

November 16, 2021 Stakeholder Meeting Summary Clean Fuels Program Rule – Chapter 173-424 WAC

Agenda and presentation slides are available on the Clean Fuels Program Rule rulemaking web page (<https://ecology.wa.gov/Regulations-Permits/Laws-rules-rulemaking/Rulemaking/WAC-173-424-455>).

Summary of Comments Received

- The summary of stakeholder comments through November 11, 2021 that Ecology presented at the November 16, 2021 meeting is included in the presentation (https://ecology.wa.gov/Asset-Collections/Doc-Assets/Rulemaking/AQ/WAC173-424_455_-21-04/Presentation-WAC-173-4246-11-16-21).
- Comments were provided by the following organizations: FlexCharging, Charm Industrial Inc., ChargePoint, bp America, Coltura, Puget Sound Energy, NW Alliance for Clean Transportation, and Climate Solutions. Multiple organizations also submitted one comment letter.
- The complete stakeholders' comment letters are available on the rulemaking web page.

Key Rulemaking Issues Identified for Stakeholder Comments

- List of transportation fuels subject to this rule and opt-in fuels – We presume the opt-in fuels (bio-CNG, bio-LNG, bio-L-CNG, electricity, and alternative jet fuel) are presumed to meet the carbon intensity standards through 2038.
- Exempted fuels and uses – The exempted fuels and uses are consistent with RCW 70A.535.040 and 70A.535.020 (8).
- Designation of fuel reporting entity, credit or deficit generation rights for transportation fuels, and the transfer of these rights with the ownership transfer of fuels – We proposed the entities that have the rights for credit generation. These fuels include:
 - Liquid fuels: gasoline, diesel, conventional jet fuel, ethanol, biomass-based fuels, and alternative jet fuels, and blends of the above
 - Gaseous fuels: fossil and bio-based compressed natural gas (CNG), liquefied natural gas (LNG), and liquefied compressed natural gas (LCNG), liquefied petroleum gas (LPG), and hydrogen
 - Electricity used in the following equipment: non-residential electric vehicles, fixed guideway systems (railway, transit buses, etc.), forklift, transportation refrigeration units (eTRU), cargo handling equipment (eCHE), ocean-going vessel powering (eOGV), and residential electric vehicles

Stakeholders' Comments and Staff Responses

- Slide 15 read "Do now allow vehicle manufactures to claim credits." Is this meant to allow manufacturers first right or just a right?
 - **Response:** The comment was to disallow credit generation right to EV manufacturers, instead of allowing now. We will correct the typo. The stakeholder suggested that fleet owners should have the right to generate credits. There are more details in their comment letter, posted on the rulemaking web page. The law requires Ecology to

- establish a mechanism to allow electric vehicle manufacturers to participate in credit generation, but does not include specific requirements about how that should be done.
- On slide 20, why do you have alternative jet fuel on both columns, as fuel subject to the rule and opt-in fuel?
 - **Response:** The first column lists all transportation fuels subject to this rulemaking, while the second column lists opt-in fuels that are not required to reduce their carbon intensity (like alternative jet fuel) or are presumed to meet the carbon intensity standard through 2038. This classification is consistent with the California LCFS program.
 - How can you opt in alternative jet fuel if it is subject to the rule?
 - **Response:** Column 1 of slide 20 includes all transportation fuels, both credit and deficit generators, so being listed in that column does not mean that a fuel cannot opt in. Conventional jet fuel, for example, does not appear in that column, because it is not subject to the rule and does not generate deficit or credit. But alternative jet fuel can opt in and become a credit generator.
 - For hydrogen, could the credit generator be either the owner of the hydrogen or of the fueling equipment, or does it have to be just one entity?
 - **Response:** We would like to hear from potentially-impacted stakeholders if the owner of finished hydrogen fuel is the same or different from the owner of the fueling equipment. If they refer to different entities, we would like to hear from you if we need to choose one or the other, with your justifications.
 - Will private commercial entities be able to generate credits that can be sold if they own and operate charging infrastructure? Does it matter if this infrastructure is publicly accessible?
 - **Response:** As proposed here, private commercial entities that own and operate charging infrastructure, as non-residential, are eligible to generate credit. However, we would like to see it further if we need to require public access as additional criteria.
 - How can entities that are electric or RNG fleets operators earn credits?
 - **Response:** Electric fleet operators may generate credit if they own charging equipment. We are also proposing the RNG fuel producer is the credit generator. We would like to hear from stakeholders why RNG fleet operators are the preferred credit generators to meet the legislative intent.
 - For the opt-in credit opportunities for exempt categories, is this net of deficits or is just credits for the clean fuel side?
 - **Response:** We would like to hear from you about how we should handle that.
 - In the draft regulation, if I read correctly, point of regulation is for producer (of liquid fossil fuel). This seems different from other LCFS programs, where position holder at rack (refinery) or importer.
 - **Response:** We would like to get your recommendation so that the rule text meets your need.
 - On slide 16, the stakeholder comment was not to include carbon sequestration in this rulemaking. Does the rulemaking committee have an opinion if or when to address sequestration/removal/offsets in this rule?
 - **Response:** We will try to cover as much as possible within the timeframe allowed for this rulemaking. We appreciate if you have a specific recommendation about why and how carbon sequestration needs to be included in this rulemaking.

- On slide 25, credit generation for propane is bifurcated between motor vehicles and forklifts, but in the draft rules that were circulated, there does not seem to be that same split. Will the next draft have that bifurcation?
 - **Response:** The intention was for the rule text to reflect the content in the slide. We will correct the mistake. We also appreciate your input on the rule text.
- For the credit generators listed in slides 25 and 26, will these entities be able to designate a third party to manage all reporting and credit transaction activities on their behalf? And will that third party be able to do so within their own online reporting account?
 - **Response:** The entity that has the right to generate credit may designate a third party to manage the credit. We will address the reporting requirements in the next drafts and stakeholder meetings. We would like to get your input on the current draft and the reporting requirements.
- Can entities that do not produce opt-in fuel, but have a low enough CI score generate credits? Or is it only opt-in fuels that generate credits?
 - **Response:** If a non-opt-in fuel has CI value below the standard, then it generates credit.
- Does Ecology plan on accepting the CARB LCFS Guidance Documents as Oregon has done?
 - **Response:** We have not yet started working on guidance documents yet. However, as we are required to harmonize with the CARB and OR DEQ programs, we will start with the available guidance documents of these two programs.
- What is the logic of not including carbon sequestration and removal in this rulemaking?
 - **Response:** The stakeholder provided comment not to include carbon sequestration in this cycle of rulemaking. The details of the comment are available online (<https://aq.ecology.commentinput.com/?id=DpgZ3>). We have not decided if we are going to include or not include it in this cycle of rulemaking. That depends on how much work it requires and how much we can accomplish in this rulemaking. We appreciate your input about why we need to make it a priority and how to incorporate it in this rulemaking.
- Do you envision the rule to capture complex partnerships, e.g., public-private partnerships, to develop transportation electrification projects in which the credits could be shared?
 - **Response:** We would like to get your input about how the rule needs to address it. We will check if it is consistent with the law to incorporate it in the law.
- Are residential charging "base credits" based on the utilities' carbon intensity of their fuel mix or the state average? If it is based on utility-specific carbon intensity, does a utility have first right to incremental credits?
 - **Response:** The draft rule does not yet address the calculation of carbon intensity of electricity. The law requires us to calculate the carbon intensity of electricity based on the fuel mix of each electric utility. We appreciate your input on the credit generation right for incremental credits.
- What is the current plan on creation of a credit marketplace for allowing visibility on credit generation rates, transaction volumes, and average prices?
 - **Response:** The statute requires us to report monthly on the transacted credit volume and volume-weighted average credit price. This is consistent with the report on Oregon and California programs. We will also have quarterly and annual reports to provide the necessary information for the market operation.

- Can you earn credits from generating fuel (e.g. CNG/LNG) OR using fuel within a fleet? Or could you earn credits on both sides?
 - **Response:** Yes, an entity can generate credit for supplying the fuel and using it, if the carbon intensity of the fuel is less than the standard. This is because both the fuel production and fuel-using phase are part of the life cycle of fuel, which is used in the calculation of the carbon intensity of the fuel. This does not mean the carbon intensity calculation allows double counting.
- On slide 16, can you please clarify the statement "Revise EV incentives to prioritize transitioning biggest gasoline users to EVs?"
 - **Response:** This is a summary of a detailed comment submitted by a stakeholder. The overall message to us is to give the EV incentive to the biggest gasoline users, so that they can reduce GHG emissions by switching to EVs. We recommend you read the submitted letter online (<https://aq.ecology.commentinput.com/?id=DpgZ3>).
- On slide 15, can you please clarify how you are thinking about applying emissions requirements for DCFC credits?
 - **Response:** This is an area where we need input from stakeholders, including what works best for DCFC and EVs, and what we need to improve based on your experience with California and Oregon programs.
- On slide 17, can you please clarify the statement "Allow revenue reinvestment for non-residential charging, especially nonresidential credits generated by non-utilities?"
 - **Response:** The statute specifically requires utilities to reinvest part of the revenue from the credits generated in the Clean Fuels Program. However, it does not give Ecology authority to require non-utilities to re-invest part of the revenue from the credit they generate.
- Please clarify: Is Ecology proposing that non-residential EV charging infrastructure must be publicly accessible to generate credits? Transit fleet charging infrastructure is not publicly available.
 - **Response:** We would like to hear from stakeholders about the need for public accessibility requirement for non-residential EV charging infrastructure.
- What about hydrogen fuel generated from electricity? I do not see this in the tables on slides 25 or 26.
 - **Response:** According the draft rule slide 25, hydrogen would be treated the same way, whether it is from fossil or renewable source. We would like to hear from stakeholders who should be the preferred credit generator.
- With regard to credit generation for electricity, both charging station owners and charging station service providers are listed as priority 1 generators. It is not clear who gets the first right of refusal for these credits as EVSPs and station owners are often distinct entities. Would Ecology consider listing only one entity for priority 1 generators, so it is very clear who generates those credits?
 - **Response:** We will correct this in the next draft rule to identify one entity as priority credit generator.
- We generate RNG and then convert it to CNG to compress it to fill the tank in the vehicle. Is that the reason for not including RNG in the slide?
 - As indicated in column (B) of slide 25, the credit generation right for CNG using RNG is assigned to the fuel producer or importer.

- What inflation rate are you using in future economical calculations?
 - **Response:** There are two economic analyses related to this rule. The first one is the regulatory analyses that Ecology performs as part of any significant rule to assess the impact of the rule on stakeholders. Ecology will prepare such a report based on a rule to be proposed. The second one is directed by the Clean Fuels Program law (Chapter 70A.535 RCW), to assess the impact of implementing the clean fuels program on the cost of fuel per gallon of fuel. As required by the law, we are in the process of hiring an independent consultant to conduct the analysis. We do not have the numbers, but they will be coming in the future.
- In slide 27, Credit Generators for Residential EV. Oregon and California give residential EV credit value to electricity suppliers. Has Ecology considered having Washington give residential EV credit value to the vehicle owner instead? After all, the vehicle owner is the one who spent the money to add one more EV to Washington's vehicle fleet. This would also be consistent with non-residential fleet owners receiving credits per slide 26.
 - **Response:** We would like to hear from stakeholders about this. We have also some interest to generate credit for residential electric vehicles by vehicle or original equipment manufacturers (OEMs). We appreciate your input showing the pros and cons of assigning the right to one or another group, so that the program achieves the desired outcomes.
- Is Washington's statute similar to Oregon's in regards to forbidding credits for infrastructure? If not, are you planning to give credits for capacity building?
 - **Response:** We are required by statute to allow credit based on capacity of infrastructure.
- Can staff provide an update on its modelling of fuels for life cycle emissions?
 - **Response:** We put out the bid for the development of Washington GREET (WA-GREET) model for carbon intensity calculation. We are anticipating bringing the contractor on board in the next month or two to do the work. We will have a public input process built in to this rulemaking process. In some of the stakeholder meetings in 2022, there will be opportunity to hear from the contractor about the model, to review the model, and provide comments. We are also planning to hire a life cycle expert, independent of the contractor producing the model, to conduct public peer review of the model to provide recommendation for improvement of the model. Both the contractor's model and peer reviewer's report will be available for public review and comment.
- When it comes to determining carbon intensity of feedstocks, some parts of on-farm carbon accounting are relatively easy, others are more complicated. Those variables that can be quickly, accurately, and efficiently assessed include fertilizer inputs. More complicated items include carbon sequestration. The Argonne National Laboratory GREET model incorporates the easier variables. Given that all clean fuels programs will eventually include assessing carbon intensity of feedstocks, has Ecology considered options to include farm-level accounting by looking at the variables that are easier to assess, then later taking into consideration other more complicated variables?
 - **Response:** Stakeholders will have at least one opportunity to hear from the WA-GREET modeling contractor in February 2022. You will also have an opportunity to review and provide feedback on the model. We directed the contractor to adopt the WA-GREET model based on CA-GREET 3.0 model. We do not think the CA-GREET 3.0 model includes farm-level accounting. If you think it is important that we include farm-level accounting into the model, we would like you to give us a recommendation about how we would incorporate it and why it is important.

- The confusion with slide 25 is that it implies all those gaseous fuels are credit generators, including the fossil ones.
 - **Response:** Based on the current carbon intensity values of the gaseous fuels and the energy efficiency ratio numbers of the vehicles using the fuel, it is likely these fuels generate credits. However, we do not yet know the CI values of these fuels until the WA-GREET modeling work is completed.
- How much is a credit worth if generating CNG?
 - **Response:** At this point, we do not know price of a credit. The actual price will be determined in the market. We are going to hire a contractor to perform an economic analysis to determine the potential impact of this rule on the cost of fuel per gallon. The contractor may provide us better information about the potential price of credit.
- Does credit for infrastructure include biofuels infrastructure?
 - **Response:** The credit for infrastructure capacity discussed above applies to electric charging and hydrogen refueling capacity. The law does not direct us to credit the capacity of biofuel infrastructures. However, the law (RCW 70A.535.050) allows us to credit investments and activities that support deployment of machinery and equipment used to produce gaseous and liquid fuels from nonfossil feedstocks and derivatives thereof.
- Joel [Creswell] outlined the process for carbon intensity modeling and mentioned adopting the CA-GREET model. Is that just a starting point with opportunity for additional potential changes?
 - **Response:** We have directed the contractor to adapt CA-GREET to WA-GREET, so that the model reflects the situation in Washington. For example, the crude oil carbon intensities and the transportation distances in Washington could be different from California.
- Will the market be private or managed by an agency? Also, is there a cap on the value of a credit?
 - **Response:** The market is private. However, the statute determined the soft price cap (\$200 of 2018 for 2023) that applies for credit clearance market that we are required to update annually for inflation based on the consumer price index. The credit clearance market is for entities that could not clear their deficit at the end of the year to buy credit at credit price that does not exceed the cap. Credit generators participating in the program would pledge the credits for the credit clearance market. We are also directed to consider a hard price cap that sets a price cap for credit market, so that the credit price in Washington does not significantly exceed the credit price in Oregon and California.
- Could credits that are being generated from public fleets that are powered by electricity. Is it allowed that electric utility or service provider owns the charging equipment, but contractually the parties agreed for the credit to be given to the public fleet owner?
 - **Response:** Regardless of who generates the credits and independent of the program, sometimes partnerships may arise that require transfer of credit revenue among entities. If it is an electric utility that owns the EVSE and they are generating the credits, it is important to know those credits would not presumably be bound by the requirements on electric utility for residential EV charging, because it is not residential EV. The rule may not address that. However, if you think that is important for credit to end up with one or another, please let us know.

- There are requirements on how an electric utility spend the revenue from credit generated through residential electricity. It seems that might play into how a public fleet such as transit agency or state agency would earn the credit or electric utility earn the credits.
 - **Response:** Our interpretation of the law is that the spending requirement on credit is limited to credit generated from residential EV charging, but does not include credit revenue generated from an electric vehicle charging equipment (EVSE) an electric utility. We would like to have your input if you have a different interpretation.
- **Comment:** On slide 20, it appears that the column title is causing confusion. The left column is fuels subject to the rule only if they are mandatorily subject to the rule. Opt-in fuels are not subject to the rule unless one chooses to opt in. A clearer title to the left column is "Fuels subject to the rule and opt-in fuels."
- **Comment:** In our experience as electricity service providers in California and Oregon, we believe there is strong reason to believe the "fleet operator" should be the priority generator, not the fleet owner. This can cause significant confusion and conflict between leasing companies and fleet operators. We will clarify via written comments.
- **Comment:** Referring to incremental deficits on slide 24 – Hopefully, Ecology will not adopt provisions that create incremental deficits, which is a complex modeling and accounting for little benefits.
- **Comment:** The credit generator should primarily be the operator as they are the ones bearing the energy cost of the equipment.
- **Comment:** There should be clarification on who gets priority of credits between the terms owner and operator, since not all operators of electric material handling equipment (EMHE) own their equipment, but instead lease their equipment.
- **Comment:** For electric forklifts, the first right or priority 1 for credit generation should be to the fleet owner.
 - We would like to get your input about why it is better to assign the first credit generation right to the fleet owner.