



Political headwinds challenge future wind industry prospects

By Sara Wyant, Editor, Agri-Pulse

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For decades, U.S. farmers and ranchers relied on windmills for pumping water or grinding grain. Rarely did you pass by a farmstead without seeing one.

Today, the windmill's modern equivalent—a wind turbine—is also drawing on the wind's energy, but now it's more often being used to generate electricity and produce another income stream for Rural Americans. The United States can currently generate about 13,800 megawatts (MW) of electricity from the wind. One megawatt of wind power produces enough electricity on average to serve 250 to 300 American homes.

This clean, renewable energy source is one of the fastest growing forms of electricity generation in the world and industry experts predict that wind energy alone could provide about 20% of our nation's energy needs. However, it's not without its naysayers, including environmentalists who worry about the potential to kill birds, those who believe the large towers clutter the landscape and some who don't want to provide tax incentives or mandates to spur development of the industry. And even in areas where there is strong wind potential, there is not always the ability to connect to distribution lines (see sidebar).

Long-term strategy needed

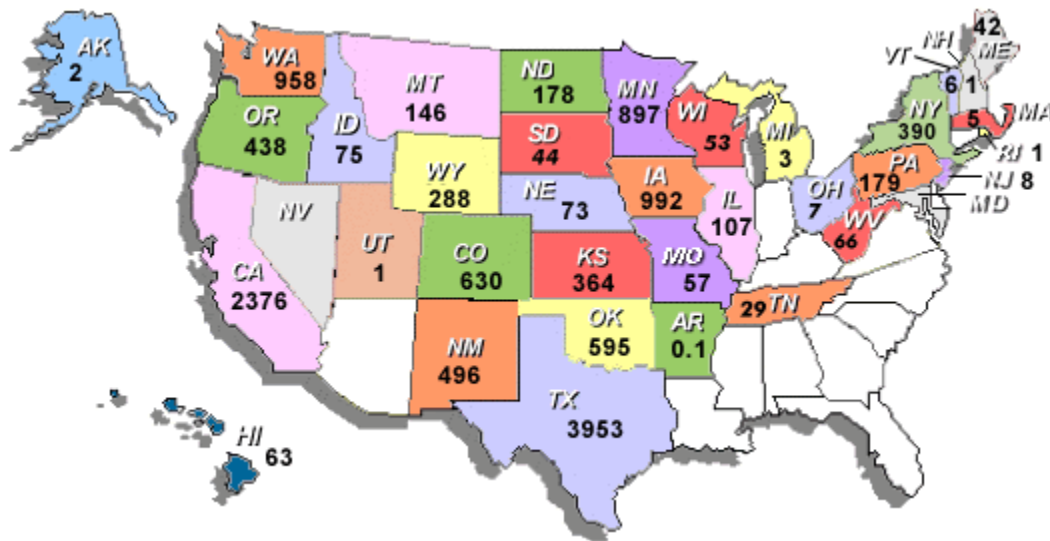
Although new turbines continue to be installed, wind energy advocates say farmers and investors need to have a longer planning horizon in order for the industry to really take off. The federal production tax credit (PTC) for renewable energy, valued at about two cents/kilowatt-hour of electricity produced, will expire in December 2008, and there is no national renewable electricity standard (RES) or other long-term policy in place.

“A national long-term policy to promote renewable energy, like the Renewable Electricity Standard approved by the House of Representatives in August, is essential for wind and other renewable energy industries to grow successfully and cost-effectively,” says American Wind Energy Association (AWEA) Executive Director Randall Swisher. **“Without a long-term strategy, it's no wonder that the U.S. has lagged behind Denmark, Germany and Spain.”**

Earlier this year, the House of Representatives passed a federal energy bill that requires 15 percent of the total electricity used in the U.S. come from renewable sources by 2020 or force utilities to pay penalties. However, this renewable energy portfolio standard (RPS) was not included in the Senate, because of opposition from utility companies and many rural electric cooperatives---which fear that a “one size fits all” federal standard won’t be practical in many states.

Now, Congress is once again pushing to approve an energy bill before the Christmas recess, and the RPS could still be a major stumbling block. Sen. Pete Domenici (R-NM), the ranking member on the Senate’s Energy Committee says it could still be a deal-breaker in the Senate.

Yet, Swisher plans to keep the pressure on to keep building U.S. wind energy. He says wind power is delivering a generous return on public investment: the continuity in the Production Tax Credit (PTC) since 2005 has spurred both record-breaking new generating capacity **and a wave of investment in manufacturing facilities and services across the country**, including in states that do not have a large wind resource. The map below shows installed megawatts per state, courtesy of AWEA. <http://www.awea.org/projects>



National Total Power Capacities (MW)

Existing	Under Construction
13884.58	5720.5

Thinking about your own wind farm?

Before you plan to install your own wind turbine or wind farm, you must know if the wind resource in your location is adequate. From wind resource maps, you can determine if your area of interest should be further explored and seek out a professional evaluation of your area.

The Department of Energy's Wind Program and the National Renewable Energy Laboratory (NREL) publishes a wind resource map online. This resource map shows wind speed estimates at 50 meters above the ground and depicts the resource that could be used for utility-scale wind development. Future plans are to provide wind speed estimates at 30 meters, which are useful for identifying small wind turbine opportunities.

As a renewable resource, wind is classified according to wind power classes, which are based on typical wind speeds. These classes range from Class 1 (the lowest) to Class 7 (the highest). In general, at 50 meters, wind power Class 4 or higher can be useful for generating wind power with large turbines. Class 4 and above are considered good resources. Particular locations in the Class 3 areas could have higher wind power class values at 80 meters than shown on the 50 meter map because of possible high wind shear. Given the advances in technology, a number of locations in the Class 3 areas may be suitable for utility-scale wind development.

To view the map for your state, go to:

http://www.eere.energy.gov/windandhydro/windpoweringamerica/wind_maps.asp

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