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<td><strong>Docket Number:</strong></td>
<td>16-OIR-06</td>
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<tr>
<td><strong>Project Title:</strong></td>
<td>Senate Bill 350 Disadvantaged Community Advisory Group</td>
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<td><strong>TN #:</strong></td>
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<tr>
<td><strong>Document Title:</strong></td>
<td>Item 4 - Revised Presentation on Senate Bill 100 Joint Agency Report</td>
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<tr>
<td><strong>Description:</strong></td>
<td>By Aleecia Gutierrez</td>
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<td><strong>Filer:</strong></td>
<td>Kristy Chew</td>
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<td><strong>Organization:</strong></td>
<td>California Energy Commission</td>
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<td>Commission Staff</td>
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SB100 Joint Agency Report

Aleecia Gutierrez
California Energy Commission
January 24, 2020
SB 100: RPS and Zero-Carbon Resources

PUC 454.53 (a)

It is the policy of the state that eligible renewable energy resources and zero-carbon resources supply 100 percent of all retail sales of electricity to California end-use customers by December 31, 2045.
Joint Agency Report

In consultation with CA balancing authorities, through a public process, issue a joint agency report by January 1, 2021 and at least every four years after that includes:

- Technical review of the policy
- Potential benefits and impacts on system/local reliability
- Nature of anticipated financial cost and benefits to utilities
- Barriers and benefits of achieving the policy
- Alternative scenarios to achieve the policy
Joint Agency Report Goals

- Meet report statutory requirements
- Provide direction to the electricity market
- Coordinate planning processes of the State Agencies
- Form consensus on interpretation of statute
Key Considerations

- Reliability
- Energy Equity
- Innovation & Emerging Technologies
- Resource Diversity & Flexibility
- Environmental Impacts
- Affordability
- SB 100
SB 100 Analysis

**Quantitative**

- Modeling of **statewide resource scenarios** to meet targets
- Evaluation framework for **costs, benefits and impacts**

**Qualitative**

- **Technology trends & projections**
- **System benefits**: reliability, resilience, health & safety
- **Energy equity & affordability**
- **Environmental implications, public safety and land use**
- **Interactions with other sectors**
SB100 Comments to date

- **Diverse portfolio** of resources; mix of in-state and regional resources and **energy storage**
- Specific technologies such as **large hydro, small modular nuclear, hydrogen, and bioenergy resources**
- Incorporate **resilience planning** and address wildfire risk, such as microgrids
- Continue to address **reliability**
- Critical importance of **affordability and energy equity**
- **Address air pollution**, particularly in disadvantaged communities

“**Don’t be prescriptive**”

“**Maximize optionality**”

“**Be technology inclusive**”
Option 1: “RPS+”

• Eligible resources types
  • Current Renewables Portfolio Standard (RPS)-eligible resource types
  • Large hydroelectric
  • Nuclear generation
  • Natural gas generation with CCS where GHG emissions=0

• Aligns with current RPS resource types and additional generation types that count as zero fossil emissions under the State’s greenhouse gas inventory
Option 2: “No Combustion”

• Same as Option 1 except would not allow for resources that combust fuel

• Examples of resources not allowed under this scenario
  • Biomass or biomethane combustion
  • Natural gas-fired generation with CCS where GHGs=0
  • Natural gas combusted at a (currently) RPS-eligible resource (e.g., solar-thermal facilities)

• Examples of resources allowed under this scenario
  • Biomethane reformation
  • Natural gas reformation with CCS where GHGs=0
Timeline

Kickoff Workshop
Sacramento

Technical Workshop
San Francisco

Draft Modeling Results Workshop
TBD

Report due to legislature

Fall 2019
Winter 2020
Spring 2020
Summer 2020
Fall 2020
Jan 1, 2021

3 Regional Scoping Workshops
Fresno, Redding, Diamond Bar

Modeling Inputs & Assumptions
Sacramento
Tentatively planned for Feb 24, 2020

Draft Report Workshop
TBD

Draft Report
Workshop
TBD

Report due to legislature
SB 100 Engagement

• SB 100 Modeling Inputs & Assumptions Workshop, planned for February 24, 2020 at CEC

• Submit comments to CEC Docket 19-SB-100

• Visit the SB 100 Joint Agency Report webpage: https://www.energy.ca.gov/sb100
Discussion

What are the key metrics for equity we should be considering in SB 100?
What questions do you want answered?

Current approach to equity in SB 100:
• Use current suite of analytical tools (e.g. RESOLVE) to develop scenarios and supply mixes; discuss equity qualitatively in report
• Are there incremental improvements to RESOLVE modeling tool that better address key metrics for equity?

For future SB 100/IEPR analysis:
• Are there new data, tools, or research analyses to help us consider equity?

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