California ISO

Stakeholder Comments Template

Resource Adequacy Enhancements

This template has been created for submission of stakeholder comments on the Resource Adequacy Enhancements working group on June 10, 2020. The stakeholder call presentation, and other information related to this initiative may be found on the initiative webpage at: http://www.caiso.com/StakeholderProcesses/Resource-Adequacy-Enhancements

Upon completion of this template, please submit it to initiativecomments@caiso.com. Submissions are requested by close of business on **June 24, 2020**.

Submitted by	Organization	Date Submitted
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Please provide your organization's comments on the following issues and questions.

1. Production Simulation: Determining UCAP Needs and Portfolio Assessment

Please provide your organization's feedback on the Production simulation: Determining UCAP needs and portfolio assessment topic as described in slides 4-15. Please explain your rationale and include examples if applicable.

No comment.

2. Transitioning to UCAP Paradigm

Please provide your organization's feedback on the transitioning to Unforced Capacity (UCAP) paradigm topic as described in slides 16-19. Please explain your rationale and include examples if applicable.

Slide# 17 describes option 1 as follows:

"Option 1:

A two-step de-rate process to resource QCs that includes resource availability – Step 1: Conduct resource deliverability assessment and adjust QC for deliverability, creating Deliverable QC (DQC) for the resource (i.e. today's NQC will become DQC) – Step 2: Apply non-availability factor to DQC, resulting in NQC for the resource."

Since Step 1 already derives NQC after the delivery assessment, does the Step 2 calculate UCAP value or NQC?

CDWR prefers Option 2 because existing RA contracts that were executed based on the NQC value won't require changes. Instead, UCAP requirement would be a separate matter and could be included in new contracts. LSEs can buy RA capacity to meet UCAP based on the resources' equivalent NQC to meet the UCAP requirement. For example, if an LSE has a 95 MW UCAP requirement and a 100 MW NQC resource has a 95 MW UCAP, the LSE can contractually procure 100 MW NQC from the resource to meet its 95 MW UCAP requirement.

3. Unforced Capacity Evaluations

Please provide your organization's feedback on the unforced capacity evaluations topic as described in slides 20-59. Please explain your rationale and include examples if applicable.

Slide #23 states the following:

"CAISO proposes to calculate and publish monthly NQC and UCAP values for all resources annually – Once per year, a unit will have a distinct NQC and UCAP value determined for each month of the upcoming year; NQC process will remain similar to current approach with no major proposed changes, depending on transition approach; CAISO proposes that the calculation of each resource's UCAP will be limited at a resource's NQC value and will consider the resource's forced outages and derates."

NQC is currently published annually and can be updated monthly when the NQC increases. Going forward, we recommend a monthly update to UCAP value if the NQC for the resource increases from the published annual value.

a. Please provide your organization's feedback on the UCAP methodology: Seasonal availability factors topic as described in slides 27-46. Please explain your rationale and include examples if applicable.

CAISO proposes that resource availability factors incorporate historical derates and forced and urgent outages. CAISO is proposing to calculate UCAP based on the top 20% of tightest supply cushion hours for peak and off-peak months. CAISO defines supply cushion as follows:

Supply Cushion = Daily Shown RA (excluding wind and solar) – Daily Planned Outage Impacts – Daily Forced Outage Impacts – Net Load – Contingency Reserves

CAISO will calculate hourly unavailability factor (HUF) for a resource based on the resource derates and forced outage impacts as described in slide #36.

Will the HUF formula also include "urgent outages" as proposed to be included in the UCAP calculation? HUF formula in slide#36 does not include urgent outages.

For resources that do not have historical forced outages and urgent outages, how will CAISO calculate HUF?

b. Please provide your organization's feedback on the UCAP methodologies for non-conventional generators topic as described in slides 47-59. Please explain your rationale and include examples if applicable.

On slide #56, CAISO proposes that DR and QF resource have alternative performance based UCAP determination. For DR and QF resources CAISO will evaluate resource performance relative to their dispatch instructions for periods when they received market award. CAISO will track each resource's historical performance over the prior 3 years and compare their market dispatches to their actual performance during those periods to establish the availability that will be applied to their UCAP value. For a participating load, dispatch will result in a load drop in real time for the day ahead non-spin award. Specific example showing how HUF will be calculated for a participating load will be helpful to better understand the proposal.

Additional comments

Please offer any other feedback your organization would like to provide on the Resource Adequacy Enhancements working group discussion.

CDWR seeks clarifications on following questions and submits additional comments as follows:

URGENT OUTAGE

1. What is the time frame for an Urgent Outage? Is it a time range, and how far out will it be; hours, days?
2. Who determines when to take the unit/plant/resource out? CAISO, or SC?
3. How will CAISO handle if the Urgent Outage is submitted, but the situation develops to where the unit/plant/resource is forced out? Will there be a penalty for such an occurrence?
4. Will the addition of the Urgent Outage category change how Forced Outages are used? For example, will the Urgent Outage be shifted into the primary means of taking an outage out in the very short time range? How will this affect the usage of Forced Outages?
5. Please specify the meaning of "optimal time for overall system reliability." Is that referring to seasonal, daily, or specific times of the day?
6. CAISO needs to clarify how the inclusion of Urgent Outages will affect a resource's UCAP. Can CAISO provide an updated mathematical calculation which includes Urgent Outages, and explanations how it will affect UCAP?

7. Can CAISO provide differences, benefits, and drawbacks between Urgent and Forced Outages?
8. If there is a Transmission Outage affecting an SC's resource(s), and the SC is notified by CAISO, will the SC submit this as a Forced Outage or an Urgent Outage?
9. Will a transmission-induced Urgent/Forced outage count against the resource's UCAP in future calculations? CDWR firmly believes that Transmission Outages should not count against a resource's UCAP. Individual resources' UCAP valuations should not incorporate negative impacts from the CAISO's grid outage.

EXEMPTION OF F/O AGAINST UCAP

10. Can CAISO provide more examples of possible exemptions? Will the exemption process be on a case-by-case basis? Can CAISO consider the situation: physical damage caused by natural events/disasters? For example: a leak in a canal due to an earthquake.
11. Will the Exemption process interact with the Outage Submission process? Or are they two separate processes, where the Exemption process will occur after events have transpired?
12. Transmission-induced outages should be added to the exemption list because this type of outage is outside of the plant owner's control, and is not considered a recurring outage, such as consistent equipment failure that leads to consistent Forced Outages. The force majeure outages considered by CAISO (terrorism, government orders, fire, earthquake, etc.) are outside of the plant owners' control, and are rare in occurrence just as the transmission-induced outages are. Therefore, transmission-induced outages should be added to the outage exemption list.

UCAP METHODOLOGY

13. Seasonal availability factors covering 6 months may not be reflective of CDWR operational availability of water for generation. Jan-Mar, Apr-Jun, Jul-Sep, Oct-Dec are better breakdowns for CDWR operations.