

Personal message: Story on Midwest transmission projects.



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RENEWABLE ENERGY: Midwest transmission boom worries land conservation, wildlife advocates (Thursday, February 12, 2009)

Daniel Cusick, E&E reporter

MINNEAPOLIS -- It used to be that the most imposing structures in the Midwest farm belt were the grain elevators handling feed and seed shipments between farmers and food consumers in the urban centers of Chicago, Detroit, St. Louis and points East.

Soon, however, the Heartland could have a new look, one characterized by hulking transmission towers carrying high-voltage power lines snaking their way to the very same population centers that gave rise to the grain elevators a century ago.

The change is expected as utilities seeking to harness the Midwest's newest cash crop, wind power, begin investing billions of dollars in new transmission lines to carry large quantities of renewable energy from the windswept plains to the rest of the country.

Just this week, Michigan-based ITC Holdings Corp., announced it would pursue the largest renewable energy transmission project in the United States -- a 12,000-megawatt electricity superhighway dubbed the "Green Power Express." The ITC project is the second major expansion of high-voltage transmission lines announced for the region, following the \$2 billion CapX 2020 project announced in 2007 by Minneapolis-based Xcel Energy Inc. and 10 utility partners.

The ITC project, expected to cost between \$10 billion and \$12 billion, would be among the nation's largest transmission expansions, adding approximately 3,000 miles of "extra high voltage" lines rated to carry 765 kilovolts of power across six states from North and South Dakota to Minnesota, Iowa, Wisconsin and Illinois.

"The Green Power Express is in many ways the true definition of a 'smart grid,'" said Joseph Welch, ITC's chairman, president and CEO, in a statement announcing the project early this week.

In addition to creating a "much-needed link between the renewable energy-rich regions of the Midwest and high-demand population centers," Welch said the new transmission network will advance the Obama administration's goal to both expand and modernize the electricity grid, which in many areas are saddled by old and undersized lines, maintenance problems and other inefficiencies.

But while such projects come with laudable environmental benefits -- including the promise of moving thousands of megawatts of new, emissions-free renewable energy to the grid -- they pose equally large challenges to the landscapes where they are built.

Impacts to farmland, wildlife habitat

Transmission lines, and the rights-of-way needed to build and maintain them, bisect lands that produce much of the nation's food, offer bucolic views and passive recreation, and provide habitat to dozens of native species. They often indiscriminately cross lakes and rivers, national and state parks, wildlife refuges, private hunting grounds and myriad other places prized for their undeveloped character. For many average citizens, they are simply industrial eyesores that, once built, can never be concealed.

For Guy Wolf, co-chair of the Downriver Alliance, a coalition of Mississippi River corridor environmental groups, the question boils down to simple math: "How many homes are they going to take away? How much property is going to be destroyed?"

"The thing you have to understand is that with transmission at this scale, we're talking orders of magnitude in terms of the number of farms and homeowners that are impacted," Wolf said.

Those impacts, particularly on the region's farms and sensitive wildlife habitats, could be significant, according to wildlife experts and conservation groups.

Don Buckloh with the American Farmland Trust, the nation's leading advocacy group for farmland conservation, said Midwestern farmers have had a long and often contentious relationship with power transmission owners whose easements are often secured by eminent domain and whose rights of way can remove valuable land from production. Over time, he said, high-quality farmland in transmission corridors can be seriously damaged due to soil compaction, disruption of water drainage systems or other impacts associated with the building and maintenance of the lines.

"That's a consideration that farmland owners ... need to consider when new projects are proposed," Buckloh said. "The more informed they are and the more involved they are in the process, the happier they'll be with the outcome. If they say farming is dying in our community and we don't care, that's one thing. But by and large the United States still has a lot of prime farmland left."

Where the Midwest farms meet undeveloped forest area, such as the Mississippi River Valley, concerns range from habitat fragmentation associated with the clearing of natural vegetation underneath the lines to bird strikes and even electrocutions of raptors that are attracted to power lines as perches to scout for prey and tower structures to build nests.

Don Hultman, refuge manager for the Upper Mississippi National Wildlife and Fish Refuge, spanning 260 miles of river and adjacent forestland from Wabasha, Minn., to Rock Island, Ill., said his office has made it clear to utilities seeking to build new transmission lines that they should look to use existing rights of way through the 240,000-acre refuge, and that the Fish and Wildlife Service would oppose any project that calls for constructing new river crossings.

"One of goals here is to try to preserve the scenic beauty of the refuge and the river valley," Hultman said. Plus we have two national scenic byways on each side of us going the whole length of the refuge. So even if it's off refuge, we have a concern with that kind of thing, and others do too."

Negotiations caught between two environmental goals

To date, however, Hultman said negotiations with transmission line developers like Xcel Energy, which is spearheading the CapX 2020 project, have been mostly positive and productive. "They ask us to tell us what we think early and often, which is how we like it," he said.

Other stakeholder groups say their concerns have gone largely ignored by proponents of new, large-scale transmission projects in the region.

For much of the past year, the Minnesota-based Citizens Energy Task Force has dedicated itself to fighting the CapX 2020 project, which like ITC would carry new generation from the Dakotas across southern Minnesota and into Wisconsin. Unlike ITC, however, CapX 2020 calls for the phased construction of 600 miles of new 345-kilovolt lines and a single 230-kilovolt line that it argues are needed to shore up reliability and meet existing regional power demand.

But with this week's announcement by ITC of a project with twice the voltage capacity, five times the length, and potentially six times the cost of CapX 2020, activists like Wolf sense that their work is going to become much more difficult in the months and years ahead, especially as billions of dollars in new federal money begins to flow toward new energy projects and the retooling of the nation's electricity grid.

"It would be the saddest thing, considering the current state of the economy, if all of this [stimulus] money winds up going to a few private companies and their shareholders," said task force member Jeremy Chipps. "We need to be asking the hard questions: 'What are the alternatives, how much is it going to cost, and why is it that ratepayers are being saddled with the enormous costs of infrastructure building?'"

Lisa Aragon, ITC's director of strategic initiatives, said this week that the company's "Green Power Express" proposal had undergone extensive review, which included independent energy consultants, and was rolled out this week to help advance President Obama's renewable energy goals as well as those of states like Minnesota, which is requiring utilities to meet a 25 percent renewable energy mandate by 2025.

While acknowledging the high level of public concern about the project's siting and construction, Aragon stressed that the project offers a significant environmental benefit because of its potential to move thousands of megawatts of clean renewable power onto the region's power grid. According to one independent study commissioned by ITC, the addition of 12,000 megawatts of wind power to the grid would offset up to 34 million metric tons in carbon emissions.

She also said the project's landscape footprint would be smaller than expected because its 765-kilovolt design requires only a 280-foot-wide right of way. Moving the same amount of power on smaller lines would require a right of way three times larger, she said.

But for now, critics are not buying the notion that the Midwest's latest transmission boom will play out as an environmentally benign event.

"They call it the Green Power Express. We call it the Greenwash Express," Wolf said.

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E&E Publishing, LLC
122 C St., Ste. 722, NW, Wash., D.C. 20001.
Phone: 202-628-6500. Fax: 202-737-5299.
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