

BEFORE THE PUBLIC UTILITIES COMMISSION OF THE STATE OF COLORADO

PROCEEDING NO. 22A-0085E

IN THE MATTER OF THE APPLICATION OF TRI-STATE GENERATION AND TRANSMISSION ASSOCIATION, INC. FOR CERTIFICATES OF PUBLIC CONVENIENCE AND NECESSITY FOR THE BIG SANDY TO BADGER CREEK 230 KV TRANSMISSION LINE AND THE BADGER CREEK SUBSTATION, AND THE BOONE TO HUCKLEBERRY 230KV TRANSMISSION LINE AND THE HUCKLEBERRY SUBSTATION, AND FOR ASSOCIATED FINDINGS REGARDING AUDIBLE NOISE AND MAGNETIC FIELDS REASONABLENESS.

**RECOMMENDED DECISION OF
ADMINISTRATIVE LAW JUDGE
CONOR F. FARLEY
GRANTING UNOPPOSED JOINT MOTION TO APPROVE
COMPREHENSIVE SETTLEMENT AGREEMENT,
ACCEPTING COMPREHENSIVE SETTLEMENT
AGREEMENT, GRANTING APPLICATION AS AMENDED
BY COMPREHENSIVE SETTLEMENT
AGREEMENT, AND CLOSING PROCEEDING**

Mailed Date: September 9, 2022

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I. STATEMENT

A. Procedural Background

1. On February 18, 2022, Tri-State Generation and Transmission Association, Inc. (Tri-State) filed a Verified Application (Application) seeking the issuance of Certificates of Public Convenience and Necessity (CPCN) for the Big Sandy – Badger Creek 230 kV Transmission Line, the Badger Creek Substation, the Boone – Huckleberry 230 kV Transmission Line, and the Huckleberry Substation (each a Project, collectively the Projects), and requesting that the Commission make specific findings with respect to the reasonableness of audible noise and magnetic fields associated with each project. With the Application, Tri-State filed the direct testimony of Ryan J. Hubbard (Hearing Exhibit 101), Christopher E. Pink (Hearing Exhibit 102), H. Steven Gray (Hearing Exhibit 103), and Robert E. Schaerer (Hearing Exhibit 104).

2. Also on February 18, 2022, the Commission issued a notice of the Application.

3. On March 14 and 18, 2022, the Office of the Utility Consumer Advocate (UCA) and Commission Trial Staff (Staff) filed notices of intervention by right, respectively.

4. On March 16, 18, and 21, 2022, the Interwest Energy Alliance (Interwest), the Colorado Independent Energy Association (CIEA), and Western Resource Advocates (WRA)

filed Motions to Permissively Intervene in this proceeding (Motions to Permissively Intervene), respectively.

5. On April 5, 2022, the Application was automatically deemed complete pursuant to Rule 1303(c)(IV) of the Commission's Rules of Practice and Procedure.

6. On April 6, 2022, the Commission referred the proceeding to an Administrative Law Judge (ALJ) by minute entry. The proceeding was subsequently assigned to the undersigned ALJ.

7. On April 27, 2022, the ALJ issued Decision No. R22-0258-I that granted the Motions to Permissively Intervene, set a remote prehearing conference for May 10, 2022, directed Tri-State to confer regarding a procedural schedule, discovery procedures, and method for conducting the hearing (remote, hybrid, or in-person) in this proceeding, and to file a report of the results of the conferral in advance of the prehearing conference.

8. On May 5, 2022, Tri-State filed a Conferral Report (Report), pursuant to Decision No. R22-0258-I. In the Report, Tri-State stated that the parties agreed to conduct the hearing fully remotely, and follow the following proposed procedural schedule for this proceeding (Proposed Procedural Schedule):¹

<u>Event</u>	<u>Proposed Date</u>
Prehearing Conference	May 10, 2022 (Vacated)
Answer Testimony	May 25, 2022
Rebuttal and Cross-Answer Testimony	June 15, 2022
Stipulations and Settlement Agreements	June 29, 2022

¹ Report at 3.

Corrections to Pre-Filed Testimony and Exhibits, Pre-Hearing Motions, Settlement Testimony (if applicable)	July 5, 2022
Responses to Pre-Hearing Motions	July 12, 2022
Matrix of order of Witnesses and Estimated Cross-Examination Times	July 18, 2022
First Day of Evidentiary Hearing	July 25, 2022
Last Day of Evidentiary Hearing	July 29, 2022
Statements of Position	August 12, 2022
Commission Decision Deadline	December 11, 2022

Tri-State also stated in the Report that the parties agreed that Rule 1405 of the Commission's Rules of Practice and Procedure, 4 *Code of Colorado Regulations* 723-1, will govern discovery in this proceeding.²

9. On May 6, 2022, the ALJ issued Decision No. R22-0289-I that, among other things, adopted the schedule proposed by the parties, including the dates for the remote evidentiary hearing from July 25-29, 2022.

10. On May 25, 2022, Staff filed the Answer Testimony of Adam Gribb (Hearing Exhibit 300), Interwest filed the Answer Testimony of Edward Burgess (Hearing Exhibit 400), CIEA filed the Answer Testimony of Warren L. Wendling (Hearing Exhibit 500), and WRA filed the Answer Testimony of Kenneth L. Wilson (Hearing Exhibit 600).

11. On June 15, 2022, Tri-State filed the rebuttal testimony of Mr. Hubbard (Hearing Exhibit 105), Mr. Pink (Hearing Exhibit 106), Mary Ann Zehr (Hearing Exhibit 107), and Mr. Schaerer (Hearing Exhibit 108).

² *Id.*

12. On June 29, 2022, Tri-State filed an Unopposed Motion for Extension of Settlement Deadline in which it requested an extension to noon on July 1, 2022 to file settlement documents (Unopposed Motion). As support, Tri-State stated that “[t]he parties have had productive discussions so far and are optimistic about reaching a settlement, but due to scheduling conflicts, require additional time to conclude the ongoing discussions.”

13. On July 1, 2022, Tri-State filed an Unopposed Joint Motion to Approve Comprehensive Settlement Agreement (Joint Motion) and the Comprehensive Settlement Agreement (Settlement Agreement).

14. On July 13, 2022, counsel for Tri-State sent an email to the ALJ asking whether the ALJ intended to hold the evidentiary hearing on July 25-29, 2022. Counsel for Tri-State copied counsel for the other parties on the email.

15. On July 18, 2022, the undersigned ALJ responded to the email stating that the hearing would be vacated.

B. History Before This Proceeding

16. Tri-State is a generation and transmission cooperative corporation owned by 42 rural distribution cooperatives and public power districts in Colorado, Nebraska, New Mexico, and Wyoming, and three Non-Utility Members (Members). Tri-State’s Utility Members serve customers in 56 Colorado counties, 20 Nebraska counties, 28 New Mexico counties, and 14 counties in Wyoming. Tri-State buys and generates electric power, and transmits, delivers, and sells it to its Utility Members. The Utility Members, in turn, distribute and resell the electricity they purchase at wholesale from Tri-State to their own retail member-customers and ratepayers.³

³ Hearing Exhibit 101 at 7:12-8:5 (Direct Testimony of Mr. Hubbard).

17. On January 20, 2020, Tri-State announced its Responsible Energy Plan (REP), which includes six components: (a) increasing the amount of clean energy in Tri-State's generation resource portfolio; (b) reducing emissions; (c) increasing Member flexibility; (d) extending clean grid benefits by expanding electric vehicle infrastructure and beneficial electrification opportunities; (e) supporting its employees and communities affected by the ongoing clean energy transition; and (f) working together to create a brighter future.⁴

18. WestConnect is a regional transmission planning group in which Tri-State participates.⁵ The Colorado Coordinated Planning Group (CCPG) is a subregional planning group within WestConnect. Its purpose is to assure a high degree of reliability in the planning, development, and operation of the high voltage transmission system in the Rocky Mountain Region. CCPG provides the technical forum required to complete reliability assessments, develop joint business opportunities, and accomplish coordinated planning.⁶

19. In March 2021, Tri-State proposed a new task force to be formed within the CCPG to discuss and propose alternatives to address needs associated with Tri-State's Responsible Energy Plan. The Responsible Energy Plan Task Force (REPTF) was established by CCPG and met seven times between April and September 2021. Participants in the REPTF included representatives of all of the parties in this proceeding, as well as other interested parties. Participants in the REPTF were able to propose alternatives for study by the REPTF. Tri-State acted as the facilitator in the study effort by both conducting and presenting the studies and their

⁴ *Id.* at 18:16-19:1.

⁵ *Id.* at 20:10-14.

⁶ *Id.* at 15:21-16:2, 20:15-22.

results. The study scope and all alternatives, sensitivities and scenarios studied, were agreed to by the REPTF participants.⁷

20. The REPTF produced the REPTF Study Report (REPTF Report), which was finalized by the REPTF on September 16, 2021, and approved by the CCPG on December 16, 2021. The REPTF Report analyzed the ability of 14 different transmission alternatives to: (1) accommodate at least 400 MW of new generation in eastern Colorado; (2) provide connectivity across Tri-State's four-state service area; (3) improve transmission system reliability in the Lamar area; and (4) mitigate generation curtailment in eastern Colorado under 230 kV prior outage conditions.⁸ The REPTF Report did not recommend one of the alternatives. However, it ranked the alternatives based on a "bang for your buck" analysis, which is "injection capability (in MW) per unit cost (\$M)."⁹ Alternatives 6 and 14 provided the best "bang for your buck."¹⁰

21. Tri-State reviewed the REP Task Force Final Report and "identified eight alternatives capable of meeting the objective and needs in relation to Tri-State's mission."¹¹ Tri-State determined that Alternative 14 was the "the most efficient, cost effective alternative that aligns with Tri-State's mission and the Responsible Energy Plan's rate goal."¹² For this reason, Tri-State based the requests in the Application on Alternative 14 (with modifications).¹³

⁷ *Id.* at 26:5-32:15.

⁸ *Id.* at 32:16-33:6.

⁹ *Id.* at 39:15-18.

¹⁰ Hearing Exhibit 101, Attach. RJH-6 at 85.

¹¹ Hearing Exhibit 101 at 51:8-10 (Direct Testimony of Mr. Hubbard).

¹² *Id.* at 51:15-16.

¹³ *Id.* at 51:3-53:16.

II. PRE-SETTLEMENT POSITIONS AND SETTLEMENT AGREEMENT

A. Application

22. As noted above, in the Application, Tri-State requested that the Commission issue CPCNs for a Big Sandy – Badger Creek 230 kV Transmission Line, a Badger Creek Substation, a Boone – Huckleberry 230 kV Transmission Line, and a Huckleberry Substation. Tri-State also requested that the Commission find that the expected maximum level of magnetic fields and the projected level of audible noise radiating beyond the Projects’ property lines are reasonable under the circumstances and need not be mitigated to a lower level.

B. Answer Testimony

1. Staff

23. In its Answer testimony, Staff expressed its preference for “larger facilities for these projects, such as double circuit 230 kV lines, or single circuit 345kV lines.”¹⁴ Staff realized, however, “that the costs would have increased significantly with the additional capacity and that the benefit to cost ratio would not be as good for the short and medium term.”¹⁵ Recognizing that “[t]he [P]rojects . . . will improve Colorado’s transmission grid” and “help Tri-State and Colorado as a whole to meet our clean energy goals,” Staff ultimately “recommend[ed] that the Commission [approve] the CPCNs.”¹⁶

2. Interwest

24. Interwest recommended approving the Application, but urged the following modifications to Tri-State’s requests: (a) require 345 kV lines on both the Big Sandy – Badger Creek Transmission Line and the Boone – Huckleberry Transmission Line (Transmission Lines);

¹⁴ Hearing Exhibit 300, Rev. 1 at 5:3-5 (Answer Testimony of Mr. Gribb).

¹⁵ *Id.* at 5:6-8.

¹⁶ *Id.* at 14:8-10, 13.

(b) require double circuits on both Transmission Lines or, at a minimum, double circuit poles holding up the Transmission Lines; (c) require the utilization of MW/ft of right of way as a metric in determining transmission value; (d) require Tri-State to file a report to the Commission on all applicable programs available under the federal Infrastructure Investment and Jobs Act of 2021 that could be used to support greater injection capability and possibly an application seeking Commission approval to take advantage of such programs.¹⁷

3. CIEA

25. CIEA proposed approval of the Application with modifications. CIEA believes that the Application is “a short-term focused, least-cost, band-aid type of a transmission CPCN here that is just enough to meet the needs of its system in this decade. . . . [It thus] almost assuredly saddles the next generation with costs resulting from a lack of foresight from this one.”¹⁸ CIEA’s proposed modifications are designed to make Tri-State’s proposed transmission modifications more long-term focused.

26. CIEA’s proposed modifications are as follows: (a) require Tri-State to report back to the Commission with a modified cost-effectiveness analysis for building the previously-approved Burlington – Lamar circuit, and the Big Sandy – Badger Creek and Boone – Huckleberry circuits proposed in this Application, as: (i) double-circuit 230 kV lines; or (ii) double-circuit capable towers with only one of the two circuits “strung” on the towers;¹⁹ (b) if the foregoing analysis shows that the double-circuit cost in a cost-benefit ratio greater than 1.0 as specified in Mr. Wendling’s testimony, require Tri-State to construct double-circuit towers for

¹⁷ Hearing Exhibit 400 at 42:4-43:5 (Answer Testimony of Mr. Burgess).

¹⁸ Hearing Exhibit 500 at 6:14-20 (Answer Testimony of Mr. Wendling).

¹⁹ *Id.* at 9:11-15, 26:8-29:8.

each circuit,²⁰ which would require the modification of Decision No. C15-0320 that approved the Burlington – Lamar circuit as a single circuit;²¹ (c) require the in-service dates for the Big Sandy – Badger Creek and Boone – Huckleberry circuits to be on or before September 30, 2025;²² and (d) require Tri-State to allow independent power producers to build out sections of each of these projects, pursuant to the request for proposal process approved in Tri-State’s 2020 Electric Resource Plan.²³

4. WRA

27. WRA would have preferred the Transmission Lines to be double circuit 230 kV or single circuit 345 kV.²⁴ However, WRA agrees “that the perfect should not drive out the good.”²⁵ Because the Application “will improve Colorado’s transmission grid” and “help Tri-State and Colorado as a whole to meet our clean energy goals,” WRA supports the Application.²⁶

C. Settlement Agreement

28. In the Settlement Agreement, Tri-State made six commitments. First, Tri-State agreed to construct the Transmission Lines, transmission pole heights, conductor types, H-frame and dead-end structures, and substation components consistent with the specifications in Mr. Schaerer’s Direct Testimony and Attachments.²⁷

29. Second, Tri-State agreed to the following reporting “until such time as the Projects are either energized or suspended indefinitely:” (a) an updated project schedule filed

²⁰ *Id.* at 9:16-20.

²¹ Decision No. C15-0320 issued in Proceeding No. 15A-0080E on April 10, 2015.

²² Hearing Exhibit 500 at 10:1-5, 15:18-16:5.

²³ *Id.* at 10:1-5, 16:6-17.

²⁴ Hearing Exhibit 600 at 4:14-5:8, 14:5-13 (Answer Testimony of Mr. Wilson).

²⁵ *Id.* at 14:12.

²⁶ *Id.* at 14:8-10.

²⁷ Settlement Agreement at 3-5 (§ 3.2).

into this proceeding twice a year starting on November 1, 2022; and (b) an updated cost estimate filed with the annual report required by Commission Rule 3206(d) for, at a minimum, the land, substation, and transmission line components of the Projects. Tri-State also agreed to meet with Staff, the UCA, and WRA twice a year to discuss the information provided pursuant to the foregoing reporting obligations.²⁸

30. Third, Tri-State agreed conduct an Incremental Improvements Study by August 15, 2022 to attempt to identify low-cost improvements that will increase the injection capacity of the 115 kV transmission system in eastern Colorado discussed by Mr. Hubbard in his rebuttal testimony. The Incremental Improvements Study will be based on Alternative 14 in the REPTF Report and use its assumptions regarding the location of new generation facilities.²⁹

31. Fourth, Tri-State agreed to continue to monitor and, as appropriate, apply for federal funding that may become available to support the Projects and to hold one stakeholder meeting by December 1, 2022 with interested Settling Parties to discuss any such potential opportunities.³⁰

32. Fifth, Tri-State agreed to identify whether one or more interconnection request projects submitted to Tri-State requires either the Burlington – Big Sandy transmission line upgrades or the Big Sandy – Badger Creek transmission line segment to achieve operation. If a project is so identified, Tri-State agrees, if requested by the developer, to use reasonable efforts to advance the construction of the project under the terms set forth in Section 11.2.3 of Tri-

²⁸ *Id.* at 5-6 (§ 3.3).

²⁹ *Id.* at 6-7 (§ 3.4).

³⁰ *Id.* at 7 (§ 3.5).

State's Large Generator Interconnection Procedures. Tri-State will identify any such interconnection in its 2022 Definitive Interconnection System Impact Study Phase 1 report.³¹

33. Sixth, Tri-State agreed that: (a) "participation in an organized market is central to meeting [its] goals related to greenhouse-gas emission reductions, a clean energy resource portfolio, reducing wholesale rates and maintaining reliability; (b) its "decision to join one or more organized markets with respect to its Western Interconnection facilities will be informed by the decisions of the balancing authorities in which its facilities are located;" and (c) it "is required to comply with applicable requirements of Colorado Senate Bill 21-072."³²

34. In return for these agreements, the intervening parties agreed that the Application meets the requirements of § 40-5-101(1)(a) and Commission Rule 3206³³ and is in the public interest. The intervening parties also agreed that the Commission should make the reasonableness findings regarding the audible noise and magnetic fields requested in the Application.

III. ANALYSIS

A. Burden of Proof

35. Except as otherwise provided by statute, the Administrative Procedure Act imposes the burden of proof in administrative adjudicatory proceedings upon "the proponent of an order."³⁴ Tri-State, Staff, UCA, Interwest, CIEA, and WRA filed the Joint Motion and, as a result, bear the burden of proof.³⁵ The parties must establish by a preponderance of the evidence

³¹ *Id.* at 7-8 (§ 3.6).

³² *Id.* at 8 (§ 3.7).

³³ 4 *Colorado Code Regulations* (CCR) 723-3.

³⁴ § 24-4-105(7), C.R.S.

³⁵ Section 24-4-105(7), C.R.S.; § 13-25-127(1), C.R.S.; Rule 1500 of the Rules of Practice and Procedure, 4 CCR 723-1.

that the Settlement Agreement is just and reasonable and in the public interest. The Commission has an independent duty to determine matters that are within the public interest.³⁶

B. Modified Procedure

36. The Application, as modified by the Settlement Agreement executed by all of the parties in this proceeding, is uncontested. Moreover, the parties agree that a hearing is unnecessary. Finally, the Application and Settlement Agreement are supported by sworn testimony and attachments that verify sufficient facts to support the Application and Settlement Agreement. Accordingly, pursuant to § 40-6-109(5), C.R.S. and Commission Rule 1403,³⁷ the Application, as modified by the Settlement Agreement, will be considered under the modified procedure, without a formal hearing.

C. Analysis

37. Based upon substantial evidence in the record as a whole, the ALJ finds and concludes that the Settlement Agreement is just and reasonable and not contrary to the public interest. The ALJ shall approve the Settlement Agreement without material modification and shall grant the Application, as modified and clarified by the Settlement Agreement and the testimony referenced therein.

38. Commission Rule 3206(e)(III) states that “[p]roposed magnetic field levels of 150 mG (milliGauss) and below are deemed reasonable by rule and need not be mitigated to a lower level.” Similarly, Commission Rule 3206(f)(II) states that “[p]roposed levels of noise at or below the values listed are deemed reasonable by rule and need not be mitigated to a lower level.”³⁸ The lowest level of noise listed is 50 dB(A) for residential areas.³⁹

³⁶ See *Caldwell v. Public Utilities Commission*, 692 P.2d 1085, 1089 (Colo. 1984).

³⁷ 4 CCR 723-1.

³⁸ 4 CCR 723-3.

39. Here, Tri-State's modeling estimates that the expected magnetic field levels for the two new transmission lines and both of the new substations are below 150 mG at all points along the edge of the transmission line rights-of-way and at the property boundary of each of the new substations.⁴⁰ Accordingly, the estimated magnetic fields caused by the components of the overall project proposed in the Application comply with Rule 3206(e)(III).

40. In addition, Tri-State used the Bonneville Power Administration's Corona and Field Effects Program software version 3 that uses the EPRI EMF Workstation 2.51 ENVIRO Program to model the audible noise,⁴¹ which is deemed acceptable as a "utility standard program" in Commission Rule 3102(c).⁴² The modeling predicts that the audible noise at 25 feet beyond the edge of the transmission right of way will be 20 db(A) under fair conditions and 45 dB(A) under foul weather conditions.⁴³ Accordingly, the audible noise complies with Commission Rule 3206(f)(II).

41. Accordingly, in accordance with § 40-6-109, C.R.S., it is recommended that the Commission enter the following Order.

³⁹ *Id.*

⁴⁰ Hearing Exhibit 104 at 24:1-31:14 (Direct Testimony of Mr. Schaerer).

⁴¹ *Id.* at 7:14-22.

⁴² 4 CCR 723-3.

⁴³ Hearing Exhibit 104 at 8::8-13 (Direct Testimony of Mr. Schaerer).

IV. **ORDER**

A. The Commission Orders That:

1. For the reasons stated above, the Unopposed Joint Motion to Approve Comprehensive Settlement Agreement filed on July 1, 2022 by Tri-State Generation and Transmission Association, Inc. (Tri-State), Trial Staff of the Colorado Public Utilities Commission, the Office of the Utility Consumer Advocate, the Interwest Energy Alliance, the Colorado Independent Energy Association, and Western Resource Advocates is granted.

2. The Unopposed Comprehensive Settlement Agreement (Settlement Agreement) is approved, consistent with the discussion above. The Settlement Agreement is attached to this Decision as Appendix A.

3. The Verified Application for the issuance of Certificates of Public Convenience and Necessity for the Big Sandy – Badger Creek 230 kV Transmission Line, the Badger Creek Substation, the Boone – Huckleberry 230 kV Transmission Line, and the Huckleberry Substation, as modified by the Settlement Agreement, is granted consistent with the discussion above.

4. The expected magnetic field values and audible noise values from the transmission lines and substations proposed in the Application meet the conditions of the Commission Rules Regulating Electric Utilities, 4 *Code of Colorado Regulations* 723-3-3206(e)(III) and 3206(f)(II) and are therefore considered reasonable and need not be mitigated, consistent with the discussion above.

5. Proceeding No. 22A-0085E is closed.

6. This Recommended Decision shall be effective on the day it becomes the Decision of the Commission, if that is the case, and is entered as of the date above.

7. As provided by § 40-6-109, C.R.S., copies of this Recommended Decision shall be served upon the parties, who may file exceptions to it.

a) If no exceptions are filed within 20 days after service or within any extended period of time authorized, or unless the decision is stayed by the Commission upon its own motion within 20 days after service, the recommended decision shall become the decision of the Commission and subject to the provisions of § 40-6-114, C.R.S.

b) If a party seeks to amend, modify, annul, or reverse basic findings of fact in its exceptions, that party must request and pay for a transcript to be filed, or the parties may stipulate to portions of the transcript according to the procedure stated in § 40-6-113, C.R.S. If no transcript or stipulation is filed, the Commission is bound by the facts set out by the administrative law judge and the parties cannot challenge these facts. This will limit what the Commission can review if exceptions are filed.

8. If exceptions to this Decision are filed, they shall not exceed 30 pages in length, unless the Commission for good cause shown permits this limit to be exceeded.

(S E A L)



THE PUBLIC UTILITIES COMMISSION
OF THE STATE OF COLORADO

CONOR F. FARLEY

Administrative Law Judge

ATTEST: A TRUE COPY

A handwritten signature in cursive script that reads "Doug Dean".

Doug Dean,
Director