Day-Ahead Sufficiency

Issue Paper

December 5, 2023

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Introduction

The California Independent System Operator (ISO) is preparing to launch its Extended Day-Ahead Market (EDAM) in the spring of 2026. The ISO will both operate the EDAM and participate in the market as one of multiple balancing authority areas (BAAs). This day-ahead sufficiency stakeholder initiative* will help the ISO prepare for its role as an EDAM participating BAA.

The day-ahead sufficiency initiative focuses on an important element of EDAM design, the resource sufficiency evaluation (RSE).[1] The RSE is intended to motivate BAAs participating in EDAM to come to the market with sufficient supply to meet their next-day obligations, prior to engaging in transfers with other participating BAAs. By requiring each participating BAA to demonstrate sufficient forward procured supply each day, the RSE discourages BAAs with insufficient resources from inappropriately leaning on neighboring BAAs.

As established in the EDAM design, the RSE will be conducted each day at 10 a.m., prior to running the day-ahead market. The RSE will evaluate each BAA's offered supply[2] against its demand forecast, imbalance reserve requirements[3] and ancillary services requirements across the 24 hourly intervals of the day-ahead market. To perform the evaluation, the RSE application will model each BAA's entire load and supply on a single bus (i.e., without transmission constraints) and perform a unit commitment optimization. If the optimization does not relax constraints in order to solve, then the BAA "passes" the RSE. If the optimization is required to relax constraints in order to solve, then the BAA "fails" the RSE. Failures can be in the upward and/or downward direction. An upward failure occurs when the

*The day-ahead sufficiency initiative replaces and renames track A2 of the EDAM ISO BAA participation rules initiative. The topics of how the ISO BAA will cure and settle shortfalls, formerly track B of the EDAM ISO BAA participation rules initiative, will be addressed within the ISO's resource adequacy modeling and program design initiative.

[1] This issue paper will refer to the EDAM RSE as "RSE." The resource sufficiency evaluation in the Western Energy Imbalance Market will be referred to as the "WEIM RSE."

[2] For variable energy resources (VERs) offered into the day-ahead market, the RSE will take into account the full VER forecast. See proposed EDAM Tariff Section 33.31.1.

[3] Imbalance reserves are a new day-ahead market product that the ISO has proposed as part of its day-ahead market enhancements initiative. If approved by the Federal Energy Regulatory Commission, the day-ahead market will procure imbalance reserves up and imbalance reserves down to meet the range of expected imbalances between the day-ahead and real-time net load forecasts.

optimization must relax the upward power balance constraint, upward imbalance reserve procurement constraint and/or upward ancillary services procurement constraint. A downward failure occurs when the optimization must relax the downward power balance constraint, downward imbalance reserve procurement constraint and/or downward ancillary services procurement constraint. The optimization will seek to minimize the sum of the constraint relaxation quantities across the 24 intervals.

BAAs that fail the RSE in any hour of the 24 hour evaluation may incur at least one of the following types of financial surcharges: (1) on-peak upward failure surcharges; (2) off-peak upward failure surcharges; (3) downward failure surcharges. BAAs that fail the RSE by a *de minimis* amount will not be subject to financial surcharges. Upward failure surcharges are calculated on a tiered structure that incorporates the magnitude of the failure and any persistence in upward failures over a rolling thirty-day period. The downward failure surcharge is not tiered. In addition to incurring financial surcharges, deficient BAAs may be removed from the pool of passing entities and may lose diversity benefits in real-time. More specifically, BAAs that are deficient after the integrated forward market (IFM),[4] or otherwise fail to comply with the tagging requirements, will be evaluated individually in the western energy imbalance market (WEIM) RSE. BAAs that are sufficient and comply with the tagging requirements will be pooled together and evaluated as a whole.

As an EDAM participating BAA, the ISO needs to establish a process to evaluate actions to meet its RSE obligations at or before 10 a.m. each morning. As part of this process, the ISO BAA must be able to estimate its RSE position with enough time to take action if there is a projected shortfall. The best opportunity for the ISO BAA to estimate its RSE position is at approximately 9 a.m., when its demand forecast, variable energy resource forecasts and reserve requirements are final, a significant portion of day-ahead supply offers have been submitted, and advisory RSE results are published. If there is a projected RSE shortfall at 9 a.m., the ISO BAA will still have one hour to take action to attempt to cure any projected failures. For this reason, the day-ahead sufficiency initiative will focus on helping the ISO

[4] The integrated forward market (IFM) is the engine of the day-ahead market. It is a financial market where bid-in supply clears against bid-in load and ancillary service requirements. The IFM co-optimizes procurement of energy and ancillary services for each operating hour of the trading day seeking to minimize overall procurement costs, while respecting transmission constraints and inter-temporal resource constraints such as minimum run time and start-up time. If approved by the Federal Energy Regulatory Commission, the IFM will also procure and co-optimize imbalance reserves, as detailed in the ISO's day-ahead market enhancements initiative.

BAA estimate each morning at 9 a.m. whether it is on track to meet its RSE obligations. To that end, this initiative will address five topics, and this issue paper dedicates chapters to each of them:

1. Advisory RSE results and complementary information
2. Accounting for reliability demand response resources
3. Accounting for strategic reliability reserve resources
4. Curing remaining upward RSE shortfalls
5. Incentives for tagging day-ahead imports

Chapter 1: advisory RSE results and complementary information

To estimate its 9 a.m. RSE position, the ISO BAA will first examine its 9 a.m. advisory RSE results. As established in the EDAM design, the advisory RSEs are non-binding RSE runs that participating BAAs can access before 10 a.m. For each BAA, the advisory RSE results will show whether the BAA can meet its energy, imbalance reserve and ancillary services requirements. The results will show whether the BAA is deficient in the upward and/or downward direction for each of the 24 intervals of the day-ahead market as well as the magnitude of any projected failures. An upward deficiency means the BAA has not provided sufficient RSE-eligible supply to meet its upward energy requirements, upward imbalance reserve requirements and/or upward ancillary services requirements. A downward deficiency means the BAA has not provided sufficient RSE-eligible supply to meet its downward energy requirements, downward imbalance reserve requirements and/or downward ancillary services requirements.[5]

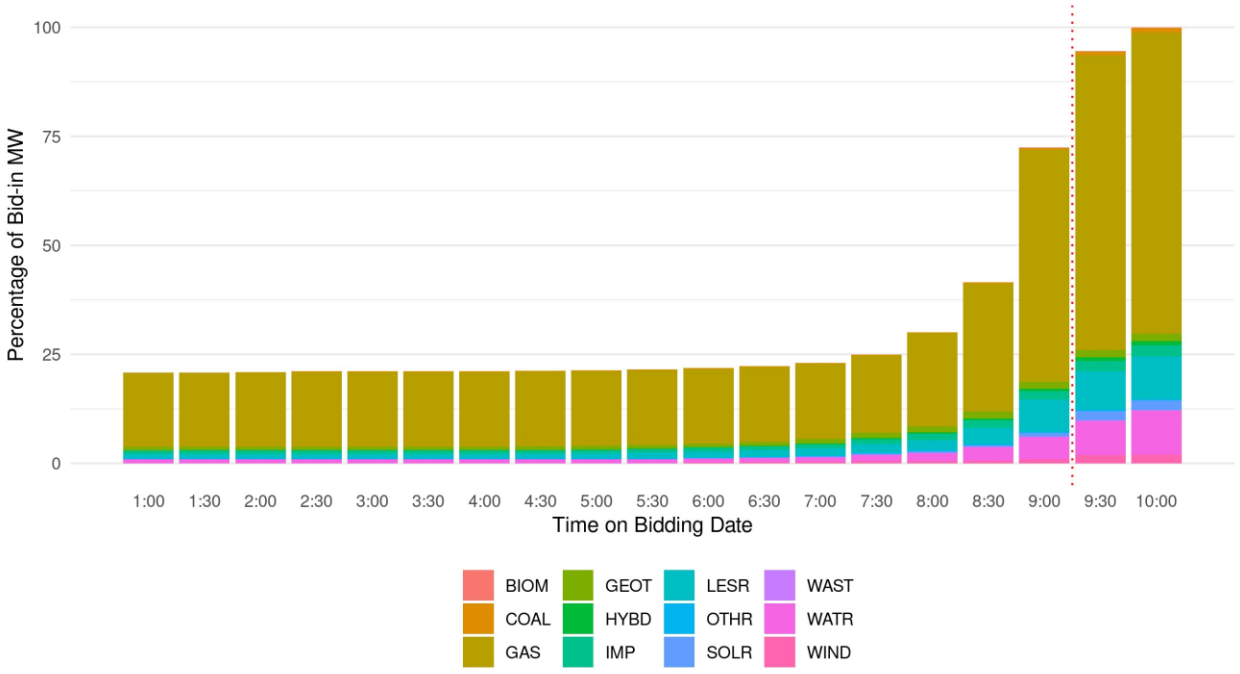
The advisory RSE results provide a starting point to estimate the ISO BAA's 9 a.m. RSE position, but they may not accurately represent all RSE-eligible supply that will become available to the ISO BAA. That is because the advisory results will not reflect volumes associated with offers submitted into the day-ahead market after 9 a.m. For the ISO BAA, such volumes may be significant. ISO load-serving entities are required to procure forward capacity, called resource adequacy (RA) capacity, and demonstrate such

[5] For example, during over-supply conditions when imbalance reserve down requirements cannot be met due to a high volume of self-schedules.

capacity to the ISO in year-ahead and month-ahead RA compliance filings.[6] The majority of this shown RA capacity must then be offered into the day-ahead market by 10 a.m.[7] For this reason, the 9 a.m. advisory RSE results may fail to reflect significant volumes associated with day-ahead supply offers that are expected and required by 10 a.m.

Figure 1 provides a breakdown of the RA capacity offered into the day-ahead market in July 2023.[8] The chart shows that across the 31 days of July, approximately 75% of the capacity was offered by 9 a.m. In other words, approximately 25% of the capacity was offered after 9 a.m. and would not have been reflected in the 9 a.m. advisory RSE results had EDAM been live in July 2023. This is a substantial amount of available RSE-eligible capacity that should not be ignored. The chart also provides detail on the fuel types. Of the capacity that was offered after 9 a.m., the majority was natural gas-fired capacity, followed by energy storage capacity and hydroelectric capacity.

Figure 1: RA capacity offered into day-ahead market by time stamp, July 2023



[6] The CAISO's resource adequacy tariff provisions require load serving entities in the CAISO BAA to submit a year-ahead forward showing and month-ahead showings of the capacity procured to meet their share of the peak load plus any applicable reserve margin, as well as local and flexible capacity requirements.

[7] There are exemptions to the RA day-ahead must offer obligations. For example, variable energy resources are not required to submit day-ahead offers.

[8] The ISO chose July as a reasonable representation of the summer months, when RA capacity is most critical.

One idea to make the 9 a.m. advisory RSE results as helpful and accurate as possible is to ask RA resource scheduling coordinators to submit day-ahead offers by 9 a.m. This would ensure that the ISO BAA's available RA supply is properly reflected in the 9 a.m. advisory RSE, and scheduling coordinators would still have the ability to make updates to their offers until 10 a.m. A second and related idea is for the ISO to insert offers before 9 a.m. on behalf of RA resource scheduling coordinators. The ISO would rely on existing RA bid-insertion rules, to the extent possible, but might also need to develop new rules. For the offer price, the ISO could use default energy bids.[9] Importantly, scheduling coordinators would have the ability to over-write these inserted offers any time before 10 a.m. as they finalize their day-ahead market offers.

A third idea is for the ISO BAA to quantify the volumes expected from RA resources between 9 a.m. and 10 a.m. The ISO BAA would then use these quantified volumes in conjunction with the 9 a.m. advisory RSE results to assess the ISO BAA's potential to pass the EDAM RSE at 10 a.m. There are two ways to approach this third idea: looking distinctly at each hour, i.e., the "hourly approach;" or looking at the entire calendar day, i.e., the "daily approach."

Employing the hourly approach, the ISO BAA would use the advisory RSE results to calculate upward shortfalls, if any, for each specific hour. The ISO BAA would then supplement the results with the volumes expected from RA resources for each specific hour. This hourly approach is described in more detail below.

Employing the daily approach, the ISO BAA would use the advisory RSE results to calculate an upward shortfall, if there is one, across the entire day. The ISO BAA would do this by adding the upward hourly shortfalls, if any, across all of the intervals. The ISO BAA would then supplement this result with the total daily volume expected from RA resources.

This is a detailed description of how the ISO BAA would use the hourly approach to assess its potential to pass the EDAM RSE at 10 a.m.:

[9] Default energy bids, calculated by the ISO for each resource, are an estimate of a resource's costs and used for local market power mitigation.

- At 9 a.m. each day, the ISO BAA would take its advisory RSE results and calculate gross hourly upward shortfalls by adding the upward deficiencies, if any, in each hour. The upward deficiencies would consist of the relaxation quantities for the upward power balance constraint, upward imbalance reserve procurement constraint and upward ancillary services procurement constraints.[10]
- Next, the ISO BAA would take the list of shown RA capacity and filter out any capacity that has already submitted a day-ahead offer and therefore was reflected in the 9 a.m. advisory RSE results.
- Using the filtered list, the ISO BAA would then produce estimates of upward hourly volumes for each RA resource type.[11] Table 1 below provides ideas for how such upward hourly volumes might be produced.
- Finally, the ISO BAA would take the total upward hourly estimates and subtract them from any upward hourly deficiencies in the 9 a.m. advisory RSE. The result would be the expected net hourly upward shortfalls, if any.

This is an example, employing the hourly approach, of how the ISO BAA would assess its potential to pass the EDAM RSE at 10 a.m.:

- Suppose the 9 a.m. advisory RSE results show that the ISO BAA has an 8,500 MW gross upward shortfall in hour-ending 18 and an 8,000 MW gross upward shortfall in hour-ending 19.
- In addition, suppose that the ISO BAA has 50,000 MW of shown RA capacity for this particular day, but only 40,000 MW of this capacity has submitted a day-ahead offer as of 9 a.m.
- Shortly after 9 a.m., the ISO BAA would use the 10,000 MW of shown RA capacity without a day-ahead offer to produce estimates of upward hourly volumes. Suppose these estimates include 8,200 MW in hour-ending 18 and 7,800 MW in hour-ending 19.

[10] For the purpose of calculating a 9 a.m. RSE position, it is reasonable to take the sum of these relaxation quantities and treat energy, imbalance reserves and ancillary services interchangeably. It is reasonable to treat these RSE obligations interchangeably, because the awarded supply for one type of obligation will likely free up supply for another type of obligation in the co-optimization.

[11] These volumes would be an estimate of awards, not offers, to align with the outputs of the advisory RSE. For example, in a particular interval a resource might submit upward energy, imbalance reserves and/or ancillary services offers that in total exceed the capacity of the resource. The RSE application, however, will co-optimize these offers, and the total awarded volume will not exceed the capacity of the resource. These volumes will also consider known outages and derates.

- The result would be net upward shortfalls of 300 MW in hour-ending 18 and 200 MW in hour-ending 19, possibly causing the ISO BAA to fail the final RSE when it is run at 10 a.m.

Table 1 below provides ideas for quantifying expected hourly volumes from RA resources, and it has been categorized by resource type. The basic idea is to use the quantity of RA shown to the ISO, net of any hourly outage/derate volumes. However, as shown in the table, the ISO has also suggested variations to this basic idea for particular resource types. For example, with respect to energy storage, the ISO has suggested that shown RA (MW) be multiplied by four to convert into shown energy (MWh), and that the energy then be distributed appropriately across the 24 intervals. Importantly, these ideas would only be used at 9 a.m. to produce reasonable estimates of expected hourly volumes. They would not be used in the RSE, which performs a full unit commitment optimization across the 24 intervals. The ISO looks forward to discussing these ideas with stakeholders at the upcoming stakeholder meeting.

Table 1: ideas for quantifying expected hourly volumes from RA resources

Resource Type	**Methodology**
Thermal	Shown RA, net of hourly outage volumes
Hydro w/reservoir	Shown RA, net of hourly outage volumes
Hydro run of river	*TBD. Need to discuss with stakeholders*
Pumped Storage	*TBD. Need to discuss with stakeholders*
Energy storage	Idea 1: (shown RA x 4) distributed using recent discharge award profile, net of hourly outage volumes Idea 2: (shown RA x 4) distributed to hours with upward shortfall in advisory RSE, net of hourly outage volumes
Wind	Hourly VER forecast, net of hourly outage volumes[12]
Solar	Hourly VER forecast, net of hourly outage volumes[13]
Proxy DR	Shown RA, distributed to a limited number of hours
Registered RSE-eligible Imports	Daily shown RA

[12] The ISO is assuming that VERs will provide day-ahead offers by 10 a.m., despite the fact that they are exempt from RA day-ahead must offer obligations.

[13] The ISO is assuming that VERs will provide day-ahead offers by 10 a.m., despite the fact that they are exempt from RA day-ahead must offer obligations.

In conjunction with discussing all three of the ideas described above, it may be helpful to review and discuss the ISO's current bidding requirements for resources providing RA capacity.[14]

Chapter 2: accounting for reliability demand response resources

At 9 a.m., the ISO BAA may expect upward RSE shortfalls, even after accounting for volumes expected from RA resources. If this is the case, and if the ISO BAA forecasts that emergency conditions may materialize in real-time, then the ISO BAA will make adjustments to its RSE obligations to reflect resources that will be available to the ISO BAA. The first type of adjustment deals with reliability demand response resources and is the focus of this chapter. The second type of adjustment deals with short-start strategic reliability reserve resources and is addressed in chapter 3.

Reliability demand response resources (RDRRs) are a unique type of RA supply, available for use by the ISO BAA during an Energy Emergency Alert (EEA) Watch or higher.[15] Investor-owned utilities overseen by the California Public Utilities Commission manage RDRRs, which consist mainly of base interruptible program customers and agricultural and pumping loads. RDRRs are supply-side resources and therefore are not reflected in the ISO BAA's demand forecast.

In the ISO BAA, RDRR capacity is not shown on RA supply plans but instead is credited as RA supply to the applicable load-serving entities. RDRRs may voluntarily submit offers into the ISO's day-ahead market, but they are not required to do so. RDRRs are required to submit real-time offers, but such offers may only be released into the ISO's real-time market in conjunction with a transmission emergency, energy emergency alert (EEA) watch or other EEA notice.

If the ISO BAA at 9 a.m. expects an upward RSE shortfall in a particular interval, and if the ISO BAA is forecasting that emergency conditions may materialize in real-time, then the ISO BAA will reduce its RSE obligation for that interval. More specifically, when emergency conditions are expected, the ISO BAA will reduce its RSE obligation by an amount equal to the minimum of: (1) the expected upward shortfall, net

[14] These requirement can be found in the ISO's business practice manual for reliability requirements, section 7.1.1

[15] The RDRR participation model is available to other WEIM BAAs. This issue paper discusses how the ISO BAA will use the California RA RDRR in its RSE.

of upward volumes expected from RA resources; (2) the quantity of available RDRR capacity that has not voluntarily submitted a day-ahead offer as of 9 a.m. This adjustment is appropriate because it allows the ISO BAA to account for RDRR capacity, which is a subset of RA capacity.[16] Importantly, the adjustment would be limited to the available RDRR capacity that has not voluntarily submitted a day-ahead offer by 9 a.m. Any available RDRR capacity voluntarily offered into the day-ahead market by 9 a.m. would already be reflected as RSE-eligible supply. In addition, the ISO BAA would only make this adjustment if it expects an upward RSE shortfall greater than the upward volumes it expects from RA resources. Finally, the ISO BAA would only make this adjustment if it expects emergency conditions to materialize in real-time.

The ISO looks forward to discussing with stakeholders the approach outlined above. In addition, there are at least four important details to examine:

1. The ISO BAA will need information each morning to calculate the quantity of available RDRR capacity that has not voluntarily submitted a day-ahead offer as of 9 a.m.
2. The ISO would like to confirm that RDRR scheduling coordinators, when voluntarily submitting day-ahead offers, will continue to do so before 9 a.m. This will prevent RDRR capacity from being inadvertently double-counted as both RSE supply and a reduction to the RSE obligation.
3. The ISO would like to discuss how energy limits to RDRR capacity (i.e., max run times) should be reflected in the RSE adjustment. More specifically, if the ISO BAA at 9 a.m. expects upward RSE shortfalls in multiple intervals, for which intervals should the RSE be reduced?
4. The ISO would like to discuss the implications of any RSE reductions on the residual unit commitment (RUC) process.[17] More specifically, the ISO would like to discuss whether it should reduce its RUC procurement target by an amount equal to the RSE reduction quantity.

While this chapter has focused on RDRR, there are two other types of demand response resources that should be considered in the context of day-ahead sufficiency. First, proxy demand response resources are required to submit day-ahead offers, and such offers will be counted as RSE-eligible supply. Second, the ISO would like to discuss load-modifying demand response resources. More specifically, the ISO

[16] This is also reflected in the EDAM design. *See* proposed EDAM tariff 33.31.4.1.

[17] The residual unit commitment (RUC) process is part of the ISO's day-ahead market. It is conducted after the integrated forward market to ensure that enough resources are committed to meet the ISO's demand forecast

would like to discuss whether particular types of load-modifying demand response resources should be used to decrease the ISO BAA's RSE obligations through a reduced demand forecast.

Chapter 3: accounting for strategic reliability reserve resources

In 2022, Assembly Bill (AB) 205 was signed into California law and created a strategic reliability reserve (SRR) to support grid reliability during extreme events. As shown in tables 2 and 3 below, the reserve is expected to include 2,886.8 MW of long-start resources and 263.5 MW of short-start resources. The California Department of Water Resources (DWR) manages a portion of the SRR, which includes the market-participating resources listed below. The reserve is currently funded until 2026.

Table 2: strategic reliability reserve resources (2023 program resources)

Host BAA	Type	Resource Name	Capacity (MW)
CAISO	Long-start	Channel Islands Power	27.50
CAISO	Short-start	Greenleaf 1	60.0
BANC	Short-start	Roseville Peakers TM2500	60.0

Table 3: strategic reliability reserve resources (2024 additions)

Host BAA	Type	Resource Name	Capacity (MW)
CAISO	Long-start	ALAMITOS GEN STA. UNIT 3	326.76
CAISO	Long-start	ALAMITOS GEN STA. UNIT 4	334.43
CAISO	Long-start	ALAMITOS GEN STA. UNIT 5	480
CAISO	Long-start	HUNTINGTON BEACH GEN STA. UNIT 2	226.84
CAISO	Long-start	ORMOND BEACH GEN STA. UNIT 1	741.27
CAISO	Long-start	ORMOND BEACH GEN STA. UNIT 2	750
CAISO	Short-start	Enchanted Rock – City of Lodi	48.0
BANC	Short-start	Enchanted Rock – MID	48.0
TID	Short-start	Enchanted Rock – TID	47.5

All of the long-start SRR resources are located within the ISO BAA.[18] They are committed multiple days in advance and depend on the ISO BAA for commitment instructions in accordance with their contracts with DWR. If committed to minimum load, these resource are required to submit day-ahead offers as participating generators, but these resources do not have RA must-offer obligations.[19] Given these characteristics, the long-start SRR resources will be counted as RSE-eligible supply for the ISO BAA.[20]

The short-start SRR resources will not be committed before the day-ahead market and will not submit day-ahead offers, but instead may offer into the real-time market when any California BAA declares an EEA Watch or more severe EEA condition. Nevertheless, it may be appropriate to account for such resources in the day-ahead RSE. More specifically, the ISO BAA could make an adjustment to its day-ahead RSE to account for the short-start SRR resources that are located within the ISO BAA. One idea is to use an approach similar to the one outlined for RDRR (see chapter 2) and to make the adjustment in conjunction with the RDRR adjustment. The approach might work as follows:

If the ISO BAA at 9 a.m. expects an upward RSE shortfall in a particular interval, and if the ISO BAA expects emergency conditions in California to materialize in real-time, then the ISO BAA will reduce its RSE obligation for that interval by an amount equal to the minimum of (A,B) where:

A = (the expected upward shortfall) – (upward volumes expected from RA resources) – (RSE adjustment for available RDRR that has not submitted a day-ahead offer as of 9 a.m.)

B = the quantity of available short-start SRR resources located within the ISO BAA.

The ISO looks forward to discussing this approach with its stakeholders and partners.

[18] Operating Procedure 4420 addresses both long-start and short-start SRR resources.

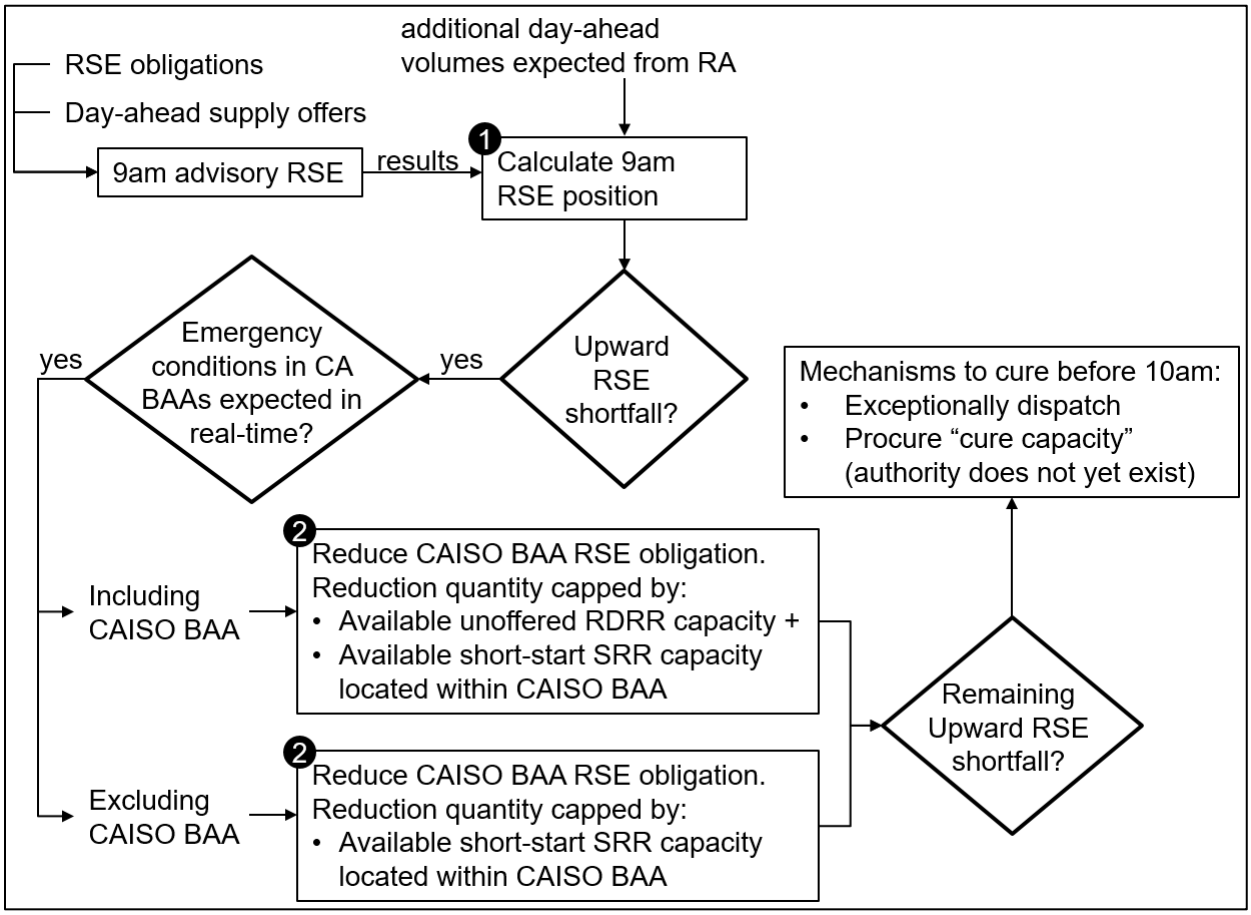
[19] The ISO will work with DWR to explore whether such day-ahead offers can be submitted by 9 a.m. If not, the ISO BAA will need to estimate such volumes at 9 a.m. as part of the process outlined in chapter 1.

[20] It is important to note that all of the long-start resources, with the exception of Channel Islands Power, are thermal power plants that rely on once-through cooling (OTC) technologies. These OTC plants must comply with State Water Resources Control Board OTC policy, which establishes standards to reduce the harmful effects associated with cooling water intake structures on marine and estuarine life. The compliance dates for these particular resources have been extended from 12/31/2023 to 12/31/2026.

Chapter 4: curing remaining upward RSE shortfalls

As explained in the chapters above, the ISO BAA has two key steps it can take each morning to quantify and adjust its RSE position. First, the ISO BAA will calculate its 9 a.m. RSE position, using its advisory RSE results and taking into account any additional volumes expected from RA resources.[21] Second, if this 9 a.m. RSE position reveals an upward shortfall, and if emergency conditions are expected in real-time for one or more of the California BAAs, then the ISO BAA will reduce its RSE obligation to mitigate the upward RSE shortfall. If forecasted emergency conditions include the ISO BAA, then the RSE reduction quantity will account for both unoffered RDRR capacity and ISO BAA-located short-start SRR capacity. If forecasted emergency conditions exclude the ISO BAA, then the RSE reduction quantity will account only for ISO BAA-located short-start SRR capacity. These two key steps are illustrated in figure 2 below.

Figure 2: key steps to quantify and adjust RSE position



[21] As noted in chapter 3, the ISO BAA may also need to estimate volumes from long-start SRR resources to the extent day-ahead offers from long-start SRR resources cannot be submitted by 9 a.m.

If the ISO BAA still expects an upward RSE shortfall, despite taking the two key steps described above, it may be exposed to an EDAM RSE failure surcharge if it does not cure such anticipated shortfalls in advance of the binding 10 a.m. RSE. The topic of how the ISO BAA will cure such shortfalls will be addressed within the ISO's resource adequacy modeling and program design initiative. This RA effort has taken on the scope that was planned for track B of the EDAM ISO BAA participation rules initiative: curing expected day-ahead RSE shortfalls and associated cost allocation, and allocating RSE failure surcharges and revenues. The ISO looks forward to working with stakeholders on these topics in early 2024.

Chapter 5: incentives for tagging day-ahead imports

As established in the EDAM design, EDAM BAAs that pass the day-ahead RSE will be grouped together and evaluated as a pool for the WEIM RSE.[22] This is an important aspect of EDAM design, as it retains the diversity benefits for the BAAs that pass the day-ahead RSE. Grouped BAAs benefit significantly because their uncertainty requirements incorporate the diversity benefit. The diversity benefit reduces the overall reserve requirements, as the collective uncertainty is lower than the sum of individual uncertainties, enabling the grouped BAAs to procure fewer reserves.

EDAM BAAs that pass the day-ahead RSE must comply with tagging requirements in order to remain in the pool.[23] As established by EDAM design, BAA scheduling coordinators will have until 5 hours before the start of the operating hour to submit e-tags and/or replace the un-tagged capacity with other firm schedules or physical resources. BAAs that fail to comply with these tagging requirements will be removed from the pool, thereby losing potential diversity benefits. There may be legitimate instances when an import does not tag by the EDAM deadline. For this reason, the EDAM design allows BAA scheduling coordinators to replace the un-tagged capacity with other firm schedules or physical resources. This ability to re-supply is consistent with current industry and utility practice.[24] Overall, the

[22] EDAM final proposal, section II.B.2(h), page 76.

[23] *See* proposed EDAM Tariff Section 33.31.1.6 (requiring compliance with the tagging protocols set forth in Section 33.30.8.3 and the Business Practice Manuals).

[24] For example, a load serving entity relying on import supply, if not tagged by a certain timeframe, will take steps to procure additional supply in advance of the operating hour to ensure it can serve its load.

intent of the tagging requirement is to ensure the integrity of day-ahead RSE supply, especially when such supply includes non-resource specific intertie transactions.

In track A1 of the EDAM ISO BAA participation rules initiative, the ISO Department of Market Monitoring (DMM) submitted comments recommending that the ISO develop incentives to ensure day-ahead imports into the ISO BAA are tagged by the EDAM deadline (5 hours before the start of the operating hour).[25] As explained by the DMM, such incentives would help ensure that the ISO BAA remains within the pool and does not lose potential diversity benefits. As suggested by the DMM, one approach to developing such incentives would be to quantify the cost to the ISO BAA of being removed from the EDAM pool (i.e., the lost diversity benefits). The ISO BAA could then consider allocating such costs to scheduling coordinators that fail to tag by the EDAM deadline.

The ISO requests stakeholder input on whether additional incentives are needed to ensure that day-ahead imports into the ISO BAA are tagged within the timeframe required by the EDAM design. In addition, the ISO would like to discuss how this policy work, if warranted, should be scheduled.

Next steps

The ISO will host a virtual stakeholder meeting on December 18th, 2023 from 1 p.m. to 4 p.m. to discuss the key elements of this issue paper. Please submit written comments on the issue paper and stakeholder meeting by end of day January 5, 2024.

[25] California ISO Department of Market Monitoring comments on the *Extended Day Ahead Market ISO Balancing Authority Area Participation Rules* initiative, August 14th, 2023.