

Digest of Green Reports and Studies

Title	<i>2010 Wind Technologies Market Report</i>
Author	Ryan Wiser and Mark Bolinger, Lawrence Berkeley National Laboratory
Organization	U.S. Department of Energy, Office of Scientific and Technical Information, www.osti.gov/bridge
Author Contact	RHWiser@lbl.gov and MABolinger@lbl.gov
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URL	www1.eere.energy.gov/wind/pdfs/51783.pdf
Summary	<p>“This fifth edition annual report updates previous data, while highlighting key trends and important new developments from 2010.” The 2010 U.S. wind power industry experienced a significant reduction in new construction compared to 2008 and 2009. “The delayed impact of the global financial crisis, relatively low natural gas and wholesale electricity prices, and slumping overall demand for energy countered the ongoing availability of existing federal and state incentives for wind energy deployment in 2010.” These factors did not impact the capacity additions in 2009 because decisions were made prior to the economy-wide financial crisis. The 2010 decisions were made at the height of the financial crisis; however, cumulative wind power capacity still grew by 15 percent. The 2011 wind power capacity additions are expected to be higher than in 2010, but will still remain below the 2009 additions.</p>
Key Findings	<ul style="list-style-type: none"> • “Wind power additions slowed in 2010, with roughly 5 gigawatts (GW) of new capacity added in the United States and \$11 billion invested. • Wind power made up 25 percent of U.S. electric generating capacity additions in 2010. • The United States was overtaken by China in cumulative wind power capacity. • Texas added more new wind power capacity than any other state, while four states exceeded 10 percent wind energy penetration. • Offshore wind power project and policy developments continued in 2010. • Data has indicated that an enormous amount of wind power capacity is under consideration. • General Electric (GE) remained the top turbine manufacturer in the U.S. market. • Domestic wind turbine and component manufacturing activity has increased. • Equipment used in U.S. wind power projects have come from domestic sources in recent years. • The average nameplate capacity, hub height, and rotor diameter of installed wind turbines increased. • Consolidation among wind project developers continued. • The project finance environment improved throughout 2010. • Independent power producers (IPP) project ownership remained dominant, while utility and community ownership held steady. • Long-term contracted sales to utilities remained the most common off-take arrangement. • Wind power prices from projects installed in 2010 were higher. • Low wholesale electricity prices continued to challenge the relative economics of wind power plants installed in recent years. • Average installed cost of wind power projects held steady in 2010. • Wind turbine prices have declined since 2008. • Wind power project performance has generally improved over time. • Operations and maintenance (O&M) costs are affected by the age and commercial operation date of the project. • Extension of the Treasury Grant program and bonus depreciation provides some measure of federal policy certainty through 2012. • State policies play a role in directing the location and amount of wind power development. • Despite progress on overcoming transmission barriers, constraints remain. • Integrating wind energy into power systems is manageable.” <p>Additional information is found throughout the report.</p>
Recommendations	<ul style="list-style-type: none"> • “Stable, long-term promotional policies are needed towards wind energy. • The nation will need to invest in significant amounts of new transmission infrastructure designed to access remote wind resources.

	<ul style="list-style-type: none"> • More effectively integrate wind power into electricity markets, larger power control regions, better wind forecasting, and increased investment in fast-responding generating plants will be required. • Siting and permitting procedures will need to be designed to allow wind power developers to identify appropriate project locations and move from wind resource prospecting to construction quickly. • Enhanced research and development efforts in both the public and private sector will be required to lower the cost of offshore wind power, and incrementally improve conventional land-based wind energy technology.”
Definition of “Green”	N/A
Methodology	Literature Research.
Data Sources Cited	<ul style="list-style-type: none"> • American Wind Energy Association (AWEA) project database. • Global Wind Energy Council. • U.S. Wind Industry Annual Market Report. • Windpower Monthly. Additional data sources cited throughout the report.
Report Geography	United States
Green Occupations Cited	N/A
Green Industries Cited	<ul style="list-style-type: none"> • Wind Turbine and Component Manufacturing. • Wind Power Structure Construction.
Keywords	American Wind Energy Association; Atlantic Offshore Wind Energy Consortium; Berkeley Lab; Bonneville Power Administration; Carbon Regulations; Federal Energy Regulatory Commission; National Renewable Energy Laboratory; Natural Gas; Wind Energy; Wind Power; Wind Turbine.
Legislation Cited	<ul style="list-style-type: none"> • Tax Relief, Unemployment Insurance Reauthorization, and Job Creation Act of 2010. • Treasury Grant Program and Bonus Depreciation.
Bibliography (Y/N)	Y
Reviewer Name/Org	M. Shelton/LMID

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