



## Stakeholder Comments Template

### Resource Adequacy Enhancements

This template has been created for submission of stakeholder comments on the Resource Adequacy Enhancements fifth revised straw proposal that was published on July 7, 2020. 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](mailto:initiativecomments@caiso.com). Submissions are requested by close of business on **July 30, 2020**.

Submitted by	Organization	Date Submitted
Sean P. Beatty sean.beatty@nrg.com 925.451.4433	NRG Energy, Inc.	August 7, 2020

**Please provide your organization's overall position on the RA Enhancements fifth revised straw proposal:**

- Support
- Support w/ caveats
- Oppose
- Oppose w/ caveats
- No position

#### Additional comments

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

*NRG Response: As it did with its June 24, 2020 comments, NRG has moved the "Additional comments" section of the template from the bottom to the top of this document to emphasize its overarching concerns with implementing UCAP in the manner proposed in the various straw proposals.*

*In principle, NRG is not opposed to a UCAP construct. In fact, UCAP has been successfully deployed in other parts of the country. However, the primary feature that exists where successful deployment has occurred is the existence of a centralized capacity market. California does not have such a market structure. Without that*

*market structure, the variability that is an inherent feature of UCAP makes it difficult to introduce UCAP in California.*

*In the absence of a well organized centralized capacity market, generators, including NRG, have long advocated for a multi-year forward capacity compliance regime to provide generators adequate longer-term revenue certainty to make informed operational decisions about their maintenance practices. Recent steps in that direction have helped generators and reliability generally. However, the uncertainty of UCAP makes contracting multi-year ahead inefficient. With individual unit UCAP values subject to likely variation on a year-to-year basis, the implementation of UCAP will force generators to add incremental pricing to capacity to account for uncertainty in the out-years of a capacity contract. In other markets, a liquid, multi-stage, centralized capacity auction can alleviate such uncertainty, allowing efficient outcomes; in California, the inefficient bilateral market cannot provide such comfort.*

*As discussed in its April 14, 2020 comments in this stakeholder proceeding, NRG remains gravely concerned that the introduction of UCAP will create a parallel capacity compliance framework to that which is already deployed by the CPUC. The potential for contracting around and complying with both UCAP and NQC standards is unwieldy, inefficient and should be avoided. For context, the CPUC recently adopted the Central Procurement Entity framework featuring a single buyer, a construct that promises to undermine what was becoming a more vibrant bilateral market for Local RA. At the same time, the CAISO is also proposing to adapt the UCAP framework for application in the Local RA compliance process. In such a future environment, it is not difficult to imagine a scenario in which a generator enters into a multi-year RA contract, the UCAP for the resource is lowered, and the owner of the resource will not have adequate commercial options to buy back the capacity needed to cover the shortfall. This concern is exacerbated by the fact that the CPUC's administration of NQC already introduces year-to-year uncertainty for certain renewable resources, largely because the CPUC is basing NQC on Effective Load Carrying Capability, which is changing due to methodology tweaks and updated data. Until there is general agreement between the CAISO and the CPUC about how to incorporate UCAP into both their resource adequacy frameworks, the CAISO should delay implementing UCAP into its own resource adequacy framework (from NRG's perspective, the creation of a centralized capacity market would address most of the concerns with UCAP raised in these comments).*

*That said, NRG has been an advocate for creating certainty around the scheduling of planned outages for generators. Generators have no way to recover the costs they incur when planned outages are canceled and contractors must be rescheduled. The CAISO's most recent proposal does improve certainty around planned outages, and NRG supports those efforts.*

**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 4.1. Please explain your rationale and include examples if applicable.

- a. Please provide your organization's feedback on the Determining System RA Requirements topic as described in section 4.1.1. Please explain your rationale and include examples if applicable.

*NRG Response: Introducing UCAP as a second and parallel system to the NQC program administered by the CPUC is burdensome for generators from a compliance perspective and introduces difficulties for parties to contract around the RA capacity product. The CAISO's goal for RA enhancements should be to make the regulation and transacting of RA capacity less complicated, not more complicated. NRG is concerned that introducing UCAP without coordination with the CPUC will make contracting and complying with RA requirements more complicated.*

- b. Please provide your organization's feedback on the Unforced Capacity Evaluations topic as described in section 4.1.2. Please explain your rationale and include examples if applicable.

*NRG Response: NRG does not support the proposal to evaluate the future availability and reliability of specific resources based on their historical availability during the top 20% of tightest supply hours. NRG contends that this approach is arbitrary, largely because there is no evidence suggesting that prior availability during this narrow range of hours is a predictor of when a resource will be available in the future. Implementing this arbitrary approach will result in the CAISO picking winners and losers in the capacity market and arguably leads to discriminatory treatment of similar generating resources. Instead, NRG recommends that the CAISO rely on an annual analysis similar to that reflected in the EFORD methodology articulated in NERC guidelines.*

*NRG is also concerned that insufficient attention has been given to determining events that will not count against a resource's availability, i.e., outage definitions. Generator availability should not be punished for events that are beyond its control which may impact its ability to deliver electricity. For example, is it fair to exempt electrical transmission outages from a generator's availability calculation, but reduce a generator's availability calculation when a gas transmission line is taken out of service, as occurs under the existing RAIM structure? (NRG contends it is not just and reasonable to treat electric transmission outages differently than gas transmission outages. Obviously, generators must adhere to both of the applicable gas and electric tariffs.) Similarly, the CAISO has not adequately explained why a natural disaster (e.g., a fire caused by an earthquake) should not count against a generator's*

*availability, but a “wildfire” should count against a generator’s availability. Even with the perceived proliferation of wildfires (it is clear that the encroachment of population into wildfire-sensitive areas has certainly increased the economic, and human, costs of such fires), the likelihood of a wildfire consistently recurring in one geographic location is still miniscule. If UCAP is to be considered a reliable indicator, then the CAISO should treat wildfires no differently from any other natural disaster.*

*Regarding the transition to UCAP, although NRG has expressed its preference for Option 2, NRG still remains concerned that a “clean” transition does not adequately account for the dislocation such a transition will cause for long-term contracts executed before there was any discussion regarding the introduction of UCAP.*

- i. Please provide your organization’s feedback on whether the ISO should establish a dead band around a resource’s UCAP value given the associated benefits and burdens, as described in section 4.1.2. Please explain your rationale and include examples if applicable.
- ii. Please provide your organization’s feedback on Option 1 and Option 2 for calculating UCAP for new resources without three full years of operating history, as described in section 4.1.2. Please explain your rationale and include examples if applicable.
- iii. Please provide your organization’s feedback on the ISO’s approach to use the historical availability during the RAIM hours for years prior to 2019 and the historical availability during the 20% tightest supply cushion hours in years 2019 and beyond for hydro resources, as described in section 4.1.2. Please explain whether this approach is necessary or preferred to the standard UCAP calculation to reflect hydro availability.  
*NRG Response: See discussion in 1.b.*
- iv. Please provide your organization’s feedback on the modifications for UCAP counting rules for storage resources as described in section 4.1.2. Please explain your rationale and include examples if applicable.

- c. Please provide your organization's feedback on the System RA Showing and Sufficiency Testing topic as described in section 4.1.3. Please explain your rationale and include examples if applicable.

*NRG Response: NRG does not support the implementation of a new UCAP deficiency tool to penalize LSE's for failing to procure the required amount of capacity. Instead, NRG suggests that existing mechanisms (e.g., Capacity Procurement Mechanism) are sufficient to ensure adequate capacity is available and which have financial consequences for LSEs that do not adequately procure. Instead of creating a new penalty tool, the CAISO should use its existing mechanisms (and adjust them as necessary to reflect market realities), which will provide adequate incentives to LSEs to procure the required amount of capacity.*

- d. Please provide your organization's feedback on the Must Offer Obligation and Bid Insertion Modifications topic as described in section 4.1.4. Please explain your rationale and include examples if applicable.

*NRG Response: NRG contends that all RA resources should face the same obligations to the extent feasible. NRG notes that imports do not currently have a must-offer obligation in the real-time market. Accordingly, NRG supports the elimination of the real-time must-offer obligation for all RA to make the obligations consistent for all resources. A firm point-to-point transmission requirement would make CAISO's rules for importing capacity consistent with other RTO's throughout the country (e.g., MISO, PJM, etc.) and would help to ensure the veracity of the RA Capacity sold into the system.*

- i. Please provide your organization's feedback on generally defining variations to the must offer obligations and bid insertion into the day-ahead market based on resources type, as described in Table 12 in section 4.1.4. Please explain your rationale and include examples if applicable.

- e. Please provide your organization's feedback on the Planned Outage Process Enhancements topic as described in section 4.1.5. Please explain your rationale and include examples if applicable.

*NRG Response: NRG prefers Option 1 over the existing framework for planned outage processes. To establish the reserve margin under Option 1, NRG recommends providing as much weight as reasonable toward allowing the CAISO to give the utmost priority to maintain planned outages as scheduled.*

*While NRG supports Option 1 over the existing framework, NRG is still concerned that the latest proposal does not adequately consider all the potential variables involved in the Option 1 process. Additional explanation would assist with the evaluation of the proposal. For example, if the CAISO could provide details on the logic the CAISO plans to use in the reliability assessment when needed, NRG would be better able to evaluate whether the likelihood that outages within the planning reserve margin would be frequently or infrequently rejected based on this assessment. Further, NRG would like to understand the role of non-Resource Adequacy resources in this assessment. Specifically, if a generator owner submits a planned outage for a date that there is sufficient supply to meet the CAISO's system needs based on its reliability assessment that is coming from both resource adequacy and non-resource adequacy resources, but the planned outage reserve margin is exhausted, would the CAISO reject the outage even though there is sufficient capacity from the fleet as a whole?*

*Additionally, NRG asks that the CAISO expand its data analysis shown in Figure 6 of the Fifth Revised Straw Proposal titled, "Approved Planned Outages (Both with and without Substitution)," to look back at least three years and to provide the underlying data in an attachment to the next paper so that stakeholders can analyze this data. NRG believes this would be prudent, because on the stakeholder call, the CAISO requested stakeholder feedback on what level of planning reserve margin might be appropriate to balance both the need to have sufficient margin to cover reasonable expectations of outages while being sensitive that if the margin were set too high, this could overly increase costs to load. To provide practical feedback on what type of margin could be successful, NRG believes stakeholders will need to review the data across at least three years and evaluate the range of potential outages during the months the margin would be in effect.*

- f. Please provide your organization's feedback on the RA Import Requirements topic as described in section 4.1.6. Please explain your rationale and include examples if applicable.
  - i. Please provide your organization's feedback on the issue of whether firm transmission service on the last line of interest to the CAISO BAA will ensure reliability and is feasible, or whether the CAISO should require point-to-point, source to sink firm transmission service as originally proposed, as described in section 4.1.6 page 68. Please explain your rationale and include examples if applicable.

*NRG Response: NRG supports the CAISO's preferred solution and does not support adopting the alternative solution, which would allow for*

*firm transmission service only on the last line of interest to the CAISO BAA. NRG encourages the CAISO to adopt a requirement for imports to possess firm, point-to-point, source to sink transmission on all lines of interest to the CAISO BAA. NRG's position is based largely on the principle that all RA resources should share similar obligations to the extent feasible.*

- ii. Please provide your organization's feedback on other BAA's systems bordering the CAISO and whether such a "last line of interest" proposal is feasible and would effectively support RA import capacity dependability and deliverability, as described in section 4.1.6 page 68. Please explain your rationale and include examples if applicable.
  
- iii. Please provide your organization's feedback on whether a non-compliance penalty or other enforcement actions are necessary if delivery is not made under firm transmission service, as described in section 4.1.6 page 69. Please explain your rationale and include examples if applicable.
  
- iv. Please provide your organization's feedback on how to convey the last line of interest, as described in section 4.1.6 page 69. Please explain your rationale and include examples if applicable.
  
- v. Please provide your organization's feedback on the options proposed in section 4.1.6 and any other potential mechanisms that would best ensure RA imports are dependable and deliverable if the CAISO were to adopt, as an alternative, a "last line of interest" firm transmission service requirement. Please explain your rationale and include examples if applicable.

- g. Please provide your organization's feedback on the Operationalizing Storage Resources topic as described in section 4.1.7. Please explain your rationale and include examples if applicable.

*NRG Response: NRG does not currently support the proposal to enforce in the real-time market a minimum state of charge constraint where the storage asset cannot be dispatched in a manner that the state of charge drops below the minimum requirement. NRG is concerned that this market feature will limit the storage asset's ability to respond economically based on current system conditions to be dispatched in a manner to meet the CAISO's reliability needs. In practice, this will constrain the storage asset from being able to be dispatched if it drops below its state of charge requirement for a given interval where its capacity is needed, even if it would not be dispatched for the following hours and would have sufficient time to charge its battery and return to the needed state of charge.*

## 2. Flexible Resource Adequacy

Please provide your organization's feedback on the Flexible Resource Adequacy topic as described in section 4.2. Please explain your rationale and include examples if applicable.

## 3. Local Resource Adequacy

Please provide your organization's feedback on the Local Resource Adequacy topic as described in section 4.3. Please explain your rationale and include examples if applicable.

- a. Please provide your organization's feedback on the UCAP in Local RA Studies topic as described in section 4.3.1. Please explain your rationale and include examples if applicable.

*NRG Response: As discussed above, NRG is concerned that applying UCAP to Local RA while the CPUC continues to employ the NQC framework with Local RA will prove overly complicated and, given the CPUC's recent move to a Central Procurement Entity, will force generators to incur risk in contracting that is difficult to measure, leading to inefficient outcomes.*

## 4. Backstop Capacity Procurement Provisions

Please provide your organization's feedback on the Backstop Capacity Procurement Provisions topic as described in section 4.4. Please explain your rationale and include examples if applicable.



- a. Please provide your organization's feedback on the Capacity Procurement Mechanism Modifications topic as described in section 4.4.2. Please explain your rationale and include examples if applicable.
  
- b. Please provide your organization's feedback on the Making UCAP Designations topic as described in section 4.4.3. Please explain your rationale and include examples if applicable.
  
- c. Please provide your organization's feedback on the Reliability Must-Run Modifications topic as described in section 4.4.4. Please explain your rationale and include examples if applicable.
  - i. Please provide your organization's feedback on an appropriate availability incentive design to apply to RMR resources after the removal of the RAIM tool, as described in section 4.4.4. Please explain your rationale and include examples if applicable.
  
- d. Please provide your organization's feedback on the UCAP Deficiency Tool topic as described in section 4.4.5. Please explain your rationale and include examples if applicable.

*NRG Response: NRG understands that the CAISO is concerned that LSEs may not procure sufficient RA and hopes to introduce another mechanism to disincentivize this "leaning"; however, NRG believes the existing Capacity Procurement Mechanism could be sufficient to provide that signal. If the CAISO is observing LSEs repeatedly showing a deficiency, NRG's expectation is that this means the Capacity Procurement Mechanism's soft offer cap is less than the prevailing bilateral market prices at which the RA contracts could have been procured. NRG recommends that the CAISO reconsider its position not to increase the CPM soft offer cap. If the CAISO increases the soft offer cap to a level that is higher than the prevailing bilateral market prices, this will provide the appropriate economic signal to disincentivize leaning.*

5. Please provide your organization's feedback on the implementation plan, including the proposed phases, the order these policies must roll out, and the feasibility of the proposed implementation schedule, as described in section 5. Please explain your rationale and include examples if applicable.
  
6. Please provide your organization's feedback on the proposed decisional classification for this initiative as described in section 6. Please explain your rationale and include examples if applicable.

**Additional comments**

Please offer any other feedback your organization would like to provide on the Resource Adequacy Enhancements fifth revised straw proposal.