

# Focusing on Smart Transmission Investment

KANSAS PROJECT LAUNCH

BY LISA BARTON

**THE FUTURE SECURITY OF OUR** nation's economy requires creative energy solutions. The ability of electric utilities to continue delivering reliable, reasonably priced electricity to fuel the U.S. economy is increasingly challenged by aging, insufficient infrastructure, continued growth in electrical

load, rising construction costs, and a societal desire to reduce greenhouse gas emissions. An important part of successfully managing these issues is the strategic expansion of the transmission grid, including significant investment in extra-high-voltage transmission.

These critical needs present an opportunity to create a true interstate transmission system. Developing an extra-high-voltage transmission superhighway would allow more efficient use of existing transmission and generation, enhance reliability and expand opportunities for nonemitting renewable generation. Such a system would ensure that the transmission investments made are the most efficient and effective possible.

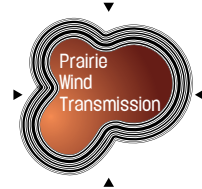
A shared belief in the critical need for transmission investment and recognition of the benefits of extra-high-voltage transmission brought together American

Texas, a similar venture to invest in transmission solely within the Electric Reliability Council of Texas.

The AEP and MidAmerican partnerships pool the expertise and resources of two transmission powerhouses. AEP owns and operates the nation's largest transmission system – more than 39,000 circuit miles – and is an expert in building and operating extra-high-voltage transmission, operating more 765-kilovolt transmission than all other U.S. utilities combined. MidAmerican is the fifth-largest transmission owner in the nation and is a consolidated subsidiary of Berkshire Hathaway.

Through ETA, AEP and MidAmerican are committed to investing in projects that advance the expansion of an interstate transmission system. ETA's first project – a joint venture with Westar to build about 230 miles of 765-kilovolt transmission in Kansas – demonstrates the type of transmission investment AEP and MidAmerican believe is critical to modernize our nation's transmission infrastructure.

ETA has partnered with Westar, the local transmission expert, to build the first phase of the Southwest Power Pool's extra-high-voltage Overlay Study. The SPP study recommends the development of the transmission to enhance reliability, address load growth and enable the region to become a leading generator of renewable energy. More than 30,000 megawatts of wind generation has been proposed in SPP, with a system ill-equipped to transport even a small fraction of those resources. The study also recommends using



Lisa Barton

## NewsFlash

### MAINE BUSINESS RATES CLIMB

Higher fuel and wholesale power costs will push standard offer electric rates up as much as 32 percent for some Maine businesses, according to the Associated Press.

The increases will apply to businesses that have not secured their own electricity supply, according to state regulators.

Electric Power and MidAmerican Energy Holdings Company. In 2007, the companies formed two transmission joint ventures: Electric Transmission America, created to identify and invest in transmission projects throughout North America, and Electric Transmission



Long rows of six bundle spacers.

PHOTOS COURTESY OF AMERICAN ELECTRIC POWER



A worker is installing a bundled spacer for transmission lines.

an extra-high-voltage overlay to improve SPP's energy import and export capabilities as well as allowing for improved interconnections between SPP and neighboring transmission systems.

By taking a longer-term, strategic view of transmission expansion, the SPP plan quantifies the benefits of an extra-high-voltage transmission system, including reliability reinforcement, increased transport capability and creation of a reliable pipeline for delivery of renewable energy. The plan also recognizes that a 765-kilovolt transmission overlay will achieve these benefits in a



Transmission lines going up at East Mountain River in February 2005.

more cost-effective, efficient manner with less land impact than lower-voltage options. One 765-kilovolt line on a 200-foot right of way can carry as much electricity as six 345-kilovolt single-circuit lines requiring 900 feet of right of way, and the 765-kilovolt line would cost half as much to build.

We have listened to transmission system concerns from the Federal Energy Regulatory Commission, state commissions and legislators, and we believe the SPP plan and ETA's approach is the answer for jump-starting modernization of the U.S. grid. By taking a long-term strategic approach with a broader geographic scope, securing regionalization of cost recovery for an extra-high-voltage system, committing to deployment of advanced technologies, and creating partnerships to share risk, resources and expertise, the United States can achieve an efficient, effective transmission grid and ensure that the capital invested in transmission infrastructure provides long-term benefits for our economy and environment.

*Lisa Barton is president of Electric Transmission America and vice president, transmission strategy and business development, American Electric Power.*

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