

**BEFORE THE PUBLIC UTILITIES COMMISSION
OF THE STATE OF COLORADO**

**IN THE MATTER OF THE COMMISSION'S
IMPLEMENTATION OF §§ 40-2.3-101
AND 102, C.R.S., THE COLORADO
TRANSMISSION COORDINATION ACT**

PROCEEDING NO. 19M-0495E

**COMMENTS OF THE
CALIFORNIA INDEPENDENT SYSTEM OPERATOR CORPORATION**

The California Independent System Operator Corporation (ISO) respectfully submits these initial comments in the Colorado Public Utilities Commission's (Commission) proceeding analyzing the potential advantages and disadvantages in joining an electricity market.¹ There are a number of elements critical to any decision to participate in an organized electricity market, including the cost and benefits to consumers, efficiency of resources and transmission, and the market's ability to facilitate and adapt to state policies and regulations such as renewable portfolio standards, emission reduction standards, and planning reserve margins. These comments do not provide detailed information on the questions posed in the docket, but offer the ISO's perspective on the importance of this proceeding as Colorado explores how best to achieve its energy objectives. The ISO stands ready to provide assistance to the Commission as it evaluates options for the benefit of Colorado consumers.

¹ The Commission has initiated this proceeding pursuant to the Colorado Transmission Coordination Act of 2019, §§ 40-2.3-101 and 102, C.R.S. (CTCA). Section 40-2.3-102(1)-(4), C.R.S., specifically directs the Commission to undertake an analysis of energy imbalance markets, regional transmission organizations, power pools and joint tariffs.

I. Organized markets in the West are evolving and attracting new participants

The ISO's electricity markets have developed over time to meet changing conditions in the West, including more diverse resource portfolios, evolution of state policy, and consumer choices. Over 20 years ago, the ISO began to access and utilize the resources from multiple utilities more effectively and to help serve electricity demand in an efficient and reliable manner. In recent years, the ISO has enhanced these markets to facilitate participation by a changing resource mix with wind, solar, storage, demand response, and distribution-connected resources. The proliferation of renewable resources and distributed energy resources will likely continue throughout the West. To ensure proper market structures exist, it is critical to integrate these resources in a cost effective and reliable manner that can support Colorado's efforts to transition to clean electricity generation by 2040 and expand the electrification of vehicles.

The ISO developed the Western Energy Imbalance Market (EIM) at the request of entities in the region. The EIM provides an opportunity for entities in the West to take advantage of the benefits of a real-time market. The EIM has lowered costs to serve electric demand through transfers of electricity among participating entities and through reduced need for flexibility reserves. The EIM has also advanced the integration of renewable resources and enhanced reliability across the region through increased situational awareness.

Since initial operation of the EIM in 2014, participants have seen actual benefits in excess of their studied benefits. The ISO tracks benefits through quarterly reports that have shown over \$800 million in gross benefits for the EIM participants to date;

reduction in carbon emissions from reduced curtailment of renewable energy resources; and significant reduction in the need for flexibility reserves across the footprint of the EIM. The quarterly reports also reflect entity-specific benefits for each participant as well as the robust transfers that occur between and amongst the various EIM entities.² This transparency has helped stakeholders and regulators evaluate the benefits of individual entities' decisions to join the EIM.

To-date, 19 entities have chosen to participate in the Western EIM.³ By 2022, participants representing over 77 percent of electric demand in the Western Interconnection will be active in the EIM. The EIM has succeeded in part because stakeholders developed the foundational design elements through an open process that allowed for robust discussion. Enhancements to the market follow a similar approach that creates consensus-based solutions. The market emphasizes voluntary participation and local control of transmission and generation assets.⁴

The upfront implementation costs and ongoing fees of the EIM are relatively small compared to the benefits. Indeed, experience from EIM entities reflects that the payback period for implementation costs is rapid – often less than two years.

² See, e.g., Western EIM Benefits Report Third Quarter 2019: <https://www.westerneim.com/Pages/About/QuarterlyBenefits.aspx>

³ Active participants in the Western EIM include the California ISO; PacifiCorp; NV Energy; Arizona Public Service; Puget Sound Energy; Portland General Electric; the Balancing Area of Northern California; Idaho Power Company; and Powerex, which serves as the marketing entity for British Columbia Hydro. Pending participants include Salt River Project; Seattle City Light; Los Angeles Department of Water and Power; Public Service Company of New Mexico; NorthWestern Energy; Turlock Irrigation District; Avista; Tucson Electric Power; Tacoma Power; and the Bonneville Power Administration.

⁴ Based on feedback we have received in the development of the EIM, any market structure in the West should acknowledge and respect the rights of states and public power entities to maintain control over integrated resource planning and resource adequacy decisions. In addition, transmission planning and investment decisions should remain with each balancing authority/transmission provider and each participating balancing authority should retain control over its transmission assets and its balancing authority responsibilities.

Additionally, participants maintain operational control over their systems, can choose which resources will participate, and can exit the market at any time with no exit fees.

Similarly, development of the extended day-ahead market (EDAM) for EIM participants will depend on these same elements of voluntary participation and local control. Over the last year, EIM participants in consultation with the ISO have assessed whether the EDAM may be a feasible and mutually beneficial approach to enhance efficient and reliable grid operation in the West. At the request of current EIM participants, the ISO recently launched a public stakeholder process to pursue the extension of its day-ahead market platform. If successful, this effort would provide EIM entities the option to participate in an integrated day-ahead/real-time market.

II. Colorado electric utilities and their customers may benefit from a market, whether limited to Colorado or serving a broader footprint

Advanced market tools and systems can help Colorado serve its electric demand cost effectively as well as integrate greater amounts of renewable and energy storage resources. In addition, as more transfer capability over the electric transmission system becomes available for the real-time optimization, Colorado electric utilities can take advantage of their resource and load diversity as part of a larger footprint. The hourly demand for electricity differs across the West. As a result, increased participation in a western market would enable electric utilities in Colorado to benefit by sharing a diverse set of resources during peak and off-peak hours more cost effectively.

III. Governance of organized markets is an important consideration for all stakeholders

Stakeholders throughout the West have fostered the development of the EIM as a voluntary market and created a governance structure that ensures robust participation

from all interested parties. Participants and state representatives have a significant voice in oversight of the EIM to ensure it evolves to address local considerations.

In 2016, the ISO's Governing Board delegated authority on rules specific to participation in the EIM to a new EIM Governing Body comprised of independent representatives from across the west. The EIM Governing Body, selected through a stakeholder process, oversees changes and enhancements to EIM related market design components. The EIM Governing Body also has an advisory role over other real-time market changes. Regional stakeholders have direct access to the EIM Governing Body as well as two additional advisory forums created for Western EIM stakeholders: the Body of State Regulators that includes a utility regulator from each state with an EIM participant, and a Regional Issues Forum for stakeholders across the region.

At the request of the EIM Governing Body, a committee of stakeholders called the EIM Governance Review Committee will launch an iterative public process to evaluate refinements or enhancements to the current governance structure. This process will start in early 2020 and its scope will include governance enhancements in the event that participants elect to add EDAM to the EIM market structure.⁵

IV. Conclusion

The ISO appreciates the Commission's consideration of these comments as it evaluates electricity market options for the benefit of Colorado consumers. We recognize Colorado has different options and any choice needs to accommodate state

⁵ Information about the EIM's Governing Body and its work is available on the following website: <https://www.westerneim.com/Pages/Governance/default.aspx>.

energy objectives. In this respect, Colorado should ensure any market structure it pursues includes collaborative processes that can support state policy preferences while promoting efficiency and reliability across the region. The ISO stands ready to answer questions regarding market design structures and looks forward to participating in the next steps of this process to help Colorado achieve its energy policy objectives.

Respectfully submitted

By /s/ Andrew Ulmer

Roger Collanton

General Counsel

Anthony Ivancovich

Deputy General Counsel

Andrew Ulmer

Director, Federal Regulatory Affairs

California Independent System

Operator Corporation

250 Outcropping Way

Folsom, CA 95630

T – 916-608-7209

F – 916-608-7222

Email: aulmer@caiso.com

Attorneys for the California Independent
System Operator Corporation

Dated this 15th day of November 2019.

CERTIFICATE OF SERVICE

I hereby certify that on the 15th day of November, 2019, the foregoing document was served via electronic filing with the Commission and served on those parties shown on the Commission's Certificate of Service accompanying such filing.

/s/ Anna Pascuzzo

Anna Pascuzzo