UNITED STATES OF AMERICA
BEFORE THE
FEDERAL ENERGY REGULATORY COMMISSION

Interregional Transfer Capability Study: Strengthening Reliability Through the Energy Transformation	))	Docket No. AD25-4-000

COMMENTS OF THE AMERICAN COUNCIL ON RENEWABLE ENERGY

I INTRODUCTION

The American Council on Renewable Energy ("ACORE") hereby submits these comments in response to the Federal Energy Regulatory Commission's ("FERC" or "Commission") Notice of Request for Comments published in the Federal Register on December 27, 2024. ACORE greatly appreciates the opportunity to submit these comments on the North American Electric Reliability Corporation (NERC) Interregional Transfer Capability Study (ITCS). As the Commission develops the required Report to Congress, it is important to recognize that because the study was performed in response to a specific Congressional mandate, it has a limited scope, which will be addressed further in our comments.

While the ITCS is a valuable resource and we commend NERC for their work on the study, we recommend that the Commission take further action beyond just the Report to Congress. The December 2022 *Workshop on Establishing Interregional Transfer Capability Transmission Planning and Cost Allocation Requirements* ("2022 Workshop") and the subsequent comments provide a body of evidence to support Commission action to expand interregional transmission.

The remainder of these comments address the ITCS itself.

II. COMMENTS

Chapter 1: The Reliability Value of Transfer Capability

The ITCS demonstrates the high value of interregional transmission during extreme weather events, with NERC stating upfront: "During these events, transfer capability, or the lack thereof, had a direct impact on the magnitude and duration of firm load shed."[1] This finding is not surprising and affirms many other studies documenting the role that greater interregional transmission would have played during extreme weather events, including but not limited to:

- 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.[2]
- Stronger interregional ties in simulated weather events, based on real-world conditions, would have prevented nearly 740,000 customers from losing power and saved $875 million during a three-day heat wave, and would have prevented nearly 2 million customers from losing power and saved $1 billion during a polar vortex, according to GE Energy Consulting.[3]

As the frequency and damage from extreme weather events continue to grow, so too does the value of interregional transmission. For example, the National Oceanic Atmospheric

[1] ITCS at 1.

[2] Michael Goggin and Zachary Zimmerman, 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.

[3] GE Energy Consulting and the Natural Resources Defense Council, *Economic, Reliability, and Resiliency Benefits of Interregional Transmission Capacity* (October 2022) *available at* https://www.nrdc.org/sites/default/files/ge-nrdc-interregional-transmission-study-report-20221017.pdf.

Administration (NOAA) reported that last year, in the United States "there were 27 confirmed weather/climate disaster events with losses exceeding $1 billion each."[4] The importance of greater interregional transmission during these extreme weather events is not only in preventing power outages. As Liza Reed stated in her testimony on behalf of the Niskanen Center during the 2022 Workshop: "There's ample evidence from the last few years alone that interregional transfer keeps the lights on and *saves lives*."[5] NOAA reported that extreme weather events in just 2024 "resulted in the deaths of 568 people and had significant economic effects on the areas impacted."[6]

Chapter 2: Overview of ITC Study Scope and Terminology

ACORE commends NERC for providing this analysis, and for its comprehensive engagement of stakeholders and transparency throughout the study process. The ITCS was conducted under a very specific directive that limits the scope of the study. NERC states correctly that "additional transmission has more quantifiable benefits than purely the reliability benefits referenced in this study. For example, these benefits may include factors such as cost savings by providing access to lower-cost sources of generation, voltage support, blackstart, and policy goal implementation."[7] Rather than being the sole definitive statement on transmission

[4] National Centers for Environmental Information, National Oceanic and Atmospheric Administration (NOAA), *Billion-Dollar Weather and Climate Disasters* (January 10, 2025), available at: https://www.climate.gov/news-features/blogs/beyond-data/2024-active-year-us-billion-dollar-weather-and-climate-disasters

[5] Liza Reed, Niskanen Center, 2022 Workshop, December 5 Tr. at 28. Emphasis added.

[6] NOAA, January 2025.

[7] ITCS at 11.

value, this analysis provides "insights for further study, discussion, and decisions on regulatory and legislative solutions."[8]

While the ITCS confirms the significant value of interregional transmission during extreme weather events, this value is likely understated by using historical weather data rather than a probabilistic analysis of future weather patterns. Because the frequency of extreme weather events is increasing, the use of historical data alone understates the need for interregional transmission. For example, NOAA reports that while an annual average of 9 such extreme events occurred between 1980 through 2024, the annual average for the most recent 5 years grew to 23.[9] NERC acknowledges this, explaining that "while using 12 weather years provides a diverse set of extreme weather conditions to evaluate, it should not be interpreted as representative of all possible conditions."[10]

Chapter 6: Prudent Additions (Part 2) Process, Including Energy Margin Analysis Results

Because the ITCS analysis is limited to reliability-related benefits of transmission, the results understate the prudent additions that would result from a multi-value analysis. Most notably, this study did not incorporate the economic benefits of interregional transmission. For example, as NERC explained, because operating costs were intentionally not considered, imports only occurred during tight reserve margins, rather than when it would be economically beneficial to do so.[11]

[8] ITCS Executive Summary at xix.

[9] NOAA, January 2025.

[10] ITCS at 74.

[11] ITCS at 83.

One of many examples of the multiple benefits of transmission is the estimated 40-year present value benefits of the Midcontinent ISO's Long-Range Transmission Plan Tranche 2.1. Included in these benefits are $44 billion from the "Mitigation of Reliability Risks" and "Reduced Risks from Extreme Weather Impacts," with the remaining benefits accounting for another $74 billion, including $19.2 billion in Avoided Capacity Costs and $11.3 billion in Congestion and Fuel Savings.[12]

Chapter 7: Prudent Additions Recommendations and Chapter 8: Prudent Additions Sensitivity Analysis

Understatement of Prudent Additions

The 35 gigawatts (GW) of recommended prudent additions for interregional transmission should be viewed as a bare minimum that understates the true scope of beneficial transmission expansion. First, as noted in the prior comments on Chapter 6, interregional transmission's benefits extend beyond reliability. Second, the reliability-based analysis itself is an underestimate of this category of benefits for two primary reasons. First, in Chapter 8, NERC conducted an additional sensitivity analysis that increased the minimum margin level from 3 to 6%, which increased the prudent additions from 35 to 58 GW. The 6 percent margin is more consistent with industry operating practices, meaning that the recommended additions should be closer to 58 GW based on this one factor.[13]

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[12] Midcontinent ISO, *LRTP Tranche 2.1 Benefits Analysis Results Review* (September 25, 2024), available at: https://cdn.misoenergy.org/20240925%20LRTP%20Workshop%20Item%2001%20Tranche%202.1%20Business%20Case%20Overview649810.pdf.

[13] Comments of Michael Goggin, Grid Strategies, at ACORE Webinar, *Addressing the Need for Interregional Transmission* (November 25, 2024), recording available at: https://vimeo.com/1033209230/8d81c74989?share=copy.

Second, the study did not calculate the value of transmission across neighboring regions, such as transfers from PJM to MISO to SPP, which can be significant.[14] The Energy Systems Integration Group pointed out in a recent paper that: "Grid operations data demonstrate the benefits of transferring power from one region that is not under stress, through another region that is partially affected, and into a region in the center of the event— as we saw as power was transferred from PJM through MISO and into SPP during Winter Storm Uri."[15] NERC acknowledges that in cases where a planning region no longer has surplus energy, one solution may be the use of "a 'neighbor's neighbor' to access surplus energy,"[16] and also recommends the evaluation of the transfer capability from neighbor's neighbors as an area for further study.

Relationship between Transmission Value and Generation

NERC identifies where transmission could ameliorate resource adequacy deficiencies. However, it also recognizes that multiple solutions exist to ensure resource adequacy and appropriately does not recommend a single solution. Resource adequacy itself is the purview of the states, but transmission can play an important role in maximizing the value of generation and storage resources.

In the study, NERC describes the "nuanced but crucial relationship between generation and transmission" as follows: "If multiple neighboring TPRs lack resources, additional transfer capability offers limited help because there is not enough surplus energy to share. Conversely, if

[14] *Ibid*., Comments of Michael Goggin, Grid Strategies LLC and Robert Taylor, Invenergy.

[15] Energy Systems Integration Group's Transmission Resilience Task Force, *Interregional Transmission for Resilience* (June 2024), available at: https://www.esig.energy/interregional-transmission-for-resilience/

[16] ITCS at 102.

TPRs each have surplus resources, the benefits of additional transfer capability are diminished, as each TPR can meet its own demands locally."[17]

Generation and transmission are not substitutes, and it is the further development of backbone transmission to meet interregional transfer requirements that will enable a more orderly and timely deployment of generation in multiple regions. The ITCS did not consider this dynamic benefit of transmission additions to facilitate faster generation deployment, so it would not be appropriate to interpret its findings of prudent transmission additions as an *alternative* to building generation. Instead, decision-makers should consider these prudent additions of transfer capacity as a *complement* and accelerant to bringing more generation online to meet rapidly increasing demand.

Interregional transmission can also increase the capacity value of generation by tapping into resource diversity, and in fact, one of the largest benefits of interregional transmission is capturing diversity in when different regions experience peak demand, lulls in renewable output, and correlated generator outages.[18] DOE's National Transmission Planning study pointed out that in a scenario where regions share resources to meet resource adequacy requirements through interregional transmission, the overall system costs are $200-$350 million lower.[19]

Another important factor to consider is NERC's finding that additional transfer capabilities can improve the value of storage because the expanded transmission can allow for

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[17] *Ibid.*

[18] Michael Goggin and Zach Zimmerman, Grid Strategies, *Billions in Benefits: A Path for Expanding Transmission Between MISO And PJM* (November 2023), at 5, available at: https://acore.org/resources/billions-in-benefits-a-path-for-expanding-transmission-between-miso-and-pjm/.

[19] US Department of Energy, *National Transmission Planning Study*, Chapter 2 at 56, available at: https://www.energy.gov/sites/default/files/2024-10/NationalTransmissionPlanningStudy-Chapter2.pdf.

the "pre-charging of storage resources that might not have been able to charge without the imports" and can "shorten the duration of resource deficiencies by reducing the window from, for example, six hours to two hours" which "enables energy-limited resources like batteries, pumped storage hydro, and demand response to manage the remaining hours more effectively."[20]

Finally, as ACORE and many others have recommended, fully integrating the interconnection queues into transmission planning can improve the overall system benefits.[21]

Chapter 10: Meeting and Maintaining Transfer Capability (Part 3)

As NERC consistently notes throughout the study, the ITCS is not prescriptive or a comprehensive transmission expansion plan. According to NERC, the ITCS "provides a roadmap for understanding" and "[w]hile "the ITCS recommends increased transfer capability on particular interfaces, NERC does not endorse projects or particular approaches."[22] What the study does provide, however, is another key piece of evidence of the value of interregional transmission, even if, as noted in these comments, the value is understated.

The ITCS demonstrates that Commission action is needed to ensure transmission planners secure some minimum transfer capability beyond what the system provides today to ameliorate the risks of increasingly frequent severe and extreme weather, which will also provide additional cost savings. The following are some of the multiple options available to the

[20] ITCS at 101.

[21] See for example, ACORE Comments, *Innovations and Efficiencies in Generator Interconnection*, Docket No. AD24-9 (Nov. 14, 2024) at 3, stating that the "continuation of current siloed practices not only disadvantages the interconnection of needed new generation and storage but also increases consumer costs."

[22] ITCS Transmittal Letter at 21.

Commission to produce this needed transmission expansion, none of which are mutually exclusive:

- Initiate a rulemaking on comprehensive interregional transmission.
- Encourage and support region-specific proposals to implement comprehensive, ongoing interregional transmission planning.
- Work with NERC to determine a common methodology for the planning regions to use to conduct an analysis of interregional transfer capability needs. Such an analysis would need to incorporate the full scope of benefits of interregional transmission. For example, the Eastern Interconnection Planning Collaborative provided testimony in the 2022 Workshop describing "technical requirements for the development of a methodology (including the criteria, metrics and models) that can be used by transmission planners, the Commission and others to identify the appropriate interregional transfer capability."[23] While ACORE is not explicitly endorsing the EIPC model, this is an example of how a common methodology could be established.

Finally, ACORE notes our support for two of NERC's concluding recommendations, which could also be incorporated into future FERC actions:

[23] Testimony of David W. Souder on Behalf of the Eastern Interconnection Planning Collaborative, available at: https://static1.squarespace.com/static/5b1032e545776e01e7058845/t/639cd78a50f0d438d326b361/1671223179859/Souder+EIPC+Testimony+for+Interregional+Transfer+Workshop.pdf.

- Greater use of advanced conductors, Dynamic Line Ratings and power flow control devices, which as NERC points out "are typically less expensive and require less lead time than building a new transmission line."[24]
- The recommendation that "policymakers consider implementing mechanisms to address current challenges with siting and permit approval processes, cost allocation methods, and multi-party operating and maintenance agreements, to accelerate the associated timelines where needed for reliability."

III. CONCLUSION

Again, ACORE commends NERC for this important study. We continue to recommend that FERC take critically needed action to expand interregional transmission and deploy advanced transmission technologies. Although the Commission is required to issue a Report to Congress on the ITCS, it has the authority to move forward without any Congressional action and should not wait for such a Report to be completed before taking these important steps.

Respectfully submitted,

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[24] ITCS at 134.