

Dec 6, 2024

Re: Powerex's Comments on Bonneville Power Administration's Nov 4th, 2024 Day-Ahead Market Workshop

Powerex appreciates the opportunity to comment on BPA's Nov 4th workshop and commends BPA for its commitment to an open, transparent, and comprehensive stakeholder process. BPA's process stands out for providing its stakeholders with far more opportunity to provide comments and understand BPA staff's decision-making process than what any other entity has provided – or has been asked to provide – when evaluating its potential DAM participation.

Powerex strongly supports BPA staff's continued view that Markets+ is its preferred market choice. This conclusion reflects the depth and extent of BPA's deliberative decision-making approach and a broad assessment of factors related to its statutory obligations, market governance and market design, and both quantitative and qualitative considerations.

Powerex is one of the largest transmission customers of BPA. Powerex also shares many similar interests to BPA as it relates to organized market participation. For example, like BPA, Powerex's market participation is in the context of a generation system dominated by large, complex, inter-dependent storage hydro facilities, winter-peaking load service, and significant investments in OATT transmission service. And like BPA, a key priority of Powerex is ensuring that the organized market Powerex participates in properly values hydropower's key attributes of capacity, flexibility, and clean energy, while also maintaining autonomy for hydro operators to manage complex hydro operations. This includes ensuring hydro operators have the continued ability to manage and conserve water as necessary to meet native load and other non-power obligations under a wide range of uncertain future conditions, including during tail events. As a similarly situated entity, Powerex believes that Markets+ is the only available choice to meet these requirements both in the near-term and long-term, due to multiple market design choices made in Markets+. These market design choices address areas such as resource adequacy/sufficiency, price formation, market power mitigation, GHG attribution, reporting and pricing, as well as the treatment of OATT rights from the perspective of firm priority, congestion rent allocation and the autonomy to decide how to utilize such rights. In each of these areas Markets+ substantially differs from EDAM.

Powerex appreciates BPA's ongoing leadership in pursuing a western day-ahead energy market that will best serve the interests of BPA, its power and transmission customers, and the region. Powerex urges BPA to prioritize the perspective of the vast majority of its customers, including its preference power customers, that support BPA continuing to fund, develop and pursue participation in Markets+. BPA should not be swayed by the small but vocal minority advocating for BPA to abandon its leadership role and further delay its decision while numerous other entities are moving forward with their own market choices.¹ It appears that the efforts of this vocal minority are centered on eliminating market services competition in the West, by causing Markets+ to ultimately not move forward, with the goal that BPA and the region are faced with no other choice but to eventually join EDAM. The consequence of eliminating Markets+ as an option is that the California ISO would become the sole market services provider. BPA should also place no weight on certain studies and reports recently released by the Brattle Group that purport to represent what is best for BPA

¹ [APS, SRP, TEP, and UNSE Announce Plans to Join Markets+](#)

and its customers. Created without BPA's involvement, these materials also appear designed to serve the interests of those entities trying to prevent a competing organized market to EDAM from developing in the West.

Pathways

Powerex supports BPA's conclusion that the Pathways proposal is insufficient to address BPA's requirement for fully independent governance. Powerex shares the specific concerns articulated by BPA, as well as the concerns described in the recently published Addendum to Issue Alert 1.² The success of Pathways continues to be highly uncertain and even if the current "2.0 proposal" is eventually implemented, it would only result in a marginal incremental improvement over the status quo, falling well short of achieving the necessary elements of a stakeholder-driven market design, an impartial market operator, and a fully independent governing body. Further, the Pathways proposal indicates considerable uncertainty about moving incrementally from the "2.0 proposal" to the "2.5 proposal", let alone providing a detailed and credible plan for ever achieving anything close to the complete and fully robust governance framework that is already available now in Markets+.

Production Cost Modeling & Quantitative Analysis

Powerex agrees with BPA's perspective that while production cost modeling can provide some directional information, these studies have fundamental limitations, and their results should only be one consideration within of a broader set of factors informing its decision. For example, BPA rightly recognizes that:

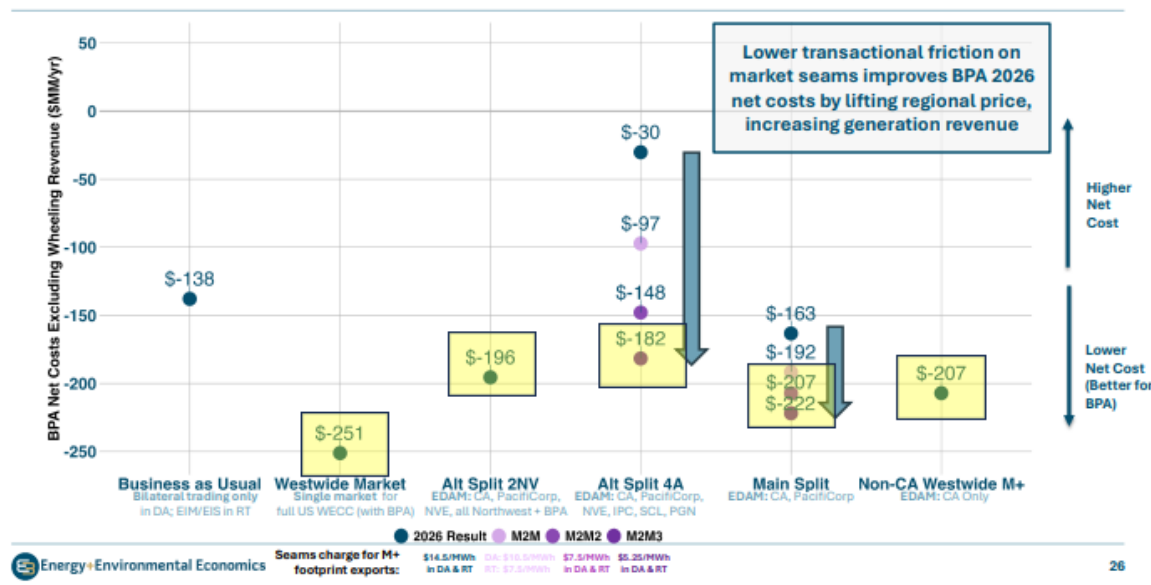
1. *Production cost model results are highly sensitive to their assumptions, particularly regarding hurdle rates at market boundaries.*

A common weakness of the production cost studies is the reliance on unreasonably high hurdle rates that have the effect of artificially restricting modeled trade between markets, leading to results that assign excessive importance to a single market footprint over other factors that aren't measured at all by those studies (like governance and key market design differences). For example, in most scenarios, E3 applied full OATT transmission charges as an incremental hurdle rate on all transactions between markets (in addition to other large "friction" charges). This assumption is directly inconsistent with real-world OASIS data that shows that in 2023, 96% of all transactions across the BPA network were scheduled using longer-term "sunk" transmission rights (and would therefore face no incremental transmission cost at all). E3's workshop presentation³ indicates that these assumptions are a primary driver for study outcomes, given that scenarios using more realistic hurdle rates produce outcomes that suggest the modeled difference between BPA being in EDAM or Markets+ is minimal (see results in yellow that show results with lower hurdle rates applied):

² [Third Party Materials \(Markets+\) - Western Interstate Energy Board](#)

³ [BPA WMEG Follow-up Study](#), slide 26.

2026 Cases & Increased Market to Market Coordination



2. Production cost models can't properly represent important differences in market design between the two market options.

As shown above, after adjusting to more reasonable hurdle rates, the variation in modeled results for BPA across all footprint assumptions is minimal, with a maximum difference of just \$69 million between a single Westside market and “Alt Split 4A”. This is a particularly small amount relative to the magnitude of value that could be shifted between western sub-regions by organized market rules that will apply or affect the approximately **\$25 billion** in existing western trade each year.

Production cost models are not well-suited to consider these critical design issues, as they generally assume two largely identical markets, with hurdle rates applied to transactions between the two. This means that these studies consistently fail to reflect a host of real-world market design issues and day-to-day choices made by the market operator that will ultimately determine how the \$25 billion in annual trade is allocated between participants and sub-regions in the future. In short, these models don't compare Markets+ to EDAM, but rather compare two largely identical markets with unrealistically hurdle rates applied between the market footprints.

It is therefore imperative to consider other factors that production cost models can't properly quantify, including numerous market design elements that could each single-handedly more than offset any modeled difference in net benefits between the two market footprints. For example:

- **Fast start pricing.** Analysis⁴ has demonstrated the significant potential impact of fast-start pricing on market price formation and the corresponding value that all resources, including BPA's surplus, will receive for being able to displace gas peakers in critical hours. For example, the analysis demonstrates that California ISO's refusal to adopt fast start pricing has reduced the value received by Northwest ratepayers for sales to California by \$93-185 million annually.

⁴ [The Importance of Fast Start Pricing In Market Design - June 2022.pdf](#)

In contrast, Markets+ includes fast-start pricing, consistent with other organized markets throughout the nation.

- *Congestion revenue allocation.* Across a five-day period in January 2024, California ISO’s market design and modeling choices resulted in over \$100 million of congestion across the jointly funded Pacific AC intertie being allocated exclusively to California customers.⁵ Similarly skewed outcomes have occurred during previous summer scarcity events for deliveries of energy from the Northwest to California. These events illustrate the weakness of production cost studies that fail to assess the risk of market design and modeling choices that can drive massive inequitable shifts in value during critical periods.
- *GHG design.* EDAM leverages California ISO’s existing WEIM GHG software design that systemically dispatches coal and gas for delivery to California and mislabels it as being sourced from northwest hydro.⁶ This causes numerous market distortions, including suppressing the value for clean hydro surplus. Despite stakeholder concerns raised as early as 2017 and throughout the EDAM process, California ISO has steadfastly refused to fully and properly address these ongoing concerns.
- *Market operator actions.* California ISO market operators often take large out-of-market actions to manage the reliability of the California ISO’s own service territory.⁷ This includes consistently increasing (“biasing”) the modeled load in California far beyond the demand that is expected to materialize in real-time (often by multiple thousands of MWs), enabling California to manage the reliability of its own service territory with additional imports, while distorting market outcomes for the rest of the market footprint.
- *Reliability.* Markets+ leverages WRAP to provide a crucial foundation for footprint reliability and to ensure a level playing field across market participants. EDAM requires no common Resource Adequacy program, but instead relies on an extension of the EIM resource sufficiency framework that has been consistently ineffective at ensuring that the California ISO’s service territory is also resource sufficient. Furthermore, the EDAM Resource Sufficiency framework also presents additional financial risk for WRAP participants, like BPA, that have already met a forward showing requirement, and who would also be required to meet a completely unrelated day-by-day resource sufficiency test for EDAM. The result would be that those WRAP participants may be forced to purchase high priced energy on critical days, above and beyond their WRAP requirements, just to meet the EDAM Resource Sufficiency test.

3. *Production cost studies rely on numerous simplifications about real-world conditions and are therefore not well-equipped to consider outcomes when it matters most.*

Periods of scarcity are when the stakes are greatest: energy is limited, loads are high, market prices are elevated, the transmission system is highly congested, and system conditions are stressed. It is precisely during these periods that market participants are most exposed to massive transfers of reliability risk and/or economic value as a result of an inequitable market design. It is also the moments when market operators are more likely to take extraordinary out-of-market actions that can have a dramatic impact on market outcomes. It is during these critical periods – which production cost studies aren’t equipped to evaluate – that entities must have maximum confidence in an equitable market design and a fully impartial market operator.

⁵ [March 8, 2024 Discussion of Congestion Allocation at PNUCC](#)

⁶ [Examining the Western EIM’s Deeming Approach to GHG Pricing Programs \(Executive Summary\).pdf](#)

⁷ See Issue Alert 6, available at: [Third Party Materials \(Markets+\) - Western Interstate Energy Board](#)

Conclusion

Powerex reiterates its appreciation for BPA's ongoing commitment to a market choice supported by a stakeholder-driven governance structure, a fully independent governing body, an impartial market operator, and both an initial and evolving market design that will provide it with confidence in fair and equitable outcomes for the agency and its customers in the long term. BPA's comprehensive analysis of the costs, revenues and risks of market participation demonstrate that Markets+ is clearly the superior option, both quantitatively, qualitatively and from a going-forward risk perspective.