

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

PROCEEDING NO. 22M-0016E

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IN THE MATTER OF THE JOINT FILING OF THE 10-YEAR AND 20-YEAR TRANSMISSION REPORTS OF PUBLIC SERVICE COMPANY OF COLORADO, TRI-STATE GENERATION AND TRANSMISSION, AND BLACK HILLS ENERGY PURSUANT TO 4 CCR 723-3-3627.

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**RECOMMENDED DECISION OF  
ADMINISTRATIVE LAW JUDGE  
MELODY MIRBABA  
ADDRESSING THE 2022 JOINT FILINGS UNDER RULE  
3627 AND RECOMMENDING RULEMAKING**

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Mailed Date: November 14, 2022

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**I. STATEMENT, SUMMARY, AND PROCEDURAL HISTORY**

**A. Summary**

1. This Decision rules on the adequacy of the 10-Year Transmission Plan and the 20-Year Conceptual Study Report in this Proceeding pursuant to Rule 3627 of the Commission’s Rules Regulating Electric Utilities, 4 *Code of Colorado Regulations* (CCR) 723-3.<sup>1</sup> This Decision also provides interpretive guidance and direction for future Rule 3627 filings and recommends that the Commission initiate a rulemaking proceeding to consider amending its transmission planning rules.<sup>2</sup>

**B. Procedural History and Background**

2. On February 1, 2022, Public Service Company of Colorado (Public Service), Black Hills Colorado Electric, LLC (Black Hills), and Tri-State Generation and Transmission

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<sup>1</sup> Given the voluminous record and issues raised here, this Decision only provides a high-level overview of the Plan and Report and may not discuss every issue or argument raised. For the same reason, this Decision provides limited or no discussion on undisputed matters. In reaching this Decision, the ALJ has considered and weighed all aspects of the Plan, Report, and Appendices thereto, all comments responding to the same, all Utility replies to comments and all other filings relating to the Plan, Report and Appendices thereto, even if discussed briefly or not at all. Any argument not specifically addressed as has been considered and rejected.

<sup>2</sup> For ease of reference, Rule 3627, 4 *Code of Colorado Regulations* 723-3 is referenced and cited as Rule 3627.

Association, Inc. (Tri-State) (collectively, the Utilities) filed their joint 10-Year Transmission Plan and their joint 20-Year Conceptual Scenario Report (Report) with numerous Appendices, per Rule 3627.

3. On February 11, 2022, Colorado Public Utilities Commission Staff (Staff) filed a Notice of Deficiency (Deficiency Letter) identifying numerous concerns with the Plan.

4. On February 17, 2022, the Utilities jointly filed a revised joint 10-Year Transmission Plan and a revised Appendix J intended to include stakeholder comments and the Utilities' responses from the Colorado Coordinated Planning Group (CCPG) that were omitted from the original Appendix J filed on February 1, 2022.<sup>3</sup>

5. On February 22, 2022, the Utilities filed a joint response to Staff's Deficiency Letter (Deficiency Response) and a second revised joint 10-Year Transmission Plan (the Plan).<sup>4</sup> To avoid confusion, this Decision addresses and cites only to this version of the joint 10-Year Transmission Plan since it is the last version filed.

6. On March 8, 2022, the Commission provided public notice of the Plan and Report; solicited public comments on the same to be filed by April 21, 2022 with responses filed by May 23, 2022; and referred this matter to an Administrative Law Judge (ALJ), noting that any workshops or hearings must be scheduled by a separate decision.<sup>5</sup> At the same time, the Commission directed the Utilities to make a filing by April 7, 2022 providing additional information.<sup>6</sup>

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<sup>3</sup> See Notice of Filing of Revised Ten-Year Transmission Plan and Appendix J Thereto filed February 17, 2022; Appendix J, Rev. 1, filed February 17, 2022; and 10-Year Transmission Plan, Rev. 1, filed February 17, 2022.

<sup>4</sup> See Joint Utility Response to Deficiency Letter (Deficiency Response) filed February 22, 2022; 10-Year Transmission Plan, Rev. 2 filed February 22, 2022 (the Plan).

<sup>5</sup> Decision No. C22-0139-I at 6 (mailed March 8, 2022).

<sup>6</sup> Decision No. C22-0139-I at 5.

7. On April 7, 2022, the Utilities filed a joint response to the above-referenced decision, along with attachments providing additional information.<sup>7</sup>

8. On April 21, 2022, the Office of the Utility Consumer Advocates (the UCA) and Western Resource Advocates (WRA) filed public comments with attachments.

9. On May 9, 2022, Mr. Larry Miloshevich filed public comments with attachments.

10. On May 23, 2022, the Utilities filed comments responding to the above public comments (Responsive Comments).<sup>8</sup>

## II. RELEVANT LAW AND INTERPRETIVE GUIDANCE

11. The purpose of the transmission planning process outlined in Rule 3627 is to “establish a process to coordinate the planning for additional electric transmission in Colorado . . . [with] planning done on a comprehensive, transparent, state-wide basis,” taking stakeholders’ needs into account.<sup>9</sup> Utility filings under Rule 3627 are intended to ensure that the utilities’ transmission projects do not negatively impact any other transmission provider’s system or the overall transmission system in the near- and long-term; to coordinate planning for additional electric transmission in the state; to avoid facility duplication; and to ensure that transmission providers jointly develop projects where their and stakeholders’ mutual needs will be satisfied.<sup>10</sup> The Rule 3627 plan serves as a “snap-shot-in-time.”<sup>11</sup>

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<sup>7</sup> Utilities’ Joint Response to Interim Decision No. C22-0139-I (Response to Decision No. C22-0139-I), and Attachment A (Public Service’s Response to Decision); Attachment B (Tri-State’s Response to Decision); and Attachment C (Black Hills’s Response to Decision), filed on April 7, 2022.

<sup>8</sup> Response Comments of the Joint Utilities filed May 23, 2022 (Responsive Comments).

<sup>9</sup> Rule 3626, 4 CCR 723-3. *See* Rule 3627(a) through (h); Decision No. C22-0139-I at 2; Decision No. R12-1431 at 4-5 (mailed December 13, 2012) in Consolidated Proceeding Nos. 11M-872E, 11M-873E, 12M-102E.

<sup>10</sup> Rule 3626, 4 CCR 723-3; Decision No. C22-0139-I at 2.

<sup>11</sup> Decision No. C22-0139-I at 4 (quoting Decision No. C17-1079 at 29 (mailed December 28, 2017) in Consolidated Proceeding Nos. 16M-0063E, 15M-0583E, and 15M-0856E (hereinafter Decision No. C17-1079)).

12. Under Rule 3627, by February 1 of each even-numbered year, each electric utility must file a ten-year transmission plan (*i.e.*, the Plan in this Proceeding) that: meets goals identified in the Rule; identifies proposed facilities expected to operate at 100kV or greater; includes specific information relating to the plan; and demonstrates compliance with the Rule's other requirements.<sup>12</sup> Per Rule 3627(e), by February 1 of each even-numbered year, each electric utility must file a conceptual long-range scenario that looks 20 years into the future (*i.e.*, the Report in this Proceeding), analyzing projected system needs for "various credible alternatives," that includes certain minimum criteria.<sup>13</sup>

13. Rule 3627(i) allows utilities filing an application for a Certificate of Public Convenience and Necessity (CPCN) for individual projects contained in a prior plan to substantively rely on the information in the plan and the Commission's decision reviewing the plan in support of its CPCN application provided that the plan includes "sufficient documentation . . . for the project under review" if the project's circumstances have not changed.<sup>14</sup>

14. Per Rule 3627(h), the Commission reviews the Plan to determine whether it complies with Rule 3627, and whether the existing and planned transmission facilities in the state are adequate to meet the present and future energy needs in a reliable manner.<sup>15</sup> As contemplated under Rule 3627(h), adequate (or adequacy) means "satisfactory and sufficient."<sup>16</sup>

15. Per Rule 3627(h), in its decision reviewing the plan, the Commission may provide "further guidance to be used in the preparation of the next biennial filing." Guidance under this

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<sup>12</sup> Rule 3627(a) through (c).

<sup>13</sup> Rule 3627(e)(I) to (V).

<sup>14</sup> Rule 3627(i).

<sup>15</sup> Rule 3627(h).

<sup>16</sup> Decision No. C17-1079 at 31 (quoting Decision No. R14-0845 at 4 (mailed July 18, 2014) in Consolidated Proceeding Nos. 14M-0110E, 13M-1167E, and 13M-1183E (hereinafter Decision No. R14-0845)).

Rule is akin to interpretive rules consistent with § 24-4-103(1), C.R.S, and is not legislative in nature.<sup>17</sup> The Commission has previously found that guidance under Rule 3627(h) helps describe how the Commission will interpret Rule 3627 and related filings; should instruct utilities on how to best comply with Rule 3627's requirements; and may include issues the Commission would like the Utilities consider when developing future plans.<sup>18</sup> This is consistent with interpretive rules as contemplated under § 24-4-103(1), C.R.S. Indeed, a rule is interpretive if serves the advisory function of explaining the meaning of a word or phrase in a statute or rule and describes the types of factors that an agency will consider in future administrative proceedings without binding the agency to a particular result.<sup>19</sup> Interpretative rules can also be general statements of policy which are not meant to be binding as rules.<sup>20</sup> On the other hand, legislative rules carry the force and effect of law and are adopted per the agency's statutory authority to promulgate a substantive standard.<sup>21</sup> Whether a rule is legislative or interpretive depends on its effect: "it is legislative if it establishes a norm that commands a particular result in all applicable proceedings; it is interpretative if it establishes guidelines that do not bind the agency to a particular result."<sup>22</sup>

16. The Commission has chosen to provide guidance in numerous decisions addressing the 10-year plan component of Rule 3627 filings, most recently in the 2020 Rule 3627 plan filings

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<sup>17</sup> See Decision No. R17-0580 at 106-108 (mailed July 31, 2017) in Consolidated Proceeding Nos. 16M-0063, 15M-0853E, and 15M-0856E (hereinafter Decision No. R17-0580). Although the Commission partially reversed Decision No. R17-0580, it did not reverse the findings and discussion on above issue. *See generally* Decision No. C17-1079.

<sup>18</sup> *Id.*

<sup>19</sup> *Colo. Motor Vehicle Dealer Licensing Bd. v. Northglenn Dodge, Inc.*, 972 P.2d 707, 712 (Colo. App. 1998). An agency's interpretive guidance or rules are not subject to the Administrative Procedures Act's rulemaking requirements. § 24-4-103(1), C.R.S.

<sup>20</sup> *Northglenn Dodge*, 972 P.2d at 711.

<sup>21</sup> *Regular Route Common Carrier Conf. Colo. Motor Carriers Ass'n v. Pub. Utils. Comm'n.*, 761 P.2d 737, 748-49 (Colo. 1988).

<sup>22</sup> *Doe v. Colorado Dep't Public Health & Environment*, 451 P.3d 851, 857 (Colo. 2019) (citing *Hammond v. Pub. Emps. Ret. Ass'n*, 219 P.3d 426, 428 (Colo. App. 2009)).

in Proceeding No. 20M-0008E.<sup>23</sup> In that Proceeding, the Commission provided interpretive guidance explaining the meaning of certain language in Rule 3627(c)(VI) and the impact of that interpretation on the Commission’s determinations under Rule 3627(b)(I). Specifically, the Commission explained that it interprets the word “alternatives” as used in Rule 3627(c)(VI) in an expansive manner to specifically include less conventional or emerging technological options which have been demonstrated elsewhere to have reliably and cost-effectively addressed transmission needs.<sup>24</sup> The Commission explained that if utilities apply an overly constrained or narrow meaning to “alternatives,” such as limiting this only to conventional alternatives to the exclusion of unconventional cost-effective and reliable alternatives, a 10-year transmission plan cannot be found to provide for the “efficient” use of the “the transmission system on a best-cost basis,” as contemplated under Rule 3627(b)(I).<sup>25</sup> Building on this, the Commission identified specific information that should be included in future biennial filings to help utilities best comply with Rule 3627(c)(VI)’s requirements consistent with the Commission’s interpretation of that Rule.

17. Courts apply the rules of statutory construction when construing an agency’s rules.<sup>26</sup> As such, words and phrases should be read in context and construed according to the rules of grammar and common usage.<sup>27</sup> Words must be interpreted according to their plain and ordinary meaning and in the absence of a definition, that meaning may be determined by considering

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<sup>23</sup> Decision No. R21-0073 (mailed February 11, 2021) in Proceeding No. 20M-0008E (hereinafter Decision No. R21-0073). *See e.g.*, Decision No. R17-0580 at 141-143.

<sup>24</sup> *See* Decision No. R21-0073 at 18-19.

<sup>25</sup> *See id.* at 19.

<sup>26</sup> *Regular Route*, 761 P.2d at 746.

<sup>27</sup> § 2-4-101, C.R.S.

dictionary definitions.<sup>28</sup> Provisions in an administrative rule should be read in connection with and relation to its other provisions so that the rule is interpreted together as a whole.<sup>29</sup>

18. The ALJ reviews the Plan and Report with the above in mind.

### **III. ARGUMENTS, ANALYSIS, FINDINGS, AND CONCLUSIONS**

#### **A. Comments on the Utilities' Filings and Responses Thereto**

##### **1. The UCA's Comments**

19. The UCA has four primary criticisms. First, the UCA alleges that the Utilities fail to include information on the amount and location of generation assumed in developing their Plan, which it alleges is contrary to Rule 3627(c)(III).<sup>30</sup> Second, the UCA asserts that the Utilities fail to include information about major transmission rebuilds, and that as a result, the Commission has received only a part of the transmission picture.<sup>31</sup> The UCA contends that major transmission rebuilds can cost millions, and may offer opportunities for alternatives, such as carbon core conductors.<sup>32</sup> Third, citing Rule 3627(c)(IV), the UCA submits that there is a dearth of information on the alternatives the Utilities studied for the projects in their Plan.<sup>33</sup> The UCA observes that analysis of project alternatives can include both wired alternatives and non-wired alternatives (NWA) and provides examples where a wired or non-wired alternative should have been considered.<sup>34</sup> The UCA explains that wired alternatives include advanced transmission technology (ATT) such as dynamic line ratings (DLR) and carbon core wire.<sup>35</sup>

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<sup>28</sup> See *People v. Harrison*, 465 P.3d 16, 20 (Colo. 2020); *Welch v. Colo. State Plumbing Bd.*, 474 P.3d 236, 242 (Colo. App. 2020).

<sup>29</sup> *Regular Route*, 761 P.2d at 746.

<sup>30</sup> The UCA's Comments at 1.

<sup>31</sup> *Id.* at 2.

<sup>32</sup> *Id.*

<sup>33</sup> *Id.* at 2-3.

<sup>34</sup> *Id.* at 3.

<sup>35</sup> *Id.*

20. Finally, the UCA criticizes the Report, alleging that Public Service failed to meaningfully address the UCA's proposal to study the "balanced portfolio" of generation as an alternative 20-Year conceptual scenario.<sup>36</sup>

**a. The Utilities' Response**

21. As to the first criticism, the Utilities state that the Plan includes the generation dispatch and the assumed generation for the Plan's projects,<sup>37</sup> a detailed discussion of planning models that the Western Electricity Coordinating Council (WECC) develops each year for use in transmission planning, and that interested persons and the Commission may download the planning models after executing the requisite non-disclosure agreement.<sup>38</sup> They explain that the existing and planned generation is dispatched within each planning model; that WECC's Base Case Compilation Schedule and Data Preparation Manual specify the desired generation profile to be modeled in each planning case and the level of modeling detail; and that the Plan provides instructions on how to access the models.<sup>39</sup> The Utilities also note that hypothetical or assumed generation is typically not included in WECC models because they are designed to reflect future system conditions.<sup>40</sup> The Utilities also state that the driver for many transmission projects are not impacted by the location of assumed generation, but are determined based on existing or known generation additions.<sup>41</sup> Other projects are based on studies that evaluated, among other things, injection capability or the project's ability to accommodate new, firm generation.<sup>42</sup>

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<sup>36</sup> *Id.* at 4 (citing Attachment A to its Comments).

<sup>37</sup> Responsive Comments at 3 (referring to the CCPG's 80x30 Task Force Phase I Report, the Responsible Energy Plan Task Force Study Reports, and the 80x30 Task Force Phase 2 Presentation, included in the Plan).

<sup>38</sup> *Id.* at 2 (citing Section VIII.A of the Plan).

<sup>39</sup> *Id.* (citing Appendix Q to the Plan).

<sup>40</sup> *Id.*

<sup>41</sup> *Id.* at 3.

<sup>42</sup> *Id.*

22. As to information on major transmission rebuilds, the Utilities argue that this is outside the scope of Rule 3627, and that the Rule has never been read to require such information.<sup>43</sup> The Utilities assert that the UCA confuses transmission maintenance with transmission planning, and inappropriately seeks to extend Rule 3627 to include reporting on matters that are not related to the transitional long-term transmission planning contemplated under Rule 3627 (*i.e.*, transmission asset renewal or replacement driven by maintenance).<sup>44</sup> The Utilities explain that asset renewal or replacement projects are maintenance on existing facilities, not facilities being proposed, and as such, do not need to be included in Rule 3627 plans.<sup>45</sup> They assert that since the vast majority of such projects are not intended to meet an identified need for a transmission capacity increase, it is not appropriate to include such projects in the Plan.<sup>46</sup> But where such projects are intended to meet an identified need for a capacity increase, the Utilities include such projects in the Plan, and did so here.<sup>47</sup>

23. As to the UCA's comments relating to wired alternatives and NWAs, the Utilities agree that advanced technologies like carbon core conductors could increase transmission capacity, but believe that it would be imprudent for them to invest in such technologies absent a showing of need for the increased capacity.<sup>48</sup> They also contend that the choice of conductor is a function of transmission engineering rather than planning, and as such, is better suited for investigation in the context of CPCN proceedings.<sup>49</sup> The Utilities also explain that once transmission planning processes have identified a need, the transmission engineering process that each of them rely on

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<sup>43</sup> *Id.* at 3-4.

<sup>44</sup> *See id.*

<sup>45</sup> *Id.* at 4.

<sup>46</sup> *Id.*

<sup>47</sup> *Id.*

<sup>48</sup> *Id.* at 5

<sup>49</sup> *Id.*

when designing facilities already includes considering advanced conductor technologies to meet identified needs.<sup>50</sup>

24. As to the UCA's other criticism of the alternatives considered, the Utilities note that there are numerous forums in which transmission project alternatives are evaluated. For example, they explain that evaluating alternatives is an essential part of the regional and subregional transmission planning process that takes place at WestConnect and CCPG, and that Rule 3206 requires them to annually report on their consideration of alternatives.<sup>51</sup> They also present project alternatives when they justify the need for proposed transmission projects in CPCN applications.<sup>52</sup>

25. The Utilities argue that Rule 3627(c)(VI) does not require the Plan to include an extensive consideration of alternatives for each project but rather "is a reference that the relevant studies and reports used to develop the identified transmission projects in the . . . Plan must appropriately consider alternatives."<sup>53</sup> The Utilities submit that these studies and reports are the foundation for all future regulatory evaluation of transmission projects, including reporting under Rules 3627 and 3206, and CPCN applications, and include the discussion and evaluation of project alternatives required per Rule 3627(c)(VI), and as requested by the UCA.<sup>54</sup> The Utilities note that the Plan provides links to the websites where these transmission studies and reports are posted.<sup>55</sup> Separately, for the projects for which studies and reports have been completed, the Utilities include a table identifying the projects and links to access the relevant studies and reports.<sup>56</sup>

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<sup>50</sup> *Id.*

<sup>51</sup> *Id.* at 6.

<sup>52</sup> *Id.* at 7.

<sup>53</sup> *Id.*

<sup>54</sup> *Id.*

<sup>55</sup> *Id.* (citing Section VIII of the Plan).

<sup>56</sup> *Id.*

26. The Utilities also rely on language in Rule 3627(c)(VI) that, “[t]he depth of the studies, reports and consideration of alternatives shall be commensurate with the nature and timing of the new transmission facility.”<sup>57</sup> They argue that this language recognizes that conceptual projects may not have been fully vetted at the time of the Rule 3627 filing, which means that an analysis of project alternatives may not be developed when the Rule 3627 plan is filed.<sup>58</sup> They also argue that the language recognizes that in circumstances such as generation interconnection projections, analyzing alternatives are not likely to be relevant to the project.<sup>59</sup>

27. The Utilities state that the analysis on the UCA’s “balanced portfolio” proposal is included in the CCPG’s 80x30 Task Force Phase 2 Presentation included with the Plan.<sup>60</sup> The Utilities also argue that the UCA’s suggestion that they evaluate and meaningfully address that scenario is inconsistent with, and beyond the scope of Rule 3627(e)’s requirements.<sup>61</sup> In support, they assert that the requirements for a 20-year conceptual scenario (*i.e.*, the requirements for the Report) are distinct and different from the requirements for the 10-year plan (*i.e.*, the requirements for the Plan). Specifically, the 20-year scenario requirements do not cover or discuss specific transmission projects necessary to meet system needs on a 20-year horizon, unlike the 10-year plan requirements.<sup>62</sup> They assert that the purpose of the Report is to evaluate qualitative, conceptual scenarios informed by resource planning or public policy considerations, but that are not specifically modeled on any inputs or assumptions from those considerations.<sup>63</sup> They submit that their Report serves this purpose and meets Rule 3627(e)’s requirements.

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<sup>57</sup> *Id.* at 9.

<sup>58</sup> *Id.*

<sup>59</sup> *Id.*

<sup>60</sup> *Id.* at 3.

<sup>61</sup> *Id.* at 10-11.

<sup>62</sup> *Id.* at 11 (citing Rule 3627(e)).

<sup>63</sup> *Id.*

28. The Utilities also submit that while the UCA's "balanced portfolio" proposal is detailed in terms of the types, capacities and locations of new generation, there is no modeling of generation resources that can be conducted to develop a 20-year conceptual scenario. Public Service also believes that the proposal is unreasonably vague because it fails to include the type of information needed to construct a conceptual scenario, such as the analytical factors in Rule 3627(e) (e.g., policy drivers, technological and market developments, change in demand, and other information to qualitatively evaluate patterns that could emerge from such a scenario).<sup>64</sup> They submit that the UCA's proposal may be appropriate for consideration in the FERC Order 890 stakeholder process or through WestConnect, but not here.

**b. Analysis, Findings, and Conclusions**

29. The Utilities have, both in this Proceeding and in prior Rule 3627 proceedings, notified all parties of the process by which the inputs to the WECC models can be accessed. No participant in this Proceeding has demonstrated that executing the WECC non-disclosure agreement presents an insurmountable or even appreciable barrier to access the information the UCA seeks. And the Utilities explain that where they have made assumptions about generating resources to be added in the future, these assumptions are presented in the CCPG project study reports included as Appendices to the Plan. As such, the Utilities have indicated how interested parties can gain access to the full inputs and results from the WECC models and have identified where they provided their assumptions about new generating resources in some project-specific study reports included as part of the filings in this Proceeding. Given all of this, the ALJ rejects the UCA's argument that the Plan is deficient in this regard.

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<sup>64</sup> *Id.* at 12.

30. That said, the ALJ provides interpretive guidance on Rule 3627(c)(III)'s meaning to help Utilities comply with the rules when preparing future plans. The ALJ interprets the phrase "generation assumptions" in Rule 3627(c)(III) as encompassing the types, capacities, and injection points of both existing and future generating resources studied for each Utility's individual transmission project.<sup>65</sup> Consistent with this interpretative guidance, and Rule 3627(h), unless the Utilities establish good cause, their future Rule 3627 filings should include: a table presenting the annual expected capacity for each existing and planned resource in each Utility's generating portfolio (inclusive of power purchase agreements) for the decade covered by the filing; and a summary of the types, capacities, and injection points of all future generating resources studied for each Utility's individual transmission projects.<sup>66</sup> This second data set should be provided in each Utility's appendices that describe their planned transmission projects (*e.g.*, Appendices D, E, and F in this Proceeding).

31. The ALJ agrees with the Utilities that Rule 3627 does not require reporting on transmission system maintenance projects. As explained in Rule 3626, the purpose of the transmission planning rules is to "coordinate the planning for *additional* electric transmission in Colorado."<sup>67</sup> Rule 3627's plain language confirms that the Rule requires coordination for additional transmission but does not encompass maintenance projects on the existing system. Rule 3627(a)(II) identifies the type of transmission projects that must be included in Rule 3627 plan filings. That subparagraph requires the utilities' plan to "identify all proposed facilities 100kV or

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<sup>65</sup> See Rule 3627(h); *Northglenn Dodge*, 972 P.2d at 712.

<sup>66</sup> This interpretive guidance and information to be included in future Rule 3627 filings are not intended to be binding as rules but are instead intended to build upon the ALJ's explanation of the meaning of language in the referenced rule; describe the types of factors that may be considered in future proceedings without binding the Commission to a particular result; and to aid the Utilities in their preparation of future Rule 3627 filings consistent with Rule 3627(h) and § 24-4-103(1), C.R.S. See *Northglenn Dodge*, 972 P.2d at 711-712.

<sup>67</sup> Rule 3626 (emphasis added).

greater.”<sup>68</sup> Because the word “proposed” appears before “facilities,” in this context, “proposed” describes the type of facilities covered under Rule 3627(a)(II).<sup>69</sup> The dictionary definition of the word “propose” means “to set forth for acceptance or rejection.”<sup>70</sup> Thus, under its plain and ordinary meaning, the phrase “proposed facilities” refers to facilities that a utility has set forth for acceptance or rejection. This plainly excludes facilities which have already been accepted, that is, *existing* facilities and any maintenance on such facilities. Other rule language supports this conclusion. For example, Rule 3627(c)(VI) refers to required information “for each new transmission facility” in the plan, and notes that the depth of the required information should be commensurate with the nature and timing “of the new transmission facility.” Construing the Rule in this manner gives effect to the phrase “proposed facilities” according to their plain and ordinary meaning;<sup>71</sup> is consistent with the stated purpose of the transmission planning rules to coordinate “additional transmission” in Colorado; ensures that Rule 3627’s provisions are interpreted as a whole; and is consistent with the Commission’s approach in past Rule 3627 proceedings.<sup>72</sup> For all these reasons, the ALJ finds that as it currently exists, Rule 3627 does not require utilities to report on maintenance-driven asset renewal or replacement activities on existing transmission facilities.

32. Nonetheless, as discussed later, the ALJ recommends that the Commission initiate a rulemaking proceeding, to consider, among other changes, a rule amendment that would require reporting on certain maintenance-driven asset renewal or replacement projects.

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<sup>68</sup> Rule 3627(a)(II).

<sup>69</sup> See § 2-4-101, C.R.S.

<sup>70</sup> Merriam-Webster online dictionary, <https://www.merriam-webster.com/dictionary/proposed>. See *Harrison*, 465 P.3d at 20 and *Welch*, 474 P.3d at 242.

<sup>71</sup> *Regular Route*, 761 P.2d at 746; *In re Marriage of Davisson*, 797 P.2d at 810.

<sup>72</sup> *Regular Route*, 761 P.2d at 746; *In re Marriage of Davisson*, 797 P.2d at 810. See e.g., Decision No. C17-1079 at 29-30 (finding that the plan’s “focus on planned or in-progress projects rather than existing facilities is consistent with the purpose of the Transmission Planning Rules as summarized in Rule 4 CCR 723-3-3626.”)

33. For the reasons discussed, the ALJ finds some merit in the UCA's argument that the Utilities fail to include sufficient documentation of the alternatives considered for the Plan's projects, contrary to Rule 3627(c)(VI). In their Responsive Comments, the Utilities provide a table containing web links that go directly to the studies or reports supporting planned transmission projects.<sup>73</sup> Some of these provide information on alternatives that have been evaluated.<sup>74</sup> But, neither Section VIII.G of the Plan nor Appendices D, E or F thereto (which include details on each Utility's projects) include these links, and not all of the completed studies were included in the Plan filings. As such, the ALJ finds that it is appropriate to provide guidance explaining how best to meet Rule 3627(c)(VI)'s requirement to provide studies and reports in future Rule 3627 filings. In future plan filings, the Utilities must meet Rule 3627(c)(VI)'s requirement to provide the studies and reports for each project identified in the utility-specific appendices in one of the three following ways: (a) include direct links to any and all completed reports or studies; or (b) submit copies of the reports or studies with the Plan; or (c) include a statement that no report or study has been completed.<sup>75</sup>

34. As the Utilities contend, some Plan projects are at too early a stage for the Utilities to evaluate a comprehensive set of alternatives, and others may lack available alternatives to be studied. The Utilities also make a strong argument that Rule 3627(c)(VI) cited by UCA does not require the Plan to be an extensive documentation of alternatives evaluated for each identified project, but instead requires the Plan to include such studies or reports (or links thereto) that have

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<sup>73</sup> Responsive Comments at 8-9.

<sup>74</sup> *See id.* at 8-9, *e.g.*, links for studies related to the Pathway CPCN and studies for several projects related to Tri-State's Responsible Energy Plan.

<sup>75</sup> This interpretive guidance and information to be included in future Rule 3627 filings are not intended to be binding as rules and are instead intended to aid the Utilities in their preparation of the future Rule 3627 filings by explaining the information that the Commission may consider in future proceedings without binding the Commission to a particular result, consistent with Rule 3627(h) and § 24-4-103(1), C.R.S. *See Northglenn Dodge*, 972 P.2d at 711-712.

been completed by the time the Plan was filed, which must appropriately consider alternatives. Indeed, Rule 3627(c)(VI) acknowledges that the Plan serves as a snap-shot-in-time<sup>76</sup> by stating that the “depth of the studies, reports, and consideration of alternatives shall be commensurate with the nature and timing of the new transmission facility.”

35. The ALJ finds persuasive the Utilities’ argument that the UCA’s proposal that they evaluate and meaningfully address its balanced portfolio is beyond the scope of Rule 3627(e)’s requirements. The report requirements are not the same as the Rule’s plan requirements. The report requirements look 20 years into the future at *conceptual* scenarios. Read in that context, Rule 3627(e)’s language requiring utilities’ conceptual scenarios to analyze projected system needs for alternatives does not contemplate the type of in-depth and meaningful evaluation which the UCA seeks.

## 2. WRA’s Comments

36. WRA requests that the Commission order Colorado utilities to work together to create a 20-year transmission outlook similar to one that the California Independent System Operator (CAISO) is developing.<sup>77</sup> In support, WRA argues that Colorado needs to consider the regional transmission picture for the 2033 to 2043 timeframe given the state’s long-term decarbonization goals, and the role that interstate market-based generation will play in meeting those goals.<sup>78</sup> WRA argues that the starting point for this analysis must include 20-year load projections and the generation needed to meet that load, along with retirement of existing generation and reasonably aggressive electrification of transportation, heating, and industrial

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<sup>76</sup> Decision No. C22-0139-I at 4 (quoting Decision No. C17-1079, ¶ 80).

<sup>77</sup> WRA’s Comments at 5.

<sup>78</sup> *Id.* at 5.

processes.<sup>79</sup> WRA also argues that the analysis should include all customer loads in the state, including, for example the Platte River Power Authority and Colorado Springs Utilities' loads (rather than just the Utilities in this Proceeding).<sup>80</sup> WRA acknowledges that its request may require new transmission planning rules.<sup>81</sup>

**a. The Utilities' Response**

37. The Utilities appreciate the importance of long-term transmission planning to meet critical energy, environmental, and public policy goals, but argue that WRA's suggestion would require, at minimum, significant changes to the Commission's current transmission-planning rules.<sup>82</sup> The Utilities submit that the magnitude of changes that WRA suggests demands a robust utility and stakeholder engagement process that a rulemaking affords.<sup>83</sup> They also caution against replicating the CAISO 20-year plan because the nature of the market and the regulatory construct in which CAISO operates is much different than Colorado's, and that as a result, CAISO's process includes an outlook that is substantially larger in scale and complexity than the transmission planning efforts appropriate for Colorado.<sup>84</sup> The Utilities also note that FERC's recent Notice of Proposed Rulemaking on transmission planning issues, and the ongoing exploration of organized market membership may result in changes to transmission planning in Colorado.<sup>85</sup>

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<sup>79</sup> *Id.*

<sup>80</sup> *Id.*

<sup>81</sup> *Id.* at 6.

<sup>82</sup> Responsive Comments at 12-13.

<sup>83</sup> *Id.* at 13.

<sup>84</sup> *Id.* at 13-15. The Utilities agree that the CAISO process is an informative and interesting perspective on long-term transmission planning in its region and may provide helpful background for the Commission as it considers whether to revise its transmission planning rules. *Id.* at 13 and 15.

<sup>85</sup> *Id.* at 14-15 (citing FERC Docket No. RM21-17-000 and 179 FERC ¶ 61,028 (April 21, 2022)).

**b. Analysis, Findings, and Conclusions**

38. For the below reasons, the ALJ does not adopt WRA's recommendation. This Proceeding is not the appropriate forum to create or direct a new process for a statewide 20-year outlook. The ALJ recognizes the potential benefit to Colorado's transmission planning process, but this is a significant endeavor that goes well beyond Rule 3627 (and the Commission's current transmission planning rules). This undertaking would benefit from a robust utility and stakeholder engagement process that is not afforded here. Given that such a process, to be thorough and effective, would need to involve transmission owners outside the Commission's jurisdiction (*i.e.*, all transmission owners operating in Colorado, not just those subject to Rule 3627), it is difficult to identify an appropriate Commission forum to substantively attempt to implement or consider WRA's recommendation. That said, there may be other state entities who could begin this engagement, such as the Colorado Energy Office.

**3. Mr. Miloshevich's Comments**

39. Mr. Miloshevich's criticisms primarily center around his assessment that the Utilities fail to thoughtfully and meaningfully consider ATT and NWA as alternatives to transmission projects identified in the Plan, contrary to the requirements in Decision No. R21-0073.<sup>86</sup> He notes that the Plan contains no projects in which a utility selected an ATT or NWA solution and argues that the Plan fails to comply with Decision No. R21-0073.<sup>87</sup> Mr. Miloshevich argues that the Utilities paid "lip service" to these alternatives, and that the Plan evidences no thought or planning to seriously evaluate them, calling into question both the

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<sup>86</sup> Mr. Miloshevich's Comments at 14.

<sup>87</sup> *Id.* at 3.

sufficiency of the Plan, and respect for Decision No. R21-0073.<sup>88</sup> Mr. Miloshevich recommends that the Commission find that the Plan is inadequate in light of the Utilities' response to Decision No. R21-0073's requirements.<sup>89</sup> He also argues that the Commission must take stronger measures to encourage utilities to adopt ATT and NWA where they are cost-effective.<sup>90</sup>

40. Mr. Miloshevich argues that Public Service rejects carbon-core conductors based on misleading or inadequate reasoning that it is concerned about using nonstandard or specialized equipment "from an inventory management perspective" because it "would require specialized personnel and/or training for maintaining the special construction/equipment."<sup>91</sup> He asserts that not all carbon-core conductors are specialized conductors, as some are drop-in replacements for more conventional conductors.<sup>92</sup> He is also concerned that the logic Public Service uses to reject carbon-core conductors means that it would never select any new technology or alter how it operates its system, which he finds absurd.<sup>93</sup>

41. Mr. Miloshevich recommends that the Commission require utilities to study and consider carbon-core conductors when assessing alternatives for all transmission projects and in all future transmission CPCNs (along with other ATT and NWAs generally); and that an outside study be performed on the costs and benefits of deploying ATTs on the existing transmission system.<sup>94</sup> He recommends that such a study include carbon-core conductors and transmission-connected energy storage in addition to the ATT discussed at the October 22, 2020 Commissioner

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<sup>88</sup> *Id.* at 6.

<sup>89</sup> *Id.* at 31.

<sup>90</sup> *Id.* at 6.

<sup>91</sup> *Id.* at 12-13 (quoting the Plan at 85).

<sup>92</sup> *Id.* at 12.

<sup>93</sup> *Id.* at 13.

<sup>94</sup> *Id.* at 6; 17; 20; 27; and 32.

Information Meeting.<sup>95</sup> He argues that a study by an outside expert will advance a deeper and more holistic understanding of ATTs' ability to increase capacity and the transmission system's efficient use, and could preempt the need for many expensive transmission projects. Given the Plan's "bare-bones" ATT evaluation here, and the Utilities' failure to deploy a single ATT solution, Mr. Miloshevich argues that a study by an outside expert is needed.<sup>96</sup>

42. Next, he recommends that the Commission work with Utilities to create a performance incentive mechanism (PIM) with a shared-savings structure applicable to the existing transmission system, new-build transmission projects and CPCNs to financially incentivize utilities to invest internal resources into evaluating and deploying ATT.<sup>97</sup> He submits that such a stronger measure could motivate the Utilities to "get serious about putting effort and resources into including 21st century ATT solutions in their transmission planning process and CPCN applications, for purposes of ratepayer protection, grid modernization, and faster decarbonization."<sup>98</sup>

43. Mr. Miloshevich also recommends that the Commission require the Utilities to report (in a Rule 3627 proceeding) their line rating methodologies, their plans to transition to Ambient-Adjusted Ratings (AAR) to comply with FERC Order 881, and their positions on implementing DLR, including any plans to do so.<sup>99</sup> In support, he submits that this is an appropriate Proceeding to inquire into the Utilities' current and planned practices for determining transmission line capacity ratings and how those ratings vary with the season, time of day, and ambient weather

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<sup>95</sup> *Id.* at 28.

<sup>96</sup> *Id.* at 26-27.

<sup>97</sup> *Id.* at 18 and 20.

<sup>98</sup> *Id.* at 17-18.

<sup>99</sup> *Id.* at 28-29.

conditions.<sup>100</sup> He also notes that FERC Order 881 requires all transmission providers to use AAR,<sup>101</sup> and that FERC has launched an inquiry into potentially requiring DLR.<sup>102</sup> Mr. Miloshevich contends that by enabling greater power transfer under certain ambient conditions, AAR and DLR can produce cost savings from reduced curtailment, congestion and redispatch and could possibly reduce the need for new or upgraded transmission lines.<sup>103</sup>

**a. The Utilities' Response**

44. The Utilities state that they are unable to address all of Mr. Miloshevich's points because his comments were filed two and a half weeks past the established deadline, giving them far less time to respond while meeting the responsive comment deadline.<sup>104</sup> Nonetheless, the Utilities address, at a high-level, the substance of Mr. Miloshevich's contentions. They assert that his "comments in this Proceeding do not produce new analysis or evidence that should lead the Commission to conclude that the Joint Utilities' filing is inadequate" and that "his diagnosis has no basis in fact and his recommendations should be rejected."<sup>105</sup> The Utilities also argue that the Commission largely rejected much of Mr. Miloshevich's recommendations in Public Service's recent CPCN application for the Power Pathway Project, Proceeding No. 21A-0096E (Pathway Project CPCN).<sup>106</sup>

45. As to Mr. Miloshevich's comments on carbon-core conductors, the Utilities argue that because Mr. Miloshevich misunderstands this class of technology, his advocacy on this is too

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<sup>100</sup> *Id.* at 28.

<sup>101</sup> FERC Order 881 was effective as of March 14, 2022, with compliance filings due on July 14, 2022, and implementation within three years (July 2025). FERC Docket No. RM20-16-000, 87 FR 2244, 2246 (Vol. 87, No. 009) (January 13, 2022).

<sup>102</sup> Mr. Miloshevich's Comment at 28-29.

<sup>103</sup> *Id.* at 29.

<sup>104</sup> *See* Responsive Comments at 16.

<sup>105</sup> *Id.* at 17.

<sup>106</sup> *Id.* at 17.

narrow, and that his criticisms of the Utilities' knowledge and experience with this technology is misplaced. In support, the Utilities explain that carbon-core conductors are a specific instance of a broader category of high-temperature low sag (HTLS) conductors that typically offer similar performance benefits, and that by focusing just on carbon-core conductors, Mr. Miloshevich ignores an entire class of advanced conductors.<sup>107</sup> They also argue that he confuses transmission planning with transmission engineering. The Utilities assert that whether to use HTLS is "inherently an engineering judgment," which they all consider and evaluate as part of the detailed engineering process once transmission planning identifies a need.<sup>108</sup> If that process finds HTLS conductors to be appropriate and cost effective, they present it to the Commission in a CPCN application. The Utilities also seriously question Mr. Miloshevich's conclusions that using carbon-core conductors results in cost and energy savings, pointing to the Pathway Project CPCN. The Utilities argue that using carbon-core conductors consistent with Mr. Miloshevich's arguments in that Proceeding would have increased customer costs by \$221 million over the life of the Project.<sup>109</sup> They submit that "[t]he challenge in deploying advanced conductors, including carbon-core conductors, lies not with utilities' knowledge, motives, or incentives, but rather with the uncompetitive economics of the new technology that Mr. Miloshevich is focused on here."<sup>110</sup>

46. The Utilities submit that many of Mr. Miloshevich's recommendations are improper for this Proceeding and should instead be addressed in a rulemaking or other miscellaneous proceeding.<sup>111</sup> For example, while Public Service and Black Hills are open to

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<sup>107</sup> *Id.* at 18.

<sup>108</sup> *Id.*

<sup>109</sup> *Id.*

<sup>110</sup> *Id.* at 18-19.

<sup>111</sup> *Id.* at 16.

discussing a PIM, they do not believe that this Proceeding is the proper forum.<sup>112</sup> In support, they argue that the Commission lacks rules on this issue and has not provided direction on this; and that that there is neither an adequate record nor sufficient opportunity for a broad range of stakeholders to weigh in on this significant policy decision.<sup>113</sup> Public Service and Black Hills recommend that PIMs for ATT deployment be evaluated on a case-by-case basis in specific CPCN applications or in a miscellaneous proceeding.<sup>114</sup> They state that the choice not to deploy ATT is due to ATT's inability to meet transmission needs in a cost-competitive manner, and caution that PIMs must be carefully crafted to avoid incentivizing utilities to use ATTs for projects whose customer costs exceed customer benefits.<sup>115</sup>

47. The Utilities generally do not oppose Mr. Miloshevich's recommendation for a study of the potential for cost-effective deployment of ATT, but argue that this Proceeding is not the appropriate forum in which to require this.<sup>116</sup> In support, they argue that there is no process by which the scope, objectives, cost, cost allocation or cost-recovery procedures can be adjudicated here, and that there has neither been proper public notice of these issues nor an evidentiary record supporting the requested study.<sup>117</sup> If the Commission believes a statewide analysis is appropriate, they recommend that that the Commission open a miscellaneous proceeding for that purpose.<sup>118</sup>

48. Finally, in response to Mr. Miloshevich's recommendations regarding utility line rating practices, the Utilities state that the information Mr. Miloshevich seeks is included in

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<sup>112</sup> Tri-State is not included because it is not rate-regulated by the Commission. *Id.* at 19, fn. 20.

<sup>113</sup> *Id.* at 19.

<sup>114</sup> *Id.*

<sup>115</sup> *Id.* at 19-20.

<sup>116</sup> *Id.* at 20.

<sup>117</sup> *Id.*

<sup>118</sup> *Id.*

Attachments N, O, and P to the Plan.<sup>119</sup> They also argue that Mr. Miloshevich's requests as to FERC Order 881 are premature since the Utilities' compliance filings are due in July 2022 with full implementation not required until July 2025.<sup>120</sup> While they are open to sharing information about compliance with the FERC Order as plans are developed, they caution against adopting Mr. Miloshevich's recommendation because this would create duplicative oversight of the Utilities compliance with federal regulations.<sup>121</sup>

### **b. Analysis, Findings, and Conclusions**

49. The ALJ finds that there are gaps in each Utility's response to the interpretive guidance and resulting directives in paragraph 45 of Decision No. R21-0073.<sup>122</sup> These directives arose out of the Commission's interpretive guidance that it construes the word "alternatives" in Rule 3627(c)(VI) in an expansive manner to specifically include less conventional or emerging technological options which have been demonstrated elsewhere to have reliably and cost-effectively addressed transmission needs.<sup>123</sup> Given the plain language of the directives, to the extent that the Utilities argue that the parties were not reasonably aware that the directives in Decision No. R21-0073 would be addressed in this Proceeding (including evaluation of alternatives), that argument is plainly without merit.

50. The first directive from Decision No. R21-0073 requires the Utilities' future Rule 3627 plan filings to provide a narrative description of the types of technologies they considered when assessing alternatives, and states that "[t]he list of alternatives shall include but not be limited

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<sup>119</sup> *Id.* at 20-21.

<sup>120</sup> *Id.* at 21.

<sup>121</sup> *Id.*

<sup>122</sup> *See* Decision No. R21-0073, ¶ 45.

<sup>123</sup> *See supra* ¶ 16.

to non-wires alternatives and the advanced transmission technologies presented in the October 22, 2020 CIM [Commissioner Information Meeting].”<sup>124</sup> The ATT presented during the October 22, 2020 CIM were DLR, topology optimization, and advanced power flow control (PFC) devices.<sup>125</sup> Although the Utilities’ Plan filings do not demonstrate that they rigorously evaluated ATT as project alternatives, the Utilities did provide the above-referenced narrative. Specifically, Section II.D of the Plan provides the required narrative description of alternative technologies the Utilities considered in developing their Plan, and the list of alternative technologies considered, including High Voltage Direct Current (HVDC), (including underground installations within existing railroad rights-of-way (ROW)); DLR; topology optimization; PFC technologies; energy storage; and specialized conductors.<sup>126</sup> For all these reasons, the ALJ finds that the Utilities complied with the above directive in Decision No. R21-0073.

51. The remaining directives in Decision No. R21-0073 require the Utilities to describe their methodologies for screening alternative technologies; list planned projects for which alternative technologies were actively evaluated; list planned projects for which an NWA or ATT was selected for implementation; and provide a rationale for projects where an alternative technology was actively evaluated but a conventional approach was selected.<sup>127</sup>

52. In response to these directives, Black Hills states that it “has included alternative technologies . . . for all new projects” and that “[a]ny new projects submitted for ruling on the need for a Certificate of Public Convenience and Necessity . . . will include narrative on which alternative technologies were considered and why they were or were not chosen.”<sup>128</sup> Since CPCNs

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<sup>124</sup> Decision No. R21-0073, ¶ 45.

<sup>125</sup> *Id.* at ¶ 22.

<sup>126</sup> Plan at 40-44.

<sup>127</sup> Decision No. R21-0073, ¶ 45.

<sup>128</sup> Plan at 53.

have not been required for any of its transmission projects, Black Hills does not provide a description of its screening process; a list of projects for which alternative technologies were actively evaluated; a list of projects where an NWA or ATT were selected for implementation; or rationale in cases where alternative technologies were evaluated but rejected in favor of a conventional solution. Black Hills incorrectly assumes that Decision No. R21-0073's requirements only apply to projects submitted for a CPCN ruling.<sup>129</sup> Nothing in the language of that directive suggests this. For all these reasons, the ALJ finds that Black Hills failed to satisfy the remaining directives in Decision No. R21-0073.

53. Tri-State makes no attempt to describe its methodology to identify potential applications for alternative technologies.<sup>130</sup> As such, the ALJ finds that Tri-State failed to comply with this directive in Decision No. R21-0073. For the below reasons, the ALJ finds that Tri-State partially met the remaining requirements of Decision No. R21-0073. For two of Tri-State's projects (the Big Sandy – Badger Creek and Big Sandy – Burlington 230 kV lines), the CCPG Responsible Energy Plan Task Force's (REPTF) studies considered NWA and ATT and concluded that these technologies alone cannot meet the company's objectives.<sup>131</sup> For each of these, Tri-State submits that the conventional solution was selected because it can accommodate new renewable generation resources; improve transmission system reliability; and mitigate generation curtailment in eastern Colorado under 230 kV prior outage conditions.<sup>132</sup> For a third project, Tri-State selected the conventional solution due to its ability to close a transmission gap, which it asserts neither NWA nor ATT can do.<sup>133</sup> The conventional approach was selected for the fourth project because "the

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<sup>129</sup> Decision No. R21-0073, ¶ 45.

<sup>130</sup> See Plan at 62; Decision No. R21-0073, ¶ 45.

<sup>131</sup> Plan at 62-63; see Appendix O to the Plan at 89-91.

<sup>132</sup> Plan at 62-63.

<sup>133</sup> *Id.*

replacement of existing, aging infrastructure provides higher long-term capacity on the transmission system, increases reliability, and reduces operational and maintenance constraints.”<sup>134</sup> For the fifth project (the Slater Double Circuit Conversion), Tri-State explains that it chose the conventional approach because of its “ability to economically remove a three-terminal line between Longs Peak, Meadow, and Slater substations through conversion of a short section of an existing line (<2 miles) from single circuit to double circuit.”<sup>135</sup> Although specialized conductors are listed as ATT both in the Plan and the REPTF Report, the record does not establish that the REPTF evaluated specialized conductors; nor is there any explanation as to why such conductors could not be used to satisfy the grid needs these projects are intended to meet.<sup>136</sup>

54. For the below reasons, the ALJ finds that Public Service partially met the remaining requirements Decision No. R21-0073. Public Service cites Attachment R, Section II(c)8 of its Open Access Transmission Tariff as its methodology for identifying potential applications for ATT and NWA.<sup>137</sup> While somewhat responsive, this cannot be reasonably described as a “methodology to identify potential applications for the full scope of alternative technologies considered” as required by Decision No. R21-0073.<sup>138</sup> Public Service did not select an alternative technology for any of the projects new to the Plan and only actively evaluated alternative technologies for one of the four projects new to the Plan, the Pathway Project CPCN.<sup>139</sup> Public Service considered energy storage and specialized conductors as alternatives to the conventional conductor it proposed for the Pathway Project.<sup>140</sup> It rejected storage because it “does not offer a reasonable alternative from

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<sup>134</sup> *Id.*

<sup>135</sup> *Id.*

<sup>136</sup> *See id.*; Appendix O to the Plan at 89-91.

<sup>137</sup> Plan at 84.

<sup>138</sup> Decision No. R21-0073, ¶ 45.

<sup>139</sup> Plan at 85-86.

<sup>140</sup> *Id.* at 85.

a technical or practical perspective,” and rejected specialized conductors due to its concerns about “the use or deployment of non-standard equipment on its system from an inventory management perspective, as it would require specialized personnel and/or training for maintaining the special construction/equipment.”<sup>141</sup>

55. The ALJ shares Mr. Miloshevich’s general concern that some of Public Service’s statements imply or directly state that potential changes or challenges in inventory management or personnel training justify rejecting new technology.<sup>142</sup> Energy use will most likely see significant shifts or changes given numerous recent statutory changes transitioning Colorado to clean heat resources and requiring significant reductions in carbon emissions.<sup>143</sup> While the impact of these statutes will likely take time to fully realize, Colorado’s utilities must start preparing for the changes to come. This means that utilities must be open to new technologies that can help meet the grid’s potentially significant changing needs, even if doing so requires additional training or changes in inventory management. As technology continuously evolves, the Commission is largely dependent on the Utilities to stay abreast of relevant technological developments and to rigorously consider the implications such developments have to meet system planning and operational needs in a cost-effective manner.

56. Consistent with the above discussion, the ALJ finds that the Utilities partially complied with paragraph 45 of Decision No. R21-0073. The ALJ concludes that because the Plan fails to fully comply with directives and interpretive guidance in Decision No. R21-0073 intended to ensure that Utilities apply a more expansive meaning to the word “alternatives” in Rule 3627(c)(VI), the record lacks sufficient information for the ALJ to conclude

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<sup>141</sup> *Id.*

<sup>142</sup> *See id.*

<sup>143</sup> *See e.g.*, §§ 40-3.2-108(3)(b)(II); 40-3.2-103, 106, and 107; and 40-1-102(6)(d), C.R.S.

that the Plan demonstrates the efficient use of the transmission system on a best-cost basis per Rule 3627(b)(I). As such, the Plan cannot be found to comply with Rule 3627 for the purpose of allowing the Utilities to rely on the Plan in later CPCN proceedings per Rule 3627(i).<sup>144</sup>

57. Although the Utilities did not fully comply with Decision No. R21-0073's requirements, those directives did yield some useful information (as discussed above) and continue to hold relevance for future Rule 3627 filings. As such, the requirements in paragraph 45 of Decision No. R21-0073 continue to apply for future Rule 3627 filings.

58. For the reasons discussed below, the ALJ finds that Mr. Miloshevich's recommendation that Utilities be required to report their line rating methodologies; plans to transition to AAR (to comply with FERC Order 881); and positions and plans to implement DLR fall under the scope of several Rule 3627 provisions. As such, the ALJ provides the below interpretive guidance and directs the Utilities to provide such information in future Rule 3267 proceedings.<sup>145</sup> The ALJ notes that the Utilities do not appear to contest that the majority of the requested information should be provided under Rule 3627 given the Utilities' comment that the information was provided, (except for plans to comply with FERC Order 881).<sup>146</sup> As to this last

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<sup>144</sup> Among other reasons, the ALJ declines to find the Plan inadequate per Rule 3627(h) based on the above given that when the Commission adopted Rule 3627, it found that the "basic intent of the Rule is not to require studies beyond those necessary to demonstrate compliance with the reliability criteria, FERC Order 890, WestConnect and WECC requirements" and intentionally chose not to define the appropriate depth of the analysis of alternatives, which may vary based on the type of project. Decision No. C11-0318 at 14-15 (mailed March 23, 2011) in Proceeding No. 10R-526E. *See* Decision No. R21-0073 at 16.

<sup>145</sup> This interpretive guidance and list of information to be included in future Rule 3627 filings is not intended to be binding as rules but are intended to build upon the ALJ's interpretation of existing language in the referenced rules; describe the types of factors that may be considered in future proceedings without binding the Commission to a particular result; and to aid the Utilities in their preparation of the future Rule 3627 filings consistent with Rule 3627(h). *See Northglenn Dodge*, 972 P.2d at 711-712.

<sup>146</sup> *See* Responsive Comments at 20-21. Although the Utilities state that they provided the information, the Plan and related filings lack specifics as to whether or how the Utilities implement AAR or DLR. This may suggest that the Utilities use static line ratings for every hour of the year, which could result in excessive curtailment of wind generation (increasing costs for ratepayers) when increased line ratings could be enabled by the wind powering the turbines. The potential that neither AAR or DLR are being used suggests yet another topic for a rulemaking or miscellaneous proceeding.

item, while the ALJ acknowledges the Utilities' concern that such reporting may create duplicative oversight of the Utilities' compliance with FERC Order 881, the directive to report such information is to help the Commission determine whether the Utilities' plans comply with Rule 3627, not with FERC Order 881.

59. All the requested reporting informs whether a plan demonstrates that the transmission system is efficiently used on a best-cost basis, considering short- and long-term system needs per Rule 3627(b)(I). For example, as Mr. Miloshevich notes, AAR and DLR may produce cost savings. Understanding the Utilities' current and planned static and dynamic transmission line capacity rating methodologies and operational practices would better enable the Commission to assess whether cost savings could be realized when looking at transmission projects in a plan.

60. For the reasons discussed below, the ALJ declines to adopt Mr. Miloshevich's remaining recommendations. His request that the Commission require a significant statewide study would require the Commission to examine and decide the study's goals, scope, cost, cost allocation and recovery, timeline, and next steps after the study is submitted, among other issues. This is simply not the forum to decide these issues, especially given that the study will come at a cost that someone must cover. Likewise, whether to establish a generic PIM incentivizing ATT would also require a considerably closer examination of the issues, such as how to structure the PIM in rate-neutral manner. This could be accomplished through numerous methods, such as a rulemaking proceeding that establishes minimum standards for such a PIM, followed by adjudicatory proceedings wherein utilities propose to implement a PIM meeting the minimum standards. Such an approach would invite robust stakeholder input into minimum standards for PIMs while also allowing for a rigorous review of specific requests to implement the PIM in a forum that allows

the Commission to consider and evaluate the facts and circumstances specific to each utility. This would also provide necessary public notice of the issues and appropriately tailored due process.

61. Whether to create a new CPCN standard to require utilities to study and consider carbon-core conductors and all other ATTs and NWA's in all future transmission CPCN proceedings is well outside the scope of this Proceeding.<sup>147</sup> This is not a CPCN proceeding where it could be reasonably anticipated that the Commission would interpret and apply CPCN rule standards; nor is this a rulemaking proceeding aimed at evaluating or amending CPCN rule standards.

62. That is not to say that these recommendations are unhelpful or without merit, but only that this Proceeding is not the proper forum to adopt such suggestions. Indeed, as discussed in more detail below, the ALJ recommends that the Commission initiate a rulemaking to amend the transmission planning rules to potentially consider many of Mr. Miloshevich's recommendations.

#### 4. Staff's Comments

63. Staff generally asserts that the Plan and Report lack information on the models used in their development, including failing to identify the model used, any modeling assumptions, and model inputs and outputs.<sup>148</sup> Staff asserts that the Plan and Report does not include information that it requested be included in August 2021.<sup>149</sup> Specifically, Staff asserts that the Utilities failed to: include Staff's referenced August 2021 communication in the Plan; develop "Resource Requirements" that include costs and quality metrics; and provide basic assumptions such as the load and generation mix used to develop the Plan and Report and their respective elements.<sup>150</sup> Staff

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<sup>147</sup> See *Regular Route*, 761 P.2d at 748-49.

<sup>148</sup> Deficiency Letter at 1.

<sup>149</sup> *Id.* at 1-2.

<sup>150</sup> *Id.* at 2.

suggests that the Utilities consider filing confidential or highly confidential information using the processes outlined for the same in the Commission's Rules of Practice and Procedure.<sup>151</sup>

64. Staff also observes that: at least two website links in the Plan fail to provide direct access to the referenced information contrary to Rule 3627(a)(III); there is no explanation of the Utilities' approach (if any) to balance cost, risk, and uncertainty; the Utilities fail to identify the weight given to numerous items contrary to Rule 3627(b)(I); the Plan does not indicate that the Utilities developed demand levels over a range of forecast system demands, contrary to Rule 3627(b)(II); and the Utilities failed to analyze projected system needs for all public policy issues the Plan identifies, contrary to Rule 3627(e)(I).<sup>152</sup>

**a. The Utilities' Response**

65. The Utilities submit that the notice of deficiency process does not apply to this proceeding because the applicable Commission Rule applies this process only in the context of evaluating utility applications for completeness in order to comply with § 40-6-109.5, C.R.S.<sup>153</sup> The Utilities assert that Rule 3627 does not include an equivalent process, nor does it direct Utilities to file their Plan as an application.<sup>154</sup> Nonetheless, the Utilities respond to the items discussed in Staff's Deficiency Letter.

66. Starting with Staff's assertions as to modeling data, the Utilities state that they specifically addressed this topic in Section VIII.A of the Plan and Appendix Q thereto.<sup>155</sup> The Plan includes several pages of narrative explaining how modeling is used to develop the Plan, and

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<sup>151</sup> *Id.*

<sup>152</sup> *Id.*

<sup>153</sup> Deficiency Response at 7-8 (citing Rule 1303(c) of the Commission's Rules of Practice and Procedure, 4 CCR 723-1).

<sup>154</sup> *Id.*

<sup>155</sup> *Id.* at 1.

instructions on how to access all of the relevant WECC base cases and utility-specific network model data used in the Plan's modeling.<sup>156</sup> The Utilities reiterate comments in the Plan that they are unable to provide the models or base-case data, which are Critical Energy Infrastructure Information (CEII) that are subject to non-disclosure agreements with WECC and protected under federal regulations.<sup>157</sup> The Utilities note that despite this, Appendix Q to the Plan includes detailed instructions on how Staff and other stakeholders can execute a WECC nondisclosure agreement to gain access to this data, and that the process for accessing this information is consistent with FERC Order 845.<sup>158</sup> The Utilities agree to provide the data upon confirmation that those seeking it have executed that nondisclosure agreement.

67. As to assumptions about load and generation mix, the Utilities state that Section VIII.C of the Plan discusses load modeling and forecasting, including the load forecast each Utility used and instructions on how to access that information.<sup>159</sup> The Utilities point to specific examples in the Plan, including statements that the Utilities rely on the most recent and accurate load forecasts in developing system planning models and that the load forecast assumptions are posted on each transmission provider's or OASIS website.<sup>160</sup> The Utilities also submit that the Plan includes generation and dispatch assumptions in Section VIII.D, including that generator and associated equipment models are typically included in WECC base cases, and that Appendix Q to the Plan includes instructions for accessing base cases.<sup>161</sup>

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<sup>156</sup> *Id.* (citing Plan at 142-146 and Appendix Q to the Plan).

<sup>157</sup> *Id.*

<sup>158</sup> *Id.*

<sup>159</sup> *Id.* at 3 (citing Plan at 148-150).

<sup>160</sup> *Id.* (citing Plan at 148-150; Appendix P to Plan; and information publicly filed in other proceedings).

<sup>161</sup> *Id.* at 4.

68. As to modeling data for the Report, the Utilities explain that the Report clearly states that transmission planning models are not developed for the 20-year conceptual scenarios in the Report, and as such, there is no modeling data to provide.<sup>162</sup> The Utilities submit that the assumptions associated with each of their conceptual scenarios are included in Appendices A, B, and C to the Report.<sup>163</sup>

69. The Utilities explain that their failure to include Staff's August 2021 email communication was an oversight that was corrected and addressed in Tri-State's February 17, 2022 filing.<sup>164</sup>

70. They also submit that Section VIII.A of the Plan includes Resource Requirements, including costs and quality metrics, and provides lengthy quotes from that section of the Plan as examples.<sup>165</sup> The Utilities note that because the Report looks at 20-year conceptual scenarios, the planning horizon is far removed from the project-management context in which the Resource Requirements apply.<sup>166</sup> As such, the Report does not include a narrative about these concepts. At the same time, the Utilities also state that many of the conceptual scenarios include descriptions similar to the Resource Requirement concepts, such as applicable costs, key uncertainties as to future scenarios, and factors that make a particular scenario more or less likely.<sup>167</sup>

71. As to Staff's observations that links in the Plan are defunct, the Utilities respond that some links did not function due to circumstances outside their control and that this is addressed through the revised Plan.<sup>168</sup>

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<sup>162</sup> *Id.* at 2.

<sup>163</sup> *Id.*

<sup>164</sup> *Id.*

<sup>165</sup> *Id.* at 2-3.

<sup>166</sup> *Id.* at 3.

<sup>167</sup> *Id.*

<sup>168</sup> *Id.* at 4.

72. The Utilities submit that Section VII.A of the Plan addresses how they balanced the costs, risk, and uncertainty and weighed the numerous items Staff identified (*e.g.*, societal and environmental concerns), consistent with Rule 3627(b)(I).<sup>169</sup> The Utilities explain that the Plan addresses these issues both at a high-level for transmission planning and at granular level for specific projects, and provides specific examples.<sup>170</sup> They also state that additional information on how the referenced factors are balanced for specific projects is in the studies and reports provided through hyperlinks in Section VIII.G of the Plan.<sup>171</sup>

73. The Utilities state that Section VIII.A of the Plan addresses how they developed demand levels over a range of forecast system demands, consistent with Rule 3627(b)(II).<sup>172</sup>

74. Finally, the Utilities submit that Rule 3627(e)(I)'s requirement to analyze projected system needs light of reasonably foreseeable public policy issues applies only to the Report, and not the Plan.<sup>173</sup> They assert that the Report meets this requirement by including scenarios driven by reasonably foreseeable public policy developments.<sup>174</sup>

### **b. Analysis, Findings, and Conclusions**

75. The ALJ finds that the Utilities' response to the Deficiency Letter,<sup>175</sup> including revised or additional Plan filings, reasonably addresses the concerns raised in the Deficiency Letter. Staff appears most focused on obtaining specific modeling data, which is understandable. As already discussed, that data can be accessed by following the Utilities' instructions (including

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<sup>169</sup> *Id.* at 5 (citing Plan at 127-131).

<sup>170</sup> *Id.*

<sup>171</sup> *Id.* at 6.

<sup>172</sup> *Id.* at 6-7.

<sup>173</sup> *Id.* at 7.

<sup>174</sup> *Id.*

<sup>175</sup> Given that anyone can submit comments responding to the Utilities' Rule 3627 filings, it is unnecessary to address the Utilities' argument that the notice of deficiency process does not apply here. Indeed, even if the Utilities are correct, Staff's Deficiency Letter plainly comment on the filings.

executing nondisclosure agreements), which no commenter has suggested is burdensome or otherwise an unreasonable or insurmountable barrier. In addition, Staff did not make a filing identifying any shortcomings in the Utilities' response to the Deficiency Letter. For all these reasons, and those the Utilities provide in their Deficiency Response, the ALJ is satisfied that the issues raised in the Deficiency Letter have been reasonably addressed.

**B. Utilities' Response to Commission's Directives to Provide Additional Information**

76. After the Utilities made their Rule 3627 filings, the Commission ordered the Utilities to make a filing by April 7, 2022 providing the following additional information:

The 2032 summer peak load, winter peak load, and reduced load when renewable generation is maximized; the expected generation mix for each load condition; the estimated capital cost to meet these loads; and the expected cost of electricity in 2022 dollars, for each narrative in the ten-year transmission plan; []

The 2042 summer peak load, winter peak load, and reduced load when renewable generation is maximized; the expected generation mix for each load condition; the estimated capital cost to meet these loads; and the expected cost of electricity in 2022 dollars, for each conceptual scenario identified in the 20-year conceptual scenario report and public policy issue identified in II.B. of the 10-year transmission plan, but not included in the 20-year conceptual scenario report []; and]

[A]n explanation of how the loads and generation mix considered in the 10-year transmission plan and 20-year conceptual scenario report are, on an annual basis (2022 through 2042), comport with both the Colorado Greenhouse Gas Pollution Reduction Roadmap and the statutory clean energy targets requiring a reduction in CO<sub>2</sub> emissions associated with retail electric sales by 80 percent from 2005 levels by 2030 and the goal of providing customers with energy from 100 percent clean energy resources by 2050 and thereafter.<sup>176</sup>

77. In response, the Utilities initially observe that the Commission's current transmission planning rules do not contemplate or require all the information that the Commission directed them to provide.<sup>177</sup> They submit that this, combined with the fact that the Commission has

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<sup>176</sup> Decision No. C22-0139-I at 5 (citing <https://energyoffice.colorado.gov/climate-energy/ghg-pollution-reduction-roadmap>; and § 40-2-125.5(3)(a)(I) and (II), C.R.S.).

<sup>177</sup> Response to Decision No. C22-0139-I at 2.

not required such information in prior Rule 3627 proceedings makes it difficult to efficiently comply with the Commission’s transmission planning rules here, and as a general matter.<sup>178</sup> The Utilities suggest that this supports the need to initiate a rulemaking proceeding that can ultimately result in clear guidance for future Rule 3627 filings, rather than adding additional requirements in each biennial proceeding on an *ad hoc* nature.<sup>179</sup> Nonetheless, the Utilities state that they have made a good faith effort to provide the information requested, adding that there are inconsistencies between the information requested and the manner in which transmission planning occurs.<sup>180</sup>

78. The Utilities provide the following information as to 2032 summer peak load, and when renewable generation is maximized:

**Table 1 – 2032 Summer Peak Load<sup>181</sup>**

Utility	Peak Load	Peak Load When Renewable Generation Is Maximized
Black Hills	446.25 MW	443.45 MW
Public Service	7,413 MW	7,317 MW
Tri-State	3,469 MW	No values provided. <sup>182</sup>

79. The Utilities provide the following information as to the 2032 winter peak load and when renewable generation is maximized:

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<sup>178</sup> *Id.* at 2-3.

<sup>179</sup> *Id.*

<sup>180</sup> *Id.* at 3.

<sup>181</sup> *Id.* at 4.

<sup>182</sup> Tri-State states that its 2020 ERP in Proceeding No. 20A-0528E “includes its relevant load forecasts.” *Id.* It also refers to page 206 of Attachment BN-2 to the Direct Testimony of Brad Nebergall but does not provide any specific values (or an exhibit number for the cited testimony). *Id.* at 5.

**Table 2 – 2032 Winter Load<sup>183</sup>**

Utility	Peak Load	Peak Load When Renewable Generation Is Maximized
Black Hills	357.54 MW	354.64 MW
Public Service	5,438 MW	No impact <sup>184</sup>
Tri-State	2,791 MW	No values provided <sup>185</sup>

80. As to the estimated capital cost to meet the above 2032 loads, Public Service provides a table identifying the estimated costs per project.<sup>186</sup> Tri-State refers to filings in its 2020 ERP but provides no values.<sup>187</sup> Black Hills refers to Appendix D to the Plan, which includes a timeline and estimated costs in millions for projects.<sup>188</sup>

81. As to the expected generation mix for the above 2032 data, Black Hills explains that the starting point to develop its 10-year transmission projects comes from its last-approved ERP (Proceeding No. 16A-0436E).<sup>189</sup> Based on that, Black Hills expects that for 2032, the generation mix will include primarily natural gas resource mix, supported by substantial

<sup>183</sup> *Id.* at 4-5.

<sup>184</sup> Public Service notes that its winter peak load occurs during the overnight hours, which is why “behind-the-meter” renewable energy resources have no impact on winter peak load. *Id.* at 4.

<sup>185</sup> Though it is unclear, it is possible that Tri-State references a pleading in its 2020 ERP proceeding for this information, stating “See Table 8 on page 172 of Attachment BN-2 to the Direct Testimony of Brad Nebergall” but again does not provide specific values or an exhibit number for the cited testimony. *Id.* at 5.

<sup>186</sup> *Id.* at 6 (citing Table 2 in Attachment A to Joint Response to Decision No. C22-0139-I).

<sup>187</sup> *Id.* (citing Attachment LKT-3 to the Second Supplement Direct Testimony of Lisa K. Tiffin, without an exhibit number).

<sup>188</sup> *Id.* (citing page 2 of Appendix D to the Plan).

<sup>189</sup> *Id.*

contributions of wind generation.<sup>190</sup> Black Hills will update its generation mix assumptions in its next ERP, which will include its Clean Energy Plan (CEP) proposals to meet Colorado’s clean energy goals, and states that its successive Rule 3627 filings will build upon the next approved CEP generation mix forecast.<sup>191</sup> Public Service states that its expected generation mix is approximately 6 percent coal, 60 percent natural gas, 11 percent wind, 10 percent utility-scale solar, 9 percent storage and 5 percent “other.”<sup>192</sup> Public Service also submits that this information is not necessarily relevant to transmission planning projects.<sup>193</sup> And, Tri-State again does not provide any direct information on its generation mix, instead referring to filings in its 2020 ERP (Proceeding No. 20A-0528E).<sup>194</sup>

82. As to expected cost of electricity in 2022 dollars, Black Hills states that it uses forecasts published by the U.S. Department of Energy, Energy Information Administration (EIA) for the Mountain Region, which projects that electricity will cost \$98.90 per MWh for the year 2032, and \$100.39 per MWh for the year 2042.<sup>195</sup> Public Service states that the expected cost of electricity in 2032 is \$132.50 per MWh in 2022 dollars.<sup>196</sup> Tri-State responds that “[t]his information was included in [its] 2020 ERP, in which Tri-State forecasted a cost of \$1,678 million for 2032 in nominal dollars.”<sup>197</sup>

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<sup>190</sup> *Id.*

<sup>191</sup> *Id.*

<sup>192</sup> *Id.*

<sup>193</sup> *Id.*

<sup>194</sup> *Id.* (referring to projected generation mix in “the Second Supplement to its 2020 ERP in Proceeding No. 20A-0528E,” and “[f]or generation mix, please see Table 77 at page 87 and Figure 11 at page 89 of Attachment LKT-3 to the Second Supplemental Direct Testimony of Lisa K. Tiffin.”).

<sup>195</sup> *Id.* at 6.

<sup>196</sup> *Id.*

<sup>197</sup> *Id.* Tri-State also refers to “Table 85 on page 95 of Attachment LKT-3 to the Second Supplemental Direct Testimony of Lisa K. Tiffin.” *Id.*

83. As to the expected cost of electricity in 2022 dollars for each conceptual scenario in the 20-year Report and each public policy issue identified in Section II.B of the Plan, Black Hills states that the Report's scenarios and public policy issues are qualitative only and not specific as to any season, load levels or generation dispatch assumptions.<sup>198</sup> Tri-State explains that transmission planning models are not developed to represent 20-year conceptual scenarios, and that it did not forecast loads, capital costs, or expected cost of electricity for 2042 for this Proceeding or its 2020 ERP.<sup>199</sup> Public Service anticipates that the cost of electricity in 2042 will be \$150.48 per MWh in 2022 dollars, though it is unclear whether this is the expected cost of electricity for each conceptual scenario and public policy issue in the Report.<sup>200</sup>

84. The Utilities do not provide estimated capital costs to meet the 2042 forecasted loads. They explain that because their 20-year scenarios are conceptual only, they do not develop estimated costs associated with such conceptual projects.<sup>201</sup> As to 2042 peak load data, Black Hills notes that 20-year conceptual transmission plans are qualitative (not quantitative).<sup>202</sup> Tri-State makes similar comments.<sup>203</sup>

85. With these caveats, the Utilities provide the following information as to the 2042 summer peak load and when renewable generation is maximized:

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<sup>198</sup> *Id.* at 9.

<sup>199</sup> *Id.* (citing *Id.* at 7).

<sup>200</sup> *Id.*

<sup>201</sup> *Id.* at 8-9.

<sup>202</sup> *Id.* at 7.

<sup>203</sup> *Id.*

**Table 3 – 2042 Summer Load<sup>204</sup>**

<b>Utility</b>	<b>Peak Load</b>	<b>Peak Load When Renewable Generation Is Maximized</b>
Black Hills	466.84 MW	463.94 MW
Public Service	8,285 MW	6,027 MW
Tri-State	3,768 MW <sup>205</sup>	No values provided. <sup>206</sup>

86. The Utilities provide the following information as to the 2042 winter peak load and when renewable generation is maximized:

**Table 4 – 2042 Winter Load<sup>207</sup>**

<b>Utility</b>	<b>Peak Load</b>	<b>Peak Load When Renewable Generation Is Maximized</b>
Black Hills	373.81 MW	370.91 MW
Public Service	6, 083 MW	No impact <sup>208</sup>
Tri-State	3,164 MW <sup>209</sup>	No values provided.

87. As to the expected generation mix for the above 2042 data, Black Hills anticipates 1 percent gas, 0 percent diesel, 52 percent wind, 37 percent solar, and 10 percent market

<sup>204</sup> *Id.*

<sup>205</sup> This value is just for Tri-State’s Western Interconnection Members. *Id.*

<sup>206</sup> Tri -State adds that forecasts through 2040 in its 2020 ERP may be used as a reasonable proxy to escalate to 2042 yet provides no more information on that. *Id.*

<sup>207</sup> *Id.* at 7-8.

<sup>208</sup> Public Service notes that winter peak load occurs overnight, which is why “behind-the-meter” renewable energy resources have no impact on winter peak load. *Id.*

<sup>209</sup> This value is just for Tri-State’s Western Interconnection Members. *Id.* at 8.

purchases.<sup>210</sup> Public Service anticipates the 2042 summer peak generation mix of 0 percent coal, 65 percent natural gas, 12 percent wind, 6 percent utility-scale solar, 12 percent storage, and 6 percent “other.”<sup>211</sup> Tri-State provides no information on expected generation mix for 2042.<sup>212</sup>

88. The Utilities raise concerns with the Commission’s request for an explanation of how the loads and generation mix considered in the Plan and the Report comport with the Colorado Greenhouse Gas Pollution Reduction Roadmap (Roadmap), statutory clean energy targets, and the goal to provide customers energy from 100 percent clean energy resources by 2050 (for each year from 2022 to 2042).<sup>213</sup> First, they submit that the request pertains to the Utilities’ respective ERPs, and their ERPs’ compliance with the referenced requirements, not the Utilities’ Rule 3627 Plan or Report.<sup>214</sup> They use the inputs that come from their respective ERP proceedings for transmission planning. For these reasons, they assert that the request is beyond the scope of this Proceeding and is more properly considered in their respective ERP proceedings.<sup>215</sup>

89. Nonetheless, Public Service explains that it has a pending ERP and CEP proceeding in which it submitted detailed testimony speaking to its load and resource planning assumptions and projections, including how they meet the Roadmap and state statutory clean energy targets.<sup>216</sup> The Utilities also refer to the work they did with the CCPG 80x30 Task Force, which performed a detailed transmission study and analysis; their participation in the CCPG REPTF, which performed a detailed transmission study and analysis; and the fact that the CCPG continues to actively study

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<sup>210</sup> *Id.*

<sup>211</sup> *Id.*

<sup>212</sup> *Id.*

<sup>213</sup> *Id.* at 9-10.

<sup>214</sup> *Id.* at 9.

<sup>215</sup> *Id.*

<sup>216</sup> *Id.* at 10 (referring to Proceeding No. 21A-041E, and numerous testimonial exhibits filed in that proceeding (though not by exhibit number)).

transmission solutions that support the Roadmap and statutory clean energy targets.<sup>217</sup> Public Service adds that transmission projects are identified through the CCPG and its own transmission planning process, but that it incorporates such projects in its Rule 3627 filing.<sup>218</sup> Put differently, the Rule 3627 process does not drive Public Service's transmission planning, but includes the results of its own transmission planning and that of the CCPG.

90. The Utilities emphasize that their 20-year conceptual scenarios are just that – conceptual – and are not developed through detailed modeling. As a result, they are not intended to and do not result in annual transmission conceptual scenarios that track the clean energy targets or the Roadmap. But the conceptual scenarios do consider these issues given that greenhouse gas and carbon dioxide emission reductions are key public policy drivers (which are discussed throughout the Report).

91. Also, the Utilities each provide Attachments to their Response to Decision No. C22-0139-I with additional information.<sup>219</sup> Tri-State's Attachment provides a summary of project-specific information for the projects in the Plan, which includes status updates, a link to any studies or reports that are completed, planned in-service dates, load study cases, and estimated costs.<sup>220</sup> Tri-State also notes that cost estimates for the conceptual scenarios are not provided because they do not have a projected in-service date or established resource or reliability need, but when the need for the projects becomes clearer, it will complete the needed studies, identify in-service dates, relevant assumptions and cost estimates.<sup>221</sup>

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<sup>217</sup> *Id.* at 11.

<sup>218</sup> *Id.*

<sup>219</sup> Attachments A (Public Service), B (Tri-State), and C (Black Hills) to Decision no. C22-0139-I.

<sup>220</sup> Attachment B to Response to Decision No. C22-0139-I at 1-3.

<sup>221</sup> *Id.* at 1.

92. Black Hills provides similar information that Tri-State provides in its Attachment, except that it does not include links for completed studies.<sup>222</sup> Black Hills adds that the need for reliability-driven projects is validated annually by studies required under NERC Standard TPL-001.<sup>223</sup>

93. In its Attachment, Public Service clarifies that reduced load when renewable generation is maximized is not generally considered in its transmission planning projects.<sup>224</sup> Public Service also provides tables identifying its 2032 and 2042 forecasted ERP system data, and another table providing additional information on the projects in its Plan (including specific estimated capital costs, whether and when a study was completed, and other relevant information).<sup>225</sup> Public Service reiterates that its conceptual scenarios are speculative, and qualitative in nature, and therefore, it does not have the detail necessary to model the complete impact that each scenario may have.<sup>226</sup> It further notes that given the speculative nature of the scenarios, it does not believe that further detailed analysis will provide significantly more value given that the basis for the scenarios are inherently highly uncertain.<sup>227</sup> Public Service submits that the Report is intended to provide a directional indication of potential futures, and the general need for transmission expansion in its footprint, not to identify specific outcomes or projects.<sup>228</sup> Public Service states that evaluating numerous future scenarios helps it and stakeholders identify common takeaways or

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<sup>222</sup> *Id.* at 1-2.

<sup>223</sup> *Id.* at 1.

<sup>224</sup> Attachment A to Response to Decision No. C22-0139-I at 3.

<sup>225</sup> *Id.* at 4-10.

<sup>226</sup> *Id.* at 10-11.

<sup>227</sup> *Id.* at 11.

<sup>228</sup> *Id.*

insights that may inform ongoing transmission planning efforts, but is not meant to be projections or predictions.<sup>229</sup>

94. Public Service also provides additional information on its conceptual scenarios.<sup>230</sup> Public Service explains that the foundational principles for how its Rule 3627 transmission plans are developed illustrate that some of the Commission's requests may not accurately align with the practicalities of Public Service's transmission planning process, and the overall objectives and variables associated with transmission planning generally.<sup>231</sup>

### 1. Analysis, Findings, and Conclusions

95. For all the reasons the Utilities provide (discussed above), the ALJ agrees that the Public Service and Black Hills made a good faith effort to provide the information the Commission requested.<sup>232</sup> The same cannot be said about Tri-State's efforts. Tri-State's repeated references to filings in other proceedings is unhelpful and not responsive. Those filings are not included in the record in this Proceeding.<sup>233</sup> It is not the ALJ's or the Commission's responsibility to dig through numerous filings in other proceedings to glean Tri-State's response to the Commission's straight-forward requests for information.

96. The Commission's request for this additional information and the Utilities' responses provides additional support for the Commission to consider initiating a transmission planning rulemaking so that it can formally consider these issues and amend its rules to provide clear directives on these issues for future proceedings.

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<sup>229</sup> *Id.*

<sup>230</sup> *Id.* at 11-13.

<sup>231</sup> *Id.* at 1.

<sup>232</sup> It is unclear whether the Utilities' reported values considered how the statutory and policy changes associated with beneficial electrification are projected to impact growth assumptions.

<sup>233</sup> Whether intentional or not, Tri-State's failure to identify the testimonial filings and attachments by exhibit number or file date makes it more difficult to identify and locate the correct filing in the referenced proceeding.

## C. Additional Analysis, Findings, and Conclusions as to Adequacy of Plan and Report

### 1. The Plan

97. For the reasons discussed below and elsewhere in this Decision, the ALJ finds that for the most part, the Utilities' Plan complies with the Rule 3627's requirements.<sup>234</sup> The Plan and the attachments thereto include background information on transmission planning in Colorado, relevant statutes, and public policy developments.<sup>235</sup> The Plan shows that the Utilities considered numerous factors that could impact load forecasts and future transmission needs. For example, in developing the Plan, the Utilities considered numerous pieces of legislation impacting the Commission, transmission planning, the future of energy in Colorado, including impacts to load growth (*e.g.*, SB19-236, HB19-1261, HB21-1266, HB18-1270, SB21-272, SB19-077, HB21-1238, SB21-246, SB21-264, SB21-260, SB21-261, HB20-1155, SB20-124, SB 18-009, and SB 21, 072).<sup>236</sup> Similarly, the Utilities considered emerging issues such as participating in organized markets (*e.g.*, energy imbalance markets, RTOs, or power pools); the impact of extreme weather events; community choice aggregation and non-regulated wholesale power suppliers; and DC fast chargers.<sup>237</sup> Each of the Utilities' narratives consider projected system needs, factors that drive transmission development, and discuss various projects on the 10-year horizon.<sup>238</sup> In total, the Plan identifies 85 transmission projects with maps showing the projects' geographic locations.<sup>239</sup>

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<sup>234</sup> As implied by this Decision, the ALJ determined that a workshop or hearing would not be helpful to evaluate the Utilities' Plan, Report, and other filings; as such, the ALJ did not schedule one.

<sup>235</sup> Plan at 12-44.

<sup>236</sup> *Id.* at 16-34.

<sup>237</sup> *Id.* at 34-40.

<sup>238</sup> *Id.* at 46-86.

<sup>239</sup> *Id.* at 3-11.

98. The Plan also meets the goals of Rule 3627 to avoid projects that duplicate facilities and negatively impact other providers' systems in the near- and long-term.<sup>240</sup> But the record makes it difficult to conclude that the Plan demonstrates project coordination among providers given there are no joint projects in the Plan, and the fact that Public Service and Tri-State did not develop a joint transmission project to address their individual decarbonization needs, thereby resulting in multiple CPCNs and two CCPG task forces (the 80x30 Task Force and the REPTF).

99. Except as otherwise noted, the Plan and related filings: (a) explains how each Utility meets the majority of Rule 3627(b)'s compliance requirements;<sup>241</sup> (b) contains the documentation required by Rules 3627(c)(I) through 3627(c)(VII);<sup>242</sup> (c) in response to Rule 3627(d), explains that none of the Utilities completed economic studies pursuant to FERC Order 890 since the last biennial filing;<sup>243</sup> and (d) contains a summary of each Utility's outreach efforts as required by Rules 3627(c)(VIII) and 3627(g)(I), including the Utilities' work with the CCPG 80x30 Task Force, the CCPG REPTF, and the CCPG Energy Storage and NWAs Working Group.<sup>244</sup>

100. The Plan also contains descriptions of Black Hills' and Public Service's compliance with Senate Bill 07-100 and Rule 3627(c)(IX) to construct transmission to service designated energy resource zones in eastern Colorado and the San Luis Valley.<sup>245</sup>

101. Notwithstanding the Plan's shortcomings discussed elsewhere, it partially complies with Rule 3627 and demonstrates that the existing and planned transmission facilities in the state are satisfactory and sufficient<sup>246</sup> to meet the present and future energy needs in a reliable manner

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<sup>240</sup> Rule 3627(a)(I), 4 CCR 723-3; *see* Plan at 87-89; Appendices G through I to Plan.

<sup>241</sup> Plan at 127-142.

<sup>242</sup> *Id.* at 142-159.

<sup>243</sup> *Id.* at 159-160.

<sup>244</sup> *Id.* at 103-126 and Appendices J, K, L, & M to Plan.

<sup>245</sup> Plan at 90-102.

<sup>246</sup> Decision No. C17-1079 at 31 (quoting Decision No. R14-0845 at 4).

consistent with the Commission's review of the Utilities' 2016, 2018, and 2020 Plans.<sup>247</sup> As discussed elsewhere, the Plan misses the mark in some regards, and for that reason, it may not be relied upon to support a CPCN application for a project in the Plan or Appendices thereto.

## 2. The Report

102. The Report provides an overview of the conceptual scenarios discussed therein; a narrative describing each Utility's perspective on conceptual scenario analyses; and each Utility's conceptual scenarios, per Rule 3627(e), looking at projected system needs for various credible alternatives, including reasonably foreseeable future public policy initiatives, possible retirement of existing generation, emerging generation, transmission and demand limiting technologies, and various load growth projections.<sup>248</sup> Black Hills evaluated three scenarios; Tri-State evaluated four scenarios; and Public Service evaluated four scenarios. In addition, the Report also includes a scenario that the (CCPG) evaluated through its Conceptual Planning Work Group, which was open to all interested stakeholders.<sup>249</sup> For all these reasons and based on the Reports and Appendices thereto, the ALJ finds that the Report meets the requirements of Rule 3627(e).<sup>250</sup>

## IV. ONGOING NEED TO INITIATE A RULEMAKING PROCEEDING

103. This Proceeding demonstrates that the Commission should seriously consider initiating a rulemaking proceeding to modernize and update the Commission's transmission

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<sup>247</sup> See Decision No. C17-1079, R17-0580 (2016 Plan); Decision Nos. R18-1139 (mailed December 14, 2018) (hereinafter Decision No. R18-1139) and C19-0236 (adopting without modification Decision No. R18-1139) (mailed March 12, 2021) (hereinafter Decision No. C19-0236) in Proceeding No. 18M-0080E (2018 Plan); and Decision No. R21-0073 (2020 Plan).

<sup>248</sup> Report at 2-4 (Black Hills); at 5-7 (Tri-State) at 8-14 (Public Service); Appendices A (Black Hills), B (Tri-State); and C (Public Service) to the Report. These Appendices were not filed as separate documents associated with the Report, and instead are included within the Report, starting at page 17.

<sup>249</sup> Report at 14-16; Appendix D to Report.

<sup>250</sup> The ALJ has already addressed and rejected specific arguments that the Report is deficient and does not repeat that here. See *supra*, ¶ 35.

planning rules. The undersigned is not the first to recommend that the Commission open a rulemaking proceeding to explore changes to the Commission's transmission planning rules. Indeed, this has been recommended in at least two recent Rule 3627 proceedings.<sup>251</sup> Developments in transmission planning, investment, and technologies indicate that the standards, objectives, and essential needs of transmission planning in Colorado have evolved beyond the goals that the existing transmission planning rules sought to achieve.<sup>252</sup> Numerous drivers have emerged that are rapidly contributing to the changing demands on the transmission system, including: legislation relating to decarbonization; low and declining costs for renewable energy resources; the flurry of recent utility decisions to retire coal-fired power plants; and the advent of NWA and ATTs that may offer lower-cost alternatives to conventional transmission solutions in some applications. These drivers add to and amplify the need to open a rulemaking proceeding.

104. As may be evident throughout this Decision's discussion, there are numerous topics that could be addressed through a rulemaking proceeding. For example, while the rules do not currently require reporting on maintenance-driven asset renewal or replacement projects, such reporting may have numerous potential benefits. It could better position the Commission and utilities to identify projects on existing assets that could present transmission planning alternatives that may address numerous needs at the same time,<sup>253</sup> thereby creating ratepayer cost-savings while also ensuring that utilities contemplating major transmission line rebuilds have evaluated bigger picture transmission planning implications. Such reporting could also ensure that the Commission

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<sup>251</sup> Decision No. R17-0580 at 159-165; and Decision No. R21-0073 at 21-23. *See also*, Decision No. C19-0236 at 5-6 (noting that the Commission will consider the rulemaking suggestions in Decision No. R17-0580 in a future rulemaking proceeding).

<sup>252</sup> *See* Decision No. R11-0077 at 3 (mailed January 21, 2011) in Proceeding No. 10R-526E (noting the goals of the transmission planning rules adopted by that Decision).

<sup>253</sup> For example, when the need arises to replace a line that is at or beyond its expected lifetime for safety or reliability purposes, the recommended reporting may help illuminate whether to replace the line with one that has a higher line capacity to serve anticipated load growth or to provide needed capacity for new generator interconnection.

and the utilities' own transmission planning functions are fully informed of all potential replacement projects. Amended rules could require utilities to include in their Rule 3627 filings a narrative describing for each utility's planned rebuilds for lines operated or to be operated at and above 100 kV: how the utility evaluated each such project as a part of its overall transmission planning; and either how the project serves an existing or anticipated transmission need beyond conventional system maintenance, or why the project is not a candidate to do so.

105. In declining to accept Mr. Miloshevich's request for a statewide system assessment in the Pathway Project CPCN, the Commission noted that it will be evaluating the Utilities' efforts to consider ATT in this Proceeding, including "whether new rules may be needed to spur more application of ATT. Such a rulemaking could examine whether independent analysis of ATT opportunities for the existing transmission system is warranted."<sup>254</sup> The Commission also reiterated its ongoing interest in the cost-effective application of ATT, finding "that it is a fundamental responsibility of all jurisdictional utilities in the state to stay abreast of technology developments (in transmission and all other areas of utility operations), and to identify and deploy new technologies wherever they provide ratepayer benefit."<sup>255</sup> As discussed, although the record demonstrates that the Utilities considered some ATTs, the record does not establish any individual or joint rigorous utility procedures to identify, analyze and implement ATT as part of Utilities' transmission planning process. Instead, the record in this Proceeding strongly supports the conclusion that if the Commission wishes to encourage rigorous identification, analysis, and adoption of cost-effective ATT and NWA applications, it will need to adopt new rules that explicitly require it.

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<sup>254</sup> Decision C22-0270, ¶ 130.

<sup>255</sup> *Id.* at ¶ 129.

106. The Commission's directives in Decision No. C22-0139-I for the Utilities to provide specific information and the Utilities' response thereto also weigh in favor of initiating a rulemaking proceeding.<sup>256</sup> In a rulemaking proceeding, the Commission could consider amending the rules to require reporting on similar information it requested in this Proceeding, while also fine-tuning such reporting to apply lessons learned from responses to those requests here. For example, the Commission could clarify that reporting on forecasted peak loads and anticipated generation mix include an explanation as to how the utilities reached their conclusions (including how they account for the anticipated impact of electrification).

107. As already mentioned, a rulemaking proceeding could be an appropriate forum to consider whether a generic PIM incentivizing ATT should be established. This could build upon other rule amendments encouraging rigorous identification and adoption of cost-effective ATT and NWA applications.

108. The Commission could also consider whether CPCN standards for transmission projects should be amended to require utilities to evaluate specific alternatives to a project, such as ATT, NWAs, or other unconventional alternatives. Likewise, the Commission could evaluate whether to modify the transmission planning rules to require a more robust analysis of project alternatives at the transmission planning stage, with defined standards as to minimum expectations for such analysis. Put differently, the Commission could consider whether a more fulsome alternatives' evaluation should occur well before the CPCN stage, such as during the transmission planning stage.

109. Comments indicate a fundamental disagreement as to whether the choice of conductor is an engineering consideration outside the scope of transmission planning, or if it is an

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<sup>256</sup> Decision No. C22-0139-I; Response to Decision No. C22-0139-I. *See supra* ¶¶ 76-94.

integral part of transmission planning that should be directly addressed and included in Rule 3627 filings. Given the diverse physical and cost attributes that different conductor types possess, it is difficult for the ALJ to understand how conductor type can be completely divorced from the transmission planning process. This is particularly the case given that the Utilities appear to agree that, at least in some circumstances, rebuilds of existing transmission facilities are fair targets for transmission planning. Regardless, this disagreement puts a spotlight on the types of issues that the existing rules do not address. In a rulemaking proceeding, the Commission can robustly explore this issue, and provide definitive direction in resulting rules.

110. For all these reasons and those discussed throughout this Decision, the ALJ recommends that the Commission initiate a rulemaking proceeding to amend its transmission planning rules.

111. In accordance with § 40-6-109, C.R.S., the ALJ recommends that the Commission enter the following order and transmits the record in this proceeding along with this written recommended decision to the Commission.

## **V. ORDER**

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

1. Consistent with the above discussion, the 10-Year Transmission Plan (Plan) jointly filed on February 22, 2022 by Black Hills Colorado Electric, Inc.; Public Service Company of Colorado; and Tri-State Generation and Transmission Association, Inc. (the Utilities) partially complies with Rule 3627, 4 *Code of Colorado Regulations* (CCR) 723-3 and sufficiently demonstrates the adequacy of the existing and planned transmission facilities in this state to meet the present and future energy needs in a reliable manner. The Utilities may not rely on the Plan to

support an application for a Certificate of Public Convenience and Necessity for projects identified in the Plan.

2. The 20-Year Conceptual Scenario Report filed by the Utilities on February 1, 2022 complies with Rule 3627(e), 4 CCR 723-3, consistent with the above discussion.

3. The Utilities must comply with the guidance and directives in this Decision by providing the referenced information in future Rule 3627 filings.

4. Proceeding No. 22M-0016E is closed.

5. This Recommended Decision shall be effective the day it becomes the Decision of the Commission, if that is the case, and is entered as of the Mailed Date above.

6. 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 authorized extended period of time, or unless the decision is stayed by the Commission upon its own motion, this 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, this proceeding is bound by the facts set out by the Administrative Law Judge.

7. 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

MELODY MIRBABA

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Administrative Law Judge

ATTEST: A TRUE COPY

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

Doug Dean,  
Director