEQ provide the data to justify that N₂O emissions from renewable diesel and/or biodiesel are as high as petroleum diesel before adopting higher N₂O emissions in the GREET 4.0 model for these renewable fuels.

OR-GREET Transition (Slide 13)

WSPA encourages DEQ to continue to work with regulated parties on a smooth transition from GREET 3.0 to 4.0. We believe that DEQ can benefit from the stakeholder input provided to CARB during the recent CA-GREET update efforts.

Feedstock Attestations (Slide 15)

WSPA does not support additional feedstock guardrails. Since the CFP regulation already has

tracking requirements for specified source feedstocks, WSPA believes that additional attestations are not warranted and would be duplicative.

Sustainability Certifications (Slide 16)

WSPA agrees with DEQ that no additional requirements are warranted for crop-based feedstocks. The indirect land use change values applied to crop-based feedstocks already address the sustainability issue by factoring land use impact and disincentivizing these feedstocks compared to waste feedstocks. Furthermore, as the carbon intensity standards become more stringent in the CFP year after year, the higher CI fuels will generate fewer credits year after year, and eventually may generate deficits under very stringent CI standards.

Carbon Capture and Sequestration (Slide 18)

WSPA supports the *“refining eligibility to geological storage projects that can meet Class VI well requirements attached to fuel production facilities”*, assuming that this language means that any CO₂ storage is eligible for LCFS so long as the project meets Class VI requirements. Further, we recommend that the CCS protocol allow for utilization of a CO₂ pipeline network that accommodates CO₂ from multiple sources (anthropogenic and natural) and CO₂ flowing to multiple projects (including permanent storage and enhanced oil recovery).

As noted on Slide 18, DEQ intends to use the same calculations and values that California does for its reserve account. However, WSPA encourages DEQ to use a lower amount for the reserve account than California. As stated in our February 16, 2024 comment letter, we believe that the percentage of credits set aside should be minimized at 1% or less. If a larger percentage of CCS credits is taken by a reserve account, there could potentially be less incentive to develop and operate CCS projects, as the project would receive fewer credits.

When *“Creating a DEQ-controlled Reserve Account”*, WSPA recommends that DEQ consider the implications of a project that is located in a different state and that state requires its own contribution fund to manage leakage. Such a situation brings into question the need for an Oregon reserve fund for these facilities.

CCS - Reserve Account (Slide 20)

Slide 20 states: *“if released CO₂ is larger than the contribution by that fuel producer, DEQ may require the fuel producer to retire the balance.”* WSPA believes that this statement requires further clarification, specifically with regard to the phrase *“retire the balance”*.

Third-Party Verification - Validation (Slide 23)

WSPA supports fuel pathway recertification in Oregon, based on CARB fuel pathway certification, without having to duplicate the third-party validation process and the public comment period for Tier 2 pathways. We suggest that DEQ also allow the recertification of Washington State fuel pathways, as Washington State has now a LCFS program and fuel producers in Washington may develop fuel pathways under the Washington LCFS program first.

Third-Party Verification - Electricity (Slide 25)

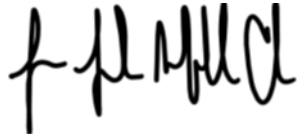
Residential credit EV credits should NOT be removed from the 6,000 credit threshold. Residential EV credits should also be verified by an independent third-party. Verification of residential EV

Mr. Bill Peters
May 8, 2024
Page 3

credits should cover the review of EV charging efficiencies, miles traveled, distribution of EVs in Oregon, comparison with actual EV on board information, residential surveys, and utility meter reconciliations.

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

Sincerely,

A handwritten signature in black ink, appearing to read "Francisco Machado". The signature is written in a cursive, somewhat stylized font.

Attachment



Jim Verburg

Sr. Director, NW and SW Climate and Fuels

February 16, 2024

Sent via e-mail to: CFP.2024@deq.state.or.us

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

Re: WSPA Comments; DEQ 2024 CFP Rulemaking – Workshop #1

Dear Bill:

Western States Petroleum Association (WSPA) appreciates the opportunity to provide the Oregon Department of Environmental Quality (DEQ) with our feedback from the Clean Fuels Program (CFP) 2024 Rulemaking Workshop #1, held on January 30, 2024. 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.

Workshop #1 consisted of a staff presentation outlining the high level scope of the CFP 2024 rulemaking. WSPA comments on the items discussed in the presentation are provided below.

OR-GREET 4.0 Model Updates (Slides 9 and 12)

For the purpose of limiting duplication, WSPA suggests that DEQ continue to allow the use of CA-GREET as an alternative to the OR-GREET model. Since both models use the same emission factors, this approach would avoid duplication of inputs and minimize potential errors for entities that already use CA-GREET.

OR-GREET Model Implementation Timeline (Slides 12 and 13)

DEQ's proposed implementation schedule for transitioning to the updated GREET model in January of 2026 will require pathway verifications under the previous OR-GREET 3.0 and the new 4.0 version. WSPA requests that DEQ specify in the rule language that CI exceedances that result only from the transition to OR-GREET 4.0 are exempt from penalty or enforcement.

WSPA believes that DEQ should also allow the use of certified fuel pathway codes (FPC) under CA-GREET 3.0 or OR-GREET 3.0 for at least 2 quarters in concurrence with new FPC certified under CA-GREET 4.0 or OR-GREET 4.0 to enable the completion of transactions for fuel in inventory that was certified under the CA-GREET 3.0 or OR-GREET 3.0.

Validation Requirements for CFP Fuel Pathways (Slides 15 and 16)

For efficiency and time savings, WSPA recommends that DEQ certify fuel pathways that have already been validated under the California LCFS regulation, without having to require an additional validation under the Oregon CFP.

For DEQ's proposed pathway validation, WSPA requests that consideration be made for existing

facilities. For new facilities or existing facilities being modified or retrofitted as renewable fuel producers, a thorough validation including a third-party verifier site visit may be reasonable or even necessary. By contrast, an existing renewable fuel facility that is only adding a new feedstock, should be permitted to undergo a less comprehensive validation focused on the new feedstock, with no third-party verifier site visit. We recommend that DEQ include an option in the rule for an abbreviated validation process for existing facilities that already have certified fuel pathways.

WSPA is concerned with potential delays in processing fuel pathway applications. We recommend that DEQ be required to complete the review of a fuel pathway application in no more than 30 calendar days. If the 30-day deadline is not met, the pathway should be deemed complete.

CCS Reserve Account (Slides 20 and 21)

DEQ presented in Workshop #1 the need to establish a CCS reserve account for the purposes of functioning as a “*relief valve*” for projects that do not achieve expected credit generation. If DEQ decides to implement a CCS reserve account, the percentage of the credits set aside should be minimized at 1% or less. If a larger percentage of the CCS credits is taken by the reserve account, there could potentially be less incentive to develop and operate CCS projects, as the projects would netback fewer credits.

WSPA also recommends that companies be eligible for an exemption from the CCS reserve account if the company can prove solid financial standing via an established set of qualifications or equivalent mechanism (e.g. via insurance or self-insurance).

In addition, WSPA requests that DEQ make considerations for CCS projects that are linked to fuel products going to multiple states. DEQ should allow a common third-party verification report to satisfy requirements for multiple states. In addition, the CCS reserve account contribution should be based only on the percentage of sequestered volume linked to fuel sold in Oregon.

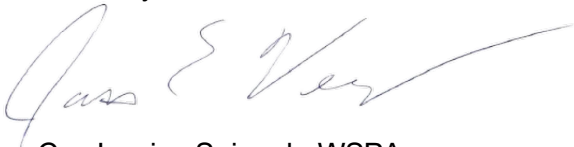
Verification: Electricity Transactions (Slides 23 through 25)

WSPA supports the implementation of a third-party verification program for electricity transactions. This element will help the integrity of the program by expanding the program oversight to a larger fraction of the credits generated in the CFP.

WSPA recommends that residential EV credits calculated by DEQ be verified by an independent third-party. This third-party verification would provide more assurance that DEQ does not underestimate or overestimate these types of credits. Adding a third-party verification program to both non-residential and residential EV credits would provide better assurance that most credits and deficits in the CFP are valid.

WSPA appreciates the opportunity to provide comments. We look forward to the opportunity to serve on the Rulemaking Advisory Committee (RAC) for this regulatory language development effort. If you have any questions regarding this submittal, please contact me at (360) 296-0692 or via email at jverburg@wspa.org.

Sincerely,



Cc: Jessica Spiegel - WSPA