

The Grain Belt Express: A Crucial Step to Renewable Energy

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The Grain Belt Express is a proposed high-voltage direct current (HVDC) transmission line project that aims to transport renewable energy from wind-rich areas in western Kansas to major load centers in the eastern United States. This ambitious \$2.5 billion endeavor, spearheaded by a consortium of utilities and energy companies including Invenenergy Transmission, Renewable Transmission Organization, and Horizon Transmission, has garnered significant attention due to its potential impact on the energy landscape and the legal challenges it faces.¹ Once implemented, the Grain Belt Express would allow for over 3.2 million homes on the east coast to be powered by renewable energy.² The driving force behind the Grain Belt Express is the need to harness the vast wind energy potential of the Great Plains region and transport it to areas with higher electricity demand. Western Kansas, with its expansive open spaces and consistently strong winds, is an ideal location for large-scale wind farm development.³ However, the lack of transmission infrastructure has hindered the ability to efficiently move this renewable energy to population centers in the Midwest and East Coast.

The Grain Belt Express aims to address this challenge by constructing a 785-mile, 600 kilovolt (kV) HVDC transmission line, capable of delivering up to 4,000 megawatts (MW) of wind energy from Kansas to Indiana, where it would interconnect with the existing grid.⁴ This would not only provide a crucial link between wind-rich areas and major load centers but also enhance grid reliability and resilience by providing an additional energy transmission pathway. The project is being driven by the increasing demand for clean, renewable energy sources and the need to reduce greenhouse gas emissions and mitigate the impacts of climate change.⁵ By facilitating the integration of large-scale wind energy into the grid, the Grain Belt Express could play a pivotal role in achieving ambitious renewable energy goals set by various states and the federal government.

However, the Grain Belt Express faces significant legal challenges related to environmental and energy laws and regulations. Navigating the complex web of environmental regulations at both the federal and state levels is crucial, as the project's construction and operation could potentially impact various aspects of the environment, including wildlife habitats, water resources, air quality, and cultural resources. One of the primary legal hurdles is complying with the National Environmental Policy Act (NEPA), which requires federal agencies to evaluate the potential environmental impacts of major federal actions.⁶ This process involves conducting comprehensive environmental impact assessments, soliciting public input, and considering alternatives to mitigate potential adverse effects and represents a significant

¹ *More Affordable Energy is Only the Beginning*, Invenenergy Transmission (2024).

<https://grainbeltexpress.com/benefits/>

² *Id.*

³ *Kansas State Profile and Energy Estimates*, U.S. Energy and Information Administration (June 15, 2023).

<https://www.eia.gov/state/analysis.php?sid=KS#:~:text=Kansas%2C%20with%20its%20wide%20plains,the%20best%20wind%20power%20potential.&text=The%20state%20ranked%20among%20the,behind%20Iowa%20and%20South%20Dakota.>

⁴ *Supra* note 1.

⁵ *Id.*

⁶ *National Environmental Policy Act Review Process*, U.S. EPA (Oct. 3, 2023). <https://www.epa.gov/nepa/national-environmental-policy-act-review-process>

regulatory hurdle.⁷ Failure to adequately address environmental concerns could result in legal challenges from environmental advocacy groups or affected communities. Additionally, the project must navigate the complexities of the Endangered Species Act (ESA), the Clean Water Act (CWA), and the National Historic Preservation Act (NHPA), which aim to protect endangered species, water resources, and cultural resources, respectively. Compliance with these laws may involve obtaining permits, implementing mitigation measures, and conducting extensive surveys and consultations.

Beyond environmental laws, the Grain Belt Express also faces legal challenges related to energy laws and regulations. Obtaining approvals and permits from various state and federal agencies, such as the Federal Energy Regulatory Commission (FERC), which oversees interstate transmission projects, can be a complex and time-consuming process.⁸ This FERC clearance is likely to be lengthy as the technology behind the Grain Belt express has never been used in the United States before. Moreover, the project may face legal challenges from competing energy interests or stakeholders who may oppose the construction of the transmission line due to concerns over land use, property rights, or potential impacts on local communities or economies.

A key aspect of the legal landscape the Grain Belt Express must navigate is obtaining approvals from state public utility commissions and siting boards in the states where the transmission line would be constructed. These state-level regulatory bodies play a crucial role in the siting and permitting process for major energy infrastructure projects like the Corn Belt Express. The project developers would need to submit detailed applications and proposals to each state's public utility commission or siting board, providing comprehensive information on the project's design, route, environmental impact assessments, and mitigation plans. These regulatory bodies would then conduct extensive reviews, hold public hearings, and solicit input from various stakeholders, including local communities, landowners, environmental groups, and other interested parties. Ultimately, the state public utility commissions and siting boards would have the authority to approve or deny the project's construction within their respective states, potentially imposing conditions or requiring modifications to the proposed route or construction plans. Obtaining these state-level approvals is a critical step in the permitting process and could face significant legal challenges from opposition groups or parties concerned about the project's impacts on their communities or environments. The approval from all the state utility commissions is not guaranteed and will likely be one of the largest hurdles the project will face.

Despite these legal challenges, the Grain Belt Express represents a significant opportunity to tap into the vast renewable energy potential of the Great Plains region and facilitate the transition towards a more sustainable and resilient energy system. However, navigating the complex legal landscape and addressing environmental and energy law implications will be crucial for the successful implementation of this ambitious project. If successful, it could be one of the most impactful pieces of infrastructure in the 21st century.

⁷ *Id.*

⁸ *About the Federal Energy Regulatory Commission*, Office of Public Participation: Federal Energy Regulatory Commission (Feb. 12, 2024). <https://www.ferc.gov/media/about-ferc>