Resource Adequacy & Other Developments in California

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#### WESTERN POWER TRADING FORUM



- Broad-based trade association that advocates for competitive market rules throughout the Western Interconnection
- Formed by Gary Ackerman and Dan Douglass in 1998
- Initial Board: New Energy Ventures, PG&E Energy Services, Enron Corp., California PX, Electric Clearinghouse Inc., APS Energy Services, Montana Power Trading & Marketing Co., Coral Energy, Pacific Energy
- 1999 General Members: Aquila Power, APX, Avista Energy (formerly Washington Water & Power), BPA, Green Mountain Energy, Hafslund Energy Trading, LG&E Energy Marketing, NCPA, PacifiCorp, Unified Information Inc., WAPA-Sacramento
- Current Membership: 90+ companies and public agencies, including IOUs, POUs, generators, renewable developers, wholesale marketers, ESPs and CCAs

### WPTF FOCAL AREAS



- California Independent System Operator (CAISO)
- Carbon and Clean Energy
- CPUC Monitoring
- Legislative and Government Affairs
- Mexico Electricity Reform
- Project Development and Operations
- Resource Adequacy (RA)
- Wider West (2WC)

### CAISO & RA COMMITTEES



- CAISO Committee
  - CAISO stakeholder initiatives
  - Energy Imbalance Market (EIM) subgroup
  - FERC proceedings and technical conferences
- RA Committee
  - CPUC proceedings
  - Regulatory advocacy
  - Policy and technical workshops

### BACKGROUND: "CAPACITY?"



- "Capacity" is unique in the world of commodity markets
- Best described to outsiders as a "proxy for storage"
- Electricity even today is not easily stored; consequently many in organized markets felt a special mechanism to ensure reliable service was necessary
- Such resources unlikely to run often in energy market: how to compensate
  - Normal market would engage in "hedge;" storage or a "call" depending on risk tolerance of supplier to being "short"

## THE FIRST ISO EFFORTS: "CAPACITY"



- All early Eastern ISOs had some explicit capacity obligation
  - Eastern ISOs began with "installed capacity" or ICAP; nameplate capacity
  - Did not deal with likely availability which is "unforced capacity" or UCAP
- PJM made a change to "short-term" auction to incent demand response
- Other markets (ISO-NE, NYISO) seen as not providing enough valuation to make incentives work for investment

### THE NEXT PHASE: "CENTRALIZATION"



- Early 2000s, Eastern ISOs began to contemplate centralized market of varying length (1-4 years).
- Failed attempt made for a single capacity market for all three (2002-03)
- PJM then focused on annual auctions to cover prices for three years out with administratively determined curve
  - Based on "cost of new entry" (CONE) of new combustion turbine
- Polar vortex of 2014 led to "performance" adder to assure fuel security
- Low prices and state procurement plans has led to new efforts to manage capacity outcomes and assure price – now locked in 206 proceeding at FERC

## OUTLIERS: ERCOT, CALIFORNIA



- ERCOT chose not to have capacity obligation but rely on energy prices
  - High caps and exposure to price volatility intended to drive hedging, builds
  - Thin reserve margin and prices this summer are testing this approach
- California did not engage in capacity markets/obligations at first
  - 2000-01 crisis led to direction for IOUs to build or contract with CAISO counting capacity and then adding administered backstop
  - Massive renewable penetration depressed prices; low RA prices until 2018
  - CAISO began to better account for solar availability leading to tighter RA market
- Load migration (CCAs) added urgency to find better way to procure RA
  - IOU obligations to procure for entire market in such circumstances problematic

### CALIFORNIA'S RA PROGRAM



- Program Administrators: CPUC and CAISO
- Standardized Load Forecasts
- Planning Reserve Margin (PRM)
- System, Local and Flexible capacity
- Year-Ahead and Month-Ahead Requirements
- Resource Counting Rules QC & Deliverability
- Must-Offer Obligations (MOO)
- LSE Compliance Showings
- Noncompliance Penalties ~ LSEs and Suppliers

# MULTI-YEAR LOCAL RA & "CENTRAL BUYER"



- <u>CPUC Goal</u>: Reduce need for CAISO backstop procurement
- Track 1 Decision (June 2018)
  - Established Multi-Year Local RA (MYLRA) Program
  - Called for "central buyer" proposals for MYLRA Program
    - Identify central buyer(s)
    - Equitable cost allocation to all customers
    - Cost-effective, efficient and coordinated procurement
    - Balance economics with other state policies

## **CENTRAL BUYER PROPOSALS**



- <u>Track 2 Proposals</u>
  - PG&E ~ "Full" procurement
  - SDG&E ~ "Residual" procurement
  - SCE ~ "Hybrid" model
  - WPTF ~ Centralized capacity clearing market (CCM)
- Proposed Decision (Nov. 2018)
  - Designated IOUs to be Central Procurement Entities (CPEs)
  - LSEs no longer have Local RA requirements
  - All-source solicitations
  - "Reasonable efforts"

## **CENTRAL BUYER PROPOSALS**



- Track 2 Decision (Feb. 2019)
  - Adopted MYLRA procurement requirements (100/100/50)
  - Deferred decision on a "central buyer structure"
  - Ordered parties to conduct workshops on central buyer issues
- <u>Track 2 Workshops</u> (April-May)
- <u>Settlement Negotiations</u> (June-August)
  - Initiated by SDG&E and CalCCA
  - Focused on workable "residual procurement" model
  - Proposed settlement filed August 30

# **CENTRAL BUYER SETTLEMENT**



- 1. MYF requirements for System, Flexible and Local RA capacity
- 2. Designation of CPE left to CPUC (or possibly Legislature to decide)
- 3. CPE responsible for procuring all capacity needed to meet RA requirements
- 4. CPE must be "competitively neutral, independent, and creditworthy"
- 5. CPE to conduct annual all-source solicitations
- 6. CPE procurement costs allocated to LSEs based on actual loads and load shares

### **CENTRAL BUYER SETTLEMENT**



- 7. Creditworthiness requirements similar to those for SCs
- 8. LSEs can bilaterally procure RA capacity
- 9. LSEs can "show" self-procured capacity to CPE
  - a. Reduces CPE procurement need (MW-for-MW)
  - b. LSE's CPE cost responsibility reduced (MW-for-MW)

10. LSEs can optimize "Shown RA" and trade with other LSEs

11. LSEs can bid self-procured capacity into CPE solicitations

#### **CENTRAL BUYER SETTLEMENT**



- 12. CPE to accept bids up to CAISO's Capacity Procurement Mechanism (CPM) Soft Offer Cap (currently \$75.67/kWyear, or \$6.31/kW-month) until residual RA requirements fulfilled
- 13. CPE may accept bids above CPM Soft Offer Cap when deemed reasonable and consistent with other CPUC-established bid selection criteria
- 14. Settling parties no longer bound by settlement if not approved by Mar. 30, 2020

## **RA IMPORT RULES**



- CPUC Proposed Decision (issued Sep. 6, 2019)
  - Firm energy requirement: "Firm" means energy delivery must flow, during Availability Assessment Hour window (4:00 p.m. to 9:00 p.m.)
  - Firm transmission requirement: "Firm" means contracted energy product from source BA cannot be curtailed for economic reasons or bumped by higher priority claim to the transmission
- Related CAISO Stakeholder Initiatives

# INTEGRATED RESOURCE PLANNING OIR



- Procurement Track PD (issued Sept. 12, 2019)
  - Extend OTC retirement deadlines for 2,500+ MW
  - Directs LSEs to procure 2,500 MW of "incremental" capacity
    - Applies to all LSEs in SCE's TAC
    - Capacity must be incremental to baseline resources
    - 60% by Aug. 2021, 80% by Aug. 2022, and 100% by Aug. 2023
    - All-source, including existing and new resources and RA imports
    - Utility-owned resources "when justified"

#### **CONTACT INFORMATION**



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