Monitoring Implementation of the California Renewable Portfolio Standard

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Outline

- California RPS Overview
- Renewable Generation Certification
- Generation Tracking
- Verification of Utility Compliance
California Renewable Portfolio Standard

- 2011 legislation established most aggressive renewable energy target in the United States
  - 33% of electricity consumption in 2020
  - 20% in 2011, 25% by 2016

- Target set as a percentage of retail sales for each electric utility
  - Renewable energy generation and purchases tracked via Renewable Energy Certificates (RECs)

- Eligible Generation types:
  - photovoltaic, wind, geothermal, solar thermal, biomass, digester gas, landfill gas, small and ‘conduit’ hydroelectric, ocean thermal, ocean wave, tidal current, fuel cells using renewable fuels, and municipal solid waste conversion.
RPS Procurement Categories

- RPS program distinguished among 3 types of renewable purchases:
  - Renewable generation that is physically delivered to California in real-time
    ➡️ Renewable power + RECs
  - Renewable generation that is backed by other generation within calendar year
    ➡️ Conventional power + RECs
  - Renewable generation without actual power delivery
    ➡️ RECs Only
RPS Monitoring Roles

- California Energy Commission
  - Lead Agency for state energy policy and planning
    - Certifies renewable resource eligibility
    - Verifies compliance of municipal utilities

- Western Renewable Energy Information System (WREGIS)
  - Multi-state tracking system administered by Western Governors’ Association
    - Verifies generation of renewable electricity
    - Tracks renewable energy credits

- California Public Utilities Commission
  - Agency responsible for regulating privately-owned utilities for public good
    - Verifies compliance of private utilities
Certification of Eligible Renewable Resources

- California Energy Commission verifies renewable generators meet requirements of the RPS
  - Facility Technology and capacity
  - Registration in WREGIS tracking system
  - Connection to grid (California or external)

- Paper review of permits and other documentation
  - Random facility audit

- Facility must be certified before generation can count toward utility RPS procurement
Measurement of renewable generation

- Facility output measured at revenue meter
  - Meter output verified and uploaded to WREGIS by accredited third party ‘qualified reporting entities’
  - WREGIS performs data validity check

- RECs issued monthly for each MWh generated
  - Serial # identifies generator, location and month of generation
  - Additional voluntary data may be included
REC Tracking

- Upon issuance, RECs deposited in generator account

- Transfer of RECs to other account holders tracked within WREGIS
  - Generator ID identifies RECs from eligible resources
  - System allows RECs to be matched with delivery of renewable or conventional power

- Utilities retire RECs for compliance with RPS targets
  - Utility compliance reports available for CEC & CPUC
Verifying Utility Compliance

- Each Utility’s RPS procurement is verified by the CPUC or the CEC

- Proposed procurement compared ex-ante against
  - Utility’s overall procurement plan
  - RPS program requirements: Content category requirements, renewable contract terms, certified resource

- Actual procurement (RECs retired) against
  - Actual retail sales and procurement categories
Public Information

- **CEC**
  - List of Eligible resources
  - Public utility compliance reports
  - Database of renewable procurement contracts

- **WREGIS**
  - Active account holders
  - Active generating units
  - REC volumes by technology/fuel, renewable program and unit capacity

- **CPUC**
  - Information on private utility renewable contracts
  - Utility compliance reports
THANK YOU