Capacity Procurement Mechanism
Risk-of-Retirement Process Enhancements

Draft Final Proposal

Stakeholder Call
September 20, 2017
1:00 – 4:00 p.m. Pacific Time

Keith Johnson
Infrastructure and Regulatory Policy Manager
## Agenda

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<td>Scope of Initiative and Background</td>
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PLAN FOR STAKEHOLDER ENGAGEMENT
Stakeholder Process

Capacity Procurement Mechanism
Risk-of-Retirement Process Enhancements

POLICY DEVELOPMENT

- Issue Paper
- Straw Proposal
- Revised Straw Proposal
- Draft Final Proposal

Completed
Completed
Completed
We are here
# Stakeholder Process Schedule

Capacity Procurement Mechanism Risk-of-Retirement Process Enhancements

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<th>Document</th>
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<td><strong>Issue Paper</strong></td>
<td><strong>May 10</strong></td>
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<td><strong>May 18</strong></td>
<td>Hold stakeholder working group meeting #1</td>
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<td><strong>June 6</strong></td>
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<td><strong>Straw Proposal</strong></td>
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<td><strong>June 27</strong></td>
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<td>Stakeholder written comments due</td>
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<td><strong>August 28</strong></td>
<td>Stakeholder written comments due</td>
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<td><strong>Draft Final Proposal</strong></td>
<td><strong>September 13</strong></td>
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<td><strong>September 20</strong></td>
<td>Hold stakeholder call</td>
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<td><strong>October 4</strong></td>
<td>Stakeholder written comments due</td>
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<td><strong>Final Proposal</strong></td>
<td><strong>November 1-2</strong></td>
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SCOPe OF INITIATIVE AND BACKGROUND
The CAISO is authorized to use its backstop procurement authority in four situations.

1. Insufficient local, system or flexible resource adequacy ("RA") capacity in year-ahead or month-ahead RA showings
2. "Significant Event" occurs on grid
3. Reliability/operational need for Exceptional Dispatch
4. Capacity needed for future year is at risk of retirement ("ROR")
Resource owners have requested enhancements to the process for CAISO to procure resources at ROR.

• Concerned that if resource is currently under a RA contract but not likely to be procured as RA for next year resource owner currently cannot apply for resource to be procured by CAISO until after October 31 of current year*
  – Believe this condition results in resource owner having insufficient time to make important business decisions
  – Owners would like longer “runway” to make decisions

* CAISO’s backstop procurement authority for ROR is in the Capacity Procurement Mechanism (“CPM”) tariff, section 43A.2

October 31 is the due date for the year-ahead annual RA showings
Scope of initiative is limited – CAISO is not redesigning the major features of the backstop mechanism.

- Will explore whether process and application can be improved and analysis and reporting can take place prior to October 31 – thus speeding up process
- Need provisions to address situation where multiple resources may seek designation at same time but reliability need is such that CAISO cannot designate all of the resources that have applied
Several key current CPM ROR process steps are listed below.

- If a resource wants to be considered for designation, it must submit an application to CAISO.
- CAISO must conduct study to determine that resource is needed in subsequent RA year.
- If conditions are met, CAISO must:
  - Post report and allow no less than 7 days for stakeholder review and comments.
  - Allow at least 30 days for any LSE to procure capacity from that resource in lieu of CAISO procurement.
- CAISO may then procure resource, but only if no LSE has procured that particular resource in lieu of CAISO.

“LSE” is load serving entity.
STAKEHOLDER COMMENTS
• Most stakeholders support CAISO clarifying that any resource, including a resource that is currently RA, can apply for a CPM ROR designation

• A few stakeholders requested that CAISO clarify if there are any conditions regarding timing and whether there may be a gap in which a resource cannot request any CPM ROR
Stakeholder Comments on Timing of Requests for Designation - Windows

• Several stakeholders do not support April window as they believe adding it will front run annual RA procurement process, and a designation mid-year will eliminate resource’s incentive to bid competitively when it knows it can receive cost-of-service recovery.

• Some stakeholders are concerned that designation in April window will not help LSEs in meeting RA obligations due to timing of CAISO procurement.

• One stakeholder recommends resources be allowed to request Type 1 and 2 designations in one application.
Stakeholder Comments on Process for Study and Procurement

• Several stakeholders requested detail on reliability studies CAISO will perform, including types of resources that will be considered

• A few stakeholders requested additional information in designation report

• One stakeholder recommended extending 7 day comment period to 14 days following the study report

• One stakeholder asked for clarity on whether CAISO would choose to not procure a resource if no LSE procures resource

• One stakeholder suggested requiring resource to issue a solicitation for bids at same time study report is issued

• One stakeholder requested clarification of must-offer obligations for designated resources
Stakeholder Comments on Application Requirements, Timelines and Reliability Studies

• Several stakeholders asked for clarification on start and stop dates of proposed windows and to synch up tariff and BPM language
• Several stakeholders do not support requirement for April window that costs must exceed CPM soft-offer cap – pushes resources to November window
• One stakeholder believes forcing resources to prepare detailed cost-of-service study for offer price for application is unduly burdensome
• One stakeholder asked for clarification on how CAISO will assess resources expected to retire and resources not expected to retire
• Several stakeholders do not believe it is necessary to require that a resource demonstrate its costs are above soft-offer price cap
• One stakeholder suggested requiring requestor to pay for cost of study
• One stakeholders asked for clarification of binding offer price in application process and how that price will be used
• One stakeholder asked if it would be appropriate for “uniquely situated” standard apply to all designation types
Stakeholder Comments on Selection Criteria when there are Competing Resources

- Most stakeholders support the proposed selection criteria.
- One stakeholder recommends that CAISO consider how reliability assessment for Type 2 and Type 3 designations with a local area or providing system support are evaluated together to ensure that resources with best characteristics are granted designations.
Stakeholder Comments on Term and Monthly Payment Amount

• Most stakeholders agree with proposed terms and monthly payments for the various types of designations.

• One stakeholder believes that minimum term of 12 months may not allow resources that have contracts ending between January 2018 to April 2018 to apply or be designated under the 2017 windows, which would not be an optimal outcome.
Stakeholder Comments on Cost Justification

• Most stakeholders support using cost-of-service and Schedule F of RMR agreement to determine costs
• Several stakeholders do not support including major maintenance costs or capital additions in price
• One stakeholder suggests that FERC utilize a cost-based approach for basic maintenance while resource awaits a guaranteed contract from a LSE
• One stakeholder requested payment prior to FERC ruling be lesser of soft-offer cap price and offer price submitted
• One stakeholder requested clarification on how cost-based rate filed at FERC fits with application offer price
Stakeholder Comments on Decision to Accept

- Several stakeholders support having decision to accept a designation be voluntary
- Other stakeholders believe accepting designation should be mandatory
- Some stakeholders asked how CAISO could allow a resource to not accept a designation after the resource is found to be needed for reliability
- One stakeholder believes if resource opts not to accept CPM, then resource should be required to shut down
Stakeholder Comments on Cost Allocation

• Most stakeholders support proposed cost allocation
• One stakeholder requests that if designation is due to flexible system need, costs should be allocated to all LSEs based on their system load ratios
• Another stakeholder requests that, if CAISO designates a resource in San Diego-IV area for purposes of supporting LA Basin, costs should also be shared with LSEs that serve load in that TAC area
Stakeholder Comments on RA Credits

• Many stakeholders support proposal to provide RA credits for CPM ROR procurement
• Several stakeholders requested additional details on how RA credits will work
• One stakeholder requested that CAISO provide credit to LRA for allocation to LSEs
• Several stakeholders asked for clarification of how timing of designation would allow RA credits to be useful to LSEs
• One stakeholder requested that if designation is for local and flexible operational needs, LSEs should be credited for those attributes
CHANGES FROM REVISED STRAW PROPOSAL
Draft final proposal describes 18 changes that have been made from the August 8 revised straw proposal.

1. Clarified that any resource can apply for a designation, even resource that is currently RA, RMR or CPM resource, and there is no gap in which a resource cannot request a CPM ROR at all
2. Revised tariff language regarding deadlines for request windows
3. Clarified tariff language to reflect that resource can request both Type 1 and Type 2 designation in same application
4. Extended comment period for proposed Type 2 designations to no less than 14 days (from no less than 7 days).
5. For Type 2 designations, LSEs have until 10 days before beginning of RA Compliance Year to procure resource; thereafter, CAISO can designate it

* “RMR” means Reliability Must-Run.
6. Clarified examples of timelines to explain how examples work and caveats that go with examples
7. Added detail on technical assessment CAISO must perform in order to issue a designation
8. Changed reference to “generation” in sections 43A.2.6 (d)(3) and (e)(3) to “alternative solution”
9. For Type 2 designation requests, resource must attest it believes its annual fixed costs exceed $50.28/kw-year if it is located in a Local Capacity Area and $36.00/kW-year if it is not
10. Clarified that compensation cannot be higher than cost-based rate FERC approves for resource, calculated in accordance with RMR calculation methodology

11. Clarified how capital additions are considered when using Schedule F of pro forma RMR agreement to determine price

12. Clarified how resource will be paid prior to and after determination by FERC of resource-specific price for capacity designated

13. Added if CAISO grants a resource’s request for a designation, resource must accept designation unless it enters into RA contract for same or longer period as designation

14. Revised term to allow for balance-of-year designations commencing after last month of year in which resource is RA
15. Clarified how cost allocation works under existing tariff for local and flexible resources and will work for CPM ROR going forward

16. Revised existing crediting provisions to add that applicable LSEs will also receive credit toward their local capacity requirements if designated resource is located in Local Capacity Area and credit toward any flexible RA capacity requirements for capacity that qualifies as flexible capacity

17. Added existing tariff subsection 43A.9(f), which explains how RA crediting will be done and interaction between CAISO and CPUC, other LRA, or federal agency with jurisdiction over LSE

18. Added language describing must-offer obligation of capacity designated as ROR CPM
Eligibility for Designation

• Capacity under RA contract, RMR contract, or another kind of CPM procurement may not be designated as such and receive CPM ROR payments at same time

• “Partial RA” resource, i.e., has part of its overall capacity contracted for RA, is not eligible to receive payment for that month
  – If resource has even one-half MW contracted for RA for month, resource is considered RA and is ineligible to receive designation for that month
CPM ROR Request and Designation Process

• Provide two application windows each year when resources can apply for designation
  – Initially will be open each year during first-half of months of April and November (April 1-15 and November 1-15)
  – These specific initial dates will be in Business Practice Manual for Reliability Requirements – can update over time via BPM Change Management process

• Tariff will state there will be two windows each year for resources to submit an application
  – One window in first half of year and one in second half
  – Deadline for first window cannot be before April 15 or later than June 30
  – Deadline for second window will be after deadline for LSEs to submit their year-ahead annual RA showings
Process (continued)

• In April window, will consider two types of designation requests
  – Type 1 Designation: request by non RA resource for designation for current RA compliance year
  – Type 2 Designation: request by RA resource or non-RA resource for designation for calendar year following current RA compliance year
  – Resource can seek both types of designations simultaneously, if applicable

• In November, will consider one type of designation request
  – Type 3 Designation: request by RA resource or non-RA resource for designation for upcoming RA Compliance Year for which recently submitted (October 31) year-ahead annual RA showings apply
Process (continued)

For each window, will retain following steps from tariff

1. Perform reliability study, and, if any resources eligible for designation, post report no less than 30 days after closing of window indicating reliability need for resource, proposing designation and describing
   a) Reliability studies performed
   b) Assumptions underlying studies
   c) Study results
   d) Resource (or resources) determined needed to reliably operate grid
   e) Why that resource (or those resources) are needed such that grid cannot be reliably operated without that specific resource (or resources) in service
   f) Time period for which designation is needed

2. After posting of report
   a) For Type 1 and Type 3 designations, will allow no less than 7 days for stakeholders to review and submit comments on report
   b) For Type 2 designations, will extend current stakeholder comment period from no less than 7 days to no less than 14 days
Steps from tariff (continued)

3. For Type 1 and Type 3 designations, LSEs will have at least 30 days to procure that resource before CAISO can procure that resource
   - For Type 2 designations LSEs will have until 10 days before start of new RA Compliance Year to procure capacity from that resource before CAISO can procure that resource

4. If no LSE procures resource identified, CAISO may procure resource and will post designation report that contains information described in tariff section 43A.6.2
   - Actual designation of resource as CPM ROR does not occur until after comment and “cure” period has closed, resource has not been procured by LSE, and CAISO formally designates resource, which then creates market notice and reporting requirements
Proposes two sets requirements for resource owners seeking a designation
- General requirements applicable to all requests (for both April and November windows)
- Additional requirements applicable to a resource owner in April window that seeks a Type 2 designation (applying in April and requesting a designation for upcoming RA Compliance Year)

CAISO will treat information submitted by resource owner as confidential
April Window

• Must submit affidavit from executive officer attesting that resource will be uneconomic to remain in service without a designation and decision to retire is definite unless
  – CPM or other CAISO procurement occurs
  – Resource is sold to non-affiliated entity, or
  – Resource receives annual RA contract

• Must provide offer price that will be binding such that resource owner cannot request from FERC a price higher than its offer price submitted to CAISO
April Window (continued)

- To be eligible to receive Type 1 Designation, Scheduling Coordinator for resource must have offered all Eligible Capacity from resource into all CSPs for current RA year
  - Year-ahead, month-ahead and intra-month CSPs

- To be eligible to receive Type 2 Designation, must attest in affidavit that resource reasonably believes its annual fixed costs meet or exceed following prices (which are derived from the CPUC’s 2016 RA Report)
  - If resource is located in Local Capacity Area, $50.28 kW-year, or
  - If resource is not located in Local Capacity Area, $36.00 kW-year
  - Propose to use these two prices initially, and will update in future at same time other pricing aspects of CPM generally are updated
  - Requirement will help ensure that only resources that are less likely to receive a RA contract will be eligible for a Type 2 designation
Process (continued)

April Window (continued)

- Prior to finalizing procurement under a Type 2 designation, CAISO must find resource participated in all applicable RA competitive solicitations, requests for offers, or similar procurement mechanisms conducted by LSEs for such RA compliance year and was not offered annual RA contract consistent with its offer.

- For Type 2 designations, CAISO must find that resource is uniquely situated such that it is the only resource that can meet the identified reliability need.

- If resource is needed for reliability, CAISO will be able to communicate in its study report that resource is eligible for a designation, but any designation is conditional, and resource, if selected in a RA competitive solicitation, request for offers, or similar procurement mechanism conducted by an LSE, must take that contract rather than designation if such contract is offered to resource.
Example of Timeline for Type 1 designation*

Scenario where Resource is not RA in 2017 and requests a 2017 Balance-of-Year Designation

• April 1-15: Window open for resource owner to apply
• May 15: CAISO issues report explaining basis and need for CPM designation and intent to designate
• May 22: Stakeholder comments on report due
• June 22: Deadline for LSEs to procure in lieu of CAISO procurement
• June 23: If not procured by LSEs, CAISO can designate resource as CPM ROR capacity

* Dates shown are for illustrative purposes only
April Window (continued)

Example of Timeline for Type 2 designation*

Scenario where Resource is RA or Non-RA in 2017 and requests a 2018 Designation

- April 1-15: Window open for resource owner to apply
- May 15: CAISO issues report explaining basis and need for CPM designation and intent to designate (CAISO will report a conditional designation)
- May 29: Stakeholder comments on report due
- December 22: Deadline for LSEs to procure in lieu of CAISO
- December 26: CAISO can designate resource as CPM ROR capacity
- January 1: Effective date of Type 2 designation

* Dates shown are for illustrative purposes only
November Window

- Must submit affidavit from executive officer attesting that resource will be uneconomic to remain in service without a designation and decision to retire is definite unless
  - CPM or other CAISO procurement occurs
  - Resource is sold to non-affiliated entity, or
  - Resource receives annual RA contract
- Must provide offer price that will be binding such that resource owner cannot request from FERC a price higher than its offer price submitted to CAISO
Process (continued)

November Window (continued)

Example of Timeline for Type 3 designation*

Scenario where Resource requests a 2018 Designation

• Nov 1-15: Window open for resource to apply
• Dec 15: CAISO issues report
• Dec 22: Stakeholder comments on report due
• Jan 22: Deadline for LSEs to procure in lieu of ISO
• Jan 23: CAISO may designate resource via CPM ROR

Note: If resource seeking a Type 3 designation had RA contract for first three months of 2018, any actual designation would not commence until April 1

* Dates shown are for illustrative purposes only
Reliability Studies

- Will perform assessment to determine if resource will be needed for reliability purposes, typically for its locational or operational characteristics.
- Will have up-to-date information on resources that are recently approved or under review and resource interconnections from CAISO generator interconnection process and Resource Information Management System ("RIMS") database and latest information on transmission projects through RIMS and CPUC quarterly Form 970.
- Any type of resource that is scheduled to be in service will be included in study.
- Will consider any new addition to grid, transmission or generation, as an alternative to resource seeking designation.
- Will include any and all reliability criteria (see NERC, WECC, and CAISO standards).
- Will use latest information on resources that are expected to retire based on announced retirements and once-through cooling effective dates.
Process (continued)

Reliability Studies (continued)

- Will use diverse set of tools and follow multi-step process whereby CAISO will study resource for its impact on the system and any Local Capacity Area
- Will assess reliability and operational flexibility given best available information regarding grid conditions for year 2 and assumed availability in year 2 (including other known generator retirements) and any new generation that will achieve commercial operation to meet year 2 needs
- Will consist of one or more of following studies: power flow, voltage stability, transient stability, reactive margin studies, and production simulation
- Will evaluate adverse effects on transmission system as well as operational flexibility requirements
Selection Criteria when there are Competing Resources

• Will revise tariff to reflect selection criteria specified in sections 43A.4.2.2 and 43A.4.2.3
  – 43A.4.2.2 provides selection criteria in event there are multiple resources seeking a designation at same time but “need” is such that CAISO cannot designate all of the resources
    • Offer price that will be used with regard to Section 43A.4.2.2 will be offer price provided by resource in its CPM ROR application
  – 43A.4.2.3 provides criteria for breaking ties
• Offer price used for section 43A.4.2.2 will be offer price provided by resource in its application to CAISO
• The draft final proposal provides sample tariff language
Term and Compensation

- Type 1 designations will have term for balance of RA Compliance Year in which they occur.
- Type 2 and Type 3 designations will have term of 12 months, or balance of the RA Compliance Year if the resource is already RA for a part of the RA Compliance Year.
- Capacity cannot be both CPM capacity and RA capacity at the same time.
Term and Compensation (continued)

• To be paid, resource must make a filing at FERC to justify its costs and FERC will decide level of compensation
• CPM tariff’s more general soft offer cap price will not be available to resources seeking CPM ROR designations
• Pricing formula costs will be determined using Annual Fixed Revenue Requirement for a RMR Unit as set forth in Schedule F to pro forma RMR agreement in Appendix G of tariff
• Payment for each month of designation will be based on existing CPM calculation of 1/12 per month of annual compensation amount
Term and Compensation (continued)

• Under Schedule F to pro forma RMR agreement, net investment is determined as of end-of-year balances in accounts specified for relevant cost year
  – Because some designation may occur mid-year, net investment should be based on resource’s plant in service at start of CPM ROR designation

• Prior to FERC’s determination of resource’s price, CAISO will pay resource based on its offer price submitted in its application
  – Price will be subject to refund for periods in which offer price was applied once FERC determines applicable cost-based price
  – After FERC determines cost-based price, CAISO will use the FERC-determined price
• If CAISO grants a resource’s ROR CPM designation, resource must accept the designation unless it enters into an RA contract for the same period as the ROR CPM designation or a longer period
  – This ensures that a needed resource will remain available to CAISO
Cost Allocation

• Cost allocation for CPM ROR procurement will be treated as is already provided for in current CAISO tariff section 43A.8.7
  – For example, if CAISO designated a resource because it needed flexible capacity to meet a system reliability need, CAISO would allocate costs to all LSEs on the system
• CAISO is not proposing any changes to section 43.A.8.7
Resource Adequacy Credits

• Propose to continue current tariff approach where
  – If designation is for greater than one month, CAISO will provide Scheduling Coordinator, on behalf of LSE, for term of designation, credit towards meeting RA requirements, and
  – Will coordinate with CPUC, other LRA or federal agency with jurisdiction over LSE regarding use by LSE of those credits (section 43A.9(f))

• Proposing some revisions to section 43A.9(d) regarding local and flexible capacity
Must-Offer Obligation

• Propose to clarify must-offer obligation for designated resource

• Capacity designated as CPM ROR must meet
  – Day-Ahead availability requirements specified in section 40.6.1
  – Real-Time availability requirements specified in section 40.6.2
  – Day-Ahead and Real-Time availability requirements specified in section 40.10.6.1 for highest category of flexible capacity for which resource’s capacity qualifies as flexible capacity
NEXT STEPS
Next Steps

• October 4 - Stakeholders submit written comments by close of business
  
  
  – Submit to mailbox: initiativecomments@caiso.com

• November 1-2 – Present final proposal to Board of Governors for approval