Erebus - Floating Offshore Windfarm

Client: Blue Gem Wind
Location: Celtic Sea, UK
Date: 2020-21

Erebus is a pioneering 96MW floating offshore wind demonstration project in the Celtic Sea and, once commissioned, it will be the first of its kind in Wales. Erebus will pave the way for future commercial floating wind in the UK and globally. It represents a significant step towards realising the electricity generating capacity in the Celtic Sea, recently estimated by ITPEnergised to potentially be as much as 50GW.

Working for the Principal Designer OWC and liaising closely with the Blue Gem team, we are providing a wide range of consenting and engineering services.

As **Consenting Lead**, we are ensuring the consenting strategy is sound and all application documentation is robust. The role involves bringing together the offshore and onshore aspects of the Environmental Impact Assessment (EIA), led by Marine Space and ourselves, respectively.

We are delivering or managing all **onshore EIA** surveys and assessments, supporting stakeholder engagement, including aiding in delivery of virtual public exhibitions. Recently, we led the consenting process for an **onshore met mast**, required for supplementing offshore LiDAR data.

For engineering services, we are leading the **grid, electrical and onshore engineering package management** with client focussed solutions, maintaining interfaces, project risk assessment and programming, maintaining CDM, QEMS and HSE standards, and budget control.

Grid connection, we are supporting the project through the connection process, carrying out grid offer review and negotiation, underwriting support and Use of System charging estimates.

We are leading on **cable routing, substation design and site boundary definition**. Our technical design work has involved onshore cable routing and design, third-party crossing support, substation electrical design, cable array layout, electrical design, vendor engagement, and export system cost benefit analysis.

Maintaining the interface between engineering and environment teams has resulted in an efficient design process supporting a streamlined delivery programme for the client.

Our Role:

- **Consenting Lead**
- **Onshore EIA Lead**
- **Management of grid agreements.**
- **Development of onshore infrastructure design.**
- **Outlining electrical design and coordinating with key plant vendors.**

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