

The BIG WIRES Act

Sen. John Hickenlooper & Rep. Scott Peters

Problem: Interregional electric transmission is foundational to a growing economy based on cheap, reliable energy. But today, our transmission grid has stagnated. Since 2014, North America has built just 7 gigawatts of large-scale interregional transmission, compared to 44 in Europe and 260 in China.¹

America's interregional transmission shortfall is contributing to grid outages across the country and artificially inflating energy prices.^{2,3} Moreover, existing market and regulatory structures often fail to provide developers the right incentives, and have proven inadequate to the problem.⁴

Solution: The Building Integrated Grids With Inter-Regional Energy Supply (BIG WIRES) Act addresses the problem by requiring regions⁵ to be able to transfer at least 30% of their peak demand between each other. In order to achieve this objective, regions can use the full suite of tools, including:

- New transmission lines.
- Upgrades to existing facilities.
- Energy efficiency to reduce peak demand.
- New generation that frees up capability to move power.
- Grid-enhancing technologies such as advanced power flow controls or dynamic line ratings.

Benefits: This straightforward approach would protect against extreme events like Winter Storm Uri, which in 2021 took 4.5 million Texas residents offline, killing hundreds and increasing energy prices 100-fold.⁶ During the storm, each added gigawatt of interregional transmission would have saved nearly \$1 billion over just four days.⁷ The bill would not otherwise expand the Federal Energy Regulatory Commission's authority, allowing the Texas Interconnect to remain independent of federal regulation.

The new interregional transmission would dramatically lower energy prices for Americans. Research by the Department of Energy's National Labs finds hundreds of millions of dollars *per transmission line per year* available to ratepayers across the country.⁸ A separate 2021 National Lab study found benefit-cost ratios as high as 2.5⁹ This is in line with real-world experience in the Midwest, where a recently approved set of lines is expected to deliver over twice their cost in energy-bill savings.¹⁰

Relieving grid congestion also confers significant benefits to thermal power generators. Congestion can cause coal and nuclear plants that cannot quickly ramp down to bid into wholesale markets at negative prices, paying money in order to give away electricity that they could otherwise sell at a profit.¹¹ Transmission is also necessary to bring new baseload sources online, such as gas and advanced nuclear.

Transmission ultimately presents a two-way value proposition: energy-rich communities profit off of their natural resources – fossil, renewable, and nuclear – and American families and businesses see energy costs go down. Ultimately, everyone benefits from a more reliable and resilient grid.

¹ <https://acore.org/macro-grids-in-the-mainstream-report/>

² <https://www.ferc.gov/media/february-2021-cold-weather-outages-texas-and-south-central-united-states-ferc-nerc-and>

³ <https://www.energy.gov/gdo/national-transmission-needs-study>

⁴ <https://www.congress.gov/116/meeting/house/111020/documents/HHRG-116-II06-20200922-SD003.pdf>

⁵ <https://www.ferc.gov/media/regions-map-printable-version-order-no-1000>

⁶ https://en.wikipedia.org/wiki/February_13%E2%80%9317,_2021_North_American_winter_storm

⁷ <https://acore.org/transmission-makes-the-power-system-resilient-to-extreme-weather/>

⁸ <https://emp.lbl.gov/publications/empirical-estimates-transmission>

⁹ <https://ieeexplore.ieee.org/document/9548789>

¹⁰ <https://www.utilitydive.com/news/miso-benefits-transmission-projects-renewable/621729/>

¹¹ <https://www.eia.gov/todayinenergy/detail.php?id=6730>