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Sandia
National
Laboratories



Sandia Wind and Water Power Technologies

Composite materials and manufacturing research

Summary

Sandia National Laboratories has a history of more than 28 years in wind energy research. The Wind Energy Technologies group was established in 1975 to perform research on vertical-axis wind turbines, later transitioning to focus on horizontal-axis wind turbine rotors in the early 1990s. Sandia and their partners perform research on range of wind rotor issues including composite materials and structures, manufacturing, aero and structural sensors, non-destructive inspection, aerodynamics, and wind plant technology. In 2011, Sandia established a Water Power Technologies Department to conduct research in marine hydrokinetic systems (wave, current, & tidal) including research in composite materials and coatings. The primary source of funding for Sandia wind and water power research comes from the US Department of Energy Wind and Water Power Technologies Office. This fact sheet lists some key projects at Sandia in composite materials and manufacturing. Further information can be found at: <http://wind.sandia.gov>

Lower-Cost Carbon Fiber for Wind Blades

Partners: Montana State University, Oak Ridge National Laboratory

This project is the initial step in assessing the potential for introducing new lower cost carbon fiber (LCCF) and associated format modifications into utility-scale wind turbine blades in order to improve the economics of wind turbine power production through longer or lighter weight

