Capacity Procurement Mechanism

Significant Event – Intent to Solicit and Designate Capacity

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The ISO is soliciting capacity offers for procurement through the ISO’s Significant Event - Capacity Procurement Mechanism (CPM)

- Combination of factors have created both material difference from resource adequacy program assumptions and material changes in system conditions
- ISO seeks offers as soon as possible, preferably by July 7, for non-resource adequacy capacity available at a minimum during the net peak hours (4 PM – 9PM)
- Imports should be deliverable to the ISO and supported by firm (or reasonably equivalent) transmission rights to the delivery intertie
- The significant event is expected to last through October
CPM Significant Event Definition from ISO Tariff

• A substantial event, or a combination of events, that is determined by the CAISO to either result in a material difference from what was assumed in the resource adequacy program for purposes of determining the Resource Adequacy Capacity requirements, or produce a material change in system conditions or in CAISO Controlled Grid operations, that causes, or threatens to cause, a failure to meet Reliability Criteria absent the recurring use of a non-Resource Adequacy Resource(s) on a prospective basis.
Factors causing concern for resource sufficiency

- Significantly reduced hydro due to worsening drought conditions
- Unforeseen limitations on thermal resources output
- Extreme heat events unseasonably early
- Delay beyond summer of planned online dates for several new resources
- Uncertainty of further development of demand-side resources in response to emergency procurement authorizations
- Resources sufficient to meet peak demand are not always adequate to support peak demand net of wind and solar generation (*i.e.*, the net peak demand)
- Timeline of resource adequacy compliance processes provide limited ability to address the changed conditions in near term
The ISO has determined that these combined factors cause a significant event

- The assumption that a suitable planning reserve applied at the time of peak load would provide reliability 24/7 is no longer valid due to changing conditions across the day and the implications of the net peak later in the day
- The other risk factors outlined increase the need to address the change in these assumptions immediately
- The ISO’s stack analysis provides more clarity on the gap associated with the change of assumptions
CPUC and CEC leadership express concerns worsening conditions

• On June 29, 2021, Marybel Batjer, President, California Public Utilities Commission, and David Hochschild, Chair, California Energy Commission, sent a letter to Elliot Mainzer, President of the ISO, highlighting the factors noted above.

• The June 29 letter requests the ISO use its tariff-based authority to procure additional capacity in response to these factors.
2021 July and August Stack Analysis
Net Qualifying Capacity versus Monthly Resource Adequacy Showings
2021 Stack Analysis Updated

- The ISO’s stack analysis has been used to support comments in resource adequacy proceedings and in demonstrating the need for system RMR designations
- Load forecast updated to 2020 IEPR
- Master Control Area Generating Capability List
  - OASIS – downloaded 2020-06-21
- 2021 NQC List
  - CAISO website – downloaded 2020-06-21
- New resources included:
  - New resources that have obtained COD but not on NQC list
  - New resources that had not obtained COD but expected to be online
- Monthly Resource Adequacy showings for imports and other resources (see next slide)
## Monthly showings on the interties

<table>
<thead>
<tr>
<th></th>
<th>July</th>
<th>August</th>
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<tbody>
<tr>
<td><strong>2021 RA Import Showings:</strong></td>
<td>5477 MW</td>
<td>5702 MW</td>
</tr>
<tr>
<td>Maximum 2015 – 2020 monthly showings</td>
<td>6197 MW</td>
<td>6480 MW</td>
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<tr>
<td>Average 2015 – 2020 monthly showings</td>
<td>5340 MW</td>
<td>6095 MW</td>
</tr>
<tr>
<td>Minimum 2015 – 2020 monthly showings</td>
<td>3840 MW</td>
<td>5624 MW</td>
</tr>
<tr>
<td>Maximum Import Capability for RA</td>
<td>10,805 MW</td>
<td>10,805 MW</td>
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Net Qualifying Capacity and Resource Adequacy showings results and observations:

- At peak load hours:
  - For NQC and average interties at “Peak” the PRM is above 25%
  - For RA showings of the resources and interties at “Peak” the PRM is approximately 16%
- The difference in NQC vs RA showings primarily due to Gas and Hydro
  - Most gas generators have RA showings on them but not all the way up to NQC value (~1500 MW)
  - A few hydro generators with significantly lower RA showings than NQC values with a couple resources with no RA showings (~2000 MW)
- The ISO has also examined the net peak hours for July and August (see next slides)
While the stack of NQC has a PRM of 26% at Peak and 18% PRM at 8 pm, the RA showings reflect procurement to about 16.5% PRM at Peak resulting in a PRM at 8 pm of about 8.5% - uncontracted resources and interties would be relied on during the evening period.
While the stack of NQC has a PRM of 24% at Peak and 19% PRM at 8 pm, the RA showings reflect procurement to about 15% PRM at Peak resulting in a PRM at 8 pm of about 10% - uncontracted resources and interties would be relied on during the evening period.
The ISO’s analysis of July and August demonstrate the reliance on uncontracted resources in net peak hours

- The PRM for the NQC of resources and average historical intertie values at Peak is 24% to 26%, while the RA showings reflect procurement of only 15% to 16.5% at the Peak load period

- While the stack of NQC has an 18% to 19% PRM at 8 pm, the RA showings (net of solar generation) reflect procurement at 8 pm only achieving an 8.5% to 10% planning reserve margin

- Allowing for resources that may be procured but not shown, the gap to achieving a 15% planning reserve margin at 8 pm appears to be in the 2000 MW range.
ISO Capacity Procurement Mechanism Process
Description of Capacity Procurement Mechanism (CPM) Significant Event Authority Designations

• ISO has authority to designate CPM pursuant to a significant event (Source: ISO Tariff Section 43.2.4)
• CPM designation is for an initial term of 30 days via the intra-monthly CPM process, with optional 60-day extension (Source: ISO Tariff Section 43.3.5)
• Planned Exercise of CPM Significant Event authority:
  – Issue 30-day procurement effective as soon as possible based on the intra-monthly CPM competitive solicitation process (CSP) for the month in which the designation will begin and additional offers solicited through the market notice
  – May issue additional designations and extensions of existing designations for August through October as conditions warrant
Timeline

- June 29 – Based on factors cited in CPUC/CEC letter, ISO concludes CPM significant event exists.
- July 1 – Public notification of intent.
- July 2 – Stakeholder call.
- July 7 – Preferred date to express interest to CIDI and submit offers to intra-monthly CSPs for months during period of expected significant event.
  - SCs may continue to submit CSP bids per BPM timeline.
- July 9 (or as soon as possible thereafter) – ISO intends to designate available capacity for 30-day terms, with 60-day extensions likely offered.
- Ongoing – ISO designate additional CPM or extend as needed.
CSP Offer Submission Process for Scheduling Coordinators

• SCs that would like to submit CSP offers should do so through BOTH of the following mechanisms:
  – Submitting offers in CIRA under CSP Offers > View/Submit CSP Offer Set
  AND
  – Submitting a CIDI ticket with the subject line “Summer 2021 CPM Significant Event”

• For the month of July, please submit offers in CIDI only as offer period in CIRA has ended
CSP Offer Submission Process for Scheduling Coordinators (con’t)

When submitting a CIDI ticket, please submit with the subject line “Summer 2021 CPM Significant Event” and include the following information:

1. Resource ID(s)
2. MW available and eligible for CPM
3. Dates the capacity is available to serve as CPM capacity
4. If the scheduling coordinator is likely to accept a 60-day designation extension were it offered
5. If the scheduling coordinator intends to seek compensation above the soft offer cap through a cost showing approved by the Federal Energy Regulatory Commission

For informational purposes, scheduling coordinators that would accept a designation based on compensation above the soft offer cap justified on a basis other than the tariff-based formula should also contact the ISO through a CIDI ticket with the above-noted subject line and resource information.
CPM Capacity Obligation

• Any resource designated under the CPM will have all the responsibilities and must-offer requirements as RA resources of the same RA type and category

• SCs offering import resources into the CSP process will need import capability at the delivery intertie

• See tariff section 43A and Reliability Requirements section 5 for more information
Next Steps:

- The ISO will evaluate capacity available through the intra-monthly CPM competitive solicitation process (CSP) and new offers as indicated earlier.

- The ISO will continue to explore options to firm up capacity as quickly as possible through October.

- Please notify the ISO of potential availability through CIDI or contact ISO Customer Service at 916-608-7320.

- For questions, please contact Abdul Mohammed-Ali at 916-671-9678.