

Can the Eastern U.S. get a fifth of its power from wind by 2024?

January 21 2010, By Tiffany Hsu

Major upgrades to the transmission infrastructure and a sizable chunk of cash from private investors and the government are necessary for the Midwest and East Coast to move to 20 percent wind power by 2024, according to a new study from the National Renewable Energy Laboratory.

The federal lab, part of the U.S. Department of [Energy](#), released its Eastern Wind Integration and Transmission Study after more than two years of analyzing the economic, operational and technical implications of different scenarios. The research focused on shifting 20 percent of the electrical load from the Eastern Interconnection, one of the country's two major power grids, using land-based wind from the Midwest, offshore wind from the East and a variety of other combinations.

Although reaching the goal and even stretching to 30 percent is technically feasible, the process will be less expensive and more reliable if the source wind is drawn from a large geographic area and if transmission lines are updated and expanded, according to the report.

To make the power accessible, billions of dollars would have to be funneled into tens of thousands of miles of power lines land and sea towers.

And without a price on carbon, [greenhouse gas emissions](#) will drop just 5 percent from the 1.9 billion metric tons of 2008, compared with the 33 percent plunge in emissions associated with a \$100-per-ton price tag.

The study was initiated in 2008, back when the country's total installed capacity of wind generation had just surpassed 25 gigawatts and was preparing for another 4.5 gigawatts in the first half of 2009. The report was prepared by Knoxville, Tenn.-based EnerNex Corp.

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