

GRID: Two new transmission projects aim to expand access to renewables *(Tuesday, November 2, 2010)*

Darius Dixon, E&E reporter

Much of the nation's best land-based wind energy resources lie in within an expanse stretching from the Dakotas, south through the panhandle of Texas. But the resource is only as good as the grid that can bring the electricity to the people who need it, and do it efficiently.

Yesterday, two separate memoranda of understanding (MOUs) were announced that aim to develop several hundred miles of new, high-voltage transmission lines in the Midwest.

The projects are some of the first to engage in what some see as a new culture of regional grid planning among utility companies. Stretching from the Ohio/Indiana border into Iowa, these new lines are the first of many transmission super-highways designed for efficient connectivity over long distances.

Ultimately, such a system would allow many states to draw electricity from faraway wind power installations. The new connections would also help many states meet their renewable and alternative energy standards. Of the 12 Midwestern states, only Nebraska and Indiana lack renewable or alternative energy standards.

The larger of the two projects, a joint venture between Electric Transmission America, LLC and Exelon Corp., will construct a 420-mile section of 765-kilovolt transmission lines from Ohio into northern Illinois and cost about \$1.6 billion. ETA is a partnership of American Electric Power Co. Inc. subsidiaries and the MidAmerican Energy Holdings Co.

Press releases from the participating companies state that this portion of the project will be completed in 2018, depending on the acquisition of specific regulatory approvals.

The second project will continue the Ohio-Illinois connection from Henry County, Ill., an addition 180 miles, to Buchanan County, Iowa. This section of transmission line was estimated to cost approximately \$650 million and expected to be completed in 2019. The MOU pertaining to this portion of the project is a joint venture between ETA and MidAmerican Energy Co., a subsidiary of MidAmerican Energy Holdings Co.

Getting more connectivity isn't easy, except in Texas

Both transmission projects have their roots in the Strategic Midwest Area Renewable Transmission (SMART) study whose second, and final phase, was completed early last month, said Melissa McHenry, a spokesperson for AEP. The intent of the study was to evaluate regional transmission planning for 2030.

The SMART transmission study, conducted by Quanta Technology LLC, was sponsored by ETA and several utilities, including AEP, Exelon and MidAmerican.

McHenry said that SMART study was a "conceptual plan for transmission for the Midwest," which eventually led to the relationships that forged the two MOUs. The study was an effort to design a regional plan for long distance transmission, she said.

"Transmission has developed, over the years, 'just in time' to meet localized needs; where this is more of a plan to invest in transmission to support development of additional renewable," said McHenry. The current system, she said, "was built to serve localized needs and link together."

Sixty-five percent of AEP's electric generation profile comes from coal-fired power plants, according to the company's regulatory filings with the Securities and Exchange Commission.

AEP plans to draw 10 percent of its electricity from renewable energy sources by 2020, which the documents state, "together with other qualifying alternative energy and energy efficiency measures, will exceed the clean energy requirements currently in effect in our states."

The demands of state renewable and alternative energy standards, and U.S. EPA clear air regulations also seemed to have necessitated some improvements, as the documents have suggested. They state: "If some coal units are prematurely forced to retire, we may need to make investments in new transmission lines and substations to create stronger interconnections with neighboring systems."

Of course, multistate regional planning may seem like a good idea, but it also includes an increasingly complex bureaucracy to navigate. For that reason, McHenry said, Texas has made significant progress in connecting renewable energy sources to its grid.

"If you look at what Texas did, they've done a great job of investing in transmission to support renewable development, but they have one entity making the decision," she said. "As they say in Texas: They have a decider."