



ENERGY FACT SHEET: THE GRID AND TRANSMISSION LINES

WITHOUT TRANSMISSION UPDATES, MIDWESTERN WIND ENERGY IS A STRANDED RESOURCE

America's grid was designed to carry energy from large generation stations to major population centers. It is time to update our grid to unlock the economic and public health benefits of renewable energy resources, which often are located in remote rural areas.

WHAT ARE TRANSMISSION LINES?

- Efficient, high-voltage transmission lines transport energy over long distances to distribution centers.
- Smaller, low-voltage distribution lines carry electricity to customers.

IT'S TIME TO UPDATE THE GRID.

- About 70% of existing transmission lines are over 25 years old. Older lines are less efficient, which translates to higher energy costs.
- Transmission infrastructure was built to connect large power plants to major population centers - not to utilize the energy resources from rural areas.
- As we transition to renewable energy sources that reduce energy costs, protect air and water quality, and benefit rural economies, we will need to update the grid to reflect the diversity of our power supply.

LAGGING TRANSMISSION SLOWS WIND ENERGY DEVELOPMENT.

- Transmission limitations are the biggest obstacle to continued expansion of the wind industry.
- Almost 300,000 MW of wind energy were under development but not yet able to connect to the grid.

THE MIDWEST AND GREAT PLAINS ARE LEAVING A LOT ON THE TABLE.

- The top ten states with the most wind potential include Texas, Kansas, Nebraska, South Dakota, Montana, North Dakota, Iowa, Wyoming, Oklahoma, and Minnesota.
- But of those states, only Texas, Iowa, Minnesota, Oklahoma, and Kansas are ranked as the top ten wind



producers. Several of these states have far greater production potential, but lack the transmission infrastructure to enable further wind energy expansion.

- Only 6% of high voltage transmission lines are located in the top ten states for wind energy potential.

WHAT DOES EXPANDED TRANSMISSION MEAN FOR MY WALLET?

- Because the cost of new transmission lines will be absorbed across multi-state regions, they will not add significantly to consumers' electric bills. Furthermore, independent analysis shows that transmission expansion will reduce energy costs but increasing grid efficiency and allowing more low-cost renewable energy to enter the market.
- Higher efficiency and fewer outages will save consumers money. A report from the Department of Energy shows that without greater investment in our grid, power outages will cost American business and households about \$200 billion by 2020.