

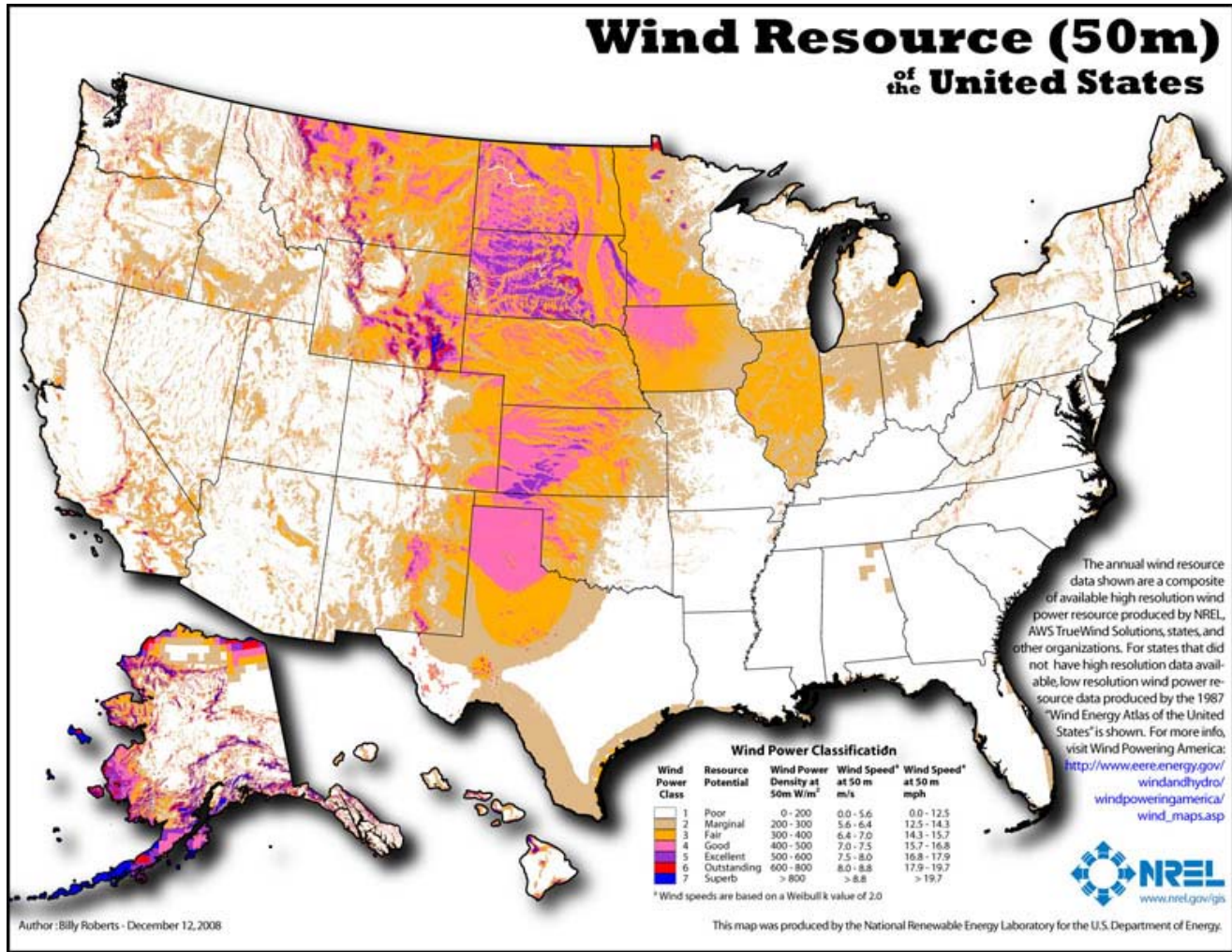


Santa Fe Clean Line
Introduction
June 2010

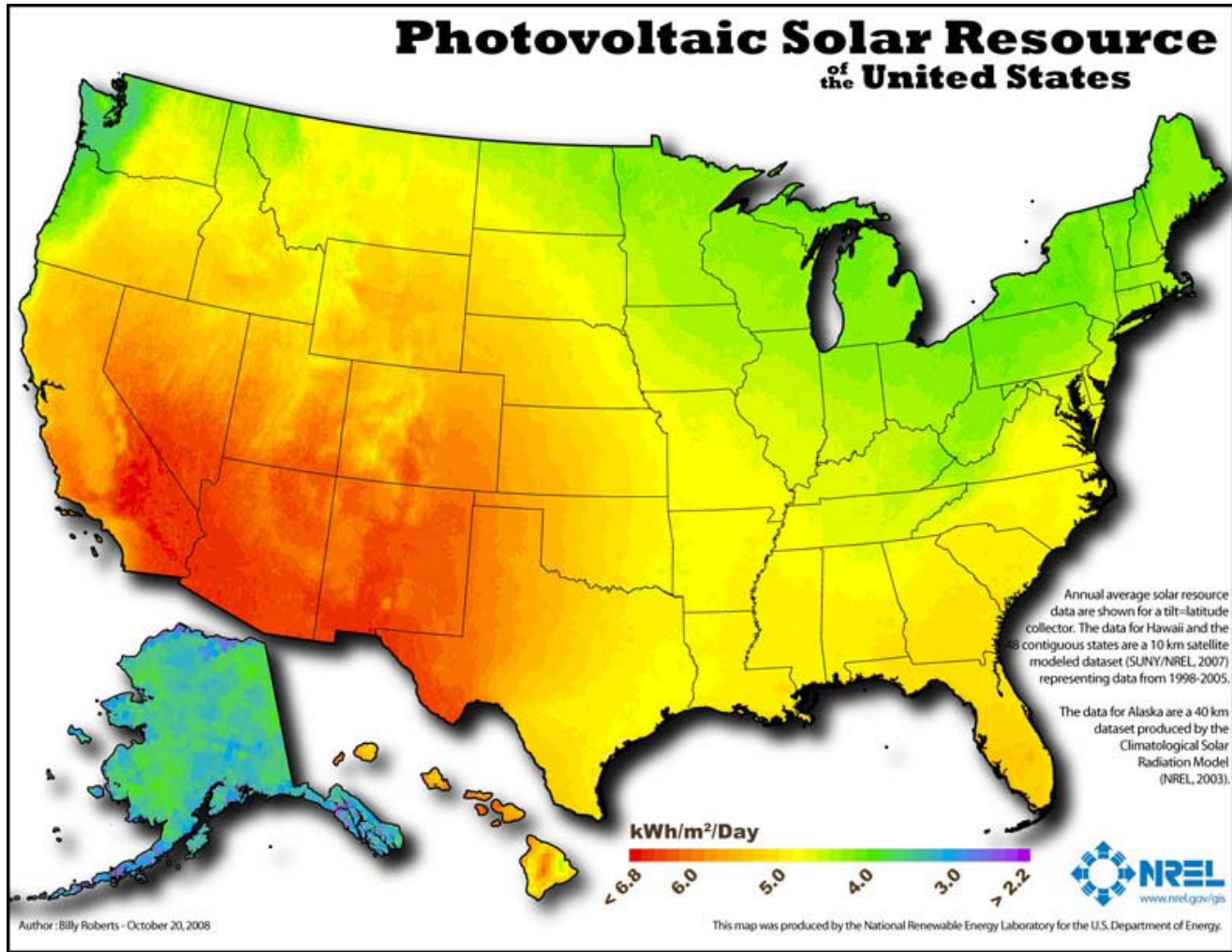
Who is Clean Line Energy Partners?

- ❖ Clean Line Energy Partners is a project development company focused on building “Clean Line Renewable Energy Pipelines” between quality renewable resources and energy demand centers
- ❖ Clean Line is developing and will build, own and operate long haul, high voltage direct current (HVDC) transmission lines across the US
- ❖ Clean Line’s principals, partners and backers bring unique perspective, experience and focus to transmission development along with a track record of success in energy project development
- ❖ Clean Line Energy Partners has financial backing from ZBI Ventures (a subsidiary of Ziff Brothers Investments) and the Zilkha family (founders of Horizon Wind Energy)
- ❖ Clean Line is 100% independent with no ownership ties to power generation companies or incumbent utilities

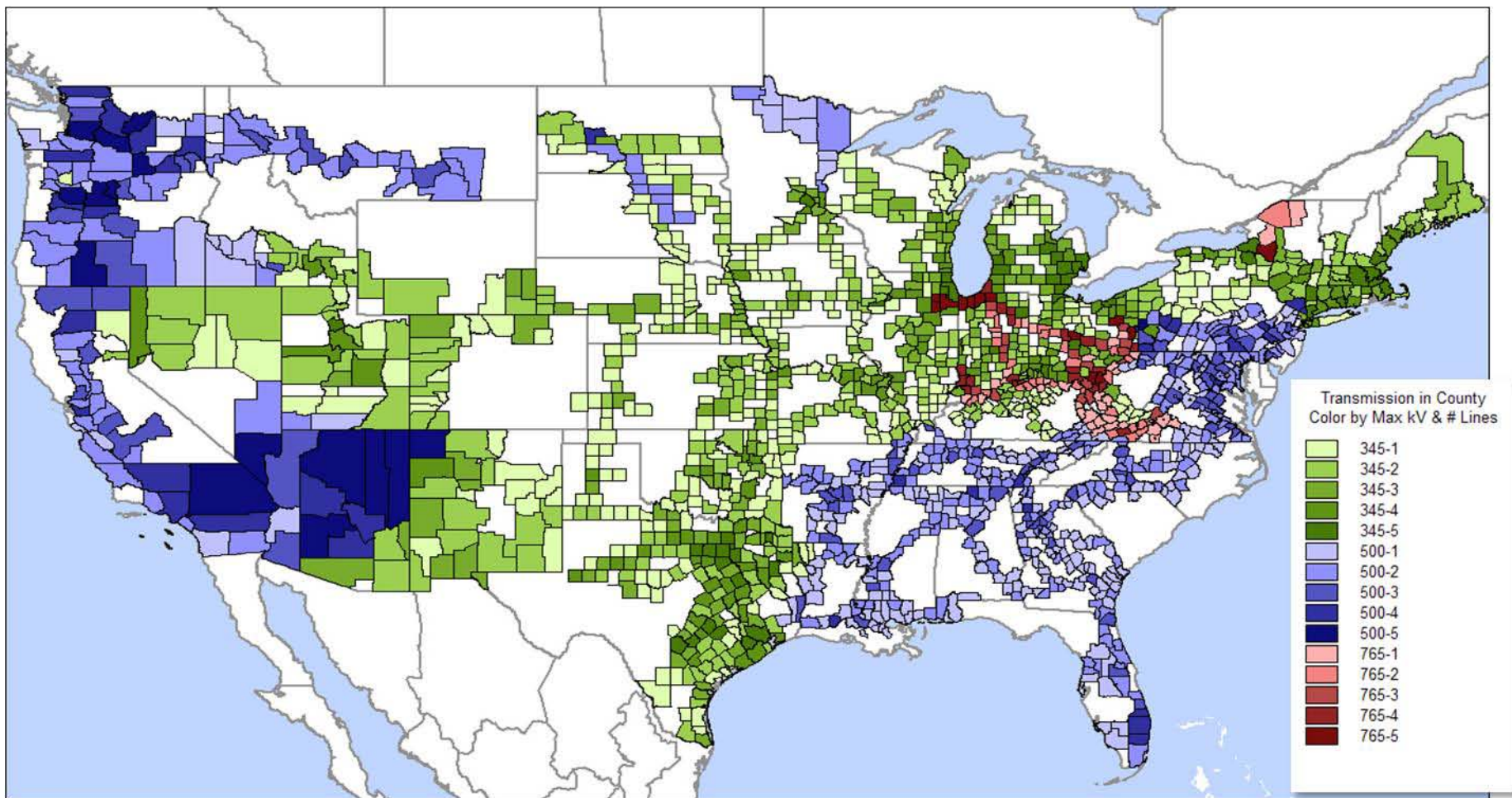
Best Renewable Resources Distant from Demand Centers



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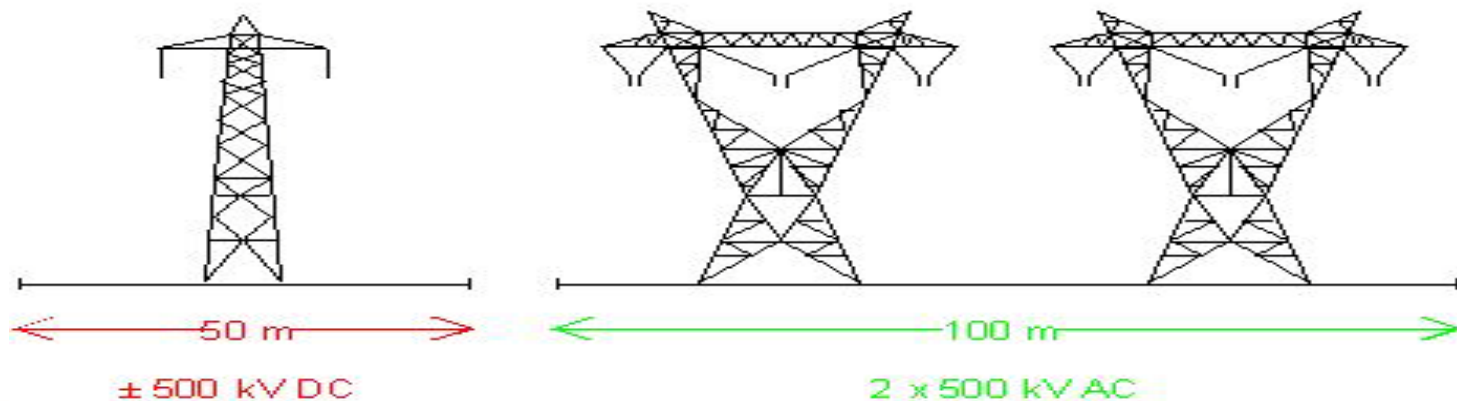
Best Wind Resources Located in the Weakest Transmission Systems



HVDC brings economic, policy and electric reliability benefits

- ❖ Simpler Commercial Structure – Generator or load pays
- ❖ Efficient – Due to lower losses, DC is most efficient solution to move large volumes over long distances
- ❖ Improved Reliability – Enhances system stability, improves quality of electricity from wind projects, control of power flow and helps lower overall integration costs
- ❖ Technological Advances – Improved HVDC technology will help reduce costs over the long term
- ❖ Smaller Footprint – Less complex siting because DC requires narrower ROW and lower tower height than AC

Typical Transmission Line Structures for approx. 2000 MW



Santa Fe Clean Line Project Highlights

Transmission of Wind Energy from Excellent Wind Resources of New Mexico and Texas Panhandles to Arizona and other parts of the Southwest

- ❖ Up to 3500 MW of Transmission Capacity
- ❖ estimated 750 miles
- ❖ Single DC line
- ❖ 50% utilization rate for transmission line
- ❖ \$2.0 billion investment
- ❖ All-in cost to end point customers
- ❖ Taps into area rich in wind and solar resources

Benefits to Southwest Stakeholders

- ❖ Santa Fe Clean Line could enable NM, AZ, CA, NV to achieve their stated goals of reducing carbon and help regional utilities to meet renewable energy standards
- ❖ Lower cost and higher volume than many smaller scale renewable alternatives (provides balance and fills in gap at transmission level)
- ❖ Direct delivery eliminates volatility and instability inherent in “contract for differences” PPA
- ❖ Change in generation stack positively influences carbon emissions



Santa Fe Clean Line Project Status

- ❖ The Navajo Nation and Clean Line have signed a Memorandum of Understanding to work together on the project
- ❖ On-going outreach to non-profit organizations
- ❖ Feasibility studies are in process
- ❖ Preparing studies with WECC Transmission Expansion Planning Project Committee (TEPPC)
- ❖ Wind integration and resource studies underway
- ❖ Ongoing conversations with generators and end use customers in New Mexico, Arizona, Nevada and California

Santa Fe Clean Line

- ❖ The Santa Fe project addresses critical issues for the Southwest
- ❖ Major transmission projects are needed to meet state renewable energy goals
- ❖ Physical delivery of electricity addresses price volatility, grid management and carbon emissions reduction challenges
- ❖ Clean Line is carrying out a methodical, long range development process designed to incorporate the concerns of major stakeholders
- ❖ Santa Fe Clean Line can and will happen with the right level of support, but will require the collaboration of many stakeholders



CLEAN LINE

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