



Stakeholder Comments Template

Resource Adequacy Enhancements

Submitted by	Organization	Date Submitted
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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

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.

In this Fifth Revised Straw Proposal of the Resource Adequacy (RA) Enhancements initiative, the California Independent System Operator (CAISO) continues to develop and propose an Unforced Capacity (UCAP) system.¹

1) UCAP potentially increases ratepayer costs and the CAISO should demonstrate potential impacts to procurement

¹ The UCAP is a measurement of a resource's deliverable reliable capacity. UCAP is essentially the same as the Net Qualifying Capacity (NQC) measurement, which is currently used to measure reliable capacity, but UCAP is discounted by forced outage rate assumptions of individual resources. The CAISO seeks to implement a UCAP system to address current issues regarding its performance incentive mechanism and substitution capacity programs. UCAP would obviate the need for most, if not all of the aspects of those programs since it includes assumptions of outage rates and availability and would be coupled with other supplemental changes.

The Public Advocates Office at the California Public Utilities Commission (Cal Advocates) continues to oppose the UCAP proposal because it is likely to significantly increase ratepayer costs related to new procurement (we estimate over \$8 million per peak month²) without any evidence that it will significantly improve reliability. In previous comments, Cal Advocates expressed similar concerns regarding increased procurement costs resulting from UCAP implementation, and noted the lack of evidence demonstrating a significant reliability benefit.³ Cal Advocates emphasized that the UCAP's potential to drive up procurement costs is exacerbated by last-minute timelines of issuing monthly UCAP requirements.⁴

In responses to Cal Advocates' concerns, the CAISO noted that calculating UCAP values for every individual resource would involve a "big data lift" requiring a substantial investment in staff time.⁵ Cal Advocates acknowledges that calculating UCAP for all resources in the CAISO system will require a major outlay in staff time and computational resources if the UCAP proposal is adopted. Acknowledging these concerns during the Fifth Revised Straw Proposal Workshop on July 14, 2020, the CAISO requested a "middle ground" for a data request.⁶ Cal Advocates proposes that the CAISO calculate UCAP values for a random, statistically significant representative sample of the resources that would receive a UCAP. This calculation and the resulting data would be sufficient to robustly estimate the full effects of UCAP implementation. The use of a randomly-selected representative sample of resources would allay concerns regarding data scarcity. In addition, using example data provided by the CAISO to estimate the potential magnitude of procurement resulting from the UCAP would allow stakeholders to more accurately benchmark the costs of procurement against alternative courses of action.

Table 1 demonstrates the necessary sample sizes for each resource type based on the Master Control Area Generating Capability List for June 2020.⁷ The full sample size is the sum of all resources excluding Photovoltaic and Wind, which will use their existing Effect Load Carrying Capacity (ELCC) values under UCAP, yielding a population of 1,037 generators. Using an open-source sample size calculator and standard survey assumptions of a 95 percent confidence level and a 5 percent confidence interval, the necessary sample size would be a sample of 281 resources, or 27 percent of the population.⁸ To ensure consistent representation across resources, a randomly selected 27 percent of each technology should be analyzed.

² See pages 3 and 4 of these comments for details. Peak months are defined as May through September per Resource Adequacy Enhancements – Fifth Revised Straw Proposal, p. 19.

³ Comments of the Public Advocates Office on the Third Revised Straw Proposal, January 27, 2020, p. 4.

⁴ Comments of the Public Advocates Office on the Fourth Revised Straw Proposal, April 14, 2020, p. 2.

⁵ July 14, 2020 RA Enhancements Workshop Day 1, <https://youtu.be/XrkB2YPIsE8?t=6928>.

⁶ July 14, 2020 RA Enhancements Workshop Day 1, <https://youtu.be/XrkB2YPIsE8?t=7504>.

⁷ Data obtained from <http://oasis.caiso.com/mrioasis/logon.do>.

⁸ Calculator from <http://www.raosoft.com/samplesize.html>.

Table 1: Suggested Samples Sizes to Represent the CAISO Grid

Type of Resource	Number of Resources	Proportionally Stratified Sample
COMBINED CYCLE	64	17
COMBUSTION TURBINE	250	68
HYDRO	329	89
OTHER	146	40
PHOTOVOLTAIC	334 (excluded)	
PUMP	9	2
PUMPED STORAGE	15	4
RECIPROCATING ENGINE	57	15
STEAM	100	27
WIND	99 (excluded)	
(blank)	67	18
Grand Total	1,037	281

In lieu of this data, and to illustrate the potential scale of additional procurement that UCAP might require, Cal Advocates extrapolates using the three example UCAP calculations provided in the CAISO's Fifth Revised Straw Proposal.⁹ Table 2 reproduces each example resource's On- and Off-Peak UCAP expressed as a proportion of the resource's NQC.

Table 2: On- and Off-Peak Example UCAPs (as a Proportion of Resource NQC)¹⁰

Resource (MW NQC)	On-Peak UCAP	Off-Peak UCAP
A (250)	0.893	0.986
B (100)	0.936	0.971
C (50)	0.948	0.804

To date, the example calculations in the Fifth Revised Straw Proposal are the only empirical data analyzing UCAP impacts that the CAISO has provided. Based on this limited data set, we estimate that the UCAP could lead to a system-wide demand for incremental resource adequacy procurement of at least 2,800 MW. To estimate the incremental procurement that would be required if the UCAP were implemented, first recall that broadly derating NQC means that each LSE's system RA requirements also will be lowered to reflect their UCAP values—although it is still unclear by how much.¹¹ Resource C's UCAP value of 0.948 means that Resource C's UCAP will be 94.8 percent

⁹ Resource Adequacy Enhancements – Fifth Revised Straw Proposal, pp. 26-28.

¹⁰ Resource Adequacy Enhancements – Fifth Revised Straw Proposal, Tables 5-7.

¹¹ The CAISO stated that it will issue analysis on this topic in a supplement in August 2020 (Resource Adequacy Enhancements – Fifth Revised Straw Proposal, p. 8).

of its existing NQC, a decrease of 5.2 percent. Since Resource C has the highest UCAP in this example, we can conservatively assume that UCAP requirements for all resources also will be reduced by 5.2 percent.¹² This result implies that no additional capacity will be needed to replace the reduction in Resource C's output since, for our example, the UCAP requirement that load serving entities (LSEs) must meet is reduced in the same proportion as the reduction in Resource C's NQC. However, in this example, the system will now need to procure an additional 5.5 percent of Resource A's capacity as well as 1.2 percent of Resource B's capacity.¹³ This procurement translates to 13.8 MW and 1.2 MW, respectively, or 3.7 percent of the 400 MW NQC hypothetical system made up by the three example resources.¹⁴ Table 3 below demonstrates these step-by-step calculations for each resource in both On- and Off-Peak scenarios. Figure 1 illustrates the same, showing each resource's UCAP value (green), the assumed UCAP requirement reduction (blue), and the incremental procurement needs generated by UCAP for each resource, if any (red).

Table 3: On- and Off-Peak Example UCAPs with Deficit Calculations

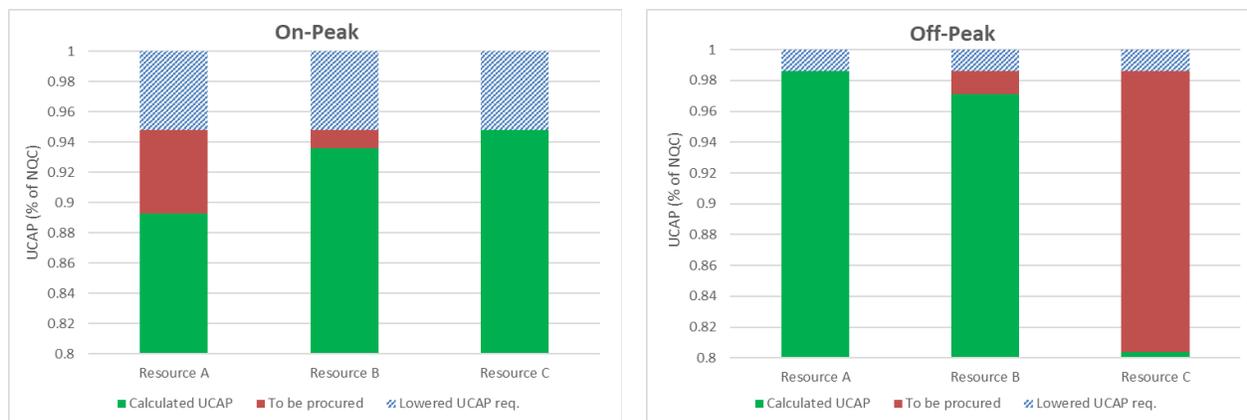
	On-Peak			Off-Peak		
	Resource A	Resource B	Resource C	Resource A	Resource B	Resource C
A	Calculated UCAP (% of NQC)					
	0.893	0.936	0.948	0.986	0.971	0.804
B	Lowered UCAP req. (% of NQC) (1 - min(A))					
	0.052	0.052	0.052	0.014	0.014	0.014
C	To be procured (% of NQC) (1 - B - A)					
	0.055	0.012	0	0	0.015	0.182
D	NQC (MW)					
	250	100	50	250	100	50
E	UCAP (MW) (A * D)					
	223.25	93.6	47.4	246.5	97.1	40.2
F	Lowered UCAP req. (MW) (B * D)					
	13	5.2	2.6	3.5	1.4	0.7
G	To be procured (MW) (C * D)					
	13.8	1.2	0	0	1.5	9.1

Figure 1: Procurement Demand Created by UCAP Reductions in NQC

¹² The On-Peak UCAPs are used in this section because procurement focuses on the months with the highest system demands, and they show a spread from 0.893 to 0.948.

¹³ For Resource A, 5.5 percent comes from $1 - 0.052 - 0.893 = 0.05$; for Resource B the same calculation is $1 - 0.052 - 0.936 = 0.012$.

¹⁴ Rounding errors affect the final amounts.



How would the hypothetical UCAP values of these example resources and UCAP requirements translate into the actual CAISO system? Using data drawn from the CAISO OASIS database, the UCAP proposal would yield an estimated 3.7 percent reduction of 76,800 MW of system-wide capacity, resulting in new procurement requirements of at least 2,800 MW.¹⁵ Using the Commission's 2018 weighted average RA capacity contract price of \$3.09/kW-month,¹⁶ this procurement gap represents a monthly added cost of \$8.65 million during peak months.¹⁷ These estimates show that the potential cost of implementing the UCAP may be significant, yet the estimates are deeply flawed by the paucity of data. Cal Advocates requests that the CAISO provide more thorough data to better illustrate the cost implications of implementing UCAP and any potential enhancements to reliability.

2) UCAP shifts costs from generators to ratepayers

¹⁵ Data is drawn from the Master Control Area Generating Capability List for June 2020 (obtained from <http://oasis.caiso.com/mrioasis/logon.do>). The sum of capacity represents the sum of Net Dependable Capacity (excluding the Photovoltaic and Wind units which will use their existing ELCC values for UCAP). The Master Control Area Generating Capability List is a dataset with both technology classes and net dependable capacity.

¹⁶ Data from the Commission's 2018 RA Report, August 2019, p. 25. https://www.cpuc.ca.gov/uploadedFiles/CPUC_Public_Website/Content/Utilities_and_Industries/Energy/Energy_Programs/Electric_Power_Procurement_and_Generation/Procurement_and_RA/RA/2018%20RA%20Report%20rev.pdf.

¹⁷ Currently, off-peak months have lower System RA requirements than on-peak, so Cal Advocates assumes that LSEs will possess enough capacity for those months, and we did not calculate hypothetical costs beyond the peak months. This nevertheless remains a very conservative estimate because it uses the average price when time constraints suggest that procurement costs will be higher. This estimate also assumes that the system UCAP requirements will be less than the current NQC-denominated amount. However, the CAISO has suggested that the observed forced outage rates used as inputs to calculate UCAP are much higher than previously estimated and therefore will require an increase in the Planning Reserve Margin (Fifth Revised Straw Proposal, p. 9). This implies that the true costs will likely be even higher.

The UCAP model as proposed would shift costs from generators to ratepayers. Instead of penalizing generators (or their scheduling coordinators) for forced outages and requiring them to bear the burden of finding substitute capacity, ratepayers would be forced to pay the guaranteed costs of additional up-front RA procurement through LSE procurement required by the proposed UCAP requirement system.¹⁸ Thus, instead of requiring existing resources to improve the quality of their performance and pay penalties when they underdeliver, the UCAP would incentivize the procurement of a high quantity of potentially mediocre-performing resources and remove the penalty system that currently applies to LSEs and generators.

3) The CAISO should estimate UCAP procurement costs and requirements

If UCAP is adopted, other stakeholders have noted that UCAP calculations will need to be done for all non-ELCC generators prior to implementation.¹⁹ If Cal Advocates and other stakeholders' objections to the UCAP model do not persuade the CAISO to adopt another approach then, at a minimum, the CAISO should provide the necessary data to allow stakeholders to calculate the additional procurement costs resulting from UCAP. This would allow stakeholders to better understand and mitigate the implications of UCAP. While five months of new summer capacity procurement could total over \$43.3 million in annual added costs to ratepayers,²⁰ the cost to the CAISO of calculating Cal Advocates' suggested sample of 281 resources should not exceed \$180,000.²¹ From a cost effectiveness perspective, the CAISO is obligated to proceed to estimate UCAP costs.

- 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.

Cal Advocates notes that CPUC Decision (D.)20-06-031 orders the CPUC's Energy Division to facilitate a working group to define assumptions for and carry out a loss of load expectation study to review the existing planning reserve margin.²² The CAISO should coordinate with the Energy Division to ensure that UCAP calculations, if adopted, are implemented as soon as possible because they will be an important input for reevaluating the planning reserve margin.

¹⁸ The RA Availability Incentive Mechanism is further described at CAISO Tariff 40.9.

¹⁹ Doug Boccignone of Flynn Resource Consultants for CalCCA, July 14, 2020 RA Enhancements Workshop Day 1, <https://youtu.be/XrkB2YPIsE8?t=7458>.

²⁰ 5 months x \$8.65 million = \$43.25 million. Note that this estimate ignores the potential for additional off-peak procurement costs.

²¹ At the July 14, 2020 RA-Enhancements Workshop, CAISO staff estimated that it took them three days to analyze the three example UCAP calculations. This estimate assumes eight hours of staff time per resource, at a salary rate of \$150,000 per year (\$78/hour), for 281 resources. Scaling this up to the full 1,037 resources implies an outlay of only about \$650,000.

²² D.20-06-031, p. 92.

- 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.

1. UCAP should not de-rate the value of resources due to outage events beyond the resource operator's control

Cal Advocates reiterates the concern that since UCAP values were intended to incentivize proper maintenance of generators, the inclusion of any outage type beyond the control of the resource owner should not affect the UCAP value. The UCAP should correctly state a resource's deliverability in regards to any type of forced outage, but a separate tool to adjust the deliverability expectations of a resource suffering forced outages beyond an operator's control should be used instead of UCAP itself.²³ Alternatively, and as preferred by Cal Advocates, the CAISO should not adopt a UCAP system and should instead fully utilize the toolset it has already established.

2. The UCAP should not be de-rated due to transmission outages beyond the resource operator's control

The CAISO currently proposes to use Reliability Coordinator-defined outage types of "Forced Outage" and "Urgent Outage" to count against a resource's UCAP value.²⁴ These outages will not include two types of transmission outages that "do not affect the output of the generator."²⁵ The CAISO should clarify if the "output of the generator" includes deliverability of the generator that may be compromised during a transmission outage. The two types of transmission outages described are also planned outages. The CAISO should clarify if unplanned transmission outages will affect a resource's UCAP value. Since UCAP is intended to incentivize proper maintenance of resources by their operators,²⁶ the UCAP should not be de-rated due to transmission outages beyond the resource operator's control.

3. The CAISO should justify the proposal to reduce UCAP ratings due to wildfire

Cal Advocates supports the CAISO's exclusion of operational and informational outages from impacting UCAP calculations because those outages derive from circumstances beyond an operator's control. However, the CAISO's exclusion of wildfires from exempt outage classification raises concerns.²⁷ Resources located in transmission-isolated areas often provide critical services (Local RA) and their UCAP rating should not be diminished by circumstances outside of their control, including wildfires. Incorporating wildfire outages into a resource's UCAP imposes a structural penalty for any resource that

²³ The CAISO has proposed that UCAP is intended to replace RAIM which the CAISO claims is not sufficiently incentivizing resource non-availability. Resource Adequacy Enhancements – Fifth Revised Straw Proposal, p. 14.

²⁴ Resource Adequacy Enhancements – Fifth Revised Straw Proposal, pp. 15-16.

²⁵ Resource Adequacy Enhancements – Fifth Revised Straw Proposal, p. 16.

²⁶ Resource Adequacy Enhancements – Fifth Revised Straw Proposal, p. 14.

²⁷ Resource Adequacy Enhancements – Fifth Revised Straw Proposal, pp. 17-18.

happens to be located in a wildfire-prone area.²⁸ For resources providing crucial Local RA capacity, this would likely lead to the construction of more resources in the wildfire-prone areas with lower UCAPs to buttress existing resources with weakened UCAPs. The CAISO proposal also allows exemptions for events which occur once over the three-year UCAP calculation period to ensure they are in fact rare events.²⁹ The CAISO should justify its use of a three-year cutoff in light of the increasing frequency of major natural disaster events in concert with global climate change impacts and the CAISO proposal's exclusion of California's biggest natural disaster risk factor (i.e. wildfires).³⁰

- 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.

Cal Advocates has no feedback concerning this topic at this time.

- 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.

The CAISO proposes two options for calculating the UCAP of new resources.³¹ Option 1 uses the resource-class average UCAP weighted year-to-year, overwritten with actual performance data as it becomes available, while Option 2 initially uses NQC. Cal Advocates continues to prefer Option 1 for calculating UCAP of new resources because the resource-class average more closely reflects the actual performance of a resource over the long term and therefore reduces the uncertainty faced by LSEs when planning the annual and multi-year RA portfolios.³²

- 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 percent tightest supply cushion hours in years 2019 and beyond for hydro resources, as

²⁸ It is also unclear whether a wildfire started by arson would be treated as a wildfire or as an exempt outage.

²⁹ Resource Adequacy Enhancements – Fifth Revised Straw Proposal, p. 18.

³⁰ Thomas Vind and Ramon Lopez, November 2015, *Global Increase in Climate-Related Disasters* (Working Paper), Independent Evaluation Office at Asian Development Bank, retrieved from <https://www.adb.org/publications/global-increase-climate-related-disasters>.

³¹ Resource Adequacy Enhancements – Fifth Revised Straw Proposal, p. 29.

³² Working Group Discussion Stakeholder Comments of the Public Advocates Office, June 24, 2020, p. 3.

described in section 4.1.2. Please explain whether this approach is necessary or preferred to the standard UCAP calculation to reflect hydro availability.

The CAISO proposes to calculate UCAP for hydro resources using an approach similar to the methodology adopted by the CPUC in D.20-06-031, with two primary modifications.³³ The CAISO proposal eliminates the Resource Adequacy Availability Incentive Mechanism (RAAIM) penalties³⁴ for mechanical outages, in addition to water unavailability as a forced outage, and uses the tightest 20 percent supply cushion hours as input data rather than the Availability Assessment Hours.³⁵ Cal Advocates supports the CAISO's attempt to align its weighting and calculation methodology with the CPUC's recently adopted methodology, but again notes that elimination of the RAAIM penalties would shift the costs of mechanical outages from generators to ratepayers. The CPUC's methodology exempts hydro generators from RAAIM penalties due to water availability, but the CAISO's proposal includes removal of the RAAIM system altogether.³⁶ Cal Advocates remains unconvinced that generators will have sufficient incentives to maintain and upgrade their capital assets if they are no longer responsible for substituting capacity due to forced outages. Generators will also benefit from the higher demand for generation capacity created by UCAP's derating of capacity across the board. Elimination of the RAAIM penalties means that ratepayers will have to pay for new capacity in the absence of the RAAIM-imposed incentive to maintain high standards. The CAISO's proposal should be modified to ensure resource operators are responsible for any costs or UCAP de-ratings due to forced outages.

- 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.

Cal Advocates has no feedback concerning this topic at this time.

- 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.

Cal Advocates has no feedback concerning this topic at this time.

³³ D.20-06-031, p. 23.

³⁴ One of the primary objectives of the current initiative is to remove the RAAIM system and its penalties and to replace it with the UCAP counting system which includes assumptions of forced outages and substitute capacity which UCAP accounts for. Resource Adequacy Enhancements – Fifth Revised Straw Proposal, p. 3.

³⁵ Resource Adequacy Enhancements – Fifth Revised Straw Proposal, p. 33.

³⁶ D.20-06-031, p. 24.

- 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.

Cal Advocates has no feedback concerning this topic at this time.

- 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.

Cal Advocates has no feedback concerning this topic at this time.

- 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.

Cal Advocates reiterates its preference for Option 2 because it would be much more cost efficient and would "only require procurement of capacity on days when capacity is actually needed to maintain reliability."³⁷ The potential costs are demonstrated by the CAISO's hypothetical 3,000 MW planned outage reserve margin for non-summer months, which would push up requirements by 9.4 percent for seven months and cost ratepayers \$64.9 million per year.³⁸ In rejecting Option 2, the CAISO acknowledges that it "would have to build a complex and costly capacity clearing mechanism when the benefits are unclear and the potential downsides appear significant, such as potential replacement costs and market power concerns."³⁹ While understandable, this reasoning is almost identical to the argument made by Cal Advocates *against* the adoption of the UCAP.⁴⁰ Cal Advocates acknowledges that it will likely be costly for the CAISO to develop a capacity clearing mechanism; however, those costs would undoubtedly be a small fraction of the costs borne by ratepayers to purchase the excessive capacity necessitated by the UCAP proposal.

³⁷ Comments of the Public Advocates Office on the Fourth Revised Straw Proposal, April 14, 2020, pp. 3-4.

³⁸ Comments of the Public Advocates Office on the Fourth Revised Straw Proposal, April 14, 2020, p. 4.

³⁹ Resource Adequacy Enhancements – Fifth Revised Straw Proposal, p. 55.

⁴⁰ Comments of the Public Advocates Office on the Third Revised Straw Proposal, January 27, 2020, p. 4. Comments of the Public Advocates Office on the Fourth Revised Straw Proposal, April 14, 2020, p.4.

- 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.

Cal Advocates reiterates that it does not support CAISO's proposed changes to RA Import Requirements. Cal Advocates noted that the proposed changes "would increase ratepayer costs by disallowing non-resource specific imports that have historically delivered energy, without ensuring that the remaining import resources would provide a similar benefit."⁴¹ Cal Advocates recommends that the CAISO coordinate with the CPUC and stakeholders in the RA Rulemaking to maintain consistency in the treatment of RA import requirements.⁴²

- 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.

Cal Advocates has no feedback concerning this topic at this time.

- 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.

Cal Advocates has no feedback concerning this topic at this time.

- 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.

Cal Advocates has no feedback concerning this topic at this time.

⁴¹ Comments of the Public Advocates Office on the Fourth Revised Straw Proposal, April 14, 2020, p. 6.

⁴² Import requirements and methodologies are within the scope of Track 3.B of R.19-11-009. *Assigned Commissioner's Amended Track 3.A and 3.B Scoping Memo and Ruling*, July 7, 2020, issued in R.19-11-009.

- 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.

Cal Advocates has no feedback concerning this topic at this time.

- 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.

Cal Advocates has no feedback concerning this topic at this time.

- 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.

Cal Advocates has no feedback concerning this topic at this time.

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.

Cal Advocates has no feedback concerning this topic at this time.

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.

Cal Advocates has no feedback concerning this topic at this time.

- 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.

Cal Advocates has no feedback concerning this topic at this time.

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.

Cal Advocates has no feedback concerning this topic at this time.

- 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.

The CAISO proposes a Capacity Procurement Mechanism (CPM) designation order which "will first allocate the costs to system UCAP deficiencies, then to NQC system deficiencies, then to local individual deficiencies, then to local collective deficiencies, and finally to portfolio deficiencies."⁴³ Given that NQC is an input to UCAP, it appears that allocating costs for NQC system deficiencies is a redundant step. Cal Advocates recommends that the CAISO remove this redundancy from the proposal or provide additional support for why the proposed allocation is necessary.

- 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.

Cal Advocates has no feedback concerning this topic at this time.

- 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.

Cal Advocates has no feedback concerning this topic at this time.

- 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.

Cal Advocates has no feedback concerning this topic at this time.

- 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.

The CAISO proposes a UCAP Deficiency Tool that is intended to prevent capacity leaning by penalizing deficient LSEs and awarding those penalties to LSEs which show above their RA requirements.⁴⁴ However, the UCAP Deficiency Tool as currently defined is more likely to incentivize LSEs to hoard RA, and creates the possibility of double-charging for local RA deficiencies which are cured via CPE backstop procurement. Stakeholders raised these and other concerns in the previous round of comments, yet the CAISO has

⁴³ Resource Adequacy Enhancements – Fifth Revised Straw Proposal, p. 85.

⁴⁴ Resource Adequacy Enhancements – Fifth Revised Straw Proposal, p. 87.

not altered the UCAP Deficiency Tool to assuage apprehensions of market trading interference and insufficient incentivization.⁴⁵ Cal Advocates encourages the CAISO to carefully consider and respond to the wide-ranging challenges identified by stakeholders in the UCAP Deficiency Tool.

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.

The CAISO proposes implementing a preliminary UCAP analysis and assessment during an initial phase for 2021 (RA year 2022), with full implementation in 2022 (RA year 2023). Bearing in mind that Cal Advocates opposes adoption of the UCAP, Cal Advocates supports the implementation plan described in the Fifth Revised Straw Proposal. Delaying full implementation until RA year 2023 would allow adequate time for coordination with the introduction of the Central Procurement Entities.

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.

Cal Advocates has no feedback concerning this topic at this time.

Additional comments

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

Cal Advocates has no additional feedback or comments at this time.

⁴⁵ RA Enhancements Fourth Revised Straw Proposal Comments of the Public Advocates Office, pp. 7-8. Department of Market Monitoring Comments on RA Enhancements 4th Revised Straw Proposal, pp. 6-7. RA Enhancements Fourth Revised Straw Proposal Comments of Pacific Gas & Electric Company, p. 6. RA Enhancements Fourth Revised Straw Proposal Comments of California Community Choice Association, p. 6. RA Enhancements Fourth Revised Straw Proposal Comments of California Public Utilities Commission, pp. 7-8. RA Enhancements Fourth Revised Straw Proposal Comments of San Diego Gas & Electric, p. 8.