

Responses to stakeholder written questions on the *Extended Day-Ahead Market Common Design Principles and Concepts*

In advance of the November 12th Extended Day Ahead Market (EDAM) foundational workshop, the CAISO requested stakeholder questions on the *EDAM Common Design Principles and Concepts* developed by a small group of EIM Entities and California Participating Transmission Owners.¹ At the November 12th workshop, the CAISO and panelists from the organizations that developed the common principles walked through and responded to submitted stakeholder questions. This document provides written responses, developed jointly between the CAISO and the organizations that developed the common principle. Responses related to general process questions are provided by the CAISO only, rather than joint responses, and those responses will be identified as such.

Stakeholder Questions	Responses
General Process	
Will the forthcoming EDAM stakeholder process honor and prioritize transparency and broad stakeholder participation? CPUC	CAISO RESPONSE. Yes. The EDAM Stakeholder process will be fully transparent and inclusive of all stakeholders. All stakeholders will have an opportunity to participate in the development of the EDAM market design and all can participate fully in the entire stakeholder process. The CAISO has enhanced this stakeholder process by adding working groups up front, which are an integral component of the complete stakeholder process. The working groups are structured to solicit input and guidance from all stakeholders prior to posting a straw proposal. All stakeholders can actively participate in the working groups by presenting options, proposals and participating in discussions on the specific elements of EDAM. The outcome of the working groups will feed into the comprehensive straw proposal and after posting the straw proposal, the CAISO will continue with its open and transparent stakeholder process through which all stakeholders will again have opportunities to provide iterative comments as the proposal evolves.
Q1: Does the CAISO have suggestions on its approach to the EDAM development process that would provide external entities with confidence that the interests of their ratepayers will be adequately served throughout that process, including: (1) in the development of straw proposals on each issue, (2) in the changes that are, and are not, made in the revisions to straw proposals, and (3) in the approval process of the final straw proposal. Powerex	

¹ The following organizations participated in the workgroup discussions that developed the *EDAM Common Design Principles and Concepts* and in the development of these responses: Arizona Public Service Company, Balancing Authority of Northern California, NV Energy, Idaho Power Company, PacifiCorp, Salt River Project, Pacific Gas & Electric, Seattle City Light, Southern California Edison, and San Diego Gas & Electric.

	<p>Over the past year, the CAISO has been evolving its stakeholder process to allow for greater input from stakeholders at the start of an initiative to define the scope of that initiative in an open and inclusive manner. Now, we are taking this one step further, through the EDAM working groups, by opening up the internal process that the CAISO would normally go through to develop a straw proposal. We believe this front-end approach will help create a more refined initial product as part of the broader stakeholder process.</p>
<p>How can EDAM’s design ensure consistency (to the greatest extent possible) across the various EDAM Entity footprints? In particular, how can the market’s design ensure that transmission requirements imposed at the individual EDAM Entity level (to enable resources to participate in EDAM) are fair, consistent and encourage third-party participation/bidding into the market? How can EDAM’s design ensure consistency (to the greatest extent possible) across the various EDAM Entity footprints? Energy Strategies</p>	<p>CAISO RESPONSE. As is the case with the EIM, the EDAM will have a common set of market rules, reflected in the CAISO Tariff, which will apply to all entities that participate in the EDAM equally. As is also the case with EIM, there may also be circumstances specific to an EDAM entity that may need to be recognized and accommodated separately through their own Open Access Transmission Tariffs (OATT). The stakeholder process will be open to all stakeholders including third party participants, and we encourage all to participate and put forth concerns with potential elements that would limit participation. Ultimately, the EDAM market rules will be approved by FERC as just and reasonable, and not unduly discriminatory, and we will strive to provide a design that meets those requirements. As was also the case with EIM, EDAM entities will also have to make changes to their own OATT. For the jurisdictional EDAM entities, like the CAISO, they too will be required to receive FERC approval of their revised OATTs.</p>
<p>Could you review the changes in these principles from the previous principles developed by the CAISO and EIM Entities and describe the reason for those changes? PPC</p>	<p>The common principles largely align with the principles developed by the CAISO and EIM Entities. However, there are some areas in which the common principles identify additional design measures for consideration.</p>
<p>What opportunity do those that were not involved in the formation of these principles have to provide input to revise and refine these principles so that they are workable for all stakeholders? PPC</p>	<p>CAISO RESPONSE. Stakeholders can provide comments to the principles as part of the open stakeholder process, and in particular, during the working group meetings that will be at the very start of the process. The CAISO expects that each of the working groups will dedicate time at the onset to familiarize themselves with the relevant principles, and consider changes or additional principles throughout the working group discussions.</p>

Supply Commitment & Resource Sufficiency	
Is bucket 1 transmission required for a resource to be able to count towards an EDAM Entity's resource sufficiency evaluation? In other words, does transmission have to be procured by the time of the day-ahead resource sufficiency test (i.e. 9 AM) in order for the underlying resource to be counted towards resource sufficiency? BPA	The original concept of bucket 1 transmission was that it consists of the transmission that supports resources meeting resource sufficiency a pathway to an LSE's load. The specific details are expected to be considered as part of transmission and resource sufficiency working group scope.
What does the CAISO plan to do with the advisory showings? Are there any binding obligations for the advisory showing? Is transmission expected to be included on the advisory showing? BPA	The concept of an advisory showing was intended to provide transparency and confidence that an LSE could meet its monthly load based on its capacity plan. It is not intended to be binding to allow flexibility for the EDAM entity, which, among other things, must meet its ongoing reliability and BA obligations within the EDAM framework. This may require resource substitutions prior to the actual day ahead schedules. To the extent transmission was part of the capacity plan, the advisory showing could include transmission that was relied upon to meet the advisory plan. The resource sufficiency working group will take up development of further details and requirements regarding advisory showings.
What is meant by expected load? P50? What type of reserves are being referred to? BPA	Expected load is meant to refer to P50 load. However, a sufficiency test is also expected to satisfy a level of uncertainty. These details are expected to be worked out and considered in the working group portion of the stakeholder process, and will be considered further in the continuing process.
If the EDAM RSE should not modify any aspect of local generation planning and certification, do the RS requirements default to conform to the least restrictive Resource Adequacy program requirements? And if an Entity's local Resource Adequacy program and planning requirements are found to be deficient, how will the reliability concern of all entities lowering their resource sufficiency procurement to that standard be addressed and/or the leaning on EDAM by the deficient entity be addressed? BPA	The expectation is that under EDAM there can be different resource adequacy programs across the EDAM footprint and that EDAM is not a vehicle for driving a common design of resource adequacy. However, it may be necessary to ensure the EDAM design harmonize the various resource adequacy programs, and it may be necessary to adopt an EDAM resource sufficiency evaluation process. Such harmonization should be in scope of the working groups and the overall stakeholder process. Coordination of resource adequacy programs is encouraged but such an effort falls outside of the EDAM initiative scope.

<p>What happens if resources complying with an entity's resource planning and resource adequacy programs count towards the EDAM resource sufficiency evaluation but are found to be unreliable/unavailable to the market? If the resource continues to count towards meeting RS, how will the risk of leaving the market short and/or the leaning on EDAM that this creates be addressed? BPA</p>	<p>The expectation is that the working group and complete stakeholder process will work out the details associated with how the resource sufficiency evaluation will consider unavailable resources that were previously included in a resource plan.</p>
<p>When talking about consequences of failure not being punitive as to undermine the benefits of EDAM, what benefits are being referred to? Production cost savings or capacity savings? Both the EDAM Feasibility Assessment and the State Led Market Study showed EDAM would provide marginal production cost savings, but if an entity is consistently leaning on EDAM for large amounts, that entity could be realizing significant capacity savings. The consequences of failures should be commensurate with the capacity savings benefit the entity is receiving from leaning on EDAM. BPA</p>	<p>The resource sufficiency evaluation and associated consequences for failing the test will have to consider incentives, sources of value, and the mutually beneficial outcomes of participating in the EDAM.</p>
<p>How do you have an equitable application of RSE without a common standard, and how do you have a common standard if all entities qualify resources for RS based on their own RA program? BPA</p>	<p>While there may be different resource adequacy programs, for EDAM there should be a common resource sufficiency evaluation with a common set of consequences.</p>
<p>Without enforced physical constraint(s), how do you ensure financial consequences do not become an economic alternative to procuring resources ahead of EDAM and coming in resource sufficient? BPA</p>	<p>Under the current trading practices in the West, despite the lack of a common resource adequacy program, bilateral and market trades occur. The EIM and EDAM are mechanisms through which participants can participate voluntarily and benefit in the diversity of supply and load across the footprint. Stakeholders will consider further the terms, incentives and impacts of the consequences for failing to meet the RSE in the comprehensive stakeholder process including the working groups.</p>

<p>Entities retain autonomy over forward resource planning and procurement (i.e., resource sufficiency does not impinge upon each entity’s resource adequacy activities). Powerex</p>	<p>This is consistent with the concept of EDAM and the common resource sufficiency principles.</p>
<p>EDAM must include an accurate resource sufficiency evaluation, with consequences that are effective at preventing leaning. Powerex</p>	<p>The EDAM is a voluntary market, and its rules must be transparent. The terms of the test and the consequences of failures will be determined in the comprehensive stakeholder process including within the relevant working groups.</p>
<p>EDAM participants, including the CAISO BAA, must commit to acting in good faith to undertake any additional supply procurement necessary to ensure they are consistently resource sufficient, prior to the EDAM timeframe. Powerex</p>	<p>The EDAM design will require a common resource sufficiency construct. However, the terms of participating and sharing in the diversity must be transparent and fair. The rules of a common resource sufficiency framework will be developed in the comprehensive stakeholder process including the working groups.</p>
<p>Q2: Does CAISO fully support the principle that EDAM RS failure consequences should prevent leaning? Powerex</p>	<p>The term “leaning” can be ambiguous and interpreted differently by different parties. The EDAM construct should clearly define the expectations of participation and consequences of failure to meet those terms. These terms in the context of and EDAM will be determined through the comprehensive stakeholder process including the working groups, and it may be necessary to consider those terms for purposes of the EIM resource sufficiency tests.</p>
<p>Q3: Given that the EIM has failed to accurately recognize resource insufficiency of the CAISO BAA or to prevent extensive leaning by the CAISO BAA on supply procured by other EIM entities, how can potential EDAM entities have confidence that the same outcome will not occur in the EDAM? What steps will the CAISO take so that “no leaning” is actually achieved for an EDAM, when it is has been unable to achieve this result in the EIM to date? Powerex</p>	<p>Where inaccuracies have been identified, the CAISO has worked with stakeholders on evolving the EIM RSE to improve accuracy. It is expected that the EDAM RSE will need to be designed with accuracy as the objective and will likely have to evolve with actual experience over time.</p>
<p>Q4: What steps will the CAISO take to manage the fact that it not only has a primary role in designing and implementing any EDAM RSE, but will also be the balancing authority for an EDAM entity that is one of the most likely to experience</p>	<p>The stakeholder process is open to all including independent market expert(s) to ensure the design is just and reasonable, and not unduly discriminatory.</p>

<p>significant challenges in passing an accurate and well-designed RSE? Would CAISO support the engagement an Independent Market Expert to assist in the design and review of the EDAM RSE proposal? The third element of a functioning Resource Sufficiency framework has not been previously articulated, but is the logical consequence of the first two. To the extent an entity’s forward resource planning approach does not result in enough committed supply to demonstrate resource sufficiency prior to the EDAM timeframe, that entity will necessarily need to procure additional supply in order to satisfy the EDAM RS requirement. Even a perfectly accurate RSE with effective consequences can only detect and strive to prevent leaning; but it cannot cure the underlying resource insufficiency. For this reason, EDAM participants will need to commit to act in good faith and procure any additional supply necessary to ensure they come to the EDAM with sufficient resources on a consistent basis.</p> <p>Powerex</p>	
<p>Q5: Does the CAISO agree that each EDAM entity—including the CAISO—must commit to act in good faith to procure the additional supply necessary to pass the RSE, including on capacity critical days, as a foundational principle of EDAM design? Powerex</p>	<p>CAISO Response. The CAISO agrees that EDAM will require a robust RSE and consequences that appropriately incentivize participants make sufficient capacity available to meet both a common level of expected conditions and a level of uncertainty. The CAISO comes into the detailed design discussion in good faith and expects that the robust dialogue in the resource sufficiency working group will yield a just and reasonable resource sufficiency design.</p>
<p>Q6: What specific steps will the CAISO take to ensure such additional supply procurement occurs for the CAISO BAA? (e.g., seek expanded annual and seasonal backstop procurement authority, pass through sufficient incentives for</p>	<p>CAISO Response. The CAISO has mechanisms to deal with resource adequacy deficiencies as well as significant events today. The CAISO will evaluate to what extent the measures are sufficient or need to be adapted to support a robust common EDAM resource sufficiency evaluation that is subject to the detailed design.</p>

<p>LSEs in its BAAs to procure annual, seasonal and/or short- term supply ahead of the EDAM, etc.) Powerex</p>	
<p>If the test is run 45-days in advance how will updated conditions be integrated to ensure resource sufficiency in the day-ahead time frame? PPC</p>	<p>The 45-day advisory showing is not the only mechanism and, as described above, is not binding. Rather, it is intended to provide transparency and confidence that an LSE could meet its monthly load based on its capacity plan. The actual resource sufficiency evaluation should be in the day-ahead timeframe.</p>
<p>What is meant by “the RSE recognizes the different resource planning and resource adequacy programs of EDAM entities and resources complying with those programs count toward meeting the RSE”? Does this mean that entities will be deemed to be resource sufficient if they are complying with their own RA programs? If so, how does this ensure all EDAM entities have consistent requirements for EDAM participation. How is this addressing the potential for leaning? PPC</p>	<p>EDAM is meant to be respectful of the resource adequacy programs of participants. This has always been a foundational principle of the EDAM resource sufficiency evaluation. Participants cannot be subject to different procurement programs – one that satisfies the OATT requirements or resource adequacy programs, and another separate one for EDAM.</p>
<p>What does the reference to EDAM not being a “day to day” commitment refer to? Beyond meeting resource sufficiency requirements, would participation of any additional resources beyond those used to demonstrate resource sufficiency for EDAM, be at the sole discretion of the EDAM Entity? PGP</p>	<p>The reference to EDAM participation not being a day-by day decision refers to the commitment to enable and participate in EDAM by having their full load settled in the Day-Ahead Market. An entity participating in EDAM makes the commitment to participate for a defined minimum timeframe (timeframe to be determined) and offer their entire load, and thus sufficient supply, into the day ahead market, rather than it being a day to day decision whether to participate in the EDAM.</p> <p>Regarding resource participation, aside from resources offered into the EDAM to meet the resource sufficiency evaluation, participation of other resources is purely voluntary as is how much of load will be served by self-scheduled supply.</p>
<p>PGP would like to better understand the proposal for a general advisory showing of capacity</p>	<p>The 45-day advisory showing is intended to provide transparency and confidence that an LSE could meet its monthly load based on its capacity plan. The timeframe is aligned with the 45-day resource adequacy showing timeline</p>

sufficiency 45 days in advance. Were other timeframes considered? PGP	where California load serving entities demonstrate their resource adequacy capacity for the month. As part of the stakeholder process, including the stakeholder working groups, there will be an opportunity to further define the advisory showing concept.
What methods are available/contemplated to verify firm energy requirements both for imports into the CAISO BAA and for imports into an EDAM Entity BAA? PGP	The group did not specifically discuss methods for verifying the firm energy requirements of imports. This topic can be considered within the stakeholder working groups, as part of the broader stakeholder process, particularly in the context of the resource sufficiency evaluation.
Transmission Commitment	
In the previous EDAM Bundle One Straw Proposal, non-participating load-serving entities would self-schedule generation and load. Will the concept of non-participating loads be retained in an updated EDAM proposal? BPA	EDAM, similar to EIM, will apply to all load in the BAA. However, while EIM imposes financial settlements for deviations from schedules after T-57, EDAM will financially settle the day ahead scheduled quantity. However, OATT customers should be able to continue to self-schedule their own resources against their own loads. This practice may limit their benefits in the day-ahead optimization, but the practice should be retained.
What does “otherwise high priority” and “otherwise highly reliable” transmission mean if it is not firm (7-F) or conditional firm/secondary NT (6-CF/6-NN)? BPA	The details can be left up to the comprehensive stakeholder process including the working groups. This principle reflects that given that type of transmission has been used to support WSPP Schedule C deliveries in the past and proven to be a reliable source of supply, and considers that this practice could continue in EDAM.
Does bucket 3 consist of unreserved firm transmission or unscheduled firm transmission? BPA	Bucket 3 consists of unreserved firm transmission that was posted as available transmission capacity (ATC) by the transmission provide on its Open Access Same-Time Information System (OASIS). Unscheduled firm point-to-point transmission is addressed in Bucket 2.
Q7: How will EDAM participants physically schedule identified supply to identified customers? Will EDAM support base schedules submitted prior to the market optimization (and that are not exposed to EDAM market settlements); or Will entities participating in EDAM be required to submit separate market self-schedules of generation and self-schedules	The expectation is the latter - entities should be submitting schedules or offers necessary to support their load and be subject to EDAM settlements. The concept of base schedules in the EDAM that are not subject to EDAM settlements was discussed but was found to be inconsistent with the equitable EDAM participation model. These details will be further considered in the upcoming in the comprehensive stakeholder process including the working groups.

<p>of load, both of which will be settled as EDAM transactions? Powerex.</p>	
<p>Q8: Will transmission customers continue to be able to fully utilize their existing transmission rights once the transmission provider joins the EDAM? Will this include the ability to schedule on those rights after the EDAM timeframe, with no exposure to financial settlement related to EDAM? Powerex</p>	<p>Transmission customers will continue to be able to fully utilize their OATT rights to modify schedules. As noted in the discussion of congestion rent allocation, the primary objective is to hold customers harmless for these intra-day changes. This is not a guarantee – in other words, no class of OATT transmission customer is going to subsidize any other. To the extent possible the congestion revenues would offset any congestion charges from intra-day modifications before being disbursed to any other customers.</p>
<p>Q9: Will a transmission service provider be able to continue to sell new OATT transmission rights (e.g., as existing rights terminate) after it begins participation in the EDAM, and have those rights continue to be treated as physical rights? Powerex</p>	<p>Yes. Participating EDAM Entity transmission providers should continue to sell new OATT rights.</p>
<p>Q10: Will transmission customers that hold transmission rights that include renewal or rollover rights continue to be able to exercise those rights to receive OATT transmission rights for a new term, and have those rights continue to be treated as physical rights? Powerex</p>	<p>Yes. EDAM should not modify the OATT provisions with respect to rollover/renewal.</p>
<p>Q17: Will transmission customers that hold transmission rights they wish to make available for use in EDAM be able to determine the quantity of such rights made available from hour to hour and from day to day? Powerex</p>	<p>The OATT transmission customer with firm point-to-point rights should be able to determine, on a day-ahead basis, which hours it wants to offer its reserved transmission capacity to the EDAM market.</p>
<p>Q18: Will transmission service providers with unsold transmission capability and that wish to make some or all of that capability available for use in EDAM be able to determine the quantity made available from hour to hour and from day to day?</p>	<p>Subject to the details to be developed in the in the comprehensive stakeholder process, including the working group, the expectation is that any unsold transmission capacity would be made available to the market. Effectively, this is no different than the expectation that the OATT transmission provider would make all ATC available for sale on its OASIS. Consider the market as a willing</p>

<p>Would transmission providers be required to make Bucket 3 transmission available to EDAM? How would the amount of transmission available in Bucket 3 be defined? How would this be handled for a transmission provider that is located within an EDAM Entity BAA, but is not an EDAM participant themselves? PPC</p>	<p>customer to use the unsold transmission and pay the OATT rate, or the rate determined by the transmission service provider.</p> <p>Bucket 3 transmission, the transmission provider’s unsold and unallocated transmission, would be voluntarily made available to the EDAM in return for a usage rate. Further details on making the transmission available to the EDAM would be addressed in the stakeholder working groups and the stakeholder process. Any transmission that was ultimately not used by the EDAM would revert back to the transmission provider and could be reposted on OASIS after day-ahead market (i.e., if it is still marketable).</p>
<p>Can you please address why the base scheduling paradigm was eliminated in these updated principles? What impacts of that decision did the group consider in making that determination? PPC</p>	<p>OATT transmission customers should be able to self-schedule their generation and their load. Thus, similar to the concept of base schedules in the EIM, the individual customer is identifying their load forecast and should be financially responsible for deviations from that forecast.</p>
<p>Please explain how the potential policy to allow the market to use transmission that has been purchased under the OATT framework without entities choosing to donate that transmission is consistent with the objective of “respecting the existing OATT framework and contractual commitments” as stated in the proposed EDAM principle. PPC</p>	<p>Under the long-standing OATT framework, customers with firm point-to-point reservations may schedule transmission service in accordance with those reservations. If they do not fully schedule the reserved transmission capacity, the OATT transmission provider <i>must</i> make it available for non-firm service. Anything else is physical withholding. The hope is that the transmission working group can apply a similar approach to the EDAM. Obviously, there are differences in timing and firmness; however, if the market can dispatch around the change of a customer that increases their reservation intra-day and thereby preserve that customer’s scheduling right; it would be better to make any previously unscheduled transmission available to the market because if the customer did not use it intra-day it would otherwise be unused and potentially create “phantom congestion” (i.e., congestion not caused by physical schedules; rather, congestion that is caused by unscheduled reserved capacity).</p>
<p>In the discussion on Bucket 2 transmission, it is stated that entities that hold OATT rights which are used in the EDAM market optimization could still subsequently schedule their rights and “recall” the transmission from the EDAM. Does</p>	<p>No. The expectation is the market would only be allowed to use unscheduled firm point-to-point reservations if the transmission provider and the CAISO are confident that the redispatch can be accomplished without creating physical infeasibilities.</p>

<p>that raise concerns about the “firmness” of the transmission being used in the EDAM market run? PPC</p>	
<p>Would entities’ whose transmission rights are used in “Bucket 2” transmission be compensated for the use of that transmission? If there are multiple rights holders on a specific path how would it be determined whose right were used? PPC</p>	<p>The transmission customer would only be compensated if they offered the transmission to the market day-ahead and thereby did not reserve the right to use it themselves. The specific compensation should be discussed in the comprehensive stakeholder process, including the working groups, but could include an allocation of congestion revenues based on the amount of capacity offered. In other words, it would be treated as if it were actually scheduled on a percentage basis.</p>
<p>In the earlier EDAM discussion, it was identified that transmission available to the market would have to be made unavailable to OATT purchases during the market run to ensure it was actually available for market dispatch. Is that still a concern? Or given the inclusion of bucket 2 transmission which could be recalled in later market runs is this less of a concern? PPC</p>	<p>Pre-EDAM OATT-based arrangements are expected to be honored. The specific mechanisms for how to achieve this are subject to the more detailed design elements, which are intended to be developed in the comprehensive stakeholder process including within the transmission working group. This may also require EDAM entity-specific discussions with their respective transmission customers.</p>
<p>Please clarify which of the buckets of EDAM transmission would be voluntarily contributed to EDAM versus which ones would be required to be contributed to EDAM? PGP</p>	<p>Bucket 1 transmission supports delivery of resources used to meet the resource sufficiency evaluation and is therefore required to be made available to EDAM, with the exception of Bucket 1 transmission tied to a self-scheduled resource, which cannot be optimized.</p> <p>Bucket 2 transmission is voluntarily made available in return for congestion rents. However, the principles do consider a framework for further evaluation where Bucket 2 transmission would automatically be made available to the EDAM to the extent it is not scheduled or otherwise utilized by a certain point in the day ahead timeframe. This concept will be further discussed in the stakeholder working groups as part of the stakeholder process.</p> <p>It is contemplated that Bucket 3 transmission, which represents transmission posted on a transmission service provider’s OASIS as ATC, and that was not sold on OASIS as of the commencement of the day-ahead market, would be made available to the EDAM for a usage rate. If it is not used by the EDAM</p>

	optimization, it can be reclaimed and re-posted by the transmission service provider.
Congestion Rent Allocation	
How will congestion rents on EIM transfers with California be allocated? In the last forum, CAISO suggested that congestion rent would accrue to the entity on the side of the constraint where the congestion occurs. However, the congestion does not occur on one side of the constraint or the other; rather, it occurs on the constraint itself. As such, ED staff are unclear on what CAISO's design idea is for these congestion rents. These rents are an important equity concern, as well as a potential motivation for market manipulation. CPUC	As proposed in the EDAM principles, congestion rents resulting from congestion on the CAISO controlled grid should be allocated via established CAISO mechanisms including the congestion revenue allocation. The comprehensive stakeholder process, including the working groups, is expected to further define how this allocation is achieved if congestion occurs on the CAISO controlled grid side of the transfer (or not) leveraging, where appropriate, existing processes.
Q11: Why is the allocation of congestion rents for transfers between BAAs governed by special provisions for the CAISO BAA? Why was this selected as the starting point for EDAM discussions? Powerex	The group reviewed detailed examples and from those examples concluded that allocating the portion of congestion rents on the CAISO controlled grid to others and allocating congestion on the non-CAISO controlled grid portion of a transfer distorts the revenue adequacy and can create surpluses and deficits from current practices which would undermine the "hold harmless" principle when allocating congestion rents to transmission rights holders within the CAISO BAA as well as other BAAs. This topic will be considered further in the comprehensive stakeholder process, including the working groups.
Q12: Why would CAISO not allocate congestion rents for transfers with the CAISO BAA in the same manner as proposed for other EDAM BAAs (i.e., explicitly 50/50)? Powerex	The CAISO has established requirements to make transmission available, including mechanism for allocating congestion rents that are not uniquely created by the existence of EDAM and therefore are differently situated than to EDAM entities coming together to create an EDAM transfer path.
Q13: If most OATT transmission is made available to the EDAM optimization, is this approach not likely to result in the CAISO side of the inertia being allocated the majority, if not all, of the	No, it will depend on where the congestion occurs. It is possible that the CAISO controlled grid does not congest while the EDAM transfer into the PACI or PDCI congest first. If that were to occur, all congestion rents should be allocated to the EDAM BAA/Transmission provider making such transmission available.

congestion rents on multi-segment paths such as the Pacific AC and Pacific DC paths? Powerex	
Q14: Does CAISO believe it is appropriate or equitable for more than half of the congestion rent on shared interties like the Pacific AC or Pacific DC to be disproportionately allocated, on an ongoing basis, to either the CAISO and distributed to CAISO load customers or the external ratepayers that fund the upstream half of those interties? Powerex	See responses to Q11 and Q12 above. Similarly, the rents could be allocated to the EDAM entity depending upon where the congestion occurs.
What is the justification for the different treatment on EIM Entity to EIM Entity paths (50/50 split) as compared to CAISO to EIM Entity paths (100/0)? PPC	See response to Q12 above.
Were there any special consideration given to the Southern Intertie given the unique ownership arrangement and multiparty involvement on the path? PPC	The transmission commitment stakeholder working group will be open to additional understanding and discussions as it develops the detailed market design.
GHG Accounting	
Is there a high level approach the CAISO is considering for GHG accounting for EDAM that can be shared? How is the CAISO intending to collaborate with state regulators on determining a workable approach? BPA	We expect there will be opportunity for CARB and other regulatory bodies to participate in the open in the comprehensive stakeholder process including the working groups dedicated to developing the EDAM design.
GHG Tracking: The system for tracking GHG emissions in the EIM includes numerous compromises that make attributing GHGs and carbon certificate requirements feasible, but that decrease the accuracy compared to direct contracting; how does CAISO expect expanding those compromises to include transactions made in the day-ahead timeframe to impact the overall accuracy of GHG accounting? Presumably some	Accuracy in GHG accounting and reducing potential for leakage are two of the principles that will be the subject of the detailed design that the GHG stakeholder working group is expected to consider.

<p>of the same transactions that would take place in EDAM are already happening in the bilateral or import market, and therefore some accounting must be made already. Has CAISO studied whether using the EIM system for those transactions will lead to greater accuracy or increased leakage? Energy Division</p>	
<p>Price Formation</p>	
<p>Will the EDAM initiative consider substantive changes to price formation? If so, how is this justified? CPUC</p>	<p>Scarcity pricing, price formation, and system market power mitigation will be considered in a separate stakeholder process that will run in parallel with EDAM and be completed ahead of EDAM final design implementation. In other words, price formation will be an input to EDAM, similar to the Day Ahead Market Enhancements (DAME) initiative stakeholder process.</p>
<p>With price formation being taken up separately, how will CAISO ensure that this important issue flows back through into the EDAM discussions? PPC</p>	
<p>What kind of commitment is there to ensure that price formation is resolved in advance of EDAM moving ahead?</p>	
<p>Q15: What is the anticipated timetable for this price formation stakeholder process? Will CAISO commit to complete the price formation initiative prior to moving ahead with EDAM? Powerex</p>	
<p>ED staff cautions that EDAM should not include fundamental changes to price formation (as have been discussed during CAISO's stakeholder working group throughout the summer). Namely, allowing 'fast-start pricing,' as has been advocated by several EIM entities, could run counter to California interests. CPUC</p>	<p>CAISO Response. The CAISO is aware of the strong perspectives on both sides of this issue. It is better to consider the issue in a thorough and transparent manner in the stakeholder process rather than potentially be forced into a compressed proceeding before FERC. Other RTOs have implemented forms of fast start pricing. It is appropriate to consider whether the CAISO should do the same or are there specific aspects of the CAISO market that render a different approach to be just and reasonable.</p>
<p>5. Fast-Start Pricing and Carbon Pricing Impacts: How does CAISO plan to account for and justify likely price increases resulting from fast-start</p>	

<p>pricing, carbon pricing, etc.? The use of fast start pricing, scarcity pricing, or any of the non-marginal pricing schemes that have been discussed will necessarily raise prices. That increase could make the GHG costs a smaller part of the electricity price, and could be a boon to existing and less efficient carbon-emitting resources. Energy Division</p>	
<p>Q16: Given that price formation changes will directly affect EDAM transactions and participation, under what governance framework will the price formation stakeholder process proceed? In particular: Will the starting point be FERC policy and best practices from other organized markets, or will the starting point be the CAISO's existing market design (with any departures from it bearing the burden of justifying why they are necessary)? If the latter, who will determine whether sufficient justification has been provided? Who will design the initial straw proposal? Who will judge whether modifications to the straw proposal should be made? What will be the role of EDAM participants in approving any modifications to the straw proposal and the final proposal? Powerex</p>	<p>CAISO Response. As price formation affects both the potential EDAM and the current EIM, the expectation is that, consistent with current governance rules, the initiative would fall under joint authority.</p> <p>There does not have to be a starting point one way or the other. Rather, the expectation is that both views will be expressed. Through the stakeholder process, input will be solicited, including from the DMM and the MSC. As with any other initiative, considering stakeholder input, CAISO staff and management will make a recommendation to the EIM Governing Body and the Board of Governors.</p>
<p>Miscellaneous</p>	
<p>Will external resource participation be considered as part of the EDAM stakeholder process? Bonneville serves load in various other balancing authority areas and will need a way to provide energy and imbalance reserves to those</p>	<p>Yes. Issues not directly related to the three work groups will be considered in the comprehensive EDAM design stakeholder process. External resource participation and other inertia bidding participation questions will need to be addressed.</p>

loads if those balancing authorities join EDAM.
BPA

How can EDAM's design ensure consistency (to the greatest extent possible) across the various EDAM Entity footprints?

- In particular, how can the market's design ensure that transmission requirements imposed at the individual EDAM Entity level (to enable resources to participate in EDAM) are fair, consistent and encourage third-party participation/bidding into the market?
 - Is there anything that can be included in the CAISO market design to address transmission requirements that may be imposed by EDAM Entities and ensure they are reasonable and consistent?

How will intertie bidding be affected by the creation of EDAM?

- If intertie bidding is eliminated with the formation of EDAM, how will the following issues be addressed?
 - The likely devaluation of transmission rights to CAISO interties points
 - The need to develop alternative compliance mechanisms for demonstration of compliance with the Portfolio Content Category #1 under the California RPS

<ul style="list-style-type: none"> ○ GHG accounting for imports into CAISO <p>- Energy Strategies</p>	
<p>What is the plan for public engagement on EDAM governance? • What will the decision-making structure be for issues related to EDAM? • Is the CAISO considering any efforts to make legislative changes to allow for more regionally inclusive governance in advance of the EDAM launch? PPC</p>	<p>CAISO Response. Governance is a critical component to the development of EDAM. The CAISO is working with the Board of Governors and the EIM Governing Body to swiftly consider next steps. The process will likely run in parallel with the market design work and involve consultation with the EIM Governance Review Committee. There will need to be a discussion on the timing to initiate the review of governance changes to support the EDAM model. The shared authority model developed for the EIM governance structure is a good model to consider for EDAM.</p>
<p>The EDAM forum recognized governance as a high-priority issue for numerous entities. The suggestion that an appropriate and acceptable governance approach would be pursued at a later date leaves the EDAM development process itself under the authority of the CAISO, utilizing its existing governance structure and mandate. Importantly, entities and ratepayers in the CAISO’s balancing authority area (“BAA”) are situated very differently from those of potential EDAM participants, particularly as it relates to decisions on numerous EDAM market design topics. EDAM market design proposals that may appear acceptable from the perspective of California ratepayers, including extending core design elements of the existing CAISO day-ahead market, may be highly problematic from the perspective of ratepayers elsewhere in the west. Powerex</p>	
<p>6. Incremental Renewable Integration Increases from EDAM: California’s goal for the grid is to reach zero carbon emissions by moving towards a renewable grid. How will EDAM help with that goal? Will it lead to decreased renewable</p>	<p>CAISO Response. Yes, studies indicate that EDAM will provide additional benefits of integrating renewable generation and management of increased uncertainty that arises from incremental renewable integration.</p>

<p>curtailment or increased use of renewable energy? Do we already get all or most of the benefits of geographic diversification from EIM? What new transactions will take place? How much will this reduce renewable curtailment? How will that reduction occur? Energy Division</p>	
<p>Focus on Geographic Expansion Vis-à-vis Storage Use and Development Planning: Will focusing on geographic expansion detract from developing storage use and planning?</p> <ul style="list-style-type: none"> • Moving to a zero carbon grid will require using renewables across space and across time; given the existing advantages gained from the EIM, is it best to focus more on incremental additional benefits of EDAM or more on planning and using storage to integrate renewables? How much time and effort will be allocated for EDAM development and how much will be used to make the CAISO market more capable of efficiently dispatching storage resources? What are the best ways to allocate policymakers' time and California ratepayer money in this realm? Energy Division 	<p>CAISO Response. Ultimately, there is a growing need to develop additional storage solutions as well as unlocking additional benefits from regional diversity that collaboration brings. The CAISO will continue work on energy storage and transmission planning policy development as identified on the policy initiative roadmap.</p>
<p>What is the extent and time commitment and cadence of the proposed work groups? BPA</p>	<p>CAISO Response. The CAISO expects the stakeholder working groups will require a sizeable time commitment from stakeholder representatives and subject matter experts. Each working group will likely require 2 meetings a week for 2 hours per meeting. The CAISO will strive to schedule meetings in a manner that facilitates participation in multiple working groups which enables participants to consider cross-cutting issues.</p> <p>The CAISO encourages stakeholders to also organize offline in advance of working group meetings, form their perspectives and further coordinate within their organizations and across organizations. This effort and time to prepare</p>

	for the meetings is in addition to participation in the stakeholder working groups.
What is the relationship of the DAME initiative to the EDAM initiative? Is the DAME proposal continuing to retain the CAISO's ability to RUC after the EDAM market closes? And will RUC (or its equivalent) be retained in every participating EDAM BAA?	CAISO Response. The DAME initiative will continue its policy development path, but at a pace that ultimately supports EDAM. The question of “whether RUC exist as it does today,” is a question the DAME initiative will consider, including consideration of RUC in EDAM.
How are the working groups intended to function, and how will the CAISO ensure there is an opportunity for all stakeholders to participate? PGP	CAISO Response. During the November 12 th workshop, the CAISO discussed the overall structure of the stakeholder working groups. The CAISO will stagger the schedule of the working groups to avoid overlap between the three working group discussions and encourage stakeholder participation in all the working groups. The meetings will be open to all stakeholders and recorded to further facilitate engagement.
How does the CAISO plan to stagger EDAM, price formation and governance to ensure entities have resources to participate in all three work streams? PGP	CAISO Response. The CAISO recognizes the need to ensure robust stakeholder engagement in all related efforts. As noted previously, the price formation initiative will run in parallel with the EDAM initiative, but will start in the early part of 2022. The stakeholder process for both of these design efforts will be open and transparent. The EDAM governance effort will also run in parallel with the market design as the EDAM effort progresses, to allow for consideration of the market design and EDAM model to help inform the governance discussions.
Convergence bidding is not included in principles – will this be taken up in EDAM? PGP	CAISO Response. Yes – as identified in the November 12 th workshop, convergence bidding will be one of the scope items considered in the EDAM effort.
The principles do not address if/how external resources are allowed to participate in EDAM. Is this because no agreement was reached on this principle, or does it signal this issue is not within the scope for EDAM? PGP	In developing the common principles, the group discussed a limited set of topics. The group recognized that there are a number of additional topics that are important and should be considered within the initiative, including the topic of external resource participation. This was reflected in the discussion of initial scope topics during the November 12 th workshop.