WIND FARM MONITORING AND CONTROL

4 – 5 June 2014 | One Drummond Gate, London, UK

Advances in monitoring technologies, control systems and data handling

Gain exclusive insight into:

- Widening control over wind farms for more accurate information and better planning of O&M strategy
- Vertical integration of control systems for improved response times
- Using condition monitoring to enable a proactive O&M strategy
- Utilising control for cost-effective integration into grid systems and to maximise asset value

Featuring leading speakers:

- Rui Maia
  Operations And Maintenance Manager
  Iberwind
- Dan Klitgaard
  Operations Engineer
  TREFOR Energi
- Eric Antoons
  COO Power Production
  Parkwind NV
- Breanne Gellatly
  Senior Manager
  The Carbon Trust
- Thomas Zedler
  Head Of Remote Services
  Nordex
- Sally Shenton
  Director
  Generating Better Ltd.
- Eric Antoons
  COO Power Production
  Parkwind NV
- Christof Devriendt
  Scientific Coordinator
  OWI-Lab
- Konstantinos Pierros
  Grid Integration Manager UK
  ENERCON
- Professor Carlo Luigi Bottasso
  Chair For Wind Energy
  Technical University of Munich

www.windcontrolmonitoring.com
Day 1: Wednesday 4 June 2014

08:30  Registration And Refreshments

09:00  Chair's Opening Remarks
   Karl Merz, Engineer, SINTEF

Control At Wind Farm Level For Better Coordination Between Assets

09:15  Widening Wind Farm Control To Optimise Overall Performance
   The Iberwind portfolio and future plans
   Iberwind's internally developed SCADA system
   Necessity for integrating machine monitoring information into standard SCADA systems
   Wind farm power and voltage output control
   Performing reliability analysis
   Rui Maia, Operations And Maintenance Manager, Iberwind

09:45  Rating Turbines For Optimal Power Output
   Overrating power in stable wind conditions
   Control algorithms for blade pitching adjustment
   Understanding the interaction of controller parameters
   How to gain greater control over turbine output
   Senior Representative, Energy Research Centre Of The Netherlands (ECN)

10:00  Achieving Widened Wind Farm Control In Offshore Situations
   Building a monitoring tool for more accurate offshore supervision
   Collecting offshore turbine data from multiple OEM products
   How best to amalgamate multiple data sets for control room supervision
   Assessing the balance between operational returns from assets and long term maintenance strategy
   Eric Antoons, COO Power Production, Parkwind NV

10:30  Networking Break And Morning Refreshments

11:00  Vertical Integration Of Control Systems
   Centralising collection of data sets from multiple OEM products
   Creating communication channels to one system
   Optimising performance across turbine platforms from a central SCADA system
   Dan Klitgaard, Operations Engineer, TREFOR Energi

11:45  Remote Monitoring For Better Turbine Health
   Remote monitoring to boost yield and reduce cost
   Maintenance optimisations and the role of remote monitoring
   Integrating remote monitoring into O&M strategy
   Sally Shenton, Director, Generating Better Ltd.

12:30  Networking Lunch

Technical Capabilities And Strategic Advantages Of Condition Monitoring For Improved Offshore O&M

13:30  Remote Monitoring For Better Turbine Health
   Remote monitoring to boost yield and reduce cost
   Maintenance optimisations and the role of remote monitoring
   Integrating remote monitoring into O&M strategy
   Sally Shenton, Director, Generating Better Ltd.

14:15  Condition Monitoring Algorithms For Improved Turbine Use
   What can be achieved with current state of the art technology in condition monitoring?
   Challenges to the improvement of remote monitoring
   The future direction of condition monitoring
   Dr. Chris Crabtree, Lecturer, Durham University

14:45  Networking Break And Afternoon Refreshments

Collecting Wind Measurements: Advances In Accuracy

15:15  The OWA FLiDAR Experience Of Wind Measurement
   The FLiDAR roadmap to viable commercial deployment
   Validation campaign for effective operation in offshore environments
   Efficacy of FLiDAR in primary wind data collection
   Breanne Gellatly, Senior Manager, The Carbon Trust

15:45  LiDAR: Efficacy In Wind Measurement?
   Hub placement concept
   Controlling assets with real time wind measurement: what precision can be achieved?
   Will FLiDAR spell the end of masts?

16:30  Chair's Closing Remarks And End Of Day 1

“An interesting and worthwhile conference to help understand the main issues surrounding data usage in the wind industry”
Operations Analyst, Falck Renewables

Book by 4 April And SAVE £250!
Day 2: Thursday 5 June 2014

08:30 Registration And Refreshments

09:00 Chair’s Opening Remarks
   Professor Xiongwei Liu, Chair Of Sustainable Engineering, University Of Cumbria

Integrating Wind Energy Into Grid Systems

09:15 Coordinating Grid Compliance With Best Value Energy Generation
   ◀ Increasing functionality for turbines to meet grid requirements
   ◀ How to manage the frequency in a network with lower inertia
   ◀ Deciphering terms in grid code requirements for connection conditions
   Konstantinos Pierros, Grid Integration Manager UK, ENERCON

10:00 Extracting Maximum Value From Electricity: Lessons From Belgium
   ◀ Wind cannibalism: a new reality?
   ◀ Day ahead market vs. unbalance market
   ◀ Assessing the drivers of the electricity price
   Kasper Van Lombeek, University Of Ghent

10:45 Networking Break And Morning Refreshments

Condition Monitoring For Optimising Asset Performance

11:15 Wind Turbine Blade Aeroelasticity Analysis And Instability Control
   ◀ Wind turbine blade aeroelastic modelling
   ◀ Nonlinearity of wind turbine blade aeroelasticity
   ◀ Wind turbine blade instability control
   Professor Xiongwei Liu, Chair Of Sustainable Engineering, University Of Cumbria

11:45 Ensuring Long Term Asset Life Through Foundation Monitoring
   ◀ Data collection from CMS, SCADA and METEO sources
   ◀ Appropriate data infrastructure for monitoring use
   ◀ Data analysis for optimised O&M and life time assessment
   ◀ Statistical analysis and model based analysis
   Christof Devriendt, Scientific Coordinator And Gert De Sitter, Monitoring Systems Coordinator, OWI-Lab

12:30 Networking Lunch

Sensitivity And Reliability Of Optimisation Technology For Increased Production

13:30 Using Remote Services To Improve Production And Turbine Health
   ◀ Using remote services to enhance energy production
   ◀ Linking automatic algorithms and people’s expertise for best performance and reduced downtimes
   ◀ Solid data as a basis for steering on- and offside operations
   Thomas Zedler, Head Of Remote Services, Nordex

14:15 Effectiveness Of Monitoring Technologies In Determining Optimal Reduction Of Turbine Loads
   To present this topic please contact Heather Smith at hs@windpowermonthly.com or Raihan Chowdhury at rmc@windpowermonthly.com or +44 (0) 208 267 4785

15:00 Networking Break And Afternoon Refreshments

15:30 An Experimental Facility For Wind Farm Control Testing
   ◀ Scaled wind farm model in large boundary layer wind tunnel
   ◀ Sophisticated wind turbine models with active control and aeroelastic scaling, with reasonable representation of performance and loads
   ◀ Applications: research in wind farm control, wakes, aeroelasticity and loads in wake interference conditions
   ◀ Benefits: fast testing time, low cost, control over testing conditions, accurate measurement of relevant parameters
   ◀ Flexible scenarios: different wind farm configurations, wind conditions, controller algorithms and strategies
   Professor Carlo L. Bottasso, Chair For Wind Energy, Technical University Of Munich

16:00 Chair’s Closing Remarks

16:15 Close Of Forum
2 WAYS TO BOOK:

- Online: www.windcontrolmonitoring.com
- Call: +44 (0)20 8267 4011

Group discounts: Every 3rd delegate will receive a 50% discount. Group discounts cannot be used in conjunction with the early bird rates or any other offer.

Please note that all rates will have VAT at 20% added.

Accommodation is not included in the registration fee for this event. To book accommodation, please contact PHR on +44 (0)845 6123 611 or email res@phrmail.co.uk and quote the code WFMC.

Speaker presentations are accessible online and are not supplied in printed form. Access will be granted a week after the event, subject to speaker disclosure.

Cancellations on or before 15 May 2014 are subject to a handling fee of £99 per delegate. Cancellations received on or after 15 May 2014 are subject to the full fee that is payable for the conference. For full terms and conditions please visit www.windcontrolmonitoring.com.

Pricing Information

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Commercial Opportunities

Don’t miss out on this great opportunity to increase your exposure with owner/operators, OEMs and service providers.

For more information about potential sponsorship packages, please contact:

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Who should attend?

Including but not limited to:

- Asset Managers
- O&M Managers
- Project Managers
- Engineers
- IT Architects
- Systems Administrators
- Technical Managers
- Condition Monitoring Specialists
- SCADA Engineers
- Control Engineers
- Process Engineers
- Wind Resource Analysts
- System Integration Coordinators

Related conferences:

Offshore Operations And Maintenance 2014
October 2014
London, UK
www.offshoremaintenanceforum.com

Wind Farm Data Management And Analysis 2014
November 2014
Hamburg, Germany
www.windfarmdata.com

Speakers include: