



Senior Asset Integrity Engineer (Electrical) – Asset Integrity Team – London Array Limited

Based in Ramsgate, Kent

London Array Limited is a consortium of three world-leading renewable energy companies – RWE, Orsted and Masdar – and La Caisse de dépôt et placement du Québec (Caisse), one of Canada's leading financial institutions. With 175 turbines and a capacity of 630 megawatts (MW) it is the world's largest offshore wind farm, occupying an area of 100km² in the outer Thames Estuary between the Kent and Essex coasts.

Role purpose

The Senior Asset Integrity Engineer will focus on optimising the operational life and yield of the London Array offshore Windfarm by analysing, understanding and reporting on the performance, status and health of all Electrical systems. The primary focus for the role shall be the 33kV Electrical assets, their associated control systems and their wider interface in to the overall Electrical system. The Senior Asset Engineer will develop an advanced understanding of all individual risk profiles, and either individually, or working with technical authorities, specialists and stakeholders including the WTG OEM, HV Specialists, develop and implement cost-effective risk mitigation strategies where required. Duties will include but not be limited to: data-mining, trend analysis, proactive diagnosis, undertaking complex or systemic failure investigations, reporting on all elements of individual turbine or whole windfarm system and operational performance. The Senior Asset Integrity Engineer, as part of the wider asset integrity team will also be responsible for implementing mitigations and solutions that will reduce through life asset risk and maximise yield. The role will be performed within the environment of the LAL Asset Integrity Team; a small but highly experienced team of Engineers, Specialists and Analysts with over 40 years' experience in the Wind Energy industry.

Reporting lines

Reports to: Engineering Manager – Asset Integrity Team

Primary responsibilities

- Report accurately on the performance, status and health of London Array assets.
- Adhere to and operate within the long-term AIM framework, delivering a systematic approach to Asset Management.

- Using data mining and trend analysis identify and classify issues resulting from defective manufacture, assembly, installation, commissioning or maintenance of major electrical components and systems.
- Use analytical and statistical tools to perform detailed analysis and create reports of the reliability and performance of all electrical systems.
- Develop deep understanding of all electrical power transmission, protection and control systems of the Park: including 33kV Array Cables and associated connections, 33kV Switchgear, Grid Transformers (33/150kV) and Super-Grid Transformers (150/400kV), SVCs, earth bonding as well as interface with WTG electrical and control systems.
- Support the Engineering Manager with driving technical experts from WTG OEM and other Service Providers towards solutions and review proposed solutions.
- Support the delivery of and challenge root cause analysis studies where appropriate. Manage test and implementation plans for proposed solutions in order to analyse and verify solution effectiveness.
- Optimise and manage condition monitoring systems, report and flag trends of concern.

Span of communication

- **Internal:** Asset Integrity Team, Wider LAL Team
- **External:** Contractors, Suppliers, Service Providers, OEMs

Qualifications, experience and skills

Preferred qualifications

- Masters Degree in Engineering, working towards chartered status

Preferred experience

- 5 years+ working with Electrical Systems or Power Generation / Distribution.
- Experience of system development and validation, or system reliability and O&M.
- Significant experience of using condition monitoring techniques to analyse and report the condition and performance of MV/HV Electrical equipment.
- Experience of the use of advanced data handling and analysis systems and solutions is an advantage.
- Experience with subsea cable DTS systems is an advantage.
- Experience in technical documentation writing (i.e. work instructions, manuals, etc) is an advantage.

Role-specific skills

- Electro-mechanical system experience and technical competence.
- Ability to analyse large data sets, identify trends, make and review recommendations.
- Ability to quickly produce detailed technical reports.
- Data-driven and solution-oriented.
- Organised and methodical approach.
- Flexible and willing to learn complex new systems from scratch

Behavioural competencies

- Communicative, detail oriented and flexible team player who is highly technically intuitive, motivated and a self-starter.