

**UNITED STATES OF AMERICA
BEFORE THE
FEDERAL ENERGY REGULATORY COMMISSION**

Southwest Power Pool, Inc.) Docket No. ER20-1059-001
) Docket No. ER20-1060-001

**MOTION FOR LEAVE TO INTERVENE AND COMMENTS OF
THE CALIFORNIA INDEPENDENT SYSTEM OPERATOR CORPORATION**

The California Independent System Operator Corporation (“CAISO”) respectfully files this motion to intervene and comment in the above-identified proceedings.¹ These proceedings concern the February 21, 2020 submission by Southwest Power Pool, Inc. (SPP) to implement its Western Energy Imbalance Service (WEIS) market, and more specifically SPP’s May 22, 2020 response to the Commission’s April 20, 2020 deficiency letter that constitutes an amendment to the filing (SPP Response). The SPP Response compares certain features of its proposed WEIS market to the CAISO’s energy imbalance market (EIM), and reflects a misunderstanding of how certain elements of the Commission-approved EIM operate.² Thus, the CAISO intervenes for the sole purpose of

¹ The CAISO makes this filing pursuant to Rules 212 and 214 of the Commission’s Rules of Practice and Procedure, 18 C.F.R. §§ 385.212, 385.214. The CAISO requests that the Commission grant its motion to intervene because the CAISO is the market operator of the EIM, which is referenced in the SPP Response. As such, the CAISO has a direct and substantial interest in the proceeding. Because no other party can adequately represent the CAISO’s interests in the proceeding, the CAISO’s intervention is in the public interest and should be granted.

² See SPP Response at 11 (interpreting questions posed in the deficiency letter to imply an expectation that the WEIS market is, or should be, similar in design and function to the EIM); see *generally* SPP Response (making numerous comparisons between the WEIS and the EIM).

clarifying the record and eliminating any potential confusion regarding the EIM design and operation.

First, SPP suggests that the EIM operates utilizing a path based congestion management approach, not a flow based approach as does the WEIS market.³ The CAISO clarifies that in fact the EIM utilizes flow based congestion management that respects intra EIM balancing authority area physical transmission constraints, EIM balancing authority area specific power balance constraints, and intertie constraints between EIM balancing authority areas (both physical limits and scheduling limits).⁴ This enables the EIM to function in a multi-balancing authority area environment in a compatible and complementary manner with the OATT regulated bilateral energy market that co-exists with the EIM, while respecting the transmission rights of third parties and scheduled transactions in the bilateral market.⁵ Additionally, owners of the transmission rights may use their rights to dynamically schedule their energy transfers. It could not be assumed that if owners of transmission rights did not schedule

³ See SPP Response at 11, fn. 10 (explaining that path-based congestion management relies on a determination of how much transmission capability is expected to be available after taking into account bilateral scheduling activity that takes place in advance of each operating hour, and that this time lag between hourly scheduling activity in the bilateral market and each five-minute Dispatch Interval in the imbalance market leads to inherent differences between the expected and actual capability of the transmission system to achieve least cost economic dispatch).

⁴ The EIM enforces approximately 1500 flow based constraints in the EIM area.

⁵ See, e.g., CAISO Tariff Section 29.2(b)(7)(H)(iii) (requiring that the CAISO model third party transmission service provider and path operator information used to support EIM transfers and real-time dispatch); Commission Letter Order, Docket No. ER17-1493 (2017) (accepting the Coordinated Transmission Agreement with the Bonneville Power Administration); the Bonneville Power Administration website for current information about the [Coordinated Transmission Agreement](#).

energy transfers on those paths before T-40', that those transmission assets can be automatically released to real-time imbalance markets. Those rights need to be protected unless owners release them for use in energy imbalance market by timely informing the market operator through the capability to dynamically update the energy transfer limits every 5-minutes.

Second, SPP suggests the EIM is flawed because it defers to the responsible balancing authority on matters concerning the reliability of the transmission system within the balancing authority areas it operates, and therefore unnecessarily includes intermediary determinations.⁶ This misses the point of the multi-balancing-authority area environment in which the EIM operates, and is confusing. One of the principal design requirements of the EIM is that, unlike in ISO/RTO markets, the EIM balancing authorities are necessarily responsible for reliability of the transmission system in their area through coordination of transmission operations within their area in real-time after the look ahead market results are issued. To clarify, the CAISO looks to the balancing authority because the EIM includes a forward look ahead function that performs dispatch, unit commitment, resource configuration management, and congestion management that respects bilateral transactions in a multi-balancing authority area optimization. Therefore, the EIM must rely on advance information provided by the participating balancing authorities as the entities responsible for

⁶ See SPP Response at 12 (noting deference to the EIM entity and EIM entity scheduling coordinator with respect to the determination of transmission constraints on their systems); see *also id.* at 11 (suggesting that the EIM's reliance on the balancing authority with respect to intra-balancing authority area constraints is misplaced).

reliability in their respective areas, and rely on the participating balancing authorities to operate their corresponding energy management systems to carry out the 5-minute EIM instructions and maintain reliable operations between these 5-minute dispatches.⁷ Unlike the WEIS market, which apparently is designed as a single 5-minute interval security constrained economic dispatch, the EIM operates as a multiple (10 to 13) five minute intervals integrated look ahead real-time dispatch (RTD). In addition, the EIM includes a fifteen-minute market (FMM) with up to 18 fifteen-minute intervals, integrated look ahead security constrained unit commitment and combined cycle resource configuration management.⁸ Furthermore, EIM operation requires all pertinent scheduling and forecasting information for each market time horizon from various sources including each EIM balancing authority area. These look ahead features, transmission availability, planned outages and other contingency modeling parameters are included in the EIM optimization using all information required from the bilateral market and the latest real time information available on an event basis. This ensures the market operator and the EIM optimization have the latest most accurate current state of the system and look ahead scheduling

⁷ See *id.* at 12-13 (indicating SPP will utilize the information received in real-time directly from reliability coordinators and local transmission operators to limit the market's usage of transmission to the unused portion of the physical capability of the transmission system); see *also id.* at 15 (stating that SPP will initiate binding constraints in real-time based on the direction of a reliability coordinator or local transmission operator).

⁸ The WEIS market as described in the SPP Response appears to operate exclusively as a real-time dispatch based on the limited information provided for purposes of the state estimation that SPP performs with respect to its reliability coordinator function.

and forecasting information from different sources so that the EIM operates effectively within a multi-balancing authority area environment while respecting the bilateral market.

Similarly, SPP also oversimplifies the relationship between the CAISO as the market operator and other participants in the EIM.⁹ The EIM establishes a direct relationship, separate from the transmission function, with the merchant function and other third parties with respect to the scheduling, bidding and settlement of EIM participating resources.¹⁰ This direct relationship between the market operator and the participating resources ensures both the separation of functions from the transmission operations as well as the integrity of bidding and participation by third party resources. It is an oversimplification and inaccurate to suggest that the EIM unnecessarily concentrates the market operator relationship with the balancing authority.¹¹

Third, SPP suggests it is more efficient for its reliability coordinator function to oversee real-time inputs into the WEIS market rather than having such inputs communicated directly to the real-time market operator as in the

⁹ SPP Response at 10 (noting that SPP stakeholders described concerns that the EIM design concentrates responsibilities with the balancing authority and the impact this has on the market outcomes of participants).

¹⁰ See CAISO Tariff Section 29.4(d)-(e) (establishing a separate relationship with EIM participating resources and their scheduling coordinator).

¹¹ See *also* CAISO Transmittal, FERC Docket No. ER20-1973-000 at 3 (explaining that the CAISO intends to work with its stakeholders to develop a direct scheduling and settlement relationship with load serving entities other than the EIM entity within an EIM balancing authority area).

EIM.¹² SPP states that this “real-time communication of physical transmission availability is more direct and more timely as compared to alternative designs that rely upon an intermediary to communicate transmission limitations forty minutes or more in advance of the operating hour.”¹³ The CAISO is a reliability coordinator and the market operator of the alternative market design referenced by SPP. To clarify, the EIM requires timely submission of information to the market operator, not the reliability coordinator, in advance of real-time so that the optimization is completed and schedules communicated to market participants in a timely manner. It is not correct to suggest that the EIM optimization does not rely upon updated real-time information or that the reliability coordinator is the more appropriate conduit for such information. The EIM market operator receives all updates of transmission system and other pertinent operational information directly from the entity responsible for reliability of the transmission system within the participating balancing authority area, the balancing authority, and incorporates that information directly into the EIM optimization.

Fourth, SPP suggests the primary function of the EIM is to optimize transfers between balancing authority areas. This comment suggests a deep misunderstanding of the EIM mechanisms designed to ensure it operates

¹² See *id.* at 17 (explaining that because reliability coordinators monitor this availability in real-time by monitoring the actual flow on the transmission system relative to the facility ratings of the individual transmission elements provided by transmission operators, transmission owners and transmission service providers, acting through their respective transmission operator(s), may communicate to their respective reliability coordinator(s) any changes in facility ratings necessary to maintain reliability).

¹³ *Id.*

appropriately in a multi-balancing authority area environment while respecting the existing bilateral transmission marketplace. SPP states that:

The WEIS Market's optimization objective is to balance available Resources to meet projected demand across the entire WEIS Market footprint, not for a specific Balancing Authority. It would not be appropriate to model individual Balancing Authority Area power balance constraints as those constraints could limit the WEIS Market's ability to transfer Imbalance Energy between participating Balancing Authorities when there are sufficient Resources available for dispatch within the market on a five-minute basis. Unlike the CAISO WEIM which primarily optimizes inter-Balancing Authority transfers, the WEIS Market dispatches all participating Resources to serve the aggregate market load. Therefore, the design is focused on a unified solution, rather than treating each Balancing Authority as an island. (SPP Response at 36).

Contrary to this statement, the EIM optimization objective is to minimize the total cost of serving energy demand of the entire EIM area respecting intra balancing authority area physical constraints, as well as inter balancing authority area physical inter-tie constraints and scheduling limits.¹⁴ Accordingly, the EIM respects the boundaries between balancing authority areas, the responsibilities of the entities that manage them, and the transmission rights that connect them.

III. Description of the CAISO and Communications

The CAISO is a non-profit public benefit corporation organized under the laws of the State of California with its principal place of business at 250 Outcropping Way, Folsom, CA 95630. The CAISO is the balancing authority

¹⁴ See CAISO Tariff Section 29.7(e)-(f) (providing for the modeling and management of EIM transfers as dynamic schedules), and Section 29.17 (providing for a multi-balancing authority area optimization based on the transmission made available by each entity, and including a transfer cost to ensure efficient outcomes and accurate after the fact accounting of the transfers that occurred).

responsible for the reliable operation of the electric grid comprising the transmission systems of a number of utilities, administers the generator interconnection procedures applicable to those facilities, and is the market operator of the EIM as well as a reliability coordinator in the west. The CAISO requests that all communications and notices regarding this filing and these proceedings be provided to:

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IV. Conclusion

The CAISO requests that the Commission grant the CAISO's motion to intervene and accept these comments.

Respectfully submitted,

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CERTIFICATE OF SERVICE

I hereby certify that I have served the foregoing document upon the parties listed on the official service list in the captioned proceeding, in accordance with the requirements of Rule 2010 of the Commission's Rules of Practice and Procedure (18 C.F.R. § 385.2010).

Dated at Folsom, CA this 12th day of June, 2020.

/s/ Martha Sedgley
Martha Sedgley