



Stakeholder Comments Template

Resource Adequacy Enhancements

This template has been created for submission of stakeholder comments on the Resource Adequacy Enhancements third revised straw proposal that was published on December 20, 2019. The proposal, stakeholder meeting 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 **January 27, 2020**.

Submitted by	Organization	Date Submitted
Sean Beatty (925) 951-4433	NRG Energy, Inc. ("NRG")	January 27, 2020

Please provide your organization's comments on the following issues and questions.

1. System Resource Adequacy

Please provide your organization's feedback on the System Resource Adequacy topic as described in section 5.1. Please explain your rationale and include examples if applicable.

In this set of stakeholder comments, NRG's comments are limited to the issue of determining when a generating unit is deemed forced out. NRG has reviewed the comments to be submitted by the Western Power Trading Forum and endorses the views expressed in them. NRG reserves the right to provide additional comments in the context of the RA enhancements stakeholder process at later opportunities as provided by the CAISO.

While NRG understands the CAISO's desire to move to adopt UCAP as a means to enhance the existing resource adequacy framework, NRG is concerned that the existing standards in California for determining when a generating unit is deemed "forced out" were developed independent of the UCAP concept and therefore do not

reflect appropriate considerations of when to deem a generating unit as forced out once UCAP is incorporated into the RA framework.

In this regard, NRG believes that the CAISO should draw upon PJM's implementation of UCAP into its markets and the manner in which it addresses outages. As an additional basis for re-examining its system of forced outage determinations under UCAP, the CAISO should consider the exceptions to long-term deadlines for outages similar to the treatment for significant transmission facilities under the CAISO's existing tariff.

The CAISO's rules in Section 3.1 of its Business Practice Manual Outage Requirements currently define forced outages as, "Forced Outage - An Outage for which sufficient notice cannot be given to allow the Outage to be factored into the Day-Ahead Market or RTM bidding processes". In implementing this provision, the CAISO essentially takes the position that if outages are not submitted earlier than eight days prior to start of the outage, then the outage is considered forced. Specifically, the BPM provides the following detail:

- *Planned:*
 - o *Long-term deadline (meets deadlines for scheduling long-term which include annual maintenance plan submitted by participants to the ISO by October 15th of the prior year and submitting outage ticket by first day of the month one full calendar month prior).*
 - o *Short-term deadline (more than 8 days prior to the planned outage start date will also be classified as ISO Planned outages).*
- *Unplanned - submitted less than or equal to 8 days prior to the planned outage start date will be classified as ISO Forced outages.*

NRG contends that these standards are too rigid under a system that includes UCAP.

Guidance from PJM's Treatment of Forced Outages

In PJM, the eFORd calculation does not derate a unit's capacity factor in future capacity auctions for Forecasted Planned/Planned or Maintenance Outages. For these types of outages, PJM has the authority to reject them. While a maintenance outage could be requested closer to the operating day than 30 days prior, if PJM rejects such a maintenance outage request, the generator owner could either delay the outage or take an unapproved outage. There are restrictions on the process that ensure reliability is not compromised for allowing these outages.

By introducing a similar forced outage determination into the CAISO's operating framework, the CAISO could adjust its outage management system to consider maintenance outage requests on shortened notice and allow them to occur where they do not impact reliability. If accepted, then an outage would not be included in eFORd calculation for UCAP. If rejected, then an outage would be included in eFORd if the generator owner still elected to take it as Forced Outage. Reasonable limitations on

such shortened notice requests could be adopted. For example, the CAISO need not consider outage requests submitted after midnight on the day of the day-ahead market.

Real world operating experience supports this kind of flexibility. During periods of peak load, a generator owner may have some flexibility to scheduled a maintenance outage necessary to the reliability of the unit. The generator owner could perform the maintenance work on two days notice, for example, or it could wait the currently-mandated eight days to schedule the outage. Now suppose a major weather event is expected to occur on the eighth day, a period when having all resources available would be desirable. Allowing the generator owner to schedule the maintenance outage on two days notice may not impact reliability on the day of the outage, and it would increase reliability by maximizing the chances that such unit is available during the extreme weather event.

Drawing Parallels from the Treatment of Transmission Facilities

The CAISO provides transmission facilities similar exceptions to the forced outage classification that NRG is seeking for generating resources. For example, BPM OM Section 9, provides exceptions to the forced outage classification in the following circumstances:

- 1. Outages that are less than 24 hours in duration.*
- 2. Outages previously approved by ISO that are moved within the same calendar month either by the ISO or by request of the PTO.*
- 3. ISO approved allowable transmission maintenance activities during restricted maintenance operations as covered in ISO operating procedure E-509A.*
- 4. The most current list of specific Significant Transmission Equipment will be covered in ISO Operating Procedure 3210.*

The BPM further notes, “The ISO emphasizes that the 30-day rule is not intended to prevent needed maintenance on significant facilities in circumstances where the 30-day rule cannot be followed without adversely affecting the grid reliability.”

As described above in connection with the theoretical weather event, introducing flexibility into the forced outage determination will allow the CAISO to act practically and remove the incentive by generators to ignore circumstances when entering into necessary maintenance outages.

Accordingly, as part of its RA Enhancements and to the extent it incorporates UCAP into the RA framework, the CAISO should also draw lessons from PJM and its own transmission facilities outage rules to introduce similar flexibility into its treatment of generator outages.