California ISO

Stakeholder Comments Template

Resource Adequacy Revised Straw Proposal

This template has been created for submission of stakeholder comments on the *Resource Adequacy Revised Straw Proposal* that was published on July 1, 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/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 July 24.

Submitted by	Organization	Date Submitted
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Please provide your organization's comments on the following issues and questions. Please explain your rationale and include examples if applicable.

1. System Resource Adequacy

- Please provide your organization's feedback on the *Determining System RA Requirements* as described in *Section 5.1.1*.

Changing to the use of Unforced Capacity (UCAP) to meet a load target for RA would require approval by the CPUC. CLECA does not support a situation where the CPUC uses the existing RA process while the CAISO uses a different methodology; having two sets of RA compliance rules is likely to lead to confusion over compliance and could lead to increased use of backstop procurement. Therefore, the CAISO should continue to develop the UCAP proposal for consideration in the CPUC RA process.

- Please provide your organization's feedback on the *Forced Outage Rates and RA Capacity Counting* as described in *Section 5.1.2*.

The use of the planning reserve margin in the CPUC RA process does not distinguish the capacity value among resources based upon on their degree of forced outages (see discussion below of wind and solar). Therefore, CLECA does see an advantage to using the UCAP method. It would provide an incentive for load serving entities (LSEs) to procure more reliable units to meet their load targets.

In contrast to other resources, for wind and solar their historical forced outage rates may already be embedded into the load shapes utilized for the CPUC calculations of their effective load carrying capability (ELCC). Therefore, for wind and solar the net qualifying capacity may already have incorporated a forced outage rate.

- Please provide your organization's feedback on the *System RA Showings and Sufficiency Testing* as described in *Section 5.1.3*.

The straw proposal states "LSEs may not procure the "good part" of a resource (i.e., LSEs cannot simply procure only the unforced capacity part of a resource and any amount shown for RA will be assessed considering the resource's forced outage rate)."[1] We note that a contract structured around the concept of a first right to an amount of capacity may be possible. For example, a contract may establish rights to the first 50 MW of a 100 MW unit. Therefore, if there is a partial outage of 40 MW, then the contract holder is entitled to 50 MW; if the outage is 60 MW, then the holder could be entitled to 40 MW. This would be different from a contract that entitles the holder to a percentage of available output.

[1] Straw Proposal at 23.

CLECA recognizes this would complicate the RA accounting process, but if this type of arrangement does occur with some frequency, the CAISO should be careful about restricting contracting arrangements.

- Please provide your organization's feedback on the *Must Offer Obligation and Bid Insertion Modifications* as described in *Section 5.1.4*.

In the straw proposal, the CAISO seeks bid-insertion for a reliability demand response resource (RDRR); this would only occur after the CAISO issues a Warning or Stage Alert notice, which is necessary to dispatch RDRR. CLECA assumes this means that if an LSE fails to submit a RDRR bid as part of the must offer obligation or fails to submit an outage notification, then the CAISO will insert a RDRR bid on its behalf. The CAISO is continuing to provide an exemption to proxy demand resources because of their variable output and use limitations. Some of these conditions may apply to RDRR resources, so CLECA does not support the CAISO's bid insertion for RDRR and recommends that it continue to be exempt in order to treat all demand response resources on the same basis.

Should the CAISO move forward with a bid insertion for RDRR, the straw proposal mentions the bid price range for RDRR is 95-100% of the bid cap. As commented in the price performance initiative, CLECA is concerned that if 95% of the bid cap is utilized as the bid, then RDRR, a reliability resource, could be dispatched before economic resources. These other resources could be storage or imports that may bid at the cap and do not have bid mitigation. To mitigate this concern, if bids for RDRR are inserted, they should be inserted at the bid cap.

- Please provide your organization's feedback on the *Planned Outage Process Enhancements* as described in *Section 5.1.5.*

CLECA does not have any comments on this section at this time, but may comment on future proposals.

- Please provide your organization's feedback on the *RA Import Provisions* as described as described in *Section 5.1.6*.

CLECA appreciates the additional investigation the CAISO has done regarding import RA. The result has shown that concerns about non-delivery are not as significant as prior analysis suggested. However, having confidence in import RA is still important as imports contribute to reliability. The data supporting the 10% undelivered import RA was the average of the worst hour in each month. It is possible this could have been during off-peak periods when the seller substituted cheaper in-state power. We recommend that the CAISO perform another calculation looking at the performance of import RA during peak conditions, such as the availability assessment hours of 4-9 pm.

The straw proposal recommendation that import RA specify the source of the balancing authority seems a reasonable compromise to allow efficient substitution while still providing some accountability regarding the resource. Therefore, the proposal to identify the source of the balancing authority merits further development for stakeholder review. CLECA supports the proposal to include the provisions currently adopted by the CPUC for RA regarding the deliverability of import RA, such as not being curtailable for economic reasons, etc. CLECA also supports the removal of the recommendation to have a real-time bidding requirement regardless of the outcome of the day-ahead market as the CAISO has explained it could tie-up transmission which could be used for more economic transactions.

- Please provide your organization's feedback on the *Maximum Import Capability Provisions* as described in *Section 5.1.7.*

The straw proposal mentions developing an auction mechanism as part of the process to allocate available maximum import capability (MIC) to

resolve the concern that some LSEs may be hoarding capacity which then goes unused. If transmission is being under-utilized, then it can restrict access to lower cost power. If that happens, then customers may be harmed. Alternatively, as some stakeholders have explained, an LSE may want to hold an amount of MIC to allow substitution if another resource is on forced outage. In this case, holding MIC that is unutilized is not necessarily unjustified hoarding of transmission.

An auction approach may be appropriate to balance the need to allow parties to hold MIC, but not hold too much. The CAISO should continue to develop its proposal for stakeholder review. However, the CAISO should develop a clear set of principles for auction design. CLECA offers the following initial suggestions for principles:

- The auction mechanism should be funded by the bidders and there should not be any uplift charges to load
- Since load already pays for transmission costs, the auction revenues could be a credited to the transmission revenue requirement. We see no reason to allocate those revenues to LSEs on a load ratio share basis.[2]
- Opportunistic behavior by bidders should be avoided. A mechanism should be considered to prevent a bidder that has an interest in reducing imports from purchasing the MIC and then withholding the capacity.

The last principle is important, because without protection against opportunistic behavior it is not clear the auction mechanism would resolve concerns about hoarding transmission arising in the current allocation process.

[2] If the auction revenues were allocated to LSE, then the mechanism has the effect of the LSE paying itself for the right to use transmission.

In summary, please provide your organization's position on System Resource Adequacy (Section 5.1). (Please indicate Support, Support with caveats, Oppose, or Oppose with caveats)

2. Flexible Resource Adequacy

- Please provide your organization's feedback on the *Identifying Flexible Capacity Needs and Requirements* as described in *Section 5.2.1*.

  CLECA does not have any comments on this section at this time but may comment on future proposals.

- Please provide your organization's feedback on the *Identifying Flexible RA Requirements* as described in *Section 5.2.2*.

  CLECA does not have any comments on this section at this time but may comment on future proposals.

- Please provide your organization's feedback on the *Setting Flex RA Requirements* as described in *Section 5.2.3*.

  In setting the flexibility requirement, the CAISO plans to reconstruct the net load for both the economic curtailment and manual dispatch curtailment. The logic for this reconstruction is that the CAISO plans to count solar output's ability for economic curtailment as being flexible capacity. However, if there is curtailment by manual dispatch, this would suggest that there was insufficient solar output that was willing to curtail economically. Therefore, not all solar output should count as flexible capacity because some may not be willing to curtail. CLECA is still concerned that the flexible capacity requirement may be set too high, and that the resulting cost would exceed the value of the curtailed renewable output. If this is the case, then it would be cheaper to curtail the renewable resources during periods of very high ramping requirements rather than build new flexible capacity.

- Please provide your organization's feedback on the *Establishing Flexible RA Counting Rules: Effective Flexible Capacity Values and Eligibility* as described in *Section 5.2.4*.

  CLECA does not have any comments on this section at this time but may comment on future proposals.

- Please provide your organization's feedback on the *Flexible RA Allocations, Showings, and Sufficiency Tests* as described in *Section 5.2.5*.

  CLECA does not have any comments on this section at this time but may comment on future proposals.

- Please provide your organization's feedback on the *Flexible RA Must Offer Obligation Modifications* as described in *Section 5.2.6*.

  CLECA does not have any comments on this section at this time but may comment on future proposals.

In summary, please provide your organization's position on Flexible Resource Adequacy (Section 5.2). (Please indicate Support, Support with caveats, Oppose, or Oppose with caveats)

3. Local Resource Adequacy

- Please provide your organization's feedback on the *Local Capacity Assessments with Availability Limited Resources* as described in *Section 5.3.1*.

  CLECA does not have any comments on this section at this time but may comment on future proposals.

- Please provide your organization's feedback on the *Meeting Local Capacity Needs with Slow Demand Response* as described in *Section 5.3.2*.

CLECA continues to disagree with the CAISO's assertion that slow response Reliability Demand Response Resources (RDRR) cannot provide any local reliability support. If 80% of a 30-min 100 MW RDRR can respond in 20 minutes, then 80 MW should count toward meeting local reliability value. This sound principle has been adopted by the CPUC and repeatedly confirmed for purposes of setting local RA requirements. After first rejecting the Calpine proposal that a 20-minute response time requirement be imposed on demand response resources in 2015,[3] for the past four years (2016, 2017, 2018 and 2019), the CPUC has reiterated its reasoning. In 2016, the CPUC stated:

> We plan, instead [of imposing a 20-minute response time requirement], to undertake significant effort, in collaboration with CAISO, DR providers, and other parties, to develop an implementation of this new policy that is consistent with our continued, strong support of DR as a preferred resource. … As a threshold matter, we agree with the CAISO that local RA resources should be useful to the CAISO in operating the grid reliably, in accordance with applicable standards. … On the other hand, we agree with SCE that the portion of a resource that reliably responds within the required period (even if less than 100%) should be counted for local RA. … Finally, we agree with parties who argue the details of these matters could unnecessarily diminish DR. … Further, we wish to avoid instituting unduly narrow or discriminatory restraints on DR through the RA program; instead we want to allow maximum flexibility to DR providers.[4]

The CPUC concluded that the CAISO stakeholder process should include five tasks, with the fifth task being:

> ***Identify a method to calculate the portion of a slower responding DR program that can reliably respond within the required period, and therefore be counted for Local RA***.[5]

The CPUC ended its discussion of the issue in 2016 by stating:

> We encourage the parties to work quickly, but without sacrificing quality or due process. If more time is needed to carefully implement these requirements, that time should be taken.[6]

[3] CPUC D. 15-06-063, at 35 (recommending re-evaluation in the future).
[4] CPUC D.16-06-045, at 34-36.
[5] CPUC D.16-06-045, at 37 (emphasis added).
[6] CPUC D.16-06-045, at 38.

In 2017, the CPUC stated:

> SCE argues that if a 20-minute requirement is adopted, the portion of a slow response resource that can reliably respond within 20 minutes should receive local RA credit. (Id.) A number of parties support this proposal, including PG&E (PG&E January 13, 2017 Comments at 12), California Large Energy Consumers Association (CLECA) (CLECA January 13, 2017 Comments at 17) and NRG (NRG January 13, 2017 Comments at 15).
>
> While we are not adopting a 20-minute requirement here, the idea underlying SCE's proposal is consistent with this Commission's determination in D.16-06-045 that: "[T]he portion of a resource that reliably responds within the required period (even if less than 100%) should be counted for local RA." (D.16-06-045 at 36.) We reiterate that determination here, but note that SCE (and other parties) acknowledge that further work in this area (coordinated with the CAISO) is necessary.[7]

In 2018, the CPUC referenced its prior decisions and noted (again) the need for further work by the CAISO and stakeholders.[8] Most recently, in 2019, the CPUC explained, in connection with local RA requirements, that "[t]he CAISO clarifies that it is not proposing specific or new requirements."[9] The Commission stated:

> The Commission plans to work closely with the CAISO to ensure that availability needs are met in all local reliability areas.[10]

CLECA submits that that work still includes the as-yet unfinished fifth task:

> ***Identify a method to calculate the portion of a slower responding DR program that can reliably respond within the required period, and therefore be counted for Local RA***.[11]

This treatment is consistent with the energy policy preference for demand response.

[7] CPUC D. 17-06-027, at 22.
[8] CPUC D. 18-06-030, at 46-48 ("Many parties suggest that further works needs to be done. We agree").
[9] CPUC D. 19-06-026, at 52.
[10] CPUC D. 19-06-026, at 52.
[11] CPUC D.16-06-045, at 37 (emphasis added).

The CAISO assumption also ignores the resource's capability. It is no different from a traditional resource with a slow ramp rate. Some changes to CPUC RA accounting rules may be required for certain RDRR resources that would need to have two RA values, one for local and another for system. The RA accounting for local and system already uses two different load targets, local and system, so there is no reason why two different capacity values cannot be developed and used in determining the respective RA compliance for local and system.

In summary, please provide your organization's position on Local Resource Adequacy (Section 5.3). (Please indicate Support, Support with caveats, Oppose, or Oppose with caveats)

CLECA continues to oppose the CAISO's blanket proposal not to count 30-minute RDRR for local RA capacity as it disregards the clear, repeated directives of the CPUC; we note that California law vests jurisdiction over setting RA requirements with the CPUC, while giving the CAISO a consulting role.[12]

4. Backstop Capacity Procurement Provisions

- Please provide your organization's feedback on the *Capacity Procurement Mechanism Modifications* as described in *Section 5.4.1*.

CLECA does not have any comments on this section at this time but may comment on future proposals.

- Please provide your organization's feedback on the *Reliability Must-Run Modifications* as described in *Section 5.4.2*.

[12] *P.U.Code § 380 (a) "**The commission**, in consultation with the Independent System Operator, **shall establish resource adequacy requirements for all load-serving entities**." (emphasis added).*

CLECA does not have any comments on this section at this time but may comment on future proposals.

- Please provide your organization's feedback on the *UCAP Deficiency Tool* as described in *Section 5.4.3*.

  CLECA does not have any comments on this section at this time but may comment on future proposals.

In summary, please provide your organization's position on Backstop Capacity Procurement Provisions (Section 5.4). (Please indicate Support, Support with caveats, Oppose, or Oppose with caveats)

Additional comments

Please offer any other feedback your organization would like to provide on the Resource Adequacy Revised Straw Proposal.

In the Energy Storage and Distributed Energy Resources 4 stakeholder initiative (ESDER4), the CAISO proposed to use effective load carrying capability (ELCC) to calculate the net qualifying capacity (NQC) of DR resources. As CLECA recommended in its ESDER 4 comments, the NQC is related to RA. We believe that the issue belongs in the RA Enhancements initiative; therefore, as CLECA mentioned in its prior ESDER 4 comments, we are providing a more detailed response in this initiative.

CLECA understands CAISO's concern about having sufficient capacity during the off-peak as well during the on-peak to meet grid reliability. In the ESDER 4 presentation, the CAISO cites California Public Utilities Code Section 380 (c):

> Each load-serving entity shall maintain physical generating capacity and electrical demand response adequate to meet its load requirements, including, but not limited to, peak demand and planning and operating reserves. The generating capacity or electrical demand response shall be

deliverable to locations and at times as may be necessary to maintain electric service system reliability and local area reliability.

The CAISO is correct that these requirements are not limited to peak demand. However, CLECA does not believe the use of the ELCC approach in the RA proceeding is required by Section 380(c). The ELCC methodology is one method to estimate a resource's ability to contribute to reliability and it results in examining only those hours with possible expected shortages as indicated through a non-zero Loss of Load Expectation; other hours are excluded. The RA program also looks at evaluating DR resources' reliability contribution during a set of peak hours, currently defined as 4 – 9pm. If the CAISO does not believe those are the appropriate peak hours, then the CAISO can propose changing the peak hours in the CPUC RA proceeding.

The CAISO has not provided adequate information as to why ELCC would be superior to the load impact protocols for determining DR's contribution to meeting load during a set of hours with concerns about reliability. The CAISO cites the use of the ELCC methodology for wind and solar which is mandated by state law, but that does not mean it is a superior approach for DR. The methodology for calculating ELCC for wind and solar has been a subject of controversy in the CPUC RA proceeding and the most recent CPUC decision has required workshops to review the methodology. [13] Thus, it cannot even be claimed that the ELCC methodology for wind and solar has been finalized.

DR programs are designed to focus on alleviating peak load in order to reduce the need for purchasing costly and infrequently used peaking generation resources. However, that does not mean that DR cannot reduce demand during non-peak hours. The performance is based upon the underlying load and customer mix that the program is designed to shed. This has been reflected in the revision of the load impact protocols (LIP) to examine DR's capability during the hours from 4 – 9 pm instead of the previous noon – 6 pm period.[14] This reflects a

[13] CPUC D.19-06-016 at 44-49.

[14] In the utilities recent rate setting applications, the studies have resulted in the highest LOLE hours are expected to occur between 4 – 9pm during all months, and as a result they have changed their on-peak

growing concern that while there may be ample resources to meet a 3 pm peak, there is increased likelihood of shortage during hours later in the evening when solar output declines. However, that does not mean a DR program cannot respond outside the 4 – 9 pm period. For example, the Base Interruptible Program (BIP) can offer load reductions during both night and daytime. While the LIP reports the 4 – 9 pm period, the methodology could be adapted to show other hours, such as described in the Supply Side Working Group Report. This could provide the capability of DR that CAISO seeks for non-peak hours.

It not clear that the use of an ELCC study will achieve the CAISO's goal of knowing the capability of DR during non-peak hours. The ELCC study first requires a loss of load expectation (LOLE) study to determine the periods of time when there may be insufficient available capacity to meet forecasted load. Hours of LOLE often occur during the expected times of annual peak, but they may occur during times of the year with high load, but not the highest, in combination with reduced capacity due to unit maintenance or unit capacity reductions due to drought conditions. Therefore, LOLE may occur not just in August or September; it is spread across the summer months of June through September and it could include the shoulder months of May and October. Hours with zero LOLE will therefore also have zero ELCC for that hour, but that does not mean resources provide zero energy at that time.[15] Therefore, if the CAISO wants to know the expected deliverability of capacity by a resource or by load shed DR during non-peak periods, an ELCC study will not be useful as it will return a value of zero because there is likely to be no LOLE. However, the load impact protocols can be adapted to estimate DR potential during non-peak hours.

Many DR programs do have the ability to provide load shed during non-peak conditions. For example, industrial customers with continuous operation can shed load during all hours. Notably, BIP was used to deliver reliability demand

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pricing periods to be 4 – 9 pm year-round. This results in an interesting outcome of the pricing on-peak periods are aligned with the RA assessment hours.

[15] It also does not mean that there may not be a need for the resources, as contingencies do not always occur during periods of non-zero LOLE.

response during the last Stage 1 Alert on May 3, 2017, at 17:45.[16] The load for HE18 was 35,694 MW which is relatively minor compared the annual peak for 2017 of 50,116 MW, or even a more moderate annual peak of ~46,500 MW which has occurred over the last several years.[17] If the CAISO wants to know what a DR, or other resources, can provide during the non-peak conditions, then the CAISO will need to look at another approach to estimate its response capability, not ELCC.

[16] https://www.caiso.com/Documents/Agenda-Presentation-MarketPerformance-PlanningForum-May16_2017.pdf
[17] CAISO OASIS and https://www.caiso.com/Documents/CaliforniaISOPeakLoadHistory.pdf