



Comment: A cautionary note on wind power

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Who knew a "free" source of energy could be so expensive?

The Electric Reliability Council of Texas recently estimated that billions of dollars in investment will be needed to transmit wind-generated electricity from the areas of Texas most suitable for wind generation — West Texas and the Panhandle — to the areas of the state that need energy the most — the I-35 corridor and the upper Gulf Coast. These costs will be borne by Texas ratepayers.

How did we get here?

Renewable energy mandates and subsidies have paved the way for Texas' wind energy boom. Today, Texas leads the nation in installed wind power capacity, adding 1,708 megawatts (MW) in 2007, bringing its total to 4,446 MW by the end of the year. California is a distant second, with a total of 2,439 MW by year's end.

In 2007, 0.77 percent of the nation's total electric generation came from wind energy. Here in Texas, wind accounts for 2 percent of total generation.

Robust wind power expansion is expected, as Texas producers are required to generate 5,880 MW of renewable energy by 2015 and face a 10,000-MW target for 2025. To this end, \$700 million went into new Texas wind farms in January.

Wind energy proponents extol wind as free, safe and clean, but these characterizations miss the point. Energy users expect reliability, and challenges dot the path from wind to the electric grid to energy consumer.

For wind turbines to produce power, the wind must blow. Because the wind does not blow constantly, wind turbines produce a fraction of their potential generating capacities. Furthermore, wind blows the least during the summer months when power is needed the most.

ERCOT relies on just 8.7 percent of wind power's capacity when determining available power during peak summer hours. Also, due to wind's intermittency, wind farms must rely on conventional power sources to back up their supply.

Besides generous federal subsidies and tax incentives, Texas entices wind developers with tax exemptions and deductions. Yet wind power remains more expensive per kilowatt-hour than conventional energy sources.

ERCOT's estimates for transmitting West Texas wind energy, under four different scenarios, range from \$3.78 billion to \$6.28 billion. ERCOT estimated costs by using straight-line lengths for transmission cables.

Thus, transmission costs were estimated using a best-case-scenario approach and, as such, should be considered minimums. Add to this ERCOT's estimates of \$410 million to \$1.03 billion for connecting wind generation to the new collection substations.

Wind energy also comes with legitimate environmental concerns. Wind farms require vast tracts of land, disrupting farming acreage and animal habitats. And turbine blades kill thousands of birds each year, including protected species.

ERCOT estimates Texas' electricity demand will rise 20 percent by 2015 and 43 percent by 2025. Texas must remain focused on providing its residents with affordable, reliable energy and not turn its back on fossil fuels, which can meet our needs and are cleaner than ever before.

Wind alone cannot meet the increasing demand we face. Rather, wind is one stick in a bundle of larger sticks, all of which can and should contribute to meeting energy demands. Wind should be part of a diversified portfolio of energy resources, anchored by the traditional energy sources that have the capacity to meet Texas' burgeoning energy needs.

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