UNITED STATES OF AMERICA
BEFORE THE
FEDERAL ENERGY REGULATORY COMMISSION

Establishing Interregional Transfer Capability	)	AD23-3-000
Transmission Planning and Cost Allocation Requirements	)	

COMMENTS OF THE AMERICAN COUNCIL ON RENEWABLE ENERGY

The American Council on Renewable Energy ("ACORE"), a national nonprofit organization dedicated to advancing the critical importance of renewable energy and to advocating for the market structures, policies and financial innovations designed to advance renewable energy deployment, hereby submits these comments in response to the Federal Energy Regulatory Commission's ("FERC" or "Commission") *Notice Requesting Post-Workshop Comment*, issued on February 28, 2023.

I. Introduction

ACORE greatly appreciates the exploration of this critical topic through the Commission's staff-led workshop and the opportunity to comment. As noted in ACORE's comments on the *Notice of Proposed Rulemaking on Building for the Future Through Electric Regional Transmission Planning and Cost Allocation and Generator Interconnection* ("Transmission Planning NOPR"), "there is a significant body of evidence of the massive benefits and need for greater interregional transmission, especially with the increasing frequency of extreme weather events."[1] For example, a 2022 study by Telos Energy modeled the addition of a 2-gigawatt HVDC line between ERCOT North and Southern Company in a scenario where systems were unreliable due to generation retirements, resulting in making the two unreliable

[1] ACORE Transmission Planning NOPR Comments at 19.

systems reliable without adding new generation capacity.[2] A recent analysis by Grid Strategies, LLC found that an additional gigawatt (GW) of interregional transmission capacity between a number of regions would have saved nearly $100 million during Winter Storm Elliott in December 2022.[3]

A. Interregional Transmission Provides an Essential Insurance Policy

As many commenters pointed out during the workshop,[4] the greatest value for interregional transmission is as an "insurance policy" that bolsters power flows between geographically distant areas at times of high demand and resource shortfalls, such as during extreme weather. Such an insurance policy is not only needed during the increasingly frequent extreme weather events, however. Lawrence Berkeley National Laboratory (LBNL) found that in the median case, only about 10 percent of high value hours are newsworthy "named" weather events, and a significant amount of value is attributable to other events, such as unexpected infrastructure outages or high net load demand.[5]

With the continued increasing electrification of buildings and transportation, the damages from power loss, especially during longer periods of time will have more serious implications going forward. As Liza Reed stated in her testimony on behalf of the Niskanen Center: "There's

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[2] Derek Stenclik and Ryan Deyoe, Telos Energy, *Multi-Value Transmission Planning for a Clean Energy Future: A Report of the Transmission Benefits Valuation Task Force*, Energy Systems Integration Group at 51, available at: https://www.esig.energy/multi-value-transmission-planning-report.

[3] Goggin, Michael, Grid Strategies LLC, *The Value of Transmission During Winter Storm Elliott* (February 2023), available at: https://acore.org/wp-content/uploads/2023/02/The-Value-of-Transmission-During-Winter-Storm-Elliott-ACORE.pdf.

[4] See for example, Presentation from Dr. Dev Millstein, December 5, at 20; Debbie Lew, December 5 Tr. at 146; Deral Danis, December 5 Tr. at 167; Shashank Sane, December 6 Tr. at 363.

[5] Dev Millstein, December 5 Tr. at 19.

ample evidence from the last few years alone that interregional transfer keeps the lights on and *saves lives*."[6]

The value of interregional transmission was further affirmed by the Department of Energy's draft National Transmission Needs Study ("DOE Draft Needs Study"), released in February, which found that the "value in sharing electricity interregionally continues to increase in futures with high demand and clean energy growth. Median study results anticipate new transfer capacities of 157 GW in 2030 (154 percent growth compared to today's system) and 655 GW in 2040 (644 percent growth) nationwide."[7]

B. The Demonstrated Benefits of Interregional Transmission Have Not Led to Needed Investment

Despite the clearly demonstrated benefits, the development of larger regional and interregional transmission has not kept pace with the need. A Grid Strategies LLC analysis shows that the installation of new high-voltage transmission lines declined from an average of 1,700 miles per year in the first half of the 2010s, to averaging only 645 miles per year in the second half of the 2010s.[8] This decline continued last year, when 198 miles of 345 kV lines were completed,[9] compared to 567 miles in 2021.[10] Just 0.3 miles of 500kV lines were completed in

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6 Liza Reed, December 5 Tr. at 28. Emphasis added.

[7] US Department of Energy, *National Transmission Needs Study – Draft for Public Comment* (February 2023) at 107, available at: https://www.energy.gov/sites/default/files/2023-02/022423-DRAFTNeedsStudyforPublicComment.pdf.

8 Jay Caspary, Michael Goggin, Rob Gramlich and Julia Selker, Grid Strategies, LLC, *Fewer New Miles - The US Transmission Grid in the 2010s* (Sep. 2022), available at: https://gridprogress.files.wordpress.com/2022/09/grid-strategies_fewer-new-miles_final.pdf.

9 FERC Office of Energy Projects, Energy Infrastructure Update for January 2023, available at: https://cms.ferc.gov/media/energy-infrastructure-update-january-2023-0.

[10] FERC Office of Energy Projects, Energy Infrastructure Update for January 2022, available at: https://cms.ferc.gov/media/energy-infrastructure-update-january-2022-0.

2021 and zero in 2022.[11] The DOE Draft Needs Study confirms these finding in its showing that transmission investments have steadily declined since 2015.[12]

II. A Minimum Transfer Capability Standard is Warranted

The low level of development of such a beneficial resource demonstrates the need for a required minimum level of interregional transmission. To implement a minimum requirement, ACORE supports the analysis and recommendations from Grid Strategies LLC that accompany the comments of Americans for a Clean Energy Grid in this docket, which recommends the establishment of a default minimum interregional transfer capacity requirement of between 20 and 25 percent of peak load for all planning regions with the option for individual regions to present an analysis to justify a different requirement. For example, a region could demonstrate whether its intra-regional transmission lines provide a level diversity benefit that justifies a lower minimum requirement. As noted previously, this minimum requirement would provide a basic level of insurance to protect against the worst impacts of future extreme weather and other tail risk events.

Alternatively, the Commission could establish a methodology for determining the minimum transfer capability and require the planning regions to use that methodology. But as noted by Michael Goggin in his statement for the December workshop, that approach carries the risk that of "spending years of lawyers' and technical consultants' time arguing over the methodology," and could therefore further delay the development of needed transmission.[13]

[11] Energy Infrastructure Updates for January 2022 and 2023.

[12] DOE Draft Needs Study at 39.

[13] Opening Statement of Michael Goggin, Grid Strategies LLC, December 6 at 3.

III. The Commission Should Require Comprehensive Interregional Transmission Planning

Along with a recommendation for the Commission to establish a default minimum interregional transfer capability requirement, ACORE continues to urge the Commission to initiate a rulemaking on interregional planning (either jointly with a minimum requirement or as a separate proceeding). As Aaron Bloom of NextEra Energy noted at the workshop, "China and Europe have their own versions of a plan for their macro grids, but the United States does not."[14] The absence of comprehensive interregional planning has given rise to the need for a minimum transfer capability standard to prevent adverse reliability outcomes, but a minimum standard does not negate the need for comprehensive planning – at both a regional and interregional level – to optimize the development of transmission.

The Commission's finding in the Transmission Planning NOPR that "[c]ustomers may be forced to pay for less efficient or cost-effective investment in transmission facilities than would otherwise be achieved with long-term, more comprehensive regional transmission planning and cost allocation,"[15] applies as well to interregional planning. While there is a dire need for greater interregional transmission to address reliability concerns, the benefits of such investments extend beyond reliability. Therefore, interregional planning should use a common set of benefits that include the full list provided in Table 1 of the Transmission Planning NOPR. Although some presenters stated that interregional transmission should not reduce the reliability requirement, [16]

[14] December 5 Tr. at 117.

[15] Transmission Planning NOPR at P 33.

[16] See for example, David Kelley, December 5 Tr. at 149; David Souder, December 6 Tr. at 212.

interregional transmission would reduce the need for additional generation and this benefit should be included in the benefits analysis.

The use of a comprehensive and common list of benefits should also be used as the basis for cost allocation among and within the regions. Moreover, interregional planning should be co-optimized with regional planning, and fully incorporate grid enhancing technologies and advanced conductoring to maximize the efficiency of the transmission investments.

IV. The Commission Should Address Barriers to Merchant HVDC Transmission and Expansion of DC Ties

Two other key areas warrant further exploration by the Commission, either in an interregional transmission rulemaking or other proceeding.

First is the removal of barriers to Merchant High Voltage DC ("MHVDC") transmission development, which provides extensive reliability, resilience and cost-saving benefits along with myriad ancillary services, while also having the advantage of avoiding contentious cost allocation procedures.[17] MHVDC lines should therefore be a part of the solution to greater interregional transmission. Shashank Sane from Invenergy described the significant barriers to MHVDC that the Commission should address "including the lack of a clear process to allow MHVDC developers to engage with regional and interregional transmission planning processes, the need to standardize interconnection rules and the interconnection agreement, rationalizing cost allocation rules for network upgrades, and fixing market rules that impose undue burdens on energy exports."[18]

[17] See ACORE *Motion to Intervene and Comments*, Interregional High Voltage Direct Current Merchant Transmission, Docket AD22-13 (August 26, 2022) at 2-3.

[18] Statement of Shashank Sane, Invenergy Transmission LLC, December 6 at 6.

Another area for additional consideration is the optimization of the use of DC ties. Travis Kavulla of NRG Energy, Inc. identified the need to increase the use of DC ties between ERCOT and other regions, recommending a "solicitation or open season offered by the line's developer in order to bilaterally negotiate or participate in an auction to take capacity on that line."[19] As noted, increased use of DC ties could have mitigated the impacts of Winter Storm Uri and therefore right sizing these ties could also provide reliability benefits. Mr. Kavulla also noted that "should the Commission be concerned that opportunities to capture the difference in value between prices in abutting markets may not organically arise, then the Commission should incorporate DC development opportunities into its transmission planning process and associated requirements,"[20] which allows for the Commission to step in if the price signals presented by arbitrage opportunities on either side of the tie are not producing an optimal outcome. ACORE recognizes that the Notice contemplates a standard only to apply to "transmission planning regions," which does not include ERCOT. However, an approach for ERCOT and its abutting transmission planning regions that focuses on a voluntary-buyer/voluntary-seller construct is warranted.

V. Conclusion

ACORE greatly appreciates the opportunity to submit comments on this important topic and urges the Commission to move forward expeditiously with a proposed rulemaking or rulemakings on a minimum transfer capability standard and a more robust interregional transmission planning process, along with a final rule on regional transmission planning.

[19] Opening Statement of Travis Kavulla, NRG Energy Inc., December 6 at 10.

[20] Kavulla at 12.

Respectfully submitted,

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