CFP 2018 Rulemaking Advisory Committee Meeting #1

February 1, 2018
## Proposed Timeline

<table>
<thead>
<tr>
<th>Event</th>
<th>Plan A</th>
<th>Plan B (if needed)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Committee Meetings</td>
<td>February 1</td>
<td>Plan A + June 12</td>
</tr>
<tr>
<td></td>
<td>March 22</td>
<td></td>
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<td></td>
<td>May 3</td>
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<tr>
<td>Fiscal Meeting</td>
<td>June 12</td>
<td>July 17</td>
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<tr>
<td>Public Comment</td>
<td>July-August</td>
<td>August-September</td>
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<tr>
<td>Public Hearing</td>
<td>August</td>
<td>September</td>
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<tr>
<td>EQC Meeting</td>
<td></td>
<td>November 15-16, 2018</td>
</tr>
<tr>
<td>Effective Date</td>
<td></td>
<td>January 1, 2019</td>
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Rulemaking Scope

- Mechanisms to incorporate verification to various parts of the program
- Updates to the models used to determine the carbon intensities of fuels
- The potential for additional credit generation to the program
- Alignment of the enforcement provisions in Division 12
- Anything else?
OPTIONS FOR A VERIFICATION PROGRAM
Background

- Create a system for proactively ensuring the accuracy of reporting and the validity of credits – Following up on the concern that holders of fraudulent credits must replace the credit
- Alignment of policy – CARB is also introducing verification into their LCFS
- This meeting – We’re looking for ideas from the committee about what they would want to see in a verification program
- Next meeting – Program elements to move forward with
What do we mean by Verification?

Clarifying…

• What data is required to be reported
• How the data should be collected
• What are the recordkeeping requirements
• How will it be transmitted to the agency
• What will the review include
• Anything else?
What needs to be Verified?

Submissions including…

- Quarterly Fuel Transaction reports
- Fuel pathway applications
- On-going reporting for provisional fuel pathways
- Any others?
How often do submissions have to be verified…

- Fuel reports – quarterly/annual
- Fuel pathway applications – up front/continuously
- On-going reporting for provisional fuel pathways – quarterly/end of 2 years
- Any others?
Who conducts the Verification?

- DEQ staff
- Third party verifiers - should be:
  - Independent
  - Insured/bonded
  - Accredited
- Anybody else?
How do Verifiers get Accredited?

The framework should include…

• Verifiers accredited in California
• Establish an Oregon program
• Accreditation boards
• Anything else?
How are Verifications Audited?

How rigorous does the verification audit need to be?

• Monitoring or verification plan
• Summary of data
• Sampling reviews of underlying documents which make up reporting
• Site visits
Points for Discussion

• Fuel producers vs. importers
• Large vs. small
• Regulated fuels vs. others (propane, electricity, natural gas, hydrogen)
• Voluntary vs. mandatory
• Exemptions vs. reduced requirements (less frequent, etc.)
• Alternative forms of verification/reporting
• Cost
• Availability of verifiers
UPDATES TO CARBON INTENSITY MODELS
Update OR-GREET

- Match changes to CA-GREET
- Tier 1 Simplified CI calculators
  - Starch ethanol
  - Sugarcane ethanol
  - Biodiesel/renewable diesel
  - Landfill gas
Update OPGEE

- New version of OPGEE

- Updated crude mixes going into refineries that feed into Oregon
  - DEQ is looking for data regarding the crude slates for those refineries
OPTIONS FOR ADDITIONAL CREDIT GENERATION
## Considerations

<table>
<thead>
<tr>
<th></th>
<th>How many additional credits?</th>
<th>How would it impact the ability to meet the standards?</th>
<th>Who should be the credit generator?</th>
<th>What recordkeeping requirements would apply?</th>
</tr>
</thead>
<tbody>
<tr>
<td>Forklifts</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Truck Refrigeration Units</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Truck Stop Electrification</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Anything else?</td>
<td></td>
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Alternative Jet Fuel

- Being considered in California LCFS
- What is the potential for use in Oregon?
- Deficits and credits?
- Who would be the obligated parties?
- What other considerations?
IMPLEMENTATION FOR 2018
Q3 2017 Data Summary

Credits and Deficits

Metric ton CO2e

<table>
<thead>
<tr>
<th></th>
<th>2016</th>
<th>2017</th>
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</thead>
<tbody>
<tr>
<td>Q1</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Q2</td>
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<td></td>
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<tr>
<td>Q3</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Q4</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Q1</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Q2</td>
<td></td>
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<tr>
<td>Q3</td>
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</table>

Credits

Deficits

Bank
Q3 2017 Data Summary

Credit Generation by Fuel Type

Metric ton CO2e

<table>
<thead>
<tr>
<th></th>
<th>Q1 2016</th>
<th>Q2 2016</th>
<th>Q3 2016</th>
<th>Q4 2016</th>
<th>Q1 2017</th>
<th>Q2 2017</th>
<th>Q3 2017</th>
</tr>
</thead>
<tbody>
<tr>
<td>Biodiesel</td>
<td>60,000</td>
<td>70,000</td>
<td>80,000</td>
<td>70,000</td>
<td>80,000</td>
<td>90,000</td>
<td>100,000</td>
</tr>
<tr>
<td>Ethanol</td>
<td>120,000</td>
<td>130,000</td>
<td>140,000</td>
<td>130,000</td>
<td>140,000</td>
<td>150,000</td>
<td>160,000</td>
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<tr>
<td>Other</td>
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<td>0</td>
<td>0</td>
<td>0</td>
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</table>
Uptake of Alternatives

- Bio-CNG
- Bio-LNG
- Fossil CNG
- Liquefied Petroleum Gas
- Electricity - Onroad

DGE/GGE vs. Q1, Q2, Q3, Q4, 2016, 2017
Updates to CFP Online System

- Improve reporting and fuel pathway application handling
- Enables requests and approvals for Temporary Fuel Pathway Codes
- Fuel Supply Equipment registration for Q1 2018 reporting and onward
- Bakes in more of the reporting-related rules
Backstop Aggregator

- Solicitation begins February 1, 2018
- Applications due February 28, 2018
- Recommendation at EQC meeting on March 21, 2018
- Approximately 6% of EVs registered in Oregon, based on June 30, 2017 registrations
# Electricity CIs

<table>
<thead>
<tr>
<th></th>
<th>Direct Emissions (gCO2e/MJ)</th>
<th>Indirect Emissions (gCO2e/MJ)</th>
<th>Carbon Intensity (gCO2e/MJ)</th>
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</thead>
<tbody>
<tr>
<td><strong>Statewide Mix</strong></td>
<td>99.61</td>
<td>9.95</td>
<td>109.56</td>
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<tr>
<td><strong>Clatskanie PUD</strong></td>
<td>18.06</td>
<td>2.05</td>
<td>20.11</td>
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<tr>
<td><strong>Emerald PUD</strong></td>
<td>4.98</td>
<td>0.75</td>
<td>5.72</td>
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<tr>
<td><strong>Springfield Utility Board</strong></td>
<td>4.18</td>
<td>0.67</td>
<td>4.85</td>
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<tr>
<td><strong>Hermiston Energy Services</strong></td>
<td>4.18</td>
<td>0.67</td>
<td>4.85</td>
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<td><strong>Columbia River PUD</strong></td>
<td>4.18</td>
<td>0.67</td>
<td>4.85</td>
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<tr>
<td><strong>EWEB</strong></td>
<td>3.86</td>
<td>0.64</td>
<td>4.50</td>
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<td><strong>Central Lincoln PUD</strong></td>
<td>4.18</td>
<td>0.67</td>
<td>4.85</td>
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<tr>
<td><strong>Lane Electric Cooperative</strong></td>
<td>4.67</td>
<td>0.71</td>
<td>5.38</td>
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<tr>
<td><strong>Tillamook PUD</strong></td>
<td>4.14</td>
<td>0.67</td>
<td>4.81</td>
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<tr>
<td><strong>Umatilla Electric Cooperative</strong></td>
<td>21.36</td>
<td>2.38</td>
<td>23.74</td>
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