

Benefits of Interregional Transmission

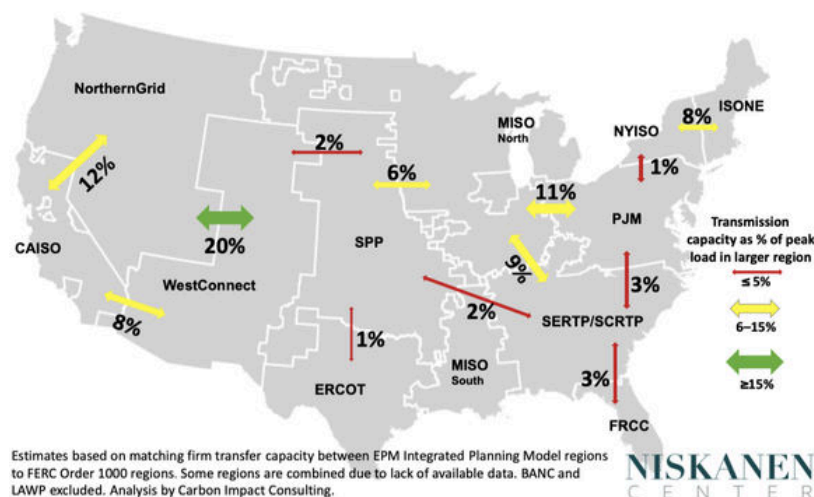
Interregional transmission is like the interstate highway system for the grid, enabling energy to flow freely from where it's produced to where customers need it most. Robust interregional transmission strengthens our energy infrastructure by allowing regions to transport energy between one another in times of need, withstand extreme weather events, accommodate growing energy demands, support the integration of diverse energy resources, foster economic development, and bolster national security – making it an essential component of a resilient 21st-century energy system.

Interregional Transmission Saves Americans Money

Interregional transmission can deliver meaningful cost savings for Americans by enabling access to lower-cost power sources in other regions. Enhanced power flow between regions allows for more efficient use of generation resources, shifting production to lower-cost plants, resulting in billions of dollars in production cost savings.¹

A substantial expansion of the transmission system would save the U.S. \$270-490 billion through 2050, or \$1.60-1.80 for every dollar spent on transmission, according to a recent study.²

On average, region-to-region transfer capacity needs to increase by 987% by 2040 to meet growing electricity demand.³



A 2022 analysis of existing electricity transmission transfer capacity between adjacent FERC Order No. 1000 planning regions.

Winter Storm Uri: Benefits of Interregional Transfer Capabilities

During Winter Storm Uri in February 2021, power outages in the Midwest⁴ were limited to a “handful of short duration events,”⁵ while Texas saw far more devastating impacts. What made the difference?

Midwest

Texas

• Hundreds of tie lines with other balancing authority areas.	• Only two direct current (DC) transmission tie lines to the Eastern Interconnection.
• Imported nearly 13,000 MW of power, most of it from the PJM region.	• Imported just 800 MW of power from SPP over one week.⁸
• The region did have to undergo rolling power outages, but it largely kept the lights and heat on for customers.⁶	• Outages averaged 34,000 MW for two consecutive days. • More than 4.5 million people lost power — some for four days — while temperatures were below freezing.
• Each additional GW of transmission capacity connecting the Midwest with neighboring states in the East could have saved over \$100 million.⁷	• More than 200 people died, the majority from outage-related causes.⁹ • Each additional GW of transmission capacity connecting Texas with neighboring states in the Southeast could have saved nearly \$1 billion and kept the heat on for approximately 200,000 Texas homes.¹⁰

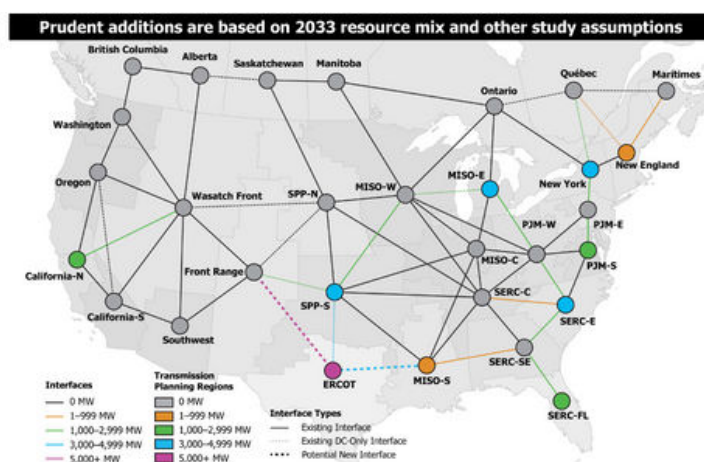


Interregional Transmission is Key to Reliability

An expanded and interconnected transmission network would improve reliability by providing access to additional generation sources during uncertainties such as fuel supply disruptions, generation outages, transmission failures, and extreme weather events. Additionally, it would enhance system stability by leveraging the geographic variety of energy resources, smoothing out supply and demand across the system.

The Interregional Transfer Capacity Study from the North American Electric Reliability Corporation (NERC) shows that significant interregional transmission would help ensure reliability. An additional 35 gigawatts (GW) of transfer capability across the U.S. would strengthen energy adequacy under extreme conditions.¹¹

However, the NERC study likely underestimates the need for more interregional transmission because it only accounts for reliability, not economic benefits, and uses demand data from 2023. A 2024 report found that the five-year load growth forecast has increased from 23 GW to 128 GW over the past two years. Due to the rapid development of data centers driven by artificial intelligence, rising industrial load from advanced manufacturing, and continued energy needs for oil and gas production, significantly more transmission will be needed to meet new demand growth.¹²



How Can We Improve the System?

During the 118th Congress (2023–2024), the Senate considered the Energy Permitting Reform Act, a bill aimed at enhancing the Federal Energy Regulatory Commission's (FERC) authority to permit interregional transmission projects deemed to be in the national interest. These efforts should be revived in the 119th Congress.

Beyond legislative efforts, FERC should prioritize increasing interregional transmission capacity through:

- **Interregional Transmission Planning:** FERC could support action that calls for interregional transmission planning and cost allocation, as it did with regional transmission in Order No. 1920/A.
- **A Developer-Driven Process:** Alternatively, FERC could focus on individual projects by creating a standardized framework for evaluating whether interregional cost allocation should be available to a project applicant. If the project is in the public interest and the benefits outweighs the costs, then the application for cost recovery would be granted.
- **Interregional Planning Process with an Avenue for Independent Development:** To harmonize the two approaches discussed above, FERC could leverage structured planning while granting flexibility to independent developers. This would enable projects that add substantial interregional benefits—such as reduced congestion or enhanced reliability—to receive independent cost allocation approval, should needed interregional projects fail to materialize through the planning process.

Regardless of the chosen path, FERC should require regions or transmission owners to identify a regionally-tailored minimum transfer capability requirement to ensure that sufficient interregional transmission is built.

1. GE International, Inc., "Potential customer benefits of interregional transmission," (November 2021).
 2. U.S. Department of Energy, Grid Deployment Office, "The National Transmission Planning Study," (October 2024).
 3. Niskanen Center, "DOE transmission study demonstrates the need for a minimum transfer requirement," (March 2023).
 4. Midcontinent Independent System Operator (MISO) and Southwest Power Pool (SPP).
 5. MISO, "The February Arctic Event," (Feb. 2021).
 6. Goggin, Gramlich, Caspary, and Schneider, "Fleetwide Failures: How Interregional Transmission Tends to Keep the Lights on When There Is a Loss of Generation," (November 2021).

7. Goggin, "Transmission Makes the Power System Resilient to Extreme Weather," (July 2021).
 8. Goggin, Gramlich, Caspary, and Schneider, "Fleetwide Failures."
 9. FERC - NERC, Regional Entity Staff Report, "The February 2021 Cold Weather Outages in Texas and the South Central United States," (November 2021).
 10. Goggin, "Transmission Makes the Power System Resilient to Extreme Weather."
 11. NERC, "Interregional Transfer Capability Study (ITCS)," (November 2024).
 12. Grid Strategies, "Strategic Industries Surging: Driving US Power Demand," (December 2024).