



Stakeholder Comments Template

Resource Adequacy Enhancements

This template has been created for submission of stakeholder comments on the RA Enhancements stakeholder working group held on April 8 & 9. The stakeholder meeting presentation and other information related to this initiative may be found on the initiative webpage at:

<http://www.caiso.com/informed/Pages/StakeholderProcesses/ResourceAdequacyEnhancements.aspx>

Upon completion of this template, please submit it to initiativecomments@caiso.com. Submissions are requested by close of business on April 22.

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

1. Unforced capacity concepts: Inclusion of forced outage rates in capacity counting/valuation

Please provide your organization's feedback on the capacity counting and forced outage rate/unforced capacity topic. Please explain your rationale and include examples if applicable.

How will the Effective Forced Outage Rate of Demand (EFORd) be calculated? For example, the following can be calculated for an individual resource:

Forced Outage Factor, FOF% = $(\text{FOH} \div \text{PH}) \times 100$, where,

PH = Period Hours, FOH = Forced Outage Hours

Does CAISO plan to use individual resource forced outage factors to derive the systemwide forced outage factor?

As indicated in CDWR's comments in part 1, and part 2, CDWR's resources do not operate in the same fashion as other generic hydro resources (because of integrated water and power operations) and forced outage factor applicable to generic hydro

resources may result in erroneous representation of available capacity for CDWR resources that depend on water operations and hydrology.

Slide 23-24: NERC GADS relies on IEEE 762-2006 standard for availability reporting. CDWR uses the forced outage definition from the IEEE Standard in reporting forced outages of generating units. What constitutes a forced outage should be clearly defined for unforced capacity (UCAP) assessment.

Slide 29: UCAP should not be applied to hydro resources including hydro participating pumping load as year-to-year uncertainty in hydrology may have profound impact than effective forced outage rate applied for UCAP calculations. For such hydro resources, ICAP (NQC) should be equal to UCAP. If EFORD is applied to hydro resources for UCAP calculations, then annual forced outage rate and 24 x7 period would be preferable.

2. Flexible RA concepts

Please provide your organization's feedback on the Flexible RA topic. Please explain your rationale and include examples if applicable.

CAISO is envisioning 3-hour (long ramp) and 1-hour (fast ramp) product. Further details are needed, however, on eligibility rules for these new products and their interaction with the ongoing development of a flexible ramping product.

CDWR supports the proposal (Slide 37) of calculating effective flexible capacity based on operational attributes rather than historical economic bidding behavior.

To increase the pool of resources to provide flexible RA, must offer obligation (MOO) should be applied to a reasonable period when long ramp and fast ramping need occurs. If MOO hours are unnecessarily expanded, it may result in inefficient utilization of capability for flexible RA.

CAISO indicates "Long Ramping" flexible RA can be provided by three categories of resources: Rampable resources, Net Load lifting resources (including load consumption resources), and Net Load reducing resources (including demand response). A participating load (PL) could be a viable net load lifting resource. CDWR would like to request CAISO to consider and explore potential for a PL resource eligibility to provide long ramping flexible RA.

3. RA showings and assessments

Please provide your organization's feedback on the RA showings and assessment topic. Please explain your rationale and include examples if applicable.

Slide 21: CDWR supports MOO applied to shown RA capacity capped at ICAP values instead of the full ICAP values (even if the shown RA amount is less than ICAP value). For example, if a resource has an ICAP of 100 MW and a UCAP of 95 MW, but an LSE only shows 50 MW of that resource as RA capacity, the MOO should be applied only to the 50 MW of shown ICAP capacity.

a. Portfolio assessment

Please provide your organization's feedback on the portfolio assessment sub-topic. Please explain your rationale and include examples if applicable.

If an LSE is short on its UCAP requirement, why is the ISO backstop cost not allocated to that LSE first? If all LSEs show their required UCAP, and if deficiency still occurs in the portfolio assessment for UCAP requirement, backstop procurement for collective deficiency could be done. LSEs should be given opportunity to provide needed shortfall prior to ISO procuring the capacity to meet the UCAP requirement.

4. Planned Outage Substitution

Please provide your organization's feedback on the Planned Outage Substitution topic. Please explain your rationale and include examples if applicable.

LSEs should be allowed to provide planned outage substitution by themselves first. Competitive Solicitation Process (CSP) should be another optional tool where LSEs can resort to for planned outage substitution if they have no alternative prior to CAISO backstop procurement.

5. CPM and Backstop authority

Please provide your organization's feedback on the CPM and Backstop Authority topic. Please explain your rationale and include examples if applicable.

The UCAP test for hydroelectric systems should be done for monthly RA updates. For systems such as DWR's, monthly RA update represents better picture of RA requirements and resource availability than annual RA filings.

Prior to charging a LSE for shortfall through Capacity Incentive Mechanism (CIM), LSE should be allowed to cure its deficiency.

6. Import RA provisions

Please provide your organization's feedback on the import RA provisions topic. Please explain your rationale and include examples if applicable.

7. Maximum Import Capability and Import Capability Allocation provisions

Please provide your organization's feedback on the Maximum Import Capability and Import Capability Allocation provisions topic. Please explain your rationale and include examples if applicable.

CDWR maintains its comment submitted in part 2 proposal comments.

8. Must Offer Obligations concepts

Please provide your organization's feedback on the Must Offer Obligation concepts topic. Please explain your rationale and include examples if applicable.

Use limited status is one important consideration for resources that meet the system reliability but cannot run 24x7.

If the operational characteristics qualify a unit as use limited, no bid insertion should be applied. What the implications might be if bid insertion is applied should be made clear.

Applying RAAIM is a good option; if RA products are simplified RAAIM should not be a problem.

9. Local capacity assessments with availability-limited resources

Please provide your organization's feedback on the Local capacity assessments with availability-limited resources topic. Please explain your rationale and include examples if applicable.

How does a participating load (PL) resource fit into this assessment? Does ISO consider a PL resource as availability limited resource (ALR) because a PL resource is dispatched within 10 minutes in a contingency event? A PL today is dispatched only in contingency event; will that criteria put the resource in ALR category? What impact would be on reliability at local area if a PL resource is used for local RA or PL resource residing in a local area is used for system RA only?

10. Slow demand response

Please provide your organization's feedback on the slow demand response topic. Please explain your rationale and include examples if applicable.

No comment at this time.

Additional comments

Please offer any other feedback your organization would like to provide on the April 8-9 RA Enhancements stakeholder working groups.