

## Monday - April 17, 2006

6:00pm-7:30pm *Early Registration*

## Tuesday - April 18, 2006

7:30am *Registration & Continental Breakfast*

### **Overviews**

- 8:15am Tom Ashwill (SNL) – *Recent Trends & Activities in Turbines and Blades*
- 8:40am Daniel Laird (SNL) – *Blade Research at SNL*
- 9:00am Maureen Hand (NREL) – *Cost Prediction Tool for Onshore and Offshore Turbines*

### **Inspection**

- 9:15am Dennis Roach (SNL) – *Health Monitoring Techniques - Experience in Aviation*
- 9:45am **\*\*Break**

### **Effects of Aerodynamics on Blade Design**

- 10:05am Helge Aagaard Madsen (Risø) - *An Investigation of Inboard Rotor/blade Aerodynamics and Its Influence on Blade Design*
- 10:35am Stefan Herr (GE) – *Aerodynamic Study*
- 11:05am Scott Schreck (NREL) – *Turbine Flow Fields and Implications for Aerodynamic Control*

### **Active Devices, Flow Control and Blade Sensing**

- 11:35am Jose Zayas (SNL) – *Active Control Devices for Wind Turbine Blades*
- 12:05pm **\*\*Lunch**
- 1:00pm Case Van Dam (UC Davis) – *Approaches for Performance Predictions of Blades with Embedded Actuators Using CFD*
- 1:30pm Lou Cattafesta (University of Florida) – *Potential for Flow Control in Wind Turbines*
- 2:00pm Jason Kiddy (SPA) – *Application of Fiber Optics to a Research Blade*
- 2:30pm Peter Bjoern Andersen (Risø) - *Load Alleviation on Wind Turbine Blades Using Trailing Edge Flaps*
- 3:00pm **\*\*Break**

### **Blade Developments from the SBIR Program**

- 3:20pm Mansour Mohamed (3Tex) – *3D Woven Spar Cap and 9m Blade Development*
- 3:50pm Dayton Griffin (GEC) – *Demonstration of an Infused Carbon Fiber Spar in MW-Scale Blade*
- 4:20pm Kyle Wetzel (Wetzel Engineering, Inc.) – *Fabrication and Testing of 3m Carbon Blades*

### **Offshore**

- 4:50pm Walt Musial (NREL) – *Offshore Blade Technology Issues*
- 5:20pm *Announcements and Adjournment*

*Dinner on Your Own*

## Wednesday - April 19, 2006

7:30am *Late Registration & Continental Breakfast*

### **Commercial Blade Developments**

- 8:00am Gary Kanaby (Knight & Carver) - *Swept 28-m Blade Design and Fabrication*
- 8:30am Mark West (GE) – *Blade Manufacturing at GE*
- 9:00am Claus Burchardt (SWP) – *Blade Manufacturing at Siemens Wind Power A/S*
- 9:30am Derek Berry (TPI) – *Blade Manufacturing and Materials Developments*
- 10:00am **\*\*Break**

### **Concept Evaluation Using Subscale Blades**

- 10:20am Josh Paquette (SNL) – *Lab Testing of SNL Subscale 9m Blades*

### **Materials and Manufacturing Research**

- 10:50am John Mandell (MSU) – *Materials Testing: Thickness Tapering and Transitions*
- 11:20am David Hartman (Owens-Corning) - *Advances in Material Technology*
- 11:50am **\*\*Lunch**
- 1:00 pm Doug Cairns (MSU) – *Carbon Fiber Manufacturing Review and Current Status*
- 1:30pm Cliff Eberle (ORNL) – *Research to Lower the Cost of Carbon Fibers*
- 2:00pm Paul Veers (SNL) – *General Discussion including "Future Research Needs"*

### **Visit to AANC (Airworthiness Assurance NDI Validation Center) for Those Who Are Interested**

- 2:30pm Drive to AANC Facility (*Map in Packet*)
- 3:00pm Tour AANC Facility
- 4:00pm Adjourn Workshop