



## Agenda Item B – Electricity issues

Meeting #5 – April 12<sup>th</sup>, 2017

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The purpose of this paper is to present DEQ’s initial recommendations regarding the electricity provisions of the Clean Fuels Program (CFP). These recommendations are informed by committee discussions, including the electricity sub-workgroup meeting held on February 27, 2017, and subsequent discussions with stakeholders. The format of this paper mirrors the format of the February 27<sup>th</sup> paper and is intended to supplement that original discussion.

### Electricity carbon intensity values

#### *Statewide mix CI*

DEQ proposes to calculate the statewide electricity mix fuel pathway code using a five year rolling average of the most recent available data. For 2018, DEQ will use 2012-2016 data reported to DEQ’s Greenhouse Gas Reporting program. For each compliance year, DEQ would use the formula to create a single-year fuel pathway code reflecting that the average emissions over the most recent five data years. DEQ would publish the new value annually using the established fuel pathway code nomenclature. For example, DEQ would create a fuel pathway code of ORELEC2018 for the statewide mix CI (average 2012-2016) to be used for compliance calculations in 2018.

#### *Utility-specific CI*

DEQ will continue to allow electric utilities not regulated by the Public Utilities Commission to obtain a utility-specific CI. DEQ agrees with the comments that those utilities should be able to choose to benefit from the low-carbon nature of their electricity. DEQ proposes that the utility-specific CI should be based on a five-year rolling average of those utilities’ generation mix as reported to the Greenhouse Gas Reporting program, which is consistent with the proposal for the statewide mix.

Some stakeholders have raised questions about the ownership of the environmental attributes that may be associated with specific electricity mixes and whether the CFP can make decisions about who can generate credits. Pursuant to ORS 468A.275, the Environmental Quality Commission has established rules governing the Clean Fuels Program, including the generation and ownership of clean fuels credits. DEQ has purposefully made design decisions about where credits are generated in order to ensure they are created accurately and able to incentivize greater use of low-carbon transportation fuels.

For electricity, Clean Fuels Program credits are created when electricity is first used specifically as a transportation fuel (i.e. when that fuel is dispensed into a motor vehicle). The entity

supplying the electricity for that express purpose creates and owns the CFP credit, and the credits do not exist in any form until they are supplied to a vehicle.

The treatment of electricity in this regard is the same as other fuel types covered under the CFP, such as propane, natural gas, and biogas. For all of these fuels that can be used for both transportation and non-transportation uses, credits are generated at the point those fuels are dispensed into a vehicle and become a transportation fuel. The entity that dispenses that product as a transportation fuel owns the credit, because it is at that point that the energy source becomes a transportation fuel subject to the program.

For electricity, it is the EV charger or the vehicle itself<sup>1</sup> that provides the necessary assurance that it is being used as a transportation fuel. Only when it comes to considering the efficient administration of generating credits for residential EVs does it become practical to involve the electric utility as an aggregator of those credits.

The approach used by the Clean Fuels Program for generating credits is different from how renewable electricity certificates (RECs) are created under the Renewable Portfolio Standard or other voluntary clean energy programs. RECs reflect (among other things) the emission attributes associated with the specific generation source of that power, but not any particular purpose for which that power was consumed. In contrast, Clean Fuels credits are generated based on how the electricity is consumed as they are only generated once the electricity is used to charge a motor vehicle. RECs and Clean Fuels Credits exist for different regulatory purposes and are not linked together.

For these reasons, it is incorrect to lump credits under the CFP and RECs into a single category of “environmental attributes” and assume that control of RECs or other electricity generation-related attributes automatically grants ownership of Clean Fuels credits.

Where the program does characterize the emissions associated with electricity, either for electricity as a fuel itself or as an input into the production processes of other fuels, it is part of the factual basis of the program’s lifecycle carbon accounting. Those characterizations are on an average annual basis and are not tied to the output of any specific resource. It is only in cases such as the one being proposed below where a zero-carbon claim is being made about the generation from a specific resource that the instruments could overlap, and in those cases the program’s rules ensures there is no double-counting of the environmental benefit.

DEQ has also received additional comments about whether it is appropriate to require owners or operators of EV charging equipment to be “in compliance” with their electric utility’s service agreement as part of this program. DEQ believes that any contractual disputes between the two parties in question are outside of the purview of the Clean Fuels Program and would not warrant involvement by the agency.

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<sup>1</sup> In cases where the vehicle is plugged into a wall socket.

### *On-site renewable electricity CI*

DEQ will propose to add CI values for on-site solar and wind generation that serves electric vehicle chargers into the look-up table. Applicants who wish to use those fuel pathway codes would need to meet the conditions below.

1. Solar electricity can only be claimed for KWh dispensed from the charger's battery or which is generated contemporaneously from the solar panels while a vehicle is charging. Any grid electricity used for charging must be reported separately under the Oregon grid average electricity fuel pathway code ORELCxxxx or any applicable utility-specific pathway code for the service territory in which the charger is located.
2. Either no RECs can be generated from the facility, or if they are generated from the facility then an equal number of the same RECs generated from that facility to the dispensed solar power charged into vehicles must be voluntarily retired by the entity claiming credits under the Clean Fuels Program.

### *Nearby renewable electricity CI*

DEQ is interested in pursuing a methodology for off-site but nearby installations of renewable energy to serve electric vehicle chargers, but not at this time. DEQ will continue to work on the details of this issue and will take this up this issue again in future rulemaking.

## **Changes to credit generation provisions**

### *Non-residential*

For non-residential charging, DEQ is proposing the hierarchy of credit generators to be:

1. The owner or service provider of the charging equipment. The service provider must include language in its contracts to specify that it is generating the credits for the electricity dispensed and not the owner.
2. A credit aggregator designated by the owner of the charging equipment.

For the purposes of the Clean Fuels Program, the non-residential provision is intended to include public charging; charging for fleets, workplaces and multi-family housing; and public transit such as fixed rail and buses.

Based on stakeholder feedback, the agency wishes to more clearly define multi-family housing as falling into that non-residential portion of the hierarchy. For that purpose, DEQ would like to take comment on the following definition: "*Multi-family housing*" means a structure or facility established primarily to provide housing that provides four or more living units, and where the individual parking spaces that an electric vehicle charger serves, and the charging equipment itself, are not deeded to or owned by a single resident.

## *Residential*

DEQ and the Oregon Public Utility Commission (PUC) have been working together regarding participation of the investor-owned utilities (IOUs) in the CFP. The PUC plans to open an investigation to provide options for the IOUs to participate in the Clean Fuels Program and what the revenue from the sale of clean fuel credits can be used for. The investigation will begin in April and should be completed by October 2017, which will hopefully result in a path forward for the IOUs registering to generate credits from residential EVs beginning in 2018.

DEQ has similarly been working with the Oregon Municipal Electric Utilities Association, the Oregon Peoples Utility District Association and the Oregon Rural Electric Cooperative Association to discuss how the publicly owned utilities can also participate in the CFP.

Based on those conversations, DEQ is proposing the hierarchy to be:

1. The electric utility
2. A credit aggregator designated by the utility

In this proposal, DEQ will ask all of the utilities to designate by October 1, whether they will:

- register themselves as a credit aggregator;
- designate a credit aggregator; or
- none of the above.

The designation process is intended to occur each year, but the intent is that a utility will only have to respond to DEQ if there is a change in their choice after the first designation. Utilities that have made a designation would be allowed to change aggregators or decide to register themselves at any point during the year.

If a utility chooses “none of the above”, then DEQ is considering deeming those credits that would otherwise be stranded to a “backstop aggregator” for management. For the purposes of discussion DEQ would like to take comment on the following potential eligibility requirements for the type of entity that could qualify to serve this role and criteria on what the role of the entity would be, and the process by which DEQ would select that aggregator. At any time, a utility could decide to opt in themselves or designate a credit aggregator for the following year.

At this time DEQ is floating the following as potential qualification requirements for organizations applying to be a backstop aggregator.

Organizations applying to be a backstop aggregator must:

1. Be an organization exempt from federal taxation under section 501(c)(3) of the U.S. Internal Revenue Code;
2. Be subject to annual independent financial audits.

The application to be a backstop aggregator must include

1. A detailed plan for how it plans to participate in the Clean Fuels Program and how it would use any credits it aggregates to promote transportation electrification. At a minimum that plan must include:

- a. The history of the organization;
  - b. How participation in the program would fit into its existing activities and mission;
  - c. The qualifications of its existing staff;
  - d. Its plan for spending revenue from the credit sales in the utility service territories for which it is aggregating credits;
  - e. How it plans to segregate any funds from credit sales from other monies controlled by the organization, the controls it would place on those funds, and what it believes its cost of administering its proposed plan would be.
2. Its last three years of independent financial audits, I.R.S. form 990s for those years, and proof that the I.R.S. has certified them as qualifying as an exempt organization under 501(c)(3);

Once selected, the backstop aggregator must:

1. Submit annual reports on its activity under the Clean Fuels Program, which must include detailed information on its activities and value provided to the specific utility service territories from which it is aggregating credits;
2. Submit its most recent annual independent financial audit.

DEQ is also clarifying that a credit generator that is already generating credits based on their own activities can be designated as an aggregator by another eligible credit generator. For example, a utility that is generating credits itself could also be designated as a credit aggregator for a different utility.

### *Calculating credits*

DEQ is responsible for developing the methodology to calculate the credits generated from the residential EVs. There are three parts to this calculation:

1. Determine the number of EVs in a utility district
2. Establishing the proper amount of average kWh consumption per vehicle
3. Applying the proper carbon intensity value for the electricity consumed

For the first issue, DEQ gets vehicle registration information from the Oregon Department of Transportation twice yearly. DEQ runs it through a VIN decoder which produces, among other things, information that tags a vehicle as a battery electric vehicle or a plug-in hybrid vehicle. DEQ uses that information for a variety of purposes that include compliance with the Zero Emission Vehicle program and modeling for local air quality plans. DEQ is proposing to use this data to determine the number of EVs in a utility's district.

For the second issue, DEQ will work with the utilities to determine if direct-metered data is available to establish a utility-specific per-vehicle electricity consumption. If utility-specific data is not available, then DEQ will look at other data sources for average electric vehicle charging per year to develop an estimation methodology for use here.

For the third issue, DEQ will use either the statewide mix electricity CI or the utility-specific electricity CI as described on the first page of this paper.

At the end of each year, DEQ will perform this calculation and deposit the appropriate amount of credits into the accounts of the utilities that have opted in or the credit aggregator that it has designated. DEQ will also post a notification on its webpage regarding this action.

## **Displacement credit for fixed guideway systems**

DEQ proposes to have fixed guideway systems (light rail and street car) be able to claim a diesel displacement credit for the portion of their track miles placed in service after January 1, 2012. Since 2012 was used as the baseline year to set the standards for the gasoline and diesel pools, it also makes sense to use the same timeframe for these systems.

## **Forklifts**

As shown in the compliance scenarios, electricity used in forklifts can generate a significant amount of credits for the CFP. However, given the current rulemaking timeline, DEQ doesn't have sufficient time to work with these stakeholders to incorporate forklifts into the program. DEQ continues to be interested in pursuing the addition of forklifts to the program but intends to defer this issue to the next rulemaking.

## **Comments**

The agency invites comments addressing all aspects of this paper. This discussion will be captured in the meeting summary and posted on the committee webpage. DEQ will accept written comments for two weeks after the meeting in order to develop materials for the next meeting. Comments received after two weeks will still be considered, but may not be reflected in the next meeting's materials. Please e-mail any written comments to:

[OregonCleanFuels@deq.state.or.us](mailto:OregonCleanFuels@deq.state.or.us).