CPM Payments and Related OTC/VER Infrastructure and Market Issues

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CPM Payment Questions is Part of Much Larger Set of Infrastructure and Market Design Issues

- What operating flexibility will the CAISO require to maintain a reliable grid under a 33% renewable regime?
  - How will these operating needs be communicated to regulators/developers/market participants in a timely fashion?
  - Should operating flexibility be secured in the spot markets? In forward procurement? In capacity procurement? In attribute procurement?
- When/how will Once Through Cooling units retire/repower/be replaced?
  - What happens if a needed unit wants to retire?
- How will needed dispatchable resources remain economically viable in the presence of significant additional must-take energy?
  - New market products? New optimization constraints/objective functions? New requirements for Capacity "attributes"?
- How will needed ***new*** dispatchable resources get built?
  - Who will pay for them, and how?
  - What is the role of the CAISO (contracting, operations, cost allocation)?
- How efficiently will the markets perform in this environment?
  - What additional market power mitigation tools are called for?

SCE Supported a Centralized Forward Capacity Market to Address these “Hard” Issue

- SCE joined a coalition and developed & filed a detailed capacity market design with both the CPUC and the CAISO in August 2007
  - CPUC rejected the proposal and chose to “stay the course”
  - CPUC did issue a PD requiring a forward RA showing, but that did not survive because a *bilateral* forward showing was unworkable
- Forward Capacity Market design included
  - Centralized CAISO administered capacity market conducted four years prior to delivery
    - Extensive market power mitigations including price cap/floor based on **Net CONE**
  - System and Local capacity requirements
  - Existing resources (generation and demand response) clearing the auction received a 1-year capacity commitment
    - Addressed retirement – only units that did not sell capacity were at risk
  - New resources could elect up to a 10-year capacity commitment
    - Addressed new build and cost allocation
  - Winners had a full-capability must-offer requirement to the CAISO
    - Largely addressed operating flexibility
  - All LSE’s paid for capacity based on their metered load in the delivery year
  - Design allowed for operational “attributes” that would receive payments in addition to the locational capacity clearing price
    - Allowed mechanism to ensure new/residual operating attributes were available to CAISO

Planning/Construction Requires a Forward Look and Obligation

CFCMA process began about 5 years *prior* to delivery

Dy= Delivery Year
(May 1- April 30)

CAISO monitors new generation construction milestones

Two Sided Sealed Bids

Material Load Forecast Change

Transmission-Delivery Zone Changes

New Generation Performance Milestone Changes

State Wide Resource Forecast and Net cost of new entry (CONE) determined by CEC/CPUC with CAISO

CAISO Conducts Primary Auction

Reconfiguration Auctions

Capacity Delivery and Performance

Capacity-Billing to Monthly Load Capacity Allocation

Dy- 60 to 52 months

Dy – 48 months

Dy-36 months

Dy-24 months

Dy-12 months

Dy- 4 months

Dy + 1 to 12 months

Where does CPM Fit In?

- We view CPM as a backstop tool that continues the role of ICPM (i.e. if the current RA process is not meeting the CAISO system and local RA requirements, the CAISO needs a tool to get this capacity)

- Also acts as the only market power mitigation mechanism in RA capacity (bilateral) market space

CPM plays a short-term and limited role in backstopping the RA process. It was never designed to (nor should it) address the more complex issues of fostering new construction, delaying retirement, ensuring revenue adequacy, allocating cost of new resources.

“ ICPM is a mechanism for procuring capacity for short periods to meet system reliability needs, and therefore, is not designed to encourage new investment” - FERC

Why use Going Forward Costs for CPM?

- CPM lacks key features needed to drive new entry
  - Simply adopting a CONE payment will only result in inappropriate cost to customers
- Timing of CPM contracts ensures they are only awarded to existing capacity
  - At most CPM contracts are issued a few months before the delivery period
- SCE supported Net CONE as part of a centralized capacity market
  - Support in the context of a capacity market that clears several years (4-5) prior to the delivery period
  - A market run far enough in advance allows new entrants to compete with existing resources
- Several problems with the CONE approach with CPM
  - Subtractor of peak energy rents required further definition
  - Inappropriate for market power mitigation when sufficient capacity already in place
- CONE is typically a price for generic capacity when in fact ISO seems to be moving in a direction in which attribute-associated capacity will be required

How to Move Forward?

- CAISO needs a plan to address the "Hard" issues
  - CPM is not a viable substitute for a durable market structure
- Retirement risk is an issue
  - Forward Capacity requirements are a viable solution
  - SCE does not object to a separate process to address this in the short-term, but issue of defining the requirements, proper cost allocation, payment level and contract obligations need a full discussion to ensure the contract does not distort markets and the RA process
    - Does the CAISO need new tariff rules to address retirement?
  - CPM was not designed for this function and the potential fallout is to great to "bolt it on CPM" as an afterthought
- Revenue sufficiency for needed generation
  - CAISO must define their needs (in the Renewable Integration process), and then we can evaluate what attributes are needed
  - Additional payments should flow to parties that can provide CAISO needed services

How to Move Forward? (continued)

- New construction/needed attributes
  - The CAISO needs a mechanism that ensure 1) needed resources get built, 2) that the needed attributes get built/remain available, 3) that costs are allocated in a reasonable and effective manner
  - CAISO cost allocation used in the proposed Capacity market construct should serve as a model when load growth is driving the need for generic capacity construction
  - Need to investigation CAISO cost allocation when intermittency and the need for operating attributes are driving the need for construction
    - If VERs are driving the need for the construction of new operating attributes, should VERs be charged the incremental cost of securing capacity with this attribute (compared to the cost of generic capacity)?
- What will it take for the markets to work?
  - Define needs first, design markets second
  - Cannot ignore market power even when there is a need for new investment

Conclusion: CPM won't Address the "Hard" Problems, but we need a Framework that Does

- CPM should simply play the role of the current ICPM backstop
  - A payment to existing capacity to comport with the current must-offer requirement
- However, there are true and challenging problems that the CAISO needs to address in a comprehensive manner
  - Operating attributes needed in a 33% RPS world
  - Ensuring new construction of needed attributes
  - Rational retirement process
  - Sufficient revenue opportunities for needed resources
  - Proper cost allocation
- CPUC is trying to address many of these issue in the LTPP process
- The time is ripe for CAISO to work on a comprehensive framework to address these issues in its markets