

Emerging Technology Trends in Wind Energy Market

Webinar May 28, 2009 (9:00 am – 11:30 am EST)

Technological advancements & innovation - Changing rules and bottom line impact



- Research and technology trends in wind blade manufacturing
- Strategies on lowering the cost and improving the blade reliability and performance

Featuring presentations from the following organizations:

MFG



Carl M. La France

BASF



Gregor Daun

Lucintel



Norman Timmins

Vistagy



Olivier Guillermin

Dassault



Rani Richardson

Media Partner





Emerging Technology Trends in Wind Energy Market

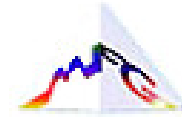
About Webinar

The wind energy market has been growing at a 24% (CAGR) over the last 5 years and is forecast to continue growing at a significant pace over the next 5 years. In the coming years, the wind energy market will continue to require technical innovation to make wind more competitive with other forms of energy. It is critical to improve performance by designing and manufacturing more efficient, reliable and lighter blades that can reduce the loads on the main turbine components and significantly lower total lifetime system costs. Some of the key questions to be answered during this webinar are:

1. What are the expected lengths of next generation blades?
2. What implications does this have for new materials and location of production facilities?
3. What technology developments are near stage that can drive improved costs and benefits?
4. What are the strategies on lowering the cost and improving the blade reliability and performance?

Carl LaFrance from MFG, a blade manufacturer for GE Wind, will be detailing component design, materials, tooling, process, and transportation considerations for blade manufacturing. Dr. Gregor Daun from BASF will cover the use of fast curing epoxy system for minimizing investments in blade production while Norman Timmins from Lucintel will explain the technological developments expected to drive improved costs and benefits. Dr. Olivier Guillermin from Vistagy will explain novel manufacturing methods to rapidly develop and produce new and larger blade designs that are cost effective and reliable. Rani Richardson from Dassault Systems will show how to utilize potential opportunities to optimize the expertise, IC and design characteristics of rotorcraft blade design for the wind blade market.

Featured presentations from:



Agenda at a glance: May 28, 2009

Speaker	Company	Time	Agenda
Carl M. La France	MFG	9:00 am EST	A Molder's View of Composites in the U.S. Wind Energy Market
Gregor Daun	BASF	9:30 am EST	Novel epoxy systems for industrial rotor blade production
Norman Timmins	Lucintel	10:00 am EST	Emerging technology trends in wind energy market
Olivier Guillermin	Vistagy	10:30 am EST	Novel Manufacturing Methods for wind blades
Rani Richardson	Dassault Systems	11:00 am EST	Applying Rotorcraft Design Knowledge to Propel the Wind Blade Industry

Lucintel, 1320 Greenway, Suite 870, Dallas, Texas, 75038, USA

URL: www.lucintel.com. Telephone: 972-620-8888. Fax: 877-883-5140 (Toll Free)



Emerging Technology Trends in Wind Energy Market

Presentation Details:

Keynote Presentation: 9:00 am – 9:30 am (EST)

A Molder's View of Composites in the U.S. Wind Energy Market

This presentation will review the known and potential impacts on the composites industry of wind-powered generators becoming a significant source of reliable electrical power in the United States. Topics will include component design, materials, tooling, process, and transportation considerations.

Key takeaways Include:

- A parametric view of what 1% of U.S. generating capacity looks like in terms of composites manufacturing capacity and usage
- What enabling technologies might be needed to support design, materials, and fabrication processes?
- What resource constraints and other risk factors might affect the industry's ability to respond?



Carl M. LaFrance,
Director of Wind Energy Business
Molded Fiber Glass Companies

Carl LaFrance is responsible for all aspects of wind energy business development and customer management at Molded Fiber Glass Companies (MFG). He has served MFG for the past 10 years in various Engineering, Manufacturing, Quality Improvement, Marketing and Information Technology management positions.

9:30 am – 10:00 am (EST)

Novel epoxy systems for industrial rotor blade production

The strong growth of rotor blade demand has led to an increase of production capacity by duplicating the existing technology. The future will bring a shift from manual labour to partially automated production. Latent but fast curing epoxy systems reduce cycle time and will make rotor blade production more efficient.

Key takeaways Include:

- Trend in blade production from manual labour to industrial production drives need for novel and differentiated thermosetting materials
- Cycle time reduction is key for all growing players to minimize investments and to dilute fix costs
- Application of latent but fast curing epoxy system shortens cycle times



Dr.-Ing. Gregor Daun,
Business Manager Epoxy Systems,
BASF

Gregor Daun has been working for BASF since 1996 and has held positions in Research, Technology, Production, and Marketing. He is currently working as a business manager of epoxy systems. He has Doctoral Degree in Chemical Engineering from University of Stuttgart.

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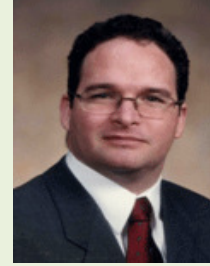
10:00 am – 10:30 am (EST)

Emerging technology trends in wind energy market

With the rapid growth in wind energy market, significant technological changes have been taking place. This presentation will summarize the technological trends in global wind market.

Key takeaways include:

- What are the expected lengths of next generation blades?
- What implications does this have for new materials and location of production facilities?
- What technology developments are near stage that can drive improved costs and benefits?



Norman Timmins
Director-Lucintel

Norman has over 20 years of work experience with major strengths in strategic consulting, profit improvement and market research. Prior to Lucintel, Norman worked for Boston Consulting Group and Bain Consulting, managing consulting projects for Fortune 500 companies. He also worked for DHL as country director of corporate strategy. Norman received his MBA with honors from Wharton.

10:30 am – 11:00 am (EST)

Novel Manufacturing Methods for wind blades

Current blade materials, design methods and manufacturing processes are reaching their limits due to weight, cost, and reliability issues. The wind industry will require new design tools and novel manufacturing methods to rapidly develop and produce new and larger blade designs that are cost effective and reliable.

Key takeaways Include:

- Innovative composite design toolset integrated with common CAD platforms to create automation systems
- Methods of improving control over quality, accuracy and speed of manufacturing, and to provide better product consistency and repeatability.



Dr. Olivier Guillermin,
Director of Product and Market
Strategy-Vistagy

Dr. Olivier Guillermin is responsible for providing insights to the executive team on the long term company vision and strategy with emphasis on new vertical market solutions. He has first served at VISTAGY as the FiberSIM product manager and then as the director of business development. Dr. Guillermin holds PhD in computational fluid dynamics.

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Emerging Technology Trends in Wind Energy Market

11:00 am – 11:30 am (EST)

Applying Rotorcraft Design Knowledge to Propel the Wind Blade Industry

Composites have long been the standard for rotorcraft blade design and as renewable energy continues to gain prominence on the world's stage, engineers have begun to apply these established best practices to the design and manufacturing of wind turbines.

Key takeaways Include:

- Common challenges and principles found in both rotorcraft and wind blade design including similarities in the overall performance, loads and stability
- Potential opportunities to optimize the expertise, IC and design characteristics of rotor blade design for the wind blade market
- Shared goal to reduce vibration without increasing weight



Rani Richardson,
Consultant-Dassault Systems

Rani Richardson is a member Dassault Systems' technical competency center, focused on composites. Richardson's area of expertise is the CATIA V5 Composites Solution. Prior to Dassault Systèmes, Richardson worked for eight years at Magestic where she trained composites customers on nesting and laser projection software.

Benefits of Attending this Webinar:

- Obtain easy to implement strategies on lowering costs
- Get to know new development in wind energy market
- Heard new ways to leverage existing infrastructure for greater productivity
- Ensuring your business strategy is on the right track to face the future
- Value for money, thousands of dollars of research distilled in an event totalling a few hours
- No travel cost. Learn directly from industry experts in a timely fashion.

About Lucintel:

Lucintel is a Dallas, Texas (USA) based global management consulting and market research firm that creates your equation for growth — whether you need to understand market dynamics, identify new opportunities, or increase your profitability. Lucintel provides cutting-edge decision support services that help you make critical decisions with greater speed, insight, and accuracy. For more than ten years, our industry knowledge and expertise has helped more than 700 clients from over 70 countries create the equation for measurable results. Lucintel has over 40 multi-client market reports related to various markets such as wind energy, aerospace, automotive, construction, marine, and composites industry. To learn more on Lucintel, please watch a short 3.5 minutes movie by visiting <http://www.lucintel.com/imovie/>

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Registration Form and Procedure

This webinar provides unique opportunities to learn the latest technological trends and highest profit opportunities within the wind energy marketplace. Through this webinar, you will be able to quickly take advantage of market opportunities in a quick and cost effective manner. To register, please provide your information in the form below and send to Lucintel. After registering, instructions will be provided on how to attend the webinar, only a telephone and an Internet connection are required. At the end of each presentation, 5-10 minutes time will be provided for questions and answers.

Registration fee: \$ 299 per participation. If registered before May 15, 2009, the cost is \$249 per participation. For Lucintel customer (if you purchased any product or service from Lucintel during last 2 years), cost is \$199 per participation if registered before May 15, 2009. Contact us for Group Discount.

- Regular registration: \$299
- Early-bird registration (Before May 15): \$249
- Lucintel Customer: \$199 (Before May 15) and \$249 (After May 15)

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