



Written Comments

Oct. 22, 2020, Clean Fuels Program Electricity 2021 Rulemaking Advisory Committee Meeting

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Commentary on Oregon's CFP Electrification Meeting 3

29 October 2020

By ACT Commodities

Introduction

As a member of IETA (International Emission Trading Association), ACT Commodities (ACT) is a global leader in trading energy and environmental commodities. We provide solutions to over 5000 clients worldwide who need to meet environmental compliance requirements and voluntary sustainability goals. In North America, ACT is a leader in renewable energy certificates and renewable fuels credit markets. ACT is active in the Oregon RPS and CFS and even more so in California's RPS and LCFS as well as the Federal Renewable Fuels Standard.

ACT would like to take this opportunity to expand upon our original comments to the DEQ's **Clean Fuels Program Electricity 2021 Rulemaking Discussion Paper** as it pertains to **Meeting 3**. Please see below.

Topic 1: Changes to the Statewide Mix and Utility Specific Carbon Intensity Calculations

Original Comments: "The current statewide grid carbon intensity does not reflect the reality of the life-cycle carbon intensity of electricity in non-utility specific CI regions of the state. For this reason, ACT is of the opinion that the DEQ must amend the current strategy for assessing the statewide carbon intensity as suggested in this amendment. If it is not corrected the CFS is effectively creating incentives for heavy emitting regions much like if a highly carbon intensive liquid fuel plant was able to default to the average carbon intensity of their industry. By removing utility-specific load from the statewide mix the CFS will correctly reflect credit generation capabilities for the fuel source."

Meeting 3 Comments: ACT supports DEQ Staff's proposal to implement all three (A B & C) proposed changes. We agree that this amendment represents the most accurate and balanced accounting of emissions available at this time.

Topic 2: What Qualifies as Renewable Electricity for the Clean Fuels Program?

Original Comments: "ACT supports categorically eligible zero carbon sources (i.e. wind, solar photovoltaic and solar thermal electricity, wave, tidal, small hydro, ocean thermal electricity, and geothermal) to be considered as look-up table pathways. ACT further suggests geographic eligibility to be limited to power delivered to the Bonneville Power Administration (BPA) service territory as BPA is a reliable reference for all Pacific Northwest electric service areas."

Meeting 3 Comments: ACT is agreeable on the proposed geographic restriction for renewable energy generation/delivery. Likewise, ACT is supportive of the vintage guidelines outlined in the Staff's proposal. ACT however does not agree with the placed-in-service date or Green-e certification limitations. While we are understanding of the limitations on DEQ resources we recommend a default to the local Oregon RPS guidelines which have undergone rigorous development and "provided a clear signal for more renewable electricity generation" since adoption in 2007. Notice that additionality will occur in heavy polluting regions beyond the RPS as an interest in retiring RECs will come primarily from service territories where the incremental value recovers the cost of the REC itself. The WREGIS tracking system facilitates REC transfers, enables permanent retirement of RECs, and can assist regulators with the implementation of their renewable energy programs. ACT recommends DEQ works with WREGIS to specify guidelines for OCFP eligible resources (categorically carbon-free, located/delivered to OR territory, and vintage); however, we do not recommend Green-e eligible/certified or specific COD dates as neither will "accelerate the generation and aggregation of clean fuel credits" as the Executive Order has guided.

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Topic 3: Who is Eligible to Claim the Incremental Credits?

Original Comments: "ACT strongly supports the inclusion of incremental crediting provisions. It is a direct pathway to promote the low carbon fuel transition and transportation electrification...ACT challenges DEQ to consider allowing third-parties to assist EV charging stations/networks for incremental crediting purposes. Not all EV charging stations are participants in established statewide REC markets like the RPS which can be a barrier to entry and reliable pricing. For that reason ACT proposed that EV stations/networks can designate a third party to manage incremental crediting. Third parties can retire RECs in a designated WREGIS account for the EV station/network in accordance with the exact MWh dispensed....Furthermore, third parties reliably enhance competition and prevent monopolistic markets from forming. Private business contracts will establish a fair market price for renewable energy producers, liquidity providers, and stations. ACT is proposing a similar structure adopted by Bio-CNG/LNG contracts already operating in CFS programs."

Meeting 3 Comments: ACT agrees with Staff's proposal for the current base credit generators to be the default generators for incremental non-residential charging. However, ACT recommends the final provision to allow default generators to designate another entity to manage compliance, reporting, and trading. Third parties provide liquidity and reliability while bringing down the barriers for entry. This designation provision will allow smaller entities and/or entities that would prefer to focus business resources elsewhere the opportunity to contract out reporting, REC sourcing/retirement, and OCFP credit sales.

Topic 4: Changes to the Frequency of Residential Base Credit Generation

Original Comments: "ACT supports the efforts to accelerate the issuance of electric vehicle CFS credits from once a year to a minimum of twice annually. ACT further supports a quarterly issuance especially upon the inclusion of incremental credits. For example, consider the cash-flow constraints of smaller entities which hope to participate in the added benefits of REC retirement but are hesitant since they cannot reliably recover the cost until the resulting CFS credits have been issued and sold."

Meeting 3 Comments: ACT supports DEQ Staff's proposal for twice a year issuance for residential crediting. The reasoning related to DMV data and small utilities was made clear in the meeting.

Topic 5: Spending Requirements on Revenue Generated from Residential Charging Credits

Original Comments: "ACT understands the importance of such guidelines as it pertains to the reliability of the program. However, ACT cautions DEQ from conforming all entities to specified allowable uses for expenditures. While ACT believes this is fit for utilities, residential, and base crediting, innovation (i.e. incremental, smart-charging) beyond a baseline should not be limited to certain entities or reinvestment opportunities. There is legitimate concern some stations/networks could look at restrictions as another barrier for entry"

Meeting 3 Comments: ACT stands by our original recommendation which is to only outline spending requirements for utility residential base crediting. It is important that all participating parties in the value chain can have a share of the added revenue opportunities for retiring RECs on behalf of MWhs dispensed in a vehicle including the low-carbon energy producer, liquidity provider, and stations.

Thank you for your consideration of these recommendations. Please reach out if you would like to discuss.



November 5, 2020

Cory Ann Wind
Oregon Department of Environmental Quality (DEQ)
700 NE Multnomah Street, Suite 600
Portland, OR 97232-4100

RE: COMMENTS OF CENTER FOR RESOURCE SOLUTIONS (CRS) ON THE RULEMAKING ADVISORY COMMITTEE #3 DISCUSSION PAPER FOR THE OCTOBER 22, 2020 ADVISORY COMMITTEE MEETING FOR THE CLEAN FUELS PROGRAM ELECTRICITY 2021 RULEMAKING

Dear Ms. Wind:

CRS appreciates this opportunity to submit comments on the *Rulemaking Advisory Committee #3 Discussion Paper* ("Third Discussion Paper") for the October 22, 2020 Rulemaking Advisory Committee (RAC) Meeting #3 ("October 22 Meeting") as a part of The Clean Fuels Program (CFP) Electricity 2021 Rulemaking. Our comments pertain mostly to the proposed requirement for Green-e® certification of renewable energy certificates (RECs) used for the CFP. We provide a brief evaluation of potential eligible REC supply under DEQ's proposal. We also make a recommendation regarding the use of RECs associated with generation that is imported to California.

BACKGROUND ON CRS AND GREEN-E®

CRS is a 501(c)(3) nonprofit organization that creates policy and market solutions to advance sustainable energy. CRS provides technical guidance to policymakers and regulators at different levels on renewable energy policy design, accounting, tracking and verification, market interactions, and consumer protection. CRS also administers the Green-e® programs. For over 20 years, Green-e® has been the leading independent certification for voluntary renewable electricity products in North America. In 2019, Green-e® certified retail sales of over 69 million megawatt-hours (MWh), serving over 1.6 million retail purchasers of Green-e® certified renewable energy, including over 113,000 businesses.¹

¹ See the 2020 (2019 Data) Green-e® Verification Report here for more information: <https://resource-solutions.org/q2020/>.

COMMENTS

Green-e® certification of RECs used for the CFP

In the Third Discussion Paper, DEQ staff proposes that, “RECs must be certified under [the] Green-e[®] program]’s current standard.”² General information about the Green-e® program can be found on the program’s website, <https://www.green-e.org/>, including a description of certified products and verification activities; who can join as a seller of certified renewable energy; the Green-e® Standard, Code of Conduct, and other program documents; as well as instructions on how to join and information about certification fees.

Importantly, the Green-e® program does not certify renewable generators. It certifies voluntary renewable energy products—such as utility green power programs, competitive electricity products, REC products, community choice aggregation (CCA) or municipal choice programs, and direct procurement (e.g. power purchase agreements [PPA] and onsite generation)—and it verifies transactions of renewable electricity and RECs against requirements in the Green-e® Standard and Code of Conduct using its annual Verification Process Audit and Marketing Compliance Review. Renewable generators used to supply Green-e® certified renewable energy must meet the program’s eligibility requirements and submit certain documentation and attestations.

An entity generating CFP credits using RECs as proposed by DEQ (e.g. an electric vehicle [EV] charging station owner, utility, backstop aggregator, or automaker) can choose Green-e® certification of RECs at the wholesale or retail level. DEQ should clarify whether its proposed requirement refers to certification at the wholesale level, retail level, or either.

For certification at the wholesale level, the Green-e® program does not verify retirement of the REC. Consequently, DEQ would need to do that, and DEQ could set specific requirements for how RECs used for CFP must be tracked and retired in the Western Renewable Energy Generation Information System (WREGIS), e.g. using a CFP retirement reason and identifying a CFP retirement year. The Green-e® program could work with DEQ to provide information that the RECs retired for CFP were Green-e® certified at the wholesale level.

For certification at the retail level, the Green-e® program would verify end-use retirement of the RECs. It requires that RECs be retired for Green-e® certified sales using a specific retirement protocol in WREGIS. DEQ would need to accept the Green-e® program’s REC retirement requirements and determine for which CFP retirement year Green-e® certified RECs are being used, perhaps based on the Green-e® reporting year. Again, the Green-e® program can assist DEQ to provide the information it needs. In

² Third Discussion Paper, pg. 5.

addition, the Green-e® program may provide additional information to customers buying RECs that are used for the CFP—e.g. indicating that certified RECs used for the CFP are not surplus to regulations for greenhouse gases (GHGs) in the transportation sector and they are supporting compliance with state programs rather than voluntarily going above and beyond what is required.

The Green-e® program will also shortly be making available a new expedited Customer Procurement Review program for individual transactions of a Green-e® certified product. While it does not replace the annual Verification process for certified participants, it does let those participants assure their customers that individual transactions are Green-e® certified without having to wait for the results of the annual verification. Customer Procurement Review may be helpful in assisting to get DEQ necessary information on an expedited timeline.

The Green-e® program can also certify RECs from self-generation (e.g. onsite equipment) and direct purchases from individual facilities (e.g. PPAs), through the Green-e® Direct program.³

Unless required by DEQ, the CFP credit generating entity could but would not necessarily need to join the Green-e® program (e.g. execute the Green-e® Certification and Logo Use Agreement, pay certification fees, and undergo the Verification Audit) in order to demonstrate Green-e® certification of RECs at either the wholesale or retail level for the CFP. For certification at the wholesale level, the wholesale seller is the participant in the program, whereas the CFP credit generating entity is the wholesale buyer. For certification at the retail level, the credit generating entity is the retail buyer of the certified RECs on behalf of EV customers and RECs can either be retired by the retail seller (the Green-e® participant) on behalf of the credit generating entity or moved into and retired in the credit generating entity's account in WREGIS.

Where the credit generating entity in this case is a utility (e.g. using Green-e® certified RECs to generate incremental CFP credits for residential EV charging), the utility could but would not need to join the Green-e® program as a participating seller provided that the RECs are not included as a part of a residential product (the section below addresses Green-e® program requirements for these products). The utility would not be permitted to communicate to customers that they are delivering or that customers are receiving Green-e® certified renewable energy or RECs unless the utility joins the Green-e® program.

For certification of direct transactions (e.g. REC from onsite generation or PPAs), either the generator (i.e. the owner of the equipment) or the direct buyer must join the program. Only in the case that the

³ More information about those program requirements is available at: <https://www.green-e.org/programs/energy/direct> and <https://www.green-e.org/docs/energy/direct/Green-e%20Direct%20Requirements.pdf>.

credit generating entity wants to use certified RECs from its owned onsite equipment would it need to join the Green-e® program since there is no other transacting party.

Green-e® certification of green tariff programs used for the CFP

The previous section pertains to Green-e® certification of RECs for the CFP that are sold to the CFP credit generating entity as a stand-alone REC product or simply retired on behalf of customers' EV charging. The Green-e® program can certify these RECs because the buyer is the CFP credit generating entity or using the RECs for the CFP (even if this is a utility retiring RECs on behalf of residential EV charging, provided that it is not selling certified RECs to customers for which it receives CFP credit).⁴

As proposed by DEQ, credit generating entities may also use RECs that are provided through a green tariff program for CFP credit generation. In this case, the CFP credit generating entity may be a renewable electricity seller (e.g. the utility for residential EV charging) or a non-residential buyer of renewable electricity (e.g. a charging station owner, EV fleet owner, or transit company). DEQ has proposed, "establishing an application process where the utility would submit information on renewable generation sources for the Green Tariff through a Tier 2 fuel pathway application process," and, "customers on that tariff would need to use utility bills to demonstrate that EV charging equipment was covered by utility meters enrolled in an approved green tariff program."⁵ It is not proposing to require Green-e® certification. However, these programs may nevertheless be Green-e® certified.

The Green-e® program has different requirements for REC-only and renewable electricity products. In the Green-e® program, a "renewable electricity product" is one in which the RECs and energy are sold together. This includes both products where RECs and energy are sourced from the same facilities and products where unbundled RECs and system power are procured separately from the same grid region and sold together.

The Green-e® program would treat certified renewable electricity products that are used for CFP differently if the selling utility or electricity supplier is the entity generating the CFP credits. The program has existing rules for certified utility products that are being used for California's Low-carbon Fuel Standard (LCFS) program. These same rules would likely be applied to certified utility products used for the CFP, though there is no official Green-e® program policy for the CFP at this time. These rules would allow the utility to allocate a portion of product sales to CFP, based on EV usage, provided that it is 1) a 100% renewable energy product, 2) that 25% of product sales remain purely voluntary (not

⁴ The Green-e® program does not allow this for California's Low-carbon Fuel Standard (LCFS) program since RECs used for the LCFS cannot meet other requirements in the Green-e® program, namely, to use the Voluntary Renewable Energy Program (VREP) under cap-and-trade. See additional details here: <https://www.green-e.org/news/062019>.

⁵ Third Discussion Paper, pg. 5-6.

used for CFP or the Renewable Portfolio Standard), and 3) the utility must provide additional disclosure language.⁶

In addition, investor-owned utility (IOU) voluntary green pricing programs have included provisions for the programs to be Green-e® certified since around 2012,⁷ per the recommendations of the Portfolio Options Committee (POC) and approved by the Oregon Public Utility Commission (OPUC).⁸ Where these programs may also be approved Green Tariffs under the CFP, the potential Green-e® program rules above would apply.

Verification of DEQ's other proposed requirements for RECs through the Green-e® program

In the Third Discussion Paper, DEQ staff proposes that, in addition to Green-e® certification, RECs used for CFP must also be from generators placed in service after 2015 (hereafter the “placed in service requirement”), that the associated generation be located in a balancing authority area (BA) that includes Oregon or that the electricity is delivered to one of those BAs (hereafter, the “deliverability requirement”), and that RECs must be from the same or prior year as the EV charging (hereafter the “vintage requirement”).

In general, the Green-e® program can be used to verify these proposed requirements. Where there are differences between Green-e® program requirements and these, the program would default to the more stringent requirement. DEQ's proposed placed in service requirement is more stringent than the Green-e® program's “new date”⁹ requirement. The Green-e® program could verify the more stringent post-2015 CFP facility in service date for CFP products/transactions. Regarding the proposed deliverability requirement, information on RECs can be used to determine the location of the generator and the Green-e® program can verify that the RECs come from “a BA that includes Oregon.” However, information on the RECs cannot be used to demonstrate that the associated electricity was, “delivered to one of those BAs on a real-time basis without shaping, storage, or integration services.”¹⁰ Therefore, the Green-e® program could potentially add verification procedures to check this based on other documentation and attestation that may be needed. Finally, the Green-e® program's vintage requirements are more stringent than what is in the Third Discussion Paper, in which case the program would verify that its 21-month eligible vintage window¹¹ for certified sales has been met. However, DEQ

⁶ See. Sec. IV.C1.9 (pg. 16) of the *Green-e® Energy Code of Conduct for Canada and the United States v2.2*. Available: <https://www.green-e.org/docs/energy/Green-e%20Energy%20Code%20of%20Conduct.pdf>.

⁷ See docket UM 1020, at: <https://www.oregon.gov/puc/edockets/Pages/default.aspx>.

⁸ The most recent approval was Order 18-183 (<https://apps.puc.state.or.us/orders/2018ords/18-183.pdf>). In March 2020, the OPUC suspended the POC per Order 20-063 (<https://apps.puc.state.or.us/orders/2020ords/20-063.pdf>). As part of this and a subsequent order (<https://apps.puc.state.or.us/orders/2020ords/20-183.pdf>), POC recommendation requirements were also suspended, and the programs were given a continuance through December 31, 2021.

⁹ See Sec. II.E (pg. 7-8) of the *Green-e® Renewable Energy Standard for Canada and the United States v3.4*. Available: <https://www.green-e.org/docs/energy/Green-e%20Standard%20v3.4%20US.pdf>.

¹⁰ Third Discussion Paper, pg. 5.

¹¹ See Sec. III.B (pg. 11) of the *Green-e Renewable Energy Standard for Canada and the United States v3.4*. Available: <https://www.green-e.org/docs/energy/Green-e%20Standard%20v3.4%20US.pdf>.

staff indicated at the October 22 Meeting that it did not intend to propose vintage requirements that were different from those of the Green-e® program and it intends to change the proposed vintage limits to match the Green-e® program.

Differences between WREGIS and the Green-e® program

At the October 22 Meeting, several participants asked or commented on the role of WREGIS relative to the Green-e® program regarding the proposed requirements above. WREGIS is not a renewable energy standard or verification program. The Green-e® program provides verification of renewable energy transactions relying, in part, on robust tracking systems like WREGIS, which use verified static and dynamic generation data to issue, track and retire serialized RECs to prevent double issuance, double transfer, and double retirement. The Green-e® program requires an annual audit of sales against the Green-e® Standard and retirement information in WREGIS, to ensure that WREGIS certificates meet the Green-e® Standard and were not double sold. DEQ could perform its own verification that the requirements above have been met, rather than relying on Green-e® certification, but WREGIS does not do this. DEQ is also not proposing to require an audit of REC sales to protect against double selling, and WREGIS also does not do this. The Green-e® program includes resource- and product-specific requirements beyond what DEQ is proposing, to provide additional quality and sustainability assurances. The Green-e® program also prevents instances of double claiming, verifying that there are no other renewable energy usage claims being made on either the RECs or underlying electricity. WREGIS also cannot be used for this.

One specific example of Idaho Power's voluntary target and potential double claiming came up at the October 22 Meeting. We cannot speak to the details of that program, but it may be permissible for utilities to count voluntary renewable energy and REC sales toward voluntary targets for their own sales. This would not conflict with the REC owner's exclusive end-use claim. Regardless, the Green-e® program does not certify RECs where there is an existing or multiple claims on the usage of the renewable energy generation or its benefits.

Evaluation of potential eligible supply under DEQ proposal

CRS was asked to evaluate the amount of potential supply that could be eligible in the Green-e® program, came online in or after 2015,¹² and is located with the proposed area of deliverability (estimated as the following BA areas: PGE, BPAT, PACW, IPCO, AVRN, and GRID).

We considered the following categories of generators.

1. Generators that currently have approved tracking attestations on file with the Green-e® Energy program that are located within the listed BAs and are online in/after 2015.

¹² This differs slightly from the proposed requirement in the Third Discussion Paper which is that the generator was placed in service after 2015.

2. Generators that could *potentially* be listed to be used in Green-e® Energy program that are located within the listed BAs and are online in/after 2015.

For category no. 1, we compiled the list of facilities that have approved tracking attestation on file with CRS, with an Energy Information Administration (EIA) number and BA Code that is PGE, BPAT, PACW, IPCO or AVRN, and that came online in 2015 or after. We used the facility online date in the 2019 EIA860 Early Release Form and the 2018 net generation from the EIA923 Form. The total MWh from these facilities were about 1.23 million MWh.

For category no. 2, we used EIA and Emissions & Generation Resource Integrated Database (eGRID) information to compile a list of solar and wind facilities that came online in 2015 or after and that have a BA Code of PGE, BPAT, PACW, IPCO or AVRN. The total MWh from these facilities were about 1.29 million MWh. We did not include hydropower or biomass generators, since the Green-e® program has stringent requirements for those. We also did not include geothermal, as the one facility that is eligible reported zero generation in 2018.

It is unclear exactly what portion of these volumes would be available for REC sales for the CFP. Approximately 60-70% of the first volume—1.23 million MWh—is currently being used by Green-e® Energy participants for existing sales, not all of it to customers in Oregon and not all of it for REC sales. It may be that some of this volume can be (re)allocated to CFP. In general, our understanding is that supply of *unclaimed* renewable energy in the West is limited.

RECs associated with California imports

Oregon's CFP should not accept RECs associated with power that has been or will be imported to California, either directly or through the Western Energy Imbalance Market (EIM).

California's cap-and-trade program includes emissions associated with imported electricity. It defines imported electricity as: "electricity generated outside the state of California and delivered to serve load located inside the state of California."¹³ In addition, GHG attribution to California in EIM, "determines if [a] resource is serving load in [the] California GHG compliance area,"¹⁴ as opposed to load in Oregon, for example. Like CFP, California is accounting for generation attributes delivered to load in California under this part of the cap-and-trade program. As such, it affects other load-based policies and RECs.

¹³ Sec. 95802(a) California's Cap-and-trade Regulation.

¹⁴ Slide 5 of the California Independent System Operator's (CAISO's) July 15, 2020 presentation to the state of Washington's Clean Energy Transformation Act (CETA) Carbon and Electricity Markets Stakeholder Workgroup (MWG). Available here: <https://www.utc.wa.gov/layouts/15/CasesPublicWebsite/GetDocument.ashx?docID=140&year=2019&docketNumber=190760>.

However, that program does not require REC retirement in California for renewable imports, to calculate emissions or determine compliance obligations.¹⁵ It does not use RECs to track imported renewable energy, and the California Independent System Operator (CAISO) has created a GHG attribution mechanism in the EIM for California that also does not involve RECs. As we have described previously at the EIM Regional Issues Forum (RIF),¹⁶ that has created a risk of double counting zero-emissions electricity that is imported to California and reported under the Mandatory Reporting Regulation (MRR). Where the RECs associated with this generation are used for the CFP or in RPS and other programs outside of California, the same zero-emission generation may be delivered to two different states.¹⁷

The Green-e[®] program's verification software does ask participants whether RECs used outside of California are associated with generation that was imported to California for all the facilities that are located in WREGIS footprint. The program can potentially add additional verification requirements, including additional documentation or attestation around this issue. However, the program would like (and has requested) additional data from the California Air Resources Board (CARB) to improve its verification that these RECs are not double counted. Due to the many other potential benefits, we nevertheless support both allowing RECs to be used in CFP and the use of Green-e[®] certification.

Please let me know if we can provide any further information or answer any other questions.

Sincerely,

_____/s/____

Todd Jones

Director, Policy

¹⁵ See Sec. 94511(a)(4) of the Mandatory Reporting Regulation (MRR): "Imported Electricity from Specified Facilities or Units. The electric power entity must report all direct delivery of electricity as from a specified source for facilities or units in which they are a generation providing entity (GPE) or have a written power contract to procure electricity."

¹⁶ See recording of the June 18, 2019 EIM RIF: <https://www.youtube.com/watch?v=KhZ-QPOAluU&feature=youtu.be>, min 1:05-1:14:47.

¹⁷ Further explanation is provided in two letters from CRS to the California Independent Emissions Market Advisory Committee (IEMAC) dated Oct 5, 2018 and Aug 22, 2019. Available at: <https://resource-solutions.org/wp-content/uploads/2018/10/CRS-Comments-for-IEMAC-10-5-2018.pdf> and <https://resource-solutions.org/wp-content/uploads/2019/12/CRS-Letter-to-IEMAC-8-22-2019.pdf>, respectively. In these letters, CRS uses Washington's programs as an example, but the concern is equally as applicable to CFP and programs using RECs to verify delivery of renewable energy to load in Oregon.

October 30, 2020

Cory Ann Wind
Oregon Department of Environmental Quality (DEQ)
700 NE Multnomah Street, Suite 600
Portland, OR 97232-4100

Emailed: wind.cory@deq.state.or.us

Subject: **Comments on The Clean Fuels Program Electricity 2021 Rulemaking
Relating to Future Use of the Program by the City of Gresham WWTP**

Dear Ms. Wind,

The City of Gresham provides wastewater collection and treatment at our Wastewater Treatment Plant (WWTP) located at 20015 NE Sandy Blvd, Portland, Oregon for approximately 120,000 residents of the greater City of Gresham in the eastern portion of Multnomah County, Oregon. The City of Gresham is committed to sustainable operation of the WWTP and operations to minimize emissions and maximize on site generated electricity from biomass generated biogas. We are committed to doing the right thing for the environment in a cost-effective manner as reflected by the fact that our WWTP has been producing cogeneration power since 1987 and has been energy “net zero” since 2015 when we began accepting fats, oil and grease deliveries, meaning it currently generates more electricity on site than it consumes. We are considering expanding our digestion capacity to allow for processing of additional fats, oils and grease and slurried food waste from the region diverted from landfills. The proposed project would use the digester gas (biogas) to produce additional cogeneration electricity and heat for the WWTP and would produce a surplus of electricity to the grid. We are interested in producing even more renewable electricity at the Gresham WWTP and decreasing pollution from transportation fuels used in Oregon.

Please accept the following comments regarding the above-referenced rulemaking.

Comment 1: Allow Book and Claim

The City requests that the DEQ explicitly allow book and claim accounting for low CI-electricity similar to the California Air Resource Board Low Carbon Fuel Standard (LCFS) Guidance 19-01¹. Allowing for book and claim would encourage the use of biomass-generated electricity in Oregon that might otherwise be exported to the CA market due to the difficulty of building and using charging stations at biomass producing facilities. We strongly encourage book and claim accounting be allowed in the Electricity 2021 Rulemaking.

Comment 2: Role of Biomass Generation

Biomass-generated renewable electricity can be produced reliably regardless of the weather. As a result, biomass-generated electricity has the potential to provide renewable electricity during periods when other sources, such as solar or wind, are not producing. We believe that biomass-generated electricity is very important to reaching the goals of the CFP and allowing for inclusion in the program is important. We appreciate that the DEQ is including biomass-generated electricity in the rulemaking.

Comment 3: Biomass-Generated Electricity Lifecycle Analysis

We support requiring a lifecycle analysis (Tier 2 fuel pathway application), for biomass-generated electricity rather than automatically being assigned a typical value. This would allow each specific project to account for the specifics associated with the production of electricity and we believe it would encourage innovation and further decrease the carbon intensity of electricity.

Thank you for providing the opportunity to review and comment on the Clean Fuels Program Electricity 2021 Rulemaking Implements Section 4B of Governor Kate Brown's Executive Order 20-04. We are looking forward to seeing the proposed rules in Spring 2021. If you have any questions, I can be contacted.

Sincerely,



Alan Johnston, P.E.
Senior Engineer
WWTP Program
Department of Environmental Services
City of Gresham

¹https://ww2.arb.ca.gov/sites/default/files/classic/ffuels/lcfs/guidance/lcfsguidance_19-01.pdf.

Clean Fuels Program Staff
Oregon Department of Environmental Quality (DEQ)
VIA Email

30 October 2020

Comments regarding the Rulemaking Advisory Committee Meeting 3 - Topic: Lowering the Carbon Intensity of Electricity Used as a Transportation Fuel

Dear Clean Fuels Program Staff,

Thank you for your work on the Clean Fuels Program Electricity 2021 Rulemaking to implement Section 4B of Governor Kate Brown's Executive Order 20-04, and for the opportunity to provide comments on the Clean Fuels Program RAC Meeting #3, "Lowering the Carbon Intensity of Electricity Used as a Transportation Fuel." Below, you will find recommendations that address the section of who is able to claim incremental credits.

Recommendations for the creation of an Incremental Credits Equity Advisory Committee:

- We encourage DEQ to establish an Equity Advisory Committee as described in Page 6 of RAC #3's Discussion Paper to ensure that revenue generated from incremental credits is being invested in transportation electrification projects that prioritize and address equity issues faced by the needs and interests of communities that are most vulnerable to the impacts of climate change, tribes, low-income communities, rural communities, and other underrepresented communities
- The Equity Advisory Committee should consist of representatives appointed by DEQ through an open and transparent process. While transportation electrification equity representatives should be part of the Committee, the majority of Committee representatives must represent: (1) equity and environmental justice needs; and (2) the needs and interests of communities that are most vulnerable to the impacts of climate change, tribes, low-income communities, rural communities, and other underrepresented communities
- The Equity Advisory Committee should have weighted consideration to approve projects and/or programs that meet the needs of, or deny projects and/or programs that do not meet the needs of, communities that are low-income, underserved and/or vulnerable to climate change, based on an established set of equity criteria
- The Equity Advisory Committee should coordinate with DEQ on the approval of an incremental credit annual work plan
- The Equity Advisory Committee members should be reasonably resourced for their time spent serving as representatives of the Committee and reimbursed for travel expenses incurred
 - The incremental credit annual work plan mentioned above should include funding to resource Equity Advisory Committee members

Recommendations for who should be eligible to claim incremental credits:

- We recommend that automakers not be eligible to claim incremental credits as it does not support Section 3.C (2) of EO 20-04: “Prioritize actions that will help vulnerable populations and impacted communities adapt to climate change impacts.”
- Whether incremental credits are claimed by utilities or an incremental credit backstop aggregator, we recommend the following considerations that aim to support Section 3.C (2) of EO 20-04:
 - The revenue from incremental credits should be aggregated statewide and should support statewide projects and/or programs to ensure all Oregon communities have consistent access to actions that mitigate climate change impacts.
 - An Equity Advisory Committee, as described above, should have decision-making authority to approve projects and/or programs supported by revenue from incremental credits. The Equity Advisory Committee’s decision making process should be done in coordination with DEQ and their approval of each incremental credit annual work plan

Recommendations for eligible incremental credit revenue expenditures:

We recommend DEQ to apply CARB’s guidelines for eligible uses of incremental credit expenditures as outlined in the Clean Fuels Program Discussion Paper for the first RAC Meeting:

- Electrification and battery swap programs for school or transit buses.
- Electrification of drayage trucks
- Investment in public EV charging infrastructure and EV charging infrastructure in multi-family residences
- Investment in electric mobility solutions, such as EV sharing and ride-hailing programs.
- Multilingual marketing, education, and outreach designed to increase awareness and adoption of EVs and clean mobility options and including information about:
 - the environmental, economic, and health benefits of EV transportation;
 - basic maintenance and charging of EVs;
 - electric rates designed to encourage EV use; and
 - local, state, and federal incentives available for the purchase of EVs.
- Additional rebates and incentives for low-income individuals beyond existing local, federal and state rebates and incentives including the Clean Fuel Reward for:
 - purchasing or leasing new or previously owned EVs;
 - installing EV charging infrastructure in residences;
 - promoting the use of public transit and other clean mobility solutions; and
 - offsetting costs for residential or non-residential EV charging.
- Alternatively, utilities, in coordination with local environmental justice advocates, local community-based organizations, and local municipalities, may develop and implement other projects that promote transportation electrification in disadvantaged and/or low-income communities and/or rural areas or for low-income individuals. These alternative projects are subject to approval by DEQ. Applications submitted to DEQ must include and will be evaluated for approval based on a complete description of the project, the

demonstration that the project promotes transportation electrification in communities that are most vulnerable to the impacts of climate change, tribes, low-income communities, rural communities, and other underrepresented communities or provides increased access to electric transportation for low-income individuals, and evidence that the project was developed in coordination with local environmental justice advocates, local community-based organizations, and local municipalities.

We are grateful for all the work that the Clean Fuels Program Staff has done to achieve the goals set forth in EO 20-04 and appreciate the opportunity to provide comment for consideration.

Sincerely,

Victoria Paykar
Oregon Transportation Policy Manager
Climate Solutions

Annabel Drayton
Policy Associate
NW Energy Coalition

Mike Goetz
General Counsel
Oregon Citizens' Utility Board

Rhett Lawrence
Pacific Northwest Policy Manager
Forth

Jana Gastellum
Deputy Director for Programs
Oregon Environmental Council



November 3, 2020

Cory Ann Wind
Oregon Department of Environmental Quality
700 NE Multnomah Street, Suite 600
Portland, OR 97232-4100

Re: Oregon Clean Fuels Program 2021 Rulemaking

Dear Cory,

Electrify America, LLC, appreciates the opportunity to comment on proposed changes to the Oregon Clean Fuels Program (CFP) and to participate in the Regulatory Advisory Committee. Electrify America operates the largest open network of DC fast chargers in the nation, including 63 ultra-fast chargers across 16 commissioned sites in Oregon. Electrify America has numerous additional sites under development in the state as part of its Cycle 2 National ZEV Investment Plan implementation, which covers investments through the end of 2021. Additionally, Electrify America is in the process of developing its Cycle 3 National ZEV Investment Plan, which will cover investments made between January 2022 and June 2024.

Electrify America participated in the October 22 meeting to discuss potential options for allowing renewable electricity into the CFP. Electrify America also participates in the California Low Carbon Fuel Standard and ensures that all electricity dispensed at Electrify America's chargers in the state is covered by Renewable Energy Credits (RECs) from renewable electricity sources. Electrify America supports the introduction of a similar pathway in Oregon to allow EV charging providers to enhance the environmental attributes of electricity dispensed from Oregon charging stations. A REC pathway in Oregon will provide an incentive for EVSPs to decrease the carbon intensity of electricity dispensed, facilitating program compliance, increasing GHG reductions achieved, and attracting more investment to the state.

Regarding implementation of requirements around REC use in the CFP, Electrify America recommends that DEQ consider two principles: 1) Ensure that requirements on RECs, such as geographic limitations and vintage, are consistent with other Oregon regulations and allow a sufficient pool of RECs for any EVSPs wishing to use RECs to do so, and; 2) Ensure that the REC certification requirements are sufficient to ensure environmental integrity, but do not add any undue or unnecessary cost or administrative burden that could deter EVSPs from choosing to power their stations with renewable energy.

Electrify America believes that the qualifying sources proposed by DEQ, which include numerous types of renewable generation, as well as RECs generated through a biogas pathway using a Tier 2 fuel pathway application, provide a wide range of RECs for EV charging providers to secure. Electrify America also believes that the two-year vintage limit for REC use is not overly restrictive.

However, Electrify America is concerned that DEQ is proposing that only a subset of the RECs that are acceptable under the Oregon RPS will be acceptable to demonstrate that electricity delivered at EV charging stations under the CFP is renewable, creating undue complexity and potentially creating a burdensome shortage of the subset of RECs that meet both RPS requirements and CFP requirements. In particular, DEP has proposed three impactful requirements of generation facilities different from the RPS requirements: (1) generation facilities must be within balancing authority areas that include Oregon, (2) generation facilities must be placed in service in 2015 or later, and (3) RECs must have a Green-e third party certification.



Electrify America is concerned that these restrictions could result in a shortage of CFP-compliant RECs. Electrify America recommends that DEQ project the expected supply of compliant RECs in order to determine whether the volume of RECs that meet these restrictions will be sufficient to serve a growing charging industry, and Electrify America also recommends that DEQ assess whether the REC market would be sufficiently liquid and affordable to allow EV charging companies to source renewable energy for their stations without increasing consumer costs. Finally, we urge DEQ to assess whether allowing projects from the same geographic area as Oregon's RPS (the WECC), provided the projects meet all other vintage requirements of the program, may ensure a broader pool of RECs while also ensuring the environmental benefits of increased renewable generation.

Electrify America also seeks additional detail on how the Green-e certification would be implemented, who would be responsible for securing the certification, and the expected cost of certification. The Green-e standard linked in the DEQ discussion document states that renewable electricity generation facility owners must provide certain types of documentation regarding their facilities in order to secure the Green-e certification. Electrify America seeks clarity on whether DEQ expects generation facility owners to voluntarily obtain the certification, or whether EVSPs or REC brokers would be responsible for securing the certification and gathering the necessary information from generators. Electrify America has some concern that this requirement would increase administrative burden on EVSPs or REC brokers to manage the certification process, and that generation facility owners may not wish to provide the required information without a financial incentive for participation. Under this scenario, the requirement for Green-e certification may restrict the availability of program-compliant RECs or increase the cost of obtaining RECs, reducing the incremental value of renewable electricity and reducing the incentive for EVSPs to invest in the state.

Finally, Electrify America recommends that Oregon Department of Environmental Quality consider alternative requirements for electricity secured through arrangements with especially strong assurances of additionality. For instance, if an EVSP secures a power purchase agreement (PPA) to ensure the construction of a renewable generation facility that otherwise would not be built, the electricity from this facility constitutes a clear increase in renewable generation over business-as-usual. Electrify America recommends that DEQ consider allowing renewable generation from such PPAs to be allowed for compliance in the CFP regardless of the location of the project, provided the environmental attributes associated with the generation are retired for compliance with the CFP and not counted towards any other regulatory program. This approach would provide EVSPs with flexibility in supporting new generation facilities while maintaining the strongest assurances of additionality and increased renewable generation.

Electrify America looks forward to continued participation in the CFP amendment process and to ongoing collaboration with the State of Oregon.

Sincerely,

/s/

Andrew E. Dick
State Government Affairs and Public Policy Manager



October 30, 2020

Cory-Ann Wind
Oregon Department of Environmental Quality (DEQ)
700 NE Multnomah Street, Suite 600
Portland, OR 97232-4100

Re: Proposed Clean Fuels Program Amendments per Executive Order 20-04

Dear Ms. Wind:

Enel X North America, Inc. (Enel X) respectfully submits the following comments on the Oregon Department of Environmental Quality's (DEQ) *Rulemaking Advisory Committee #1: Discussion Paper* (Discussion Paper) to implement changes to the Clean Fuels Program (CFP) per Section 4B of Governor Brown's Executive Order (EO) 20-04.

Enel X is a credit aggregator in the CFP as well as reporting entity in California's Low Carbon Fuel Standard (LCFS) for both residential and non-residential EV charging. Enel X e-Mobility, a division of Enel X, is a leading provider of electric vehicle (EV) charging hardware and software technologies across residential, workplace, fleet, and public charging applications. Enel X's e-Mobility products are available in over 30 utility programs across the United States, and complement a broad portfolio of customer-facing clean energy offerings including demand response, customer-sited and front-of-the-meter energy storage, solar photovoltaic + energy storage, and advisory services.

1. General Provisions

1.1. Increasing the frequency of residential EV crediting

Any changes to the frequency of residential EV crediting is germane to the base credits generated by participating electric utilities. If incremental credits from directly metered residential EV charging are enabled for non-utility credit aggregators, these credits should be dispersed on a quarterly basis because actual meter data is available quarterly for reporting purposes. This is also the cadence for incremental credit generation in the California LCFS.

1.2. Directing revenues from electricity crediting,

Enel X supports an inclusive approach towards establishing credit revenue reinvestment requirements. Many current and potential electricity credit generators have primary business activities that inherently pursue the goals of transportation electrification (TE), e.g., by providing EV charging services, marketing EVs or EV charging equipment, etc. Credits generated from charging network operators or site hosts are typically used as part of the financing for those (or future) charging projects. Incremental credits that could be claimed by non-utility parties for directly metered residential charging are often, or could be limited to those, in the business of promoting electrified transportation. As such, Enel X recommends broadly defining eligible reinvestment activities to include reinvestment in EV charging projects, EV and EVSE marketing and promotional activities, participation incentives, among other activities. Any reporting on reinvestment activities



should be annual at most, and should be satisfied by qualitative descriptions of activities as they pertain specifically to Oregon, as it may not be possible to track precise amounts of expenditures within a single geography when primary business operations relate to promoting electrified transportation broadly. In addition, given the limited liquidity for CFP credits, any reporting requirements should acknowledge that credit generators will participate in reinvestment activities before actually selling credits.

1.3. Establishing incremental residential credits

Enel X supports the establishment of incremental credit generation by non-utility third parties, and for these incremental credits to reflect 1) zero or negative carbon intensity (CI) electricity generation and 2) smart charging for both residential and non-residential charging. The state can stimulate increased private sector investment in EV and EVSE adoption and realize the associated benefits by enabling incremental credit generation from non-utility actors. Utility programs and initiatives are already funded by ratepayers and base credit revenues.

Both the zero or negative CI and smart charging pathways reduce carbon intensity independently and should be enabled to be utilized concurrently for a single fueling point. Incremental credits should be calculated by statewide, and not utility-specific, CI. We further discuss these recommendations for statewide versus utility-specific CI, renewable energy credits (RECs), and different approaches to smart charging in the ensuing sections.

3. Lowering the Carbon Intensity of Electricity as a Transportation Fuel

3.1. Calculating the statewide and utility-specific mixes

Enel X does not take a position on DEQ's straw proposal to remove the utility-specific load and associated CI from the statewide grid mix calculation for utility electricity credit generation. However, for non-utility credit generation, and for incremental residential credits earned by non-utility parties, it is most administratively efficient and least discriminatory to EV charging customers to use a single statewide average CI for the basis of credits. End-use customers do not control utility electricity procurement; rather, site hosts and / or credit aggregators can influence zero or negative CI generation, and the value of that generation should be treated uniformly.

3.2. Allowing for non-contiguous renewable energy

Enel X supports the use of REC retirement or lifecycle CI scoring to enable zero or negative CI electricity incremental charging pathways. At a minimum, non-utility parties should be enabled to utilize zero or negative CI pathways for credit generation. We also agree with the categorical eligibility of non-emitting resources and application process for emitting renewable resources to establish a zero or negative CI score, as described in the Discussion Paper.

RECs with a first point of delivery to a Balancing Area Authority in a US state with an LCFS program should qualify for use in the Oregon CFP. We posit that the temporal eligibility of RECs should be determined according to the permitted geographic perimeter: e.g., if REC generation is limited to zero or negative CI generation connected to the BPA system, RECs should be eligible for the eight quarters in arrears, inclusive of the CFP reporting quarter. Or, if the CFP is inclusive of



our proposal to include BAAs in states with LCFS, RECs could be eligible for three quarters in arrears, as it is applied in California LCFS.

3.3. Using smart charging to access lower carbon electricity

We support establishing a smart charging pathway as an option alongside RECs to achieve incremental credit generation. As mentioned above, we believe the CI benefit of these two pathways are incremental and additive – decarbonizing generation used to supply EVs and optimizing charging schedule to minimize emissions at the point of charging – and thus should be enabled concurrently. Enel X offers GHG-optimized charge scheduling utilizing forecast and real-time marginal emission rates from WattTime, a subsidiary of the Rocky Mountain Institute.

Enel X thanks the DEQ for its consideration of these comments and looks forward to collaboration with the agency and other industry stakeholders to evolve the State’s CFP for 2022 in pursuit of stricter CI reduction targets established by EO 20-04.

Sincerely,

A handwritten signature in black ink, appearing to read 'M. Monbouquette', is written over a light blue horizontal line.

Marc Monbouquette
Regulatory Affairs Manager
Enel X North America, Inc.

Date: October 27, 2020

Via email

Department of Environmental Quality
State of Oregon

Comments on the Oregon Clean Fuels Program Electricity 2021 Rulemaking Proposed Smart Charging Credit Pathway

Exergy appreciates the opportunity to comment on the Clean Fuels Program. We believe there is significant opportunity to use smart charging technology to incentivize additional GHG reductions and further accelerate transportation electrification in Oregon.

We support the DEQ's notion of Incremental Credits as "additional actions to lower the CI of electricity from the statewide grid mix.". Smart charging is a valuable component as Oregon scales to meet its transportation electrification goals. This document addresses questions central to implementing a smart charging pathway and calls attention to a range of potential solutions.

Availability and Accuracy of Granular Carbon Intensity Data

In its initial discussion paper¹, DEQ raised a question about the availability of sub-annual CI data. Exergy believes this data is available, and points to offerings from non-profit organizations such as WattTime², which combine multiple public data sources to create granular marginal emissions rates. WattTime makes historical, real-time and forecast Carbon Intensity data available at sub-hourly intervals across 3 balancing authorities in Oregon.

To the extent that questions exist regarding accuracy of granular carbon intensity data, Exergy encourages DEQ to create a collaborative environment between the CI data provider and grid operators, allowing the CI data provider to improve the accuracy of its forecast using proprietary data from grid operators. Absence of these future optimizations need not impede incorporating granular CI data in this rulemaking.

¹ <https://www.oregon.gov/deq/Regulations/rulemaking/RuleDocuments/cfpRAC1.DiscussionF.pdf>

² <https://www.watttime.org/>

Acceptable Fuel Supply Equipment for Metering

Under a smart charging pathway, credit generators would need to report granular energy usage data from registered metering equipment. California's LCFS provides an example³, wherein it allows metering of the EVSE, as well as vehicle telematics to provide usage data. Exergy believes a technology-agnostic approach to metering is important flexibility to enable participation in a smart charging pathway.

Smart Charging Incremental Credits should be Stackable

A smart charging pathway for measurable emissions reduction can work in tandem with many different credit generation pathways. Exergy points to a WattTime analysis (see: WattTime Comments dated 10.21.2020), which found that comparison between Smart Charging and REC's in LCFS led to underutilization of the smart charging pathway.

This comparison, and the structure of the LCFS incremental credit pathways, poses a false choice. Pursuing a REC pathway does not eliminate the carbon reduction potential from smart charging. In fact, any EV which is not utilizing the smart charging pathway is leaving potential emissions savings unrecognized. For this reason, the DEQ should allow credit generators to "stack" their incremental credits for each action taken to lower the CI of their electricity usage.

Intra-day Relationship between Grid CI and TOU Pricing

CFP stakeholders have pointed to the positive correlation between grid carbon intensity and TOU rate tiers. While this may be true today, this relationship can fluctuate over time depending on unrelated factors such as utility procurement, customer DER adoption, transmission & distribution investment, climate patterns and much more.

The importance of a smart charging pathway is its specific incentive to reduce the CI of charging. Meanwhile, TOU and dynamic pricing options from the Utility offer specific incentives to reduce the cost of charging. Exergy encourages DEQ to decouple grid cost and CI, and limit its focus to creating clear incentives to reduce the Carbon Intensity of charging. This would allow credit generators to weight the holistic mix of incentives based on vehicle owner preferences (CI, Cost, etc).

Delivery of a CI Signal: Real Time vs Lookup Table approaches

There are multiple options available to make granular carbon intensity available to users of a smart charging pathway. LCFS uses a lookup table approach which allows

³ https://ww2.arb.ca.gov/sites/default/files/classic//fuels/lcfs/guidance/lcfsguidance_19-03.pdf

participants to create static charging schedules on a quarterly basis.⁴ WattTime's AER product creates an option for a more granular solution, where chargers can respond to real-time and forecasted CI data.

Both approaches can offer significant carbon emission reductions. The real-time approach likely offers more CI reduction potential at a greater degree of complexity for participants. Regardless of preference, this choice between the options should not impede implementing one of the options through this rulemaking.

Eligible Parties to Generate Incremental Credits via Smart Charging

There are many configurations through which customers will enable 3rd party control over their vehicle's charging. Utilities, Automakers, Charging Solution providers and Demand Response providers all have a reasonable proposition for optimizing customer charging behavior. At this stage in the EV ecosystem's maturity, it is unclear which will prevail as the preferred choice among customers.

As DEQ crafts its rules, Exergy believes creating optionality for enrollment by different stakeholders will be important to utilization of the smart charging pathway, while providing opportunities for customers to change their preferred service provider over time.

Conclusion

The smart charging pathway offers a great opportunity to further reduce carbon emissions and improve integration of renewable resources as Oregon pursues its transportation electrification and decarbonization goals.

As the grid decarbonizes, the flexibility provided by smart charging will be an important mechanism for absorbing intermittent renewable energy. Smart EV charging remains a nascent use case in an emerging industry, and needs incentives to facilitate its deployment.

The requisite data and systems to support a smart charging pathway exist today. This provides DEQ with an exciting opportunity to ensure this technology's implementation

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https://ww2.arb.ca.gov/sites/default/files/classic//fuels/lcfs/fuelpathways/comments/tier2/elec_update.pdf



aligns with the state’s decarbonization goals. Exergy appreciates the opportunity to comment on this rulemaking, and is prepared to submit further comments as needed.

Submitted by

Sean Grimes
VP, Product
Exergy

About Exergy

Based in Portland, OR, Exergy is a technology company helping businesses collect standardized data from fleets of distributed energy resources (DERs). Exergy’s data service integrates to EVSE to collect and standardize charging session data for use in digital applications.



NW Energy Coalition
for a clean and affordable energy future

Clean Fuels Program Staff
Oregon Department of Environmental Quality (DEQ)
VIA Email

November 2, 2020

RE: NW Energy Coalition's comments regarding the Oregon Department of Environmental Quality's consideration for utility carbon intensity calculations and incremental credit generation opportunities within the Clean Fuels Program Electricity 2021 Rulemaking.

The NW Energy Coalition (NVEC) appreciates the opportunity to provide comments on the Clean Fuels Program Electricity 2021 Rulemaking. Several changes to the Oregon Clean Fuels Program (CFP) are being considered in order to align the CFP with the directives of EO 20-04, including program components that would foster opportunities for additional credit generation. These comments address topics introduced in the first three rulemaking advisory committee meetings that warrant additional attention.

Utility Carbon Intensity (CI) Calculations

Accurate accounting of utility CI is important to maintain the integrity of the CFP. We support moving to a single-year CI for the statewide mix and utility-specific mixes and adjusting the statewide mix to remove emissions and energy associated with utilities that have opted in for a utility-specific mix.

Moving to single-year utility CI allows utilities and retail customers served by utilities to benefit from the retirement of fossil-fired power plants and the addition of new renewable resource generation to the grid with relatively small effects from hydropower system variability. Ultimately, this will result in increased base credit generation as utilities lower their grid mix CI.

Adjusting the statewide mix to remove emissions and energy associated with utilities that have opted in for a utility-specific mix ensures that credits generated using the statewide mix, accurately represents the grid-mix associated with the EV charging. We understand that this will result in a higher CI and a relatively small decrease in credit generation for some utilities and their retail electricity customers that have more fossil-fired power plants in their grid mix. This initial reduction in credits for some entities due to the accurate accounting of CI is mitigated by the fact that utilities can increase base credit generation by reducing fossil-fired power plants in their grid mix and adding more renewable resources as well as the opportunity for incremental credit generation to reduce the remaining CI of electricity to zero.

Smart Charging Pathway for Incremental Credits

There has not been a significant focus placed on smart charging as a method to demonstrate lower CI and generate additional credits. The smart charging pathway provides an opportunity to lower electricity CI and harmonize CFP intentions with work to optimize EV charging and mitigate grid impacts. NWECC understands that hourly electricity CI data is not currently available but that several entities are working to develop this data and we encourage DEQ to include options in the rule that help operationalize this pathway.

Existing Policy and Regional Market Considerations

Renewable portfolio standards, greenhouse gas (GHG) emissions policies, and electricity markets are all connected and there have been several forums to discuss the relation between state specific policies and regional markets. Renewable Energy Certificates (RECs) are frequently used in these schemes to demonstrate a claim on the non-power attribute of renewable electricity generation and RECs are currently being considered as a method to demonstrate lower carbon intensity electricity and generate incremental CFP credits.

As DEQ considers the use of RECs to demonstrate incremental electricity CI reductions as a means to generate incremental credits in the CFP, it's important to understand where double counting and resource shuffling could occur. This will help inform the development of the rules in a way that maintains the integrity of the CFP and mitigates potential impacts of using RECs for CFP voluntary pathways.

1. Double Counting

In 2017, the Oregon Department of Energy held a stakeholder process to discuss how the California Air Resource Board's assignment of a zero-emissions factor to renewable energy imported into California via the Energy Imbalance Market (EIM) interacts with RECs used for compliance with Oregon's Renewable Portfolio Standard (RPS). That process acknowledged the occurrence of double counting.

Several stakeholders participated and it was evident that California's assignment of a zero-emissions emissions factor to imported power does represent a claim on the REC. Once that emissions factor is assigned, if the associated REC is used outside of California, there is double counting.¹

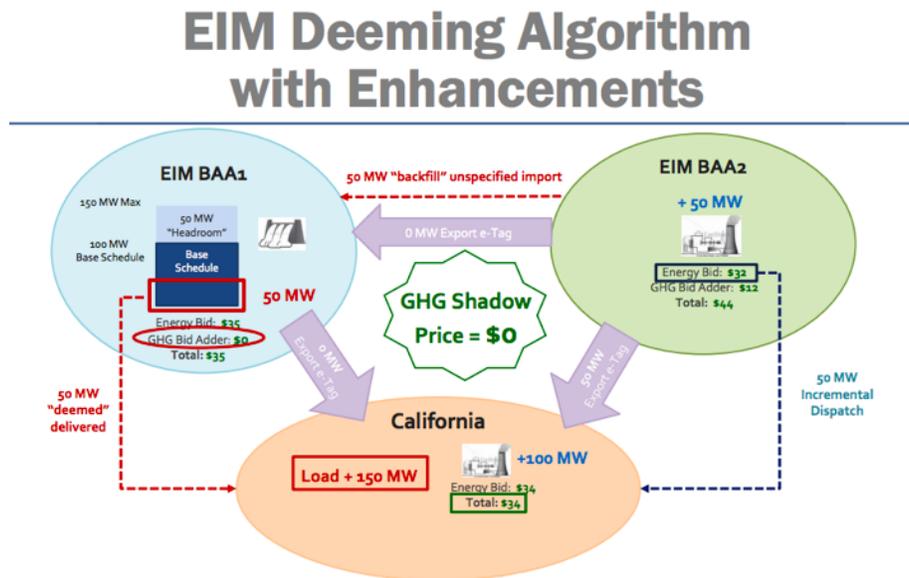
Specified renewable imports into California are assigned a specified source emissions factor by the California Air Resources Board (CARB) but RECs are not tracked or counted. This specified source assignment represents a claim on the direct GHG emissions or emissions factor associated with that power. GHG emissions attributes are also part of

¹ See page 19 of the Center for Resource Solutions' comments within the ODOE public comments received on RPS, RECs, and EIM; August 2017 <https://www.oregon.gov/energy/energy-oregon/Documents/2017-Public-Comments-RECs-EIM.pdf>

the non-power attributes counted toward its REC attributes. Consequently, there will be double counting of zero-emission power if energy is imported into California without the REC, counted as zero-emissions specified power delivered to California, and then the associated REC is used to count delivery of zero-emissions power by another program outside of California.

2. Resource Shuffling

EIM transactions can result in undetected thermal resources delivered for use by Oregon retail electricity customers. Take this illustration of an example EIM transaction:



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Say a utility in California, the orange circle, needs to serve an additional 150 MW and the Oregon utility, the blue circle, sells 50 MW of renewable power. The EIM deeming algorithm will deem Oregon's renewable electricity delivered to California, which could result in an additional import to Oregon if the utility needs to backfill that sale. This import could be a thermal resource, represented by the green circle. The transaction allows thermal resources to ultimately serve Oregon load. If the Oregon utility retained the RECs from that same 50 MW of electricity, the thermal resource will go undetected and the emissions attributes will be double counted.

The NWECA raises these considerations in an effort to inform the rulemaking process as well as encourage rulemaking design that acknowledges and works to mitigate CFP pathways that could exacerbate these issues. The Oregon RPS and EIM are vital to a clean and affordable

² See slide 10 of the Public Generating Pool's EIM GHG Market Design presentation to the Carbon and Electricity Markets Stakeholder Work Group, UE-190760; May 2020

energy future and while these issues are out of the scope of the CFP rulemakings, we support ongoing efforts to help electricity markets adapt to Oregon’s clean energy policies.

Additionality

Entities eligible to generate incremental credits must be able to demonstrate additionality. Additionality means a condition where a renewable energy project or GHG emissions reductions would not or did not come into being but for the action taken by the entity. There are multiple layers of additionality to consider.

1. Will the purchase of RECs to generate incremental credits result in an additional displacement of gasoline and diesel?

Incremental credits are designed to reduce the remaining CI of electricity used as a transportation fuel. This means that these credits are not generated from additional electricity and therefore incremental credits do not result in the displacement of additional gasoline and diesel transportation fuels. In short, the retirement of RECs to demonstrate lower CI electricity does not directly displace additional gasoline and diesel.

2. Will the purchase of RECs to generate incremental credits result in additional renewable energy projects created?

RECs were originally created as an effective tool to build the renewable energy market. However, with the increasing amounts of variable renewable resources, the significantly decreased pricing, and the increasing need to match renewables to load more precisely, RECs are no longer solely utilized to build the renewable energy market. Although RECs do not necessarily indicate the REC purchase caused the renewable energy project to be created, they can be used to demonstrate a claim on renewable energy and to increase demand for renewable energy projects.

3. Will incremental credit revenue be used to support additional displacement of gasoline and diesel transportation fuels?

The investments made from incremental credit revenue can result in additional displacement of gasoline and diesel transportation fuels if there are requirements that the revenue be invested in programs and projects that increase the use of zero CI-potential transportation fuels.

Certain provisions, as outlined in our recommendations below, can further support increased demand for renewable energy projects. Coupled with requirements for incremental credit revenue to be reinvested in programs and projects that increase the use of zero CI-potential transportation fuels, the CFP can further the greenhouse gas emissions reductions goals outlined in EO 20-04 and support pathways that demonstrate additionality.

Recommendations Regarding RECs Used to Generate Incremental Credits

The CFP allows a variety of entities to generate credits from electricity and incremental credit generation should be available to entities improving the CI of electricity. It's appropriate to use RECs for this application, as not all eligible entities are responsible for serving electricity load. Until utilities transition to a zero CI resource generation mix, this pathway affords eligible entities the opportunity to demonstrate lower electricity CI in an effort to mitigate potential disparities across utility specific CIs in Oregon.

Subsequently, specific requirements on RECs are essential to help ensure they result in benefits to Oregon. RECs purchased and retired to generate incremental credits:

- Must, at a minimum, demonstrate that the electricity associated with the REC can be delivered to Oregon. This is not the same as demonstrating that the electricity associated with the REC was used in Oregon but since not all entities generating incremental credits serve electricity load, demonstrating deliverability is an appropriate method to support locational benefits. We acknowledge that this requirement may differ under other clean electricity and GHG emissions reductions policies.
- Should not be claimed or retired under any other program.³
- Must be from the same or prior year as the electricity used to charge a vehicle and generate a credit.
- Should be used to demonstrate a CI value with a floor of zero. The rule should explicitly state this.

The CFP is scheduled to operate through 2035 and there are certain outcomes that are difficult to predict as it relates to the use of RECs. While this does not proscribe the use of RECs, DEQ should monitor the use of RECs in the CFP to support alignment with Oregon's clean electricity and GHG emissions reductions policies including, but not limited to:

- The number of RECs retired annually for incremental credit generation.
- The average cost of RECs retired annually for incremental credit generation.
- The use of RECs in comparison to other compliance obligations or voluntary efforts that rely on RECs.
- Occurrences of potential double counting and whether or not electricity and REC markets have adapted to address potential double counting occurrences.

Conclusion

NWEC appreciates DEQ's work to engage and inform stakeholders. The CFP Electricity Rulemaking process is on an accelerated timeline and these comments do not address all

³ Electricity CI lowered under a green tariff program, demonstrated through a reporting process, does not constitute a double claim on a REC.

concepts being considered. We will continue to engage and provide feedback on an ongoing basis.

Thank you for your consideration of NW Energy Coalition's comments.

Sincerely,

Annabel Drayton
Policy Associate
NW Energy Coalition

From: [Jennifer Joly](#)
To: [CFPE2021](#)
Cc: ["PETERS Bill N."](#); [WIND Cory Ann](#); [Danelle Romain](#)
Subject: Feedback from OMEU & OPUDA, re: CFP Electricity 2021 RAC Workshop #3
Date: Wednesday, November 4, 2020 2:55:26 PM

Thank you for the opportunity to provide further comment on potential changes to the electricity provisions of the Clean Fuels Program (CFP).

We appreciate your analysis of the Bonneville Power Administration (BPA) hydro-variability data for possible shifts in CFP credit generation. Given this modelling and your explanation of how carbon intensity (CI) is calculated under the program, we are not opposed to DEQ's proposed change to a single-year average calculation for the CI, which will accelerate credit generation upon retirement of fossil-fired plants, like Boardman. As noted previously, we support DEQ's proposal to remove the utility-specific load from the statewide mix to better align with principles of carbon accounting.

We have no objection to requiring that recipients of residential EV credits file an annual report with DEQ on use of the proceeds. The reporting should be simple and listed categories of expenditures should be illustrative, not limiting. Reporting will provide the desired transparency without imposing unnecessarily narrow limitations on expenditures. This approach strikes a nice middle ground that will continue to provide local flexibility to develop targeted programs that match local climate goals and realities on the ground.

DEQ has indicated that if the CFP is expanded to include out-of-state automakers that it intends to circumscribe credit expenditures more narrowly. If this approach is taken, we urge that expenditure limitations be imposed only on automakers, or just to incremental credit generation not the base residential EV program.

Thank you for your consideration. Look forward to tomorrow's discussion.

Jennifer Joly, Oregon Municipal Electric Utilities Association
Danelle Romain, Oregon People's Utility District Association

October 26, 2020

Oregon Department of Environmental Quality
700 NE Multnomah Street, Suite 600
Portland, OR 97232-4100

RE: The Clean Fuels Program Electricity 2021 Rulemaking

Thank you for the opportunity to comment on the Discussion Paper on Executive Order 20-04 (Paper) issued by the Oregon Department of Environmental Quality (DEQ) in September 2020 as part of the Clean Fuels Program Electricity 2021 Rulemaking.

Governor Brown issued Executive Order 20-04 Directing State Agencies to Take Actions to Reduce and Regulate Greenhouse Gas Emissions (Executive Order) on March 10, 2020. The Executive Order provides direction to DEQ primarily with respect to Oregon's Clean Fuel Standards, Clean Fuel Credits for Electrification, Sector-specific GHG Cap and Reduce Program, Regulation of Landfill Methane Emissions, and Reduction of Food Waste.

The Discussion Paper identifies a number of potential actions that could be taken in response to the Governor's directive to advance methods of accelerating the generation and aggregation of Clean Fuels Program (CFP) credits by utilities that can advance the transportation electrification goals set forth in Senate Bill 1044 (2019). In addition to the formal rulemaking process DEQ has asked for written comments on the proposed actions identified in the Discussion Paper.

PacifiCorp, dba Pacific Power (PacifiCorp or Company) appreciates DEQ's thoughtfulness in developing a comprehensive list of potential actions, as well as the rulemaking process DEQ has established for working with stakeholders to implement the Executive Order. PacifiCorp agrees with many of DEQ's suggested actions as well as its proposed rulemaking process. PacifiCorp suggests significant changes to only a few of DEQ's proposals, with the intent to foster a program design that is (1) equitable, (2) maximizes credits so as to foster increased investments in charging infrastructure, (3) avoids policy conflicts, and (4) is simple to administer. Specifically, PacifiCorp suggests that DEQ reconsider its position on the agency's authority to enable some sort of credit multiplier for chargers located in underserved areas, as well as its proposed modification of the statewide fuel mix option and the workability of proposed voluntary renewable program design.

PacifiCorp is concerned that DEQ's proposals in these areas could inadvertently increase disparities in access to charging infrastructure, contrary to the State's goals of increasing EV adoption among low-income, disadvantaged, and rural communities. The three DEQ positions mentioned above will reduce the number of base credits that station operators in PacifiCorp's service area will be able to generate, as compared to current practices and set back ongoing efforts to equitably distribute program benefits. For the state's investor-owned utilities (IOU), this will directly reduce the amount of revenue from base credits available to reinvest in transportation electrification proposals. For other charging providers, it may make it economically unattractive to deploy chargers in areas that need them. Depending on how complicated claiming incremental credits could become given other proposed policies, this could stifle broad charging infrastructure expansion necessary to accomplish the State's policy goals. This could

further exacerbate existing disparities in adoption of EVs and reduce important co-benefits provided to those communities, including lower transportation costs and reductions in local air pollution.

1.1 Increasing the frequency of residential Electric Vehicle (EV) crediting

PacifiCorp does not have any concerns regarding increasing the frequency of residential Electric Vehicle (EV) crediting.

1.2 Directing revenue from the sale of electricity credits

PacifiCorp is supportive of leveraging revenues from the CFP to accelerate electric transportation within Oregon. Currently investor-owned utilities must follow a robust stakeholder process and spend revenues from residential CFP credits according to program principles established under UM 1826. In Order No. 18-376, the Commission identified six principles to guide utility expenditure of residential CFP credit revenue:

- 1) Support the goal of electrifying Oregon's transportation sectors.
- 2) Provide majority of benefits to residential customers.
- 3) Provide benefits to traditionally underserved communities.¹
- 4) Programs are designed to be independent from ratepayer support.
- 5) Programs are developed collaboratively and transparently.
- 6) Maximize use of funds for implementation of programs.

Residential CFP credits assigned to investor owned utilities should continue to be regulated through UM 1826. The Company seeks to avoid two separate, but similar, regulatory processes reporting to both the Oregon Public Utility Commission and DEQ as it adds duplicative administrative costs.

In addition to aggregating CFP credits on behalf of residential customers, PacifiCorp has been directed by PUC order 19-087 to generate CFP credits through ratepayer funded programs within UM 1810. These credits are generated through utility-owned charging stations or customer-owned charging stations that result as part of utility grants or incentive. These credits are then monetized and applied to appropriate electric transportation program budgets to reduce total program costs.

This avenue to apply CFP credits that are generated as a result of utility ratepayer funded programs should remain. It is critical to the cost effective methodologies of current and future IOU electric transportation programs and allow for greater customer participation that will enable the acceleration of EV adoption in Oregon.

¹ As defined in Commission Order No. 18-376, "Communities traditionally underserved by access to electric vehicles include but are not limited to multi-family housing, low-income communities, and areas with a low density of public charging stations."

1.3 Incremental credits

The value from incremental credits should be generally used to support the customer class or community that generated them as is currently seen by IOU programming under UM 1826. PacifiCorp has some concerns that incremental credit value generated by residential customers would not remain within the communities generating the credit as currently applies to residential base CFP credits assigned to utilities.

2. Encouraging New Types of Electric Vehicles

PacifiCorp is supportive of DEQ adopting new Energy Efficiency Ratios (EERs) for vehicles with sufficient data to demonstrate an alternative to the fossil- fuel powered alternative.

3. Lowering the Carbon Intensity of Electricity as a Transportation Fuel

Responses to DEQ's specific proposals regarding methods to lower the carbon intensity of electricity as a transportation fuel are provided below, but at the outset, PacifiCorp offers several general comments that inform its proposals.

All clean fuels program implementation possibilities rely on estimates, so DEQ can and should use reasonable approximations that favor granting more credits, not fewer.

PacifiCorp appreciates DEQ's interest in and focus on developing rules that accurately link each metric ton of carbon dioxide avoided with one credit generated. However, PacifiCorp is concerned that DEQ's approach may create unintended consequences that run contrary to the larger purpose of the law and Governor Brown's Executive Order. It is true that the law requires that fuel carbon intensity be quantifiably reduced, but DEQ has the authority to do so in a way that maximizes the Clean Fuels Program's potential to reduce transportation emissions, in part by speeding the development of charging infrastructure in all parts of the state. While DEQ must act within its statutory authority, that authority inherently allows DEQ to develop rules that rely on estimates of carbon reduction – there is no "perfect" clean fuels program implementation methodology. Nor is there any statutory language that would require DEQ to make all possible efforts to precisely align emissions avoided with credits granted. Doing so would reduce the number of credits generated, which would reduce the financial incentive to deploy additional charging infrastructure.

Although attempting to more granularly match emissions avoided and credits generated may provide a marginally better estimation of emissions reduced through EV charging, PacifiCorp is concerned that DEQ's proposal may slow the adoption of innovative proposals that could otherwise push Oregon's transition to clean fuels even faster. DEQ's rules should be based on reasonable estimates and approximations, but err in favor of granting additional credits, simply because that will provide greater incentives to develop charging infrastructure, consistent with the state's goals. This approach would be most consistent with Executive Order 20-04.

Further, PacifiCorp is concerned that DEQ's proposal may inadvertently exacerbate and create new inequities in the state. More granular differentiation between locational carbon intensities inequitably penalizes individuals in service territories served by utilities with higher carbon

intensities. DEQ's proposal should be aimed at creating the same incentives and innovation across the state rather than creating winners and losers based on where people live.

PacifiCorp encourages DEQ to adopt rules and methods that create reasonable estimations, but that prioritize (1) growth of the clean fuel economy in Oregon (2) successful, straightforward implementation, and (3) are consistent with the statute and recognize the state's policy goals as included in EO 20-04.

DEQ has the authority to grant credits based on location or other attributes.

PacifiCorp disagrees with DEQ's assessment that it lacks authority to consider credit multipliers or issuance of additional credits. DEQ states that it lacks this authority because those credits "do not represent real carbon emissions reductions under the CFP."²

DEQ's assessment is incorrect because it does not take into account the fact that one charger, located correctly, or with attributes particularly attractive to drivers, might encourage considerable changes in public behavior that cause real reduction in carbon emissions far beyond the carbon intensity of the fuel dispensed.³ If a town has no DC fast chargers, for instance, residents might be unwilling to purchase an EV. But if one is installed, it might only be used intermittently – but residents might be more willing to consider an EV knowing that the fast charger is there when they need it. In other words, but for that fast charger, none of those EV purchases would have happened, and there would have been no "real carbon emissions reductions." If you build it, they will come (and charge). If you do not build it, they cannot come (and will continue driving cars powered by gasoline and diesel).

PacifiCorp justifies its proposal based on the *effective carbon reduction potential* of charging stations and associated infrastructure. For instance, in a community already well-served by DC fast chargers, it is unlikely that additional charging stations would prompt significant increased adoption of EVs. But in low-income communities or rural areas – which generally lack access to adequate charging infrastructure – the increase in adoption could be significant, especially as those communities may be more likely to purchase lower-cost, used EVs with shorter ranges (due in part to the Charge Ahead Rebate program), which may rely more on DC fast charging. Essentially, in communities well-served by EV charging, it may be the case that a charger's carbon emissions reduction potential is roughly commensurate with the kilowatt-hours delivered to a vehicle. But in communities or locations with insufficient access to charging, the actual potential reduction in emissions likely goes beyond just the kilowatt-hours dispensed. PacifiCorp has seen this example in action, where successful community CFP partners have been

² State of Oregon Department of Environmental Quality. (2020, September). Rulemaking Advisory Committee #1: Discussion Paper. Retrieved October 20, 2020, from <https://www.oregon.gov/deq/Regulations/rulemaking/RuleDocuments/cfpRAC1.DiscussionF.pdf>

³ PacifiCorp believes that DEQ would be within its statutory authority to determine that electricity "produced... for use" at a charger sited in a rural or underserved community induces Oregonians in those areas to purchase EVs. The statute does not say that DEQ can only consider the *direct* emissions reductions can be considered. Oregonians might purchase EVs because electricity has been "produced... for [their] use" at a future time.

awarded funds to purchase vehicles *and* install public charging with capacity beyond their own vehicular needs.

It is not necessary to determine a precise amount of emissions reduction attributable to motivating behavior or market changes. Doing so would prioritize the principle of accuracy over potentially greater (but harder to quantify) reductions in emissions. As noted above, many aspects of the Clean Fuels Program rely to some degree on estimates, and DEQ is not statutorily obligated to seek the most precise way possible to administer the program.

PacifiCorp proposes that DEQ allow double credits for the first three years following installation of a charging station in a rural or underserved community, defined as including multi-family housing, low-income communities, and areas with a low density of public charging stations.^{4,5}Incentivizing investment in electric transportation infrastructure in underserved areas will help accelerate electric transportation in Oregon.

3.1.1 Calculating the statewide and utility-specific mixes

PacifiCorp agrees that reducing the averaging period from five to **three** years will better reflect the statewide Carbon Intensity (CI) of electricity and avoid significant manual adjustments. However, it should be noted that with a shorter averaging period there is risk of increasing the statewide CI due to hydro variability by year. Therefore three years strikes a balance between updating the calculation to capture changes in emissions while also avoiding the volatility of a one year averaging period

3.1.2 Adjusting what constitutes the statewide grid mix

PacifiCorp is not supportive of removing utility specific-CIs from the statewide mix or moving away from a statewide mix approach generally. While utility-specific CIs appear appealing and more accurate, the differentiation across utility service territories creates perverse and unintended consequences in terms of achieving the overall goals of the program, such as the equity concerns discussed in the introduction to this section. E0 20-04 directs DEQ to advance methods of 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). The current administrative approach ensures that the comparative emissions benefit of electricity as a transportation fuel versus traditional fuels can be provided statewide, and on an equitable basis. While acknowledging the rationale for DEQ's proposal, pushing utilities toward a utility-specific CI has the practical effect of resulting in fewer credits generated by investor-owned utilities, and smaller budgets for CFP funded utility programs like PacifiCorp's Electric Mobility Grant. Over time, this approach would drive up the state-wide CI and further push utilities to a utility-specific CI and render the state-wide mix meaningless.

Additionally, such a policy would further exaggerate barriers to electrification in rural service territories, which would result in unequitable treatment for customers charging in certain geographic areas. In other words, while traditional fuels are ubiquitous and standardized across

⁴ *Id.*, Order No. 18-376 (October 1, 2018).

⁵ This approach could be used for other clean fuels dispensers, but as this proceeding focuses on electricity as a fuel, PacifiCorp has limited its proposal to DC quick chargers.

the state, the electricity alternative would be geographically differentiated and limited. This is an example of a proposal valuing technical granularity at the expense of potentially greater (and equitable) emissions reductions. There is no statutory requirement that DEQ remove utility specific CIs from the statewide mix, and if DEQ does so, charging station providers or fleet operators in certain areas of the state will receive fewer base credits.

For example compare two fleets with exactly the same attributes (size, charging usage etc.) but one is in Beaverton and one in Prineville. The fleet in Beaverton would be able to claim more base CFP credits and have a faster return on investment than the Prineville fleet. The Prineville fleet may continue to delay electrification while the Beaverton fleet moves ahead. This policy change would further exaggerate the disincentives to place charging stations in rural areas and make some charging locations uneconomic, leaving areas of the state as charging deserts and the attractiveness of EV adoption significantly reduced.

3.2 Allowing for non-contiguous renewable electricity

PacifiCorp understands the potential appeal of using RECs to reduce some of the disparities created by moving toward using more utility-specific CIs and reducing the usefulness of the statewide mix. This seemingly easy solution may allow more carbon intensive utilities to “buy down” their CIs to be on what appears to be equal footing with other less carbon intensive utilities. However, PacifiCorp is concerned that using RECs in this manner may create unintended consequences that have not yet been fully considered. RECs are instruments commonly used in the state both for renewable portfolio standard compliance as well as voluntary renewable programs. DEQ also administers an emissions reporting program. To PacifiCorp’s knowledge, none of these programs allow a utility to use voluntary RECs to directly reduce emissions or change a portfolio carbon intensity. At a minimum, greater consideration should be given to a consistent state-wide policy perspective on the relationship between RECs and emissions prior to adopting this proposal. Ideally, rather than using RECs for this novel purpose, DEQ should maintain the statewide mix as it is currently utilized, or create an alternative default CI for entities without utility-specific CIs to apply, to ensure the negative consequences of CI differentiation are avoided. We encourage alignment with existing programs to encourage broad participation in the CFP and maintain simplicity.

As stated in the October 22nd workshop the company is concerned that these additional requirements will exaggerate the barriers to electrification in rural areas as compared to urban areas. Participating in the Clean Fuels Program is already a challenge for small fleet operators with limited resources. Adding on additional complications of RECs to access the full value of CFP participation will hinder not help electric transportation.

In addition, PacifiCorp is concerned that DEQ’s proposal is not sustainable as EV charging increases over time and further demands are placed on the REC market for a variety of reasons. Over the past year, PacifiCorp has noted a tightening in the REC market as customers adopt voluntary goals and utilities are increasingly retiring RECs to preserve their own claims. This tightening has resulted in increased REC prices to approximately \$5-\$7/REC for Pacific Northwest Green-e RECs. The REC market is illiquid and there is little ability to forecast future prices. PacifiCorp is concerned that if REC prices continue to go up, the benefits of DEQ’s proposal would decrease while simultaneously raising costs for PacifiCorp’s Blue Sky program

participants. DEQ should perform a market assessment to fully explore the long-term sustainability of this proposal to address regional inequities before moving forward with this option.

3.2.1 Eligible resource types to demonstrate renewable charging

Notwithstanding the previously expressed concerns over REC use, PacifiCorp supports the categorical eligibility of the resource types provided in DEQ's discussion paper – wind, solar, geothermal, wave, and tidal electricity. In addition, consistent with Oregon RPS statute, biomass and hydroelectric generation attributable to efficiency upgrades made on or after January 1, 1995 (incremental hydro), and low-impact certified hydroelectric facilities should also be included, since there is no broader policy rationale to exclude these resources. Limiting REC eligibility for the CFP by rule in a way that is inconsistent with Oregon's well-crafted RPS will create unnecessary "winners and losers" in the REC market and disadvantage those rural communities and customers who have invested in these resources. PacifiCorp encourages DEQ to avoid creating potential seams issues between different programs.

3.2.2 Should there be a limit to the temporal eligibility of the renewable electricity?

Notwithstanding the previously expressed concerns over REC use, the Company agrees with the principle that RECs generated within a limited amount of time are more valuable for sending signals for additional renewable investment and for increasing demand for electricity in the transportation sector. For simplicity's sake, and consistent with guidelines for IOUs' voluntary renewables programs, the Company suggests that the same standards for eligible RECs apply. RECs issued under these programs must be deemed "Green-e Certified" by the Center For Resource Solutions (CRS). Green-e Certified RECs must be generated within 18 months of retirement. Additionally, the RECs must have originated within the Western Electricity Coordinating Council (WECC), which ensures a locational benefit. These programs are also subject to a yearly audit by CRS to ensure programs are in compliance.

Additional locational restrictions will further complicate and restrict CFP participation. The more complicated these restriction are the harder it will be for smaller entities to be fully involved. The policies in this rulemaking should encourage broader participation in CFP not less.

3.2.3 Who should be eligible to claim that renewable electricity is going into an EV?

Any value from incremental credits should remain within the customer class or community that generated them. PacifiCorp has some concerns that incremental credit value generated by residential customers would not remain within the communities generating the credit as currently applies to residential CFP credits assigned to utilities.

For non-residential charging, the current reporting entity would be the logical entity to be eligible to claim they are charging EVs. Entities would be required to document the amount of renewable electricity based on utility bills showing the chargers are receiving power under an eligible utility green tariff, voluntary renewable program, or by demonstrating retirement of eligible RECs against the charging.

3.3 Using smart charging to access lower carbon electricity

PacifiCorp is supportive of incremental credits for smart charging or time of use program if the process of claiming those credits is not disproportionately burdensome for the amount of credits available.

4.1 Advanced Crediting

PacifiCorp is supportive of advance crediting to support a faster transition to electric vehicles for fleets. In Addition to advance crediting, credit multipliers and capacity credits should also be considered to encourage transportation electrification in underserved areas.



October 27, 2020

Cory Ann Wind
Clean Fuels Program
Oregon Department of Environmental Quality
Submitted by email to CFPE2021@deq.state.or.us

Dear Ms. Wind:

PGE appreciates the opportunity to serve on the Rulemaking Advisory Committee for the 2020 Clean Fuels Electricity Rulemaking and to comment on the development of proposed rules. PGE has engaged with the Clean Fuels Program as a credit generator for residential and non-residential credits, as a credit seller, and as a partner with our customers who generate clean fuels credits through electric vehicle fueling. We offer comments on specific proposals below.

Calculating Electricity Carbon Intensity

Changing the averaging period from five years to one year

PGE has advocated for reasonable approaches to update the carbon intensity of electricity to account for fossil fuel plant retirements. In part to account for fossil plant retirements, DEQ has proposed to change the averaging period when calculating the statewide mix from a 5-year average to a single year. PGE appreciates DEQ's analysis of the carbon intensities of the Bonneville Power Administration (BPA) power mix over the last two decades which demonstrated that that even in years with low hydro generation, credit generation per vehicle does not vary substantially. While PGE operates hydro facilities in the Willamette, Clackamas and Deschutes Rivers in addition to buying BPA power, PGE is comfortable with the single year approach, though a two- or three-year average may smooth remaining variation. DEQ's proposal to utilize the 0.428 gCO₂/MJ unspecified power emissions factor is a reasonable transition tool until the retired Boardman plant is fully out of DEQ's greenhouse gas reporting data used in the Clean Fuels Program.

Adjusting the statewide grid mix

DEQ is proposing to remove all utilities that have a utility-specific carbon intensity from the calculation of the statewide grid carbon intensity average. This entails removing about 25 consumer-owned utilities and their load from the calculation, which results in a significantly higher statewide average carbon intensity (using DEQ's calculation tool, about 135 gCO₂/MJ in as opposed to 107 gCO₂/MJ under current rules or 130 gCO₂/MJ including the two fixes discussed above). If this change were implemented for the 2020 year alongside the two changes outlined above, it would lead to about a 10 - 14 percent reduction in credits generated by PGE per vehicle on behalf of residential customers.

PGE is concerned that this increase in calculated carbon intensity will not only reduce the credits generated by PGE on behalf of residential customers but will also impact credits generated for non-residential charging in our service area by fleets and other customers. In the absence of offsetting policy changes, it conflicts with Executive Order 20-04's directive to "acceler[ate] the generation and aggregation of clean fuels credits by utilities that can advance the transportation electrification goals set forth in Senate Bill 1044 (2019)."

Reducing the Carbon Intensity of Electricity

PGE supports the generation of incremental credits from actions that lower the carbon intensity of electricity below the statewide mix, particularly for utility green tariff programs and similar programs that result in an incremental renewable

resource. DEQ has proposed to allow unbundled renewable energy certificates to be used to generate incremental credits as well. It is essential that renewable resource accounting under the Greenhouse Gas Reporting Program is not impacted by the utilization of unbundled renewable energy certificates in the Clean Fuels Program. We offer more detailed thoughts below specific to policy design for residential and non-residential credit generation.

Residential

DEQ has proposed an incremental credit generation model in which utilities purchase unbundled renewable energy certificates and generate incremental credits for residential charging, alongside models in which a third party or automakers may do the same. If DEQ moves forward with this proposal, PGE recommends a hierarchy or 'waterfall' approach in which the utility is the default entity to generate residential incremental credits, but a third party may generate any incremental credits not generated by utilities across the state. Regardless of the model chosen, PGE believes that these credits must be used to benefit residential customers in Oregon and be administered by a competent, transparent, and accountable entity.

Under the proposed utility model, PGE understands that DEQ would calculate the amount of electricity used to charge residential electric vehicles in our service area as it currently does, and that PGE would acquire and annually generate incremental clean fuels credits based on an amount of unbundled renewable energy certificates that makes up the difference between the applicable CI for PGE and zero. PGE understands DEQ to propose that the cost of purchasing renewable energy certificates would be reimbursed from the sale of these Clean Fuels credits, with the remainder used to advance transportation electrification for residential customers.

PGE recommends taking existing voluntary programs into account in designing how incremental credits will be generated by utilities. PGE already acquires renewable energy certificates on behalf of more than 200,000 residential customers as part of our existing voluntary residential renewable program – marketed as Green Source – paid for by customers. We would expect to count this existing amount for customers who have EV's toward the amount needed to cover all calculated residential charging as outlined in the paragraph above so there are no duplicative purchases. PGE looks forward to continued conversations with DEQ to address these and other policy issues including addressing customers currently participating in voluntary renewable programs, accounting complexity, and potential utility program transitions.

We understand the stakeholder interest in both statewide program reach and addressing underserved or low-income communities through the Clean Fuels program and believe that the utility model can accommodate both. With regard to statewide program reach, as part of its October workplan to implement Governor Brown's Executive Order 20-04, the PUC has proposed to "explore deploying Low Carbon Fuel Standard [funds] to pay for infrastructure outside utilities service territory in key EV corridors across the state." We support this proposal and believe that collaboration across utility territories using Clean Fuels funds will better support transportation electrification. With regard to serving underserved or low-income Oregonians, electric companies are already required to ensure that residential CFP funds benefit residential customers, are used to the benefit of underserved communities, and are used collaboratively and transparently, among other requirements (Order 18-376 in UM 1826). PGE is open to additional focus on underserved communities using the residential Clean Fuels credits we generate.

PGE looks forward to additional policy design discussions with DEQ regarding the utility model of incremental credit generation and the opportunity to significantly increase credits generated on behalf of PGE's residential customers. Sourcing and purchasing renewable energy certificates and generating and selling Clean Fuels Credits is administratively complex, and utilities are already equipped with the expertise, resources, and accountability to do so.

Non-Residential

For non-residential charging, PGE supports DEQ's proposed approach that the current credit generators should be able to claim lower carbon electricity, as outlined in current OAR 340-253-330 (3). We offer the following comments on policy design:

- We recommend that DEQ provide several ways for green tariff customers to demonstrate to DEQ that they are eligible for the fuel pathway that reflects green tariff participation. Some customers' bills will show their participation in the program, while others like large commercial or municipal customers may have hundreds of

meters (some serving EV chargers), but one bill for the enterprise, so alternative methods such as renewable energy certificate retirement reports should be accepted.

- Customers may also add chargers or add green tariff participation during the life of the program and should be able to easily change the fuel pathways based on the electricity they are served.
- Some customers subscribe to enough energy from the green tariff program to match their entire load, so should be able to generate credits based on a zero-CI fuel pathway, while others only subscribe for a portion of their load, so a fuel pathway that provides for partial green tariff participation should also be made available.
- As explained in the section below, alignment between existing renewable programs offered by utilities and the requirements for RECs to generate Clean Fuels credits will make generating incremental credits simpler and more attainable for fleet and non-residential customers.

Other Renewable Energy Policy Design Considerations

DEQ has proposed specific requirements for renewable energy credits that generate Clean Fuels credits. We recommend that DEQ avoid a bespoke approach to determining which RECs are eligible to generate Clean Fuels credits. Specialized requirements will make REC purchasing more complex and potentially more costly, and we urge DEQ to make this program as customer friendly as possible. Alignment between existing utility customer programs and CFP requirements for RECs will also support customers starting to electrify their vehicles.

- **Requiring Green-E certification:** While PGE's current Green Future Impact green tariff and voluntary residential renewable programs are currently Green-e certified, future PGE programs may have different design features as customer interests and our system evolve. We recognize the advantage that requiring that RECs be Green-e eligible provides DEQ in verifying RECs and are comfortable with this requirement, but note that this may constrain future program design or preclude CFP credit generation from a future program that designed in a way that diverges from Green-e. To address this and provide an alternative, DEQ should ensure that green tariff programs are able to apply for a fuel pathway that reflects the carbon intensity of the program.
- **Qualifying Sources:** As outlined in the item above, PGE is comfortable with requiring that RECs that generate CFP credits to be Green-e eligible, so long as a utility program that diverges from Green-e Energy certification can also apply for and receive its own fuel pathway.
- **In Service Date:** Creating a specific in-service date that differs from the Green-e standard complicates procurement of these renewable energy certificates, so PGE recommends keeping with the Green-e standard.
- **Deliverability to Oregon:** Rather than the DEQ proposal to allow only RECs generated within balancing authorities that touch Oregon, PGE strongly recommends that DEQ allow renewable energy certificates to be sourced from across the western grid (WECC). Oregon's renewable portfolio standard allows utilities to draw from across the western grid. PGE believes this approach is both simpler and will fulfill the purpose of deliverability of the renewable power as well as facilitate reasonable REC procurement and cost.
- **Vintage:** PGE appreciates DEQ's intention to match the 21-month vintage requirements used by the Green-e Energy program and believes this simplifies REC purchasing.

Advanced Crediting

PGE supports the advanced crediting proposal for public fleets and installation of DC fast charging infrastructure and offers the following:

- PGE sees the opportunity for advance credits to further improve the economics of public fast charging and hopes to continue to utilize Clean Fuels credits to help reduce the cost to utility customers of transportation electrification investments like public fast charging.
- DEQ should consider including private fleets in the entities eligible for advanced crediting. Private fleets can have many of same characteristics of public fleets outlined on page 13 of the DEQ RAC #1 discussion paper, including using dedicated charging equipment, unlikely to leave the state, run fixed and regular routes, and often operating near vulnerable populations. We encourage DEQ to consider what kinds of private but durable fleets could be allowed to generate advanced credits with any necessary protections for the Clean Fuels Program. Such private fleets could include waste hauler fleets, local delivery or utility vehicles, or drayage vehicles. To protect the Clean Fuels Program, DEQ could consider a requirement that fleets contribute a small amount of credits to a bank of

credits managed by DEQ as insurance against a private fleet that stops generating credits during the payback period.

Frequency of Crediting and Use of Revenue

Increasing the frequency of residential Electric Vehicle (EV) crediting

PGE has no concerns with increased frequency of residential EV crediting so long as the years' worth of credits are issued in time to be sold in the late first quarter or early second quarter. We observe significant demand for credits around compliance deadlines in April and often sell credits around this time of year.

Directing revenue from the sale of electricity credits

DEQ has proposed that entities that receive base or incremental residential EV credits would report to CFP on an annual basis their credit revenues and how spending from those revenues fell within the allowable uses established by DEQ. As the Citizens Utility Board observed during the first rulemaking advisory committee meeting on September 24th, electric companies are already subject to effective Public Utility Commission oversight regarding use of funds from the sale of the base credits generated by utilities on behalf of their residential customers that drive EVs. PGE requests that DEQ allow the report to PUC report to fulfill the DEQ reporting requirement or otherwise avoid duplicative or asynchronous reporting requirements for electric companies under PUC oversight. We also support confining these reporting requirements to residential credit generation as already proposed by DEQ.

Thank you for the opportunity to comment on DEQ's proposals to date.



Sunny Radcliffe
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Portland General Electric



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November 4, 2020

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RE: Oregon Clean Fuels Program, Advisory Committee Meeting #3: Lowering the Carbon Intensity (CI) of Electricity Uses as a Transportation Fuel

Dear Ms. Wind:

Tesla appreciates the opportunity to participate in the Oregon Department of Environmental Quality's (DEQ) Clean Fuels Program Advisory Committee and submits this document in response to the associated meeting #3 Discussion Paper.¹

Tesla Position Summary:

- Regarding what qualifies as renewable energy, Tesla supports:
 - Renewable Energy Credits (RECs) retired to match residential or non-residential electric vehicle charging in kWh should demonstrate:
 - Compliance with the OR Renewable Portfolio Standard (RPS) placed in service date requirements,
 - Sourcing from within the balancing authority area that includes Oregon or that the electricity from the generating facility was delivered to one of the balancing authorities that includes Oregon,
 - Generation from qualifying resources provided in the discussion paper, and
 - Appropriate tracking but not be required to be Green-E certified.
- With reference to incremental credit claiming eligibility, Tesla strongly encourages a tiered approach to incremental credit generation for residential and non-residential EV-charging beginning with the automaker as the first-in-line credit generator followed by the charging provider, utility and subsequently the aggregator.
 - Tesla further supports the use of on-board vehicle telematics for automaker credit generation. When paired with geofencing, this approach would provide the most accurate and comprehensive information about true electricity used for transportation and prevent double counting.
- When considering changes to residential base credit generation reporting frequency, and to the extent that would apply to the frequency of incremental credit generation, Tesla recommends quarterly reporting.

¹ <https://www.oregon.gov/deg/Regulations/rulemaking/RuleDocuments/CFPE2021-RAC3DiscussionPaper.pdf>



- Concerning placing spending requirements on revenue generated from incremental residential or non-residential credits, Tesla believes funds should go towards efforts to support transportation electrification.
- As it relates to incremental and base credit reporting requirements, Tesla proposes that reporting submitted to DEQ remain confidential to protect sensitive information.

Position Discussion:

To ensure actual additional emissions reductions are achieved, what requirements should be placed on crediting generators reporting on RECs?

When matching RECs with charging kWhs for the purposes of incremental crediting, Tesla believes that greater program participation should be encouraged and balanced with the program's ability to spur additional investment in renewable energy. With this in mind, Tesla agrees with DEQ's proposal to require demonstration that RECs were derived from kWhs delivered within OR and draft deliverability requirements when pairing RECs with charging, those being RECs produced during the same year or prior year to charging. Lastly, DEQ should not require Green-E certification for REC compliance. Green-E certification ensures that no double counting take place; however, if that is the intent, the inclusion of a tracking system within reporting accomplishes the same thing without being overly burdensome on participants. We believe this approach will provide incentive to participate in the incremental program, support renewables, and result in reduced emissions while not being overly prohibitive to participation.

Who is eligible to claim incremental credits?

Automakers should have the first-tier incremental credit claiming position, whether those be in residential or non-residential charging. As we transition to electricity as a replacement to liquid transportation fuels, one thing is abundantly clear; without the enabling EV automaker, the potential to reduce carbon emissions associated with fuel switching would not exist. On-board telematics is becoming increasingly standard in many US autos.² Enabling EV automakers using telematics to precisely calculate and report electricity used for charging in each vehicle brings increased precision to the current estimation methodology. As such, Oregon has an opportunity, through the tiered approach to incremental credit generation for residential charging, to determine the actual carbon reductions with growing precision beginning now. In the case of non-residential charging, the argument still stands that without enabling automakers, carbon reductions through fuel switching would not be possible and providing enabling automakers with the first option to generate credits makes sense when telematics is used. However, because some EVs do not use telematics, but charging providers may be able to match kWh's directly to an EV, charging providers or charging owners should take the next position down in the hierarchical structure. Importantly, in the instances where the utility is the charging service provider, the utility would remain on equal footing with any other charging provider. Both of these tiered approaches add accuracy to accounting, relying on automakers and charging providers for precise data. Additionally, the tiered approach can more appropriately spread credit generation opportunity across the industry, recognizing

² <https://www.globenewswire.com/news-release/2019/12/19/1962985/0/en/Global-Automotive-OEM-Telematics-Market-Report-2019-2024-with-Detailed-Profiles-of-21-Major-Car-OEMs-and-Their-Telematics-Propositions.html>



the contribution that enabling EV manufacturers provide to the effort to reduce carbon emissions through switching to electricity as a fuel and allowing them utilization of funds towards those goals.

Lastly, as EV charging in urban centers is increasingly deployed, Tesla believes that in order to reduce the potential that charging events are lost within current geofencing boundaries; a reduction to individual geofence radius from 220 meters to 20 meters is needed. According to the U.S. government, GPS signal actual performance accuracy exceeds specifications, providing location at a global average within ~0.715 meters, 95% of the time.³ Furthermore, new vehicles are equipped with highly accurate GPS chips given location accuracy is critical for navigation services. For these reasons, significantly reducing the proposed 220-meter geofence based upon GPS accuracy is warranted. Given GPS precision and the limited risk of double counting, ten times the global average or 20 meters is a conservative standard.

How often should credits be reported and awarded?

In order to more rapidly accelerate the use of funds, Tesla supports reporting on a quarterly basis. For illustrative purposes, a charging provider credit generator would be able to more quickly access funds generated from credit sales to accelerate charging deployment and development if a more frequent revenue stream were available. While Tesla sees bi-annual reporting and awards being an improvement, we support quarterly reporting and awards in order for the EV ecosystem to more rapidly realize credit revenue and deploy those funds to accelerate transportation electrification.

Should DEQ require reinvestment of funds and report on their use? And to what degree?

Tesla encourages the DEQ to not overburden program participants with numerous general or specific requirements that may serve to dissuade participation. Taking California as an example, reinvestment by participating generators is by logic assumed. Tesla, like other potential incremental credit generators, are driven to further carbon reductions through the products they offer. Tesla, whose mission is to accelerate the world's transition to sustainable energy, puts all revenue back into serving its mission and thus believes additional reporting and investment requirements are unnecessary so long as funds generally advance electrification of the transportation sector.

Should annual reporting on revenue derived from credit sales be required?

In order to encourage participation in the program, Tesla urges DEQ to keep reporting confidential. Participating incremental credit generators may utilize funds for a variety of benefits; however, those should remain confidential so as not to expose competitive investment planning. In particular, if pairing RECs and likely purchasing those RECs, each private participating company providing green energy and CI reductions into the program should have right to maintain confidentiality on use of funds. To this point, credit generators from other renewable fuels are not required to disclose their use of funds and are not required to use those funds in specific ways. As stated previously, doing so could result in sharing competitively sensitive information, and we encourage DEQ to follow California's lead in reporting requirements and prior section on use of associated revenues in order to not dissuade program participation and defeat the intent of incremental credit generation.

Summary

³ <https://www.gps.gov/systems/gps/performance/accuracy/>



Overall, Tesla supports the introduction of incremental crediting from electric vehicle charging, placing automakers as first-in-line credit generators and associated programmatic changes that limit overly prescriptive requirements on participants.

Thank you,

Thad Kurowski

National Credit Trading & Intermountain State Policy Lead

From: [Todd Jones](#)
To: [PETERS Bill N.](#)
Cc: [WIND Cory Ann](#)
Subject: Re: Question about RECs associated with CA imports
Date: Thursday, October 22, 2020 3:44:54 PM

Hi Bill and Cory Ann,

Thanks for leading the RAC meeting this morning. I hope I was able to provide some clarification and address some concerns regarding Green-e. I plan on submitting additional information and comments in writing. Would you like those by Nov. 5?

In advance of that, I wanted to send you both the results of our quick evaluation of potential eligible supply under the proposal, per your request.

You asked us to look into the amount of potential supply that is Green-e eligible, came online in or after 2015, and located with the proposed area of deliverability (estimated as the following balancing authority areas: PGE, BPAT, PACW, IPCO and AVRN.

We considered two definitions of eligible generators:

1. generators that currently have approved tracking attestations on file with the Green-e® Energy program that are located within the listed balancing authorities and are online in/after 2015
2. generators that could potentially be eligible to be used in Green-e® Energy program that are located within the listed balancing authorities and are online in/after 2015

For no. 1, we compiled the list of facilities that have approved tracking attestation on file with CRS, with an EIA number and Balancing Authority Code that is PGE, BPAT, PACW, IPCO or AVRN, and that came online in 2015 or after. We used the facility online date in the 2019 EIA860 Early Release Form and the 2018 net generation from the EIA923 Form. The total MWh from these facilities were about **1.23 million MWh**.

For no. 2, we used EIA and eGRID information to compile a list of solar and wind facilities that came online in 2015 or after and that have a Balancing Authority Code of PGE, BPAT, PACW, IPCO and AVRN. The total MWh from these facilities were **1.29 million MWh**. We didn't include hydropower or biomass generators, since Green-e has stringent requirements for those. We also didn't include geothermal, as the one that is eligible had zero generation in 2018.

Importantly, these numbers don't necessarily represent **available** supply. It is unclear exactly what portion of these volumes would be available for REC sales for the CFP. Approximately 60-70% of the first volume—1.23 million MWh—is currently being used by Green-e® Energy Participants for existing sales, not all of it to customers in Oregon and not all of it for REC sales. It may be that some of this volume can be (re)allocated to CFP. In general, our understanding is that supply of unclaimed RE in the West is limited.

Let me know if this is not the information you were looking for or if you have questions or concerns with it, or any additional questions.

Thanks

Todd

On Oct 19, 2020, at 3:13 PM, PETERS Bill N. <bill.n.peters@state.or.us> wrote:

Hi Todd,

Thanks again for the call, I'll take a look at these two letters to the IEMAC and I really appreciate your insights and careful and diligent work along with the other folks at CRS to create this space for valid RECs that maintain the emissions reduction.

On my side of the follow ups from that call, can you give me a sense of how many RECs would meet your standard and also be able to hit this deliverability requirement?

Deliverability to Oregon: RECs must demonstrate that generation occurred within a balancing authority area that includes Oregon or that the electricity from the facility is delivered to one of those balancing authorities on a real-time basis without shaping, storage, or integration services^[1].

I believe that list covers the following BAAs: PGE, BPAT, PACW, IPCO, AVRN, GRID based on:

<https://www.nerc.com/AboutNERC/keyplayers/PublishingImages/BA%20Bubble%20Map%2020191106.tif>

Just to provide a sense of scale, we estimated that last year light duty electric vehicles demanded ~90,000MWh of electricity in Oregon.

My best,
--Bill

Bill Peters

Clean Fuels Program Analyst
Oregon Department of Environmental Quality
t. 503 229 6901

From: Todd Jones

Sent: Monday, October 19, 2020 2:59 PM

To: PETERS Bill N.

Cc: WIND Cory Ann

Subject: Question about RECs associated with CA imports

Hi Bill and Cory Ann,

I wanted to send you both some more information about the concerns with using RECs associated with imports to CA (both direct imports and EIM

imports). I definitely should have included something about this in my Oct 2 comments to you. Apologies for that oversight.

Here are two letters we sent to the IEMAC in CA: [Oct 5, 2018](#) and [Aug 22, 2019](#). We consistently use Washington's programs as an example, but the concern is equally as applicable to CFP and programs using RECs to verify delivery of RE to load in OR.

ODOE has dealt with similar questions about eligibility of these RECs in the RPS. WA is dealing with these questions related to implementation of CETA now. And we are also engaged in CO on similar questions related to accounting for imports. I can share written comments and presentations we've provided in those cases as well, if you'd like.

Again, this is a concern for both direct imports to CA (which may be counted as specified renewable under the MRR without the RECs) as well as EIM imports, since CAISO's mechanism to do resource-specific dispatch of out-of-state EIM resources to CA ("deemed deliveries" to CA) also does not involve transaction of the associated RECs to CA.

Happy to chat further.

Todd

^[1] PGE, BPAT, PACW, IPCO, AVRN, GRID

<https://www.nerc.com/AboutNERC/keyplayers/PublishingImages/BA%20Bubble%20Map%2020191106.tif>



Date: October 21, 2020

Via email

Department of Environmental Quality
State of Oregon

***Comments on the Oregon Clean Fuels Program Electricity 2021 Rulemaking
Proposed Smart Charging Credit Pathway***

WattTime commends the Department of Environmental Quality (DEQ) on instituting this rulemaking and appreciates the opportunity to provide comments on the Clean Fuel Program.

WattTime believes that smart charging, and the benefits of time-varying electricity consumption broadly, are a valuable tool to help Oregon achieve its goal of reducing greenhouse gas (GHG) emissions. We view incremental credit generation for smart-charging as an important first step to demonstrating that electric vehicle (EV) energy consumption can not only reduce emissions by moving transport away from fossil fuels, but also support better integration of renewables and low carbon sources in the electricity grid.

This document proposes a solution for enabling smart-charging incremental credits based on a real-time emissions signal to achieve real-world emissions reductions. WattTime recommends that the smart charging pathway have the following characteristics:

- Uses a marginal emissions signal,
- Be granular and real-time,
- Makes the smart charging credits stackable with other incremental credits, rather than exchangeable.

A detailed discussion of this proposal as well as responses to specific questions raised in the discussion paper under ‘3.3: Using smart charging to access lower carbon electricity’ are included below.

Time-varying Smart Charging Can Enable Emissions Reduction

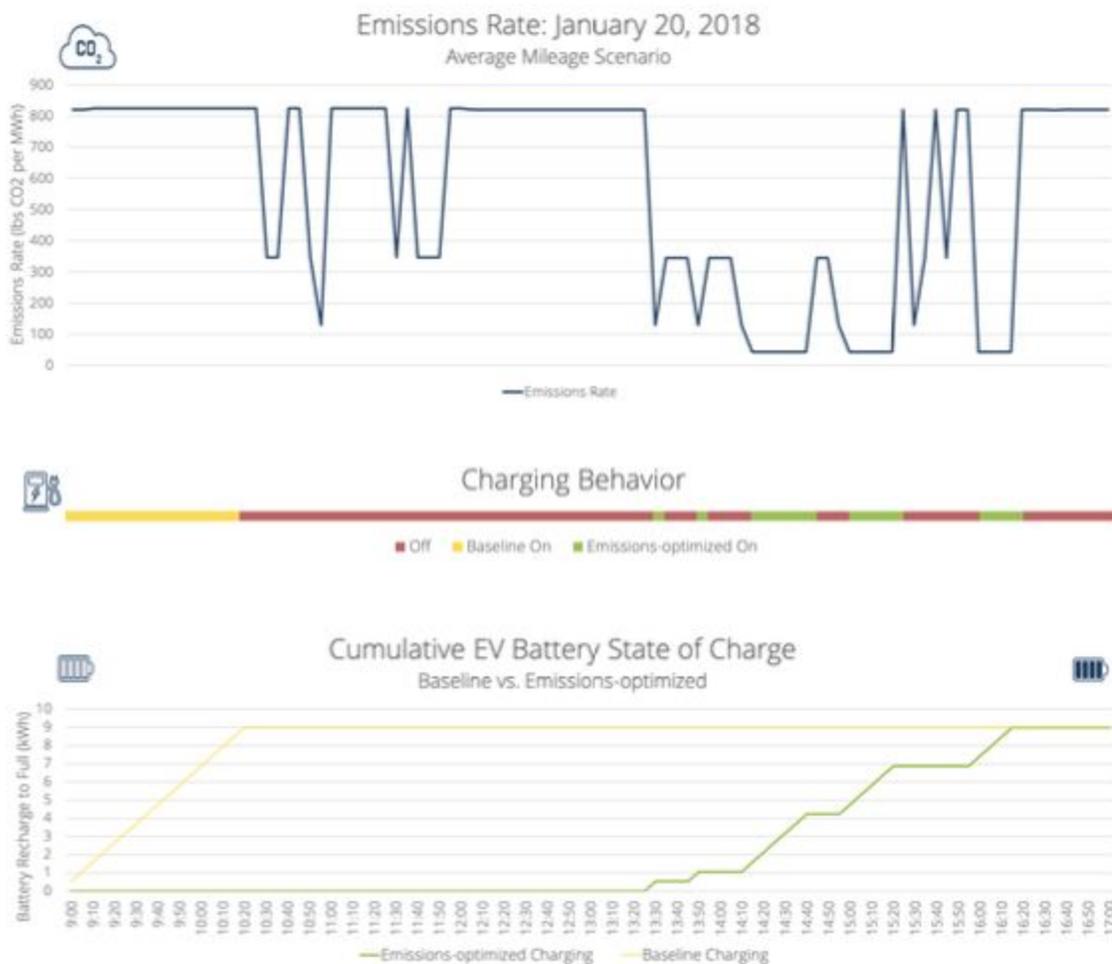
WattTime proposes the creation of a Smart Charging credit generation pathway that relies on a real-time, marginal emissions signal to encourage smart chargers to optimize charging time and thereby achieve emissions reductions. This additional credit generation opportunity would



provide an incentive for existing smart chargers to deploy their capabilities and encourage the development of more sophisticated control systems in order to achieve emissions reductions.

WattTime research has shown that emissions-optimized EV charging based on a GHG signal can reduce daily emissions of EV charging by up to 90% and annual emissions by 18%, over the baseline of non-emissions optimized charging, depending on the location. Providing a smart charging pathway can give program participants an opportunity to generate incremental credits as well as achieve real-world emissions reductions.

Fig 1: Emissions optimized charging versus baseline charging



Source: *WattTime analysis (2019)*



Optimize Charging Schedules on Marginal Emissions

Marginal operating emission rates (MOERs) report the change in emissions caused by one additional unit of electricity demand at a particular time and location. When, for example, an EV is plugged in and begins charging, a power plant has to ramp up to meet that additional demand. The emissions intensity of electricity delivered at a specific time and place can vary significantly depending on the marginal resource. The properties of these power plants, including efficiency and fuel type, determine the amount of emissions caused. For example, increasing demand for electricity when a combined cycle natural gas power plant is the marginal generator has less carbon impact than increasing demand when the marginal impact is a dirtier peaker plant or coal plant. Conversely, charging a vehicle when there is an overabundance of renewable energy in the form of hydro spill or wind curtailment can significantly reduce emissions by consuming excess renewable energy. MOERs should be used when understanding the emissions consequences of a policy or regulation that would increase or decrease load at any given time and location. MOERs can be used to optimize the timing of EV charging to achieve real world emissions reductions.

The State of Oregon's statewide or utility specific fuel mix, while useful for goal-setting, has limited potential to reduce emissions through smart charging. Using an average emissions factor to determine charging schedules does not accurately reflect the emissions impact of charging a vehicle. An average emissions factor includes emissions and generation from all assets in a region, but not all power plants respond to an increase in demand. Relying on the statewide or utility specific fuel mix does not account for which power plant is providing the additional power needed to charge an EV at any given time. As a result, determining the charging schedule of an EV based on average emissions does not reflect the real-world impact and would not capture the full emissions savings potential of a smart charger.

Use a Real-time Granular Emissions Signal

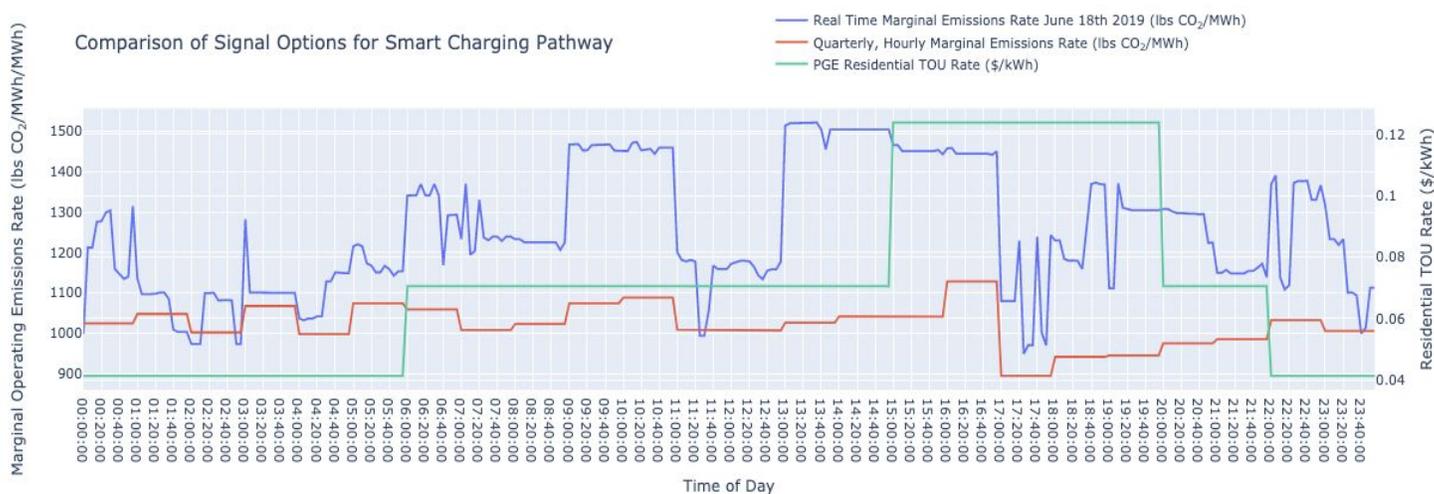
The DEQ discussion paper mentions the use of time-of-use emissions rates for incremental crediting from smart charging: *“Smart charging refers to the use of internet-connected vehicles or chargers where the times that the vehicle is actively charging when plugged in are targeted to periods of the day when the CI of grid electricity is at its lowest.”*

Time-of-use rates are used as a proxy for emissions, under the assumption that emissions have a clear peak at the same time of the day everyday. However, when considering MOERs, the data reveals that grid emissions do not always follow a predictable pattern. Real-time emissions can vary dramatically within a day and emissions depend on which generator is providing the



marginal unit of electricity. Because of the nature of wholesale electricity markets, this generator can change as frequently as every 5 minutes.

Fig 2: Comparison of TOU, seasonal, and granular emissions rates



Source: WattTime analysis (2020)

As seen above, a static time-of-use rate would not be able to capture all the emissions reduction potential occurring in that time window because the emissions rates vary on a much more granular timescale. Because establishing TOU emissions rates in advance does not capture the true variability in emissions, the full emissions saving potential of smart charging cannot be achieved using static rates and may unintentionally incentivise charging during dirty periods on the grid. Neither predefined TOU periods nor seasonal hourly emissions averages are granular enough to achieve the full emissions savings potential and could have unintended negative consequences. However, enabling the smart charging pathway based on a time-varying, real-time GHG signal could capture this emissions reduction potential.

Case Study: California’s Self-Generation Incentive Program (SGIP)

Given the relative novelty of low carbon fuel programs and smart charging, Oregon has the opportunity to lead the way forward in deep decarbonization of transportation. That said, the State of California has deployed a real-time emissions signal to guide control of storage systems that receive a Self Generation Incentive Program (SGIP) incentive.

The California Self Generation Incentive Program provides incentives for qualifying energy storage systems. One of the goals of the program is to reduce GHG emissions, but a 2017 impact



evaluation report found that SGIP commercial-storage projects had been increasing GHG emissions. To remedy this, the CPUC issued a ruling requiring energy storage systems receiving an incentive to reduce emissions on an annual basis evaluated against grid marginal emissions. To aid energy storage developers in achieving the program requirements, a real-time marginal emissions signal with 5-minute granularity and 72-hour forecasts was developed for integration into control systems. This enables storage systems to co-optimize for both emissions and revenue and ensure they are in compliance with the program requirements. Details on the signal, which WattTime was selected to provide through a competitive bid process, can be found at sgipsignal.com.

This signal provides a precedent of how a similar real-time signal could be employed for the smart charging pathway in the State of Oregon to deliver emissions benefits.

Is there data available for the State of Oregon to enable a GHG signal?

Yes. Emissions data from the Environmental Protection Agency's (EPA) Continuous Emissions Monitoring System (CEMS) includes hourly, generator-level SO₂, NO_x, and CO₂ emissions as well as gross power output for all fossil-fuel generators greater than 25 MW. In addition, real-time electricity demand and generation data is available from the Energy Information Administration for the balancing authorities (in Oregon these consist of the Bonneville Power Administration, PacifiCorp, and Portland General Electric). Based on this information, it is possible to create a marginal GHG emissions signal. For example, WattTime has built an Application Programming Interface (API) that delivers marginal emissions rates and forecasts for grid regions in Oregon, enabling smart devices (like EV chargers) to optimize and automate flexible loads to run at times when the grid is relatively cleaner to reduce emissions.

Smart Charging Incremental Credits should be Stackable

From the discussion paper, it appears that the DEQ is considering both renewable energy credits (RECs) and smart charging as alternate pathways for generating incremental credits by reducing the carbon intensity of electricity. Our analysis of similar pathways in California's Low Carbon Fuel Standard Program showed an 8% increase in credit volumes under the hourly smart charging pathway (compared to using the grid average CI), while the use of RECs to achieve a 0 CI delivers a 36% increase in credit volumes. In addition to the benefit of increased volumes, the simplicity of book-and-claim REC accounting makes the REC pathway simpler administratively and the volumetric benefits easily compensate for added REC costs. The relative attractiveness of the grid average and low CI pathways make it highly unlikely that the smart charging pathway will be used for a material volume of charging, and therefore the power of EV charging flexibility to reduce emissions and create a renewables friendly grid will not be demonstrated.



To avoid this tradeoff, the DEQ can instead incentivize smart charging by making credits generated from both pathways ‘stackable’ rather than exchangeable. This would ensure that program participants can elect to employ both actions and further minimize emissions.

Conclusion

Smart charging is still an emerging industry, and as a technology with the potential to enable deep reductions in emissions, needs incentivization. As renewable penetration on the grid increases alongside electrification of multiple industries, flexible loads from devices like EV batteries will be instrumental in avoiding expensive grid updates and curtailment of renewable generation.

Moving forward, as the grid becomes increasingly renewable, it will be important for flexible resources like EVs to react to signals that reflect real-time grid conditions. This will allow EVs to charge on cleaner electricity, reducing emissions in line with Oregon’s goals.. WattTime encourages the DEQ to begin the process of deploying a real-time signal pathway, and encouraging such behavior by allowing smart charging credits to be stackable to low and 0 CI credits claimed using RECs or other renewables pathways.

WattTime would be happy to submit more detailed information or have a more detailed discussion with DEQ Staff and the Advisory Committee about the SGIP signal in California, emissions-optimized smart charging, and sources of data for the purpose of this proceeding. We appreciate the opportunity to participate in the proceeding and will submit further comments as needed.

Submitted by

Lekha Sridhar
Senior Policy Analyst

WattTime

1111 Broadway, Oakland CA 94607

About WattTime

WattTime is a California based non-profit founded in 2014 that provides research, education, and assistance on the environmental benefits of electricity use timing, and advocates for a data driven approach to solving environmental problems.



October 14, 2020

Department of Environmental Quality
700 NE Multnomah Street, Suite 600
Portland, OR 97232-4100

WSPA Comment Letter on Clean Fuels Program (CFP) Electricity Rulemaking 2021

Dear Cory Ann Wind:

The Western States Petroleum Association (“WSPA”) appreciates the opportunity to provide comments on the Clean Fuels Program (CFP) Electricity Rulemaking 2021. WSPA is a non-profit trade association representing companies that explore for, produce, refine, transport and market petroleum, petroleum products, natural gas and other energy supplies in California and four other western states.

Under direction by Section 4B of Governor Kate Brown’s Executive Order 20-04¹, the Department of Environmental Quality (DEQ) has proposed to expand the provisions of the Clean Fuels Program (CFP) “to advance methods accelerating the generation and aggregation of clean fuels credits by utilities in order to advance transportation electrification.”² The Western States Petroleum Association (WSPA) appreciates this opportunity to provide comments on the CFP Electricity Rulemaking Discussion Paper³ and Presentation⁴ discussed at the September 24th workshop.

General Comments: A Need for a Technology and Fuel Neutral Approach

WSPA is supportive of DEQ amending the CFP to enable investing in and developing cleaner energy sources that are affordable and reliable. Nonetheless, it should be reinforced that the intended implications of E.O. 20-04 Section 4B⁵ are neither technology nor fuel neutral, going against one of the ‘Guiding Principals’ of the Clean Fuels Program. This rulemaking directionally shifts the program towards electrification as the only means of achieving the state’s GHG goals. This focus on electrification will likely leave lower cost, easier to implement emission reductions off the table. A priority of the program should be GHG emission reductions in the state of Oregon at the lowest cost to consumers and constituents.

¹ Executive Order 20-04. Available at: https://www.oregon.gov/gov/Documents/executive_orders/eo_20-04.pdf. Accessed October 2020.

² CFP Electricity Rulemaking Webpage. Available at: <https://www.oregon.gov/deq/Regulations/rulemaking/Pages/rcfpe2021.aspx>. Accessed October 2020.

³ CFP Electricity Rulemaking Discussion Paper. Available at: <https://www.oregon.gov/deq/Regulations/rulemaking/RuleDocuments/cfpRAC1.DiscussionF.pdf>. Accessed October 2020.

⁴ CFP Electricity Rulemaking September 24th Presentation. Available at: <https://www.oregon.gov/deq/Regulations/rulemaking/RuleDocuments/cfpe2021m1Pres.pdf>. Accessed October 2020.

⁵ Executive Order 20-04. Available at: https://www.oregon.gov/gov/Documents/executive_orders/eo_20-04.pdf. Accessed October 2020.

To that end, we urge DEQ to employ a technology and fuel neutral approach. DEQ should incentivize all technology development to most cost-effectively decarbonize transportation fuel in Oregon. No special provisions should be given to a particular fuel beyond the standard CFP crediting incentive that already exists in the regulation. As such, other alternative fuels, such as but not limited to hydrogen or renewable natural gas, should be included and provided the same incentives for technology development and credit generation as electricity.

Discussion Paper Item 1.1 – Increasing the frequency or residential EV crediting

The Discussion Paper recommends that DEQ issue credits to utilities twice a year, starting in 2021. WSPA supports the decision to account for residential EV crediting on a more frequent basis than an annual basis; however, we recommend that DEQ credits residential EV on a quarterly basis, rather than the proposed semi-annual basis.

Additionally, the Discussion Paper is silent on the frequency of DEQ issuing credits to non-load serving entities (LSEs). DEQ should issue credits for all fuels, including those generated by EVs, on a quarterly basis to maintain the principle of fuel neutrality within the CFP. Ostensibly, as a result of this rulemaking, Regulated Parties will begin to sell electricity as a transportation fuel under the CFP. Regulated Parties must have access to all the credits they have generated that quarter, including those from EVs, to be able to meet their quarterly compliance obligation. This will allow more accurate DEQ published quarterly CFP data.

Discussion Paper Item 1.2 - Directing revenue from the sale of electricity credits:

The DEQ should not move forward with provisions to direct revenue for incremental crediting. If the DEQ decides to implement electricity spending requirements, they should be limited to LSEs while Non-LSEs should be exempt from this requirement. Specifically, DEQ must allow for Regulated Parties to use their credits to meet their compliance obligation under the CFP. Regulated parties must be allowed to use all credits that they generate to offset the deficits that they have incurred.

If DEQ moves forward with implementing spending limits on LSEs, utility revenues should be used for utility customer rebates as rebates to all utility customers ensure equitable program benefits. Non-EV owners, particularly in impacted communities and disadvantaged communities (DACs) should be able to benefit from the program revenues to lower their electricity costs.

Discussion Paper Item 1.3 - Incremental Credits:

The Discussion Paper proposes to differentiate between “base” credits and “incremental”. WSPA supports the identification of incremental credits in so far as these credits are truly additional and incremental. It is important, however, that the Program clearly defines requirements for “incremental” credits to ensure there is no risk of double counting or claim of the credits.

Discussion Paper Item 2 – Background

WSPA believes that the statement at the end of the first paragraph on page 4 is incorrect:

“The difference in the CI of the alternative fuel and the EER of the vehicle category determines how many credits are generated.”

The CI of the alternative fuel is not compared to the EER, but rather the CI of the electricity is divided by the EER and then compared to the standard. WSPA requests that DEQ correct the statement above.

Discussion Paper Item 2.1 & 2.2 - Adopting new EERs and Administrative Process

DEQ has proposed new Energy-Economy Ratios (EERs) for electric ocean-going vessel/shore power and electric cargo handling equipment. The Discussion Paper also discusses a provision for DEQ to issue EERs between formal rulemakings. The Program must maintain adequate checks and balances by ensuring sufficient public review and verification of the proposed EERs. As such, WSPA recommends that in adopting these new EERs, DEQ undergoes a formal rulemaking process, or a process with similar requirements to what would occur during a formal rulemaking. Further, WSPA recommends that DEQ update base EERs on a more frequent basis to consider efficiency improvements in Internal Combustion Engines (ICEs).

Discussion Paper Item 3.1.2 – Adjusting what constitutes the statewide grid mix

WSPA supports the readjustment of the statewide Carbon Intensity (CI) to account for those that have opted out of the program to pursue a utility specific CI, which is reported to be lower than the statewide CI. Without this readjustment, utilities with a higher than state average CI would be able to generate credits by using the state average grid mix. The removal of utility-specific load will help to provide a more accurate representation of electricity generation.

Discussion Paper Item 3.2 - Allowing for non-contiguous renewable electricity

WSPA supports the broad inclusion of various resources in the discussion around what counts towards renewable electricity including RNG or other low carbon sources. Additionally, the program should ensure that any RECs used in Oregon come from within their balancing authority to prevent leakage out of the state. Without this requirement, it would be possible to bring in RECs from states where renewables are more affordable (via book and claim) and sell in-state renewable production outside of the state. Finally, WSPA supports the use of green tariffs in the program.

Discussion Paper Item 4.1 - Advanced crediting

WSPA concurs with DEQ that DEQ does not have the authority to issue credits that do not represent real carbon emissions reductions. The CFP regulation should continue to allow CFP credits for real and verifiable emissions reductions. As such, WSPA is skeptical of DEQ’s authority to implement the advanced crediting proposal identified in Discussion Paper Item 4.1.



According to the Oregon Revised Statutes 468A.265(4)⁶, “‘Credit’ means a unit of measure **generated** when a fuel with a CI that is less than the applicable low carbon fuel standard is produced, imported or dispensed for use in Oregon, such that one credit is equal to one metric ton of carbon dioxide equivalent.” WSPA believes that since advanced crediting program would create “**delayed**” emission reductions that may not fall under the definition of “**generated**” credits.

Beyond questions on DEQ authority, there are additional concerns with the advanced crediting concept. The concept of advance credits for program viability is unnecessary, as there is already an accepted mechanism for program review in case of a credit shortfall. In fact, accounting for the “delayed” emission reductions from advancing crediting would increase the complexity of the CFP and could expose the Program to potential double accounting of emission reductions in, for example, situations when the EV are sold to another party.

Further, while advanced credits could incentivize consumer behavior, monetizing large volumes of credits early in the program, before these credits are actually generated, could push values lower, preventing those generators from getting the full potential economic benefit. As the standard becomes tighter and credit demand increases later in the program, the lack of those credits could cause price spikes. Depending on scope and scale, this concept could create credit generation ratability issues and price volatility, negatively impacting the program’s integrity.

WSPA recommends that DEQ defer this proposal and observe how advance credits – although of a different concept – are applied in the California LCFS, before incorporating a new concept of advance credits in the CFP.

Presentation Slide #31 – Grid Reliability

Slide #31 of the September 24th workshop presentation⁷ writes that: “**DEQ believes that the additional demand imposed upon the grid can and should be met with electricity supplied by zero-carbon resources**”.

Growing electricity demand coupled with a desire to supply the grid with zero carbon resources brings into question the major reliability and consumer cost concerns. How will the DEQ address the inherent unreliability in some forms of renewable energy for electricity supply (i.e. solar and wind)?

Conclusion

Thank you for consideration of our comments. We would welcome the opportunity to discuss these ideas in more detail with you. If you have any immediate questions, please feel free to contact me at troberts@wspa.org. We look forward to working with you on these important issue areas.

⁶ Oregon Revised Statutes. Available at https://www.oregonlegislature.gov/bills_laws/ors/ors468A.html. Accessed October 2020.

⁷ CFP Electricity Rulemaking September 24th Presentation. Available at: <https://www.oregon.gov/deq/Regulations/rulemaking/RuleDocuments/cfpe2021m1Pres.pdf>. Accessed October 2020.



Sincerely,

A handwritten signature in blue ink that reads "Tiffany Krista Roberts". The signature is written in a cursive, flowing style.

Tiffany K. Roberts
Vice President, Regulatory Affairs
Western States Petroleum Association