

**Stakeholder Comments Template**  
**Extended Day-Ahead Market - Bundle 1 Straw Proposal**

**1. Please provide your organization's overall position on the EDAM bundle 1 straw proposal:**

- ☐ Support
- ☒ Support w/ caveats
- ☐ Oppose
- ☐ Oppose w/ caveats
- ☐ No position

**2. Provide summary of your organization's overall position on this proposal:**

**I. GENERAL COMMENTS**

Bonneville Power Administration<sup>1</sup> (Bonneville) appreciates the opportunity to comment on CAISO's Extended Day-Ahead Market (EDAM) Bundle 1 Straw Proposal dated July 20, 2020 and the subsequent stakeholder workshops held on July 27 and 29, 2020. Bonneville notes its general support for the comments submitted by the EIM Entities and seeks to expand on them here in areas where Bonneville encourages deeper exploration. Bonneville also notes its general support for the comments of the Public Generating Pool (PGP) and the Public Power Council (PPC).

Bonneville remains supportive of the exploration of EDAM and continued work on the Bundle 1 topics. Bonneville's comments reflect our current thinking on the EDAM Bundle 1 topics, which may evolve as additional information becomes available about the August and September 2020 heat wave events. We acknowledge that CAISO has provided a Preliminary Root Cause Analysis<sup>2</sup> and that CAISO plans to continue to review root causes of the August events as more data becomes available and provide a final analysis by the end of the year. While CAISO's analysis is specifically focused on implications for the CAISO BAA, Bonneville believes the August and September 2020 heat wave events merit thorough evaluation across the broader EIM Entity footprint to also identify and develop a plan to resolve important implications for EDAM design, as well as changes to the Energy Imbalance Market (EIM) that might be needed to ensure reliable operations for Summer 2021.

---

<sup>1</sup> Bonneville is a federal power marketing administration within the U.S. Department of Energy that markets electric power from 31 federal hydroelectric projects and some non-federal projects in the Pacific Northwest with a nameplate capacity of 22,500 MW. Bonneville currently supplies 30 percent of the power consumed in the Northwest. Bonneville also operates 15,000 miles of high voltage transmission that interconnects most of the other transmission systems in the Northwest with Canada and California. Bonneville is obligated by statute to serve Northwest municipalities, public utility districts, cooperatives and then other regional entities prior to selling power out of the region.

<sup>2</sup> [Preliminary Root Cause Analysis: Mid-August 2020 Heat Storm](#)

Additionally these comments do not address the impacts of the CAISO's recent update provided on its Day-Ahead Market Enhancements (DAME) initiative, specifically in regards to moving forward with sequential integrated forward market (IFM) and residual unit commitment (RUC) processes. The feasibility and workability of a sequential IFM-RUC day-ahead market solution for EDAM is unclear, as achieving a reliable and efficient commitment of physical supply needed to meet demand from a single optimization has been a foundational element for extending CAISO's day-ahead market to EIM Entities. On the October 29, 2020 DAME initiative update stakeholder call, CAISO suggested potential further assessment of the added efficiencies that may be gained by integrating IFM and RUC in the future<sup>3</sup>. Bonneville requests that the integration of IFM and RUC be explicitly included in an early EDAM stakeholder initiative bundle as its own topic.

### **3. Provide detailed comments including examples on the *Resource Sufficiency Evaluation* topic.**

#### **I. RESOURCE SUFFICIENCY PRINCIPLES**

Bonneville generally supports the CAISO's proposed principles for the EDAM Resource Sufficiency (RS) test as they generally align with our principles. Bonneville believes the August 2020 heat wave event highlights the criticality of ensuring that the EDAM RS test promotes reliability, incents the right forward procurement and prevents entities from leaning on the EDAM to meet its capacity and flexibility needs. And Bonneville believes more analysis of the heat wave event is needed to fully identify and analyze lessons learned that should be applied to ensuring the RS test that is developed for EDAM meets those objectives.

Bonneville reiterates the four core objectives<sup>4</sup> that EIM Entities have established for considering EDAM resource sufficiency:

- Promotes reliability;
- Sustains robust market depth and promotes participation;
- Ensures fairness; and
- Complements individual RA/IRP processes

Additionally in previous comments,<sup>5</sup> Bonneville expanded on these core objectives with additional principles that emphasize promoting participation through efficient implementation:

- *Simple and workable*: EDAM Entities must be able to efficiently determine whether or not they are able to pass their own RS test. This includes knowing the distribution of the hourly net load forecast used and an estimate of the diversity credit available to their EDAM Entity multiple hours before the market run kicks off at 10am on the day-prior.

---

<sup>3</sup> P. 7 of [DAME Initiative Update presentation](#)

<sup>4</sup> EIM Entities Presentation on EDAM Resource Sufficiency Design, slide 6, February 11, 2020.

<sup>5</sup> [BPA comments on Feb 2020 EDAM Workshop](#)

- Full transparency: Buyers and sellers must be equally informed of the characteristics of products that are sold and used to satisfy the EDAM RS test. This includes any transfer of bid range (or products being used to transfer bid range) from one EDAM Entity to another. Transparency also includes an independent, external rigorous after-the-fact review of RS test inputs, outputs and historical performance to inform consideration of enhancements on a routine (at least annual) basis.
- Preventive enforcement: A simple and workable EDAM RS test will encourage EDAM entities to self-iterate to meet the test as needed (ie. open book test), rather than having a single entity administer a test that is run at the last minute, which can result in limiting the participation of those entities that fail with little or no prior notice or opportunity to cure (ie. pop quiz). If EDAM Entities seek access to the benefits provided by the efficient day-ahead dispatch, EDAM Entities will endeavor to satisfy the test.
- Transmission deliverability: There needs to be a simple and workable test to determine if transmission contract rights are available to meet the RS test.

The above set of core objectives and principles define the lens through which Bonneville evaluates the CAISO's EDAM RS evaluation proposal.

## II. DIVERSITY BENEFITS

Bonneville supports the concept of diversity benefits as it allows EDAM BAs to hold fewer imbalance reserves to cover uncertainties between the day-ahead and 15-minute market. Bonneville requests further detail regarding the calculation of net load uncertainty and diversity benefits, along with examples of the pro-rata distribution of those diversity benefits based on contribution to the net load uncertainty.

Bonneville also believes this is an area that requires further examination given the curtailment of exports that occurred during the August 2020 heat wave event. If EDAM Entities hold fewer imbalance reserves to cover uncertainties between day-ahead and real-time and instead rely on EDAM transfers through the sharing of diversity benefits, having those transfers curtailed because the source BA is experiencing emergency conditions will have reliability implications for the sink BA. Bonneville requests CAISO work with EIM Entities and other stakeholders to explicitly address the interplay between curtailments of exports by an EDAM Entity BA or the CAISO BA and the sharing of diversity benefits.

## III. TRADING BID RANGE

Bonneville strongly supports trading bid range capacity in the EDAM and urges the CAISO to extend the ability to trade bid range to the EIM as well.

## IV. TIMELINES

Bonneville strongly advocates that the final RS requirements be set at 5am in the Pre-Schedule timeframe. Bonneville does not see additional benefit or significant reduction in uncertainty by updating the final RS requirements at 8am or 9am in the day-ahead timeframe. For Bonneville, timeliness and certainty of the final RS targets take precedent over incremental precision of the RS requirements.

As with all products, buyers and sellers must be equally informed of the characteristics of products that are sold and used to satisfy the EDAM RS test. EDAM Entities must be able to accurately determine whether or not they are able to pass their own RS test. This includes knowing the distribution of the hourly net load forecast used and an estimate of the diversity credit available to their EDAM Entity multiple hours before the market run kicks off at 10am on the day-prior. Bonneville requests additional information regarding the RS evaluation timelines and how the Bonneville BA, including non-participating resources and loads, will be measured in the EDAM RS test.

## V. RESOURCE SUFFICIENCY EVALUATION

Bonneville reiterates the critical importance of the CAISO's Day-Ahead Market Enhancements (DAME) initiative to the success of EDAM, as it establishes the foundation for ensuring day-ahead obligations with physical capacity. This includes demonstrating the ability to meet a P50 demand forecast and showing a level of imbalance reserves to cover a defined confidence level (e.g. 95%) of historical uncertainties between the day-ahead and 15-minute markets. This also establishes a baseline for resource sufficiency in other BAAs within the EDAM footprint.

Ancillary services requirement: CAISO proposes each EDAM BA meet 100 percent of its forecasted ancillary services requirement. It is Bonneville's understanding that each EDAM BA will have the discretion to determine its forecasted ancillary services requirement to meet reliability standards. We request to have this explicitly stated in future proposals.

Bonneville also believes how the ancillary services requirement is accounted for in the EDAM RS test merits additional discussion. It is our understanding that the CAISO BA passed the EIM RS test during periods of reserve shortage and while being in emergency conditions. This outcome appears counterintuitive and warrants additional consideration in regards to how ancillary service requirements are reflected in the RS evaluation both for the EDAM and the EIM.

Imbalance reserve requirement: CAISO has provided information on how the imbalance reserve requirement would be calculated in the CAISO BAA, but it remains unclear how the imbalance reserve requirement will be calculated for EDAM BAAs outside the CAISO BAA and what uncertainty will be included as part of the requirement for each BA. Bonneville notes that a threshold issue for our joining the EDAM is that the uncertainty around export schedules be incorporated into the calculation of the sink BA imbalance reserve requirement. Based on CAISO discussions, Bonneville believes this is consistent with the proposal but requests CAISO confirm that this is the case. Bonneville's position is that the source BA should not have the responsibility to hold imbalance reserves to cover the uncertainty of export schedules, as this aligns with

trading in the current bilateral market. Today, Bonneville requires all resource types and load to adjust schedules near real-time to align with the most up-to-date forecasts, thereby limiting imbalance caused from the day-ahead to real-time uncertainty in forecasted generation and/or load. Bonneville requests CAISO elaborate on the uncertainty components included in the imbalance reserve requirement for sink BAs versus source BAs in EDAM in future proposals.

## VI. FAILURE CONSEQUENCES

Bonneville reiterates the EIM Entities' comments that preventative enforcement of RS requirements is critical to ensuring that entities continue to have appropriate incentives to contract for sufficient energy, capacity, and flexibility ahead of each EDAM daily market run and hence not lean on the capacity and/or flexibility investments made by other entities. Bonneville believes this is a key area that warrants further evaluation and discussion with consideration of the August and September heat wave event.

Intra-BAA compliance: LSEs will have an important role in ensuring BAs submit sufficient bids and self-schedules to meet the RS criteria. CAISO has requested comments on data elements and items to allow BAs to sub-allocate requirements to LSEs, however, Bonneville needs more information and examples in order to suggest improvements. For example, CAISO proposes the use of default load aggregation points (DLAP), on which Bonneville looks forward to collaborating with the CAISO, along with any other tools that will help with compliance of individual LSEs.

## VII. EIM RESOURCE SUFFICIENCY EVALUATION

As mentioned previously, Bonneville believes further assessment of the Summer 2020 heat wave events is needed to identify implications for the design of an EDAM RS test, along with potential changes needed to the current EIM RS test to ensure the test is performing according to its intended objectives of promoting reliability and ensuring "no leaning". Notwithstanding the need for potential changes to the EIM RS test, Bonneville supports the inclusion of an EIM real-time RS test for EDAM BAAs. This will be important in ensuring that activities between day-ahead and t-75 do not diminish the day-ahead awards and providing an additional "check" for EDAM BAs. Bonneville is open to a modified EIM RS test for EDAM participants who pass the day-ahead RS test. Furthermore, an EIM real-time RS test should still be required of those participating in EIM only and not in EDAM.

## VIII. ENERGY LIMITS

CAISO's EDAM Bundle 1 stakeholder presentation<sup>6</sup> included a graphic on energy limits (slide 33) that imposed energy limits on peak hours. It is unclear if this is CAISO's proposed solution or an illustrative example. Bonneville requests CAISO provide an explicit energy limit section in future proposals that covers two areas:

---

<sup>6</sup>[EDAM Bundle 1 Straw Proposal presentation](#)

- How energy-limited resources qualify for the RS test, and
- What enhancements are available to allow the market to better optimize energy-limited resources to (a) allow its supply to be dispatched in the highest value hours, while (b) ensuring the resource's total dispatch across the day does not exceed its energy limitations.

## IX. ON-GOING INDEPENDENT MONITORING AND REVIEW

As noted in the Resource Sufficiency principles, Bonneville believes an independent, external after-the-fact review of RS test inputs, outputs and historical performance to inform consideration of enhancements on a routine (at least annual) basis is a critical component of ensuring full transparency.

### 4. Provide detailed comments including examples on the *Transmission Provision* topic.

#### I. INTRODUCTION

As one of the largest transmission service providers (TSPs) in the West, Bonneville has a strong interest in how transmission is provided to EDAM amidst the backdrop of open access transmission principles needing to be upheld and each EDAM TSP maintaining their NERC functions and responsibilities. Bonneville believes there are many details that require further discussion before BPA can fully evaluate the feasibility and workability of how the OATT construct overlays with the EDAM design in a manner that respects transmission principles, rights and obligations.

As a general matter, Bonneville supports full cost recovery of transmission used to support EDAM transfers provided they are based on use, impact, fairness, equity, and transparency. Bonneville notes specific interest in understanding how transmission rights of non-participating LSEs will be treated in the RS evaluation and under Bucket 1 transmission, which is not addressed in the Straw Proposal. Bonneville believes this is important in determining the extent to which the market is voluntary.

#### II. TRANSMISSION PROVISION PRINCIPLES

In general, Bonneville supports the CAISO's first principle of maintaining fair and open access while maximizing the transmission system usage and respecting scheduling rights and other contractual arrangements as a bedrock principle supporting the provision of transmission in the EDAM.

Bonneville also strongly supports the second principle that recognizes that local control over transmission planning and investment decisions remain solely with the EDAM Entity.

With respect to Principle 3, Bonneville believes that in order to maintain voluntary participation, EDAM must be structured in a way that allows load serving and other entities to elect not to participate.

### III. INTERNAL TRANSMISSION LIMITS

Bonneville supports the CAISO's approach to internal transmission that requires the CAISO to work with each individual BA to model their internal system as needed to accommodate internal transmission for EDAM. The CAISO cannot assume all internal transmission to the BA is available for market optimization. Bonneville could have a significant number of entities within its BAA that do not participate in both the EIM and the EDAM, and Bonneville's short-term network constraints are unique to transmission customer rights and modeling of those rights on BPA flowgates. Bonneville is planning on setting up TCOR (transmission corridor) limits if it joins the EIM that will limit flows across defined transmission constraints. Bonneville proposes the CAISO make use of the TCOR limits as a starting point to inform EDAM. Through working collaboratively with Bonneville on adjustments to the EIM-informed TCORs, a new export limit, agreeable to Bonneville, could be established to support EDAM transfers before the EDAM becomes operational.

Bonneville is concerned about the proposal for TSPs to make unscheduled transmission available to the market. Under the current Open Access Transmission Tariff (OATT) framework, a transmission customer with point-to-point transmission rights can resell or redirect its unscheduled rights. Any unscheduled point-to-point transmission rights that remain unscheduled and any unused network integration transmission service may be resold by the TSP as non-firm transmission on a first-come, first-served basis at the TSP's non-firm transmission rate. Bonneville is concerned that the CAISO assumption to make unscheduled or unused transmission internal to an EDAM BAA available to the market without regard to OATT rights may give the market priority over unscheduled/unused transmission internal to the EDAM BAA. This may also interfere with the transmission customer's ability to donate its unused transmission under bucket 2 or inappropriately penalize the transmission customer with congestion offset charges if the transmission customer chooses to use its pre-paid transmission rights after the day-ahead market closes.

### IV. TRANSMISSION TO ENABLE EDAM TRANSFERS

Bonneville supports the CAISO's proposal relative to the three buckets of transmission to enable EDAM transfers.

#### **Bucket 1:**

Bonneville requests clarity regarding the treatment of non-participating LSE transmission with respect to Bucket 1 transmission. Bonneville suggests that non-participating LSE load and transmission be taken into account in the determination of a BAA's RS evaluation. However, the transmission used by a non-participating LSE to serve its load cannot be available for market optimization. The non-participating LSE must be able to schedule its resources to load under the OATT much as it does today.

#### **Bucket 2:**

No additional comments beyond that offered by the EIM Entities.



### **Bucket 3:**

No additional comments beyond that offered by the EIM Entities.

## **V. EIM WHEELING CHARGE**

Bonneville supports exploring application of the usage fee to the EIM. A factor that must be considered is that transmission used in the EIM may be of a different quality (curtailment priority) than that used in EDAM. This difference may warrant a separate, EIM-specific usage fee. Enabling compensation for transmission in EIM would more accurately reflect the cost of EIM transfers and would enable Bonneville to explore using the direct provision of ATC method for making transmission available for EIM transfers.

Bonneville also requests CAISO provide examples of the inconsistencies that can occur between the day-ahead and real-time markets if a different usage fee was used for EDAM Bucket 3 transmission and the EIM wheeling charge.

### **5. Provide detailed comments including examples on the *Transfer and Congestion Revenue Distribution* topic.**

## **I. TRANSFER AND CONGESTION REVENUE PRINCIPLES**

Bonneville does not have additional comment to provide on the Transfer and Congestion Revenue Distribution topic beyond what was provided in the EIM Entities' comments. With that said, Bonneville reiterates the foundational principles the EIM Entities have developed to help guide the development of market rules regarding congestion rents in the EDAM and highlights key areas of support below.

- a) All transmission (Bucket 1-3) made available to EDAM should be eligible for congestion and/or transfer revenues. This includes transmission internal to an EDAM Entity BAA or at interchanges (seams).
- b) EDAM congestion and transfer payments should go from CAISO as the market operator to the EDAM Entity and then be sub-allocated to transmission customers. The exception to this principle is congestion revenue rights (CRR), which will be settled directly between the CAISO and the CRR holder.
- c) EDAM design should preserve the rights of non-participating OATT transmission right holders in regard to congestion and transfer rents charged through market mechanisms. EDAM design should instead allow each TSP to maintain its authority, through its tariff and business practices, to determine the appropriate approach to allocate any applicable EDAM congestion costs and revenues to its transmission customers.
- d) The allocation of congestion and transfer revenues associated with BAA transfers, including the CAISO BAA, should be fairly and equitably shared between the exporting and importing areas. For Bucket 3 transmission, any hurdle rate should go 100% to the



exporting BAA and then all incremental revenues above the hurdle rate should be equitably allocated between the importing and exporting BAAs.

## II. ALLOCATION OF TRANSFER REVENUES

Bonneville highlights its support for the CAISO's proposal to split transfer revenues associated with transmission Bucket 1 and 2 50/50 between the importing and exporting BAAs. Bonneville does not support the CAISO's proposal to allocate transfer revenues associated with Bucket 3 100% to the exporting BAA. Rather, transfer revenues for Bucket 3 should go first to the exporting BAA to cover the exporting balancing authority's hurdle rate. Any additional (incremental) transfer revenue should then be split equitably between the importing and exporting BAAs.

## III. ALLOCATION OF TRANSFER REVENUES AND INTERTE CONGESTION REVENUES

Bonneville highlights its support for a 50/50 split of both transfer and congestion revenues between importing and exporting BAAs. A 50/50 split results in an equitable, predictable market outcome that properly incentivizes the donation of transmission to the market. As above, transfer revenues for Bucket 3 should go first to the exporting BAA to cover the exporting BA's hurdle rate and additional (incremental) transfer revenue should then be split equitably between the importing and exporting BAAs.

## IV. TRANSFER AND CONGESTION REVENUE SETTLEMENTS

Bonneville highlights its support for a settlement paradigm where the CAISO as market operator settles with an EDAM Entity, who will then sub-allocate to its transmission customers. Transmission customers with congestion revenue rights would settle directly with the CAISO.

### **6. Additional comments on the bundle 1 straw proposal or EDAM initiative.**

#### I. INTERTIE BIDDING FRAMEWORK

Bonneville believes more work is needed to consider the interaction between the proposed elimination of the intertie bidding framework and respecting transmission customer's OATT rights, as well as CAISO's proposed transmission principles as described in the Straw Proposal. Bonneville proposes the intertie bidding framework be kept in place when EDAM becomes operational and that CAISO and EDAM parties continue to monitor it. After gaining operational experience in EDAM, CAISO and EDAM parties can evaluate if intertie bidding is still necessary.

#### II. EIM GOVERNING BODY ROLE

Bonneville strongly supports CAISO's "joint authority" proposal to bring all aspects of the proposed EDAM design to both the EIM Governing Body and the CAISO Board of Governors for

approval. As CAISO noted, EDAM is fundamentally about expanding the existing EIM to include an opportunity for day-ahead market participation. It would be inappropriate for the EIM Governing Body to not have an approval role in the EDAM design. Bonneville also supports that CAISO tariff amendments to implement EDAM move forward *only if* both the EIM Governing Body and CAISO Board of Governors have approved the proposed market design.