Gamesa, NREL Join Forces on R&D Project (USA)

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The U.S. Department of Energy's National Renewable Energy Laboratory (NREL) and Gamesa Technology Corp., Inc. will study and test a variety of components and systems that will guide development of the next generation of wind turbines designed specifically for the U.S. marketplace.

The public-private partnership expects to focus on innovations that will enhance the capabilities and performance of advanced wind systems in tapping the vast potential of this renewable energy resource and ultimately bring the nation closer to 20 percent wind energy by 2030.

NREL and Gamesa will collaborate on work in three key areas: developing new wind turbine components and rotors for the U.S. market; researching and testing the performance of new control strategies; and devising models that will help advance the development of offshore wind in U.S. coastal waters.

"We are pleased to have Gamesa working with NREL as an R&D partner," **Dana Christensen, NREL's Deputy Laboratory Director for Science and Technology**, said. "These types of collaborations demonstrate a commitment to crucial technology development and the public-private partnerships necessary to ensure the continued momentum of the wind power industry. Our role with the Department of Energy is to help reduce technical risks and thereby help accelerate next generation technology into the marketplace. NREL is proud to be at the forefront of this important work."

Gamesa, already has installed and commissioned a G97 Class IIIA 2.0 MW test wind turbine at NREL's National Wind Technology Center near Boulder, Colo. NREL's wind technology center is the most extensive wind-turbine testing facility in the nation.

"Wind energy is going to continue to play a key role in creating a stronger and more sustainable American economy," said **Dr. Miguel Angel Gonzalez-Posada, Vice**

President of Technology for Gamesa North America. *"This partnership is an exciting venture that showcases Gamesa's commitment to enhanced clean energy development, as well as our drive to deliver reliable, efficient and cost-effective wind turbine technologies to the U.S. marketplace."*

Since being introduced last year, Gamesa's G9X-2.0 MW turbine platform has gained recognition for its advanced blade design, updated nacelle, enhanced control systems and other features that increase energy output substantially. The G97 Class IIIA 2.0 MW model, which will serve as the test platform with NREL, is designed specifically for low-wind sites, a segment from which Gamesa expects more than half of all future on-shore demand.

Using Gamesa's turbine platform as a laboratory, researchers will study the behavior of systems and how new designs, products or equipment can affect performance.

Full project testing on the entire slate of programs is set to begin this month. The core provisions of the public-private partnership run through 2013, with options for two additional years of collaboration.

NREL is the U.S. Department of Energy's primary national laboratory for renewable energy and energy efficiency research and development. NREL is operated for DOE by The Alliance for Sustainable Energy, LLC.



Offshore WIND staff, January 30, 2012; Image: gamesa