CALIFORNIA'S

RENEWABLES PORTFOLIO STANDARD

Implementing one of the most ambitious renewable energy standards in the country

Assembly Renewables Select Committee

March 25, 2009

Julie Fitch
Director, Energy Division

California Public Utilities Commission

Presentation Overview

- What is the current cost containment mechanism?
  - Market Price Referent (MPR)
  - Cost Limitation
- Experience with the current mechanism
- Cost containment mechanism options

RPS Cost Containment Overview

- Statute requires a limitation on the total costs of renewable energy above market prices for fossil energy
- CPUC calculates the market price each year
- Each RPS contract is compared to the market price
- If the contract is at or below the market price, the contract is considered “per se reasonable”
- If the contract is above the market price, the contract is applied toward a statutory fund prescribed for above-market RPS contract costs

Market Price Referent

- Pursuant to statute, CPUC calculates the Market Price Referent (MPR) each year
  - Statute requires the CPUC to establish a methodology to determine the market price of electricity
  - CPUC and parties have determined that the MPR will represent the presumptive cost of building and operating a combined cycle gas turbine power plant (CCGT) under a long-term contract
  - RPS contracts at or below MPR will be considered per se reasonable, and can be recovered in rates

Cost Limitation

- Each IOU can expend a certain amount of money on above-MPR contracts (cost limitation)
  - The above-market funds are roughly $770 million total for the 3 large IOUs
  - If the cost limitation is exhausted, IOUs can limit RPS procurement to renewable energy resources that can be procured at or below the MPR
  - IOUs can also voluntarily chose to procure above MPR level after cost limitation is exhausted
  - Per statute, only some types of contracts can be applied to the cost limitation
    - Bilateral, short-term, and REC contracts not eligible

Observations on current mechanism

- The current structure, with an MPR and above-market funds cost limitation, does not support reaching 20% and 33% RPS
  - Likely that one or more IOUs have already exhausted their cost limitation; determination in ~30-60 days
  - Despite lack of funds, IOUs still procuring more renewables to meet a RPS targets and for AB 32
- MPR cost containment mechanism does not apply to bilateral contracts, utility-owned generation, feed-in tariffs
- MPR may distort bid prices – observed behavior seems to indicate:
  - Low-cost resources bid up to MPR
  - High-cost resources bid down, despite inability to build at those prices (and then return for approval of higher costs later)
- Non-renewable energy sources (mainstream procurement) have no cost cap – those contracts are instead compared to comparable market prices to determine reasonableness

Variables that can serve to limit costs

- Quantity (33% level)
- Timing (2020 date)
- Explicit funding limit

Cost containment mechanism options

CPUC has existing authority to regulate costs of electric procurement

1. **“Just and reasonableness” discretion**

2. **Fixed RPS revenue requirement overall**

3. **MPR with fixed above-market cost limitation (similar to current system)**

More information

CPUC RPS Website:

www.cpuc.ca.gov/PUC/energy/electric/RenewableEnergy/

Backup slides

2008 MPR Table ($/kWh)

Online Date	10-year contract	15-year contract	20-year contract	25-year contract
2009	0.10043	0.10537	0.11126	0.11480
2010	0.10175	0.10748	0.11390	0.11761
2011	0.10400	0.11046	0.11730	0.12110
2012	0.10698	0.11405	0.12126	0.12509
2013	0.10998	0.11776	0.12527	0.12915

Illustrative AMF Requirement - Proxy Project

200 MW solar photovoltaic facility

- Contract Price: $0.14/kWh
- Contract Length: 20 years
- Annual Generation: 500 GWh (5,000,000 kWh)

Online Date	Contract Price	20-year MPR	Above-MPR Cost ($/kWh)	Total AMF requirement
2011	0.14000	0.11730	0.0227	$227 million

Note: not TOD-adjusted, so #'s would be higher if an IOU's TODs were applied