

wind turbine

MARKET OUTLOOK



by Wayne Song

The American Wind Energy Association (AWEA) reported that 2010 came to a close with just half of the wind turbine installations (5,115 MW) compared to the record year of 2009.

While the weaker economy and lower demand for electricity contributed to the decrease in installed wind capacity in 2010, the lack of a long-term federal renewable energy policy in the U.S. has been a significant factor in the “boom-bust” cycles that have characterized the U.S. wind energy market.

Tax benefits in the form of production tax credits (PTCs) and accelerated depreciation were the primary drivers of the U.S. wind energy market up until several years ago. PTCs were allowed to lapse several times in the past. The last time was at the end of 2003, when Congress took 10 months to extend the PTCs. Even after that extension, due to the uncertainty whether turbines could be installed by the new sunset date to qualify for the PTCs purchasers were able to obtain 100% vendor financing in certain instances at the height of the then-buyers’ market.

From 2005 and on, PTCs were extended and in place, continuously, without any breaks in effectiveness (they are currently set to expire at the end of 2012). The relatively long period of federal regulatory certainty, along with the increase in states adopting renewable portfolio standards (RPS), contributed to the sustained growth in installed capacity from 2005 through 2009—wherein, turbine suppliers enjoyed a period of market strength when demand greatly exceeded supply. In light of the then-market imbalance, various Asian companies entered the sector and several European vendors who had been absent from the U.S. for several years returned to the North American markets just as the economy began to slide. The emergence of new turbine manufacturing capacity, at a time of decreasing power demand, firmly swung the pendulum back to a buyers’ market by 2010.

Stratification of Turbine Manufacturers

Three categories of turbine manufacturers emerged in the U.S. in 2010. Turbines from the first-tier suppliers continued to be financeable by the debt and tax equity markets, and these suppliers didn’t have to modify the terms of their supply agreements significantly. Many of the first-tier suppliers reported record numbers of megawatts under contract in 2010, with deliveries primarily scheduled for 2011 and beyond. The second tier of turbine suppliers, however, has had to provide some concessions with respect to the terms of their supply agreements. As an example, rather than requiring large payments be made upon turbine delivery as is customary, certain tier two manufacturers were willing to accept deferred payments until the purchaser/developer achieved project commercial operations. They received payment from the U.S. Treasury under the popular American Recovery and Reinvestment Act of 2009 (ARRA) Section 1603 program, which allows developers to receive cash grants in lieu of tax credits.

The third category of turbine manufacturers consists of new entrants in the U.S. turbine market, such as those from China, Korea and India. Notwithstanding some of these manufacturers have a large number of operating turbines installed overseas, their turbines haven’t been financeable in the U.S. because they lack a track record in this market. As a result, these vendors are working to gain a foothold in the U.S. market in various ways. A new entrant may look to buy a “shovel-ready” project to install its own turbines. In December 2010, for instance Goldwind, China’s second leading turbine manufacturer announced its purchase of a 106.5 MW late-stage wind project in Illinois that includes a 20-year power off-take agreement. The project will be built with equity from Goldwind Capital, and debt from the China Development Bank. New turbine manufacturers may also arrange financing for their prospective purchasers, most notably from the China Development Bank or from Ex-Im banks.

continued on next page

Industry Outlook

Several key factors will likely impact the industry in 2011 and beyond. At the end of 2010, Congress extended the cash grant program under Section 1603 of ARRA by one year. Developers now have until the end of 2011 to begin construction of a project to maintain eligibility for this incentive. AWEA reported that the U.S. wind industry started 2011 with over 5,600 MW under construction—largely a result of the rush by developers to meet the deadline under Section 1603 which was to commence construction by the end of 2010. There will, undoubtedly, be a scramble of activity again at the end of this year to commence construction of projects to qualify for the cash grants. This one-year extension of the cash grant program exemplifies the lack of long-term federal policies in the U.S.

In the absence of long-term federal policies, state RPS programs are helping to drive the demand for wind energy. These mandates, which require utilities to procure a certain percentage of their generation from renewable sources, exist in over half of the states. As of January 2011, 29 states and the District of Columbia have mandatory RPS programs and seven states have RPS goals.

Economic factors related to the domestic energy markets will also have an impact on the wind turbine market. AWEA indicates that wind power is now cost-competitive with natural gas and that utilities will be more willing to enter into long-term contracts with wind power producers to secure favorable rates. However, advances in technology point toward increased accessibility to shale gas; thereby, potentially expanding the natural gas supply in the U.S. and possibly tilting the economic scales back in favor of natural gas-fired projects in the future.

Although the one-year extension of the cash grant program under the ARRA will assist the wind energy industry in the immediate near-term, the lack of long-term federal policies suggests that if history is a guide, the wind energy industry will continue to see “boom-bust” cycles in the future.