

GIIA Policy Paper

Advancing American Transmission Infrastructure

Executive summary

The Global Infrastructure Investor Association (GIIA) urges Congress and the Administration to prioritize the modernization and expansion of U.S. electricity transmission infrastructure. A resilient, interconnected transmission network is critical to meeting the nation's clean energy goals, reducing grid congestion, and improving energy reliability and affordability for American households and businesses.

Current federal authority, interagency coordination, and transmission corridors are not designed to support the scale and pace of transmission development required for America's current and future energy needs. U.S. energy demand is projected to reach a record 4,198 billion kWh in 2025 and overall consumption is expected to increase by a maximum of 15 per cent (15%) by 2050.¹² Meeting these demands will secure America's future prosperity and global competitiveness.

By strengthening federal authority, enhancing interagency coordination, and unlocking access to existing infrastructure corridors such as highway rights of way, the United States can accelerate the development of critical transmission projects and harness long-term private investment to build a resilient, efficient, and future-ready energy grid.

1. Strengthening federal authority for energy transmission development

Problem:

The U.S. energy grid is facing growing strain due to transmission congestion and infrastructure shortfalls. While the Department of Energy (DOE) can designate National Interest Electric Transmission Corridors (NIETCs), the permitting process remains slow, fragmented, and vulnerable to opposition from state-level authorities.

This regulatory inefficiency is delaying the construction of vital transmission lines, particularly high-voltage direct current (HVDC) systems that are needed to connect renewable generation to load centers and address critical congestion issues across regions.

Solution:

- Federal agencies must be empowered with greater authority to expedite permitting processes and encourage the use of existing rights of way to build out a HVDC grid.
- Providing clear, time-bound permitting pathways will accelerate the creation of a modernized energy grid that meets national energy needs and enhances transmission efficiency.

Recommended actions:

Congress should:

- Authorize the DOE to conduct congestion studies at any time, eliminating the need to wait for state-level reviews or approvals.
- Empower the Federal Energy Regulatory Commission (FERC) to assume permitting responsibilities, allowing projects to proceed even if state permits are delayed or rejected.

¹ [U.S. Energy Information Administration \(EIA\): Short-Term Energy Outlook](#)

² [U.S. energy consumption increases between 0% and 15% by 2050 - U.S. Energy Information Administration \(EIA\)](#)

2. Eliminate internal government roadblocks to long-distance energy transmission in highway rights of way

Problem:

State Departments of Transportation (DOTs) face significant internal roadblocks that hinder the development of long-distance energy transmission through highway rights of way. The primary issue is the lack of collaboration between state DOTs and public service commissions when implementing projects.

Moreover, although the joint DOE and federal DOT energy office has undertaken this effort in its work program, there has been little to no action taken to move it forward.

Solution:

- Create a Deputies-level executive branch working group, backed by an Executive Order, to facilitate progress in developing transmission infrastructure using highway rights of way.

Recommended actions:

- Draft a model for streamlined approval processes between public utility commissions and state DOTs.
- Eliminate previously identified obstacles that have prevented the implementation of energy transmission projects.
- Establish pilot projects to demonstrate the feasibility and benefits of using highway rights of way for energy transmission

Benefits for the U.S. economy

Accelerating an “all-of-the-above” energy strategy

Expanded transmission capacity will enable integration of wind, solar, storage assets at scale, as well as traditional energy sources supporting an “all-of-the above” energy strategy and reducing electricity prices.

Improving grid reliability and resilience

Modernized transmission networks can reduce blackout risks, balance regional load variability, and provide critical redundancy in the face of natural disasters or cyber threats.

Mobilizing long-term private capital

With supportive policy and regulatory frameworks, institutional investors are ready to deploy billions in private capital to transmission assets that deliver stable, inflation-linked returns over the long term.

About GIIA

GIIA represents over 100 of the world’s leading private investors in infrastructure, collectively managing over US\$2.04 trillion in infrastructure assets. We advocate for public policies that unlock private capital to help meet America’s urgent infrastructure needs, from transportation and water systems to broadband and clean energy. The United States faces an infrastructure investment shortfall of over **US\$15.2 trillion between 2024 and 2043**.³ Modernizing the policy and regulatory environment for transmission development is essential to unlocking private capital and meeting America’s growing energy demands.

Congress and FERC have a critical opportunity to accelerate the buildout of modern transmission infrastructure by enabling greater participation from private investors. GIIA and its members stand ready to partner with government at all levels to help deliver the modern, efficient, and resilient grid America needs.

³ [2024-Bridging-the-Gap-Economic-Study.pdf](#)