

WSGR ALERT

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BUILDING AN OFFSHORE WIND INDUSTRY IN THE UNITED STATES

Offshore wind energy offers a potential 4,100 gigawatts (GWs) of nameplate capacity in the United States, according to a June 2010 study conducted by the Department of Energy's National Renewable Energy Laboratory (NREL).¹ Despite this tremendous potential, however, the U.S. substantially lags behind other nations and has yet to develop its first commercially operating project. In part, this is a result of a complex and sluggish permitting process, past opposition from environmental advocacy groups and policy makers, a lack of financeable meteorological data in many resource areas, and the overall high costs of offshore installation and maintenance. Recent announcements from the Department of the Interior (DOI) and Department of Energy (DOE) are intended to reduce these barriers to offshore wind energy in the years ahead.

On February 7, 2011, Secretary of Energy Steven Chu and Secretary of the Interior Ken Salazar announced a coordinated strategic plan between the two agencies to accelerate the development of offshore wind energy. The joint National Offshore Wind Strategy² is the first-ever interagency plan on offshore wind energy and demonstrates a strong federal commitment to expeditiously develop a sustainable, offshore wind industry in a way that reduces conflict with other ocean uses and protects resources. The plan focuses on overcoming three key challenges: the relatively high cost of offshore wind energy; technical challenges surrounding installation, operations, and grid interconnection; and the

lack of site data and experience with project permitting processes.

DOE, as one of the key agencies funding wind technology R&D, will play a critical role in the development and deployment of offshore wind technology, which faces technological and operational challenges distinct from those of onshore wind. DOI, as the agency with primary jurisdiction over reviewing and approving offshore wind projects in federal waters, will be a crucial partner in building the offshore wind industry.

DOE Dedicates \$50.5 Million for Offshore Wind Technology Deployment

Included in the newly announced strategic plan is DOE funding support for offshore wind energy deployment, notably in the mid-Atlantic. Secretary Chu announced the release of three solicitations, representing up to \$50.5 million of investment over five years, to develop breakthrough offshore wind energy technology and to reduce specific market barriers to its deployment:

- **Technology Development** (*up to \$25 million over five years*): DOE will support the development of innovative wind turbine design tools and hardware to provide the foundation for a cost-competitive and world-class offshore wind industry in the United States. Specific activities will include the development of open-source computational tools, system-optimized offshore wind plant concept studies, and

coupled turbine rotor and control systems to optimize next-generation offshore wind systems.

- **Removing Market Barriers** (*up to \$18 million over three years*): DOE will support baseline studies and targeted environmental research to characterize key industry sectors and factors limiting the deployment of offshore wind. Specific activities will include offshore wind market and economic analysis; environmental risk reduction; manufacturing and supply chain development; transmission planning and interconnection strategies; optimized infrastructure and operations; and wind resource characterization.
- **Next-Generation Drivetrain** (*up to \$7.5 million over three years*): DOE will fund the development and refinement of next-generation designs for wind turbine drivetrains, a core technology required for cost-effective offshore wind power.

DOI to Expedite Permit Reviews

Top Obama administration officials also indicated that wind energy projects off the coasts of four U.S. states will be fast-tracked for approval. The four wind energy areas offshore the mid-Atlantic region were identified as part of DOI's new "Smart from the Start" approach, which uses appropriate designated areas, coordinated environmental

¹ The June 2010 NREL study is available at <http://www.nrel.gov/docs/fy10osti/45889.pdf>.

² The joint National Offshore Wind Strategy is available at http://www1.eere.energy.gov/windandhydro/pdfs/national_offshore_wind_strategy.pdf.

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studies, large-scale planning, and expedited approval processes to speed up offshore wind energy development. The four designated areas, on the Outer Continental Shelf off of Delaware, Maryland, New Jersey, and Virginia, will receive early environmental reviews that will help to lessen the time required for review, leasing, and approval of offshore wind turbine facilities. In March 2011, DOI expects to identify new wind energy areas off of additional North Atlantic states, including Massachusetts and Rhode Island, and to launch additional environmental reviews for those areas. A similar process will occur for the South Atlantic region, namely North Carolina, this spring.

Based on stakeholder and public participation, DOI's Bureau of Ocean Energy Management, Regulation, and Enforcement (BOEMRE) will prepare regional environmental assessments for wind energy areas to evaluate the effects of leasing and site-assessment activities on leased areas. If no significant impacts are identified, BOEMRE could offer leases in these mid-Atlantic areas as early as the end of 2011 or early 2012. Comprehensive site-specific National Environmental Policy Act (NEPA) reviews will still need to be conducted for the construction of any individual wind power facility, and BOEMRE will work directly with project managers to ensure that those reviews take place on aggressive schedules.

Expedited permitting and environmental reviews under the DOI "Smart from the Start" program are a significant development for this industry, especially in that this program will follow DOI's 2010 success in fast-tracking permits and environmental review for a number of grid-scale solar projects on federal lands. The nation's first lease for commercial wind energy development was only recently

signed by DOI in October 2010 when Cape Wind was granted a 28-year lease for its 130 wind turbine project. The Cape Wind project will provide enough power for 200,000 homes in Massachusetts, or approximately 75 percent of the electricity demand for Cape Cod, Martha's Vineyard, and Nantucket Island combined.

Under the National Offshore Wind Strategy, DOE will pursue a scenario that includes deployment of 10 GWs of offshore wind-generating capacity by 2020, and 54 GWs by 2030. These scenarios include development in both federal and state offshore areas, including along the Atlantic, Pacific, and Gulf coasts as well as in the Great Lakes and Hawaiian waters.

For more information regarding the National Offshore Wind Strategy or offshore wind project development and financing, please contact a member of Wilson Sonsini Goodrich & Rosati's energy and clean technology practice:

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