

Initiative Day-ahead market enhancements Configurable Parameters

Comments on August 7, 2024 Configurable Parameters Implementation

Working Group

Comment period Aug 07, 2024, 02:00 pm - Sep 04, 2024, 05:00 pm

California Community Choice Association (pages 2-4)

California ISO - Department of Market Monitoring (pages 5-8)

NV Energy (pages 9-11)

Submitting Pacific Gas & Electric (pages 12-16)
organizations

Pacific Gas (pages 17-20)

PacifiCorp (pages 17 – 20)

San Diego Gas & Electric (pages 21-22)

SCE (pages 23-24) WPTF (pages 25-27)

CA Community Choice Association (Shawn-Dai Linderman)
Comments - 9/4/24

Provide a summary of your organization's comments on the Aug 07, 2024 DAME configurable parameters implementation working group discussion:

The California Community Choice Association (CalCCA) appreciates the opportunity to comment on the California Independent System Operator's (CAISO) August 7, 2024, Day-Ahead Market Enhancements (DAME) configurable parameters implementation working group. The CAISO's proposed testing approach for the configurable parameters preserves most of the time for their own process, leaving little time for market participant review and feedback. The CAISO should revise the schedule and milestones to allow for more stakeholder engagement necessary to determine the values used for the configurable parameters.

CAISO Response

Thank you for the feedback regarding the proposed schedule for stakeholder engagement. The schedule is based on the availability of market software. To perform any meaningful analysis on the parameters, the ISO needs to have functional software for DAME/EDAM readily available. This milestone will be achieved by the time the software is ready for market simulation in 2025, which is why actual simulation will start in September 2025. Prior to September 2025, the ISO cannot conduct any analysis of the functionality or initiate efforts to analyze the configurable parameters. Therefore, the earliest market analysis can begin is September 2025. CAISO has adjusted the schedule to provide more opportunities for stakeholder engagement and proposes to hold monthly stakeholder sessions to introduce and discuss analysis efforts on the configurable parameters as they become available. Additional monthly sessions will be held between August and December 2025. These will be in addition to the three stakeholder sessions already planned for the first quarter of 2026. With these additional sessions, there will be a total of seven stakeholder engagements over a period of eight months for this tuning effort to facilitate stakeholder involvement.

CA Community Choice Association (Shawn-Dai Linderman) Comments - 9/4/24

Provide your organization's comments on the current implementation working group schedule and milestones: The timeline indicates that following the August 7, 2024, stakeholder working group, the CAISO will not reengage stakeholders on the configurable parameters until the first guarter of 2026, at which point the CAISO will host one stakeholder meeting per month between January and March prior to a May 2026 implementation date. This schedule does not allow time for the CAISO to present its analysis and use that analysis to inform a methodology for identifying the proper values to use for the configurable parameters. The timeline shows that CAISO will conduct its analysis from June through December 2025 but will not reengage with stakeholders during this time. The CAISO should revise this timeline to engage with stakeholders earlier in the process to inform them of the results of the analysis as they become available on each configurable parameter, rather than waiting until the entire analysis is complete. As its analysis becomes available, the CAISO should also engage with stakeholders on how the analysis will inform the methodology for selecting the values used in the configurable parameters. Waiting until 2026 to present the entire analysis and set the configurable parameter values does not give enough opportunity for stakeholders to weigh in on the results and values before DAME go-live.

CAISO Response

Thank you for the feedback regarding the proposed schedule for stakeholder engagement. The schedule is based on the availability of market software. To perform any meaningful analysis on the parameters, the ISO needs to have functional software for DAME/EDAM readily available. This milestone will be achieved by the time the software is ready for market simulation in 2025, which is why actual simulation will start in September 2025. Prior to September 2025, the ISO cannot conduct any analysis of the functionality or initiate efforts to analyze the configurable parameters. Therefore, the earliest market analysis can begin is September 2025. CAISO has adjusted the schedule to provide more opportunities for stakeholder engagement and proposes to hold monthly stakeholder sessions to introduce and discuss analysis efforts on the configurable parameters as they become available. Additional monthly sessions will be held between August and December 2025. These will be in addition to the three stakeholder sessions already planned for the first quarter of 2026. With these additional sessions, there will be a total of seven stakeholder engagements over a period of eight months for this tuning effort to facilitate stakeholder involvement.

CA Community Choice Association (Shawn-Dai Linderman)	
Comments - 9/4/24	CAISO Response
Provide your organization's comments on the five configurable parameters included in the scope of the implementation working group: The parameters include: 1) Set of transmission constraints enforced in the deployment scenarios during market simulation; 2) Tunable parameter for proportion of imbalance reserves that are "deployed" in deployment scenarios during market simulation; 3) Energy storage "envelope constraint" multipliers; 4) Imbalance reserve demand curve cap; and 5) Default availability bid prices for Imbalance reserves Up and	Please see previous response
Reliability Capacity Up mitigation. More information on these parameters can be found in the DAME Business Requirements Specification (BRS): https://www.caiso.com/documents/businessrequirementsspecification-day-aheadmarketenhancement.pdf CalCCA supports including the five configurable parameters in the scope of the implementation working group, but as described in Section 2, the CAISO should alter the working group schedule to allow more time to assess and potentially modify the values that will be used.	
Provide your organization's comments on the proposed testing approaches for each of the configurable parameters: CalCCA agrees with the CAISO that the five configurable parameters will have interactions with each other and, therefore, supports the CAISO's proposed approach of first testing individual parameters and their sensitivities and then assessing the performance of all parameters in place to identify any needed calibration or unintended interplays.	Thank you
Provide your organization's comments on the proposed testing approach to evaluate the Imbalance Reserve mosaic quantile regression parameters: CalCCA has no comments on the imbalance reserve mosaic quantile regression parameters at this time. Provide any additional comments: CalCCA has no additional comments at this time.	

CAISO - Department of Market Monitoring (Aprille Girardot) Comments - 9/4/2024

The ISO's presentation indicates that the next stakeholder meeting for the configurable parameters working group is scheduled for early 2026. 2 This is a large gap without meetings or stakeholder engagement, given the level of stakeholder interest in how the parameters will operate and affect market outcomes. Further, DMM believes this relative lack of transparency and lack of opportunity for stakeholder engagement may be inconsistent with commitments made at CAISO Board of Governors and WEIM Governing Body meetings in May2023. DMM recommends the ISO hold additional meetings of the configurable parameters implementation working group prior to 2026. Providing additional meetings for stakeholder engagement and review of testing results before 2026 will allow stakeholders to have a better understanding of the testing, the ability to review existing results, and the opportunity to provide more input on the testing of the configurable parameter.

CAISO Response

Thank you for the feedback regarding the proposed schedule for stakeholder engagement. The schedule is based on the availability of market software. To perform any meaningful analysis on the parameters, the ISO needs to have functional software for DAME/EDAM readily available. This milestone will be achieved by the time the software is ready for market simulation in 2025, which is why actual simulation will start in September 2025. Prior to September 2025, the ISO cannot conduct any analysis of the functionality or initiate efforts to analyze the configurable parameters. Therefore, the earliest market analysis can begin is September 2025. CAISO has adjusted the schedule to provide more opportunities for stakeholder engagement and proposes to hold monthly stakeholder sessions to introduce and discuss analysis efforts on the configurable parameters as they become available. Additional monthly sessions will be held between August and December 2025. These will be in addition to the three stakeholder sessions already planned for the first guarter of 2026. With these additional sessions, there will be a total of seven stakeholder engagements over a period of eight months for this tuning effort to facilitate stakeholder involvement. As the ISO start this effort of analysis and has an opportunity to perform basic functionality analysis, more specific details of analysis and approach to assess the market performance under these different parameters will be provided in the session of August 2025.

CAISO - Department of Market Monitoring (Aprille Girardot) Comments - 9/4/2024

The ISO is leveraging its pre-market simulation processes to test the sensitivity of market results to changes in the configurable parameters. It is DMM's understanding that the pre-market simulation process has primarily been used to ensure that new functionality operates as intended, to ensure that data flows where needed, and to test interfaces between market participants and the ISO. The data used in these processes may not necessarily be realistic market data and may not produce realistic results. Descriptive statistics and charts of the data used should be included with the reporting of results. The ISO should also consider using actual market data, when possible, while testing the configurable parameters. After the market go-live for the day-ahead enhancements, the ISO should also undertake and engage stakeholders in additional analysis of the configurable parameters using actual market data and bids. In particular, DMM highlights that the day-ahead initial state-of-charge parameter submitted by scheduling coordinators is the initial condition for batteries in the day-ahead market, and will initialize the envelope and day-ahead SOC constraints. This value alone has potential to lead to large differences between day-ahead and real-time SOC, and may have implications on the deliverability of imbalance reserves and reliability capacity awarded in the day-ahead market processes. Therefore, it may be important to consider the performance of different constraint multipliers under different scenarios of initial SOC divergence between day-ahead and real-time. Similarly, the ISO may need to test the performance of potential constraint multipliers under a variety of real-time bidding scenarios, and scenarios of different realtime ancillary service awards and deployment, which may also create large differences between day-ahead and real-time SOC. In the absence of operational experience, DMM supports the relatively high initial multiplier value of 0.85 as a conservative starting point that will be relatively constraining in the day-ahead awards of storage resources. DMM also supports the ISO's general approach to testing its appropriateness. While data used in the pre-market simulation process may not necessarily be realistic market data and may not produce realistic results, testing may be sufficient to assess whether the envelope constraints are generally working as intended. If testing reveals that the envelope constraints may have detrimental overall market impacts, it may be appropriate to reduce the constraint multiplier pending any needed design changes. However, if testing indicates that the envelope constraints are generally functioning as intended, DMM recommends that the ISO not lower the multiplier to a value less than 0.85 until the ISO gains operational experience after go-live. As the ISO gains operational experience outside of the testing environment, the ISO should continue to track the frequency and magnitude of SOC sufficiency to meet imbalance reserve awards and access reliability capacity under different scenarios. Sufficient collection of this real-world operational data over time may better inform the potential appropriateness of different constraint multiplier values in the future.

CAISO Response

Any effort that is done before the actual go-live, including parallel operations may not be reflective of actual bidding information. The ISO is cognizant of this limitation while it has to balance that with the need to perform assessment of the functionality and the effect of the different parameters in the scope of the working group. As part of the ISO's commitment to maintaining an open and transparent process for tuning the DAME parameter, the ISO has pledged to assess all five parameters, which include both the bid cap and bid curve. These two specific parameters have already undergone stakeholder review and are defined in the tariff. However, within the scope of this working group, the ISO is committed to assessing the imbalance reserve functionality and verifying that the market power mitigation process operates as intended with these parameters. Furthermore, since market results will be highly dependent on the actual bid values submitted by participants, it is prudent to continue ongoing monitoring of these parameters after the launch of the DAME, once actual production data is available.

CAISO - Department of Market Monitoring (Aprille Girardot) Comments - 9/4/2024	CAISO Response
The \$55 value for the imbalance reserve demand curve cap and default capacity bid was established through extensive discussion in policy process, and codified in the CAISO tariff. Any changes to this value would require a tariff change and represent a departure from approved policy. While DMM does not oppose the ISO testing the performance of the \$55 imbalance reserve demand curve cap and default capacity bid, any consideration of alternative values for either the demand curve cap or the default capacity bid should come from a separate policy stakeholder initiative with its own data analysis. Changes should not come through this working group, particularly if the parameters are not tested with realistic market data. As DMM has previously commented, an administrative demand curve with a penalty price that is toohigh, as is likely the case with the current \$55 value, will increase day-ahead energy and reserve costs while providing limited market benefits that are below these increased costs	Within the scope of this working group, the ISO is committed to assessing the imbalance reserve functionality and verifying that the market power mitigation process operates as intended with these parameters. Furthermore, since market results will be highly dependent on the actual bid values submitted by participants, it is prudent to continue ongoing monitoring of these parameters after the launch of the DAME, once actual production data is available. If there are merits to considering changes to these parameters, the ISO will initiate a stakeholder process for the necessary tariff changes to modify the \$55 parameters.

CAISO - Department of Market Monitoring (Aprille Girardot) Comments - 9/4/2024	CAISO Response
In the Day-Ahead Market Enhancements policy, the ISO introduced "envelope constraints" to help	Thank you for the comments and suggestions. The ISO will
ensure the real-time deliverability of imbalance reserves and reliability capacity awarded to energy	take these into account for assessment of the configurable
storage resources. These constraints function by establishing an upper and lower bound of modeled	parameters
state-of-charge (SOC) after considering day-ahead energy awards, and an assumed percentage of	
imbalance reserve deployment and reliability capacity utilization, to estimate the impact of	
imbalance reserves and reliability capacity on SOC. The constraints then ensure that the day-ahead	
market processes of the integrated forward market (IFM) and residual unit commitment (RUC) do	
not award energy, imbalance reserves, or reliability capacity such that this upper and lower bound	
of modeled SOC would fall outside of the minimum or maximum SOC for the resource. The	
envelope constraints use multipliers on a scale from 0 to 1 to model the estimated impact of	
imbalance reserves and reliability capacity on SOC in the day-ahead market processes. Multiplier	
values closer to 1 reflect an assumption of greater SOC impacts from imbalance reserves and	
reliability capacity awards. DMM understands the ISO plans to test and initially implement a	
multiplier value of 0.85. DMM further understands that the ISO plans to test the appropriateness of	
this multiplier value by assessing the frequency of instances with SOC sufficient to meet imbalance	
reserve awards, the magnitude of such SOC sufficiency, and by conducting sensitivity analysis while	
holding other parameters constant. 5, 6 DMM supports this general approach to testing but notes	
that consideration of SOC sufficiency to meet reliability capacity awards was not explicitly	
considered in presented materials. 7 The ISO should also assess the sufficiency of real-time SOC to	
provide reliability capacity awarded in RUC. DMM notes that there are many situations that can	
lead to significant differences between day-aheadand real-time SOC. The appropriateness of a given	
value of the envelope constraint multipliers may vary depending upon the expected overall level	
, , , , , , , , , , , , , , , , , , , ,	

divergence between day-ahead and real-time SOC. Therefore, the ISO may also need to consider testing the performance of potential values of constraint multipliers under a variety of specific

scenarios that may create differences between day-ahead and real-time SOC

NV Energy (Lindsey Schlekeway) Comments - 9/4/2024	CAISO Response
Provide a summary of your organization's comments on the Aug 07, 2024 DAME configurable parameters implementation working group discussion: NV Energy appreciates and generally supports CAISO's effort to undergo a stakeholder process to receive stakeholder comments and feedback for the imbalance reserve product configurable parameters. During the August 7, 2024, working group meeting CAISO described the testing schedule, defined the tunable parameters, and explained the testing methodology. This was all very helpful to gain a better understanding of the scope for this implementation working group; however it was not clear how the data will be provided to stakeholders and what data stakeholders would be able to see in order to provide meaningful feedback. As an example, it would be helpful if CAISO provided the results and impacts broken out by each individual Balancing Authority Area so that stakeholders have the ability to view the overall impact each parameter has on their respective area. Additionally, it was unclear whether these parameters will be stated in a Business Practice Manual at the conclusion of this process or if these parameters will not be clearly stated in any documentation. NV Energy recommends that the final tunable parameters be stated clearly in a Business Practice Manual or tariff following the conclusion of this process in order to preserve the stakeholder process if changes are necessary in the future.	Within the framework of a working group, the results of the analysis will be made publicly available through ad hoc reports. These reports will include information at the balancing area level or aggregated data to ensure that any resource-specific information is not disclosed. This approach follows the general framework for analysis reports regularly provided by the ISO. Upon the conclusion of this working group effort, the parameter values will be stated in both the Tariff (in the case of the bid cap and bid curve) and the business practice manual. This aligns with the standard process the ISO has used for defining other market parameters
Provide your organization's comments on the current implementation working group schedule and milestones:	
No comment.	

NV Energy (Lindsey Schlekeway) Comments - 9/4/2024

Provide your organization's comments on the five configurable parameters included in the scope of the implementation working group:

The parameters include: 1) Set of transmission constraints enforced in the deployment scenarios during market simulation; 2) Tunable parameter for proportion of imbalance reserves that are "deployed" in deployment scenarios during market simulation; 3) Energy storage "envelope constraint" multipliers; 4) Imbalance reserve demand curve cap; and 5) Default availability bid prices for Imbalance reserves Up and Reliability Capacity Up mitigation. More information on these parameters can be found in the DAME Business Requirements Specification

(BRS):https://www.caiso.com/documents/businessrequirementsspecification-day-aheadmarketenhancement.pdfNV Energy is surprised that parameters 4) imbalance reserve demand curve cap and 5) default availability bid prices for imbalance reserves up and reliability capacity up mitigation are within the scope as tunable parameters. These specific items were a part of the Day Ahead Market Enhancements initiative and were approved and included within the tariff changes. Therefore, NV Energy recommends that these items be brought back to the stakeholder process if CAISO determines that these parameters need to be tuned to a different cap or price.

CAISO Response

As part of the ISO's commitment to maintaining an open and transparent process for tuning the DAME parameters, the ISO has pledged to assess all five parameters, which include the \$55 for both the bid cap and bid curve. These two specific parameters have already undergone stakeholder review and are defined in the tariff. However, within the scope of this working group, the ISO is committed to assessing the imbalance reserve functionality and verifying that the market power mitigation process operates as intended with these parameters. Furthermore, since market results will be highly dependent on the actual bid values submitted by participants, it is prudent to continue ongoing monitoring of these parameters after the launch of the DAME, once actual production data is available. If there are merits to considering changes to these parameters, the ISO will initiate a stakeholder process for the necessary tariff changes to modify the \$55 default availability bid curve and bid cap.

NV Energy (Lindsey Schlekeway) Comments - 9/4/2024	CAISO Response
Provide your organization's comments on the proposed testing approaches for each of the configurable parameters: NV Energy generally supports CAISO's proposed testing approaches; however, CAISO has not been clear about the testing footprint that would be used. NV Energy believes the footprint will be just as important to the overall test as other controls that will be applied while testing. For instance, the test may indicate a certain value is needed for the parameters for an EDAM footprint that only includes PacifiCorp and the CAISO Balancing Authority Areas and may indicate very different values when a larger footprint is included with more connectivity with a different resource mix. It would be helpful for stakeholders to understand the footprint that was used during testing when reviewing the results. Additionally, NV Energy would like to know whether CAISO plans to change the parameters when the EDAM footprint changes and includes a larger footprint.	The analysis of the parameters can only be performed based on the footprint available and setup for simulation, which includes the balancing areas being on boarded to EDAM. For the timeframe of this effort, only CAISO and PAC areas will be configured for simulation and parallel operations. Therefore, only data from CAISO and PAC will be available for analysis and tuning. There will not be data or system setups to support other EDAM balancing areas that are not part of the first onboarding cycle. CAISO is committed to continuously assessing and analyzing the performance of the DAME/EDAM and their parameters for any necessary adjustments as more entities are on boarded. However, this type of analysis can only be conducted once the new areas are set up in the market systems, allowing for the necessary data and system setups to be available in the market for simulation. Basing the analysis only on CAISO and PAC areas for the pre-launch effort, is not a discretionary ISO decision to limit the analysis; it is a limitation imposed by what data is available to simulate pre-launch under the DAME/EDAM functionality.
Provide your organization's comments on the proposed testing approach to evaluate the Imbalance Reserve mosaic quantile regression parameters: No comment.	
Provide any additional comments:	

PG&E (Chunyu Luo) Comments - 9/4/24

Provide a summary of your organization's comments on the Aug 07, 2024 DAME configurable parameters implementation working group discussion:

PG&E appreciates CAISO hosted the DAME configurable parameters implementation working group discussion and provide the opportunity for questions and comments. PG&E has been a committed partner in the development of the Extended Day-Ahead Market and the Day-Ahead Market Enhancements. We want to see a successful and on-time launch of EDAM and the testing and tuning of these parameters are a crucial part of the preparation. The 8/7 initial plan is a good start. PG&E finds that the testing plan presented on August 7th is a good start but is concerned of its incompleteness. For this process, PG&E has two key expectations:

- 1. That the entire testing and tuning process will be a collaboration between CAISO and stakeholders. Tuning of the parameters is too important to have gaps in the communication between CAISO and stakeholders. PG&E would suggest the CAISO hold additional working group sessions between now to Jan 2026. We're committed to helping develop and provide feedback throughout the entire process.
- 2. The level of detail shared needs to be sufficient to assess the testing, test results and tuning methods. The initial plan is a good start but needs to be more complete. The tuning of these policy-driven parameters is different than implementation testing. It may require different methods and metrics. We've provided specific questions and comments on item #3, and we expect more detailed plans, methods, metrics will be provided in future meetings.

With the goal of a successful 2026 launch of DAME and EDAM, it is critical that stakeholders are not surprised by the results presented to them in January 2026. Having frequent and broad communication of this testing and tuning process should mitigate the risk of a 2026 surprise and help launch DAME and EDAM on time.

CAISO Response

Thank you for the feedback regarding the proposed schedule for stakeholder engagement. The schedule is based on the availability of market software. To perform any meaningful analysis on the parameters, the ISO needs to have functional software for DAME/EDAM readily available. This milestone will be achieved by the time the software is ready for market simulation in 2025, which is why actual simulation will start in September 2025. Prior to September 2025, the ISO cannot conduct any analysis of the functionality or initiate efforts to analyze the configurable parameters. Therefore, the earliest market analysis can begin is September 2025. CAISO has adjusted the schedule to provide more opportunities for stakeholder engagement and proposes to hold monthly stakeholder sessions to introduce and discuss analysis efforts on the configurable parameters as they become available. Additional monthly sessions will be held between August and December 2025. These will be in addition to the three stakeholder sessions already planned for the first guarter of 2026. With these additional sessions, there will be a total of seven stakeholder engagements over a period of eight months for this tuning effort to facilitate stakeholder involvement. As the ISO start this effort of analysis and has an opportunity to perform basic functionality testing, more specific details of analysis and approach to assess the market performance under these different parameters will be provided in the session of August 2025.

PG&E (Chunyu Luo) Comments - 9/4/24 Provide your organization's comments on

Provide your organization's comments on the current implementation working group schedule and milestones: Market Sim and Parallel Operations On this plan, we would like to see a final market simulation test plan that includes tests for parameter interactions and a final set of tests at the 'optimal' parameter values (from the fine-tuning results) and the interaction between them. This item is critical to the implementation success. We are committed to helping at every stage. DAME Config Parameters TuningThe testing of these policy-driven parameters is different than implementation testing. It may require different methods and metrics; further it will require more regular and active updates to stakeholders. Additionally, we have concerns about the level of detail shared isn't sufficient to assess the testing methods (see our response to question 4). Therefore, we suggest the CAISO hold additional working group sessions between now and Jan 2026. Imbalance Reserve RequirementsFor this stage we have only a few clarifying questions:

- 1. It is our understanding that this portion will be built out the Imbalance Reserve product functionality. Can CAISO confirm this understanding?
- 2. What is the scope of the Imbalance Reserve Requirements testing?
- 3. Are those milestones for CAISO internal teams?
- 4. There are some stakeholder meetings shown on the schedule, can CAISO elaborate this line item a little more?

CAISO Response

Please see previous answer regarding the suggestion to extend the effort of this working group and the plans for simulation. Regarding the calculation of the Imbalance Reserve requirements; as explained in the August 7 workshop, this is a separate effort that will have its own timeline. The first session for that effort already took place. That first session elaborated on the overall plan. PG&E is encouraged to continue to engage in this discussion.

PG&E (Chunyu Luo) Comments - 9/4/24

Provide your organization's comments on the five configurable parameters included in the scope of the implementation working group: The parameters include: 1) Set of transmission constraints enforced in the deployment scenarios during market simulation; 2) Tunable parameter for proportion of imbalance reserves that are "deployed" in deployment scenarios during market simulation; 3) Energy storage "envelope constraint" multipliers; 4) Imbalance reserve demand curve cap; and 5) Default availability bid prices for Imbalance reserves Up and Reliability Capacity Up mitigation. More information on these parameters can be found in the DAME Business Requirements Specification (BRS):https://www.caiso.com/documents/businessrequirementsspecification-dayaheadmarketenhancement.pdfPG&E appreciates the amount of thought and effort that has gone into constructing this testing plan. We do have a few comments and questions regarding the choice of included parameters: 1. In the policy phase, there was some consideration of treating imbalance reserve down differently than imbalance reserve up. To that end, is CAISO considering having different tunable parameters for the upward and downward products?2. Should the process include parameters that activate/deactivate the RUC-Market Power Mitigation (MPM) process? Our understanding from the business requirements and specifications for DAME is that RUC-MPM may not be performed initially, and CAISO specifies a parameter for activation of MPM (DAME BRS BRQ 05020). PG&E is curious whether the parameter will be set based on market conditions. If so, we believe that it should be tunable and beneficial from discussion in this working group. 3. Should an additional tunable parameter be defined to constrain the effect of energy limits on imbalance reserve awards, analogous to the envelope constraints defined for batteries. If IRU counts toward 100% of a hydro resource's daily energy limit implies its day ahead energy awards may be highly variable unless the resource bids to avoid imbalance reserve awards (i.e., bids zero quantity or \$55/MW).4. PG&E is confused by the inclusion of the imbalance reserve demand curve cap (parameter #4) and the default availability bid prices for imbalance reserve (parameter #5). PG&E appreciates more clarities on (a) how CAISO plans to tune these parameters without real bids, and (b) are curious why these should be considered for tuning given these are tariff defined values, (c) if CAISO plans to change the demand curve cap value, this needs to go through a stakeholder process. 1. a. Functionality verses Tuning. We understand that CAISO can test the functionality of a demand curve cap or default bid prices; what is confusing is how CAISO plans to "tune" these values with limited understanding of how these products will be bid. These are completely new products. Stakeholders and the Market Surveillance Committee Members expressed doubt as to what actual bids for these products will be. Without actual bids, it is unclear how one can assess whether a cap is of an appropriate value. 1. b. Tariff Defined parameters. The demand curve cap is defined to be \$55/MWh, as specified by the pending tariff section §31.3.1.6.2. This was set to that value after significant stakeholder debate.

CAISO Response

- 1. During the policy development there was not an explicit consideration of separate treatment between upward and downward IR. They are considered as different products, one for up and one for down. The policy and implementation treats both largely the same. The envelop equations will have different parameters between up and down, similar to what is implemented for regulation. This area will be further assessed as part of working group effort.

 2. As part of the policy, there is no plan to run DAME/EDAM
- without the RUC MPM process. For software implementation purposes, many processes are parameterized to allow for testing/debugging purposes only.
- **3**. This was not within the scope of the configurable parameters discussed in the policy stage and consequently is not part of the scope in this working group. The current formulation fully considers the impact of imbalance reserves.
- 4 and 5. As part of the ISO's commitment to maintaining an open and transparent process for tuning the DAME parameters, the ISO has pledged to assess all five parameters, which include the \$55 for both the bid cap and bid curve. These two specific parameters have already undergone stakeholder review and are defined in the tariff. However, within the scope of this working group, the ISO is committed to assessing the imbalance reserve functionality and verifying that the market power mitigation process operates as intended with these parameters. Furthermore, since market results will be highly dependent on the actual bid values submitted by participants, it is prudent to continue ongoing monitoring of these parameters after the launch of the DAME, once actual production data is available. If there are merits to considering changes to these parameters, the ISO will initiate a stakeholder process for the necessary tariff changes to modify the \$55 default availability bid price and bid cap.

Provide your organization's comments on the proposed testing approaches for each of the configurable parameters: As the CAISO is going to introduce these new products into the market, we commend the CAISO for outlining what is going to be a thorough testing plan. We offer these comments and questions in the hopes that we can help create a successful DAME and EDAM launch in 2026. PG&E would appreciate it if the CAISO could clarify what it is meant by "performance analysis" for those parameters? Is it software performance (i.e., computational time), or are there other metrics measuring market responses, such as price changes and expected levels of unrealized congestion from Imbalance Reserve awards? PG&E finds the latter were typically not included in conventional market-sim procedures but believes they are critical for the CAISO and stakeholders to understand how the values of the parameters should be set with the addition of new products in DAME. 1. Set of transmission constraints enforced in the deployment scenarios during market simulation. • What range will be used for initial testing (e.g., [0-1] or [0.1-0.9])? How is the constraint being identified and selected for the testing? i.e., is it a static set or is it a static method for selecting a dynamic set of constraints? • What is meant by "performance analysis" for this parameter?2. Tunable parameter for proportion of imbalance reserves that are "deployed" in deployment scenarios. • What is meant by "performance analysis" for this parameter?3. Energy storage "envelope constraint" multipliers – no questions4. Imbalance reserve demand curve cap & 5) Default availability bid prices for Imbalance reserves Up and Reliability Capacity Up mitigation. • As noted in the previous response, we understand that CAISO can test the functionality of a demand curve cap or default imbalance reserve bid; what is confusing is how CAISO plans to "tune" these values with limited understanding of how these products will be bid. These are completely new products. Stakeholders and the Market Surveillance Committee Members expressed doubt as to what actual bids for these products will be. Without actual bids, it's unclear how one can assess whether a cap is of an appropriate value? • PG&E believes it is important to assess the market outcomes including:i. Impact on LMPs for energy or ancillary services.ii. Frequency of occurrences where the IFM does not clear for the full amount of imbalance reserves. These metrics of market outcomes will depend on the assumed imbalance reserve bids.

Performance analysis in the context of the working group effort for configurable parameters refers to both market performance and computational performance. For computational performance, there is a need to assess how feasible is to enforce a large set of transmission constraints that may include flowgates, nomograms and contingencies. Similar assessment is being done for FRP in real time. For the market performance side, it refers to all areas of market solution including how the market solutions are impacted by the different choices of the parameters and their tradeoffs, how this parameters impacts outcomes such as prices, awards, congestion, interactions between the different products, clearing and deliverability of IR. For context, it is important to clarify that there is a standard stage for market simulation that has a specific purpose of assessing the DAME/EDAM functionality under specific scenarios. The effort in the working group for configurable parameters is an additional effort that will leverage as much as possible market scenarios used in simulation as a starting point but will develop additional market cases to analyze the configurable parameters. The enforcement of transmission constraints for imbalance reserves are not guided by a parameters that can take a continuous value between 0 and 1; it is rather a discrete condition to determine the set of transmission constraints that are enabled for assessing deliverability of Imbalance reserves. The assessment that will be done as part of this working group is precisely to determine what set to enforce. The effort in the working group will assess different sets of constraints for enforcement and their impact on deliverability and computational performance. As part of the ISO's commitment to maintaining an open and transparent process for tuning the DAME parameter, the ISO has pledged to assess all five parameters, which include both the bid cap and bid curve. These two specific parameters have already undergone stakeholder review and are defined in the tariff. However, within the scope of this working group, the ISO is committed to assessing the imbalance reserve functionality and verifying that the market power mitigation process operates as intended with these parameters. Furthermore, since market results will be highly dependent on the actual bid values submitted by participants, it is prudent to continue ongoing monitoring of these parameters after the launch of the DAME, once actual production data is available. If there are merits to considering changes to these parameters, the ISO will initiate a stakeholder process for the necessary tariff changes to modify the \$55 default availability bid curve and bid cap.

PG&E (Chunyu Luo) Comments - 9/4/24	CAISO Response
Provide your organization's comments on the proposed testing approach to evaluate the Imbalance Reserve mosaic quantile regression parameters: There was not any testing approach presented in the 8/7 meeting; therefore, we suggest that CAISO provide the testing approach and another opportunity for stakeholders to comment.	As explained during the first session of the working group, the ISO will have a separate effort to assess the methodology to calculate the Imbalance reserve requirements. This will have a separate effort with an initial session already took place.
Provide any additional comments:	

PacifiCorp (Vijay Singh) Comments - 9/4/24	CAISO Response
Provide a summary of your organization's comments on the Aug 07, 2024 DAME configurable parameters implementation working group discussion:	Thank you for the feedback regarding the proposed schedule for stakeholder engagement.
PacifiCorp appreciates the CAISO providing an update to stakeholders on their plans for tuning the DAME configurable parameters. PacifiCorp believes that the proposed timeline may not be long enough with the expectation that there will be robust discussion in the stakeholder meetings on what the parameter values should be set to. Based on the August 7 meeting, it appears as though stakeholders will want to thoroughly discuss how the configurable parameters should be set. PacifiCorp agrees with the parameters that will be tested and how those parameters will be tested. PacifiCorp also appreciates the CAISO conducting a separate process for the imbalance reserve requirement estimations.	The schedule is based on the availability of market software. To perform any meaningful analysis on the parameters, the ISO needs to have functional software for DAME/EDAM readily available. This milestone will be achieved by the time the software is ready for market simulation in 2025, which is why actual simulation will start in September 2025. Prior to September 2025, the ISO cannot conduct any analysis of the functionality or initiate efforts to analyze the configurable parameters. Therefore, the earliest market analysis can begin is September 2025. CAISO has adjusted the schedule to provide more
	opportunities for stakeholder engagement and proposes to hold monthly stakeholder sessions to introduce and discuss analysis efforts on the configurable parameters as they become available. Additional monthly sessions will be held between August and December 2025. These will be in addition to the three stakeholder sessions already planned for the first quarter of 2026.
	With these additional sessions, there will be a total of seven stakeholder engagements over a period of eight months for this tuning effort to facilitate stakeholder involvement.

PacifiCorp (Vijay Singh) Comments - 9/4/24

Provide your organization's comments on the current implementation working group schedule and milestones:

PacifiCorp is wary of the current schedule as it seems to only provide a short window for stakeholders and the CAISO to discuss and enact changes from the stakeholder meetings before EDAM go-live. During the policy phase, stakeholders were under the impression that there would be more discussion on how the parameters should be set. PacifiCorp expects that stakeholders will want to make changes from the initial values, which may require further testing from the CAISO. If the CAISO is confident with their proposed schedule, PacifiCorp recommends that the CAISO release their analysis on the tunable parameters well before the first stakeholder meeting so that all stakeholders have time to prepare. It would also be helpful if the CAISO clarifies what the expectations are for the stakeholder meetings. In particular

- What analysis does the CAISO plan on showing in the stakeholder meetings?
- What performance indicators from testing may suggest to the CAISO that the configurable parameters should be changed from their initial values?
- If stakeholders and the CAISO decide to make parameter changes in the March stakeholder meeting, how will that impact parallel operations?

CAISO Response

Regarding the concerns about the schedule, please see previous answer. The ISO has adjusted the schedule to address this concern. Regarding the expectations for the stakeholder engagement

- 1. The ISO will have market solutions analysis targeting the impact of every parameters within the scope of the configurable parameters
- 2. The analysis of market solutions are intended to be holistic and will include impact on schedules and prices for all commodities, including IR and RC, congestion for energy and IR and transfers. This will also assess the impact on IR deliverability, level of demand curve relaxation.
- 3. Market cases for different system conditions will be assessed, including stressed days (high load, significant congestion)
- 4. Additionally, the ISO will run sensitivity analysis with different values of the configurable parameters to assess how these changes impact the overall market solution. One critical element for the quality of this analysis will be predicated on the quality of the market inputs. Specifically, there is an inherent limitation on the IR bids that may be used in simulation and how reflective they will be of the actual bids use after launch. This is a factor that needs to be considered for any conclusions of this effort. Parallel operations may provide the best data quality for assessing the market performance and the ISO will closely assess the market solution along the parameter values being used. Based on these findings, the ISO in conjunction with market participants may find suitable to adjust as needed for those parameters that are not prescribed in the Tariff.

PacifiCorp (Vijay Singh) Comments - 9/4/24	CAISO Response
Provide your organization's comments on the five configurable parameters included in the scope of the implementation working group: The parameters include:	Thanks
1) Set of transmission constraints enforced in the deployment scenarios during market simulation; 2) Tunable parameter for proportion of imbalance reserves that are "deployed" in deployment scenarios during market simulation; 3) Energy storage "envelope constraint" multipliers; 4) Imbalance reserve demand curve cap; and 5) Default availability bid prices for Imbalance reserves Up and Reliability Capacity Up mitigation. More information on these parameters can be found in the DAME Business Requirements Specification (BRS):https://www.caiso.com/documents/businessrequirementsspecification-day-aheadmarketenhancement.pdf	
PacifiCorp agrees with the list of configurable parameters that will be tested by the CAISO and discussed for implementation.	
Provide your organization's comments on the proposed testing approaches for each of the configurable parameters: PacifiCorp agrees with the proposed testing approach.	Thanks
Provide your organization's comments on the proposed testing approach to evaluate the Imbalance Reserve mosaic quantile regression parameters: PacifiCorp appreciates that the CAISO has separated the efforts to evaluate the mosaic quantile regression parameters from the meetings on the other configurable parameters. PacifiCorp is looking forward to seeing the CAISO's analysis and working towards making improvements, if needed, to the quantile regression parameters before EDAM go-live.	Thanks

PacifiCorp (Vijay Singh) Comments - 9/4/24	CAISO Response
Provide any additional comments: PacifiCorp asks that the CAISO explain what the EDAM footprint will be for the parameter testing in MAP-Stage because the footprint will likely have an impact on how the tunable parameters perform. Also, PacifiCorp would like to know if the CAISO will be sharing analysis in the stakeholder meetings that is specific to the CAISO or if the analysis will include information about PacifiCorp. If the analysis will contain PacifiCorp information, the company would like to know beforehand in case there is information that may be deemed sensitive to the company.	The footprint that will be used in the effort for the configurable parameters is not determined by the effort itself; rather, the effort will use the market footprint that is available from the overall simulation effort. In the market simulation only CAISO and PAC areas will be readily available in the market software; therefore the first stages of analysis can only rely on CAISO and PAC areas. As more areas are on boarded into the EDAM, the ISO is committed to continue the assessment of these configurable parameters. Regarding the data that can be shared, generally, only system level or aggregated data is presented publicly for any type of market analysis issued by the ISO. For this effort, the ISO expect to follow the same guideline. There is no resource specific information to be publicly shared in this effort. The ISO understand the
	sensitivities about sensitive information and will take steps to ensure any data released is at a level that do not disclose sensitive information

SDG&E (Pamela Mills Comments - 9/4/24	CAISO Response
Provide a summary of your organization's comments on the Aug 07, 2024 DAME configurable parameters implementation working group discussion:	
N/A	
Provide your organization's comments on the current implementation working group schedule and milestones:	Thank you for the feedback regarding the proposed schedule for stakeholder engagement.
SDG&E appreciates that CAISO's modeling activities will be complex and time consuming, and notes that this effort would benefit from stakeholder participation throughout the process, and in particular prior to the Q1 2026 proposed stakeholder meetings for the configurable parameters. During the workshop, CAISO staff indicated openness to earlier discussions, and SDG&E strongly encourages revision of the current timeline to allow for more participation upfront and throughout the proposed schedule. DAME will have far-reaching impacts for CAISO's as well as SDG&E's operational systems, and it would be beneficial if updates and opportunities for stakeholder involvement were available with each modeling iteration as this would provide transparency and facilitate feedback to support CAISO's work.	The schedule is based on the availability of market software. To perform any meaningful analysis on the parameters, the ISO needs to have functional software for DAME/EDAM readily available. This milestone will be achieved by the time the software is ready for market simulation in 2025, which is why actual simulation will start in September 2025. Prior to September 2025, the ISO cannot conduct any analysis of the functionality or initiate efforts to analyze the configurable parameters. Therefore, the earliest market analysis can begin is September 2025. CAISO has adjusted the schedule to provide more opportunities for stakeholder engagement and proposes to hold monthly stakeholder sessions to introduce and discuss analysis efforts on the configurable parameters as they become available. Additional monthly sessions will be held between August and December 2025. These will be in addition to the three stakeholder sessions already planned for the first quarter of 2026. With these additional sessions, there will be a total of seven stakeholder engagements over a period of eight months for this tuning effort to facilitate stakeholder involvement.

SDG&E (Pamela Mills Comments - 9/4/24	CAISO Response
Provide your organization's comments on the five configurable parameters included in the scope	
of the implementation working group:	
N/A	
Provide your organization's comments on the proposed testing approaches for each of the	
configurable parameters: N/A	
Provide your organization's comments on the proposed testing approach to evaluate the	
Imbalance Reserve mosaic quantile regression parameters:	
N/A	
Provide any additional comments:	
N/A	

SCE (Jonathan Lawson Rumble) Comments - 9/4/24

Provide a summary of your organization's comments on the Aug 07, 2024 DAME configurable parameters implementation working group discussion:

SCE's comments will primarily focus on the timing and involvement of stakeholders in the implementation working group plan. The proposed plan waits too long to involve stakeholders in the implementation process. There should be at least one stakeholder meeting concerning the tunable parameters prior to market sim with monthly or bi-monthly updates through the commencement of parallel operations. This will do two things:

- (1) Refresh stakeholders understanding of the effort including setting expectations and providing updates during market sim;
- (2) with that refreshed understanding, ensure that stakeholders will be up-to-speed and fully engaged during the fine-tuning that will occur in a compressed timeframe during parallel operations.

Because DAME and EDAM represent such a significant evolution of CAISO markets, it must be anticipated that there will be various hiccups along the path to implementation that will further compress already short timelines. To mitigate the risk of further compression, it will behoove CAISO to involve stakeholders earlier in the implementation process with stakeholder meetings beginning before market sim rather than beginning before parallel operations.

CAISO Response

Thank you for the feedback regarding the proposed schedule for stakeholder engagement.

The schedule is based on the availability of market software. To perform any meaningful analysis on the parameters, the ISO needs to have functional software for DAME/EDAM readily available. This milestone will be achieved by the time the software is ready for market simulation in 2025, which is why actual simulation will start in September 2025. Prior to September 2025, the ISO cannot conduct any analysis of the functionality or initiate efforts to analyze the configurable parameters. Therefore, the earliest market analysis can begin is September 2025.

CAISO has adjusted the schedule to provide more opportunities for stakeholder engagement and proposes to hold monthly stakeholder sessions to introduce and discuss analysis efforts on the configurable parameters as they become available. Additional monthly sessions will be held between August and December 2025. These will be in addition to the three stakeholder sessions already planned for the first quarter of 2026.

With these additional sessions, there will be a total of seven stakeholder engagements over a period of eight months for this tuning effort to facilitate stakeholder involvement.

SCE (Jonathan Lawson Rumble) Comments - 9/4/24	CAISO Response
Provide your organization's comments on the current implementation working group schedule and milestones:	Please see answer below regarding the adjusted schedule to address concerns about the tight scheduled originally proposed.
See above for comments on the commencement and cadence of stakeholder meetings. The project milestones appear okay but CAISO should ensure that some contingency has been built in the market sim and parallel operations schedules. Additionally, is there an overall master schedule that shows the implementation steps for both DAME and EDAM? If not, does it make sense to create one so that stakeholders can get an overall sense of the work to be accomplished by Q2/Q3 2026?	For the master schedule, the ISO will publish and publicly discuss the master schedule for DAME/EDAM implementation in the December 19 RUG meeting
Provide your organization's comments on the five configurable parameters included in the scope of the implementation working group: No comment at this time	
Provide your organization's comments on the proposed testing approaches for each of the configurable parameters: The proposed testing approaches appear to be sound. There should be some consideration of how CAISO will deal with unexpected outcomes, either in market sim or parallel operations. For example, if any one or more of the parameters requires significant deviation from their respective initial values in order for the optimization to achieve sound results, CAISO should involve stakeholders in a more robust review of the parameter(s).	CAISO has adjusted the schedule to provide more opportunities for stakeholder engagement and proposes to hold monthly stakeholder sessions to introduce and discuss analysis efforts on the configurable parameters as they become available. Additional monthly sessions will be held between August and December 2025. These will be in addition to the three stakeholder sessions already planned for the first quarter of 2026. This adjusted schedule will allow for more time and opportunities to engage with market participants and will allow for more time and flexibility to address unexpected outcomes during the market sim and parallel operations
Provide your organization's comments on the proposed testing approach to evaluate the Imbalance Reserve mosaic quantile regression parameters: No comment.	
Provide any additional comments: No additional comments.	

WPTF (Kallie Wells) Comments - 9/4/24

Provide a summary of your organization's comments on the Aug 07, 2024 DAME configurable parameters implementation working group discussion:

WPTF appreciates the CAISO for providing stakeholders with an update and overview of their plan for the implementation working groups on configurable parameters. However, we are disappointed by the lack of early stakeholder engagement in the process for the configurable parameters. WPTF is concerned that there may not be enough time to fully involve stakeholders and integrate their feedback as envisioned by the implementation working groups during the policy process. Additionally, the testing process must ensure that the parameters being evaluated not only address market performance but also address the outstanding policy questions that initially prompted these working groups.

CAISO Response

Thank you for the feedback regarding the proposed schedule for stakeholder engagement.

The schedule is based on the availability of market software. To perform any meaningful analysis on the parameters, the ISO needs to have functional software for DAME/EDAM readily available. This milestone will be achieved by the time the software is ready for market simulation in 2025, which is why actual simulation will start in September 2025. Prior to September 2025, the ISO cannot conduct any analysis of the functionality or initiate efforts to analyze the configurable parameters. Therefore, the earliest market analysis can begin is September 2025.

CAISO has adjusted the schedule to provide more opportunities for stakeholder engagement and proposes to hold monthly stakeholder sessions to introduce and discuss analysis efforts on the configurable parameters as they become available. Additional monthly sessions will be held between August and December 2025. These will be in addition to the three stakeholder sessions already planned for the first quarter of 2026.

With these additional sessions, there will be a total of seven stakeholder engagements over a period of eight months for this tuning effort to facilitate stakeholder involvement.

WPTF (Kallie Wells) Comments - 9/4/24

Provide your organization's comments on the current implementation working group schedule and milestones: WPTF appreciates the schedule and milestones set for the imbalance reserve requirement process. Engaging early with stakeholders and holding staggered meetings throughout the analysis phase allows for meaningful feedback and gives CAISO sufficient time to incorporate this input and make necessary adjustments. However, we are extremely disappointed with the proposed schedule and milestones for the configurable parameters. Stakeholders should be involved earlier in the process. While we understand the need for initial analysis time, scheduling three stakeholder meetings in the last three months is inadequate. This approach does not provide enough time for meaningful engagement, feedback, or integration of that feedback into the analysis and testing. Additionally, it leaves insufficient time to present updated results, make necessary changes to the market design before go-live, and address any required Tariff amendments. We respectfully request that the CAISO (1) include stakeholder meetings during the Map stage testing, (2) start the parallel operations testing and scheduled stakeholder meetings earlier such that feedback can be incorporated into ongoing testing, and (3) ensure the overall schedule allows for sufficient time to make market design changes, including potential FERC filings, if needed before go-live.

CAISO Response

Thank you for the feedback regarding the proposed schedule for stakeholder engagement. The schedule is based on the availability of market software. To perform any meaningful analysis on the parameters, the ISO needs to have functional software for DAME/EDAM readily available. This milestone will be achieved by the time the software is ready for market simulation in 2025, which is why actual simulation will start in September 2025. Prior to September 2025, the ISO cannot conduct any analysis of the functionality or initiate efforts to analyze the configurable parameters. Therefore, the earliest market analysis can begin is September 2025. CAISO has adjusted the schedule to provide more opportunities for stakeholder engagement and proposes to hold monthly stakeholder sessions to introduce and discuss analysis efforts on the configurable parameters as they become available. Additional monthly sessions will be held between August and December 2025. These will be in addition to the three stakeholder sessions already planned for the first quarter of 2026. With these additional sessions, there will be a total of seven stakeholder engagements over a period of eight months for this tuning effort to facilitate stakeholder involvement. There is holistic scheduled for all activities of implementation for DAME/EDAM, in which both market simulation and parallel operations are executed in a specific sequence and timing. It is not feasible to execute parallel operations in a different scheduled without impacting other milestones of the overall implementation plan.

Provide your organization's comments on the five configurable parameters included in the scope of the implementation working group: No comment.

Provide your organization's comments on the proposed testing approaches for each of the configurable parameters: WPTF believes it's important that the testing approaches reflect the essence of the policy discussions that led to these implementation working groups. Specifically, there was considerable debate about whether the imbalance reserve design should be fully nodal, more like a zonal framework, or somewhere in between. Additionally, there was also lively debate on the value of the imbalance reserve demand curve bid cap, especially in light of the fact it was changed at the end of the policy discussion to \$55/MW. Thus, the testing approaches included in this stakeholder engagement should aim to quantify the costs and benefits of the range of potential frameworks and impact of the imbalance reserve demand curve cap. The proposed parameter values to initiate testing and conduct sensitives around seem to focus primarily on a nodal framework and \$55/MW demand curve cap. Thus, we ask CAISO to test the following parameter values which will help quantify the pros and cons of frameworks along the zonal to nodal spectrum and impact of the unjustifiably low demand curve cap: • Transmission constraints: Set of major interfaces like Path 15, Path 16, and other known constraints that routinely contribute to the inability to move energy from one larger area to another • Deployment: 0% • Imbalance Reserve Demand Curve Cap: \$247/MWAdditionally, the analysis presented to stakeholders should evaluate the impact on price formation, alignment between congestion in the IFM and real-time markets, the correlation between the amount of imbalance reserves procured and the imbalance reserve demand curve cap, and market process time. These were significant policy questions discussed before the Board meeting, which led to the establishment of these working groups. The goal was to continue policy discussions using market results from these working groups to assess the pros and cons of designs ranging from zonal to fully nodal.

Thanks for the suggestions; the ISO will take those into consideration when assessing the potential sensitivity scenarios in the effort of the configurable parameters. The assessment of the transmission constraints is not about zonal or nodal, the implementation is already for a nodal approach, the degree of assessment relies on the set of constraints that can be enabled for Imbalance reserve. The ISO expect to consider a range of options for the set of constraints to be assessed. This effort is not intended to quantify costs and benefits of the configurable parameters and perform a shadow calculation of settlements costs, but rather assess the appropriateness of these values to achieve an efficient market solution. The ISO will assess the implications of these parameters along an array of market considerations including schedules for the different products, price formation, interplays among commodities, clearing, procurement and deployment of IR, and transfers. As part of the ISO's commitment to maintaining an open and transparent process for tuning the DAME parameter, the ISO has pledged to assess all five parameters, which include both the bid cap and bid curve. These two specific parameters have already undergone stakeholder review and are defined in the tariff. However, within the scope of this working group, the ISO is committed to assessing the imbalance reserve functionality and verifying that the market power mitigation process operates as intended with these parameters. Furthermore, since market results will be highly dependent on the actual bid values submitted by participants, it is prudent to continue ongoing monitoring of these parameters after the launch of the DAME EDAM, once actual production data is available. If there are merits to considering changes to these parameters, the ISO will initiate a stakeholder process for the necessary tariff changes to modify the \$55 default availability bid for imbalance reserve and reliability capacity mitigation.

Provide your organization's comments on the proposed testing approach to evaluate the Imbalance Reserve mosaic quantile regression parameters: No comment.