



# Electric Transmission 'Right of First Refusal'

How does right of first refusal impact electric transmission?

**Electric transmission systems connect electricity producers with users.**

The U.S. electric transmission system connects electricity generating sources (e.g., coal, solar, wind) with users of electricity.

Hundreds of thousands of miles of high voltage (230,000–765,000 V) transmission lines carry electricity over large distances with minimal losses in power (Lawson 2022). This is aided by thousands of transformers that change the voltage and provide stability to the grid (e.g., during extreme weather events or times of high electricity demand).

**Regulation.** The [Federal Energy Regulatory Commission \(FERC\)](#) regulates the interstate transmission of electricity. State entities (e.g., [MO Public Service Commission](#)) may regulate in-state transmission.

**Management.** Most transmission lines are owned by private utility companies (Lawson

## Research Highlights

Electric transmission systems connect electricity producers with users.

Expanding electric transmission infrastructure can improve electrical grid reliability and resilience, reduce congestion, and increase access to new energy sources.

Competitive bidding can lower transmission project costs.

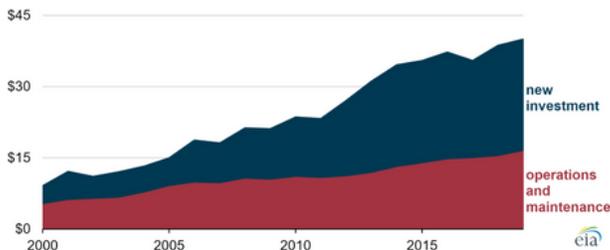
2022). The electric grid is managed by independent electric utilities and FERC-approved regional transmission organizations (RTOs)—independent, membership based, non-profit organizations made up of utilities (FERC 2021, 2022).

- Two thirds of the electricity consumed in the U.S. is managed by RTOs (FERC 2021).
- Two RTOs operate in Missouri: [Midcontinent Independent System Operator \(MISO\)](#) and [Southwest Power Pool \(SPP\)](#).

## Expanding electric transmission systems can improve energy access and reliability.

Since 2000, U.S. utilities have increased electric transmission system spending to improve electrical grid reliability and resilience, reduce congestion, and increase access to new energy sources (Figure 1; EIA 2021, DOE 2023).

**Reliability.** Increasing transmission investments can improve reliability by expanding access to a variety of electricity generating sources and replacing aging infrastructure (DOE 2023).



**Figure 1.** Annual investments (billions of dollars) in the electric transmission system by major utility companies. Figure from (EIA 2021).

**Resilience.** Increasing access to geographically diverse power sources can improve resilience during extreme weather events (DOE 2023).

**Congestion.** Physical limitations on the electric grid can cause large price spikes over several years (e.g., SW MO; DOE 2023, FERC 2017). In addition to community-level solutions, expanded transmission infrastructure could allow these regions to reduce local electricity costs by drawing from more power sources (DOE 2023).

**New Energy Sources.** Renewable energy generators (e.g., solar panels, windmills) must be placed by renewable energy sources, which may not be located near existing transmission systems and sources of electricity (DOE 2023). More transmission lines can integrate new energy sources into the grid for customers that aren't located close to these sources.

## Competitive bidding can lower transmission project costs.

Several states (e.g., IA, IN, MI, MN, MT, SD) provide existing transmission providers with the **right of first refusal (ROFR)** to develop and own new transmission facilities.

In 2011, FERC [Order 1000](#) removed federal ROFR requirements for new transmission projects, allowing for a competitive bidding process.

Competitive transmission projects represented 3% of all U.S. transmission investments from 2013–2017 (Pfeifenberger 2019).

- FERC Order 1000 only applies to regionally planned transmission projects that FERC has approved tariffs for. Regional projects only needed for local reliability are not included.
- Order 1000 does not affect state or local laws and regulations on the construction of transmission facilities.

**Reliability.** Studies on how ROFR impacts the reliability of energy from transmission projects are not widely available.

**Project Costs.** General costs for hosting a competitive bidding process are not publicly available.

Estimates of how ROFR affects cost savings primarily come from one report, which estimates that if 33% of U.S. transmission investments used a competitive bidding process, about \$8 billion would be saved over 5 years (Pfeifenberger 2019).

- Transmission projects chosen through a competitive bidding process are about 20%–30% cheaper due to: increased innovation in project design, contracting, partnerships, and financing structures; optimized transmission line routing to reduce permitting costs; and cost-control mechanisms.
- One RTO, SPP, spent \$500,000 on its first competitive bidding process and passed the costs to each of its 11 respondents.
- SPP estimated that it cost developers \$300,000–\$400,000 per project proposal, which was likely to be reflected in the project costs.

Additional studies are still needed to validate the cost impact of a competitive bidding process.