



Americans for a
Clean Energy Grid

**Regional Transmission
Webinar Series**

MIDWEST

Who we are and what we do:

We support policies that modernize the nation's electric power network and unlock clean energy and economic opportunities across the country. The backbone of a clean electricity system and a strong economy is a resilient and reliable transmission grid. Smart state and federal policies that improve the way the grid is developed, planned, and paid for will help it become a more robust, reliable, and secure network that supports expansion of renewable energy, competitive power markets, energy efficiency, and lower costs for consumers.

Regional Transmission Summits

Upcoming Event

St. Paul, Minnesota, October 21st

Past Events

- Oregon (Pacific Northwest)
- Iowa (Midwest)
- Kansas (Heartland)
- Massachusetts (New England)
- Ohio (PJM-Interconnection)
- Nashville (Southeast)
- Denver (Rocky Mountain)

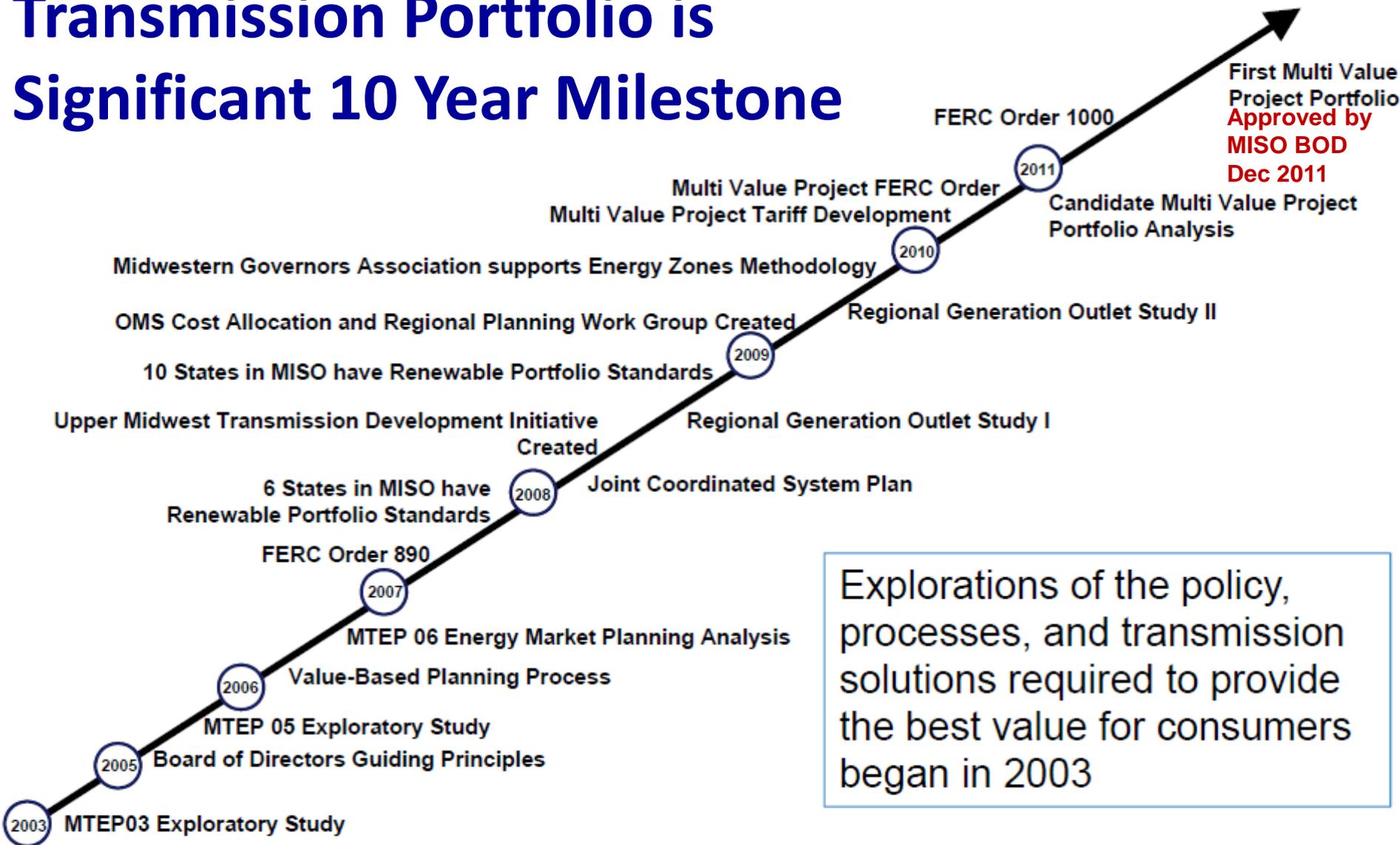
Regional Transmission Webinar Series

- Pacific Northwest (*Concluded*)
- Midwest – October 10th
- Heartland – October 29th
- New England - Week of November 11th
- PJM - Week of November 25th
- Southeast - Week of December 2nd
- Rocky Mountain - Week of December 9th
- National - (*To Be Determined*)

Current Status of Renewables in MISO

- MISO has been a leader in planning for renewables, particularly wind (although wind curtailments still an issue in certain locations)
- 12,240 MW (9,543 MW DIR) currently operating with several thousand MW additional recently announced (ND, MN, IA, IN, MI)
- MISO does not foresee any operational challenges with current renewable penetration levels
- MISO proactive on market tools to integrate wind (forecasting, DIR, ramp product)
- MISO starting to get light-of-day on “flexible” resources such as utility load response programs and behind the meter generation

Approved MISO Multi Value Transmission Portfolio is Significant 10 Year Milestone



Explorations of the policy, processes, and transmission solutions required to provide the best value for consumers began in 2003



MN RE Integration and Transmission Study

Minnesota Laws 2013, Chapter 85, Article 12, Sec. 4

Objectives

1. Evaluate the impacts on reliability and costs associated with increasing renewable energy to 40% of Minnesota retail electric energy sales by 2030, and to higher proportions thereafter;
2. Develop a conceptual plan for transmission necessary for generation interconnection and delivery and for access to regional geographic diversity and regional supply and demand side flexibility;
3. Identify and develop options to manage the impacts of the variable renewable energy resources;
4. Build upon prior renewable energy integration studies and related technical work;
5. Coordinate with recent and current regional power system study work;
6. Produce meaningful, broadly supported results through a technically rigorous, inclusive study process.

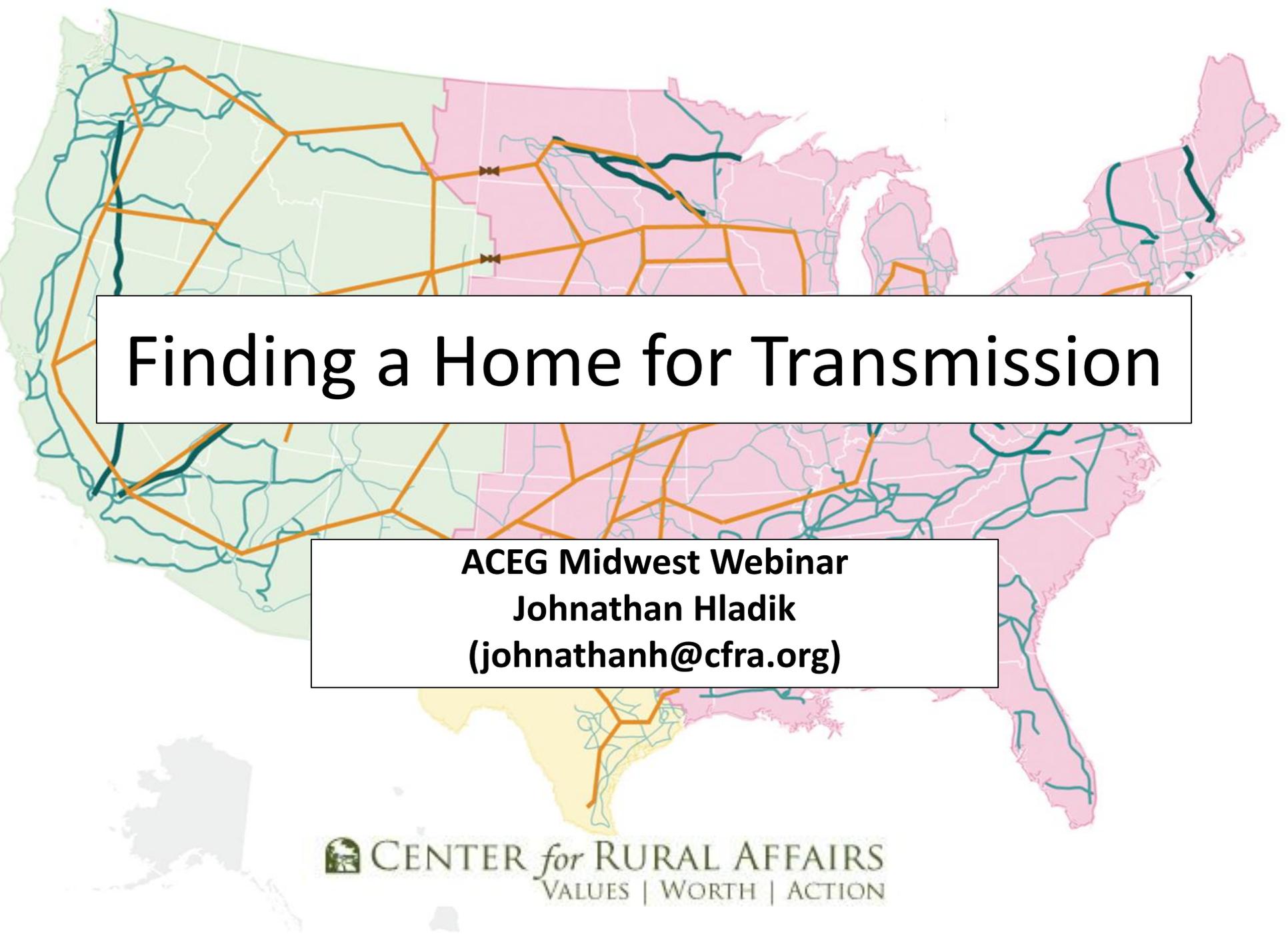


Cost of Wind

- - According to the Department of Energy, wind power prices have declined 43 percent over the past four years.
- - A May 2013 report by Synapse Energy Economics indicates doubling the use of wind energy in the Mid-Atlantic and Great Lakes states would save consumers nearly \$7 billion per year.
- - Electricity rates increased by twice as much in the 40 states with the least wind power between 2005 and 2010 as they did in the top 10 states for wind generation.
- - Electric utility leaders agree wind power is affordable. David Sparby, President and CEO of Xcel Energy's Northern States Power recently stated, "Wind prices are extremely competitive right now, offering lower costs than other possible resources, like natural gas plants."

Cost of Wind

- Savings being passed on to consumers every day through PPAs and reduced prices in the wholesale market.
- Wind turbine technology is improving; increased turbine productivity
- Lazard report in mid August shows wind costs have declined more than 50 percent over the past four years.
- August 2012 Synapse Report on wind and transmission in MISO

A map of the United States showing transmission lines in orange and teal. The map is divided into three colored regions: green on the West Coast, pink in the Midwest and Northeast, and yellow in the South. Two black arrows point from the green region towards the pink region.

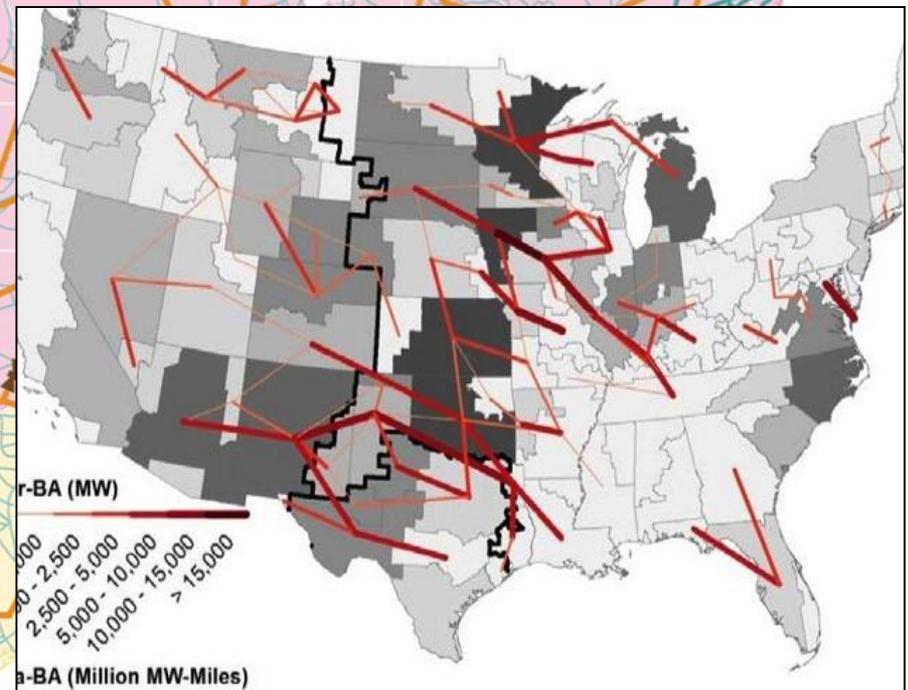
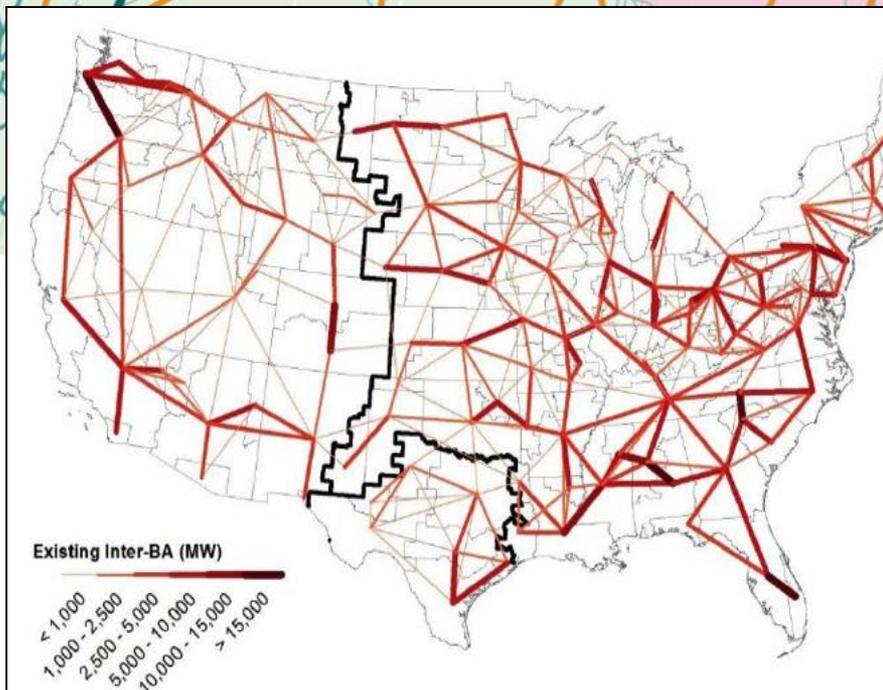
Finding a Home for Transmission

ACEG Midwest Webinar
Johnathan Hladik
(johnathanh@cfra.org)

Existing transmission (a) and potential 2050 transmission (b)

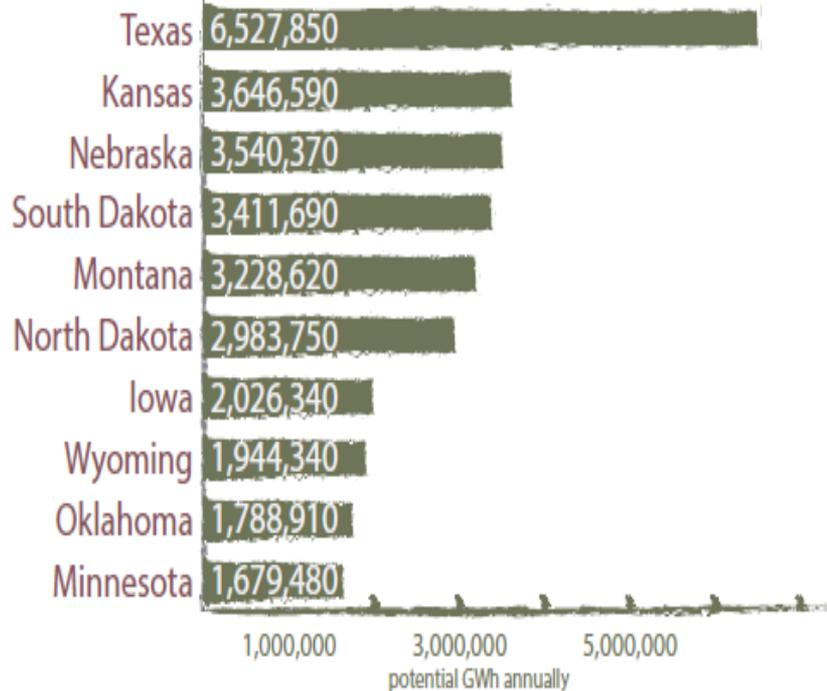
This map illustrates the amount of transmission currently in place.

This map illustrates the amount of new transmission required by 2050.

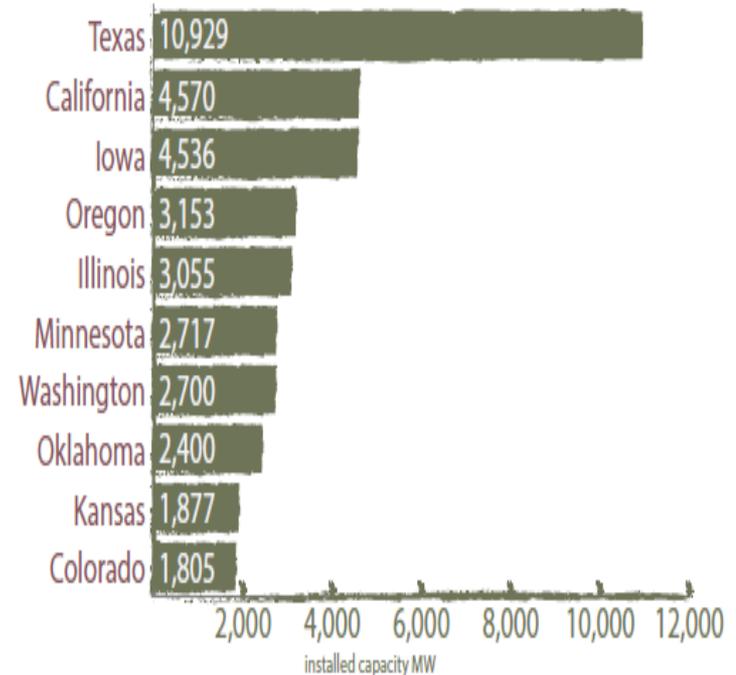


Existing capacity (a) and resource potential (b)

This chart shows states with the greatest wind resource potential.



This chart shows states with the greatest installed capacity.



Do developers need best practices? (Yes, they do.)

- Engage Landowners Early and Often
- Improve Online Presence
- Explain Regulatory Process
- Use Agricultural Mitigation Agreement
- Open Cultural and Environmental Resource Database to Community
- Increase Setback Distance from Homes
- Explore Alternative Compensation Models



For example: Nebraska Public Power District

- Phase One
 - Reach out to regulators, municipalities, community organizations, and industry representatives.
 - Raise awareness, educate stakeholders, and avoid physical and group concerns before meeting with affected landowners.
- Phase Two
 - Three rounds of open house meetings.
 - Average upwards of 25 percent of landowners, compared to the 5 to 10 percent drawn by other utilities.
- Phase Three
 - Maintain consistent personal contact with landowners and local officials after construction begins.

Do developers need eminent domain? (Yes, they do.)

- *Special Purpose Development Corporations* (SPDC) allows the landowner to choose between receiving the traditional fair market value for the parcel and electing to receive shares in the project.
- *Tender Offer Taking* enables developers to test landowner interest in several corridors by drawing proposed boundaries for a given project, and offering an above-market price for all landowners within the boundary.
- *Self-assessment* enables landowners to report the value of their land once a plan to condemn is announced. The landowner's tax liability is then adjusted to the reported value.
- *Annual payments* allow landowners directly impacted by transmission projects to receive compensation tied to the amount of power transmitted on the line each year the project is in service.

For example: Clean Line Energy Partners

- Structure compensation is based on the type of structure used and the number of structures on the property.
 - Monopole: \$500 annually or \$6,000 one time
 - Lattice Mast: \$500 annually or \$6,000 one time
 - Lattice: \$1,500 annually or \$18,000 one time
- The landowner may elect to receive a one-time payment or annual payments, at the landowner's preference annual payments will be made as long as a structure is on the easement property.

THANK YOU FOR JOINING US

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- Join us for future webinars and events, and feel to reach out to us for any transmission-related questions.



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