



Quo Vadis 2019 Wind Energy Conference

River Cruise and
Pre-Event Dinner on
Wednesday, 16th October 2019
Conference on
Thursday, 17th October 2019

Hotel Tivoli Oriente
Av. D. João II
Lisbon, Portugal

13th **Quo Vadis**[®]
Conference

The FREE wind conference
only for Owners and Operators

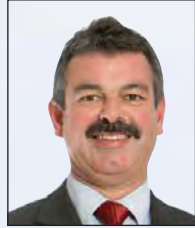
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The Speakers



Joe Dalton, Asset Management Director ; NTR

Joe Dalton is currently Asset Management Director at NTR, where he is responsible for the construction and operations of the NTR renewable energy portfolio in Ireland, UK, France, Sweden and Finland. Joe has worked for over 30 years in both conventional and renewable energy generation, utilising wind, solar, coal, oil and gas turbine technologies. He has travelled extensively, conducting technical due diligence on renewable energy equipment manufacturers throughout Europe, USA and China. Prior to NTR, Joe worked for Mainstream Renewable Power, where he undertook a variety of roles for onshore and offshore wind projects worldwide. Previously, Joe held a number of technical and managerial roles in ESB, the Irish State electricity company. He is a Chartered Engineer and is married with six children.



Brian McDaid, Head of Turbine O&M; RES Ltd

Brian is an experienced service engineer with over 30 years in service and maintenance, initially in the manufacturing sector, where he was involved in high speed automation, pneumatics, high pressure steam and conveyor systems. Brian joined the wind sector over 17 years ago with an established ISP as a service engineer. He soon became O&M Manager with responsibility for full O&M on 350MW for different owners and various turbine types. His previous experiences helped him to implement efficiencies and improvement to service. Brian joined RES Ltd as Head of O&M in January 2018 to lead the development of this service within the organisation, delivering major component exchanges, inspection regimes and other maintenance activities including full O&M.



Jerry Williamson, Director of Operations and Maintenance; SSE Renewables

Jerry is an Electrical Power Engineer by trade, who worked on distribution and transmission systems in the UK and overseas. He moved into wind operations in 2003 during the construction of SSE's first large 12MW wind farm in Argyll. His team is responsible for the safe and efficient O&M of over 5GW of renewable assets, covering Onshore Wind, Offshore Wind and Hydro generation. The capabilities include the in-house maintenance of over half of the Onshore wind turbines and the ability to undertake major component changes. SSE Renewables has ambitious growth plans for Wind and the operations team are currently working on a diverse range of activities, such as the life extension of older turbines, the continued expansion of internal capabilities, and the integration of smarter diagnostics and analytics.



Paul Sheldon, Operations & Maintenance Manager; Innogy Renewables

Paul joined RWE in 2000 and has been involved in renewable energy since 2004. Starting his career as a Mechanical Engineer in the steel industry, he went on to design, install, refurbish and commission gearboxes. He graduated from Sheffield Hallam University with a MBA after successfully completing an HND in Mechanical Engineering and a post-graduate Diploma in Sales & Marketing. Achieving a high quality on newly built wind farms has been one of the latest challenges along with a strong commitment to delivering detailed Due Diligence Inspections prior to the wind farms being transferred into Operations. His most recent areas of work has involved input from an operational point of view all the way through the build process and identifying any major issues on new wind farms prior to acceptance from the OEMs.



Martin Stanyon, Technical Asset Manager; Octopus Renewables

Martin studied Renewable Energy as part of his Masters Engineering degree at Durham University. Since graduating he has put this to use in multiple positions in the wind business at Centrica spending most of his time in the asset integrity function supporting the onshore and offshore sites. Around 18 months ago he made the move to Octopus Renewables, a relative newcomer to wind but an established solar investor. Today Martin manages a growing portfolio of European onshore wind assets with ambitious growth aspirations.



Jason Beresford, Asset Lead Scotland & Tommy Crowden, Asset Lead England&Wales; E.ON C&R

Jason joined EON C&R in 2008. In 2017 he became responsible for 4 wind farms in Scotland. Since then, he has taken three of these sites from OEM Warranty or Third party O&M to EON inhouse O&M. Currently, Jason is in the process of life time extension of two 17 year old windfarms, coupled with long term problem solving.

Tommy joined E.ON C&R in 2012. He manages the long term maintenance and technical and commercial elements of the Wind Farms in England and Wales. This covers 11 sites, 4 different WTG manufacturers and 7 different WTG types. Tommy holds a Bachelor's degree in Mechanical Engineering and a MSc in Combustion & Energy.



Leanne Ramage, Head of Projects & Paul Wilson, Head of Servicing; Natural Power

Leanne is responsible for the successful leadership and management of the Advisory and Analytics department, which provides energy due diligence work for potential investments in addition to detailed analyses of onshore and offshore wind projects.

An experienced wind industry technical manager, Paul has been instrumental in establishing Natural Power's servicing department where he oversees a team of wind turbine maintenance and servicing technicians.



Keir Harman, Director, Renewables Operationst; DNV GL

Keir is Director, Renewables Operations at DNV GL (formerly Garrad Hassan). He has worked in the wind energy industry for 20 years spending the past 15 years founding, developing and running the global operational wind farm services for Garrad Hassan. This is now a key business area within DNV GL. Keir has expanded DNV GL's capability to full operational management and control room services. He manages a team responsible for many aspects of renewable operations including asset management, inspections, performance monitoring and energy forecasting. Before joining Garrad Hassan, Keir worked for Innogy (RWE). A Chartered Engineer, Keir holds an MSc in Renewable Energy Systems from the University of Loughborough, UK.

Agenda

09.00h Welcome and preliminaries

Sigrid Donovan
(Host and Organiser)

09.10h Data: The NTR Asset Information system

Joe Dalton, NTR

Joe will present on using a centralised data system, designing and building algorithms for automatic analysis of turbine and site performance. He will cover the "Post Construction Yield assessment" (PCYA)– how to "tie it in" to understand what it means for a Wind Farm or WTG. He will then turn the PCYA "on it's side" to allow Statistical Process Control (SPC) data analysis and show some SPC "rules" for optimization decisions and performance improvement monitoring. He will also cover using "heat maps" for turbine relative performance and life consumption comparison work.

09.35h Yaw system maintenance and failure modes

Brian McDaid, RES Ltd

With aging plants, failures of certain components increase and modes of failures change. Yaw systems as integral part of a turbine's functionality are often overlooked as being a critical element within the maintenance strategy. The importance of a correctly functioning yaw system has become more prevalent but the focus on maintenance activity surrounding it has not increased. Various aspects can significantly reduce cost and increase output over the lifetime of a project.

10.00h Break for coffee, exhibition, networking

11.00h The industrialisation of wind – Onshore wind O&M from an Owners perspective

Jerry Williamson, SSE Renewables

What are the main options, challenges and opportunities within Onshore wind today and looking forward over the next 5 years? The wind industry is moving from a subsidised, specialist activity towards a large scale operation. As wind becomes more important to our energy supply it becomes subject to increasing demands from stakeholders and regulators to be more resilient, reliable and efficient. The long-term expectation is for wind and solar to become the largest and cheapest forms of renewable energy, whilst continually lowering lifetime operational costs. Wind technology continues to evolve at a rapid pace whilst older projects are still required to continue to operate safely and reliably for the foreseeable future.

11.25h Detecting early stages of developing failure modes within gearboxes

Paul Sheldon, Innogy Renewables

Can single source data be reliable enough in highlighting the early stages of a developing failure mode within gearboxes? It has proven to be so during construction of several wind farms across the UK even when supportive predictive data and methodology (CMS, oil sampling & boroscope inspections) did not highlight any issues. Over time this on-line oil system proved vital in identifying a failure mode well before the end of warranty and prior to being handed over, allowing time to execute a satisfactory repair strategy with the OEM.

11.50h Quo Vadis Hall of Fame

Sigrid Donovan

12.00h Lunch break

13.30h Project Optimum, the many-tentacled approach to wind optimisation

Martin Stanyon, Octopus Investments

Martin will share his experiences of driving Net Asset Value improvements of the portfolio through collaboration, and technical and commercial optimisations.

13.55h Extending the life of onshore wind farms

Jason Beresford & Tommy Crowden, E.ON C&R

This presentation covers the story of the life extension process as developed and adopted in the E.ON onshore wind farm assets in the UK. It shows the approach taken to develop and implement the process, and the lessons learned after 5 years of operation post "end of life".

14.20h Break for coffee, exhibition, networking

15.00h Busting the silos for optimal operations

Leanne Ramage & Paul Wilson, Natural Power

Operating wind farms efficiently brings a multi-dimensional challenge. With decreasing / elimination of subsidies in our core markets, the need to decrease levelized cost of energy is essential. This presentation will show examples of where a collaborative approach has led to proactively serviced and operated sites with increased energy generation and revenue for the clients.

15.25h A real case study of life extension

Keir Harman, DNV GL

For wind farms to thrive without subsidy, a shift-change to the industry's convention of "end of life" is necessary. Lifetime must now be optimised based on a balance of economics and engineering risk of failure, more as a moving point in time that will change based on market conditions and evolving technology. Smarter operations driven by innovation in dynamic control and data analytics release untapped value. Case studies are presented where asset owners have extended lifetime assumptions beyond 30 years.

15.50h Summary

Kevin Donovan

16.00h Official closing of Quo Vadis 2019

A hearty welcome to Lisbon from your host



Sigrd Donovan

Sigi has been involved in Marketing almost all her work life. For nearly 20 years she worked as Marketing Manager EMEA for a big US manufacturer of motors, gearboxes and power transmission products. After her move to England she and her husband Kevin got involved in the wind industry. They have been serving customers in Europe and beyond ever since, first with their company windpower renewable solutions Limited and, since their return to Germany, with WRS GmbH windpower renewable solutions.

Sigi had the idea of a wind conference held exclusively for owners and operators. Thus Kevin and Sigi hosted the first Quo Vadis Conference in 2007. It was named after Kevin's presentation "Quo Vadis, Wind Energy?" (Latin for "Where are you going, Wind Energy?") The conference is now in its thirteenth year and is recognised by wind farm owners and operators as one of the most important and valuable events in the wind industry.

The history of Quo Vadis Conference



A big Thank You to our co-host, sponsors and exhibitors

It would not be possible for us to offer our Quo Vadis Conference free of charge without the support of our Co-Host Natural Power and our Platinum Sponsors DNV GL, RES and SSE who contribute towards the costs.



In addition, the following companies have booked exhibition space and are showing their portfolio: Barton, GasTOPS, Hove, Ingeteam, Morgan, Renewable Advice, Winergy, and ZF Services UK.

