

Why Transmission Permit Reform is Critical for Electricity Affordability

July 2026



Executive Summary

- Electricity demand in the US is **projected to grow at 10x historical rates** through 2035; **prices are rising rapidly** in tandem
- **America is lagging in building energy infrastructure**, especially when compared to China, posing a risk for meeting demand growth, AI development, and national security
- Americans are widely **in favor of new grid infrastructure across the political spectrum**
- **Complex and cumbersome permitting processes** are inhibiting the country's ability to build new grid infrastructure, especially transmission lines
- New transmission infrastructure can **drive down costs and improve reliability**, in addition to creating jobs, facilitating regional investment, and reducing emissions
- Developers are ready to build if permitting rules are reformed; Open Minds has identified **18 “shovel-ready” transmission lines can provide over \$180 billion in net benefits**

Who Is OpenMinds?

OUR MISSION

More energy. Less emissions. Fast.

- 125+ volunteer experts
- 501(c)(3)
- Disciplined non-partisan selection process
- 360° systems engineering approach

WHAT MAKES US UNIQUE



Energy AND climate

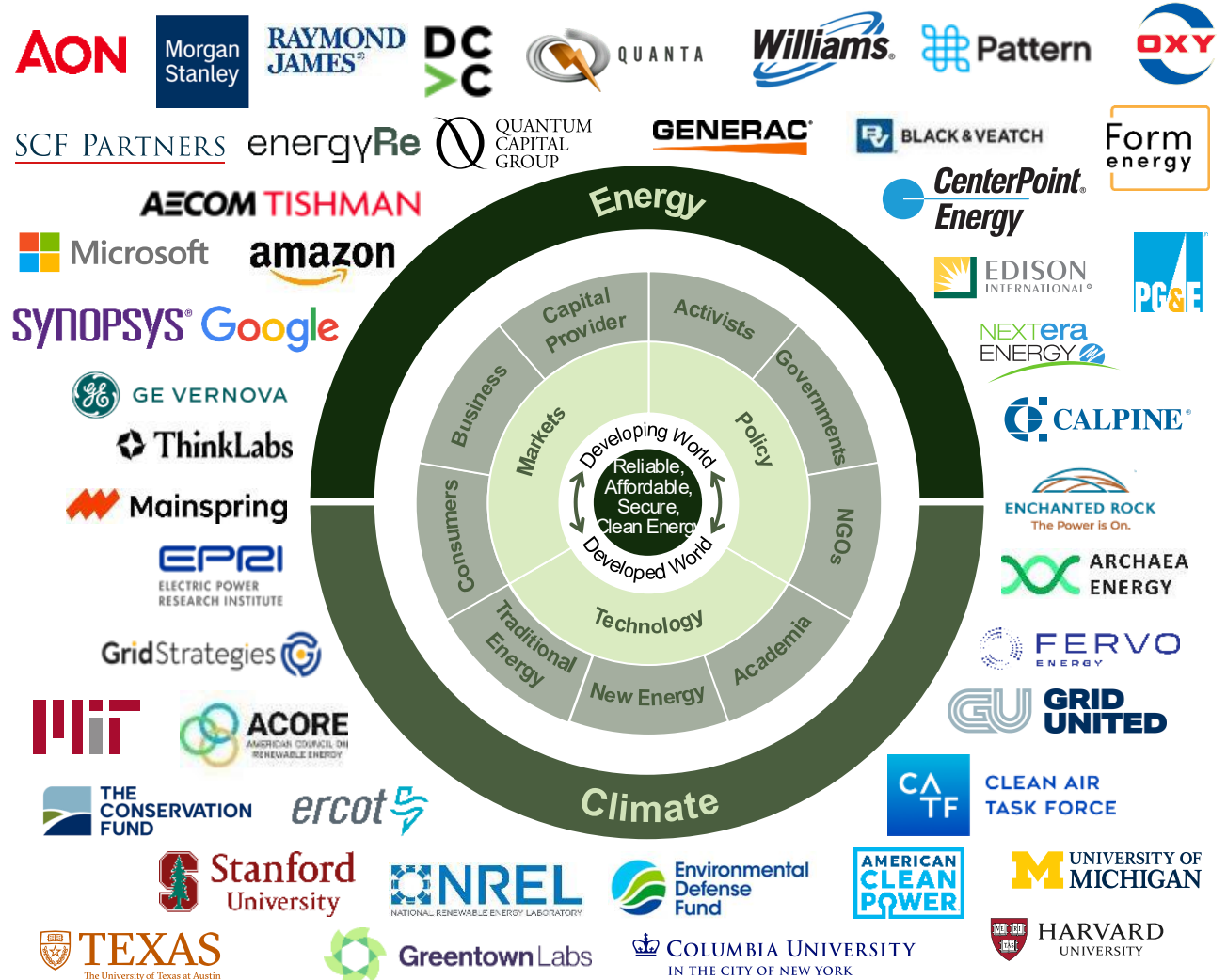


Cross-functional expert team



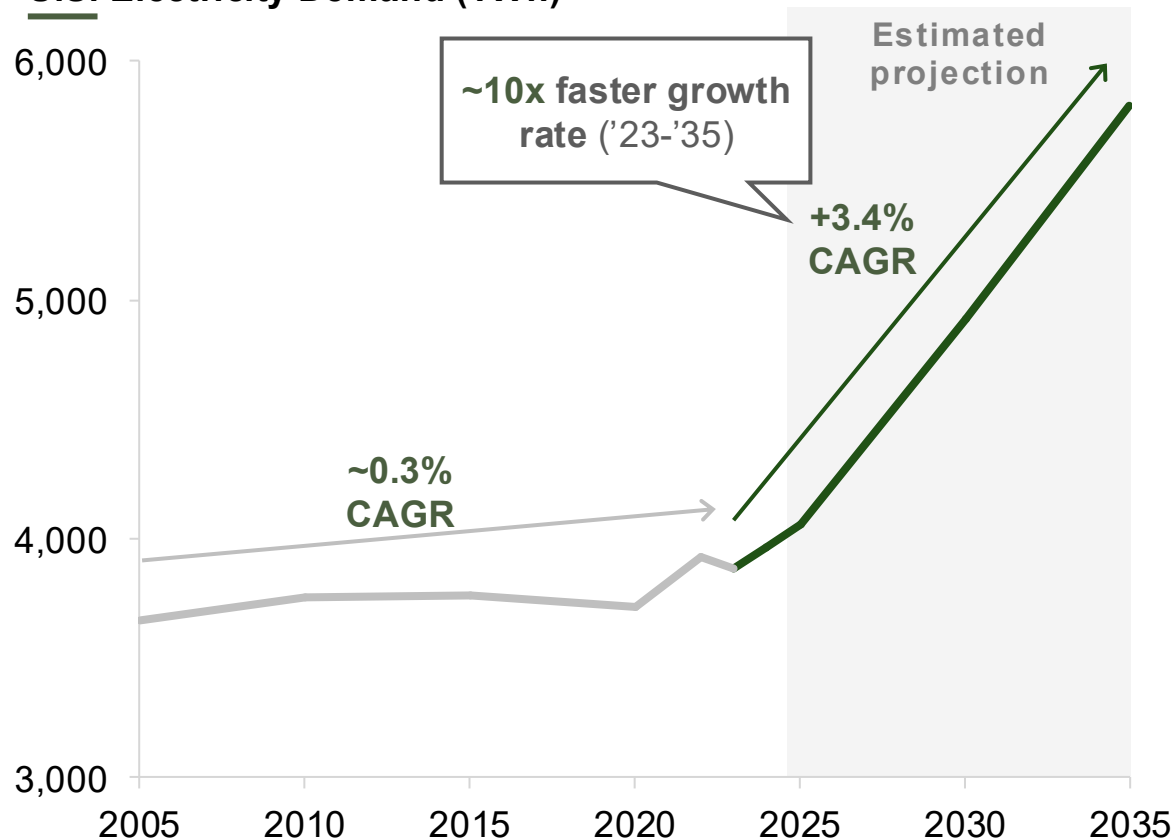
Data-driven solutions framework

OPENMINDS NETWORK

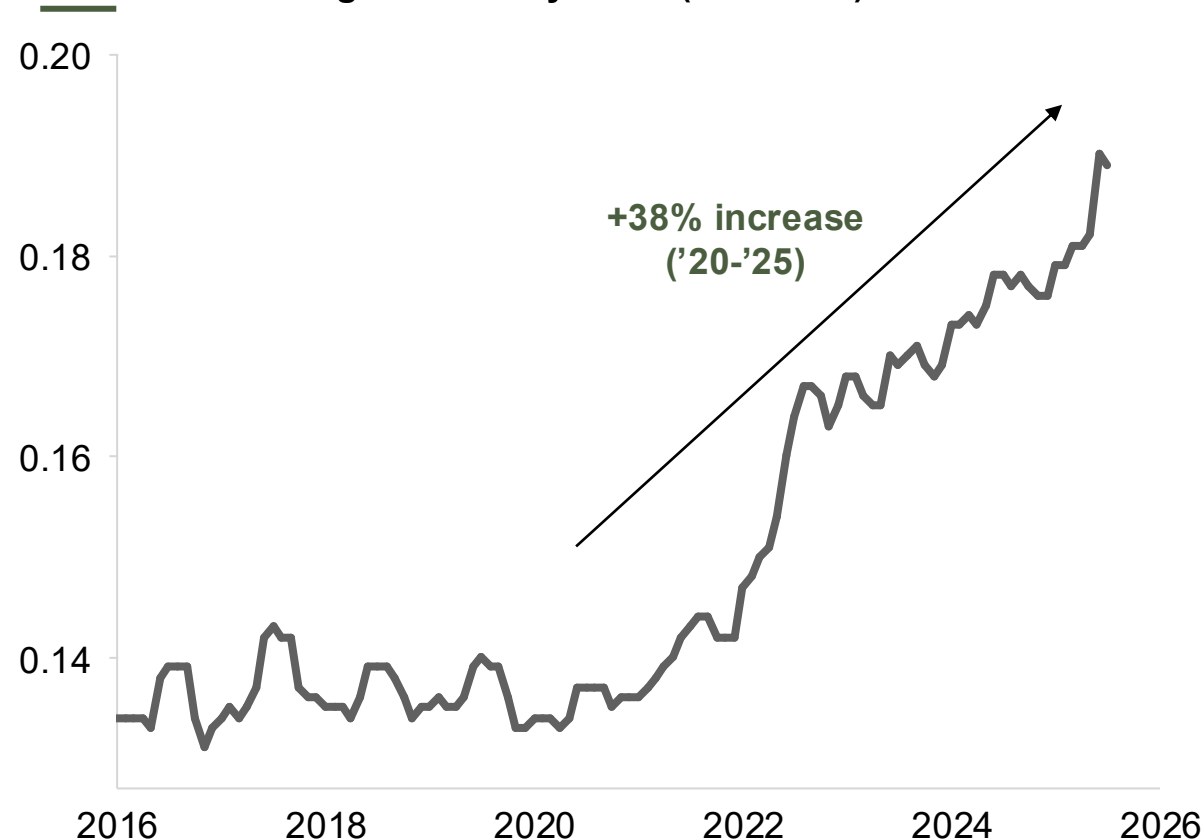


Electricity Demand And Prices Are Both Growing Rapidly

U.S. Electricity Demand (TWh)



U.S. Cities Average Electricity Price (US\$/kWh)



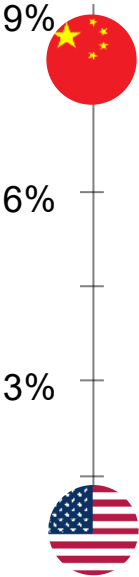
Note: Due to rapidly growing electricity demand (TWh), the grid will need 800GW of additional installed capacity to meet 2035 peak demand using a mix of power sources with varying capacity factors; Estimates for quantity of generation needed by power source use EIA's 2024 average capacity factors for nuclear (92.3%), combined-cycle natural gas (59.9%), and solar (23.4%); US electricity prices are for residential customers only

Source: EIA Monthly Energy Review data, OpenMinds P50 model, DOE, EIA, SEIA; [Federal Reserve Bank of St. Louis](#)

The US Lags In Building Energy Infrastructure, Inhibiting Our Ability to Meet Demand And Posing A National Security Challenge

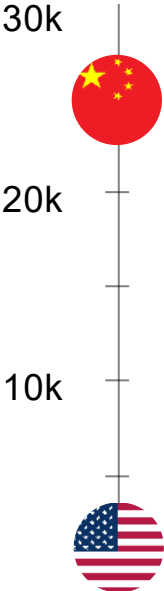
**Electrification
growth rate p.a.**

2004-2024 (%)



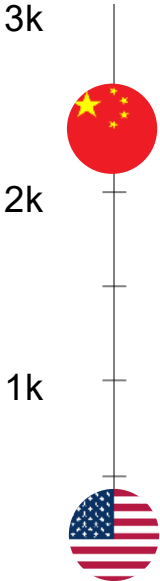
**Transmission lines
built per year**

2013-2023 (mi)



**HVDC lines
built per year**

2015-2025 (mi)



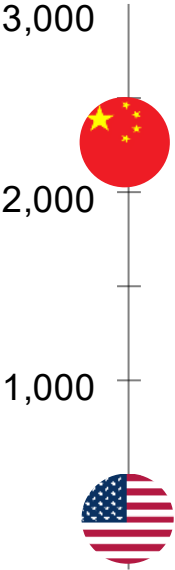
**Average time to permit
Tx project**

2024-2025 (years)



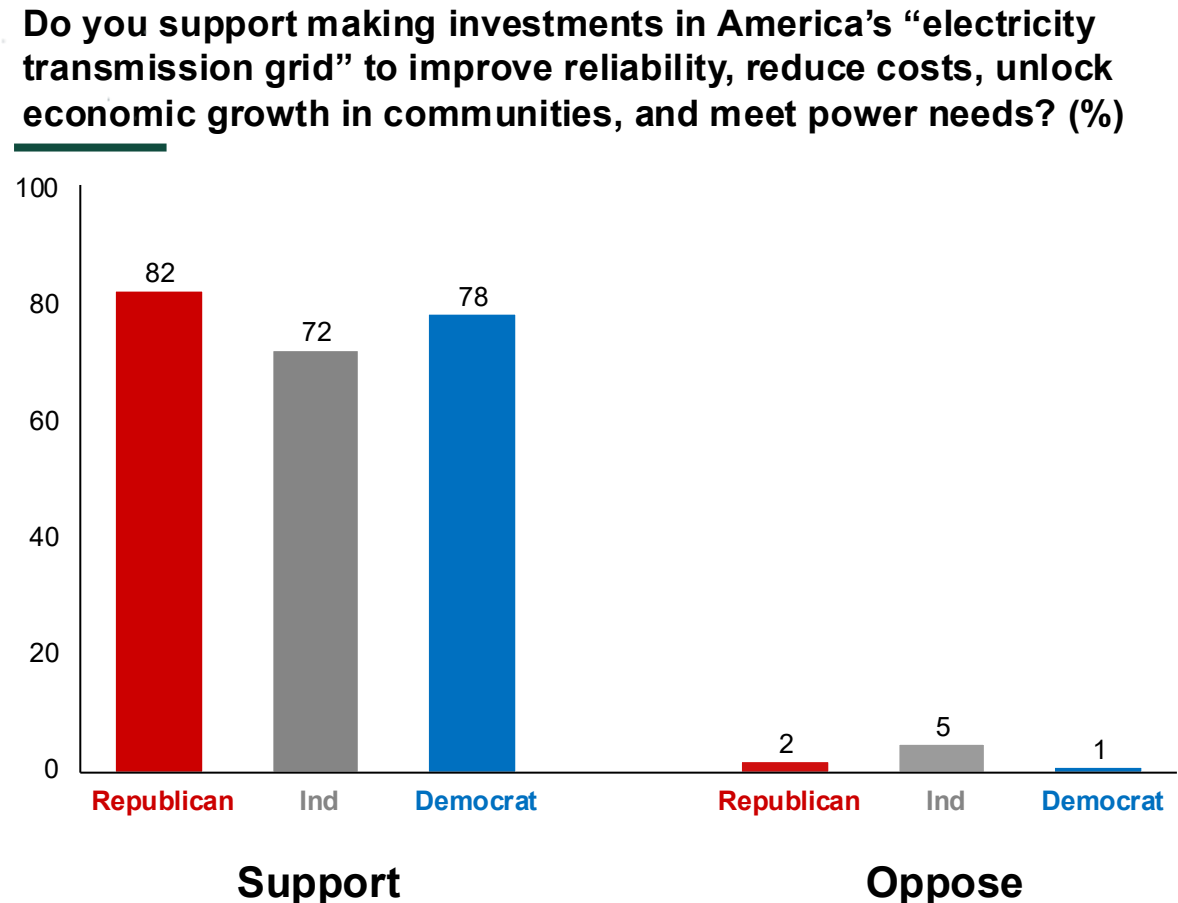
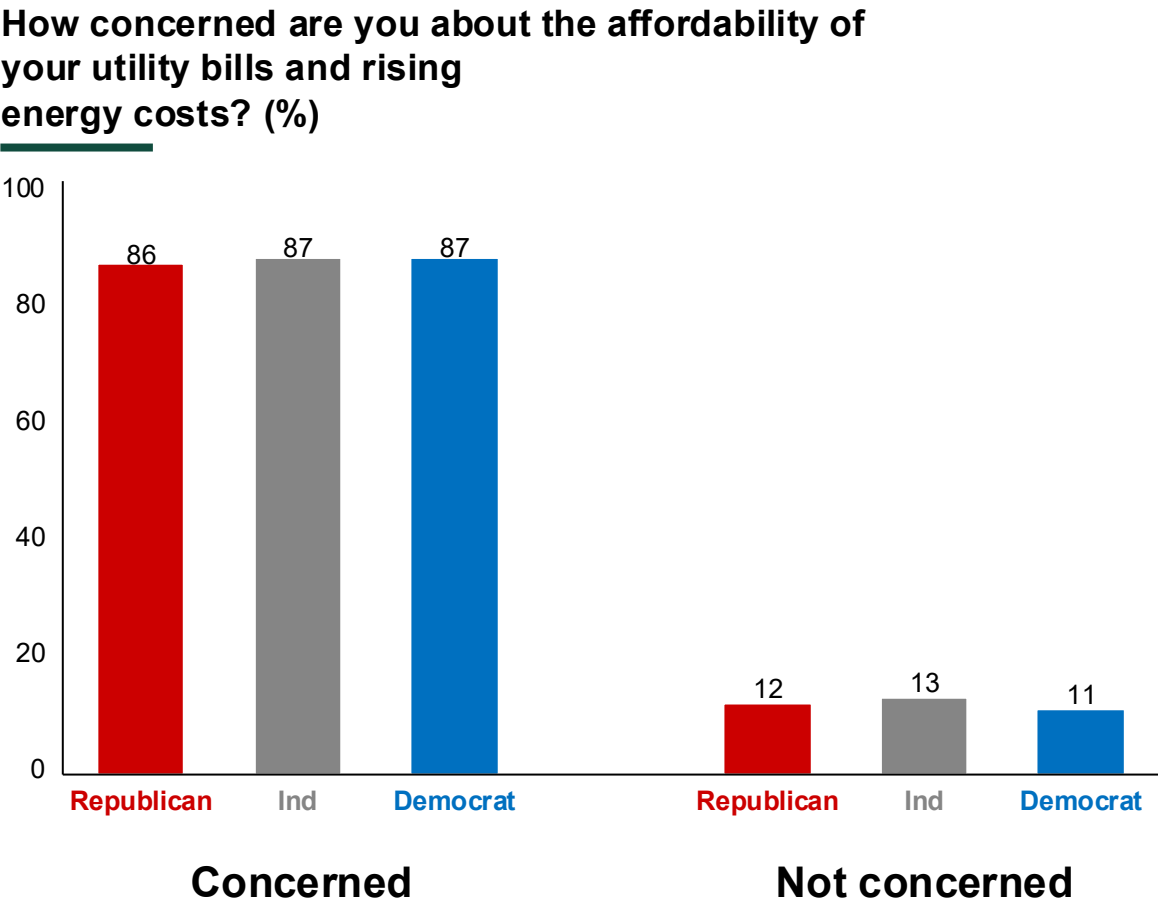
**Generation capacity
added & interconnected**

2015-2025 (GW)



The US has the innovation, resources, and capital to compete with China, if permitting is supportive

Americans Are In Favor of New Grid Infrastructure Across the Political Spectrum



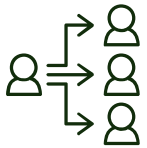
Source: Cygnal, August 2025: Survey of likely general election voters in MISO & PJM regions

Permitting And Planning Inefficiencies Are Impairing Our Ability To Build New Transmission

Current Obstacles Caused by Permitting



Multi-jurisdictional permitting and siting processes cause delay and allow local interests to block national priorities



No clear and consistent method to **allocate costs** for interregional transmission



Interregional transmission **planning not sufficiently incentivized**



Complex processes **extend timelines for judicial review** and allow special interests to block national projects

Industry Leaders Are Supportive of Reform

“The U.S. can’t afford to take 12 years to create this type of solution given the growing need for more energy infrastructure.”

Hunter Armistead
CEO, Pattern Energy

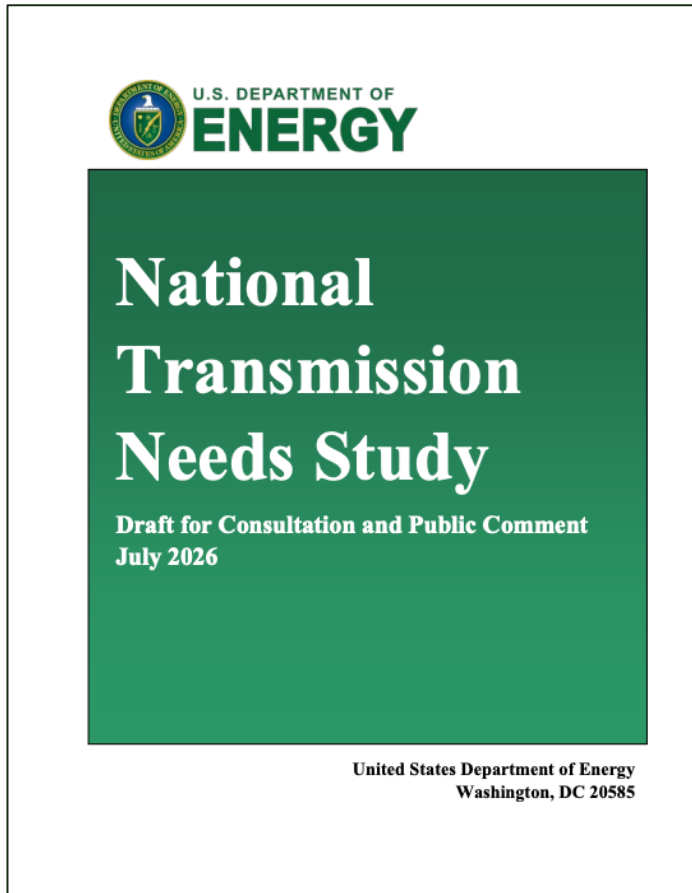
“[Permitting reform] would significantly increase the pace of transmission development in the country, which is essential to meet our emissions targets.”

Miguel Prado
CEO, EnergyRe

“Energy production and generation really doesn’t matter if we can’t move those electrons across the grid.”

Gov. Spencer Cox (Utah)

A New DOE Report Highlights The Need To Accelerate The Development of Transmission



Key takeaways from the DOE's National Transmission Needs Study

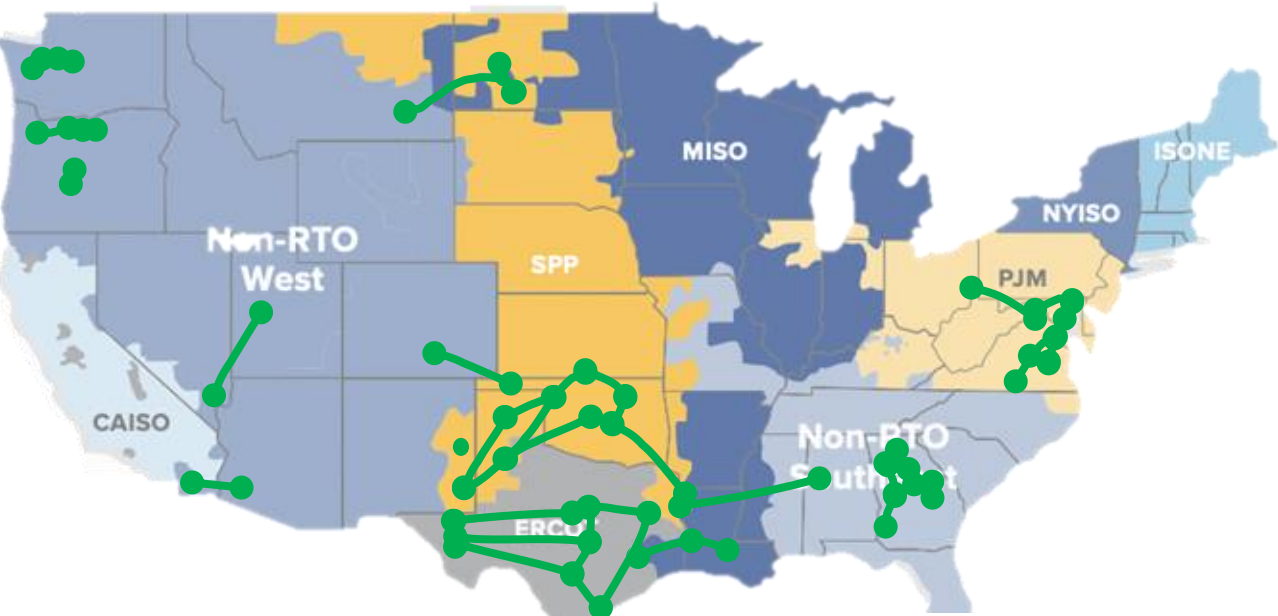
- 1 There is a pressing need for additional transmission infrastructure to **support load growth and reduce wholesale prices**
 - Nationwide grid congestion costs were close to **\$15B p.a. from 2021-2024**
 - The 2024 National Transmission Planning Study estimated that recommended transmission buildout could provide up to \$490 billion in customer cost savings by 2050.
- 2 Increasing **interregional transmission is recognized for its multifold benefits** to customers
 - Investment in transmission **improves reliability** for isolated regions, **strengthens resilience** to extreme events, and **enhances resource adequacy** by allowing regions to share power during peak periods
 - **Cross-interconnection links** are considered the most critical to relieve congestion costs, with average modeled **benefits between \$30-40/MWh**
- 3 Many regional planning entities are approving their largest transmission portfolios ever, **but development processes and timelines remain complex and long**

*"Navigating complex federal, state, and local processes and requirements in efforts to permit and site new lines can be difficult and **result in long development periods**. The problems are **compounded for regional projects that cross multiple states and jurisdictions.**"*

DOE National Transmission Needs Study (2026)

Transmission Lines Can Have Near-Term Impact: 18 Shovel Ready Lines Can Provide >\$180 Billion In Net Benefits Over 40 Years

18 shovel-ready lines have been identified across the country



Projects target areas with **high load growth**:

- Texas
- Virginia
- Southeast
- Northwest

...and **increase transfer capabilities** b/w regions:

- Southwest
- Upper Midwest/Plains
- Intermountain West

Benefit-to-cost ratios for regional transmission plans

Region	Transmission Portfolio	Benefit-to-Cost Ratio
SPP	2023 ITP	\$2.29 to \$1
SPP	2024 ITP	\$6.50 to \$1
SPP	2025 ITP	\$5.70 to \$1
ERCOT	CREZ	\$12.20 to \$1
Nationwide	Avg. portfolio	\$2.41-\$4.45 to \$1

Benefit-to-cost ratios for interregional transmission projects

Region	Transmission Project	Benefit-to-Cost Ratio
MISO, SPP, & the West	North Plains Connector	\$4.86 to \$1
MISO & Texas	Southern Spirit	\$3.64 to \$1
Nationwide	NERC ITCS Prudent Additions	\$4.30-\$5.80 to \$1



Solving for the Dual Challenge



openminds203x.org