

Benefits of Interregional Transmission

Reliability and Cost-Savings

Benefits of Interregional Transmission — Reliability

Interregional transmission is critical to our electric power system, allowing regions to transport energy between one another in periods of need. An expanded network of interconnected transmission will:

- ◇ Improve reliability by providing access to **additional generation sources** in the face of uncertainties such as fuel or generation loss, transmission outages, and extreme weather events;
- ◇ Enhance **system stability** by expanding the geographic diversity of variable energy resources.¹

Winter Storm Uri: Impact of Interregional Transfer Capacity

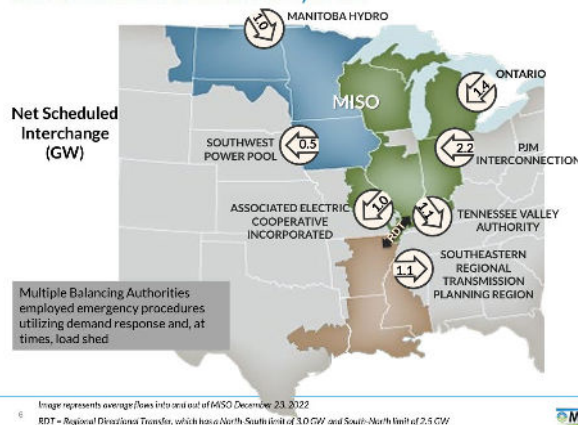
During Winter Storm Uri in February 2021, power outages in the MISO and SPP regions were limited to a “handful of short duration events.”² Meanwhile, ERCOT outages averaged 34,000 MW for two consecutive days. In Texas, more than 4.5 million people lost power — some for four days — while temperatures were below freezing. More than 200 people died, the majority from outage-related causes like hypothermia and carbon monoxide poisoning.³

What’s the Difference?

- ERCOT has only two DC transmission tie lines to the Eastern Interconnection and imported just 800 MW Of power from SPP over the week.
- MISO has hundreds of tie lines with other balancing authority areas and, at the height of the storm, imported nearly 13,000 MW, most of it from PJM. MISO was then able to deliver electricity to neighboring regions, assisting SPP with its power needs.⁴

Winter Storm Elliot: How Transmission Keeps the Lights On

MISO consistently exported power to southern neighbors with a maximum value of nearly 5 GW



The cold weather conditions during Winter Storm Elliott in 2022 caused rolling blackouts in the Southeast because local generation equipment could not perform.

Interregional capacity allowed utilities to purchase power from MISO and PJM, reducing power outages. Increased interregional capacity would have fully kept the lights on.⁵

Transmission lines flow in both directions: if there had been sufficient connection points and transmission flows, Texas could have supplied power to the Southeast.

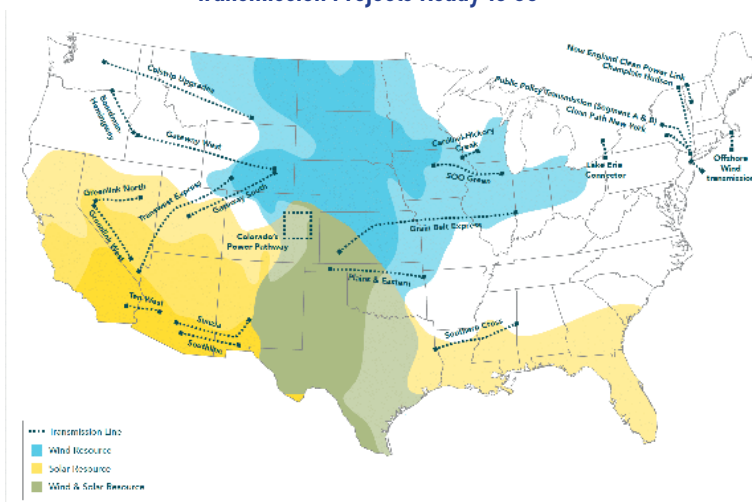
Source: MISO

Benefits of Interregional Transmission — Cost Savings

Interregional transmission can produce massive cost savings for consumers by allowing regions to access lower-cost power from generation sources in other parts of the country. With greater interregional flow, regions can decrease overall production, resulting in billions of dollars in production cost savings.

A recent simulation found that expanded transmission could save \$3 billion per year in 2035 and \$4 billion per year in 2040.⁶ In 2019, PJM — grid operator for the Mid-Atlantic — found that a series of new interregional projects would reduce the need for additional generation \$3.78 billion each year by linking zones within PJM together.⁷

Transmission Projects Ready To Go



An ACEG report identified 22 interregional projects that will transport low-cost clean energy across the country.

What Is Needed?

Federal Action

- FERC should set a basic transmission capacity requirement to ensure all regions have some capability to share power with neighbors.
- FERC should require regional transmission planners to jointly develop interregional transmission plans using common assumptions about the future resource mix and common methods. These plans should address 20 years of need, as regulators commonly require of their utilities, and specify how costs of transmission will be recovered.

State Action

- State commissions — particularly those representing states that cross or border more than one region — should encourage transmission planners in their region to engage in interregional planning.
- State commissions should coordinate with adjacent jurisdictions to implement policies that will allow for interstate and interregional coordination, specifically by jointly identifying transmission needs, developing cost-allocation methodologies, and streamlining the permitting process.

1 GE International, Inc., [Potential customer benefits of interregional transmission](#) (Nov. 2021).

2 MISO, [The February Arctic Event](#), (Feb. 2021).

3 FERC - NERC, [Regional Entity Staff Report: The February 2021 Cold Weather Outages in Texas and the South Central United States](#) (Nov. 2021).

4 Goggin, Gramlich, Caspary, and Schneider [Fleetwide Failures: How Interregional Transmission Tends to Keep the Lights on When There Is a Loss of Generation](#) (Nov. 2021).

5 Massie, Toth, [Wasted Wind and Tenable Transmission during Winter Storm Elliott](#) (Feb. 2023).

6 Tandon Manz, Sheila, [Economic, Reliability, and Resiliency Benefits of Interregional Transmission Capacity](#) (Oct. 2022).

7 PJM Interconnection, [The Benefit of the PJM Transmission System](#) (April 2019).

8 Tandon Manz, Sheila, [Economic, Reliability, and Resiliency Benefits of Interregional Transmission Capacity](#) (Oct. 2022).