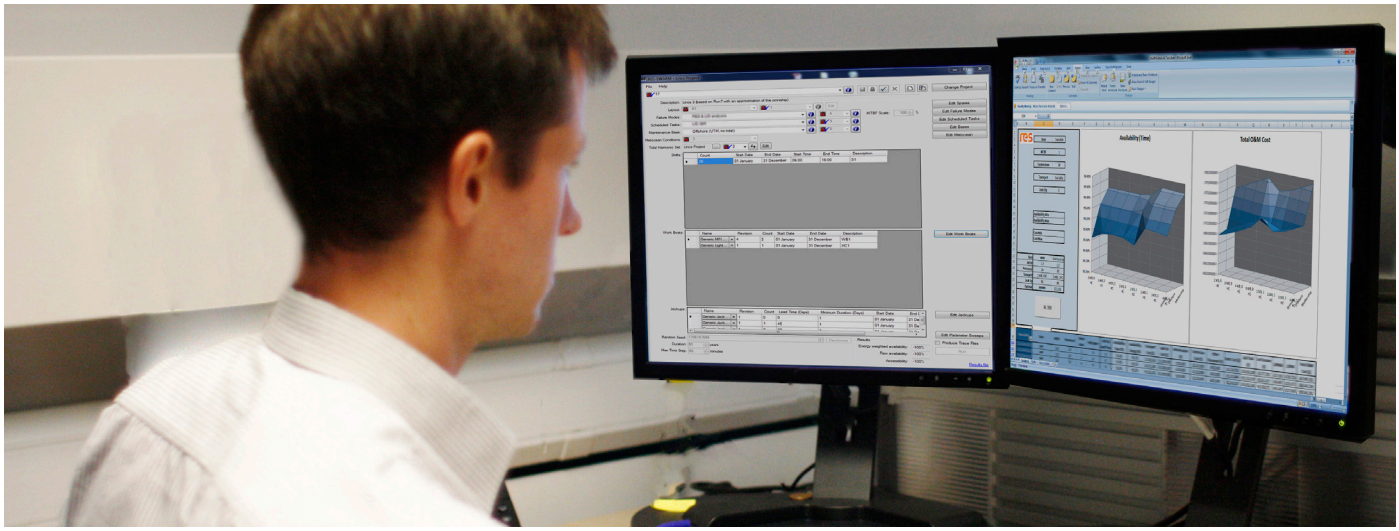
WIND FARM OPTIMISATION



Maximising the potential of an offshore renewable project presents a whole new range of challenges for project owners. It requires integration of commercial, technical, engineering, environmental and project management skills. We provide an integrated management service which will optimise performance, cost, reliability, availability and energy yield for wind, wave and tidal energy projects.

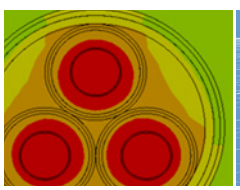
We understand project development and delivery costs, asset integrity, health and safety, and economic performance. We have experience of working on projects throughout their life cycles. We recognise how critical decisions prior to construction will influence the projects we work on, how competing drivers require careful balancing, and we support our clients to make the right decisions. We consider optimisation from "big picture" project economic modelling to detailed cross-package engineering and design decisions, always paying close attention to the implications of our decisions.

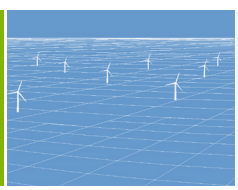
To support the optimisation of our Client's projects, our in-house capabilities include:

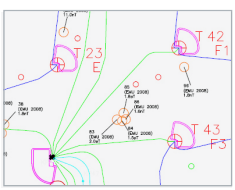
- Wind Farm & Grid Connection Size Optimisation
- Cable design & route engineering
- Electrical System design
- Wind turbine layout and site design
- Construction and Operational Strategy development
- Foundation concept selection for site conditions and construction methodology

We have developed tools and processes in-house to support our projects including CabMan, our array cable system layout optimisation tool, our state of the art in-house mesoscale modelling and wind turbine wake modelling capability, and our supporting project cost and economic models. Through integration of our tools within our GIS and CAD software platforms, we are able to deliver high quality and high value analysis in an efficient and focussed way.

We have extensive expertise in wind turbine specification, performance and operation. We have developed a range of engineering processes for tracking and evaluating wind turbine and wind farm reliability during operation. Not only can we support the optimisation of the design and critical commercial and technology decisions, but also its maintenance strategy.







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About RES Offshore

RES Offshore offers integrated development, engineering, construction and AO&M services for utility-scale renewable energy projects. From offshore wind to wave and tidal, we bring to projects the considerable skills and experience that we have acquired over 30 years in the renewables industry. RES Offshore is part of the RES Group, one of the world's leading renewable energy project developers. To date, RES has delivered more than 8000MW of wind energy capacity worldwide.

RES Offshore has the full range of in-house capabilities required to deliver each of the project phases and this allows us to develop cost-effective, innovative solutions that can make the difference between project failure and success.

We have applied our development, engineering and technical skills and experience to a number of successful offshore projects and we can provide our services either as a defined package of work or as part of the owner's project team.

RES Offshore has a wealth of in-house experience built on our participation in UK Rounds 1, 2 and 3, and also in the development of projects in Northern Ireland and France. Having expertise and experience on hand has enabled us to engineer designs, mitigate environmental concerns, optimise energy yields and deal with complex technical and performance issues. We work closely with turbine suppliers, electrical equipment manufacturers, grid utilities and statutory authorities to find the right solutions.

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