The BIG WIRES Act

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Problem: Interregional electric transmission is foundational to a growing economy based on affordable, 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 transmission shortfall is contributing to grid outages across the country and inflating energy prices for American families and businesses.^{2,3} Moreover, existing market and regulatory structures often fail to provide developers the right incentives, and have not addressed the problem.⁴

<u>Solution</u>: The Building Integrated Grids With Inter-Regional Energy Supply (BIG WIRES) Act addresses the problem by requiring regions⁵ to be able to transfer 30% of their peak demand between each other (less for the regions starting with the lowest transfer capabilities). The bill is technology neutral with respect to achieving this objective, allowing regions to use the full suite of tools, including:

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

The regions themselves are responsible for deciding who builds and pays for any new transmission lines. And the bill does not apply to the Texas Interconnect, except at the discretion of its grid operator.

Benefits:

- Improved Reliability: Instituting a new minimum-transfer requirement would increase reliability by allowing for greater power flows between regions. This adds a layer of defense against extreme events like Winter Storm Elliott, which in 2022 left hundreds of thousands of Americans in the dark even as nearby grids kept the lights on.⁶
- **Reduced Costs**: The expanded transfer capabilities would dramatically lower energy prices for Americans. Department of Energy National Lab research finds hundreds of millions of dollars *per transmission line per year* in savings available across the country. A separate 2021 National Lab study found large regional lines paying for themselves multiple times over, in line with real-world experience in the Midwest.
- **Tech-Neutrality**: All types of generation need transmission to connect to the grid. And relieving grid congestion provides significant benefits. Congestion can force coal and nuclear plants to sell electricity at a loss (even negative prices) because they cannot ramp down quickly enough.¹⁰

The legislation presents a win-win scenario: energy-rich communities benefit from their natural resources – fossil, renewable, and nuclear – and American families and businesses see fewer grid outages while energy bills go down. Everyone benefits from a more affordable, reliable, 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://acore.org/wp-content/uploads/2023/02/The-Value-of-Transmission-During-Winter-Storm-Elliott-ACORE.pdf

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

⁸ https://ieeexplore.ieee.org/document/9548789

⁹ https://www.utilitydive.com/news/miso-benefits-transmission-projects-renewable/621729/

¹⁰ https://www.eia.gov/todayinenergy/detail.php?id=6730