FLOTATION ENERGY

Scotwind NE1

May 2022

Flotation Energy

About us

Our purpose

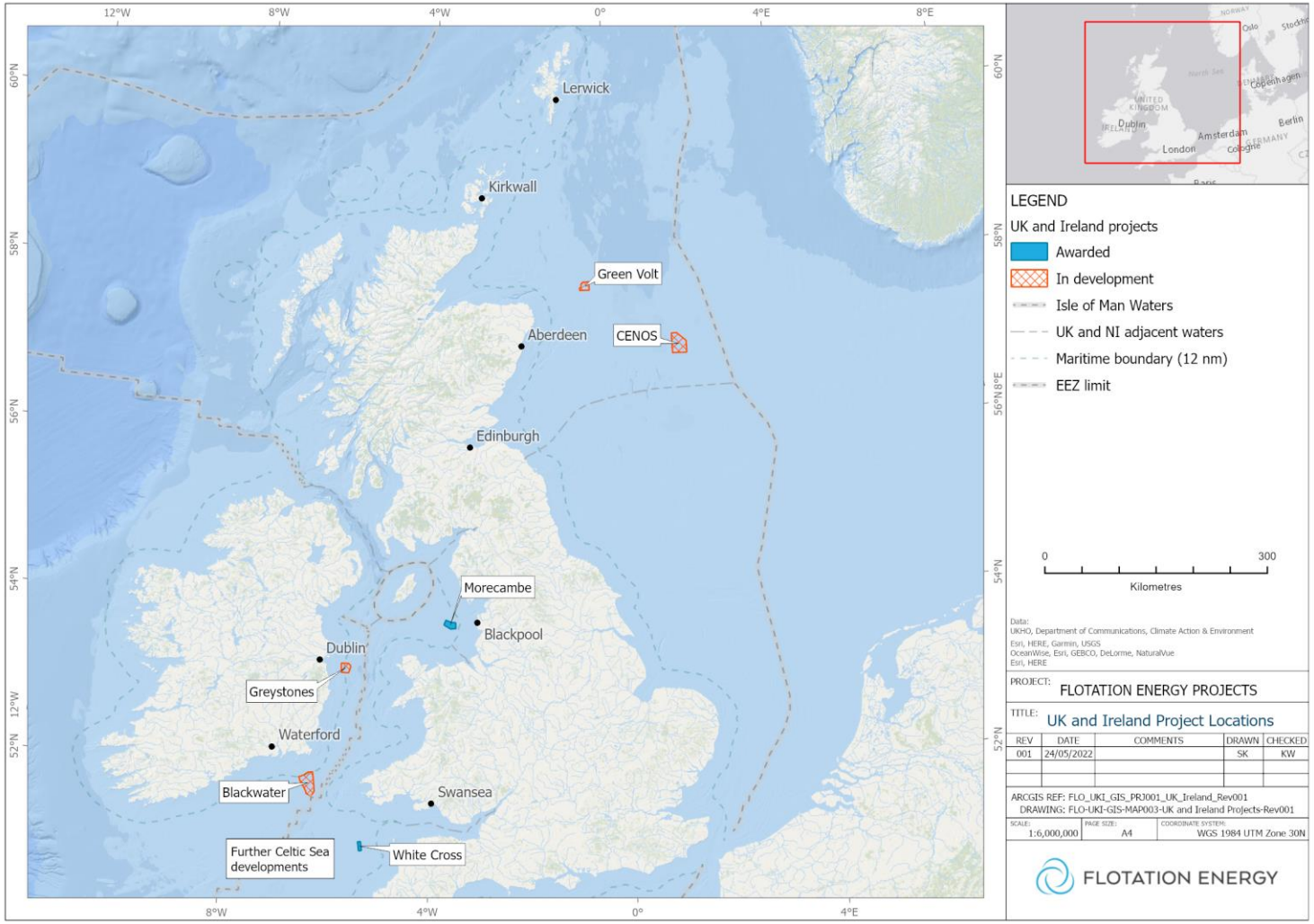
To deliver clean, green, renewable energy by using our expertise in floating and fixed offshore wind and the energy transition, supporting achievement of carbon-neutral commitments.

Our history

Our team has progressed from pioneering demonstrator energy transition and floating offshore wind projects to delivering fast-tracked commercial scale offshore wind and energy transition projects.

Our roots

Headquartered in Edinburgh, we are committed to doing our part to building on Scotland's world-leading role in offshore wind.



Map showing our UK and Irish Projects

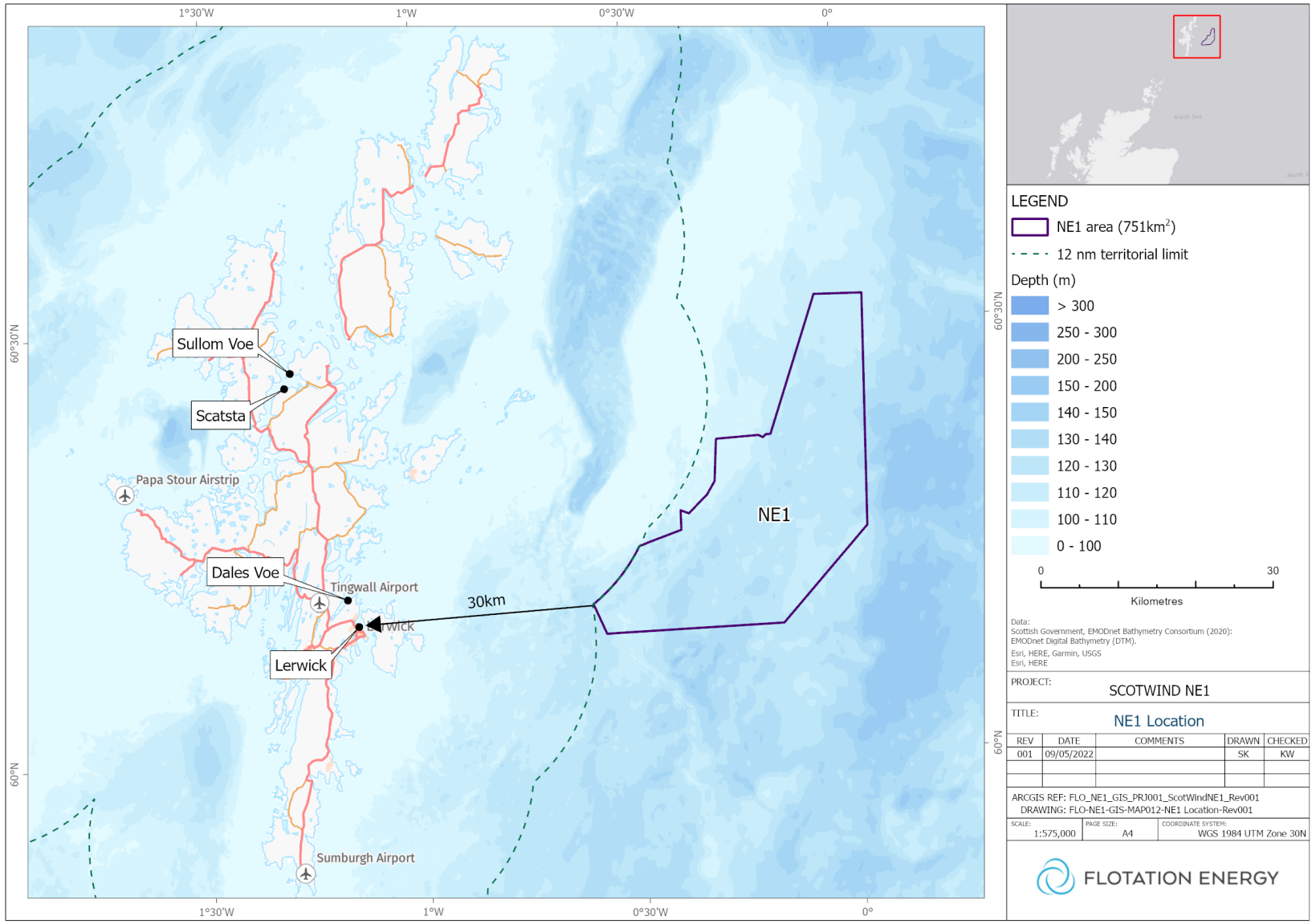
Overview of NE1

Our vision

Nominal capacity: between 500MW and 1000 MW
Substructure type: Floating
Water depths: 100-135 m
Distance offshore: c. 30 km
Current site size considered: 72km^2 to 158 km^2
Lease area size: 751 km^2

We would deliver this project with our joint venture partner Cobra Instalaciones y Servicios, S.A. (Cobra) who bring experience as worldwide leader with more than 75 years of experience in the development, construction and management of industrial infrastructure and energy projects would be able to bring their expertise.

Together we are developing a number of projects under our Offshore Wind Limited partnership.



Reading the policy agenda

Supporting Shetland's vision to be a green energy island

The targets

- Surpass net-zero goals and achieve carbon-negative emissions in Shetland in line with Scotland's 2045 net zero target
- Produce sufficient clean energy to provide transport, heating and lighting to Shetland
- Provide power and electrify existing and future oil and gas installations – supporting the offshore North Sea Transition Deal goal to reduce offshore emissions by a minimum of 50% by 2030.
- Export power or hydrogen or other alternative fuels to the mainland for national use

Our unique value proposition

- A team with global leading experience in floating offshore wind development and delivery; and a proven track record of decarbonising the oil and gas industry
- Familiarity with Oil and Gas and a track record in delivering electrification and integrating it with wind power
- Relationships with the supply chain that allow us to work with manufacturers to meet specific project needs
- A solution which allows rapid partial decarbonisation of oil and gas platforms that does not require a 35-year contract
- An opportunity for pilot programme to demonstrate the capability of Shetland's infrastructure; and skilled labour force which has adapted to service offshore wind
- Innovation in finding routes to market for NE1 that don't depend on a grid connection

What we bring to Oil and Gas decarbonisation

A proven track record

- Recognition that security of supply is critical to the success of electrification, and electrification is critical to the continued success of UK O&G.
- Understanding that rapid decarbonisation is needed, both from a net zero perspective and for the longevity of platforms in a mature basin like the North Sea. Full decarbonisation brings lower POB, lower O&M costs, and the potential to add new load as new resources and subsea pumping/ compression options come to the fore. However, not always possible for an FPSO.
- Understanding that partial decarbonisation economics in the northern North Sea are severely constrained by:

a) cessation of production timelines will limit the decarbonisation which can be achieved
b) the cost of the equipment at small scale
c) minimising brownfield mods (sizing to the field requirements)
d) turbine operation and maintenance
e) depletion of capital cost over the life of the project
f) Grid connection availability

- We offer a business solution for writing off the cost of the wind turbines over a longer period (by repurposing the turbines across more than one project) to make power affordable.

Kincardine Offshore Wind Turbine

Frequently Asked Questions	Our response
What ports are we interested in?	For the Windfarm construction, Lerwick and Dales Voe are considered to be the principal ports, with Lerwick providing the O&M base for the operational phase. Spatial requirements detailed on slides 5-8
What we would develop in each site	At the ultra deep-water facility in Dales Voe we would like to work with Lerwick Port Authority, Patersons and Veolia on a potential location for integrating substructure modules into the floating units. Integration of the substructures and wind turbines could take place in either Dales Voe or Lerwick. If work was to occur at Dales Voe the legacy would be an increased decommissioning area. The O&M Base would be in the main body of Lerwick harbour and would contain the elements shown in Slide 6.
What is the development timeline?	2022-June 2026: Design, June 2026-2028: Construction, from June 2028: Operation.
What is your route to market and linkage with other energy developments on Shetland	We have been working with existing industry and potential players in the new hydrogen economy to understand how we could support their power requirements.
How we fit with the Shetland Energy Development Principles	We would like to work with existing infrastructure providers to understand how we could help Shetland's economy thrive; working with existing service providers to ensure a continuous supply of future jobs in the new hydrogen economy as oil and gas reserves deplete.
Wider context	We are at the forefront of the renewables industry (Kincardine is the biggest floating wind farm in the world, Green Volt is the UK's flagship decarbonisation project and first of its kind) and are a key company to deliver on the energy transition. Alongside our two decarbonisation efforts in the North Sea, we are also planning the NE1 project around hydrogen production. Hydrogen is rapidly emerging as a sustainable solution for the decarbonisation of the economy and a key puzzle piece of the energy transition. We have the chance here to make Scotland a leading nation in hydrogen and have Shetland be at the forefront of this development, securing jobs and income to the Shetland economy for decades to come.

Kincardine Project

Case Study: Lessons learned

- Substructures must be designed to be stable at shallower depths in harbour/nearshore conditions
- Modular design of substructure
- Modules built in smaller yards
- Transported to assembly yard
- Substructure assembly/Turbine installation close to site:
- 100 to 300 km from project site
- Improve offshore installation
- 48 hours from leaving port to securing machine at site

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Project requirements: delivery method of structures to Dales Voe

Key Area	
Crane requirements SPMTs	500Te 4,000Te (estimate)
Engineering Temporary works design Site infrastructure for assembly (Jigs) Assembly yard dimensions Load bearing capacity	 Site Stillages Area >6 Ha and quayside length>120m Assembly and structural storage areas >50te/m^2, quay edge capacity >500Te/m (estimate)
Welding/Fabrication Requirements	Grillages, linkspan
Trades	Platers, welders, fitters, electricians
Surface Coating Requirements	Repair

Large modular components delivered by ship or barge…

…for integration into a completed substructure

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Substructure Load-out (Dales Voe) to Semisub Barge

Key Area	
Crane requirements SPMTs	500Te 4,000Te (estimate)
Engineering Site infrastructure for assembly (Jigs) Assembly yard dimensions Load bearing capacity	 Site Stillages Area >6 Ha and quayside length>120m Assembly and structural storage areas >50te/m^2, quay edge capacity >500Te/m (estimate)
Welding/Fabrication Requirements	Grillages, linkspan
Trades	Platers, welders, fitters, electricians
Surface Coating Requirements	Repair

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WTG Integration to substructure

Key Area	
Crane requirements	Jack-up or floating
Trades	Electricians, instrument & mechanical fitters Abseilers
Surface Coating Requirements	Repair

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Project requirements: Mooring Assembly & Deployment – Greenhead Base?

Key Area	
Welding/Fabrication Requirements	Ad-hoc
Surface Coating Requirements	Future maintenance
Mooring assembly and deployment	Cranes, rigging
Storage requirements	Open Quay >7.5Te/m^2
Cleaning of parts prior to Assembly	Future maintenance

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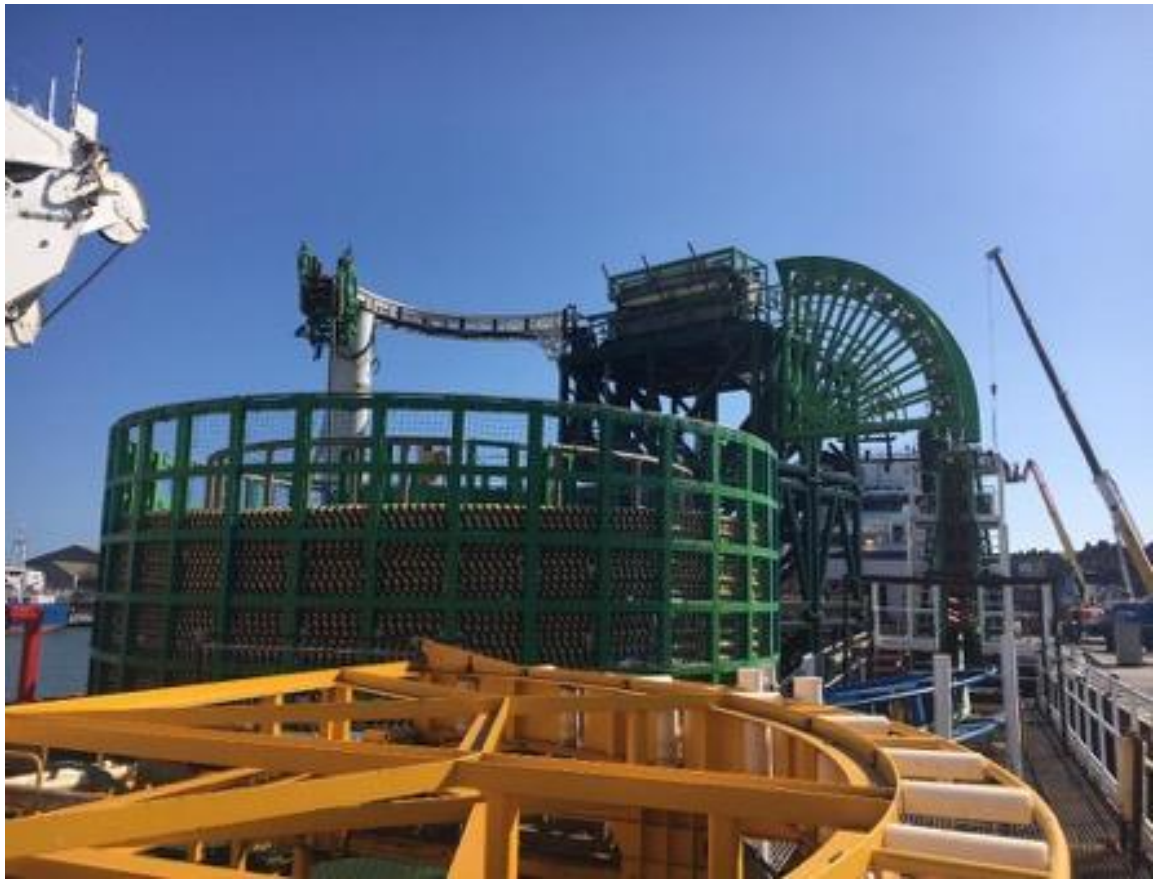
Offshore Array Cable Installation



Key Area	
Fitter/Electrician Requirements	Fitters, electricians, riggers
Surface Coating Requirements	Repair
Chartering of vessels (Coasters, Guard vessels, Barges etc)	Pre lay site clearance, crew transfer vessels, guard vessels

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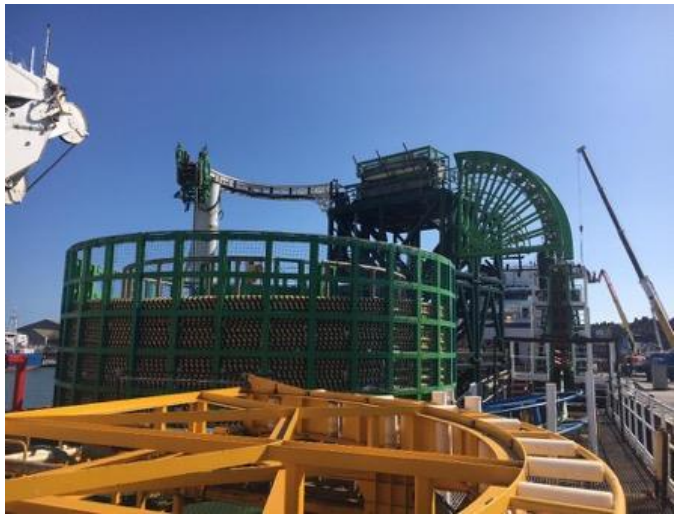
Offshore Export Cable Installation



Key Area	
Civil Engineering	Beach crossings Jointing chamber Onshore excavation Drainage
Trades	Fitters, electricians, riggers
Chartering of vessels (Coasters, Guard vessels, Barges etc)	Pre lay site clearance, crew transfer vessels, guard vessels

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Onshore Export Cable Installation

Key Area	
Civil Engineering	Haul Roads Jointing chambers Onshore excavation Drainage
Road transport	Transport of cable spools Construction plant & materials
Trades	Fitters, electricians, riggers

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Project requirements: O&M Base

	CTV Option	SOV Option	Notes
Vessel Draft	3m	7m	
Quayside	60m	120m	
Pontoon Length	60m	N/A	
Outside Storage	500m^2		
Warehouse	1,000m^2		
Climate Controlled Storage	200m^2		Within Warehouse
Climate Controlled Workshop	>25m^2		Within Warehouse
Quarantine Area	50m^2		Within Warehouse
Communications Tower	c30m tall with VHF and HF aerials		
Office Accommodation	Fully Climate Controlled		
Control Room	>15m^2		
Management Suite	4 Single Offices		
Office space	12 Work Stations		
Meeting Rooms	Space for 25 personnel, with kitchen space		
Welfare facilities	Changing, lockers, equipment drying room and showers for around 40 personnel		
Parking	Around 40 spaces		
Location	Secure area inside the port perimeter within 100 m of the quay		

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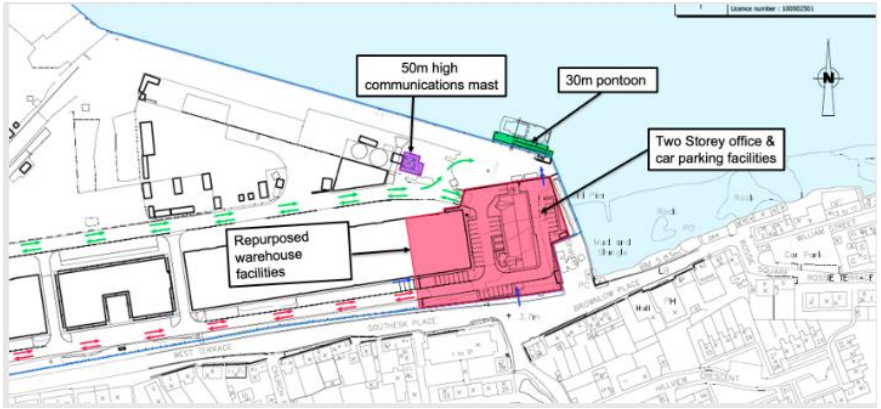
O&M Base

Key Area	
Civil Engineering	Foundations Steel Erection Roadworks Pontoon
Road transport	Construction plant & materials
Fitter/Electrician Requirements	Fitters, electricians, riggers
Quay Space	General storage Spare cable storage
Surface Coating Requirements	Ongoing maintenance of onshore and offshore structures
Cleaning of parts prior to Assembly	Ongoing maintenance of onshore and offshore structures



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NE1 (1GW) Anticipated local and regional jobs (estimated)

Period	2022 Concept Design	2023 – Jun 2025 Front End Engineering (FEED)	June 2025 Consent & Financial Investment Decision (FID)	June 2025 – June 2026 Detail Design	June 2026 – June 2028 Offshore Construction	June 2028 onwards Operations & Maintenance
Direct	21	32	Milestone	72	1,748	37
Indirect	12	19		43	1,049	22
Induced	9	14		31	748	16
Total	42	65		146	3,545	75

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NE1 (1GW) Anticipated wider UK jobs (estimated)

Period	2022 Concept Design	2023 – Jun 2025 Front End Engineering (FEED)	June 2025 Consent & Financial Investment Decision (FID)	June 2025 – June 2026 Detail Design	June 2026 – June 2028 Offshore Construction	June 2028 onwards Operations & Maintenance
Direct	12	44	Milestone	99	2,403	21
Indirect	7	27		60	1,442	30
Induced	5	18		40	961	50
Total	25	89		199	4,806	101

Project Phase	Meeting Dates	Mechanism	Purpose
Pre scoping	2022	Introductory Meeting with Port Authorities	▪ Introduce the Developer ▪ Introduce the Project ▪ Set out project requirements (vessel types, beams, draft, gross tonnage; warehousing and quay space; marshalling; O&M) ▪ Provide overview of next steps and timescales
Expression of Interest	2023	Wider Supply Chain Soft Launch - website	▪ Supplier portal goes live ▪ Email notifying those identified in the stakeholder management database
Pre-Qualification	2024	Webinar for those who have expressed an interest in being a supplier	▪ Project update(s) ▪ Schedule ▪ Jobs (operational and construction)
Qualification	2025	Site Visits	▪ Assessing site (e.g. for Ports this would include assessing tidal access, laydown area, ground bearing capacity and quayside space for marshalling)
Design Refinement	2026	Webinar for supply chain	▪ Project update(s) ▪ Schedule ▪ Provide overview of next steps and timescales
O & M Planning	2026/27	Webinar for supply chain	▪ Project update(s) ▪ Schedule ▪ Provide overview of next steps and timescales
ITT	2027	Procurement Process begins	▪ Messaging on website

Innovation:
We look for synergies that come from co-locating traditional power sources with offshore renewables.

Adaptability:
We develop the best solutions for each site and understand the importance of adapting our projects to the needs of the local community and environment.

Care for our environment:
We are building a better future by developing offshore wind projects to power our communities with clean, green, renewable energy.

Teamwork:
We achieve more by collaborating with our supply chains, local communities, and environmental bodies to ensure that our projects have a positive impact.

Respect:
We treat others with dignity and respect.