



Information Request for Information on Wisconsin Area Companies with Experience in Power Electronics, Electromagnetics (Machine Design), and Reliability/Thermal Analysis

The City of Sun Prairie is coordinating a research effort for a wind industry prospect about the local supply chain and appropriate engineering/R&D support in the THRIVE (Madison) region, the Milwaukee 7 region, and the New North region (Fox Valley).

Any companies within these regions with skills and services in the following areas are asked to complete and submit the attached profile back to atapley@thenewnorth.com by **noon Thursday April 22nd, 2010**. (Questions can also be sent to this e-mail address):

Skill Set	Engineering Capability	Modeling & Simulation Tool Set	Prototype Manufacturing	Test Facilities
Power Electronics	<ul style="list-style-type: none"> Power converters for low and medium voltage systems Power devices Generator and grid controls 	<ul style="list-style-type: none"> Matlab/Simulink PSCAD Simplorer CAD tools Schematic capture 	<ul style="list-style-type: none"> Circuit layout and boards kW to MW scale power converters Grid side and machine filter designs 	<ul style="list-style-type: none"> Low/medium voltage grid and load banks Scopes, power analyzers, etc. DAQ (Labview)
Electromagnetics (machine design)	<ul style="list-style-type: none"> Electromagnetics Low/medium voltage Insulation systems 	<ul style="list-style-type: none"> 2D/3D FEA CAD tools (ProE) 	<ul style="list-style-type: none"> Laminations Windings Segmented generator sections Scale models 	<ul style="list-style-type: none"> Dynes Torque/speed measurements DAQ (Labview)
Reliability & Thermal Analysis	<ul style="list-style-type: none"> Thermal stresses Physics of failure Heatsink design HALT 	<ul style="list-style-type: none"> CAD tools 2D/3D CFD ICEPAK Reliability modeling FEM stress analysis (ANSYS) 	<ul style="list-style-type: none"> Heatsinks Scale models Thermal systems 	<ul style="list-style-type: none"> IR imaging SEM HALT testing DAQ (Labview)

CAD: Computer aided Design CFD: Computational Fluid Dynamics DAQ: Data Acquisition FEA: Finite Element Analysis HALT: Highly Accelerated Life Testing IR: Infrared sensing SEM: Scanning Electron Microscope

Once completed, a directory of responses will be shared with the prospect, as well as local economic development offices for their information and use. The prospect may contact individual companies directly for additional information.

Wisconsin Company Profile: Power Electronics, Electromagnetics/Machine Design, and Reliability/Thermal Analysis (Wind Industry-Power Generation)

Company Name: _____

Company Address: _____

Contact Name: _____ Contact

Phone: _____ Contact E-mail: _____ Website: _____

_____ Please select all appropriate skills, services and tools your company may have available:

Skill Set	Engineering Capability	Modeling & Simulation Tool Set	Prototype Manufacturing	Test Facilities
Power Electronics	<input type="checkbox"/> Power converters for low and medium voltage systems	<input type="checkbox"/> Matlab/Simulink <input type="checkbox"/> PSCAD	<input type="checkbox"/> Circuit layout and boards <input type="checkbox"/> kW to MW scale power converters	<input type="checkbox"/> Low/medium voltage grid and load banks <input type="checkbox"/> Scopes, power analyzers, etc.
	<input type="checkbox"/> Power devices	<input type="checkbox"/> Simplorer	<input type="checkbox"/> Grid side and machine filter designs	<input type="checkbox"/> DAQ (Labview)
	<input type="checkbox"/> Generator & grid controls	<input type="checkbox"/> CAD tools <input type="checkbox"/> Schematic capture		
Electromagnetics (Machine Design)	<input type="checkbox"/> Electromagnetics	<input type="checkbox"/> 2D/3D FEA CAD tools (ProE)	<input type="checkbox"/> Laminations <input type="checkbox"/> Windings	<input type="checkbox"/> Dynes <input type="checkbox"/> Torque/speed measurements
	<input type="checkbox"/> Low/medium voltage		<input type="checkbox"/> Segmented generator sections	<input type="checkbox"/> DAQ (Labview)
	<input type="checkbox"/> Insulation systems		<input type="checkbox"/> Scale models	
Reliability & Thermal Analysis	<input type="checkbox"/> Thermal stresses	<input type="checkbox"/> CAD tools	<input type="checkbox"/> Heatsinks	<input type="checkbox"/> IR imaging
	<input type="checkbox"/> Physics of failure	<input type="checkbox"/> 2D/3D CFD	<input type="checkbox"/> Scale models	<input type="checkbox"/> SEM
	<input type="checkbox"/> Heatsink design	<input type="checkbox"/> ICEPAK	<input type="checkbox"/> Thermal systems	<input type="checkbox"/> HALT testing
	<input type="checkbox"/> HALT	<input type="checkbox"/> Reliability modeling		<input type="checkbox"/> DAQ (Labview)
		<input type="checkbox"/> FEM stress analysis (ANSYS)		

Please send your completed form to atapley@thenewnorth.com by **noon on Thursday April 22nd, 2010.**

Wisconsin Company Profile: Power Electronics, Electromagnetics/Machine Design, and Reliability/Thermal Analysis (Wind Industry-Power Generation)

Optional Section:

Years in operation: _____

Number of certified engineers on staff: _____

Are you included in the Wisconsin Wind Works Supply Chain Directory?

____ Yes ____ No ____ Please send me more information.

Are you a participant in the Wind Power Happy Hour?

____ Yes ____ No ____ Please send me more information.

Client or Customer References:

Reference #1:

Company Name: _____ Contact
Name/Title: _____ Contact Phone:
_____ Contact e-mail:

Reference #2:

Company Name: _____ Contact
Name/Title: _____ Contact Phone:
_____ Contact e-mail:

Reference #3:

Company Name: _____ Contact
Name/Title: _____ Contact Phone:
_____ Contact e-mail:

Please identify any other information that you wish to share here. Additional pages may be attached at the company's discretion: