

Quo Vadis 2012 Wind Energy Conference

Pre-Event Dinner on Wednesday, 14th November 2012 Conference on Thursday, 15th November 2012

> Leeds Castle Maidstone, Kent **ME17 1PL**



The FREE wind conference only for Owners and Operators





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The Speakers



Kevin Donovan, Director, windpower renewable solutions Limited

Kevin Donovan has worked in the bearing industry for 35 years and has been a director of his own company for the last 24 years. He got involved in the wind industry some 10 years ago and founded windpower renewable solutions Limited to serve the growing wind energy market in the UK, Europe and overseas with offices in Germany, the UK and the USA. He and his wife Sigrid held the first Quo Vadis Conference in 2007. The conference is now in its sixth year and is recognised by wind farm owners and operators as one of the most important and valuable events in the wind industry.



Clifford McSpadden, CEO, CMS Global Limited

Clifford is the founder and CEO of CMS Global Ltd, an organisation dedicated to helping others engage and collaborate to "make change happen". The Global Wind Alliance represents the most recent and significant example of this, bringing together leading companies across Europe to offer Total Life Cycle Management of wind farms across the world.



Elias Dencker, Stakeholder Manager, Dong Wind (UK)

Elias joined DONG Energy in 2008 and has chiefly focussed as an Operations Project Manager including the setting up of the London Array Offshore Windfarm Operations and Maintenance business, which is the worlds largest offshore windfarm under construction. As well as the day job Elias is the Deputy Chair of Renewables UK Skills and Employment Strategy Group and was closely involved with the creation of the Renewable Energy Apprenticeship Scheme. The link between skills and employment within the Renewables industry and our business needs is a chief passion, including the de-risking for the future by inspiring innovation and making pro-active decisions now. As a member of Kent County Councils Investment Advisory Board Elias is a keen promoter of the wind industry to investors and suppliers alike.



Ian Pledger, Field Service Engineer, Schaeffler (UK) Limited

lan qualified as a Mechanical Engineer, initially working for NSK as Application Engineer for five years before joining Schaeffler in 1991 as member of the field sales force.

Later appointed as a Product Trainer, Ian developed to his current position of Field Service Engineer for the Industrial Services sector. He is responsible for Condition Monitoring and related services within the UK and Ireland.



Tim Morgan, Asset Manager, E.ON C&R

Tim started working as a wind farm site manager for E.ON in 2004. The main challenge was to convert two sites to third party maintenance and improve the performance of a third, during its warranty period. For a further two years Tim worked in a technical support team and achievements included the setting-up of a fleet-wide engineering risk management system. From June 2009, Tim has been working in the E.ON Climate & Renewables (EC&R) head office in Düsseldorf where he has been responsible for various global projects e.g. coordinating O&M strategy across 4.2 GW of on- and offshore wind farms in 10 countries, spread across the US and Europe.



David Hamill, Business Development Manager, Stork Technical Services

After working in The Royal Navy Submarine Service, David commenced a career in the Oil and Gas industry which now spans over 20 years. David began his Oil and Gas experience with RBG as a Rope Access Technician, specializing in NDT and Construction activities, and then progressed to Operations Management dealing with challenging and high-profile projects on a global level. In 2011 RBG was acquired by Stork Technical Services and is now known as Stork Technical Services (RBG) Ltd, increasing the company's capabilities and global footprint. In an ever-changing industry David is the driving force on innovative ideas and solutions and as such has moved to the position of Business Development Manager focusing predominantly on the Renewables and Decommissioning sectors.



Thomas Stalin, Operational Project Manager, Vattenfall Vindkraft AB

Thomas has been involved in various Wind Power projects since 1999 starting with Utgrunden Offshore Windfarm in Kalmarsund. From the very beginning he encountered problems with gearboxes failing and started to ask questions. In 2005 he joined Vattenfall and has been working with different R&D related topics like offshore foundation development, and with "Wind in the Forest".

He is today working with operation and maintenance support. Recently he has finished a study on converter failures.



Michael Wilkinson, Engineer, GL Garrad Hassan

Michael Wilkinson is an engineer in the Asset Management and Optimisation Services group at GL Garrad Hassan. For the last 5 years he has been part of a team of engineers and analysts who have assessed over 30 GW of operating wind plant worldwide; working for owners, operators and investors. In this role he has provided a wide range of consulting services including operational energy forecasts, wind farm monitoring and reliability analyses. His specific interests include SCADA data analysis, wind turbine reliability and condition monitoring. He is a Chartered Engineer with a Doctorate in wind turbine condition monitoring.

Agenda

09.15h Welcome and Preliminaries

Kevin Donovan, windpower renewable solutions Limited (Organiser)

and

Clifford McSpadden, CMS Global Ltd. (Moderator)

09.45h Offshore Wind - The Lasting Legacy

Elias Dencker, Dong Energy

DONG Energy as an industry leader in offshore wind have key focus on the lasting legacy. This presentation will focus on how we can maintain a lasting legacy and continued long term industry growth by bringing down the cost of generation, local benefits and improved capability. Local permanent job creation and local supply chain partners will work to this end, as will increasing competition to our fast growing sector eventually bringing even better products at lower prices to the market.

10.15h Break for Coffee, Exhibition, Networking

In the exhibition area (Gallery in the Maiden Tower)

11.00h Condition Monitoring In Wind Turbines

Ian Pledger, Schaeffler (UK) Limited

Over the last few years, condition monitoring of the drive train has become a standard requirement on a wind turbine. Implementing a monitoring solution however raises a number of questions regarding the general approach and its realisation. This presentation will give a brief overview of the cost of turbine failure, how CM can play its part in reducing those costs and the most common methods in the monitoring sector. It will also highlight some of the obstacles for CM projects such as communication, acquisition of information about speed and load, and obtaining the technical data on the different components. Condition Monitoring doesn't end with the hardware or devices; at some point it will always comprise some service for data analysis or at least support for this. It is important to understand that the final result of CM should always be a recommendation for action, provided by an expert.

11.30h How to save with a SPARES strategy

Tim Morgan, E.ON Climate & Renewables

E.ON Climate & Renewables (EC&R) is the owner and operator of one of the largest and most diverse global wind farm fleets anywhere. For the last three years E.ON has been on a mission to both improve the performance whilst reducing O&M costs of its aging fleet. Currently, it is at key stage of implementing an enhanced O&M strategy, and beginning to reap the rewards with its fleet approach.

After giving a brief overview of EC&R, its wind farm fleet and the O&M strategy, this presentation will dive into one area in more detail: parts and spares sourcing. An often overlooked service element, E.ON rates this as one of the key service modules which will help maintain excellent asset performance whilst delivering significant future cost savings on the wind farm fleet.

12.00h Lunch Break

In the Castle Dining Room and Library

with tea and coffee served at the Gallery in the Maiden

13.30h Corrosion Protection on Wind Turbines

David Hamill, Stork Technical Services

Stork Technical Services have extensive offshore experience, coupled with multi-skilled project teams and innovative technology. With this background this presentation will provide an overview on corrosion (topside and subsea) and identify preventative measures such as inspection, cathodic protection and repair techniques.

14.00h The Pink Elephant in the Drive Train

Thomas Stalin, Vattenfall

Ever since Thomas started to work in wind power in 1999 he heard about drive train problems. Eager to know the cause of these he has been asking questions that nobody seems to be able to answer. However, being on the fifth generation of gearboxes, he knew there was a real issue and he realised: "I have a pink elephant in my drive train". In this presentation he endevours to list all possible causes of drive train problems he has found since he started working in the industry. He will also speak about uniting large power producers using VGB. And he will try to find answers to these questions: How can we take full control over our turbines? Do we have the information needed?

14.30h Break for Coffee, Exhibition, Networking

In the exhibition area (Gallery in the Maiden Tower)

15.00h SCADA-based Condition Monitoring Joining advanced analytic techniques with turbine engineering

Michael Wilkinson, GL Garrad Hassan

SCADA-based Condition Monitoring uses 10-minute average data already collected at wind turbines to detect deteriorating machine health and predict impending failures. This has the advantage that no additional sensors or equipment need to be installed in the turbines. A number of techniques are available from simple trending, to artificial intelligence and a physical model approach. The methods will be explained and their relative merits discussed. Experience has shown that all SCADAbased Condition Monitoring techniques are most successful when accompanied with an understanding of the engineering aspects of the turbines and knowledge of the failure modes. The presentation will describe the results of a validation study on a range of turbine types and sizes. It will be shown that component deterioration can be detected several months before failure, giving turbine owners time to arrange repair and replacement and minimise unexpected downtime.

15.30h Official Closing of Quo Vadis

More time for networking

Together with windpower renewable solutions Limited this year's event is co-hosted by Schaeffler INA/FAG.





It would not be possible for us to offer our Quo Vadis Conference free of charge without the support of our Platinum Sponsors GL Garrad Hassan and Stork Technical Services who also contribute towards the costs.







In addition to our main sponsors, following companies have booked exhibition space and will show their products and services: GasTOPS; Hove; Morgan Carbon; Winergy











Founding Member



windpower renewable solutions Ltd. are a founding member of the Global Wind Alliance, an association of global experts in the operation and maintenance of wind farms which brings together some of the finest components manufacturers and experienced engineers from the wind industry and beyond.