

March 1, 2024

Maury Galbraith, Executive Director
Roger Freeman, Transmission Planning Committee Member
Tom Figel, Transmission Planning Committee Member
Kathleen Staks, Board Chair
Colorado Electric Transmission Authority
165 S. Union Boulevard, Suite 785
Lakewood, Colorado 80228

RE: Comments on CETA's Transmission Expansion Study

Dear Executive Director Galbraith and CETA Board Members:

Grid United LLC (Grid United) appreciates the opportunity to comment on the Colorado Electric Transmission Authority's (CETA) Transmission Expansion Study for Colorado. We are grateful for the Authorities' work to advance thinking on this topic, and we respectfully submit the following comments for consideration. We would welcome the opportunity to further discuss this with staff, should this be helpful to CETA.

Comments on Transmission Expansion Study for Colorado:

The stated goal of the Transmission Expansion Study is to *adopt a long-run, holistic approach to identifying Colorado's need for expanded transmission capacity*. We support this stated goal and respectfully suggest the prioritization of scenario-based planning with an emphasis on building scenarios designed to stress the system to identify needs that are unlikely to be identified (and therefore rectified) in traditional transmission planning. With that context, we respectfully offer the following comments on CETA's Transmission Expansion Study:

1. As stated above, how the scenarios are defined will have outsized impact on the findings of the study and will be critical in identifying unmet transmission needs. Therefore, we respectfully suggest that the scenarios should show substantial deviation from the reference case to properly show the range of transmission needs and specifically should be focused on stressing the system to identify needs that would otherwise go unaddressed. Particularly, two scenarios that will show unique transmission needs are and Extreme Weather Resiliency Scenario and an SPP RTO Integration Scenario.
 - a. **Extreme Weather Resiliency Scenario.** Over recent years, the grid has experienced more frequent extreme weather conditions. An extreme weather scenario would help identify the needs that will give the system the ability to absorb, adapt to, and recover from high impact-low frequency events such as a polar vortex or heat dome event. This scenario would help determine impacts to the transmission system during extreme weather from both the demand side and the generation side, taking into account load growth and the changing generation mix

by accounting for the increased heating electrification/AC load and the associated changes in the timing of peak demand. The scenario would also need to consider correlated outages that may occur in extreme weather conditions, particularly for in-state resources that would likely be experiencing the same extreme weather event. SPP's recent Resiliency Scope they have added to their 2025 Integrated Transmission Plan (ITP) process is an example of a transmission planning entity studying extreme weather scenarios to assess system resiliency and identify transmission needs from a resiliency perspective. SPP's Resiliency Scope includes building an extreme summer weather model to consider the effects of prolonged high temperatures, drought, low wind, generation maintenance outages, etc. The extreme winter weather model considers the effects of extreme cold and duration on load levels, wind, precipitation, ice dams, and capacity reductions, temperature related outages, fuel availability, generation maintenance outages, etc. Contingency analysis is then performed on the models to identify resiliency needs.

- b. **SPP RTO Integration/Western Markets Scenario.** This scenario would provide an assessment of the future when Colorado is integrated into an RTO such as SPP and/or a participant in a western market. Basin Electric Power Cooperative, Colorado Springs Utilities, Deseret Power Electric Cooperative, Municipal Energy Agency of Nebraska, Platte River Power Authority, Tri-State Generation and Transmission Association, and Western Area Power Administration have announced plans to join SPP RTO West with other utilities in Colorado actively considering joining. Therefore, we believe that it would be prudent to assess how integration and co-optimization of the Colorado system with SPP drives previously unidentified transmission needs. We believe that there are multiple ways to better model these dynamics that will materially impact the results of the study, including lowering cost of imports from SPP and creating aggregated development zones in the SPP region to allow the LTCE model to select those regions for buildout. We believe that this would produce a more economically optimal solution for the State of Colorado and would highlight a variety of east-to-west transmission needs not otherwise identified.
2. While this study is focused on Colorado, imports and exports must be appropriately considered to accurately reflect a future in which Colorado is part of a western market or an RTO, and an economically optimal future. With the changing generation mix driven by world class renewable resources in Eastern Colorado, the eastern part of the state will be in a constant flux between over-supply and under-supply. By diversifying the underlying generation profiles, import capability and the associated interregional transmission will be critical to properly integrate clean energy into the grid reliably and effectively, and will be crucial for providing resiliency during extreme weather events. Conversely, exports will reduce curtailment of in-state resources and allow CO to monetize their resources in times of abundance, smoothing out the profile of renewable generation and maximizing tax credit benefits to minimize cost to consumers. Finally, it will be difficult for CO to meet clean energy goals entirely via in-state resources while maintaining affordability and reliability. Therefore, we do not believe that limiting imports or exports will lead to an optimal

solution nor address the transmission needs that will arise from properly accounting for potential imports/exports.

3. We respectfully suggest that the busbar mapping exercise should attempt to account for additional constraints in urban areas, to attempt to achieve as realistic of mapping as possible. Without realistic busbar mapping, over selection of undevelopable sites will lead to missed transmission needs. This includes accounting for:
 - a. Zoning and permitting
 - b. Noise
 - c. Residential setbacks
 - d. Fire codes and standards
 - e. Building codes and standards

Grid United appreciates the opportunity to provide comments on the Transmission Expansion Study and looks forward to continuing to engage with CETA on these important issues for the State.

Sincerely,

Michael Skelly

Chief Executive Officer
Grid United

Attachment: Grid United and its Projects in Colorado

Grid United is a privately owned transmission development company seeking to unite the North American grid by building long-distance, interregional transmission lines which improve grid reliability and resiliency, offer consumers access to low-cost electricity and support society in reaching its energy policy objectives.

Grid United's development approach seeks to foster long-term relationships with landowners, local stakeholders, and communities. These partnerships are a commitment to understand the unique characteristics of each community and property. Grid United believes that developing and maintaining landowner and community relationships enables the most efficient pursuit of projects and ensures we develop projects that create jobs, encourage local and regional economic development and provide positive long-term impacts on the communities in which they are developed. This approach is core to Grid United's mission.

Grid United is currently working to develop multiple projects in Colorado, with a particular focus on high-voltage direct current (HVDC) lines. The most advanced development Grid United is undertaking in Colorado is Three Corners Connector, an approximately 300-mile, 525 kV HVDC transmission line connecting existing electric systems near Pueblo and Guymon, Oklahoma. The project will provide an important new bulk power transfer link between the Western and Eastern Interconnections, helping alleviate congestion, increase reliability, mitigate the impacts of extreme weather events and lower costs to consumers. Three Corners Connector represents an approximately \$1.5 billion investment in Colorado and Oklahoma.

Significant siting and development work has already been completed for Three Corners Connector. Over 400 stakeholders have been actively engaged, including approximately 300 landowners as well as local and state governmental officials and local business and community leaders. Over the course of the last 20 months, Grid United secured 97% of the necessary survey permissions and 80% of site control agreements, all through close collaboration with landowners and communities. The team continues to develop the project route with the stakeholder-first approach, most recently conducting an analysis of over 300 route segments to seek feedback from environmental stakeholders on land use and species impacts. Grid United anticipates that the Three Corners Connector could be operational as early as 2031.