

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

PROCEEDING NO. 23M-0195E

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IN THE MATTER OF THE NEAR-TERM ORGANIZED MARKET ACTIVITIES OF  
TRI-STATE GENERATION AND TRANSMISSION ASSOCIATION, INC.

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**COMMISSION DECISION  
OPENING NON-ADJUDICATED PROCEEDING  
ADDRESSING TRI-STATE’S NEAR-TERM ORGANIZED  
MARKET ACTIVITIES**

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Mailed Date: April 24, 2023  
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**I. BY THE COMMISSION**

**A. Statement**

1. Senate Bill (SB) 21-072, signed into law on June 24, 2021, and codified at § 40-5-108, C.R.S., mandates that Tri-State Generation and Transmission Association, Inc. (Tri-State) and other transmission utilities in Colorado join an Organized Wholesale Market by January 1, 2030.

2. On June 28, 2022, the Commission issued a Notice of Proposed Rulemaking (NOPR) in Proceeding No. 22R-0249E (Markets Rulemaking) to implement the provisions of SB 21-072.<sup>1</sup> The NOPR states that the central purpose of the rulemaking is to specify filing requirements for utilities joining wholesale electricity markets and the associated reporting requirements regarding utilities' plans, commitments, and actual participation in these markets.

3. As explained below, Tri-State intends to commit to its participation in the in the western expansion of the RTO of the Southwest Power Pool (SPP RTO) by July 1, 2023. The Markets Rulemaking is ongoing, and final rules will not be issued prior to July 1, 2023.

4. We open this Proceeding to ensure that the Commission is adequately informed of Tri-State's plans for market participation and to timely highlight our interest in areas of concern previously outlined with organized market participation and our desire that any participation occur in a way that maximizes benefits for Colorado and Colorado's electricity customers. Through this Proceeding we ask Tri-State to file a report detailing its plans for its loads, resources, and transmission assets in the Western Area Power Administration, Colorado-Missouri Region Balancing Authority to participate in the SPP RTO in the Western Interconnection and to address

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<sup>1</sup> Decision No. C22-0386.

certain concerns and other issues as outlined in this order. Tri-State should file the report no later than June 12, 2023. Interested persons may file comments in response to Tri-State's report. Initial comments on Tri-State's report are due 30 days following the filing of Tri-State's report in this Proceeding, and reply comments are due 60 days following the following the filing of Tri-State's report in this Proceeding.

## **B. Discussion**

### **1. SB 21-072 Requirements**

5. SB 21-072 defines an "Organized Wholesale Market" to be an RTO or a market run by an Independent System Operator (ISO) "established for the purpose of coordinating and efficiently managing the dispatch and transmission of electricity among public utilities on a multistate or regional basis."<sup>2</sup> To be an OWM, the RTO or ISO must also satisfy the ten following characteristics set forth in § 40-5-108(1)(a), C.R.S:

- (I) Is approved by the Federal Energy Regulatory Commission (FERC);
- (II) Effects separate control of transmission facilities from control of generation facilities;
- (III) Implements, to the extent reasonably possible, policies and procedures designed to minimize pancaked transmission rates within Colorado;
- (IV) Improves, to the extent reasonably possible, service reliability within Colorado;
- (V) Is of sufficient scope or otherwise operates to substantially increase economical supply options for customers;
- (VI) Has a structure of governance or control that is independent of the ownership and operation of the transmission facilities, and no member of its board of directors has an affiliation with a user or with an affiliate of a user during the member's tenure on the board so as to unduly affect the OWM's performance;

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<sup>2</sup> § 40-5-108(1)(a), C.R.S.

- (VII) Improves emission-reduction and customer savings benefits to Colorado customers from operation within the western interconnection without significantly impairing actions taken by public utilities to meet the emission reduction goals of § 25-7-102 and § 40-2-125.5, C.R.S., and to continue to advance the objectives of those sections;
- (VIII) Has an inclusive and open stakeholder process that does not place unreasonable burdens on, or preclude meaningful participation by, any stakeholder group;
- (IX) Includes all transmission and generation resources approved, acquired, or constructed and in service by 2030 to meet the emission reduction requirements of § 25-7-102 and § 40-2-125.5, C.R.S.; and
- (X) Consistent with and in support of FERC policies and orders and local planning by Colorado public utilities, is capable of: Planning for improved efficiency of use, future expansion, and consideration of all options for meeting transmission needs; providing effective cost allocations that reflect benefits of transmission investments; maintaining real-time reliability of the electric transmission system while promoting more efficient use of the transmission system in Colorado and neighboring areas in the western interconnection; ensuring comparable and nondiscriminatory transmission access and necessary services; minimizing system congestion; and further addressing real or potential transmission constraints.

6. Pursuant to § 40-5-108(2)(a)(II), C.R.S., the Commission may waive or delay the requirement to join an RTO or ISO if:

- (A) The commission has determined that the transmission utility has made all reasonable efforts to comply with the requirement but there is no viable and available OWM; and
- (B) The commission has determined that requiring the utility to join an OWM is not in the public interest based on the commission's evaluation of appropriate factors, including whether the OWM has established policies regarding tracking and reporting of emissions with a system to attribute emissions to transmission owners, promoting load flexibility and demand-side resources, promoting the integration of clean energy resources, and reducing the costs and inefficiencies of transactions between balancing areas and between market constructs, if any.

## 2. Progress of the Markets Rulemaking

7. The NOPR in the Market Rulemaking included proposed rules that would require transmission utilities to seek approval from the Commission to join a day-ahead market, an RTO, or an ISO. The NOPR designated Chairman Eric Blank as the Hearing Commissioner pursuant to § 40-6-101(2)(a), C.R.S.

8. Hearing Commissioner Blank conducted a hearing on the proposed rules on October 11, 2022. Through Decision No. R23-0189-I, Hearing Commissioner Eric Blank noted that there remains a considerable gap between the approaches supported by the various stakeholders and that further hearings are required. A continued hearing was therefore scheduled on April 4, 2023.

9. By Decision No. R23-0228-I, issued on March 31, 2023, Hearing Commissioner Blank granted a joint motion filed by the transmission utilities to continue the hearing scheduled for April 4, 2023 to a later date. Upon convening the hearing on April 4, 2023, Hearing Commissioner Blank further continued the hearing on a date to be established by a forthcoming written decision.

## 3. Commission Concerns with Participation in Organized Markets

10. On December 1, 2021, the Commission issued Decision No. C21-0755 and submitted to the legislature, consistent with the requirements of the Colorado Transmission Coordination Act (CTCA),<sup>3</sup> the *Report on the Commission's Investigation of Wholesale Market Alternatives for the State of Colorado under the Colorado Transmission Coordination Act (CTCA*

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<sup>3</sup> §§ 40-2.3-101 and 102, C.R.S.

Report). The CTCA Report identified, and quantified where possible, the benefits and costs of participation in regional electricity markets.

11. The CTCA Report, and the modeling results that supported it, found that participation of Colorado's utilities in an RTO or ISO could reduce utility costs by optimizing dispatch, improving unit commitment approaches, and reducing reserve sharing. At the same time, the report found that shifting jurisdiction over critical issues from state control to an organized market, and especially to an RTO or ISO, could create new concerns involving access to interconnection, seams issues between Colorado utilities, emissions tracking, transmission planning and expansion, and governance.

12. Subsequent to the filing of the CTCA report, the Commission submitted comments in FERC Proceeding No. RM22-14-000, in which FERC issued a NOPR proposing changes to its generator interconnection procedures and agreements. The Commission's comments set forth our concerns about shifting from Colorado's existing interconnection approaches to those that currently prevail in every RTO and ISO (including SPP east), as well as the approach proposed by the FERC NOPR.

#### **4. Tri-State Update**

13. On February 3, 2023, Tri-State filed in the Markets Rulemaking an update regarding its organized market participation plans and ongoing stakeholder engagement. Tri-State expresses that it signed a Letter of Intent in November 2020 to evaluate potential participation in an expansion of the SPP RTO into the Western Interconnection. Since that time, SPP's Board of Directors has approved the policy-level terms and conditions for an expansion of the SPP RTO into the Western Interconnection. Tri-State states that the next milestone for its participation in the SPP RTO is the commitment deadline of July 1, 2023 regarding the reimbursement by Tri-State of

start-up costs incurred by SPP and a much larger commitment may be required by October 2023. Tri-State also states that the anticipated market entry timeframe may extend to 2026.

14. Tri-State further maintains in its February 3, 2023 update that it is committed to continued collaboration with stakeholders and SPP during the SPP RTO expansion start-up period and intends to work toward addressing key organized market topics of interest to stakeholders, such as greenhouse gas emission reductions, governance, generator interconnection processes, and transmission cost allocation.

### **C. Findings and Conclusions**

15. In light of Tri-State's near-term organized market plans, the timeline of the Markets Rulemaking, and the concerns with participation in an RTO or ISO that this Commission has identified in our prior filings and reports, we request that Tri-State file in this Proceeding a detailed report on its plans for participation in the SPP RTO in the Western Interconnection. The report should address plans for Tri-State's loads, resources, and transmission assets in the SPP RTO in the Western Interconnection as well as expansion start-up activities. As part of this analysis, we ask that Tri-State explain whether it expects these plans to change if it is faced with significant decreases in load, including decreased load due to partial-requirement contracts and the exit of member cooperatives. The Commission wishes to understand whether Tri-State's participation in the SPP West RTO, combined with a changed load profile, would expose Colorado customers to additional risks and costs.<sup>4</sup>

16. Tri-State should also address whether and how the current SPP RTO West proposal satisfies the ten OWM characteristics set forth in § 40-5-108(1)(a)(I)-(X), C.R.S. Finally, the

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<sup>4</sup> Tri-State may seek appropriate protection of information included in its report that responds to this concern.

report should address the following concerns described below, which have been previously identified by the Commission: interconnection access, seams issues, emissions tracking, transmission planning and expansion, and governance.

### **1. Interconnection Access**

17. First, the Commission requests that Tri-State discuss how the transition from its current interconnection tariff and approach to a new one under the SPP tariff will allow it to continue to quickly and cost-effectively bring new resources online under Colorado's resource planning and acquisition process. Under the current definition of commercial viability in the Tri-State tariff, it can offer interconnection access to the winning bidders in the competitive ERP resource acquisition process because in a bilateral market (like the one that exists now in Colorado) the only projects that typically satisfy the commercial viability standards are those that win the competitive ERP process. In contrast, if Tri-State were to be subject to an interconnection process similar to the SPP East RTO approach, Tri-State may have no clear way to prioritize interconnection access for the winning projects in the competitive resource acquisition process because most of the projects bid into the Tri-State ERP process, not just the winning projects, could meet the commercial viability standard in the RTO tariff.<sup>5</sup> We are concerned that could cause Tri-State to experience delays in its interconnection process similar to the multi-year delays occurring in RTOs and ISOs.

18. Therefore, we require Tri-State to explain in detail its current approach to interconnection, the process it expects to use if it transitions to an SPP RTO West process, and how

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<sup>5</sup> For additional explanation of this concern and for applied examples of how the "commercial viability" standard proposed by FERC in Proceeding No. RM22-14-000 would not permanently resolve interconnection queue issues, even if a cluster study process is adopted, see Comments of Colorado Public Utilities Commission, Proceeding No. RM22-14-000 (Oct. 13, 2022).

Tri-State proposes to avoid the issues discussed above. We also require that Tri-State address whether it would be possible, as part of the process of joining SPP RTO West, to grandfather in its current interconnection approach that prioritizes the winning bidders from Colorado's ERP process.

## **2. Seams Issues**

19. Tri-State and Public Service Company of Colorado (Public Service) currently resolve seams issues – for example, involving affected system studies associated with new generation – through bilateral approaches. If Tri-State enters SPP RTO West, its resolution of seams issues will likely shift to a process that would be governed by the SPP tariff subject to FERC jurisdiction. This could significantly change current approaches, and we are concerned that this could delay Colorado's ability to bring new generation online.

20. Tri-State should explain in its current approach to resolving seams issues with Public Service (such as those involving affected system studies) and the approach it expects would be used under the SPP RTO West tariff. Tri-State should also address whether it would be possible (or sensible) as part of the SPP RTO West tariff and process to grandfather in the current bilateral approaches to resolving seams issues.

## **3. Emissions Tracking**

21. Colorado statute requires covered Colorado utilities to reduce greenhouse gas (GHG) emissions by 80 percent by 2030 from 2005 levels. The increased intra-state trading that accompanies market participation increases the need for tracking and accounting. In Decision No. C21-0755, the Commission stated:

[T]here is no national GHG policy and the state-level policies in the West vary widely. Accounting for GHG emissions from imports and exports

matters to the overall demonstration of achieving Colorado's goals. Without a comprehensive approach to GHG accounting, the potential for emissions leakage is real and significant. GHG leakage occurs when generation that produces GHG emissions shifts away from states with relatively strict GHG reduction targets and towards states with less strict target as utilities located in the 'strict' states change operations to meet state GHG goals.<sup>6</sup>

22. As we noted in the CTCA Report, current guidance from the Colorado Department of Health and Environment's (CDPHE) on market transactions states that emissions tracking should be based on actual purchases and sales where that data is available. Historically, there have been two general accounting approaches to track GHG emissions. Facility-based approaches account for emissions from a specific facility or generating unit, while load-based approaches can attribute GHG emissions to electricity consumption by end-users or load.<sup>7</sup>

23. Accounting for GHG emissions based on load requires some form of tagging supply or a set of equations that produces theoretical projection of a source of delivered power but is almost always based on an estimate. This problem is exacerbated in an organized market because power purchased by a utility in an RTO or ISO is "undifferentiated, as it is essentially a mix of electric power generated by all of the resources generating across the entire [RTO or] ISO system at the time the electricity is used."<sup>8</sup> Therefore, utilities that buy power through organized markets "have no way to know the specific sources of the electricity they purchased, or the GHG emissions associated with it."<sup>9</sup>

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<sup>6</sup> Decision No. C21-0755, ¶ 32.

<sup>7</sup> Electric Power Research Institute, *Methods to Account for Greenhouse Gas Emissions Embedded in Wholesale Power Purchases*, pp. viii, 4-5 (March 2019), <https://ghginstitute.org/wp-content/uploads/2019/04/EPRI-Wholesale-Power-Report-Published-2019.pdf>.

<sup>8</sup> *Id.*, at 7-2.

<sup>9</sup> *Id.*, at 3-2.

24. Load-based approaches to GHG accounting may be problematic because contractual, purchase, deeming, or other accounting practices can make it difficult to determine the actual emissions impacts of specific actions. For example, a utility in an organized market may be able to sell power produced by its coal generation unit and buy or receive power produced by solar or wind generation. If a load-based approach is used to track GHG emissions, that utility may not have to account for the emissions from its coal unit.<sup>10</sup> For state resource planning, this could mean that no entity is responsible for planning the reduction of GHG emissions associated with that unit.

25. Another example of challenges associated with load-based accounting involves the Western Energy Imbalance Market (WEIM), administered by the California Independent System Operator (CAISO). The WEIM adds a GHG cost to all generation resources in the WEIM footprint outside of CAISO that indicate their generation may serve CAISO load. The WEIM's algorithm can "deem" participating generating resources throughout the WEIM to be the source of imports to serve California's load, based on the lowest resource bid price plus the GHG adder. This approach results in GHG emissions being directly tied to California's load from theoretical "deemed" resources when the state is a net importer. Various issues can arise from this approach. When low GHG-emitting resources are "deemed" to California from outside states in the WEIM due to their low GHG cost adder, higher GHG emitting resources may be dispatched in those outside states to backfill the load deemed to California.<sup>11</sup> Additionally, the algorithms used to dispatch and account for GHG emissions can lead to unintended consequences. At least one

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<sup>10</sup> For an example of this scenario, see Attachment 4 to Comments of Holy Cross Electric Association, Inc., filed June 21, 2022, in Proceeding No. 22M-0200E.

<sup>11</sup> California Air Resources Board, *Mandatory GHG Reporting and Cap-and-Trade Program Workshop Presentation*, [https://ww2.arb.ca.gov/sites/default/files/cap-and-trade/meetings/062416/arb\\_and\\_caiso\\_staff\\_presentations\\_updated.pdf](https://ww2.arb.ca.gov/sites/default/files/cap-and-trade/meetings/062416/arb_and_caiso_staff_presentations_updated.pdf).

stakeholder has raised that because WEIM's algorithm does not consider GHG cost adders when dispatching resources, but does consider GHG adders when deeming resources to serve California's load, the WEIM may be dispatching external coal and gas resources to serve load in California while deeming the imports to come from clean resources.<sup>12</sup>

26. Tri-State should describe its current view of emissions tracking, especially as it relates to Colorado's statutory GHG reductions, and how it intends to address the concerns identified above. We are also interested in whether Tri-State anticipates that alternatives to load-based accounting approaches are possible to better reconcile GHG accounting between generation and load, for example an average GHG emission intensity factor based on all the generators that contribute to imported energy in a specific hour. To the extent Tri-State does not have current answers, we ask Tri-State to outline a process and timeline to address these emission tracking concerns.

#### 4. Transmission Expansion

27. Multi-state RTOs and ISOs generally rely on a generator-centric approach where new transmission plans come out of a process involving the interconnection queue filings of individual generator projects. Under this approach, the generator pays for new transmission upgrades and the contract right to interconnection is allocated to the individual project for the benefit of that project. In the multi-state organized markets like SPP and MISO, new transmission can take up to ten years to get built as the market and generators work through cost-allocation and

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<sup>12</sup> Powerex, *The Western EIM's Approach To Applying California's Cap and Trade Program To Imports Is Undermining The Program's Core Objectives* (July 2022), <https://powerex.com/sites/default/files/2022-07/Examining%20the%20Western%20EIM%E2%80%99s%20Deeming%20Approach%20to%20GHG%20Pricing%20Programs%20%28Full%20Paper%29.pdf>.

other planning issues. We are concerned that these timelines are significantly longer than the timelines Colorado utilities currently experience when building transmission.

28. We request that Tri-State explain its existing approach to transmission expansion in detail and the process and any anticipated changes in typical timelines that would prevail if Tri-State were to shift to the transmission planning and cost allocation processes required by an RTO tariff.

## 5. Governance

29. The Commission's CTCA Report outlined a series of concerns regarding the transparency and accessibility of RTO governance structures. For example, with regards to one of SPP's less integrated market offerings, the Report states that the market "vests substantial voting rights in individual power marketing agencies and cooperatives, with little opportunity for regulators to meaningfully participate."<sup>13</sup> Additionally, the CTCA Report highlighted principles for transparent and responsive governance that were outlined by public interest organizations participating in SPP's Member's Forum.<sup>14</sup>

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<sup>13</sup> CTCA Report, p. 24.

<sup>14</sup> These principles, set forth in the CTCA Report at page 26, are:

- Principle #1: Decision-making at all levels of the stakeholder process should be as transparent as possible.
- Principle #2: Membership must be reasonably available to all interested stakeholders, including public interest organizations.
- Principle #3: Minority positions must be recognized and actively considered throughout the stakeholder process.
- Principle #4: The Board of Directors must be diverse and independent and should actively consider the concerns of its membership, while not being beholden to market participants.
- Principle #5: State Utility Commissions and Public Interest Organizations should have a major role in RTO formation and once formed, the RTO's ongoing operations.

30. We ask that Tri-State, as part of its report, explain the governance structure it expects will be used in SPP RTO West, and respond to the concerns regarding governance discussed above.

## **6. Requested Filing and Comment Deadlines**

31. Tri-State should address the requested items set forth above in a detailed report, to be filed in this proceeding no later than June 12, 2023.

32. Although Tri-State has implemented ongoing stakeholder engagement regarding its near-term organized market activities, as summarized in its February 3, 2023, filing in the Markets Rulemaking, we intend to provide interested persons an opportunity to provide comments on Tri-State's report in this Proceeding. Initial comments on Tri-State's report are due 30 days following the filing of Tri-State's report in this Proceeding, and reply comments are due 60 days following the following the filing of Tri-State's report in this Proceeding.

33. We anticipate that additional discussion with Tri-State will be necessary. Therefore, we intend to hold a workshop on these issues in late August or early September, prior to the time Tri-State intends to commit to the SPP RTO West in October 2023.

34. At the close of this Proceeding, the report, comments, and Commission decisions issued in this Proceeding shall become part of the record of Proceeding No. 22R-0249E.

## **II. ORDER**

### **A. The Commission Orders That:**

1. A miscellaneous proceeding is opened to receive information on Tri-State's approach for entering the SPP RTO west market and addressing the Commission's concerns regarding organized market participation, as raised in the discussion above.

2. After Tri-State’s filing of the report, expected no later than June 12, 2023, interested persons may file comments in this Proceeding within 30 days. Reply comments may be filed within 60 days of Tri-State’s filing of its report.

3. This Decision is effective upon its Mailed Date.

**B. ADOPTED IN COMMISSIONERS’ WEEKLY MEETING  
April 19, 2023.**

( S E A L )



ATTEST: A TRUE COPY

G. Harris Adams. ,  
Interim Director

THE PUBLIC UTILITIES COMMISSION  
OF THE STATE OF COLORADO

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Commissioners