Clean Fuels Program Expansion 2022
Rulemaking

Rulemaking Advisory Committee Meeting #3

March 31, 2022
Zoom Meeting Tips for RAC Members

- Please see below webinar instructions and tips below:
  - If you have not already **connected your audio**, click on the arrow next to the microphone icon, then click “Join Computer Audio” or “Switch to Phone Audio” to connect your computer speakers or to view the conference line information.
  - Please **keep yourself on mute** when not speaking. To mute and unmute, either select microphone icon, or use your personal phone.
  - **Use video** if possible, to promote face to face communication. Click the video icon to turn on your webinar camera.

*If you are experiencing technical difficulties, please send a text to Gillian Garber-Yonts at 206-617-7626.*
Zoom Meeting Tips

- To raise your hand by phone, press *9.
- To unmute yourself by phone, press *6.
Public Comment Instructions

To make verbally ask a question or make a comment:

▸ If you have joined by Zoom, click “Raise Hand.”

▸ If you have joined by phone, press *9 to raise your hand.

▸ The facilitator will call on participants. You will receive an “unmute” request. Please accept it. If you are commenting by phone dial *6 to unmute.

▸ Please provide your name and affiliation.

▸ Attendees will be allocated reasonable time for public comment depending on the number of commenters.

▸ If we run out of time and you have not had a chance to speak, you can still provide written comments after the meeting.
Meeting Guidelines

- Fully participate in Work Group meetings
- Come prepared for meetings
- Participate in an open and mutually respectful way
- Balance of speaking time
- Serve as a liaison to your larger community of interest
- Act in good faith
# Meeting Agenda

<table>
<thead>
<tr>
<th>Time</th>
<th>Topic</th>
</tr>
</thead>
<tbody>
<tr>
<td>9:45 a.m.</td>
<td>Webinar Setup and Login</td>
</tr>
<tr>
<td>10 a.m.</td>
<td>Welcome and Introductions</td>
</tr>
<tr>
<td>10:10 a.m.</td>
<td>Big Picture Recap of RAC Meetings and Workshops</td>
</tr>
<tr>
<td>10:20 a.m.</td>
<td>Overview of the UC Davis Study: Impacts of the Clean Fuels Program</td>
</tr>
<tr>
<td>10:40 a.m.</td>
<td>Overview of the Clean Fuels Program Review to the 2022 Legislature</td>
</tr>
<tr>
<td>11 a.m.</td>
<td>Presentation and Discussion: Target Setting</td>
</tr>
<tr>
<td>12 p.m.</td>
<td>Lunch</td>
</tr>
<tr>
<td>1 p.m.</td>
<td>Feedback and Discussion: Additional Proposals Under Consideration</td>
</tr>
<tr>
<td>3:30 p.m.</td>
<td>Public Comments</td>
</tr>
<tr>
<td>3:50 p.m.</td>
<td>Next Steps</td>
</tr>
<tr>
<td>4 p.m.</td>
<td>Adjourn Meeting</td>
</tr>
</tbody>
</table>
Attendees: What is your Affiliation?

RAC Meeting Attendees:
• Open a browser window on your cell phone or computer.
• Go to Menti.com
• Type in the code in the chat. Click “Submit”
Brief Recap of RAC #2 Meeting and Workshops
### Clean Fuels Program Expansion 2022 Rulemaking Timeline

<table>
<thead>
<tr>
<th>Winter 2021/22</th>
<th>Spring 2022</th>
<th>Summer 2022</th>
<th>Early Fall 2022</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>RAC Member and Community Input</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
| **RAC #1** *(Dec. 9, 2021)*  
Scenarios | **RAC #2** *(Jan. 26, 2022)*  
Target Setting | **RAC #3** *(Mar 31, 2022)*  
Everything | **RAC #4** *(May 26, 2022)*  
Fiscal |
| Reporting Workshop *(Jan. 20)* | Electricity Workshop *(Feb. 10)* | Pathways Workshop *(Feb. 17)* | |
| **DEQ Develops Recommendation** | | | |
| **Public Comment** | | | |
| | | **EQC Consideration of Rulemaking**  
Sept. 22-23, 2022 | |
Presentation: Modeling Expected Air Quality Co-Benefits of Oregon’s Proposed Expanded Clean Fuels Program
Methodology

- Vehicle Fleet Projections
- Fuel Projections
- Add in 2017 NEI for non-mobile emissions
- Calibrated for Oregon-specific activity forecast data
- Disaggregate statewide emissions to 4 km grids
- Add meteorology
- Compared to monitors
- Population
- Health impact function

VISION

MOVES

SMOKE

UCD/CIT

BenMap

Statewide emissions: Hourly criteria pollutants, GHGs, & air toxics by county

- Scenario A: 20% by 2030 & 25% by 2035
  - SB 1044 & Advanced Clean Trucks
- Scenario C: 20% by 2030 & 37% by 2035
  - A + 25% Renewable Diesel

Health outcomes:
- Mortality
- Morbidity
## Draft Results – Tailpipe Emissions Reductions

<table>
<thead>
<tr>
<th>Pollutant Name</th>
<th>BAU (g/day)</th>
<th>Scenario A (g/day)</th>
<th>% reduction</th>
<th>Scenario C (g/day)</th>
<th>% reduction</th>
</tr>
</thead>
<tbody>
<tr>
<td>Carbon Monoxide</td>
<td>272,229,003</td>
<td>222,898,708</td>
<td>18.1%</td>
<td>223,269,570</td>
<td>18.0%</td>
</tr>
<tr>
<td>Oxides of Nitrogen</td>
<td>42,781,037</td>
<td>33,885,978</td>
<td>20.8%</td>
<td>33,243,441</td>
<td>22.3%</td>
</tr>
<tr>
<td>Exhaust PM2.5</td>
<td>697,974</td>
<td>566,946</td>
<td>18.8%</td>
<td>561,565</td>
<td>19.5%</td>
</tr>
<tr>
<td>Sulfur Dioxide</td>
<td>312,290</td>
<td>221,735</td>
<td>29.0%</td>
<td>220,661</td>
<td>29.3%</td>
</tr>
<tr>
<td>Ammonia</td>
<td>3,303,739</td>
<td>2,326,310</td>
<td>29.6%</td>
<td>2,318,161</td>
<td>29.8%</td>
</tr>
</tbody>
</table>
## Draft Results – Health Impact Analysis

<table>
<thead>
<tr>
<th>Scenario</th>
<th>Mortality</th>
<th>Mortality per 1,000,000</th>
<th>Health co-benefits</th>
</tr>
</thead>
<tbody>
<tr>
<td>Scenario A</td>
<td>12.12</td>
<td>4.83</td>
<td>$84,411,920</td>
</tr>
<tr>
<td>Scenario C</td>
<td>12.56</td>
<td>5.01</td>
<td>$87,779,543</td>
</tr>
</tbody>
</table>

- Add in other criteria pollutants and their health benefits
- Work with the Oregon Health Authority to add in long-term morbidity health impacts
Questions and Discussion
Presentation: Oregon Clean Fuels Program Review to the 2022 Legislature

Reducing Greenhouse Gases

Estimated GHG reduced (metric tons CO2e)

Year
2016
2017
2018
2019
2020
CFP credits
831,189
1,757,560
2,736,300
4,011,852
5,330,424
Cumulative GHG emissions reduced

Office of Greenhouse Gas Program - Clean Fuels Program
Other Benefits from the Clean Fuels Program

- **Collaboration with Electric Utilities**
  - PGE & PacifiCorp – About $10 million in 2022
    - Community-based EV projects, workforce development, outreach
  - **Electric School Buses** – Beaverton (3), Centennial, Gresham-Barlow, Hillsboro, Newburg, Portland (2), Reynolds, Salem-Keizer (2), Bend-LaPine
  - 26 PUDs, Co-ops, and Munis – over $3 million in 2022
    - Investments in rural EV chargers & local programs

- **Table 1. Value of CFP Credits in 2021**
<table>
<thead>
<tr>
<th>Fuel</th>
<th>Average CI</th>
<th>Value of CFP Credits in 2021</th>
</tr>
</thead>
<tbody>
<tr>
<td>Corn ethanol</td>
<td>55 gCO2e/MJ</td>
<td>$0.39 per gallon</td>
</tr>
<tr>
<td>Used cooking oil BD</td>
<td>20 gCO2e/MJ</td>
<td>$1.16 per gallon</td>
</tr>
<tr>
<td>Soy RD</td>
<td>45 gCO2e/MJ</td>
<td>$0.79 per gallon</td>
</tr>
<tr>
<td>Electricity in a HDV</td>
<td>28 gCO2e/MJ</td>
<td>$0.15 per kWh</td>
</tr>
<tr>
<td>Landfill RNG</td>
<td>50 gCO2e/MJ</td>
<td>$0.45 per therm</td>
</tr>
</tbody>
</table>

- **Figure 1. The value of the Clean Fuels Program market**

- **Figure 2. Accelerating the adoption of electric vehicles**

- **Figure 3. Lowering the price of low-carbon fuels**

- **Figure 4. More infrastructure for low-carbon fuels**

Office of Greenhouse Gas Program - Clean Fuels Program
Questions and Discussion
Presentation and Discussion: Target Setting
Priorities

1st: GHG Reductions
2nd: Commercialize fuels & vehicles that will lead to deep decarbonization
3rd: Investment in fueling infrastructure
4th: Health benefits to local communities from reduced tailpipe emissions
5th: Achieve short-term emissions reductions from the existing fleet through the greater use of biofuels
Key Comments Received

• There are risks of setting the targets too low such as credit prices being too low for investors.
• There is significant upside to more ambitious targets including local community and health benefits, low-carbon fuels innovation, commercialization of low-carbon vehicles, and business investment certainty.
• The current cost containment mechanisms provide stakeholder confidence that the program can remain resilient if actual carbon reduction doesn’t occur and provide a safety valve if there are unforeseen credit liquidity challenges.
• Ambitious target setting should be coupled with ambitious broadening of scope and diversity of credit generation opportunities.
• The state should proceed pragmatically and avoid unrealistic targets and focus on reasonable and achievable targets.
• The adoption of the Climate Protection Program creates a backstop to ensure that greenhouse gas emissions reductions will occur and that CFP doesn’t have to bear a disproportionate burden.
• Do not increase the standards through 2025 to allow for a smooth transition for low carbon fuel supply growth and time for infrastructure to minimize fuel supply disruptions.
Proposed Targets

<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>% Reduction</td>
<td>0.25%</td>
<td>0.5%</td>
<td>1.0%</td>
<td>1.5%</td>
<td>2.5%</td>
<td>3.5%</td>
<td>5.0%</td>
<td>6.5%</td>
<td>8.0%</td>
<td>10.0%</td>
</tr>
<tr>
<td>% Change YoY</td>
<td>0.25%</td>
<td>0.25%</td>
<td>0.5%</td>
<td>0.5%</td>
<td>1.0%</td>
<td>1.0%</td>
<td>1.5%</td>
<td>1.5%</td>
<td>1.5%</td>
<td>2.0%</td>
</tr>
<tr>
<td>Proposal for</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Expanded Program</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>% Reduction</td>
<td>12.0</td>
<td>14.0%</td>
<td>16.0%</td>
<td>18.0%</td>
<td>20.0%</td>
<td>23.4%</td>
<td>26.8%</td>
<td>30.2%</td>
<td>33.6%</td>
<td>37.0%</td>
</tr>
<tr>
<td>% Change YoY</td>
<td>2.0%</td>
<td>2.0%</td>
<td>2.0%</td>
<td>2.0%</td>
<td>2.0%</td>
<td>3.4%</td>
<td>3.4%</td>
<td>3.4%</td>
<td>3.4%</td>
<td>3.4%</td>
</tr>
</tbody>
</table>

Office of Greenhouse Gas Program - Clean Fuels Program
Rationale

The targets are:

• Consistent with Oregon’s ambitious long-term carbon reduction goals and strategy, including the targets established in the Climate Protection Program, and supportive of other policies and programs that aim to decarbonize the transportation sector in Oregon.

• Aligned with other low carbon fuel standards on the West Coast.

• Achievable with multiple paths to compliance from different combinations of low-carbon fuels and set at a level that balances the need to incent continued improvements in the liquid fuels while supporting the deployment of mandated zero emission vehicles.
Additional Considerations

• Credit generation from sustainable aviation fuel or renewable gasoline were not considered.

• Additional Credit Generation Opportunities memo describes innovations that may have a material impact on the fuels market through 2035. Credit generating activities such as improvements to upstream agricultural practices, increased use in carbon capture and sequestration technology, and refinery-based improvement projects will likely contribute to greenhouse gas reductions.

• There are mechanisms already in established within the program designed to safeguard the supply and cost impacts of transitioning to lower-carbon fuels. These include the annual fuel supply forecast and deferral, as well as the credit clearance market.

• DEQ plans to conduct a program review for the Oregon Environmental Quality Commissions in 2029. The focus of the program review will be to provide the EQC with progress made in the CFP through the 2028 calendar year and an assessment of whether the 2035 targets remain appropriate or whether modifications are needed.
Questions and Discussion
Lunch: 12 p.m. – 1 p.m.
Presentation and Discussion: Additional Proposals for Consideration

https://www.oregon.gov/deq/rulemaking/Documents/cfp2022m3Considerations.pdf
Proposal #1: Simple Updates for Reporting

a) Product transfer documents (PTD) must contain a destination for the fuel. If the fuel destination is not known or the transfer is not changing the location of the fuel, this should be noted in the PTD. (OAR 340-253-0600)

b) Changing registration status from a large to a small importer of finished fuels requires at least one year of submitted reporting showing that the company is below 500,000 gallons for the year. Then, the following year, the entity can change its status to a small importer. (OAR 340-253-0100)

c) B99/R99 must be reported as 99 percent biodiesel or renewable diesel and 1 percent petroleum diesel. If the actual blend percentage is not known. If actual percentages are known, that fuel should be reported according to those percentages. It must not be reported as B100/R100. (OAR 340-253-0640)

d) Change “Position holder sale” to “Position holder sale without obligation” as it is named in the OFRS. (OAR 340-253-0040)

e) Add “Position holder sale with obligation” as a transaction type so that obligation can be passed below the rack with one transaction when it is sold with the obligation. Applies to Oregon producer/out-of-state producer and importer of blendstocks. (OAR 340-253-0040)
Proposals #2 - 9: Other Updates

2. Require an electronic tracking system for renewable natural gas claims (OAR 340-253-0640)
3. Correct error in simplified calculator for Biodiesel and Renewable Diesel (OAR 340-253-0400)
4. Develop calculator for biogas-to-electricity pathway (OAR 340-253-0400)
5. Define renewable hydrogen for pathways (OAR 340-253-0040)
6. Submit Fuel Supply Equipment registrations in the 1st half of the quarter (OAR 340-253-0100(3)(b))
7. All entities can designate an aggregator (OAR 340-253-0300 series)
8. Add transaction types for gallons reported as “Production for Import” (OAR 340-253-0040)
9. Clarify language for documenting exempt fuel use (OAR 340-253-0250)
Proposal #10: Create Hierarchy for Credit Generation

The following entities have the first right to generate the credits for the following categories:

**Electricity**
- For non-residential electric charging, other than specified below, the owner of the electric-charging equipment
- For public transit including electricity used to power fixed guideway vehicles such as light rail systems, streetcars, and aerial trams, or transit buses, the transit agency
- For forklifts, the forklift owner
- For transportation refrigeration units, the owner of the electric transportation refrigeration unit
- For electric cargo handling equipment, the owner of the electric-charging equipment

**Hydrogen**
- For forklifts, the owner of the fueling equipment

**Propane**
- For fossil LPG, the forklift operator
- For renewable LPG, the producer or importer of the renewable LPG, as long as they are able to document that the renewable LPG goes into a vehicle.
Proposal #11: Change of Ownership, Control or Bankruptcy Provisions

• Under this provision, DEQ would clarify language within the rule for reporting entities and fuel producers on what they must do when a change of ownership, control, or bankruptcy has occurred for an entity registered in the program. The intent of these provisions is to ensure that compliance obligations are met by an entity exiting the program, or are taken over by the new owner or corporate entity in the case of a merger, purchase, or other rearrangement of control over a continuing business.

• See draft rule language as proposed in the Reporting Workshop memo.
Proposal #12: Add new EER for eGSE

- The CFP proposes to adopt a straight average EER value of 3.2 applicable for baggage tractors, belt loaders, and pushbacks that would generate credits against the gasoline standard.

- The proposed credit generator would be the charger owner.

- Equipment with designated EERs values in the CFP that broadly fit into the ground support equipment category at airports must use those values. For example, electric forklifts must continue to use the value designated under OAR 340-253-8010: 3.8.
Proposal #13: Correct the Definition of eOGV

• Correct the definition to accurately reflect the established EER value of 2.6. This value represents the energy benefits associated with large vessels using shore power at berth instead of operating auxiliary engines. To qualify to use this EER, the ocean-going vessels must be:
  – greater than or equal to 400 feet in length overall
  – weigh 10,000 gross tons or greater
  – propelled by a marine compression-ignition engine with a displacement of greater than or equal to 30 liters per cylinder.

• In addition, the CFP staff invite interested parties to submit a Tier 2 application for category 1 & 2 engines for smaller vessels, through the administrative process defined under OAR 340-253-0460. Parties are reminded that the applications must make clear in the application that electric charging or shore power is not the predominant practice to be eligible for crediting.
Proposal #14: Require Additional Documentation for Credit Transaction

• When a credit transfer is being conducted, the contract will be required to be submitted for any transfers of credits that occur ten days after the contract was signed.
Proposal #15: Establish Process to Add New Transaction Types in OFRS

The following conditions are being proposed when considering additional transaction types in OFRS:

- New transactions created would not be able to generate credits/deficits and do not create a new requirement to report, but only a change in the way reporting is done.
- The process would include a proposal from DEQ of the transaction type with a thorough description of how the transaction would work in the system and what action or actions they would be used to report. That proposal would be subject to a 30-day comment period to ensure that stakeholders can participate in the creation of new transaction types.
- If DEQ moves forward with creating a new transaction type, there will be an announcement to affected parties and a notice on the website.
Proposal #16: Post-Verification Credit Generation Adjustment

DEQ would annually issue additional credits to a fuel producer if:

- Their fuel production facility has gone through third party verification for their annual fuel pathway report, and they have received a **positive or qualified positive** verification statement.

- One or more of the pathways in their annual fuel pathway report had volumes reported against it, and that pathway’s operational CI for the reporting year was **1 gram/MJ** lower than the certified CI used for reporting.

- The pathways being verified are **full** pathways, not **temporary** or **provisional** pathways.

- They are registered in the reporting tool as an importer of blendstocks, a credit generator, or an out-of-state fuel producer by **June 30th** of the year in which DEQ would be issuing the additional credits.

Under this proposal, credits would only be issued to the fuel producer itself or the fuel pathway holder for that fuel production facility. The fuel producer would be able to distribute the credits to other parties if it so desires through the normal credit transfer process.
Proposal #17: Add Hydrogen to Advance Crediting Provisions

- DEQ would extend the current eligibility requirements and structure of the advanced crediting provisions to hydrogen fuel cell vehicles.
- The applicant is required to describe the source of hydrogen they intend to use. A minimum three-year contractual agreement with their hydrogen supplier must be included if renewable hydrogen is being used to calculate advanced credits.
- The hydrogen supplier must be a registered CFP fuel producer with a CFP approved and certified hydrogen fuel pathway and CI value.
Questions and Discussion
Public Comment Instructions

To make verbally ask a question or make a comment:

▸ If you have joined by Zoom, click “Raise Hand.”

▸ If you have joined by phone, press *9 to raise your hand.

▸ The facilitator will call on participants. You will receive an “unmute” request. Please accept it. If you are commenting by phone dial *6 to unmute.

▸ Please provide your name and affiliation.

▸ Attendees will be allocated reasonable time for public comment depending on the number of commenters.

▸ If we run out of time and you have not had a chance to speak, you can still provide written comments after the meeting.
Written Comment Instructions

To submit comment after the meeting:

▸ Please email comments to CFP.2022@deq.oregon.gov with “RAC #3 Public Comment” as the subject line by the end of day on Friday, April 15.

▸ Thank you for sharing your feedback.
Next Steps

- RAC #4 meeting: **Thursday, May 26**

Future targeted dates:
- Notice of Proposed Rulemaking: late June 2022
- Public Hearing: mid-July 2022
- Environmental Quality Commission: September 22-23, 2022
Thank you!