

July 3, 2024

Re: Powerex’s Comments on Bonneville Power Administration’s Day-Ahead Market Workshop

Powerex Corp. appreciates the opportunity to comment on Bonneville Power Administration’s (Bonneville) day-ahead market participation workshop on June 3, 2024, addressing the importance of independent governance. Powerex commends Bonneville staff for its carefully considered, thorough review of the West-Wide Governance Pathways Initiative (Pathways Initiative) which reaffirms that an independent governance framework with stakeholder voting rights and an impartial market operator is paramount.

The Pathways Initiative Overlooks the Substantive Elements of Sound Governance

As discussed in detail in Bonneville’s “Staff Recommendation on Day-Ahead Market Participation Policy Paper”, both the governance framework and the market design elements of a day-ahead market are critical to ensuring fair and equitable outcomes for Bonneville’s customers. The Pathways Initiative’s efforts to improve the governance structure of the California ISO, if successful, can be expected to benefit the west, including participants in adjacent organized markets. Even considering these potential benefits, however, Powerex believes the Pathways Initiative still falls far short of delivering an acceptable governance framework for Bonneville’s power and transmission customers owing to three key shortcomings:

1. The Pathways Initiative proposes to start with the California ISO’s existing market offering: the EDAM/EIM tariff, business practices, and operational processes, all of which were developed under the California ISO’s existing governance framework.
2. The Pathways Initiative does not propose to replace the California ISO’s existing staff-led decision-making approach with an inclusive stakeholder-driven process and stakeholder voting rights.
3. The Pathways Initiative does not fully ensure that the market operator—the California ISO—will not be disproportionately influenced by California interests.

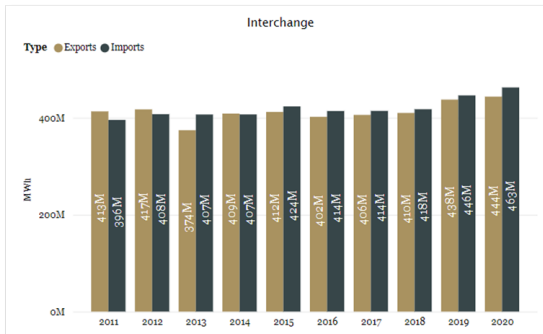
The Pathways Initiative’s proposed incremental approach to governance therefore would not remedy the fundamental problems with the current governance of EDAM and EIM. As a result, the California ISO’s EDAM/EIM cannot ensure fair and equitable outcomes for Bonneville’s customers.

Market Design and Operator Actions Drive Market Outcomes That Will Impact \$25 Billion in Annual Trade Activity

Importantly, California ISO’s governance issues drive its market design and its day-to-day market operations (through market operator actions). These market design choices and operator actions have had tremendous impacts on wholesale market prices and cost allocations throughout the California ISO’s market footprint, while also determining which entities have priority to receive supply during scarcity conditions. The transition to a full day-ahead and real-time organized market will greatly extend the reach of these consequences, since the organized market will largely replace not only existing day-ahead and real-time trade activity throughout the west, but will also largely impact forward market prices. The design and implementation of a day-ahead and real-time organized market in the west **will impact as much as \$25 billion a year in western trade**. In contrast, the modelled cost savings from a day-ahead market

(whether one market or two markets) are generally expected to be, on aggregate, only about \$500 million per year, based on the numerous studies conducted in recent years.

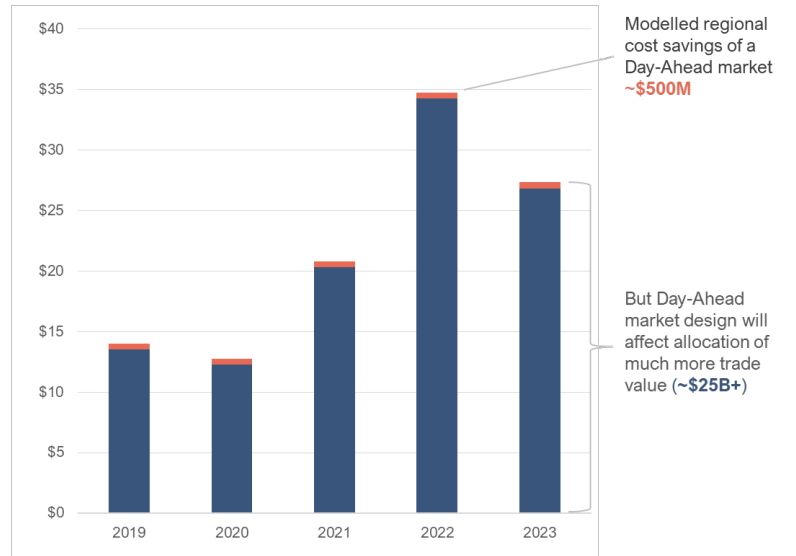
Regional Day-Ahead Organized Markets



WECC – Interchange

“One of the greatest benefits of the Western Interconnection is its geographic diversity as it relates to demand and resources. When one part of the interconnection is experiencing peak demands, other areas may not be”

Powerex Estimated WECC Inter-BAA Trade Value (\$US Billions)



Source: [WECC Interchange](#); Powerex estimated value of trade based on average annual western day ahead market prices

Unfortunately, studies using production cost models to analyze the transition to organized markets are not able to incorporate the many ways in which governance affects market design and market operations and thus do not reflect real-world market outcomes. ***This means that any quantitative analysis based on a study using a production cost analysis (such as the studies performed by E3 and Brattle) needs to be supplemented by an analysis of the impacts that these other market design elements and market operator actions can have on Bonneville and its customers.*** A few illustrative, though not exhaustive, examples of market design choices resulting from the California ISO-led stakeholder processes highlight the risks for Bonneville and its customers of anything less than a fully independent governance framework that is stakeholder driven, with a fully impartial market operator:

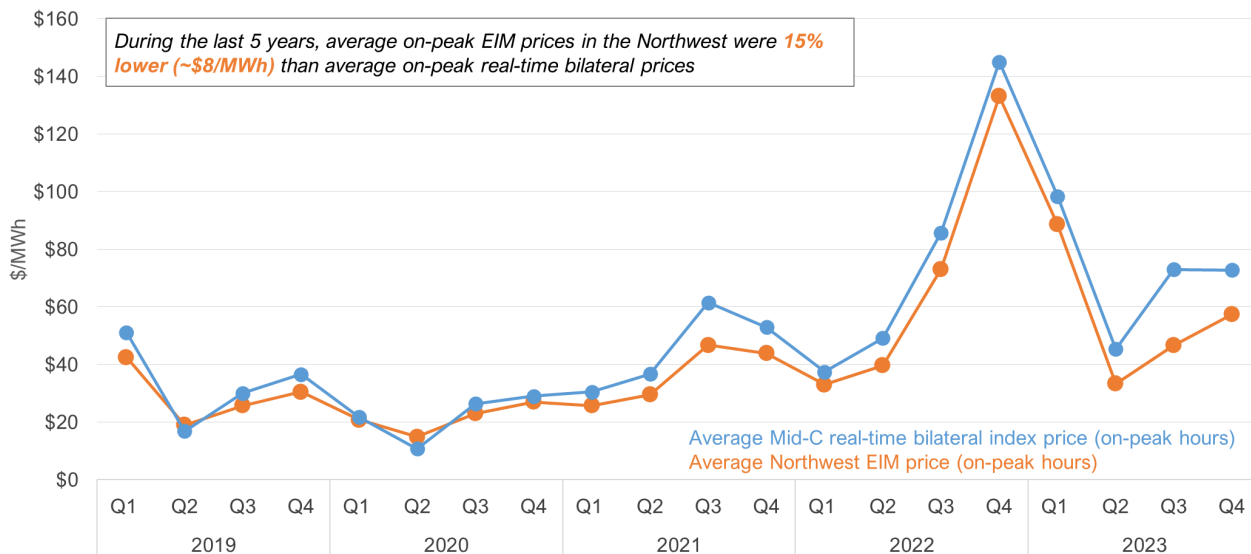
- **Congestion Rent Allocation:** The highly inequitable allocation of congestion rents based on the California ISO’s design and modelling choices that impose “within California” scheduling limits across multi-state, multi-TSP interties, as most recently evident during the January 2024 winter weather event which resulted in an inappropriate value shift of over \$100 million¹ from the Northwest to California in just five days.
- **Price Formation:** Price formation choices, including a lack of fast start pricing in EDAM/EIM, which represents an annual estimated regional cost shift of \$93-185 million to the detriment of Northwest ratepayers and \$95 – \$235 million to the detriment of Southwest ratepayers, while benefiting

¹ [EGPS COI Congestion Rent \(pnucc.org\)](https://www.pnucc.org/EGPS-COI-Congestion-Rent)

California LSEs by as much as \$1.3 billion per year in reduced costs of both imported energy and in-state purchases from merchant generators².

- **Resource Sufficiency:** An EDAM/EIM resource sufficiency evaluation (RSE) that is designed and applied in a manner that allows the CAISO Balancing Authority Area (BAA) to pass when it is clearly not resource sufficient, enabling the CAISO BAA to systemically “lean” on the supply of other EDAM/EIM entities (who may incur significant additional expense to pass the RSE), rather than having a common resource adequacy requirement (applied by an independent entity) to support reliability and ensure that all entities provide their fair share of supply (such as exists with Markets+).
- **Flow Priority on Shared Inerties and Restricting Transfers:** Recent California ISO tariff and business practice changes that determine which entities flow across shared multi-state, multi-TSP inerties during stressed conditions, as well as other market operator actions³ that have been taken to address reliability challenges in the CAISO BAA, with economic and reliability impacts to others.
- **Greenhouse Gas Design:** EIM “deeming” approach that devalues clean energy and undermines state environmental goals by systemically dispatching coal and gas for imports to California (and in the future, Washington), while inaccurately labelling those imports as having been delivered from clean hydro that was already running to meet external load.

Beyond the above illustrative examples, the California ISO governance has had substantial ongoing impacts on wholesale market prices in California ISO-operated markets, as evidenced by a comparison of California ISO market prices to real-time bilateral market prices in the Northwest:



Source: Powerdex Mid-C Hourly Index. The Northwest EIM price is the average of the Default Generation Aggregation Point (DGAP) for PACW, PSEI, PGE, SCL and BPA.

² [The Importance of Fast-Start Pricing in Market Design. Powerex and Public Power Council \(2022\)](#)

³ e.g., May 2024 Department of Market Monitoring memo regarding operator actions to restrict imports in the hour-ahead and 15-minute market, impacting congestion and prices in the Southwest. [DepartmentofMarketMonitoringUpdate-May2024.pdf \(caiso.com\)](#)

The above chart highlights that the California ISO's price formation practices generally result in suppressed wholesale market prices, with average on-peak EIM prices in the Northwest during the past 5 years that are approximately 15% (\$8/MWh) lower than real-time bilateral prices during the same timeframe. This is an important consideration for Bonneville and its power customers, given that Bonneville is most typically a seller of surplus supply (with the resulting revenue lowering Bonneville's power rates). Moreover, inaccurately suppressed wholesale prices provide poor price signals that can materially impede long-term market efficiency. For example, inaccurately suppressed short-term wholesale market prices can discourage investment in new flexible resources and much needed transmission facilities, while also encouraging entities with surplus supply to pursue long-term load additions (e.g., data center block loads) that reduce their ability to make shaped/flexible sales in the shorter-term wholesale markets.

Notably, the price differences shown in the chart above reflect **average** price differences across each quarter and therefore mask the full impact of the California ISO's market design choices and operator actions on wholesale market prices. Closer examination of the data shows that the California ISO market design and operator actions tend to suppress market prices during the specific hours of the day that the CAISO BAA tends to be an importer (i.e., outside the solar hours), which is precisely when Bonneville and many of its customers are often wholesale market sellers.

The California ISO achieves these pricing outcomes through a myriad of market design choices that differ from the approaches applied in other organized markets (including Markets+), including a lack of fast start pricing, inaccurate GHG attribution, limited scarcity pricing, excessive application of market power mitigation procedures, and substantial out of market procurement of supply. At the same time, prices in the California ISO's markets can become inaccurately elevated when the CAISO BAA is exporting, such as during the January 2024 winter weather event, when the California ISO collected over \$100 million in congestion through elevated export prices at COB (Malin500) over just five days, even though the physical congestion was actually located in Oregon. The impact of these inaccurately elevated market prices at COB were felt throughout the Northwest region when Bonneville and many of its customers were wholesale market purchasers.

The market design differences between EDAM and Markets+ are more thoroughly discussed in the Bonneville staff recommendation supporting the selection of Markets+. These differences reflect that, whereas EDAM is based on the California ISO's existing design under its California-based governance, Markets+ has been designed through an open and inclusive process where stakeholders, and not the market operator, drove key design decisions. The result is a tariff and market design for Markets+ that represents the input and interests of a diverse group of potential market participants and stakeholders. Furthermore, the independent governance framework under which the Markets+ design was developed is established directly within the Markets+ tariff, ensuring the future evolution of Markets+ follows a similar inclusive and stakeholder-driven process. The Pathways Initiative proposal, even if fully adopted, cannot achieve a similar result, since its starting point is not a market design developed under an open and inclusive stakeholder process with stakeholder voting rights and an independent board. At present, Markets+ provides the only equitable, durable, and timely solution for Bonneville and its customers.

The Benefits Are Not Driven Solely by Market Footprint Size

Some proponents of EDAM/EIM are attempting to frame the decision to join a day-ahead market as merely a decision between having one market (their preferred market, EDAM/EIM) or two (largely identical) markets with a market seam. This logic relies on a false equivalency between the two market choices. EDAM/EIM and Markets+ have very different market designs, different governance frameworks, and different market

operators. Each of these three aspects can either help ensure fair and equitable outcomes for all ratepayers across the footprint, or they can shift significant value—hundreds of millions of dollars or more—from one region to another within the market footprint. While all parties would prefer a market footprint that is as large and diverse as possible, all else equal, the governance, market design and market operator choices are far more important considerations as they provide the necessary confidence of fair outcomes for all parties and regions, and in a durable manner for years to come.

The concerns raised by some stakeholders about a new seam between the two market footprints are overblown. Roughly \$25 billion in trade occurs throughout the west today across BAA boundaries, despite countless existing BAA to BAA seams, TSP to TSP seams, as well as seams between the California ISO's markets and the bilateral trading and OATT scheduling framework prevalent in the rest of the west. Two organized markets will enable much more efficient trade across the west relative to today, and will facilitate resolving these BAA to BAA seams and TSP to TSP seams much more equitably via peer-to-peer negotiations between market operators. In contrast, transitioning to a single organized market that is governed, designed, and operated by the California ISO risks continuing to have many of these issues resolved in a manner that is inequitable to Bonneville and its customers.

Time Is of The Essence

In the June 3 workshop, it was suggested by some that Bonneville should delay its decision, even as entities pursuing EDAM commence implementation efforts. Not only would this delay realizing the improved economic efficiency, reliability benefits and environmental gains that will be achieved by Markets+, it could put the Markets+ initiative itself at risk, given Bonneville's importance to the footprint. Moreover, there is no reason to delay given that the Pathways Initiative, even if successful, still falls far short of providing an acceptable alternative to Markets+ for Bonneville and its customers for the many reasons set forth in Bonneville's staff report.

Powerex again commends Bonneville staff for its thorough analysis on day-ahead market participation, as well as its thoughtful leadership in regional initiatives in recent years, including the EIM Governance Review Committee, EDAM/EIM stakeholder initiatives, Markets+ Phase 1, and WRAP, all of which have ultimately informed the staff recommendation to pursue Markets+.