

Comments of Powerex Corp. on Scope of the Extended Day-Ahead Market Governance Review

Submitted by	Company	Date Submitted
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Powerex appreciates the opportunity to submit comments on the Western Energy Imbalance Market Governance Review Committee’s (“GRC”) February 17, 2022 meeting, which initiated a critical exploration of potential changes in governance that will be necessary for the successful development of an Extended Day-Ahead Market (“EDAM”).

Executive Summary

Powerex believes that the successful development and implementation of a full day-ahead and real-time organized market in the West is necessary for the region to achieve its grid decarbonization goals, while also protecting reliability and ensuring affordable electricity service for consumers. A multi-state organized market will necessarily replace the existing regional frameworks for wholesale electricity trade, through which western entities currently arrange in excess of \$20 billion worth of electricity transactions each year.

In order for the CAISO’s EDAM effort (layered on top of its successful Western EIM) to be that full organized market platform for a critical mass of western entities and sub-regions, *each* entity and *each* sub-region must have confidence that they will realize positive net benefits. This means not only *sharing in the additional benefits* of centralized unit commitment and dispatch, and hourly and sub-hourly transaction granularity, but also *avoiding material shifts in the costs and benefits* associated with the existing wholesale trade activity that already occurs.

These threshold objectives require that the design of the EDAM take into account the priorities and interests of all entities and subregions equally. ***In Powerex’s view, it is now clear that this cannot be achieved under the CAISO’s current approach to market design and development.*** Unlike other efforts at regionalization that are characterized by independent governance and stakeholder-driven market design efforts, such as the SPP Markets+ initiative, the EDAM initiative is proceeding largely along the same lines as the development of the Western Energy Imbalance Market (“EIM”), where the market design was largely transplanted from the CAISO’s existing market design, the design process was predominantly driven by CAISO, and all decision-making authority remained under the CAISO’s governance framework.

The development of a regional day-ahead organized market presents an entirely different undertaking than the development of Western EIM nearly a decade ago, however, as:

- The EIM had limited risk of adversely impacting participating entities since it was an *incremental* voluntary market for a limited volume of *sub-hourly* real-time transactions (a timeframe in which little existing activity was taking place);
- The EIM posed limited risk of causing substantive transmission cost shifts onto native load customers outside the CAISO balancing authority area (“BAA”), since EIM transactions are primarily supported by transmission capability that would otherwise go unused;
- Grid conditions in the West were not nearly as stressed—there was substantially more fossil-fueled capacity online, and a smaller fleet of renewable resources—and inter-BAA transactions did not generally have critical importance to reliability;
- Most states and jurisdictions outside California had not yet enacted additional programs beyond their renewal portfolio standards to reduce GHG emissions associated with the electricity sector;
- Entities outside of the CAISO BAA did not yet have experience in how organized markets would operate for their resources and loads; and
- Entities outside of the CAISO BAA had limited success collaborating to identify, develop and implement programs to address regional challenges in the electricity sector.

These conditions do not remain true today. Most entities across the West now recognize that replacing the existing day-ahead market frameworks for regional electricity trade has the potential to deliver benefits. At the same time, it also has become clear that market design choices can significantly alter which ratepayers bear the cost—or benefit from—investments in generation, clean energy resources, transmission facilities, or environmental programs.

Unfortunately, events over the past few years have materially eroded confidence that the CAISO will design and operate its markets in a manner that is consistent with the bedrock principle of independence. In particular, there is growing concern that CAISO will instead continue its approach of promoting, and elevating, the interests of ratepayers in California, particularly on issues of great importance. It is now undeniable that certain stakeholders in California have a disproportionate influence over the CAISO’s decision making on key market design topics, consistent with the CAISO’s corporate governance structure and legislative mandate. The result is that the needs and interests of California ratepayers, as well as the needs and interests of the CAISO as a California BAA and as a California transmission service provider (“TSP”), are elevated over the needs and interests of ratepayers, BAAs, TSPs, and other entities located outside of California when it really matters. This is perhaps most evident in the highly contested wheel-through topic, but is also evident in the design and performance of the EIM Resource Sufficiency Evaluation, and is now becoming evident in numerous key market design elements of the revised EDAM proposal.

Powerex emphasizes that the critique of CAISO governance offered herein is not intended to represent a criticism of the actions of the CAISO, the CAISO Board, or any other person or entity that is responsible for the oversight and operation of the CAISO markets. Under the existing statutory framework, these entities have an obligation to protect and elevate the interests of California ratepayers. The existing governance model of the CAISO and its historically California-

centric approach to market design reflects its origins in California's electric industry restructuring efforts in the 1990s. This approach is understandable given the single-state context in which it was formed. But that is precisely the reason the current governance is poorly suited—and indeed represents a significant obstacle—to the successful development and implementation of any regional day-ahead market operated by, or involving, the CAISO. Although the CAISO has made good faith efforts to accommodate the views of entities outside of California in certain areas where these views did not conflict with California interests, CAISO's statutory obligations require it to prioritize California's interests when conflicts emerge, which often occurs in market design areas of critical importance.

The CAISO's inability to design and operate a multi-state market that truly achieves equitable market outcomes does not stem solely from the fact that the CAISO Board of Governors is appointed by California elected officials, or that the CAISO is formally mandated to promote the interests of Californians. While this formal framework is certainly important, it is also the case that the CAISO as an institution shapes outcomes in its markets through its day-to-day actions, including:

- Selecting which market performance issues to report on (and how);
- Deciding which market issues and topics to address, and their relative priority,
- Taking primary authorship over each and every straw proposal, and deciding whether and how to modify each iteration of that proposal; and
- Taking positions in industry forums and with regulators on key market design issues.

Powerex believes that a comprehensive transition of the CAISO to a fully independent, multi-state market operator is essential if the EDAM is to be a viable path forward for a critical mass in the West. This is especially important given the emergence of alternatives to CAISO's EDAM/EIM platform, particularly SPP's Markets+ initiative, where a robust and inclusive governance framework is expected to be developed by stakeholders themselves—one that will utilize a fully independent board and a fully independent multi-state market operator and market monitor. Transforming the CAISO into a fully independent body requires both reform of the CAISO's formal governance structure as well as a comprehensive re-orientation of the manner in which the CAISO approaches its day-to-day market design, development and reporting efforts. Powerex recognizes that a change to CAISO's formal governance would require amendments to California state law and believes that such legislative changes must be pursued as soon as possible.

These legislative initiatives ideally would be completed prior to the design of an EDAM. Powerex recognizes, however, that the EDAM initiative is not going to be halted pending the lengthy effort required to attempt to amend the CAISO's governing statutes. Therefore, Powerex recommends that—concurrent with the CAISO pursuing legislative reform—the GRC consider several governance changes that can be made under existing law. Powerex believes such changes could go a long way toward supporting an EDAM design that better balances the diverse interests within the broader regional footprint.

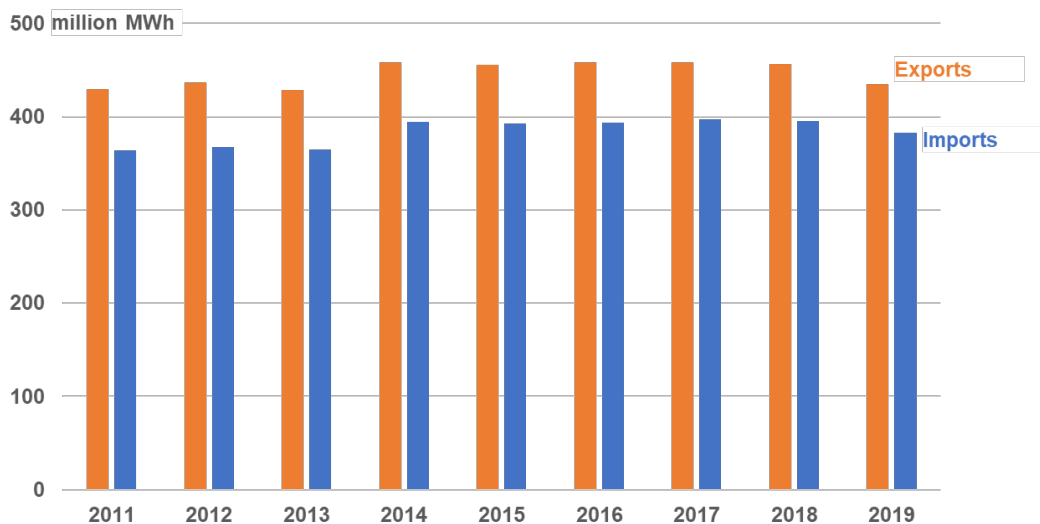
Specifically, Powerex supports the following changes:

- Delegating *primary* decision-making authority over *all* aspects of an extended day-ahead and real-time market to an EDAM Governing Body, with authority reserved for the CAISO Board of Governors only for discrete topics that are unique to the CAISO BAA (such as transmission planning and transmission cost allocation within the CAISO BAA);
- Immediately moving to a stakeholder-led approach for identifying and developing market design changes, with CAISO staff acting as facilitators and subject matter experts instead of as the primary architects of any proposals; and
- Engaging a fully qualified independent market expert (“IME”) entity to support the activities of the EDAM Governing Body.

I. The Existing Governance Framework Represents an Obstacle to the Successful Development and Implementation of the EDAM

The development and implementation of a western day-ahead market will have a profound impact on trading in the West, including the relative distribution of costs and benefits. Unlike the EIM, which enabled sub-hourly trading in real-time where no or limited trading had previously occurred, any regional day-ahead market is likely to replace the existing trading that occurs in day-ahead markets in the West (while also substantially impacting forward market prices). The value of this activity is significant. As shown in the chart below, there are nearly 400 million MWh of wholesale electricity deliveries between BAAs outside of the CAISO BAA each year, and an additional 67 million MWh of wholesale deliveries between the external footprint and the CAISO BAA.¹ Even if one considers only inter-BAA activity, and assumes a transaction value of approximately \$50/MWh, it is reasonable to estimate that approximately \$20 billion of wholesale electricity trade currently occurs on an annual basis in the West under the existing market structures and the Open Access Transmission Tariff (“OATT”) frameworks.

Figure 1. Total Inter-BAA Exports and Imports for WECC BAAs Other than CAISO BAA



Source: WECC [State of the Interconnection, Interchange](#)

Implementation of one or more regional day-ahead markets in the West will necessarily entail replacing this existing activity—where prices, terms, and conditions are negotiated by many buyers and sellers—with purchases and sales at market clearing prices calculated in accordance with the market operator’s tariff requirements. In practice, the manner in which the market is designed, and prices are established, will have a substantial impact on the value of these transactions, as well as on the extent to which various sub-regions within the market benefit from, or are disadvantaged by, implementation of an EDAM. ***This places the CAISO, as the primary architect of an EDAM, in a position where it could save California ratepayers up to a billion***

¹ These figures only reflect deliveries between different BAAs; the actual volume of trading would be even greater if wholesale transactions *within* BAAs were included.

dollars or more each year—at the direct expense of external ratepayers—by making EDAM market design choices that:

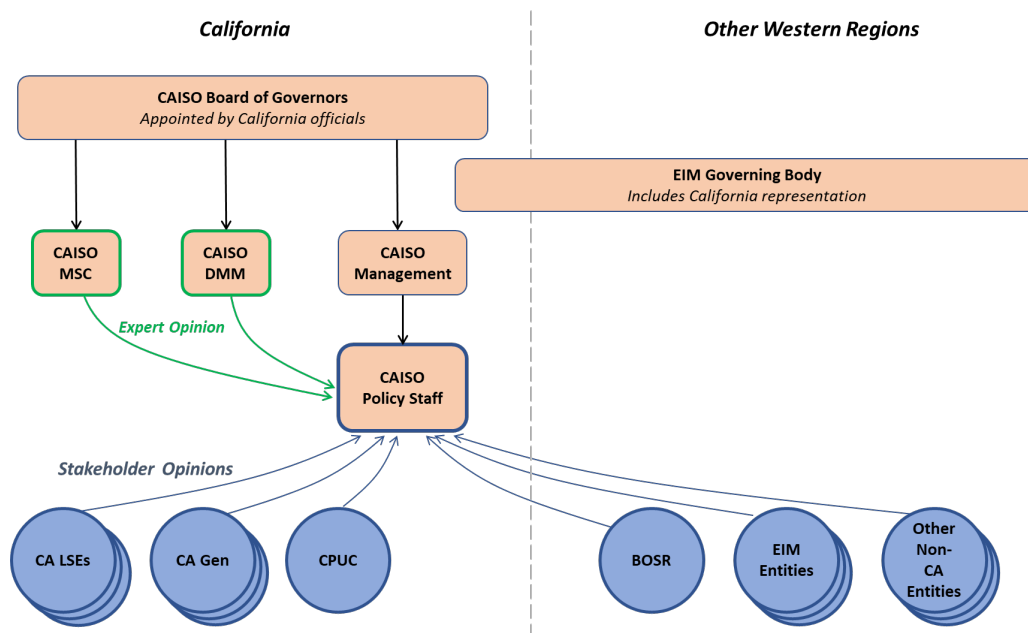
- 1) Suppress market clearing prices outside of the solar hours, when the CAISO BAA is typically a large net importer from the northwest and southwest regions (including by continuing to be the only FERC-jurisdictional organized market that excludes the cost of gas peakers, and their GHG emissions, from market clearing prices);
- 2) Enable the use of external transmission systems to deliver energy and environmental attributes to California without a requirement to contribute an appropriate amount to external transmission revenue requirements, causing cost shifts onto external native load customers;
- 3) Collect and distribute a disproportionate amount of congestion rent on coordinated transmission interties (particularly the Pacific AC and Pacific DC transmission facilities) to transmission customers on the California side of those interties; and
- 4) Enable continued capacity and flexibility leaning on the rest of the West, as has been experienced in the Western EIM.

To the extent the CAISO’s EDAM proposal includes such market design choices, and their implications are widely recognized by participants and/or their applicable regulators, it will be difficult for the EDAM to attract a critical mass of participants. Entities in the West will generally only be able to join a regional day-ahead market if doing so represents an improvement to their ratepayers over the *status quo* and over other *competing alternatives*. Further, entities need to have sufficient confidence that the market will be designed, operated, and evolve in a manner that equitably balances the interests of all participants and all western sub-regions, and not in a way that systematically erodes the benefits that formed the basis for their decision to participate. In Powerex’s view, demonstrating that an EDAM has the potential to generate benefits in the *aggregate*—with net negative benefits for some entities implicitly offset by larger net positive benefits for other entities—will not be sufficient to attract a critical mass of western entities to participate in an EDAM. Instead, the success of the EDAM (or any other regional day-ahead market initiative) will depend on broad industry confidence that the market will be designed and operated in a manner that provides benefits for *each* entity and sub-region.

In Powerex’s view, the existing CAISO governance framework is incapable of providing this confidence. By design, the CAISO governance framework has as its primary objective to favor the interests of California. This is reflected in every aspect of CAISO’s governance. For instance, the CAISO’s enabling legislation obligates the CAISO to “conduct its operations . . . consistent with . . . the interests of the people of the state,” including “reducing, to the extent possible, overall economic cost to the state’s consumers.”² In addition, the CAISO reports to the CAISO Board of Governors, which is comprised of members appointed by the Governor of California and charged with ensuring that the CAISO is operated in a manner consistent with the public policy objectives and responsibilities set out by California state law (*i.e.*, consistent with the interests of California).

² California Public Utilities Code, Section 345.5.

While limited governance reforms have been made to provide for broader representation in connection with the Western EIM, including through the delegation of certain responsibilities to the EIM Governing Body, these changes have fallen far short of what is necessary to ensure independent oversight of the CAISO markets. As an initial matter, the scope of the EIM Governing Body's authority is exceedingly narrow, with primary authority over only the limited subset of market design changes that are EIM-specific. Additionally, under the EIM Governing Body's charter, the EIM Governing Body is charged with promoting the interests of participants *within* the CAISO BAA as well as within the broader regional footprint (*i.e.*, there is not separate representation for entities outside California).



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Importantly, the governance issues run deeper than the obligations, roles, and decisions of the CAISO Board of Governors and the EIM Governing Body. As an institution, CAISO makes a multitude of decisions that do not require approval by the CAISO Board of Governors or the EIM Governing Body, but that nevertheless can have profound impacts on the operation and evolution of the CAISO markets. For instance, CAISO determines which market design issues are worthy of evaluation and attention; the CAISO authors all stakeholder materials, such as issue papers and straw proposals, and determines how to respond to stakeholder comments; the CAISO determines what proposals should ultimately be submitted to the CAISO Board of Governors and EIM Governing Body for review and approval; and the CAISO also takes policy positions at FERC respecting the merits of market design principles. Given the CAISO's statutory obligations and its oversight by a board appointed by the California governor, it is understandable that, over its 25-year history, the CAISO's corporate perspective has internalized these incentives, and reliably recommends proposals and makes decisions that are focused on benefitting California ratepayers.

CAISO's views are also necessarily informed by its myriad roles, including market operator, reliability coordinator, transmission service provider ("TSP"), and balancing authority ("BA"). Ideally, CAISO would act as a neutral, multi-state market operator when considering market design issues that have significant implications for market participants throughout the West. As reflected in the figure below, however, CAISO's roles as a California BA, California TSP, and California public benefit corporation can create conflicts of interest by creating an incentive for the CAISO to favor outcomes that elevate the interests of California, even where these choices may have significant unintended consequences for entities outside of California.

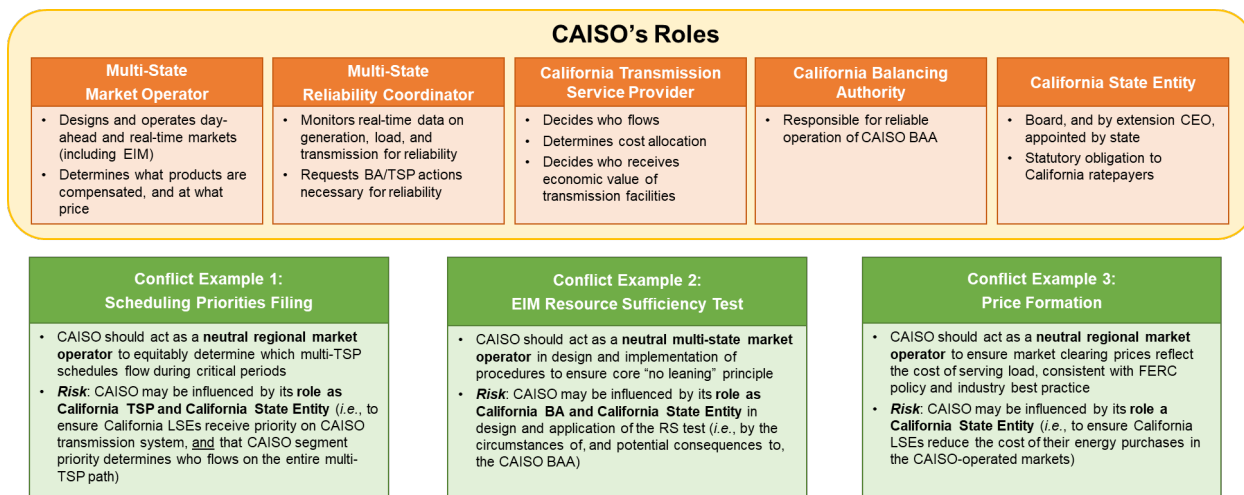
Indeed, Powerex believes that there are numerous recent examples where CAISO has made market design choices that have elevated the interests of California over external entities, consistent with its corporate governance structure and mandate. The most notable example was CAISO's decision to pursue implementation of a wheel-through framework that had the effect of providing CAISO load with preferential access to northwest supply and external northwest transmission systems. Notably, CAISO pursued implementation of this proposal despite widespread opposition to its proposal by all but a handful of stakeholders—primarily California LSEs—and despite the detailed expression of concerns explaining how its proposal would imperil reliability in external BAAs.

As a further example, it is widely recognized that the existing EIM resource sufficiency framework has failed to prevent the CAISO BAA's extensive leaning on imports from the broader EIM footprint to compensate for resource adequacy deficiencies in its own BAA. Not only has this allowed California ratepayers to save hundreds of millions of dollars by leaning on the capacity and flexibility investments made by external ratepayers without compensation, it has contributed to reliability challenges and prices spikes throughout the EIM area footprint. Such leaning is fundamentally inconsistent with the foundational principles of the EIM. It is, however, consistent with the economic interests of ratepayers in California, and with the reliability interests of the CAISO BAA (as a BAA that is not positioned to be resource sufficient during critical hours throughout each year).

In addition, CAISO's interests as a BA, TSP, and California public benefit corporation have been reflected in the lack of meaningful progress on addressing key price formation issues, such as fast-start pricing and scarcity pricing. While FERC has recognized that fast-start and scarcity pricing play critical roles in ensuring that market clearing prices accurately reflect the cost of serving load, the CAISO has thus far refused to prioritize efforts on either topic. The reason for opposition to this is clear: adopting these measures would accurately and appropriately increase wholesale market prices during periods that gas peakers are operating, and during periods of tight grid conditions, *both of which are precisely the periods when the CAISO BAA is a large importer from the both the northwest and southwest sub-regions*. California ratepayers therefore financially benefit from the ability to import energy during such periods at market prices that are suppressed (relative to the market prices that should exist, and that would exist in other organized markets). Conversely, the failure to adopt fast-start and scarcity pricing harms the economic interests of

external BAAs and external ratepayers—who are not compensated for the value that they provide to meeting the needs of the CAISO BAA.³

Importantly, the CAISO’s decision not to adopt fast-start pricing or scarcity pricing **currently results in an annual shift in value from external ratepayers to ratepayers in the CAISO BAA that exceeds the entire modelled EDAM benefits.**⁴ This underscores that *how* a regional organized market is designed—and *who* makes those market design choices—can have a far greater impact on ratepayers than the efficiency improvements that an organized market can unlock.

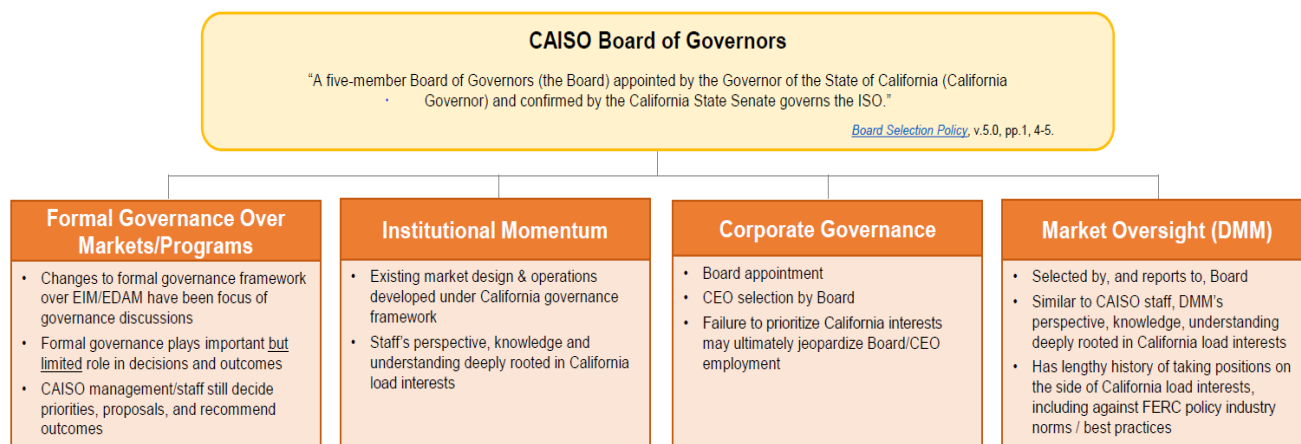


The CAISO Department of Market Monitoring (“DMM”) also ultimately reports to the CAISO Board of Governors. And like the CAISO generally, the CAISO DMM’s written position on a broad array of market design and performance issues includes many instances where it prioritizes the interests of California interests, even when these positions have run directly counter to best practices identified by FERC, and implemented by other organized markets in the nation.

The figure below provides an overview of the myriad ways that the existing CAISO governance framework has been designed to favor the interests of California.

³ In addition to shifting value between ratepayers in different western sub-regions, the CAISO’s failure to adopt such measures also harms the development of clean and flexible resources inside the CAISO BAA, such as batteries and pump storage projects.

⁴ Powerex estimates that the impacts of excluding gas peakers from the calculation of market clearing prices in CAISO-operated markets is harming ratepayers in the northwest and in the southwest by as much as \$300 million to \$400 million per year. In contrast, modeled aggregate benefits from an EDAM—assuming full participation by all eligible entities—ranged from \$119 million to \$227 million per year.



II. Any Effort to Implement an EDAM Must Include Governance Changes

In order for the CAISO's EDAM initiative to represent a viable path forward towards regionalization, steps must be taken to provide confidence throughout the region that the EDAM will be designed and operated in a manner that equitably takes into account the priorities and interests of all participants. Powerex believes that any effort to implement an EDAM that is merely an extension of the existing CAISO market design under the existing CAISO governance framework is unlikely to provide this necessary confidence.

Because CAISO is mandated by statute to operate in a manner that prioritizes the interests of California ratepayers, transitioning CAISO to a truly independent, multi-state market operator capable of balancing the interests of all participants and regions would require legislative action to fundamentally amend CAISO's governing statutes. Powerex believes that such legislative reform is urgently needed and critical to the long-term success of any EDAM initiative. And ideally, such reform would occur prior to the development of the EDAM proposal. However, Powerex recognizes that progress on developing the EDAM proposal cannot realistically be suspended. As a workable way forward, Powerex believes that there are key steps that the GRC can take now to help support an appropriate and equitable design of the EDAM. Such actions represent a necessary bridge to the time a sustainable governance structure can be fully implemented (as a result of actions taken by California's governor and state assembly), which hopefully would be ahead of EDAM market launch.

A. Expanded Role of an EIM/EDAM Governing Body

Powerex believes that creating an expanded role in governance for an independent body (or body representing the interests of external entities) is a necessary precondition for implementation of an EDAM. As more fully detailed in the *EIM Entity Straw Proposal on EDAM Governance* and associated governance principles, there are two primary models that could meet this objective while being consistent with existing state law and would preserving state and local authority over certain matters: (1) full delegation; and (2) a joint authority model.

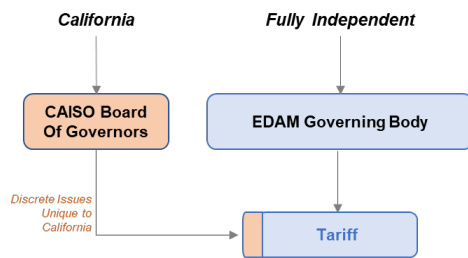
Under a full delegation approach, primary authority over all market design decisions respecting the day-ahead and real-time markets would be delegated to an independent EDAM Governing Body, similar to the EIM Governing Body. Proposals that are approved by the EDAM Governing Body would then go to the CAISO Board of Governors for its approval. This governance framework would need to have a process to resolve any dispute between the EIM Governing Body and the CAISO Board of Governors, which could include:

- Giving CAISO staff and the EDAM Governing Body the opportunity to reform the proposal to address the CAISO Board’s concerns;
- Joint meetings of the EDAM Governing Body and CAISO Board; and
- In instances where the CAISO Board and EDAM Governing Body were unable to reach agreement, the submission of competing proposals to FERC for resolution (similar to the “jump ball” filing rights found in other RTOs).

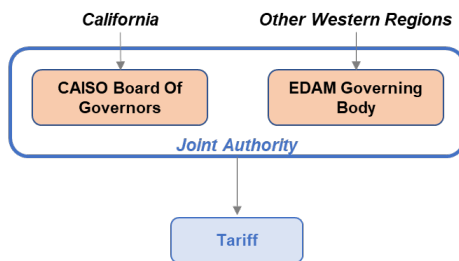
An alternative to the fully independent model would be a modified joint authority construct under which the EDAM Governing Body would be granted joint authority with the CAISO Board over any and all issues related to the day-ahead and real-time markets. Under this construct, the EDAM Governing Body would represent the interests of external entities and would have equal rights with the CAISO Board to approve or reject proposals. Like in the case of the full delegation approach described above, there would need to be adequate dispute resolution provisions to address situations where the CAISO Board and EDAM Governing Body were unable to reach consensus.

Workable Governance Models

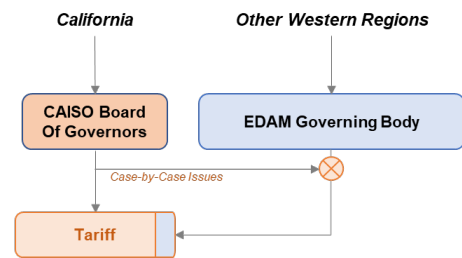
1. Full Independence Model



2. Joint Authority Model



Unworkable Governance Model



B. Stakeholder-Driven Market Design

Powerex believes that it is critical that the CAISO stakeholder process be reformed to give stakeholders primary decision-making authority over market design decisions. Under this framework, CAISO staff's primary role would be to facilitate dialogue on key market design issues by providing guidance to stakeholders on potential options as well as the economic and reliability implications of different market design choices. However, it would be stakeholders that would decide which market design issues to consider through the stakeholder process, how proposals evolve in response to stakeholder feedback and analysis, and what proposals are brought to the CAISO Board and EDAM Governing Body for approval. This could be achieved by reforming the stakeholder process such that market design initiatives would be evaluated through committees of stakeholders assigned to various subject matter areas.

Powerex believes that the Western Power Pool's initiative to develop a Western Resource Adequacy Program ("WRAP") and SPP's Markets+ Initiative provide real-world examples of effective, stakeholder-led market design initiatives in which the market (or program) operator acts as a facilitator and subject matter expert, but it is stakeholders that are responsible for driving market design choices. The WRAP effort is an especially encouraging example of what regional stakeholders can achieve through a collaborative and stakeholder-driven process, even where the initiative involves historically controversial matters such as resource adequacy requirements. The WRAP was developed over the past two years through a collaborative process in which future market participants and other stakeholders drove the market design, with SPP acting as program developer and providing technical advice, but without any influence or control over the design of the WRAP.

This same stakeholder-driven approach also is being reflected in the proposed governance structure of the WRAP, which consists an independent board and several multi-sector committees that provides for broad representation of program participants, regional stakeholders, and state regulators, including:

- A Program Review Committee including representatives of LSEs, independent power producers, public interest organizations, retail customer advocacy groups, and the Committee of State Representatives ("COSR").
- A Participants Committee consisting of program participants responsible for recommending policies, procedures, and system enhancements related to the policies and administration of the WRAP.
- A COSR comprised of state representatives to ensure state representation in program decision-making.

Similarly, within its RTO footprint, SPP administers a stakeholder process in which stakeholder committees and advisory groups drawn from a broad array of stakeholder sectors drive market design decisions. Under this structure, it is stakeholders—not the RTO—that drive market design and policy decisions, with support from SPP as an institution. Powerex believes that transitioning to a model in which stakeholders—rather than the CAISO—drive market design choices is a

critical step to providing confidence that market design issues will be addressed in a manner that balances the interests and needs of all participants and sub-regions.

Powerex acknowledges that not all entities will be perfectly satisfied with either of these two governance frameworks described above, as there will likely be diverse stakeholder groups, including state regulators and representatives, that will undoubtedly desire greater influence over decision making under any governance framework. Nonetheless, a stakeholder-led process, supported by an independent governing body, and a program or market operator that is fully independent as an entity itself, is essential to achieving reliable, efficient, and equitable regional programs and markets.

Powerex emphasizes that the transition to a stakeholder-led process should not wait until the EDAM has been designed and implemented. In order to achieve broad regional confidence in the EDAM as a potential path forward for regionalization, the CAISO should take immediate steps to adopt a stakeholder-driven process for designing and evaluating the EDAM. Powerex believes that shifting to a stakeholder led process has the potential to revitalize the existing EDAM initiative and to encourage stakeholders to re-engage in the existing process.

C. Independent Market Expert

Powerex also strongly urges the engagement of a fully-qualified entity to serve as an independent market expert (“IME”) that supports the activities of the EDAM Governing Body. Currently, the EIM Governing Body relies on the CAISO DMM and Market Surveillance Committee (“MSC”) to provide their views of oftentimes complex market design issues that have elicited a range of views and disagreement among stakeholders. While the analyses and perspectives that the MSC and CAISO DMM provide have value, they have historically been informed by the same California-centric view described above. By providing an independent and diverse perspective to market design issues, an IME will help ensure that market design issues are evaluated in a manner that more appropriately balances the interests of regions outside of California and takes into account best practices from FERC and other RTO regions.

Powerex emphasizes that the IME must be more than a single individual or an organization that has to hire a new team to support the IME function. The entity engaged to act as the IME should be required to demonstrate that it has a team with the necessary depth of expertise and breadth of experience to provide the full scope of services required. Ideally, the IME will also be in a position to leverage the analytical capabilities and tools that have been developed to support the entity’s existing clients to efficiently and cost-effectively provide the guidance and analysis necessary to support the EIM Governing Body.