Enhanced Day Ahead Market Enhancements
Overview

Greg Cook
Body of State Regulators General Session
January 8, 2018
Extending DAM to EIM Entities provides additional regional benefits

• Key benefits:
  – Allows EIM participants to take advantage of day-ahead market enhancements
  – Day-ahead unit commitment and scheduling across larger footprint improves market efficiency and more effectively integrates renewables

• Key principles:
  – Each balancing authority retains reliability responsibilities
  – States maintain control over integrated resource planning
    • Resource adequacy procurement decisions remain with local regulatory authority
    • Transmission planning and investment decisions remain with each balancing authority and local regulatory authority
Day-ahead market/Extended Day-ahead Market Interactions

- **Review TAC**
- **15 min DA Scheduling**
  - **DA Flexible Reserve Product**
  - **Combined IFM and RUC**
- **Flexible RA Criteria and Must Offer Obligation Phase 2**
- **EIM GHG**
- **Align TAC Paradigms**
- **EDAM GHG**
- **CRR Expanded Footprint**
- **Full Network Model Phase 2**
- **Transferring Bid Range**
- **RT Resource Sufficiency Enhancements**
- **DA Resource Sufficiency Evaluation**

**2018**
- Jan-Mar
- Apr-Jun
- Jul-Sep
- Oct-Dec

**2019**
- Jan-Mar

**Other Related Initiatives**
- DAM Enhancements
- Extend DAM to EIM Entities
Update on EIM GHG Design Changes

Body of State Regulators
January 8, 2018
GHG design ensures price paid by non-CA load does not include GHG costs

- Both generators
  - Fuel cost = $30/MWh
  - GHG cost = $5/MWh

- CA generator
  - $35/MWh energy bid
  - Sets $35/MWh ISO LMP
  - Covers $5/MWh GHG cost

- External EIM generator
  - EIM transfer into CA
  - Sets $30/MWh EIM LMP
  - Sets $5/MWh GHG price
  - ISO collects “extra” $5/MWh for transfer into ISO from ISO load
  - Pays $5/MWh to generator for its GHG costs

CAISO:
- Energy = $35
- GHG cost = N/A
- LMP = $35

EIM Entity:
- Energy = $35
- GHG cost = - $5
- LMP = $30

$5 LMP difference
The ISO will continue to use the following principles to guide GHG design changes

• Dispatch and prices to serve load in a GHG compliance area will consider GHG effects

• Prices to serve imbalances outside of GHG compliance area will not include GHG effects

• Those responsible for GHG compliance receive compensation to sufficiently cover GHG compliance costs
Solution pathways under consideration

- Restructure optimization and revise two-pass solution to address incentive issue identified

- No change to optimization but account for secondary dispatch effects by retiring allowances

- No change to optimization but account for secondary dispatch effects through resource GHG bid quantity and price rules