

# OFFSHORE CONSTRUCTION LOGISTICS



RES Offshore provides construction logistics services for offshore renewable projects, from early assessment at the development stage through to the end of construction. Our team has extensive experience of marine operations and construction methods. This practical knowledge combined with our advanced numerical modelling capabilities, allows us to design the best construction strategy for your project. Services include:

## Construction logistics options:

- Assessment of port suitability for construction and shortlist of suitable ports
- Preliminary definition of installation techniques
- Shortlist of suitable vessels
- Evaluation of construction costs
- Evaluation of the risks associated with construction
- Assessment of site Metocean conditions

## Optimum strategy for construction package:

- Port selection and pre-assembly site location
- Vessel selection
- Cost-benefit assessment of targeted equipment upgrade
- Contract negotiation: who is taking on weather risks?
- Budgeting and contingency assessment
- Operational planning and “what-if” scenarios



# Assessment and optimisation of construction strategies

## Construction Offshore Risk Estimator

Our in-house CORE model combines site Metocean data with the installation methodology to provide a statistical estimate of weather downtime and construction durations. Based on these findings, CORE provides monthly weather downtime and duration estimates for a range of levels of probability and can be used to:

- Identify bottlenecks in the installation
- Compare installation options
- Identify preferred installation date
- Estimate installation costs

CORE provides a platform to optimise the installation strategy by assessing a number of scenarios.

CORE is used for construction packages including foundations (jackets, monopiles, gravity bases, etc.), turbines, electrical infrastructures (array and export cables, offshore substations).

CORE has been successfully employed at Rhiannon Wind Farm (UK), Lincs Wind Farm (UK) and St Brieuic Wind Farm. CORE can be used at various stages of the project, from development through to offshore construction. The CORE model was validated against downtime data collected by RES during the construction of an existing wind farm.

## 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.

### For further information:

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