Agenda Item B – Opportunities for Additional Credit Generation

Meeting #1 – Wednesday, November 2, 2016

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Introduction

As we proceed with this rulemaking, it is important to keep in mind that there are multiple ways to address cost containment. One way is to consider the flexibilities inherent in the program's design which make it easier and cheaper to comply. Another way is to implement deferrals in case there are inadequate supplies of low-carbon fuels. A third way is to manage the price of credits to make sure that any pass-through of costs from the regulated parties to fuel consumers is not unreasonably high.

Lastly, the program will work at its best when it continues to adapt to the new ways clean fuels are being deployed in the transportation sector and accurately characterizes the ways those fuels are already in use. Making sure that the incentives are there under the program for qualifying uses of the clean fuels being used to move people and goods in the state will add to the supply of credits in the market and encourage the expansion of the needed infrastructure for, and production of, clean fuels. The first three examples are discussed in other papers; the purpose of this paper is to discuss the fourth example.

Opportunities for Additional Credit Generation

Based on the quarterly reports that have been submitted so far, the majority of credits are being generated from the liquid biofuels - ethanol and biodiesel. That is logical since there are abundant volumes of these fuels available to generate credits in the early stages of the program and the entities that deal in ethanol and biodiesel are mandatory participants in the program. That is as opposed to the voluntary opt-in to the program for the credit generators for electricity, natural gas, biogas, propane, and hydrogen fuels.

Credits are also being generated from LNG, CNG, biogas and propane and these are likely to increase as the number of fleets that use these fuels get registered and as fossil CNG and LNG fleets convert to more biogas. Credits are also being generated from electricity but exclusively from public electric vehicle chargers. Staff has identified this as an area to focus on to promote more credit generation.

Opportunities in Electricity

The Legislature found earlier this year when it passed HB 1547 that transportation electrification is necessary to reduce our state's reliance on petroleum and meet its greenhouse gas emissions reduction goals. The current regulation mainly focuses on electricity being used by light duty vehicles, both in residential and non-residential settings. In the future, medium and heavy duty applications will become increasingly important and additional refinement of the provisions for those vehicles is needed.

For medium and heavy duty vehicles, DEQ believes that allowing credit generation from the use of electricity for light rail and street cars is the clearest and mostly timely immediate addition to the program's scope for credit generation. The California Low-Carbon Fuel Standard recently added provisions to allow credit generation from fixed guideway transit and forklifts. DEQ also believes that it would be appropriate to add provisions specific to electric buses being used by mass transit districts in order to better characterize and create incentives for those vehicles. DEQ will also look at opportunities to allow credit generation from forklifts and welcomes comment on other medium or heavy duty applications of alternative and clean fuels.

For light duty vehicles, DEQ believes that these are the areas that need additional consideration:

- Residential charging of electric vehicles
    - DEQ continues to work with the state's utilities regarding their participation in the program.
        - For the investor-owned utilities, DEQ is collaborating with the Public Utilities Commission in their implementation of HB 1547.
        - For the municipal utility districts and co-ops, DEQ is working on developing guidance to assist in the calculation of utility-specific carbon intensity values as provided for in the current rules. In many cases, these utilities use more zero-emitting resources for their electricity and thus would have lower carbon intensity values.
    - For individual home owners, DEQ is working on developing guidance that clarifies when and if they can participate in the program.
- Non-residential electric vehicle charging
    - DEQ is working on developing guidance that clarify the methodology to calculate credit generation when both on-site renewable generation and grid power are being used by electric charging stations.

Opportunities in Public Transit

DEQ believes that providing an opportunity for transit agencies to generate credits from electricity powering light rail and street cars supports the overall purposes of the Clean Fuels Program. This addition will provide support for the state's mass transit agencies as they operate their existing transit systems and consider further additions and expansions.

Separately, while electric buses are currently capable of generating credits under the program's rules, they are treated the same as all other heavy duty electric vehicles and DEQ believes it is appropriate to develop specific provisions, especially as the first electric buses should be hitting Oregon's roads in the coming months. The adoption by transit agencies of electric buses will help the state by reducing diesel particulate emissions in urban areas, driving transportation electrification outside of the light duty vehicle fleet, and cutting our reliance on petroleum[1].

With respect to the technical aspects of this issue, DEQ will work on adding new energy economy ratios (EER) for electric vehicles used in public transit with the following parties and any other interested stakeholders:

- TriMet for the MAX light rail system
- City of Portland for the Portland Streetcar system
- Lane Transit District and TriMet for the electric buses they have ordered

Adopting new, more accurate EERs is important to providing clarity to those transit districts about how many credits they may be eligible for as credit generators. For electric buses, there might be a single value for Oregon or transit district-specific values depending on the vendor supplying the electric buses. For

[1] See pages 16-19 for comparisons between diesel, CNG, and electric buses: http://www.ucsusa.org/sites/default/files/attach/2016/10/UCS-Electric-Buses-Report.pdf

light rail and street car systems, DEQ is looking to see if the EER values currently in the California LCFS are appropriate or if there may be more appropriate specific values for the two Oregon systems.

Next steps

DEQ has awarded a contract to the consultancy ICF to provide analysis supporting this rulemaking. ICF has done a number of studies on the California and Oregon low-carbon fuel standards, including the 2014 Updated Compliance Scenarios[2] report for the CFP. One of the tasks in the current contract is to identify opportunities to increase credit generation from the use of electricity as a transportation fuel. In the contract, DEQ identified transit and forklifts as two areas for them to analyze. As part of this rulemaking we are open to other suggestions including cargo handling equipment, drayage trucks, and delivery trucks if any stakeholders can identify fleets in Oregon that may be considering electric, plug-in hybrid, or other alternative-fueled versions of those vehicles that our current rules may not cover adequately or accurately.

ICF will research the amount of credits that can be generated from these sectors using current sources of data and methodologies in their work for DEQ. ICF will also work with the stakeholders in these industries to gather information about current and future inventories of equipment, fuel use and infrastructure in these sectors.

Comments

The agency invites comments addressing all aspects of this paper at the advisory committee meeting. This discussion will be captured in the meeting summary and posted on the committee webpage. DEQ will accept written comments one week after the posting of the meeting summary in order to develop materials for the next meeting. DEQ staff are particularly interested in help identifying data resources for alternatively fueled forklifts and other privately-owned medium and heavy duty vehicles the state. Comments received after one week 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.

[2] https://www.oregon.gov/deq/RulesandRegulations/Documents/T3m3.pdf