By this Memorandum of Understanding (MOU), the U.S. Department of Energy (DOE) and the signing members of the wind turbine industry (the Parties) agree to work cooperatively to define and develop the framework for appropriate technology R&D and siting strategies for realizing 20% Wind Energy by 2030.

The Parties intend to address several specific needs in the following areas:

- **Turbine Reliability and Operability R&D** to create more reliable components, improve turbine capacity factors, and reduce installed and O&M costs.
- **Siting Strategies** to address environmental and technical issues like radar interference in a standardized framework based on industry best practices.
- **Standards** development for turbine certification and universal interconnection standards for all generators.
- **Manufacturing** advances in design, process automation and fabrication techniques to reduce product-to-product variability and premature failure while increasing the domestic manufacturing base.
- **Workforce** development including the development, standardization and certification of wind energy curricula for mechanical and power systems engineers and community college training programs.

Success in addressing these precompetitive needs is essential to scaling up the wind turbine industry in order to reach 20% Wind Energy in 2030.

This MOU expresses the intentions of the Parties to pursue collaborative research efforts with DOE to the extent legally permissible.

This MOU is neither a fiscal nor a funds obligation document. Nothing in this MOU authorizes or is intended to obligate the Parties to expend, exchange, or reimburse funds, information, services, or supplies, or transfer or receive anything of value.

The Parties will not claim or imply that DOE endorses the sale and/or purchase of any products or services and will not use the DOE seal without appropriate DOE authorization.

All agreements herein are subject to, and will be carried out in compliance with, all applicable laws, regulations, and other legal requirements.

This MOU in no way restricts any of the parties from participating in any activity with other public or private agencies, organizations, or individuals.

This MOU is strictly for internal management purposes of the Parties. It is not a contract for acquisition of supplies or services, is not legally enforceable, and shall not be construed to create any legal obligation on the part of any Party, or any private right or cause of action for or by any person or entity.


It shall remain in effect for two years, but may be extended by mutual agreement of the parties. Signed this 2nd of June 2008 by:

Alexander A. Karsner  
Assistant Secretary  
Energy Efficiency and Renewable Energy

Andreas Nauen  
CEO  
Siemens Wind Power

Peter Brun  
Senior Vice President  
Vestas Government Relations  
Vestas Wind Systems

Victor Abate  
Vice President-Renewables  
General Electric Energy

James G.P. Dehlsen  
Chairman and CEO  
Clipper Turbine Works, Inc.

Toine van Megan  
CEO  
Suzlon Energy

Julius Steiner  
CEO  
Gamesa USA