Gardner Publications and the Maine Composites Alliance present:

CW COMPOSITESWORLD

2011 WIND & OCEAN ENERGY SEMINAR

April 13-14 — Wyndham Portland Airport, Portland, ME

Whether you are currently involved in the wind & ocean energy industry and supporting technologies, or you are eager to pursue these burgeoning markets, the **2011 Wind & Ocean Energy Seminar** will provide you with access to the people and the information you need to catch the wave and grow your business.

Explore the expanding markets and future opportunities in wind blade & ocean energy!

Topics include:

- Supply chain opportunities
- Design and manufacturing technologies
- Installation and repair
- Government incentives
- Project development
- Emerging markets

and MORE!

Network with not only composites manufacturers and companies from around the globe already pursuing wind and hydrokinetic energy projects, but also companies proficient in other technologies, including metal machining, prototyping & tooling, cable production, large structure assembly, construction, efficient automation, and MORE!

Wyndham Portland Airport Hotel
Special room block pricing is available at the Wyndham Portland Airport. Reserve your room by March 22nd and *SAVE!*
www.compositesworld.com/woe

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Sponsorships & tabletop exhibits are available!
Contact Kim Hoodin, CompositesWorld
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MAINE WIND INDUSTRY INITIATIVE

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April 13-14 —The Wyndham Portland Airport Hotel, S.Portland, ME

AGENDA

Day 1: Wednesday, April 13

7:30 REGISTRATION & CONTINENTAL BREAKFAST

8:30 Wind and Ocean Energy Market Landscape

Opportunities and Outlook for North American Wind and Ocean Energy

CHRIS RED, Vice President, Composite Market Report

- Demand and outlook for industrial-scale wind
- Demand and outlook for community- and small-wind
- Emerging ocean/river generating applications
- Impact of developments on composite materials and manufacturing

9:30 NETWORKING BREAK

9:45 Wind Blade Composites Developments

Advanced Manufacturing Innovation Initiative:
Technology Developments in Manufacturing of Large Composite Wind Turbine Blades

STEPHEN NOLET, Principal Engineer, TPI Composites

10:45 Floating Platform Components

A Review DeepCWind's Design Decisions

ROBERT LINDYBERG, Project Manager, AEWC, University of Maine

Market Overview, Major Players, Leading

Forging the Future of Floating Wind Energy

DAN SHREVE, Director , MAKE Consulting

- Overview of Existing Floating Foundation Concepts and Program
- Challenges and Benefits of Floating Foundations versus Traditional Stationary Designs
- Localization and Other Supply Chain Considerations
- Importance of Strategic Development Partners

12:00 LUNCH

1:30 Tidal Turbine Technology / Marine Hydrokinetic (MHK)

Emergence of Renewable Marine Energy:
A New Energy Resource and Potential Market for Composites

CHRIS M. CAMPBELL, Executive Director, Ocean Renewable Energy Group

Composites in Action: The Maine Tidal Energy Project

JOHN FERLAND, VP - Project Development, Ocean Renewable Power Company

- Successful testing of the largest ocean energy device ever deployed in the U.S.
- First all-composites ocean turbine manufactured in the U.S.
- Advancement to highly sophisticated materials and processes
- Significant statewide job retention and creation

2:30 Small and Community Wind

Small vs. Community Wind 101

LISA DANIELS, Executive Director and Founder, Windustry

3:30 NETWORKING BREAK

3:45 Developing Composites in Offshore Wind

Market Drivers for Wind Blade Design and Manufacturing

DAN RADOMSKI, Co-founder, Kinetic Partners

- How is wind blade design and manufacturing evolving based on market trends
- Wind rotor technology roadmap
- Integration of enabling technologies and manufacturing processes
- When will we see automation introduced into the blade manufacturing process

Targeted Automation for Wind Blade Component Manufacturing

JAMES P. MARTIN, President, Innovative Composites Automation

RON JACOBSEN, Corporate Projects Mgr., Globe Machine Manufacturing Co.

- Target structure appropriate for automation
- Partner with material supplier, end user, OEM
- Low cost representative sub element fabrication
- Case Study: Automated prepreg application for spars
- Technical and economic results

4:45 Panel Discussion:

Opportunities & Issues for NE Offshore Development

Day 1 Speakers

5:30 Conference Adjourns

6:00 **COCKTAIL RECEPTION**

Network with fellow participants and enjoy
hors d'oeuvres at this cocktail reception

Day 2: Thursday, April 14

7:30 Registration & Continental Breakfast

8:30 Offshore Wind Project Development

Experience in Offshore Wind Farms, Alpha Ventus and Beyond

PROF. JOCHEN GROSSMANN, Ph.D.

PROF. FRANK DAHLHAUS

GICON

- Actual problems with classic foundations
- Results of first wind farm monitoring
- New solutions including floating foundations
- Status of current R&D in the field

9:30 NETWORKING BREAK

9:45 Wind Blade Repair

When the Warranty Expires: Repairing Wind Turbine Blades

MALCOLM ROSENOW, Global New Business Development Consultant

- Est. number of blades off-warranty
- Typical blade repairs (photos included)
- Challenges in the market

10:45 Offshore Wind Work Vessels: Needs and Numbers

KURT THOMSEN, CEO, Advanced Offshore Solutions (To be confirmed)

12:00 LUNCH

1:30 Mooring Technologies for Wind and Tidal Turbines

CLIFFORD GOUDY, Principal, C.A. Goudy & Assoc.

- The mooring requirements of offshore renewable energy
- Common technologies from other maritime sectors
- Matching anchor type to substrate
- Environmental and life-cycle implications of mooring options

2:30 Government Incentives and How to Maximize Them

(Speaker to be confirmed)

3:30 NETWORKING BREAK

3:45 Maine/Northeast Supply Chain Participation

Structure of a Wind Turbine Supply Chain

PATRICK FULLENKAMP, Director - Technical Serviices

Great Lakes Wind Network

- Who Buys What?
- 3 Supply Chain Sectors: Turbine Components, Construction Material, Maintenance Material
- What is expected of a Wind Supplier?
- Tips for 1st Tier's (Composites included)

4:45 Panel Discussion:

Looking Forward: Where to Aim for Next 10 Years?

Day 2 Speakers

5:30 Conference Concludes