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**

JOINT COMMENTS OF LARGE CONSUMERS

Large Consumers, a broad coalition of large end-use customers of electricity represented by the Clean Energy Buyers Association (CEBA), the Data Center Coalition (DCC), the Electricity Consumers Research Council (ELCON), and the Electricity Customer Alliance (ECA) respectfully submit these joint comments pursuant to the Federal Energy Regulatory Commission's (FERC or Commission) Notice of Request for Comments (Notice)[1] on the North American Electric Reliability Corporation's (NERC) Interregional Transfer Capability Study (ITCS).[2] Large Consumers thank NERC for its diligence in studying the reliability benefits and opportunities provided by interregional transfer capabilities among regions and look forward to further analysis and collaboration on the economic, as well as reliability, impacts of increasing capacity transfers during times of transmission constraints, resource adequacy deficiencies, and other grid interruptions.

CEBA is a business trade association that represents more than 400 companies and organizations across the United States with more than $15 trillion in market capital, and their ability to continue to grow and innovate is directly tied to their ability to access affordable,

[1] *Interregional Transfer Capability Study: Strengthening Reliability Through the Energy Transformation*, Supplemental Notice of Request for Comments, Docket No. AD25-4-000, 89 Fed. Reg. 105,790 (Dec. 27, 2024).

[2] North American Electric Reliability Corporation, Interregional Transfer Capability Study as Directed in the Fiscal Responsibility Act of 2023, Docket No. AD25-4-000 (Nov. 19, 2024).

reliable, and clean energy to power their operations. CEBA's members comprise one-fifth of the Fortune 500 and include institutional energy customers of every type and size—corporate and industrial companies, universities, and cities.

DCC is the membership association for the U.S. data center industry, DCC's members are leading data center owners and operators, as well as companies that lease large amounts of data center capacity.[3] DCC's member companies provide the essential digital infrastructure that enables the applications, capabilities, and services that support the modern economy, including cloud computing and artificial intelligence. Between 2017 and 2023, the industry's total impact on the U.S. GDP was $3.5 trillion.[4]

ELCON is the national association representing large industrial consumers of electricity. ELCON member companies create a wide range of products from virtually every segment of the industrial community—owning and operating hundreds of major facilities and are significant consumers of electricity in the footprints of all organized markets and other regions throughout the United States. Reliable electricity supply at just and reasonable rates is essential to our members' operations. Further, ELCON members rely upon the transmission of electricity by FERC-jurisdictional utilities.

ECA is a coalition of commercial, industrial, and residential energy consumers that seek to elevate customers' voices to deliver policy solutions that improve our nation's electricity systems to support and grow the United States economy. As part of its broader mission, ECA aligns diverse electricity customers, retail consumer advocates, trade associations, and public

[3] The Data Center Coalition is a membership organization of leading data center owners and operators. Public testimony and written comments submitted by DCC do not necessarily reflect the views of each individual DCC member. A list of current DCC members is accessible at https://www.datacentercoalition.org/members.

[4] PwC, Economic, Environmental, and Social Impacts of Data Centers in the United States (Feb. 2025), https://www.centerofyourdigitalworld.org/2025-impact-study.

interest groups who want to increase transparency and accountability, specifically to ensure that customers are able to better participate and adapt to meet the needs of a changing electric grid.

SUMMARY

As mandated by Congress through the Fiscal Responsibility Act of 2023,[5] NERC has taken the initial step of analyzing the reliability benefits and opportunities provided by increased interregional transfer capabilities. NERC preliminarily finds that while sufficient transfer capability and resources exist at present to maintain energy adequacy under most scenarios, extreme weather, increasing demand, and the changing resource mix could strain our current system and thus recommends an increase of 35 gigawatts (GWs) of transfer capability across certain regions.[6] Large Consumers recommend that FERC expand upon the reliability recommendations in the ITCS to study the economic benefits, associated infrastructure costs, and energy market impacts of increased interregional transfer capability in its report to Congress.

Electricity demand is growing at levels unseen since the 1990s, primarily due to several economic growth drivers including data centers, crypto-mining, domestic manufacturing, hydrogen fuel productions, and electrification. A new report projects a 15.8% increase in electricity demand by 2029—five times the prior forecast.[7] The U.S. Department of Energy (DOE) estimates we need a 64% increase in regional transmission capacity and 114% more

[5] Fiscal Responsibility Act of 2023, Pub. L. No. 118-5, 137 Stat 10, sec. 322 (2023).

[6] ITCS transmittal, Docket No. AD25-4-000, pp. 2-3.

[7] Grid Strategies, "Strategic Industries Surging: Driving US Power Demand" (Dec. 2024), available at https://gridstrategiesllc.com/wp-content/uploads/National-Load-Growth-Report-2024.pdf

interregional transmission by 2035,[8] yet new transmission construction has plummeted from 1,700 miles per year (2010–2014) to just 55 miles in 2023.[9]

The lack of transmission capacity not only raises costs for consumers through congestion charges and a lack of access to affordable generation, it can also endanger lives and livelihoods. Winter Storm Uri cost Texas customers $10.1 billion[10] where better transmission ties could have saved consumers $1 billion[11] and alleviated the blackouts that left millions of customers without heat and other essentials. Similarly, with modest investments in interregional transmission in the East, customers could have saved nearly $100 million during 2022's Winter Storm Elliott through access to neighboring generation sources when local natural gas resources failed to deliver.[12]

Interregional transmission is a critical component for ensuring grid reliability, reducing costs, and strengthening resilience. For corporate electricity buyers, access to affordable and reliable power is not just a priority but a necessity for sustaining operations and managing costs. Large energy consumers, including industrial manufacturers, data centers, and technology firms, depend on a robust transmission network to secure low-cost electricity, ensure power supply diversity, and avoid exposure to price volatility. Without adequate interregional transmission capacity, businesses face escalating risks of supply constraints, price spikes, and reliability

[8] U.S. Department of Energy, "National Transmission Needs Study" (Oct. 2023), https://www.energy.gov/sites/default/files/2023-10/National_Transmission_Needs_Study_2023.pdf

[9] Grid Strategies, "Fewer New Miles – The US Transmission Grid in the 2020s" (July 2024), https://cleanenergygrid.org/wp-content/uploads/2024/07/GS_ACEG-Fewer-New-Miles-Report-July-2024.pdf

[10] Forbes, "Texas Consumers On Hook For $10 Billion In Debt Incurred During Winter Storm Uri" (Aug. 24, 2022), https://www.forbes.com/sites/robertbryce/2022/08/24/texas-consumers-on-hook-for-10-billion-in-debt-incurred-during-winter-storm-uri/

[11] ACORE, "Transmission Makes the Power System Resilient to Extreme Weather" (July 22, 2021), https://acore.org/resources/transmission-makes-the-power-system-resilient-to-extreme-weather/

[12] ACORE, "The Value of Transmission During Winter Storm Elliot" (February 2023), https://acore.org/wp-content/uploads/2023/02/The-Value-of-Transmission-During-Winter-Storm-Elliott-ACORE.pdf

concerns—all of which could undermine economic growth, competitiveness, and long-term investment in the U.S. energy market. Urgent action is needed to accelerate interregional transmission development and prevent these growing risks from stalling economic progress, threatening security and reliability, and raising costs for consumers.

The ITCS represents a first step in understanding the current transfer capability landscape and potential reliability benefits of enhanced transfer capability. While Large Consumers do not have specific comments on the assumptions and methodologies utilized by NERC, we support the findings and recommendations articulated in the ITCS and recommend further economic and market analysis from FERC in its final report to Congress.

I. The ITCS Provides Tangible Evidence of the Need for Enhanced Interregional Capabilities

Large Consumers have consistently sought action from FERC to enhance interregional planning and coordination to meet the numerous emerging challenges to sufficient energy supply, rising energy costs, and reliability and resilience.[13] In that vein, Large Consumers applaud the Congressional mandate to spur action on understanding the benefits and opportunities provided by interregional transmission. The NERC ITCS was conducted in response to these mandates under the 2023 Fiscal Responsibility Act, requiring an assessment of interregional transfer capability between transmission planning regions. The study aimed to determine the sufficiency of existing transfer capabilities in preventing energy shortfalls and to identify necessary enhancements to improve system reliability. The study recommended 35 GW of transfer

[13] *See e.g.*, Reply Comments of the Clean Energy Buyer's Association, Docket No. AD23-3-000, p. 2 (Jun. 28, 2023); Initial Comments of the Clean Energy Buyer's Association, Docket No. RM22-7-000, pp. 2-3 (May 17, 2023); Post-Workshop Comments of the Electricity Consumers Resource Council, Docket No. AD23-3-000, pp. 2-3 (May 15, 2023); Comments of the Clean Energy Buyer's Association in Support of Request for Technical Conference, Docket No. AD22-13-000 (Mar. 8, 2023); Comments of the Electricity Consumers Resource Council, Docket No. RM21-17-000, p. 5 (Aug. 17, 2022).

capability expansion to improve energy adequacy, and the range reflects different assumptions regarding the level of operating reserves within each region.

While the ITCS sets an initial baseline for current transfer capabilities and prudent additions to mitigate energy inadequacies under future scenarios, NERC makes several recommendations for future work to further refine and understand the role transfer capability can play in strengthening grid reliability. For example, NERC recommends:

- exploring alternative resource mixes to better understand the tradeoffs between generation and transmission options;
- evaluating transfer capability between non-neighboring regions, or "neighbor's neighbors," to capture additional reliability benefits and enhance geographic diversity;
- expanding the analysis to include a more extensive dataset, including decades of historical and/or projected future weather data, would provide a more robust basis for evaluating investments;
- evaluating stability and transfer capability during extreme weather events;
- incorporating probabilistic resource adequacy analysis to include hundreds or even thousands of outage scenarios rather than just 12 weather years; and
- establishing study frequency and parameters including additional sensitivities and alternative criteria.[14]

Large Consumers strongly support these recommendations and implore FERC to expand upon, refine, and establish regular studies into the implications of expanding interregional transfer capabilities. For instance, the ITCS' regional segmentation limited its ability to assess the benefits of high-value interconnections beyond immediate neighboring regions. Key transmission pathways such as Texas-to-Southeast and Texas-to-Southwest were excluded from the analysis, despite evidence from other studies demonstrating their value. Expanding transmission beyond direct neighbors could have justified a recommended buildout of up to 62 GW, underscoring the need for a more holistic approach to interregional transmission planning.

[14] ITCS, pp. 138-139.

For Large Consumers, a broader evaluation of transmission expansion is essential. The study should assess long-distance, high-voltage direct current (HVDC) transmission, which can efficiently connect resource-rich regions like the Midwest and the Plains with high-demand markets on the East Coast and in the Southeast. Strengthening these connections would provide businesses with access to lower-cost, diverse energy supplies, enhancing procurement strategies while reducing exposure to price volatility.

FERC and NERC should also consider further analysis into resource adequacy reserve margins. The ITCS assumed a 3% reserve margin for resource adequacy, lower than industry norms (6% in the Western U.S.[15] and higher for smaller grid operators[16]). Adjusting to a 6% reserve margin sensitivity increased transmission needs to 58 GW, indicating that the base assumptions likely underestimate required transmission expansion. Moreover, recent increases in load growth projections further amplify the need for interregional transmission.

Given the rapid surge in electricity demand from the reshoring and expansion of domestic manufacturing, the ongoing electrification of buildings, industry, and transportation, and the digitization of our economy, future studies must account for these evolving consumption patterns. A Grid Strategies report found that five-year load growth forecasts have increased nearly fivefold—rising from 23 GW to 128 GW in just two years.[17] FERC and NERC must ensure its studies reflect this accelerating demand trajectory to avoid underestimating future grid needs.

---

[15] NERC, WECC Standard BAL-002-WECC-2a — "Contingency Reserve", (Jan. 2017) at 1, https://www.nerc.com/pa/Stand/Reliability%20Standards/BAL-002-WECC-2a.pdf.

[16] National Renewable Energy Laboratory, "Absorbing the Sun: Operational Practices and Balancing Reserves In Florida's Municipal Utilities," p. 34 (Jan. 2021), https://www.nrel.gov/docs/fy21osti/78306.pdf.

[17] Grid Strategies, "Strategic Industries Surging: Driving US Power Demand", (Dec. 2024), https://gridstrategiesllc.com/wp-content/uploads/National-Load-Growth-Report-2024.pdf.

II. FERC Must Expand Upon the Reliability Findings in the ITCS to Understand the Economic Impacts and Energy Market Implications of Enhanced Interregional Transfer Capabilities

The ITCS is a critical first step in understanding the opportunities, benefits, and regionally specific needs for enhanced interregional transfer capabilities; however, it is just the first step. While the ITCS scope offers valuable insights into reliability implications of enhancing energy adequacy through interregional transfers, a more comprehensive evaluation of the broader economic and resilience benefits of interregional transmission development is necessary. Key factors such as production cost savings, congestion cost reductions, lower generating capacity requirements, and enhanced market efficiencies must also be evaluated by FERC under its authority. Separately, FERC must take into consideration the accuracy of demand growth projections to account for the potential of duplicate load requests and offsetting levels of demand response and storage capacity, as well as other key factors. Overestimating growth can saddle customers with hundreds of millions of dollars in stranded costs while underestimating growth would lead to reduced reliability and resiliency and costlier generation.

It has been well documented that interregional transmission and the ability to share resources across geographic areas can benefit consumers through lower costs. The DOE found that, under current policies, interregional resource adequacy sharing could reduce system costs by approximately $100 billion to $300 billion.[18] The DOE study further emphasized the significant economic benefits of interregional transmission, particularly in mitigating extreme weather risks, estimating potential savings of $270 billion to $490 billion by 2050.[19]

---

[18] U.S. Department of Energy, Grid Deployment Office, "The National Transmission Planning Study: Executive Summary", p. 10 (Oct. 2024), https://www.energy.gov/sites/default/files/2024-10/NationalTransmissionPlanningStudy-ExecutiveSummary.pdf.

[19] U.S. Department of Energy, Grid Deployment Office, "The National Transmission Planning Study", slide 5 (Oct. 16, 2024), https://www.energy.gov/sites/default/files/2024-10/2024-10-16%20National%20Transmission%20Planning%20Study%20Webinar%20Presentation%20Slides.pdf.

During Winter Storm Uri (2021), ERCOT faced widespread outages due to limited interregional ties, whereas MISO imported 13 GW from neighboring regions, avoiding similar disruptions.[20] Likewise, during Winter Storm Elliott (2022), interregional capacity reduced rolling blackouts in the Southeast. Enhanced interregional transmission capacity would prevent outages for hundreds of thousands of customers and deliver billions in savings. During Winter Storm Uri, each additional 1 GW of transmission ties between ERCOT and the Southeast could have prevented 2 million customer outages and saved nearly $1 billion.[21]

Expanding interregional transmission also reduces reliance on emergency energy resources, such as peaking plants and high-cost generators, by allowing regions to draw power from more stable sources during crises. By enabling the seamless exchange of electricity across regions, transmission infrastructure helps balance supply and demand, preventing localized shortages and price spikes.

The resiliency benefits of a robust interregional transmission network include enhanced disaster recovery efforts. When extreme weather events damage local grid infrastructure, nearby regions with excess capacity can supply power, reducing the duration of outages and aiding in faster system restoration. This capability is especially critical as changing weather patterns increase the frequency and severity of hurricanes, wildfires, and extreme temperature fluctuations.

However, we must also understand the costs associated with developing interregional transmission and increasing transfer capabilities. Transmission costs for consumers continue to rise and account for a greater portion of electricity costs. FERC and the states must fully evaluate

[20] Grid Strategies & ACORE, "Transmission Makes the Power System Resilient to Extreme Weather", p. 8 (July 2021), https://gridstrategiesllc.com/transmission-makes-the-power-system-resilient-to-extreme-weather/.

[21] *Id*. at p. 2.

the benefit/cost ratio of proposed interregional transmission expansion to ensure costs are just and reasonable and not unduly burdensome. According to a forthcoming report, an independent analysis finds that the interregional expansion recommended by NERC in the ITCS would cost approximately $1.8 billion but could offer benefits of between $7.8 billion and $10.6 billion for a benefit/cost ratio of between 4.3 and 5.8.[22] It is imperative that FERC conduct this analysis to determine the potential financial impacts for consumers.

Additionally, FERC must assess how transmission constraints contribute to inefficiencies in energy markets—including price volatility and congestion costs. A more robust analysis should incorporate historical congestion patterns and projected energy demand growth to identify where transmission expansion is most urgently needed. Without this level of detail, decision-makers risk underestimating the economic and reliability benefits of a well-planned interregional transmission network. For Large Consumers, access to competitive electricity markets is essential for keeping costs low and minimizing risks related to grid instability. A truly comprehensive interregional transfer capability study must also evaluate congestion cost reductions, market efficiency improvements, and the impact of greater transmission capacity on new resource integration. Without these considerations, policymakers risk underestimating the benefits of interregional transmission expansion, which is critical to ensuring a cost-effective, reliable, and resilient energy future.

CONCLUSION

Large Consumers commend NERC for producing the ITCS as a first step but urges FERC to account for the full costs and benefits of interregional transmission and take decisive action to strengthen grid resilience. Expanding interregional transmission is not just a regulatory necessity

[22] Grid Strategies and National Resources Defense Council, "The Interregional Transmission Additions in NERC's Study Provide Large Net Benefits," (Feb. 2025).

but a strategic imperative for businesses seeking reliable, affordable, and sustainable electricity. Corporate buyers rely on robust transmission networks to mitigate price volatility and ensure operational continuity.

The imperative to expand interregional transmission capacity cannot be overstated. As the energy landscape rapidly evolves, FERC must act to require transmission planning regions to proactively engage in interregional transmission planning, including establishing regionally specific minimum transfer capability guidelines. Without decisive action, regions will continue to address energy constraints reactively, leading to higher costs, reliability risks, and missed opportunities to integrate more affordable forms of energy. Delays are no longer an option—FERC must prioritize this issue and engage in sufficient study and opportunities for stakeholder input to ensure efficacy and legal durability.

Furthermore, synchronizing planning efforts across regions is no longer just beneficial, it is imperative. Planning cycles must align without delay, and key definitions—such as "economic benefits," "transfer capability," and "reliability criteria"—must be standardized to avoid costly inefficiencies. Forecasting inputs, including projections for load growth, generation mix, demand response, and storage must be harmonized to ensure rapid and effective decision-making. FERC must act to strengthen interregional transmission and secure an energy future that is reliable, cost-effective, and resilient.

FERC should implement reforms that enable corporate energy consumers to access a diverse and cost-effective electricity supply. Addressing transmission bottlenecks will allow businesses to scale operations, invest in domestic manufacturing, and drive economic growth while reducing costs for ratepayers. A modern, interconnected grid is vital for industrial competitiveness and the long-term sustainability of the U.S. economy. By prioritizing

interregional transmission expansion, FERC can empower businesses to meet their energy needs efficiently while strengthening national energy security and resilience.

Respectfully Submitted,

/s/ Kyle Davis
Kyle Davis
Senior Director of Federal Affairs
Clean Energy Buyers Association
1425 K Street, NW, Suite 1110
Washington, DC 20005
kdavis@cebuyers.org

/s/ Cy McNeill
Cy McNeill
Director, Federal Energy Policy
Data Center Coalition
525-K East Market Street #253
Leesburg, VA. 20176
Cy@datacentercoalition.org

/s/ Karen Onaran
Karen Onaran
President & CEO
Electricity Consumers Resource Council
700 12th Street, NW, Suite 700
Washington, DC 20005
konaran@elcon.org

/s/ *Tom Hassenboehler*
Tom Hassenboehler
Chair, Advisory Council
Electricity Customer Alliance
1001 Pennsylvania Ave. NW
Washington, DC 20004
thass@co2efficient.com

Dated: February 25, 2025