



## RESEARCH SYMPOSIUM ON WIND INTEGRATION STUDY MODELS AND METHODS

July 7-8, 2009  
O'Callaghan Mont Clare Hotel  
Dublin, Ireland

### PROGRAM AGENDA

#### Purpose

- Identify the state of the art of incorporating wind energy into power system planning methods
- Identify the critical R&D needs for improved probabilistic planning methods for wind energy
- Provide input for research agendas for major R&D funding agencies

#### Tuesday, July 7

8:00 a.m. -9:00 a.m.

#### **Registration & Coffee**

Location: Yeats Suite

9:00 a.m. – 4:30 p.m.

#### **Workshop**

Location: Yeats Suite

9:00 a.m. – 9:30 a.m.

#### **Opening Session**

Workshop Welcome  
Dermot Byrne, CEO, EirGrid

Workshop Introduction and Overview  
Charlie Smith, Utility Wind Integration Group  
Mark O'Malley, Electricity Research Center, UCD



9:30 a.m. – 12:00 p.m.

### **Models and Methods for Calculating Wind Plant Capacity Value**

Session Chair: Jon O'Sullivan, EirGrid

- State of the Art Address: Michael Milligan, NREL
  - Reliability Assessment Program Improvements for Incorporating Wind Generation, Bart Stoffer, GE
  - Data Representation and Requirements for Capacity Value Calculations, Lennart Soder, KTH
  - Capacity Value Calculations - Importance of Time Frame and Other Aspects, Bernhard Hasche, Univ of Stuttgart
  - Incorporating the Impact of Transmission Constraints on Capacity Value Calculations, Dale Osborn, Midwest ISO

Discussion

Session Summary

10:30 a.m. – 11:00 a.m.

### **Break**

12:00 p.m. – 1:30 p.m.

### **Lunch**

Location: Cellars Suite

1:30 p.m. – 4:30 p.m.

### **Stochastic Production Cost and Unit Commitment Techniques**

Session Chair: Paul Smith, Electricity Research Center, UCD

- State of the Art Address: Christoph Weber, University of Duisburg-Essen
  - Impact of Forecast Error on Production Cost, Bob Zavadil, EnerNex
  - Probabilistic Unit Commitment Developments, Jean-Christophe Passelergue, AREVA T&D
  - Comparison of Probabilistic and Deterministic Unit Commitment with Wind, Aidan Tuohy, ERC UCD
  - Market Implications of Advanced Unit Commitment and Wind Forecasting Methods, Eric Ela, NREL
  - Market Design and Wind Energy Integration, Jean-Michel Glachant, University of Florence

Discussion

Session Summary

3:00 p.m. – 3:30 p.m.

### **Break**

4:30 p.m.

### **Adjourn**

6:00 p.m. – 9:00 p.m.

**Hosted Dinner at Radisson SAS St. Helen's Hotel**

## **Wednesday, July 8**

8:00 a.m. -9:00 a.m.

### **Coffee**

Location: Yeats Suite

9:00 a.m. – 2:30 p.m.

### **Workshop**

Location: Yeats Suite

9:00 a.m. – 12:00 p.m.

### **Transmission Planning with Energy Sources**

Session Chair: Leslie Bryans, NIE

- State of the Art Address: Peter Borre Erikson, Energinet.dk
  - Evolution of Probabilistic Transmission Planning Tools, Dusko Nedic, TNEI
  - Modification of Deterministic Tools for Incorporating Wind Energy into the Transmission Planning Process, Daniel Burke, ERC UCD
  - Transmission Planning for 240 GW of Wind in the Eastern Interconnection, Dale Osborn, MISO
  - Adapting the GB Security Standards to Incorporate Treatment of Wind, Paul Plumtre, National Grid

Discussion

Session Summary

10:30 a.m. – 11:00 a.m.

### **Break**

12:00 p.m. – 1:00 p.m.

### **Where Do We Go From Here?**

Session Chair: Mark O'Malley, ERC, UCD

- Wendy McLoone, Science Foundation Ireland
- Peter Harte, Irish Wind Energy Association
- Bob Hanna, Dept. of Communication, Energy and Natural Resources, Ireland
- Dagmar Niebur, US National Science Foundation
- Stan Calvert, US DOE
- Aaron Bennett, NERC

Discussion

Session Summary

1:00 p.m.

### **Closing Comments**

Charlie Smith, UWIG; Mark O'Malley, ERC, UCD

1:15 p.m.

### **Lunch**

Location: Cellars Suite

**Luncheon Comments**

John Shine, CEO, ESB Networks

2:30 p.m.

**Adjourn**

3:00 pm

**Optional Golf Outing**