

RPS Collaborative Webinar

California's 50 Percent RPS

Hosted by
Warren Leon, Executive Director, CESA

November 21, 2016

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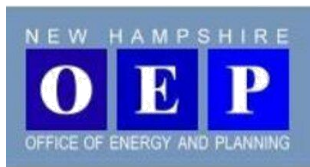
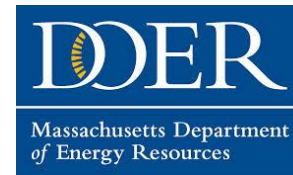
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CESA Members



RPS Collaborative

- With funding from the Energy Foundation and the US Department of Energy, CESA facilitates the **Collaborative**.
- Includes **state RPS administrators, federal agency representatives**, and other stakeholders.
- Advances dialogue and learning about RPS programs by **examining the challenges and potential solutions** for successful implementation of state RPS programs, including **identification of best practices**.
- To sign up for the Collaborative listserv to get the **monthly newsletter** and announcements of **upcoming events**, see: www.cesa.org/projects/state-federal-rps-collaborative



U.S. DEPARTMENT OF
ENERGY



Today's Guest Speakers

- **Cheryl Lee**, Senior Policy Analyst, California Public Utilities Commission
- **Emily Chisholm**, RPS Compliance Lead, California Energy Commission





Clean Energy Alliance – RPS Collaborative Webinar

California's 50 Percent Renewables Portfolio Standard (RPS)



November 21, 2016

Presentation Overview

- RPS program background
 - Legislation and California climate goals
- Current RPS program status
- Implementing 50% RPS program

California RPS Program Background

- RPS program is a market-based program that requires all California load-serving entities to procure increasing amounts of renewable energy
- RPS program was established in statute in 2002 for retail sellers only, current law sets statewide goal of 50% by 2030
 - Statutory goals include: displacing fossil fuel use in California; new renewable capacity in Western Electricity Coordinating Council (WECC); reducing greenhouse gases; reliable operation of the grid; promoting stable retail rates
 - RPS compliance is measured in terms of renewable energy credits (RECs) procured out of total electric retail sales, where 1 REC = 1 MWh of RPS-eligible electricity

California RPS Legislation - Timeline

- 2002: Senate Bill (SB) 1078 establishes the RPS program, requiring 20% of retail sales from renewable energy by 2017.**
- 2003: Energy Action Plan I accelerated the 20% deadline to 2010.
- 2005: Energy Action Plan II recommends further goal of 33% by 2020.
- 2006: SB 107 codified the accelerated 20% by 2010 requirement into law.**
- 2008: Governor Schwarzenegger issues Executive Order S-14-08 requiring 33% renewables by 2020.
- 2009: Governor Schwarzenegger issues Executive Order S-21-09 directing the California Air Resources Board, under its AB 32 authority, to establish 33% renewable energy target.
- 2011: SB 2 1X establishes 33% by 2020 RPS into law for all utilities.**
- 2013: Assembly Bill 327 authorizes CPUC to increase RPS beyond 33%**
- 2015: SB 350 establishes 50% by 2030 into law.**

California's Climate Change Goals

- California Global Warming Solutions Act (AB 32, 2006) established near term greenhouse gas (GHG) reduction target of returning to 1990 levels by 2020
- Clean Energy and Pollution Reduction Act of 2015 (SB 350, 2015)
 - Requires 50% RPS
 - Requires a 50% increase in energy savings in existing buildings
 - Requires an integrated resource plans that identify a portfolio of resources that achieve the State's GHG reduction goals
- SB 32 (2016) establishes the long term goal of GHG emissions to 40% below 1990 levels by 2030

Three Agencies Oversee California's RPS Program

- RPS program is jointly administered and enforced with the California Energy Commission (CEC) and California Air Resources Board (CARB)
- The California Public Utilities Commission (CPUC) is responsible for:
 - Approving Investor Owned Utilities (IOUs), community choice aggregators (CCAs), and electric service providers (ESPs) RPS procurement plans
 - Approving/rejecting IOU contracts executed to procure RPS-eligible electricity and RECs
 - Long-term resource planning for renewables and integrated resource planning
 - Determining RPS procurement and compliance requirements
 - Determining whether IOUs, CCAs, and ESPs complied with procurement requirements and imposing penalties for non-compliance

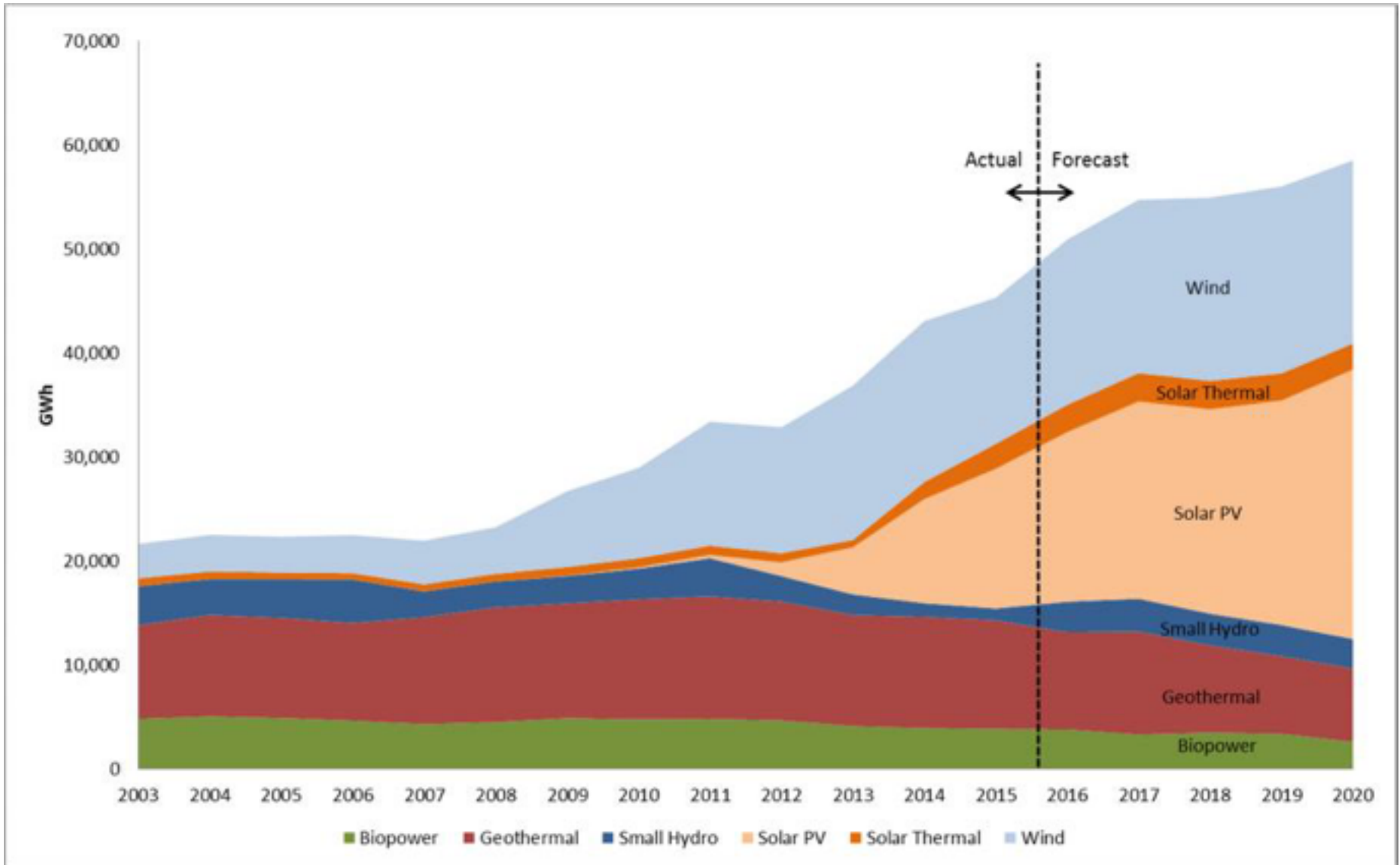
California IOUs' RPS Procurement Status

- Retail Sellers procure renewable energy credits (RECs) which are created with each MWh of renewable energy

$$\text{RPS \%} = \frac{\text{Renewable Energy Procurement (MWh)}}{\text{Retail Sales (MWh)}}$$

- In aggregate, during the RPS program the large IOUs have increased their RPS procurement from ~13% in 2004, to almost 28% in 2015
- The three large IOUs are expected to meet RPS requirements through 2020 and are well positioned to meet later requirements

IOUs' RPS Resource Mix - Actual & Forecasted



Source: CPUC Quarterly Report to the Legislature (Q3 2016)

Implementing a 50% RPS Program

Requires implementing numerous changes to statute

1. New procurement quantity requirements and compliance periods for years after 2020
2. New requirements for RPS-eligible short- and long-term contracts and/or using utility-owned generation (UOG) or other ownership agreements for compliance periods after 2020
3. Changes to excess procurement (aka “banking”) rules for all compliance periods beginning January 1, 2021
4. Changes to the rules governing excess procurement related to early compliance with the new requirements for long term contracts
5. Changes to procurement expenditure limit or cost containment provisions
6. Changes to bid ranking criteria (aka “Least-cost, best-fit”)
7. Changes to penalties and potential waivers for non-compliance

Implementing a 50% RPS Program (cont.)

- Implementation of 50% RPS program will be a public process that includes soliciting comments prior to proposed Decisions and opportunities to comment on proposals
- Implementation began in early 2016 and will continue into 2017
 - Issued a proposed decision November 15, 2016 implementing compliance periods and procurement quantity requirements
- Next steps:
 - Continue to address the changes from the 33% program
 - Coordinate with the Integrated Resource Plan process

Implementing a 50% RPS Program (cont.)

- The retail sellers of electricity are individually responsible for procuring resources to meet the RPS requirements
- The CPUC has varying regulatory oversight of the different types of retail sellers
- CPUC oversight and regular reporting by retail sellers provides CPUC understanding of barriers and successes of the program providing opportunities address potential issues that prevent retail sellers from meeting requirements
 - Develop project viability screens and minimum requirements
 - Work with other agencies to identify best resource areas and transmission needs to identified areas

Implementing a 50% RPS Program (cont.)

- The CPUC provides equal compliance determination to all types of retail sellers it oversees
- If unable to meet requirements, then could be penalized
- Waivers may be requested for non-compliance for certain circumstances (e.g. unexpected increase in transportation electrification).

More Information

- California Public Utilities Commission – RPS Home page:
http://www.cpuc.ca.gov/RPS_Homepage/
- RPS Proceeding ([R.15-02-020](#))
 - To follow 50% RPS implementation may follow proceeding by [subscribing](#) to proceeding or [joining](#) the proceeding service list
- RPS Statute – [Public Utilities Code](#) Sections 399.11-399.32

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California's 50 Percent Renewables Portfolio Standard (RPS)

Emily Chisholm
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Clean Energy States Alliance Webinar
November 21, 2016



Presentation Overview

- Implementation responsibilities
 - California Energy Commission (CEC)
 - California Air Resources Board (CARB)
- Changes from SB 350
 - New requirements for load serving entities (LSEs)
 - New policies for only publicly owned utilities (POUs)
- Implementing 50% RPS program



Implementation Responsibilities: CEC and CARB

- The CEC is responsible for:
 - Certifying renewable generating facilities as RPS-eligible
 - Verifying the RPS-eligibility of energy procured to meet RPS targets for all load serving entities (LSEs)
 - Determining POU compliance with the RPS
- The CARB is responsible for:
 - Assessing penalties if CEC finds that a POU is out of compliance



California's RPS-Eligible Resources

- Biodiesel
- Biomass
- Conduit hydroelectric
- Digester gas
- Fuel cells
using renewable fuels
- Geothermal
- Hydroelectric (incremental
generation from efficiency
improvements)
- Landfill gas
- Municipal solid waste
- Ocean wave, ocean
thermal, tidal current
- Photovoltaic
- Small hydroelectric
(generally, ≤ 30 MW)
- Solar thermal electric
- Wind



Verification of the RPS-Eligibility of RECs

- Verify the RPS-eligibility of the renewable energy facilities from which each reporting LSE is claiming procurement;
- Verify, to the extent possible, that the amount of renewable electricity procurement claimed by each LSE was sufficiently generated by each eligible facility;
- Determine the amount of renewable electricity that may be attributed to multifuel facilities, including facilities using biomethane;
- Verify, to the extent possible, that procurement exclusively serves California's RPS and is not double-counted toward another renewable energy regulatory or market program.



Compliance Process for POUs

- Determination of portfolio content category classifications
- Calculation of procurement requirements
- Optional compliance measures may be applied to excuse RPS deficits in certain circumstances
- If a POU is found out of compliance by the CEC, will be sent to CARB for a penalty determination



CHANGES FOR THE 50% RPS



Renewables Procurement Targets

Initial procurement targets:

- 20% average 2011-2013
- 25% by 12-31-2016
- 33% by 12-31-2020

New procurement targets:

- 40% by 12-31-2024
- 45% by 12-31-2027
- 50% by 12-31-2030



Excess Procurement

Current Excess Procurement

- Portfolio Content Category 3 (unbundled RECs) may not be applied toward future compliance period as excess procurement;
- RECs from short term contracts will be subtracted

Excess Procurement starting 2021

- RECs from short term contracts not subtracted
- Portfolio Content Categories 2 and 3 cannot be banked



Long Term Contracting Requirement

- Starting 2021, at least 65% of renewable procurement each compliance period must be from 10-year or longer contracts
- Utilities can opt into new excess procurement rules if they meet 65% long-term during 2017-2020 Compliance Period



Optional Compliance Measures

Revised Requirements to establish **cost limitations**

- Expenditures to determine limitations do not have to rely on most recent procurement plan or exclude indirect expenses

Changes in conditions for **delay of timely compliance**

- Adds unanticipated increases in retail sales as result of transportation electrification
- Unanticipated curtailment of renewables only qualifies if waiver would not result in increased GHG emissions



Green Pricing Exclusion for POUs

- POUs may exclude retail sales from a voluntary green pricing or shared renewable program from calculation of retail sales
- Must meet the criteria for Portfolio Content Category 1, and should be located close to load
- Procurement target calculated using reduced retail sales



Hydro Exemption for POUs

- New exemption for any POU that procures more than 50% of retail sales from qualifying large hydro in a given year
- Procurement target set as the lesser of:
 - The portion of retail sales unsatisfied by the hydro, or
 - The normal procurement target



IMPLEMENTING SB 350



CEC Rulemaking Schedule

The 50% RPS program will be implemented through a formal rulemaking process

- A pre-rulemaking draft was posted in August 2016
- The formal rulemaking process is anticipated to begin in early 2017, starting with a 45-day comment period

The rulemaking package will address:

- New rules enacted by SB 350
- Clarifications to the existing RPS program, as needed
- Incorporation of clean-up legislation for the RPS



More Information

CEC's RPS Home page:

<http://www.energy.ca.gov/portfolio/>

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Thank you for attending our webinar

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