## DOCKETED

<table>
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<tr>
<th>Docket Number:</th>
<th>16-OIR-05</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Project Title:</strong></td>
<td>Power Source Disclosure - AB 1110 Implementation Rulemaking</td>
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<tr>
<td><strong>TN #:</strong></td>
<td>222410</td>
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<tr>
<td><strong>Document Title:</strong></td>
<td>Presentation - Updates to the Power Source Disclosure Program Public Workshop</td>
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<tr>
<td><strong>Description:</strong></td>
<td>February 1, 2018 Workshop Slide Deck by Jordan Scavo</td>
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<td><strong>Filer:</strong></td>
<td>Jordan Scavo</td>
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<td>California Energy Commission</td>
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<td><strong>Submitter Role:</strong></td>
<td>Commission Staff</td>
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<tr>
<td><strong>Docketed Date:</strong></td>
<td>2/1/2018</td>
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Updates to the Power Source Disclosure Program
Public Workshop

Jordan Scavo
Renewable Energy Division

Rosenfeld Hearing Room
February 1, 2018
Housekeeping

• Handouts available on desk at room entrance and on AB 1110 online docket

• Written comments due Monday, February 23, 2018 by 5:00 PM. Comments may be submitted directly to the docket through our e-filing system at:
  https://efiling.energy.ca.gov/Ecomment/Ecomment.aspx?docketnumber=16-OIR-05
Agenda

• Review of Major Areas Covered in the Staff Proposal
  – Including revisions made from the prior version of the implementation proposal for AB 1110

• Presentation on proposed annual reporting forms

• Public comment period
Process

• Pre-rulemaking
  – Scoping Workshop, Feb 2017
  – Implementation Proposal Workshop, July 2017
  – Implementation Proposal Workshop, Feb 2018

• Formal Office of Administrative Law (OAL) rulemaking
  – Adopt regulation in 2019
Overview of Power Source Disclosure

• Annual reporting of generation sources and retail sales

• Disclosure of an electricity portfolio’s power mix to consumers on a Power Content Label
AB 1110 Requirements for LSEs

• Requires the disclosure of the GHG emissions intensities associated with each electric service product
• Requires all marketing claims about GHG emissions to be consistent with the PSD methodology
• Requires the disclosure of an LSE’s unbundled RECs
Guiding Principles

• Provide reliable, accurate, timely, and consistent information

• Minimize the reporting burden

• Ensure there is not double-counting of GHGs or environmental attributes

• Rely on the most recent verified GHG emissions data
Guiding Principles

- Align with the Air Resources Board’s GHG emissions accounting under Mandatory Reporting Regulation (MRR)
Major Areas of the Proposal

- RECs and the PSD Program
- GHG Emissions Intensity Calculations
- Power Mix Accounting
- GHG Emissions Accounting
  - Procurement Types
  - Emissions Adjustments
RECs and Emissions Accounting

- REC-based accounting could lead to undercounting of emissions
- RECs do not confer emission reductions
- Firmed-and-shaped imports differ qualitatively from directly-delivered sources
- Alignment with CARB method reflects progress toward emissions reduction goal of SB 350
GHG Emissions Intensity Calculation

• Calculated using MRR emissions data (supplemented with EIA data), and PSD procurement and retail sales data

• Expressed in kg CO2e/MWh
## PSD Accounting Overview

<table>
<thead>
<tr>
<th>Procurement Type</th>
<th>Power Mix Accounting</th>
<th>GHG Emissions Intensity Accounting</th>
</tr>
</thead>
<tbody>
<tr>
<td>Specified - Directly Delivered</td>
<td>Resource type of generator</td>
<td>Emissions intensity of generator</td>
</tr>
<tr>
<td>Specified - Firmed &amp; Shaped</td>
<td>Resource type of REC</td>
<td>Emissions intensity of substitute power</td>
</tr>
<tr>
<td>Specified - Null Power</td>
<td>Unspecified power</td>
<td>Emissions intensity of generator</td>
</tr>
<tr>
<td>Unspecified</td>
<td>Unspecified power</td>
<td>Default emissions intensity of unspecified power</td>
</tr>
</tbody>
</table>
## Power Mix Accounting

<table>
<thead>
<tr>
<th>Energy Resources</th>
<th>2014 POWER MIX</th>
<th>2014 CA POWER MIX**</th>
</tr>
</thead>
<tbody>
<tr>
<td>Eligible Renewable</td>
<td>32%</td>
<td>20%</td>
</tr>
<tr>
<td>Biomass &amp; waste</td>
<td>7%</td>
<td>3%</td>
</tr>
<tr>
<td>Geothermal</td>
<td>2%</td>
<td>4%</td>
</tr>
<tr>
<td>Small hydroelectric</td>
<td>4%</td>
<td>1%</td>
</tr>
<tr>
<td>Solar</td>
<td>12%</td>
<td>4%</td>
</tr>
<tr>
<td>Wind</td>
<td>7%</td>
<td>8%</td>
</tr>
<tr>
<td>Coal</td>
<td>10%</td>
<td>6%</td>
</tr>
<tr>
<td>Large Hydroelectric</td>
<td>8%</td>
<td>6%</td>
</tr>
<tr>
<td>Natural Gas</td>
<td>38%</td>
<td>45%</td>
</tr>
<tr>
<td>Nuclear</td>
<td>0%</td>
<td>9%</td>
</tr>
<tr>
<td>Other</td>
<td>0%</td>
<td>0%</td>
</tr>
<tr>
<td>Unspecified sources of power*</td>
<td>12%</td>
<td>14%</td>
</tr>
<tr>
<td>TOTAL</td>
<td>100%</td>
<td>100%</td>
</tr>
</tbody>
</table>

* "Unspecified sources of power" means electricity from transactions that are not traceable to specific generation sources.

** Percentages are estimated annually by the California Energy Commission based on the electricity sold to California consumers during the previous year.
GHG Emissions Accounting

- Based on delivered electricity
- Aligns with emissions accounting under the Air Resources Board’s MRR
Procurement Types - Directly Delivered Procurements

• Must be directly delivered to a California balancing authority
• Directly delivered renewables must be transacted with the associated RECs
• Null Power
Procurement Types - Firmed-and-Shaped Imports

• Electricity from a renewable generator is not delivered to California customers

• Firmed-and-shaped imports will be assigned the emissions factor of the substitute power
Procurement Types - Asset Controlling Suppliers

- LSEs may claim the resource mix of an asset-controlling supplier for specified purchases of system power from asset-controlling suppliers
Procurement Types - Unspecified

- Null power
- Spot Market Purchases Through the Energy Imbalance Market
Emissions Adjustments - Self-Consumption & Grid Losses

- AB 1110 requires power mix and GHG accounting to be based on retail sales.
- To reconcile net procurement with retail sales, self-consumption and grid losses will be proportionally attributed to non-renewable sources.
Emissions Adjustments - Line Loss Adjustment Factor for Imports

- Eliminated proposal to adopt CARB’s line loss adjustment factor for imported electricity
Emissions Adjustments - POU
Emissions Adjustment Credits

• Amends the proposal to allow banking of historical emissions credits going back to effective date of AB 1110 (Jan 1, 2017)
Other Topics

• Biogenic CO2 will be disclosed as a footnote on the power content label
• Removal of Schedules 3 & 4 previously used for power pools
• Schedule Updates
  – Establish a due date for public agencies to submit final board approval of PSD filings
Agenda

• Review of Major Areas Covered in the Staff Proposal
  – Including revisions made from the prior version of the implementation proposal for AB 1110

• Presentation on proposed annual reporting forms

• Public comment period
Proposed Reporting Templates & Worksheets

- Schedules 1-4 & attestation
- Attestation
- Supplemental calculators
- Proposed Power Content Label
Rulemaking Document Availability

• Copies of rulemaking documents available on CEC website at: https://efiling.energy.ca.gov/Lists/DocketLog.aspx?docketnumber=16-OIR-05

• Copies of rulemaking documents can also be obtained by contacting Energy Commission staff
Public Comments

- Comments via WebEx: Use “raise hand” feature; we will un-mute you during your turn.
- Comments via phone: We will un-mute all lines at end of comment period; please un-mute your phone only to ask a question
- Written comments due Friday, February 23rd by 5pm. Comments may be submitted directly to the docket through our e-filing system at: https://efiling.energy.ca.gov/Ecomment/Ecomment.aspx?docketnumber=16-OIR-05
Next Steps

• Draft proposed regulation language in Q2 2018
• Initiate formal rulemaking in late 2018
• Present for adoption in 2019
• GHG emissions disclosures begin in 2020 (for 2019 reporting year)
Contacts

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