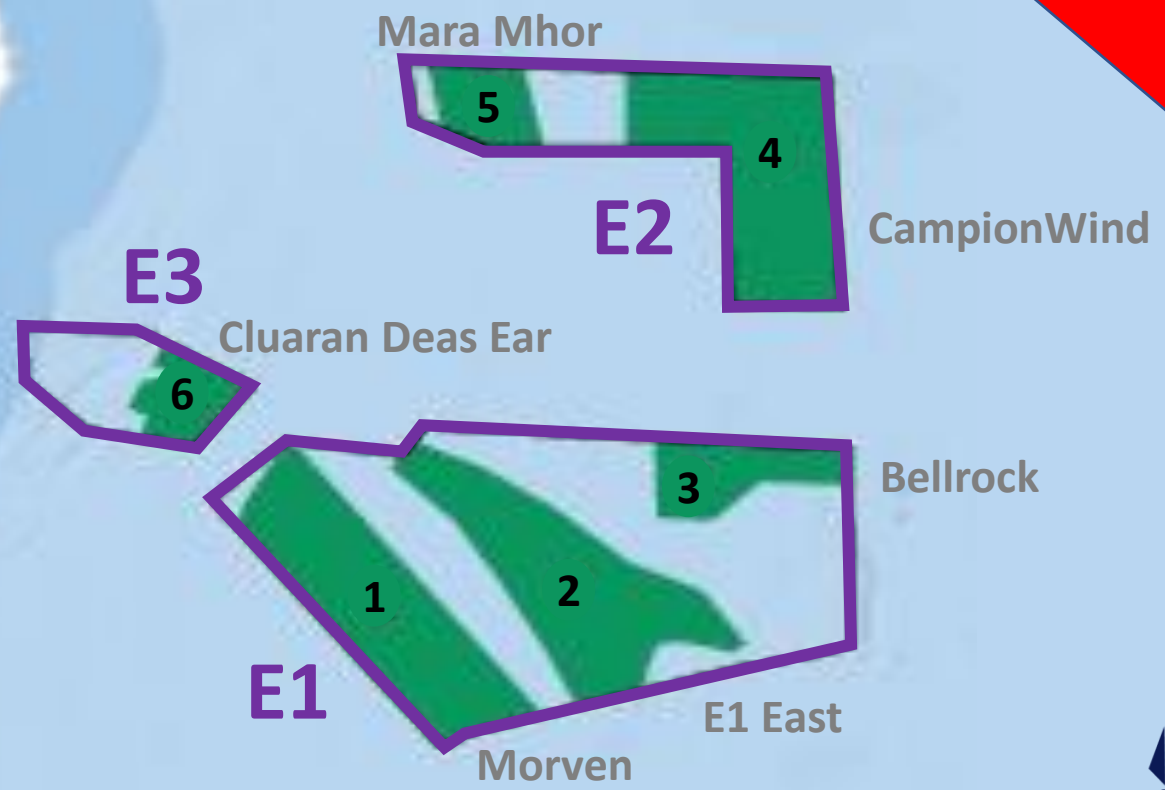
ScotWind E1-E3 Webinar for Sites 1-6

25th of August



FORTH & TAY OFFSHORE

DeepWind
North of Scotland Offshore Wind Cluster

Programme

09.15 – Introduction – **Shona Clive**, FTO

09.20 - Cluster Builder - **Lauren McIntosh**, Xodus Group

09.30 - Site 1 - Morven – **Ricky Gray and Duncan Ayling**, bp and EnBW

09.40 - Site 2 – Ossian – **Paul Blunden**, Marubeni, SSE Renewables and CIP

09.50 - Site 3 - Bellrock – **David Robertson**, Falck Renewables and Blue Float

10.00 - Site 4 and 11 – **Kirsty Adams**, CampionWind and MarramWind - Shell and SPR

10.10 –Site 5 – Mara Mhor - **Morgan Mayes,** Vattenfall and Fred Olsen Seawind

10.20 - Site 6 - Cluaran Deas Ear- Thistle Wind Partners

10.30 - Q&A session

10.45 - End of webinar

INDUSTRIAL STRATEGY CLUSTER

Scotland's offshore wind clusters

FORTH & TAY OFFSHORE

DeepWind
North of Scotland Offshore Wind Cluster

What is a cluster?

"Much has been said in recent years about the importance of 'clusters' – complex, economically significant ecosystems in which people can meet, exchange ideas, develop innovations, and create businesses together.

Clusters are regarded as exciting, vibrant places where 'something in the air' draws together world-class talent and delivers fresh products and innovations to the marketplace."

Lord David Sainsbury, Chancellor of the University of Cambridge said of clusters in a McKinsey Report - Industrial revolutions: capturing the growth potential.

DeepWind

- Main purpose – to help its members achieve greater benefits from the current and future development of offshore wind in the UK and internationally
- Fixed and floating in deeper waters
- 735 members
- Originally focused from Wick to Montrose in the North-East

DeepWind

- Key developers – Ocean Winds, SSE Renewables, Equinor and Kincardine Offshore Wind Ltd (38 developer members in total)
- Following ScotWind – members now extend around the North Coast, Northern Isles, Western Isles and West Coast to Campbeltown in Argyll & Bute and across to Hunterston PARC (Port and Resource Centre) in North Ayrshire.
- This now encompasses 25 ports and harbours members and represents coverage of over 70% of the Scottish coastline

INDUSTRIAL STRATEGY CLUSTER

To join DeepWind -

https://www.offshorewindscotland.org.uk/deepwind-cluster/

FORTH & TAY OFFSHORE

DeepWind
North of Scotland Offshore Wind Cluster

Forth & Tay Offshore

- **Main purpose**
  - to work on behalf of our members to promote the capabilities of companies looking to diversify into or build their existing businesses further in the offshore wind and to assist them in accessing new opportunities and
  - to accelerate and further the growth of the offshore energy sector on the east coast of Scotland
- 350 members

Forth & Tay Offshore

- Supported by developers and public organisations including Angus, Dundee, East Lothian, Fife, Scottish Borders Councils, as well as EDF Renewables, SSE Renewables and Red Rock Power, and Scottish Enterprise, South of Scotland Enterprise and Forth Ports
- F&TO is already home to a number of offshore wind projects– SSE Renewables project - Seagreen, EDF's NnG wind farm and Red Rock's Inch Cape project
- 12 of the 20 locations in the ScotWind round are located on east coast of Scotland so we are well placed to support.

INDUSTRIAL STRATEGY CLUSTER

FORTH & TAY OFFSHORE

DeepWind
North of Scotland Offshore Wind Cluster

INDUSTRIAL STRATEGY CLUSTER

To join Forth and Tay Offshore -

https://www.forthandtayoffshore.co.uk

FORTH & TAY OFFSHORE

DeepWind
North of Scotland Offshore Wind Cluster

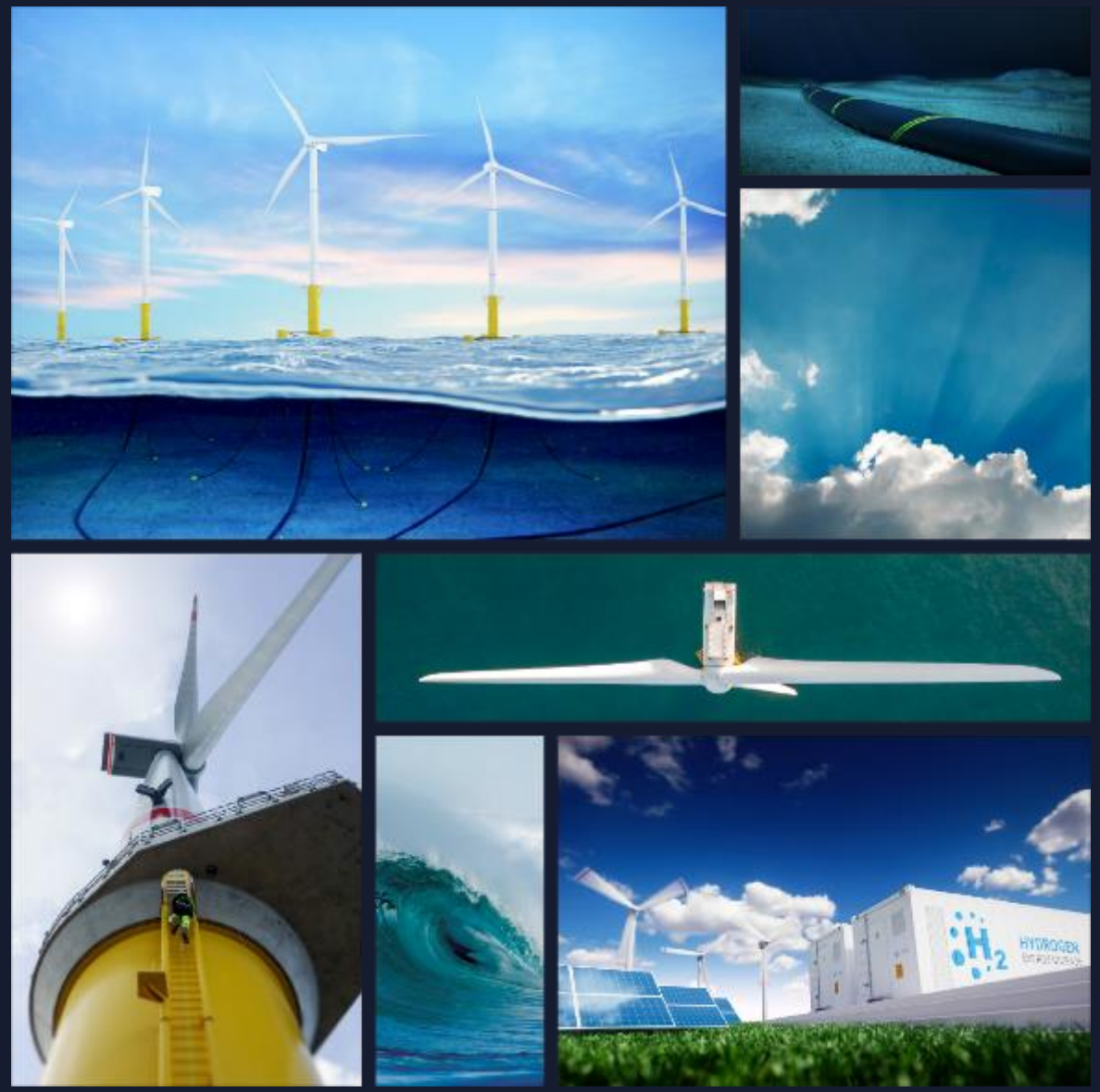
Cluster Builder

Lauren McIntosh

XODUS

OFFSHORE WIND CLUSTER BUILDER

Lauren McIntosh
Industry Development Lead

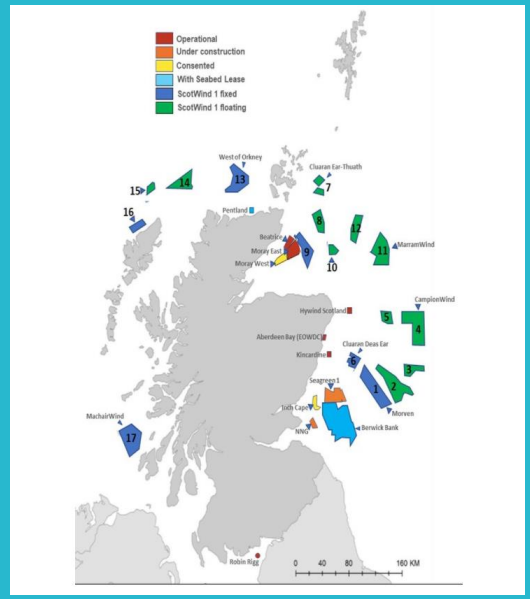


European Union
gov.scot
EUROPE & SCOTLAND
European Regional Development Fund
Investing in a Smart, Sustainable and Inclusive Future
Scottish Enterprise
DeepWind
North of Scotland Offshore Wind Cluste
FORTH & TAY OFFSHORE

WWW.XODUSGROUP.COM

Offshore Wind Cluster Builder

- Scotland has 2/8 offshore wind clusters in the UK
- Established to drive the growth of Scottish Supply Chain
- Provide direct support to companies entering the offshore wind market



DeepWind
North of Scotland Offshore Wind Cluster

To become a DeepWind member register your company:
https://www.offshorewindscotland.org.uk/deepwind-cluster/

FORTH & TAY OFFSHORE

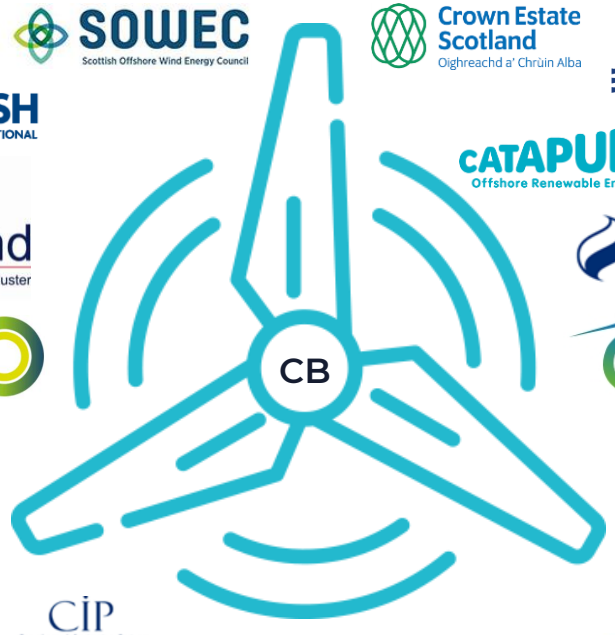
To become a FTO member register your company:
https://www.forthandtayoffshore.co.uk/suppliers-survey/

HIE
Highlands and Islands Enterprise
Iomairt na Gàidhealtachd 's nan Eilean

Scottish Enterprise

European Union
gov.scot
EUROPE & SCOTLAND
European Regional Development Fund
Investing in a Smart, Sustainable and Inclusive Future

How can the Cluster Builder benefit you?



XODUS

scottish renewables

Public and Industry Bodies

HIE
Highlands and Islands Enterprise
Iomairt na Gàidhealtachd 's nan Eilean

SOWEC
Scottish Offshore Wind Energy Council

Crown Estate Scotland
Oighreachd a' Chrùin Alba

Scottish Enterprise

SCOTTISH DEVELOPMENT INTERNATIONAL

CATAPULT
Offshore Renewable Energy

bp

DeepWind
North of Scotland Offshore Wind Cluster

sse Renewables

FORTH & TAY OFFSHORE

NORTHLAND POWER

EnBW

MAGNORA OFFSHORE WIND

Clusters

Developers

Marubeni

CIP
Copenhagen Infrastructure Partners

Thistle Wind Partners

BlueFloat ENERGY

Simply Blue Energy

Inch Cape

COP

VATTENFALL

Shell

Falck Renewables

OW OCEAN WINDS

SCOTTISHPOWER

Fred.Olsen Renewables

This is what we do.

Procurement Events

Collaboration

SME 1-to-1 Support

Supply Chain Insights

Supply Chain Insight - Support

Leading initiatives, free of charge, that support SMEs to increase their participation in offshore wind include market updates, funding opportunities, and 121 business case support.

Sign up for Cluster Events
Membership is free

https://www.forthandtayoffshore.co.uk/

https://www.offshorewindscotland.org.uk/deepwind-cluster/

Trade Associations & Economic Enablers
Offshore Wind Expert Support (OWES)
Cluster Builder Support

Key examples:
Wind Expert Support Group (WEST)
Offshore Wind Growth Partnership Development Grants

Key examples:
Launch Academy
Fit4Offshore (F4OR)

How to find out more?

- Contact Lauren McIntosh directly at lauren.mcintosh@xodusgroup.com or email us at Clusterbuilder@xodusgroup.com
- Look out for events organised by DeepWind & Forth & Tay Offshore

Morven

Ricky Gray and Duncan Ayling

Morven project overview

Updated: 25th August 2022 for ScotWind supply chain webinar

EnBW | bp

Partners in UK offshore wind

Disclaimer

Partners in UK offshore wind

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EnBW and bp

Partners in UK offshore wind

Statement regarding EnBW and bp partnership:

- bp and EnBW have been awarded a lease option off the east coast of Scotland in the ScotWind leasing round.
- bp and EnBW have also been awarded preferred bidder status on two 60-year leases in UK Offshore Wind Round 4.
- bp and EnBW have formed 50:50 joint venture vehicles to jointly develop and operate the leases to contribute to the UK's 40GW target for 2030 and Scotland's target of 11GW of offshore wind by 2030.
- Potential generating capacity of 5.9 gigawatts and could have capacity sufficient to power the equivalent of approximately 6 million UK households with clean electricity.

About bp:

- bp is an integrated energy company aiming to be a global leader in wind energy. bp has already formed a partnership with Equinor to develop offshore wind projects in the US, including the Empire Wind and Beacon Wind projects off the East Coast that have a planned potential 4.4GW generating capacity. bp already has a significant onshore wind business in the US with a gross generating capacity of 1.7GW, operating nine wind assets across the country.

About EnBW:

- EnBW is a major German energy company, with more than 10 years of experience in designing, constructing and operating wind assets. EnBW plans for installed renewable energy capacity to account for 50% of its generating portfolio by the end of 2025. It aims to reach climate neutrality by 2035. EnBW currently has onshore wind assets in Germany, France and Sweden and operates four offshore wind assets in the German Baltic Sea and North Sea. Furthermore, EnBW will build the first subsidy-free European offshore windpark He Dreiht in the North Sea. It is scheduled to go into operation in 2025.

Principles for supplier engagement

Partners in UK offshore wind

- Our behaviour is open, constructive, collaborative, and solutions-focused
- We listen to our suppliers and engage with integrity and respect
- Streamlined supplier qualification ensures compliance, sustainability, transparency and fairness
- As developer, owner and operator, we are in the business for the long term & seek lasting relationships with stakeholders and suppliers
- Supplier feedback drives continual day-to-day & systemic improvements

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EnBW | bp

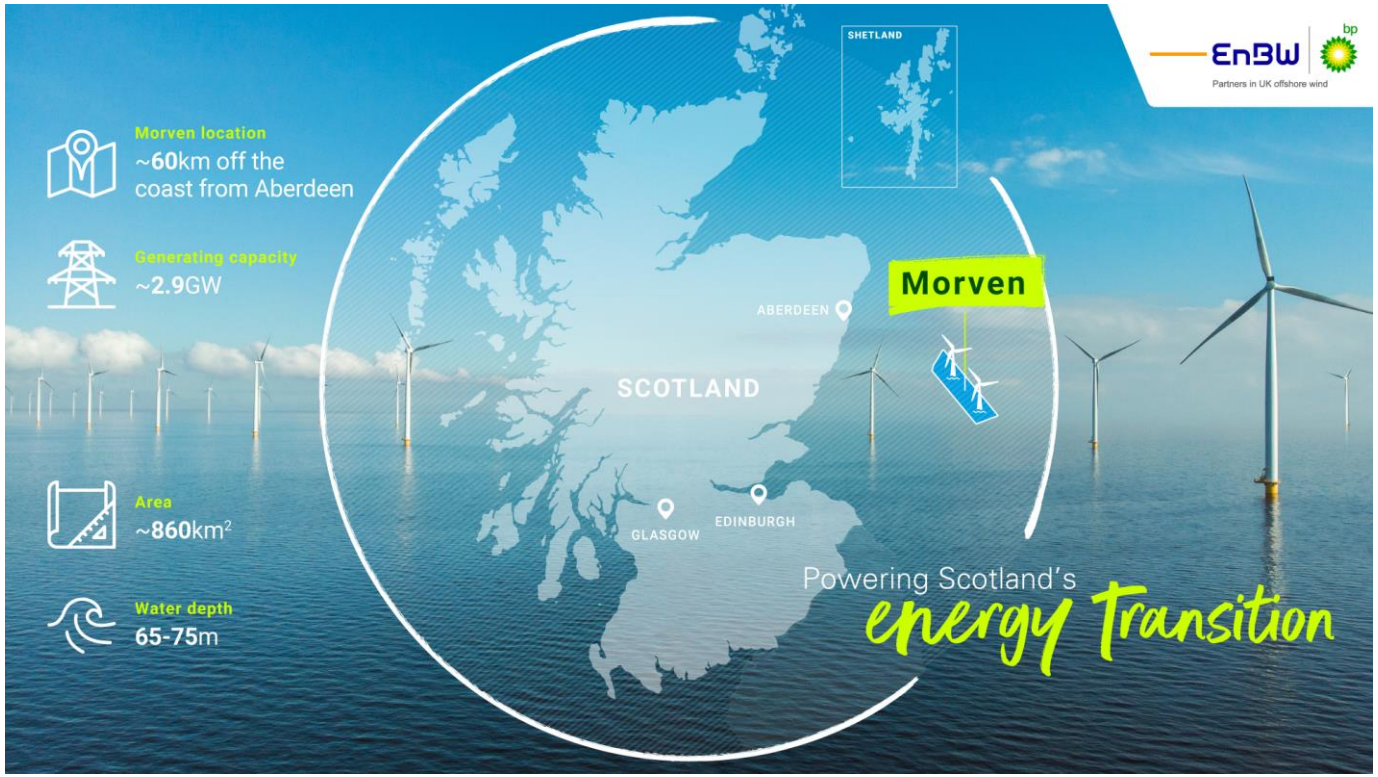
Partners in UK offshore wind

Partnership of EnBW and bp

Integrated project team in Scotland, England & Germany

About the Morven project

Partners in UK offshore wind



bp and its partner **EnBW** have been awarded a lease option off the east coast of Scotland to develop a major offshore wind project — to be known as **Morven.**

Morven is an 860km^2 lease located around 60km off the coast of Aberdeen.

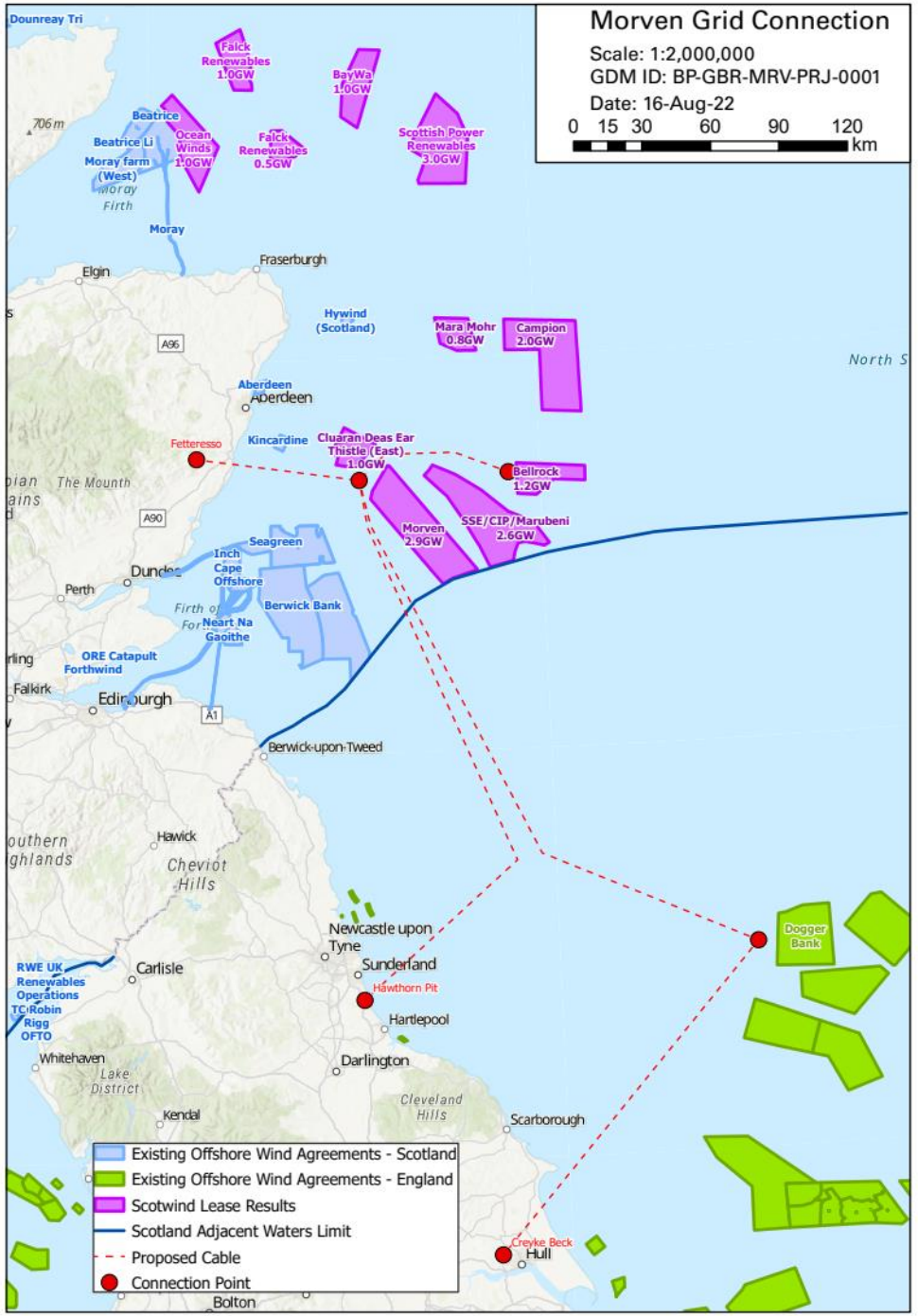
The partners intend to jointly develop and contribute to the **Scotland's target of 11GW of offshore wind by 2030 and the UK's 50GW target for 2030**.

The wind farm is planned to be operational in 8 years (**2030**). Expected to support up to **£10 billion of investment.**

Generating capacity of around **2.9 gigawatts (GW),** sufficient to power the equivalent of more than **three million homes.**

Project location in context

- Connection points in red are the current recommendations from the Holistic Network Design from the National Grid. BP/EnBW appreciate the work done to date and continue to engage with the National Grid and other stakeholders
- 860km^2 array area (western section of ScotWind E1 area)
- 60km (approx) from the coast at closest point
- 63 -74 m water depth range



Achievements to date

Partners in UK offshore wind

Supply chain

- Launched supply chain portal – 538 companies registered
- Engaged with multiple suppliers - incl with Ferguson and Babcock shipyards, Port of Leith and X-Academy
- Supply Chain Development Statement commitments and activities

Surveys

- Commenced aerial bird and marine mammal surveys
- Commenced offshore surveys (geophysical, benthic, shallow geotechnical)
- Metocean and LIDAR buoy deployment within the windfarm array

Stakeholder engagement

- Local authorities, MSPs, and economic development boards

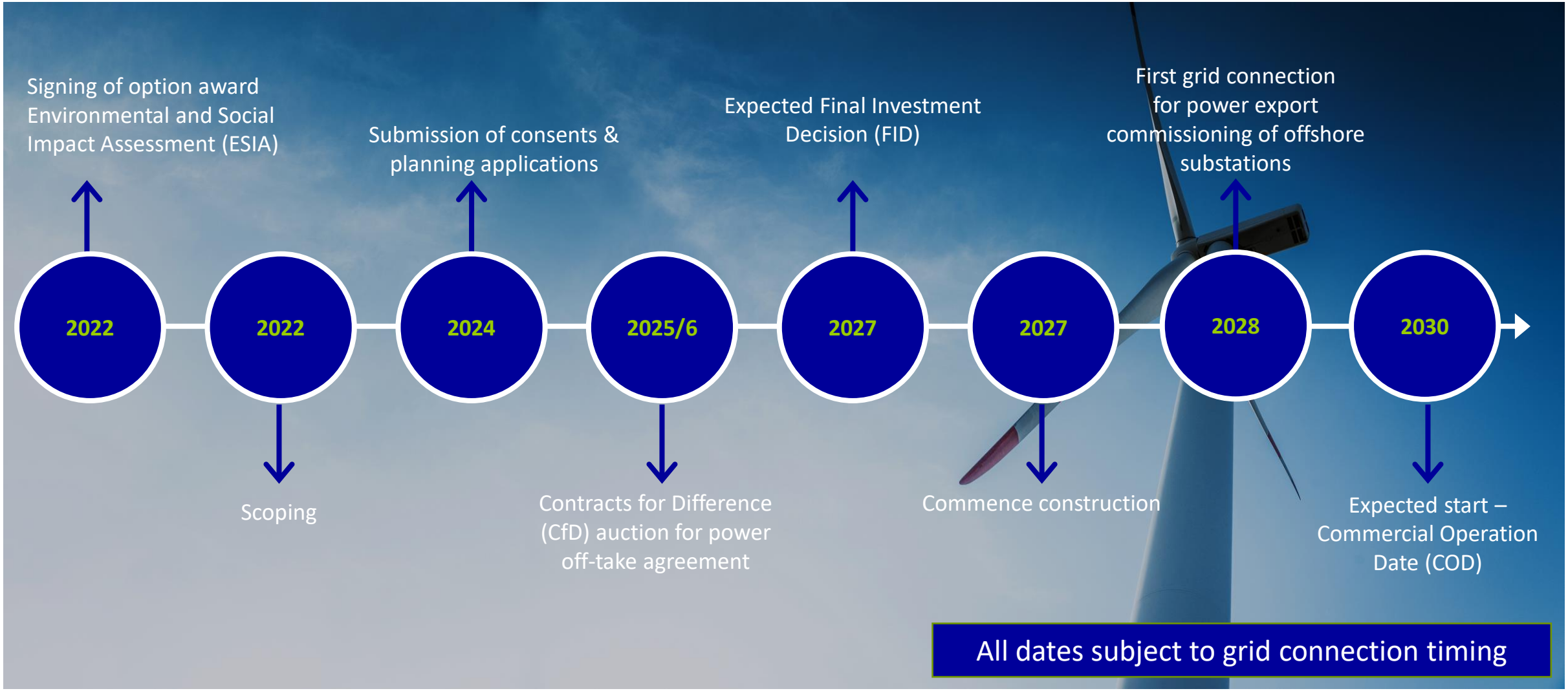
Working with others

- Joined and contributed to industry groups - SOWEC, Scottish Renewables, DeepWind, Forth & Tay, ORE Catapult, AREG

Morven Project timeline (indicative)

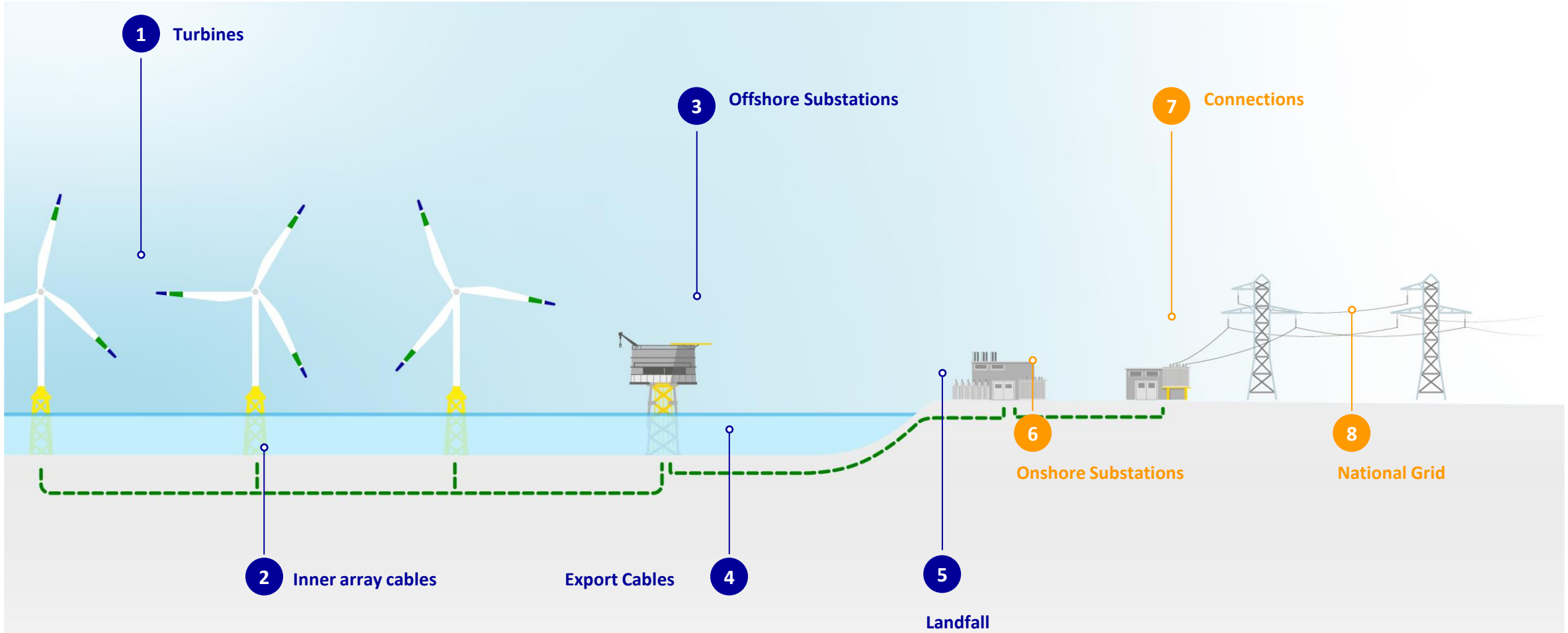
EnBW | bp

Partners in UK offshore wind



Morven reference case scope*

Partners in UK offshore wind



(*subject to change)

Supply Chain Development Statement

Partners in UK offshore wind

Stage (£m)	Scotland	rUK	Europe	Elsewhere
Development	169	6	9	-
Manufacturing & fabrication	565	877	2,868	985
Installation	329	111	831	35
Operation	131	109	118	-
Total commitment	**1,194**	**1,104**	**3,826**	**1,020**

SCDS Outlook: https://www.crownestatescotland.com/resources/documents/scotwind-area-1-scds-outlook

- Significant spend within Scotland and the UK
- SCDS Commitments will be updated over time until Contracted Position Statement closer to FID

EnBW | bp

Partners in UK offshore wind

A Scottish champion

EnBW and bp see many opportunities to deepen our commitment to Scotland's people and industry.

We believe our proposals can assist a just transition and support Scotland as a global energy leader.

Education and skills in Scotland

We plan to expand current support for Scottish schools, colleges, universities and apprentices by investing in a new offshore wind apprenticeship programme, and establish an academic centre of offshore wind R&D and expertise at a Scottish university and a new skills capability accelerator developed by energy consultancy Xodus.

Community fund

We plan to set up a community investment fund of £200,000 per year to support sustainability and net zero goals across Scotland.

Supporting Scotland's Woodlands

We plan to invest an additional £10m in Future Woodland Scotland, to expand native woodland in rural and urban areas, including £1m to every city in Scotland.

Accelerating EVs in Scotland

bp plans to grow its EV charging network in Scotland by 3,500 charge points by 2030, resulting in skilled jobs and investing over £50m.

Ships built in Scotland

EnBW and bp plan to build vessels for its UK wind farms in Scotland. Two large Service Operating Vessels and two Crew Transfer Vessels.

Green hydrogen

Committing to produce green hydrogen, bp is supporting the decarbonisation of public and heavy-duty transportation in Aberdeen and Edinburgh by providing hydrogen refuelling hubs as well as the potential to export hydrogen from Scotland in the future.

Global offshore wind operations centre of excellence

bp plans to establish its global offshore wind O&M Centre of Excellence in Aberdeen. Taking advantage of the highly skilled workforce and CoE location, EnBW and bp plan to locate the Remote Operations Centre for both ScotWind and UK Round 4 projects here.

Aberdeen

Edinburgh

Glasgow

Port investments

Investing in Scottish ports, including further investment of the regeneration of the Port of Leith, enabling ports to modernize and support the offshore wind industry develop sites for marshalling and operations.

Incubator fund

Investing in Scottish low carbon innovation and entrepreneurship through our flagship incubator fund guided by bp launchpad and ventures.

low carbon marine operations

We are working with others to explore viable routes to net zero operations, from battery powered hybrid vessels to hydrogen.

Project directors & key contacts

Partners in UK offshore wind

Richard Haydock (bp)

Céline Combé (EnBW)

Supply chain contacts

- Ricky Gray, Supply Chain Lead – BP – ricky.gray@bp.com
- Duncan Ayling – Supply Chain Manager - EnBW - d.ayling@enbw.com

Supply chain portal registration: https://www.enbw-bp.com/suppliers/

Ossian

Paul Blunden

SSE Renewables, Marubeni and CIP

Ossian Wind Farm

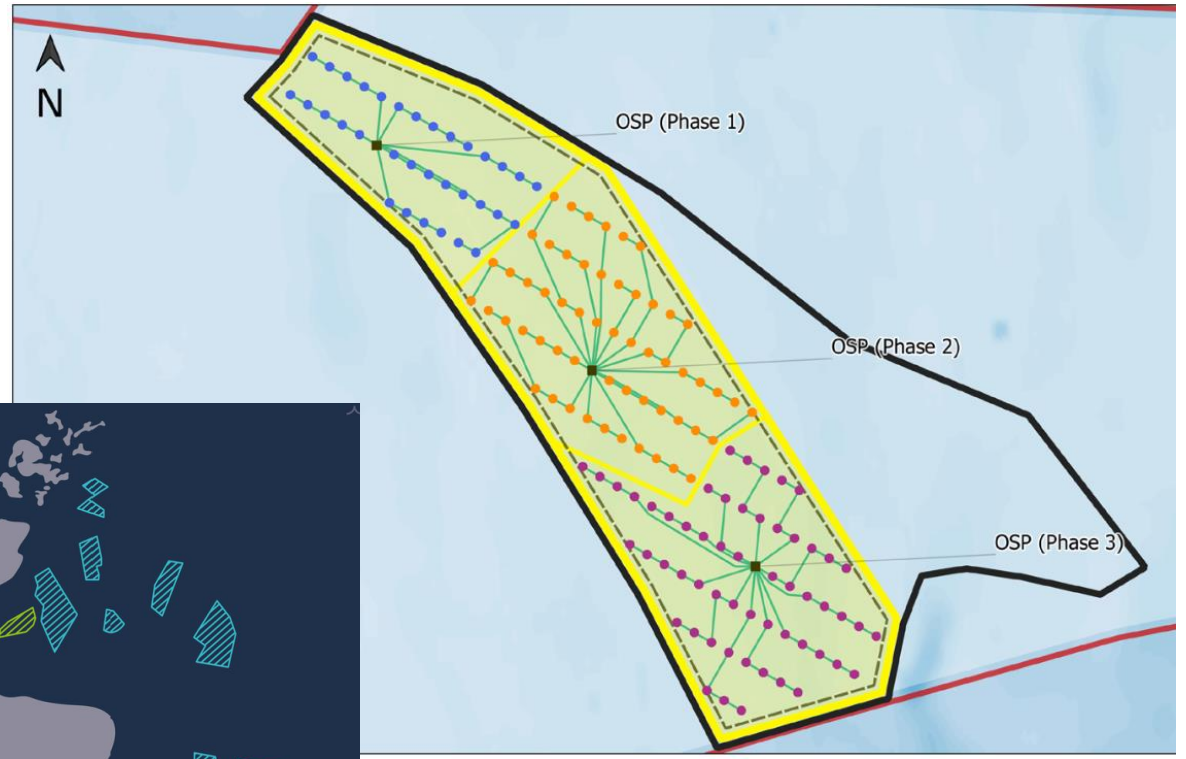
DeepWind Supply Chain Webinar

25 August 2022

Ossian Wind Farm

2.6GW

Phase 1: 594MW
Phase 2: 1008MW
Phase 3: 1008MW



Credit: CES

Approximately 90km to shore at nearest point

Anticipated mean wind speed – 11.4m/s

Water depth range of 60m-154m (73m average)

Well understood seabed composition

Minimal seabed mobility

Range of well situated East coast O&M bases

Floating foundations

HVAC / HVDC transmission infrastructure

66kV dynamic array cables

Project Partners – SSER, Marubeni and CIP

Local Experience

5GW Scottish offshore wind portfolio

Unparalleled **Scottish offshore wind experience** – pioneering offshore wind in Scotland since 2004

- **Spearheaded** Scottish offshore wind deployment at **deep** and **challenging sites** with the Beatrice Offshore Wind Farm
- Leading delivery of Seagreen 1, Berwick Bank and Marr Bank projects that will be **Scotland's largest offshore wind farms**
- Developing the **Viking Wind Farm**, capable of powering every home in Shetland
- Delivering the critical £1.1bn **Caithness-Moray** electricity transmission link to support future UK renewables build out

Marubeni

- Global power asset portfolio totalling **12GW (net)** delivered over **25 years**, including the 1.2GW Sweihan in UAE, the world's largest solar project with the lowest tariff ever (2017)
- 60 years experience in delivering power plants totalling **112GW** in **56** countries through EPC division Marubeni Power & Infrastructure Systems Corporation
- Complementary business activities, including **Seajacks** and **SmartestEnergy**

CIP

Copenhagen Infrastructure Partners

- One of the most **senior** and **experienced** investment teams in offshore wind
- **EUR 14.5bn** under management across seven funds with singular focus on **green-field** renewables projects
- **Unique mix** of technical and commercial expertise
- Exclusive access to **world-class** development, EPC, and O&M competencies via COP

Floating Wind Leadership

- **8GW** combined global floating wind development portfolio
- Marubeni has been **active in floating wind since 2012**
- First hand operating experience of **five different floating foundation** concepts
- CIP developing **100MW** Pentland Array in Scotland
- CIP's **global competence centre** for floating wind located in Edinburgh

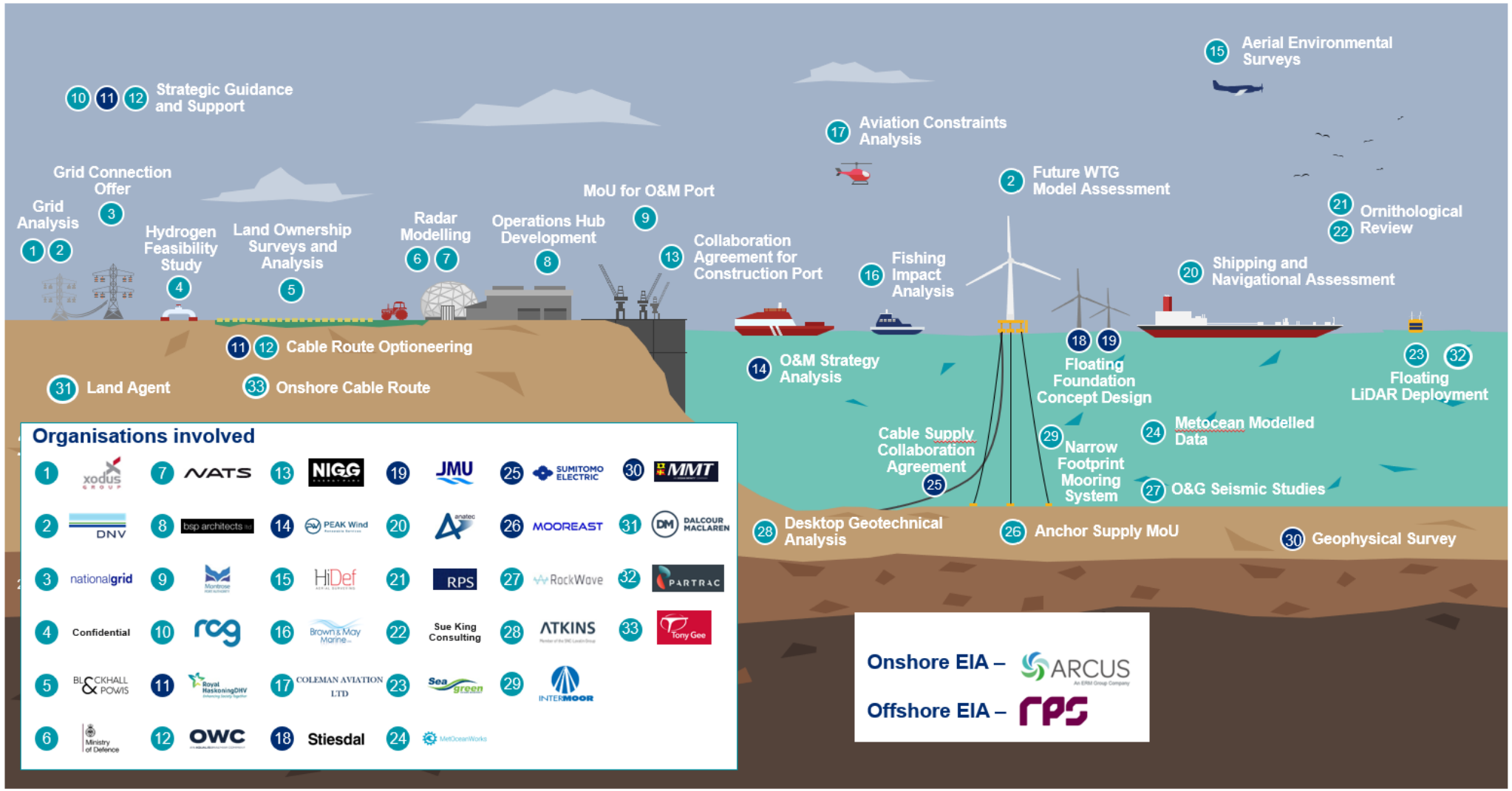
Global Expertise

27GW Global offshore wind portfolio

Strong track record in pioneering offshore wind in US, Taiwan, and Japan and:

- Driving **industrialisation** of the industry
- Deploying **new technology**
- Leading **local supply chain development**

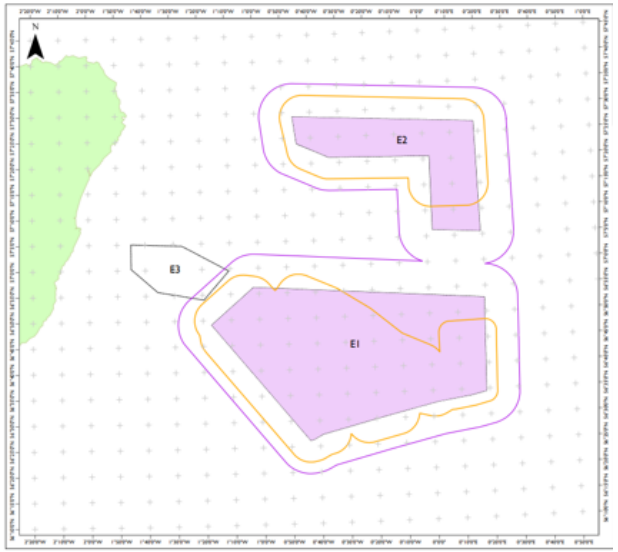
Progress to Date



Progress to Date - Site Investigations

Ornithology and Marine Mammal Surveys	• Aerial ornithological and marine mammal surveys of the project area are ongoing, with surveys due to conclude in Q1 2023. • Regional ornithological surveys have commenced (covering the E1 and E2 sites with a 12km buffer zone) with five surveys completed as of the end of July.

HiDef AERIAL SURVEYING LIMITED

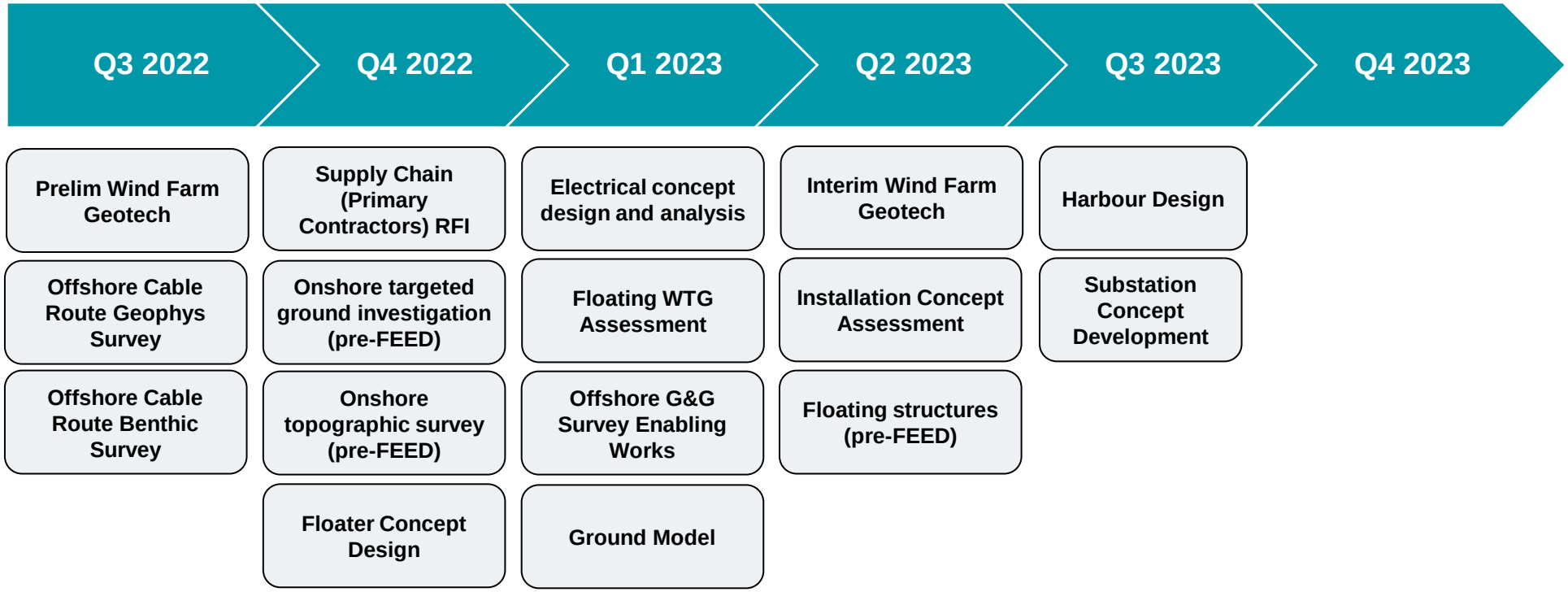


PARTRAC

MMT AN OCEAN INFINITY COMPANY

Wind and Metocean Measurement	• Partrac appointed to deploy two floating flidar devices and three metocean measurement buoys. • Devices deployed at project site in August 2022 following successful floating lidar offshore validation.
Preliminary Geophysical and Geotechnical Surveys	• The wind farm preliminary geophysical survey mobilised in March 2022 and was completed in July 2022, including benthic sampling. • Project is tendering for offshore export cable route preliminary geophysical and benthic surveys and wind farm preliminary geotechnical investigations.

Supply Chain Activity – H2 2022 / H1 2023



Contracting and Suppliers	Project is contracting services through a mixture of frameworks and competitive tenders. **Suppliers should register with SSE: sse.com/potential-suppliers/**
Request for Information	We will be releasing RFIs on geophys, benthic and geotech survey enabling works, pre-FEED work, and ground model development over coming months and are very keen to hear from companies in those fields. Suppy Chain RFI will focus on EPC items – WTG, floating foundations, array cables, export cables, substations, T&I.

Supply Chain Development Statement (SCDS) Outlook

SCDS Strategy	• The Project Partners are implementing a supply chain development strategy that builds on their long-standing experience with the Scottish supply chain and successfully driving localisation across several other offshore wind markets worldwide. • The SCDS Strategy has been informed by guiding policy documents, including the Scottish Offshore Wind Energy Council goals, Scottish Government Offshore Wind Policy, Offshore Wind Sector Deal, and the UK Government Supply Chain Plan requirements as well as the strategic objectives of Crown Estate Scotland.


Port of Nigg in use for SSER's Beatrice's Construction Phase


Montrose Port

Floating Wind	• The SCDS Strategy has been designed to support the expansion of the floating offshore wind supply chain in Scotland to establish a leading position in this field.
Supply Chain Development	• The Project Partners are exploring options to expand the Scottish floating offshore wind supply chain and have entered into collaboration agreements and Memorandums of Understanding with several supply chain partners.
Ports and Harbours	• Project Team has visited 11 ports and harbours and continues engagement to support development for floating offshore wind construction, installation and operation.

Local Content – SCDS Commitments

The project partners have **projected spending over £8bn in Scotland over the life of the project**, of which £3.8bn is expected to be realised during development, construction and the first six years of operation.

Development	• Local suppliers in Scotland and the wider UK have strong existing capabilities to provide a wide range of development services. • Development phase services include studies, surveys, and analysis, and the personnel resources required to obtain planning consents.
Manufacturing and Installation	• There is great potential for a high level of Scottish and wider UK content across significant scopes during the manufacturing and installation phase. • Fabrication opportunities being explored include: Wind Turbine Generator blades and towers; Floating foundation fabrication and assembly; moorings and anchoring solutions; Inter-array cables manufacturing; Onshore and offshore substation fabrication; Operations base construction. • Installation opportunities being explored include: onshore Wind Turbine Generator and floating foundation assembly works; onshore export cable civil works; mooring and floating foundation installation.
Operations	• A high degree of Scottish and UK content is expected during the operations and maintenance phase, with much of this activity centred around the project's local operations base.

The project's Supply Chain Manager will be tracking and reporting against the project's SCDS Commitments. Discussions are continuing with tier one suppliers to support potential for inward investment into Scotland.

Contacts

Website	https://www.sserenewables.com/offshore-wind/scotwind/
Email	Contact the ScotWind team: Scotwindsuppliers@sse.com
Events	Floating Offshore Wind conference, Aberdeen, 12-13 October

Thank you

Bellrock

David Robertson

DeepWind Supply Chain Webinar

Bellrock Project Overview

August 2022

BlueFloat ENERGY

Falck Renewables NEXT SOLUTIONS

Strengths of our Partnership

- The consortia is well placed to deliver world-class floating offshore projects in Scotland

BlueFloat Energy's unique knowledge and experience in developing, financing and executing floating wind projects

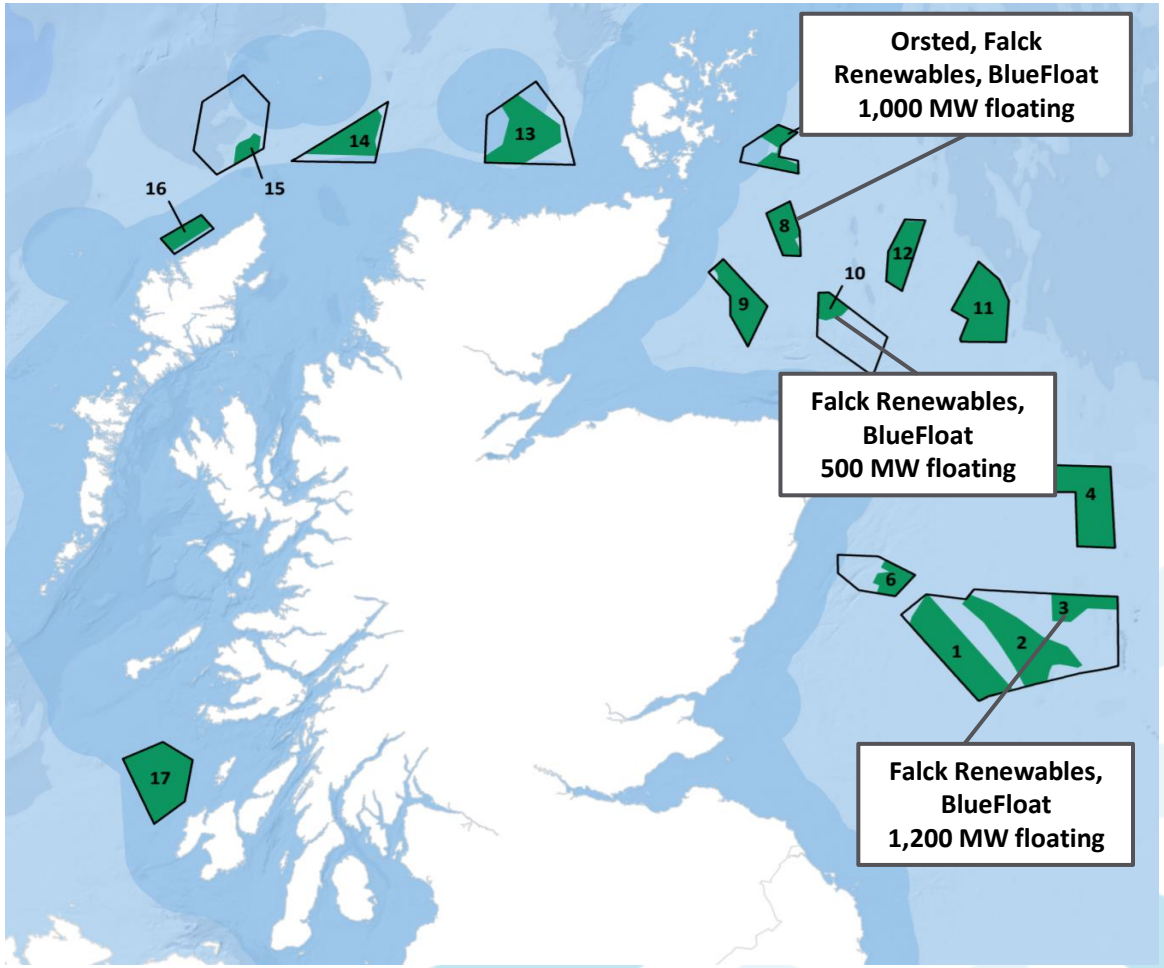
Falck Renewables' pioneering approach and experience with community and co-operative ownership of wind energy schemes in Scotland

Strengths of our Partnership

- The two consortia were awarded a total of three sites (Plan Options NE3, NE6, E1)

Our Projects

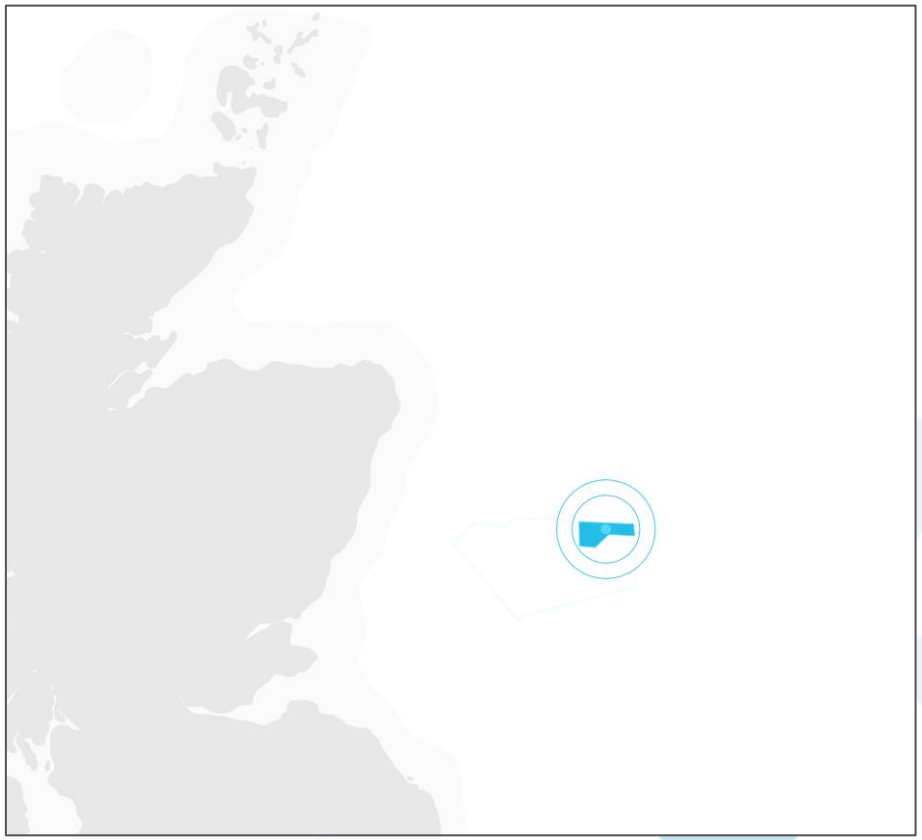
- The Orsted, Falck Renewables and BlueFloat Energy consortium was awarded one site east off Caithness in Plan Option NE3
- The Falck Renewables and BlueFloat Energy partnership was awarded two sites: a site east of Aberdeen in Plan Option E1 and a site north of Fraserburgh in Plan Option NE6
- The three sites could accommodate a total offshore wind capacity of approximately 3.0 GW.
- Large portfolio allows for significant supply chain opportunities.



Quick Overview of Bellrock

Plan Option: E1

- Project Name: Bellrock
- Capacity: 1,200 MW
- Area: 280km^2
- Depth: 70m – 100m
- Foundations: Floating
- Partnership: Falck Renewables + BlueFloat
- Planning/Consenting: 2023-2026
- CfD: 2027
- FID: 2028
- Commence Construction: 2028
- Grid Connection: circa 2030
- Commence Operation: circa 2030



Bellrock Ongoing Work

Technical

- **Site investigations:**
  - Aerial ornithology surveys of the windfarm area ongoing since March 2022
  - Procurement of floating LiDAR under completion for installation by Q4 2022
  - Establishment of ground investigations strategy and associated timeline ongoing, in accordance with engineering and environmental requirements
  - Preparation of tender ongoing for preliminary site surveys scheduled for Q2 2023
- **Grid connection:**
  - Bellrock project is in the 1st tranche of the HND. Start of discussions with NGESO on the draft HND
  - Contact initiated with Morven project team to discuss collaborative development of offshore transmission infrastructure

Consenting and Stakeholders Management

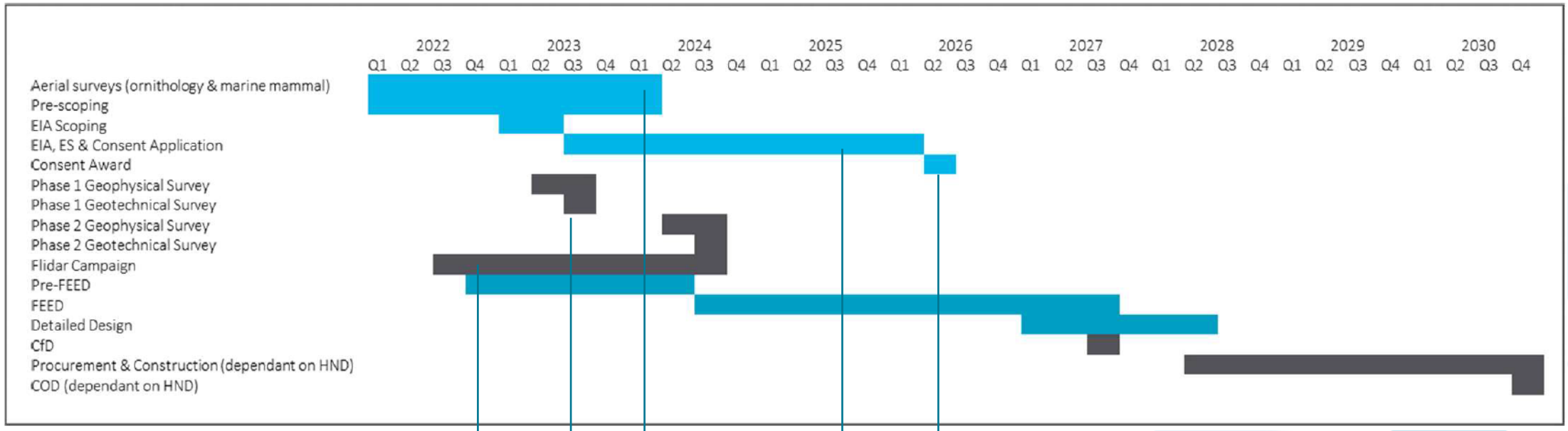
- Review of consenting timeline and strategy
- RHDHV as EIA & consenting services consultant
- Awaiting OFGEM delivery model update to understand the extent of the Project's responsibility for consenting of onshore assets
- Introductory level engagement with a wide range of stakeholders, including Government and Ministerial stakeholders, Marine Scotland and Nature Scot, University of Highlands and Islands (UHI)

Supply Chain & Ports

- Mapping of the Scottish supply chain, introductory meetings and site visits to key facilities and stakeholders
- Studies and conversations with ports to understand how existing facilities can be upgraded to support Project activities and to maximize local content
- Skills gap review and collaboration with local organizations to develop training strategies

BELLROCK TIMELINE

- Work is ongoing to review whether the timeline presented in the bid application can be accelerated to support the British Energy Security Strategy (BESS) targets
- The timeline review is driven by the grid connection date, which will be defined through contract negotiations with NGESO over the next quarter.



Floating LiDAR Offshore installation (Q4 2022)

Preliminary site surveys (Q2-Q3.2023)

Aerial ornithology survey (03.2022 – 03.2024)

Consent award (Q2.2026)

Submission of consent application (Q3.2025)

Approach to Communities and Supply Chain

Bellrock

Community

- We have over 15 years' experience working with local communities all over Scotland to share value from our developments.
- We are committed to bringing genuine community involvement and ownership into offshore wind development.
- We back community projects – from social & educational to environmental & infrastructural – and we encourage communities to share project practices to maximize benefits for others.
- We will work in collaboration with the industry Offshore Wind Community Fund to ensure offshore wind brings real benefits to Scotland's communities locally and nationally.

Supply chain

- Engaging with industry stakeholders such as SR, AREG, SCDI, SOWEC and ESP on supply chain development for floating wind. Consortium recently signed SOWEC charter.
- Met with HIE on supply chain and skills development.
- Detailed technical studies and bilateral conversations with ports to understand how existing facilities can be upgraded to support construction and installation activities to maximize local content.
- Actively involved in skills development through SOWEC and ESP. Our consortium will also sit on the governance board of the Powerhouse renewables skills and training hub, which will help us ensure their initiatives are driven by developer demand.
- Our consortium is part of the Opportunity Cromarty Firth Green Free Port Bid.

Approach to Communities and Supply Chain

SUSTAINABILITY AT THE CORE

- Sustainability Charter: Local stakeholders – and the territories where they live – occupy a pivotal place in our sustainability beliefs and actions. That is why we committed to implement a list of measures, that form our Sustainability Charter:

  1. We promote the local workforce and supply chain.

  2. We welcome the participation of communities in our business, also through ownership schemes.

  3. We back community projects – from social & educational to environmental & infrastructural – and we encourage communities to share project practices to maximize benefits for others.

  4. We share our knowledge of energy sustainability to spread the word about its importance.

  5. We ensure all our operations have the least impact on the environment.

Whilst we are aware of UK & Scottish supply chain, we want to hear from you & start our engagement process as projects will be in development for next 6-7 years & will see continuous changes / improvements in process, methods & technology…..

Approach to Communities and Supply Chain

Falck contractor’s open day

Presenting our sustainable approach to a municipality

SUSTAINABLE PROCUREMENT

"Sustainable Procurement" examples that can enhance the sustainability of our procurement activities:

- Contract requires use of local resources, materials and services. Global project local content for Falck was 74% in 2020.
- Engagement starts now! Further engagement will continue with project development (virtually and physically).
- All procurement packages for offshore projects will be advertised through our association with various memberships, Deepwind Cluster, AREG etc..
- Opportunities to review projects, express interest and fill out pre-qualification questionnaires will be available on our online procurement portal. Shortlist of qualified suppliers will then receive RFQ’s.
- We are happy to support smaller companies to better understand requirements and to highlight any potential support opportunities.

CampionWind

Kirsty Adams

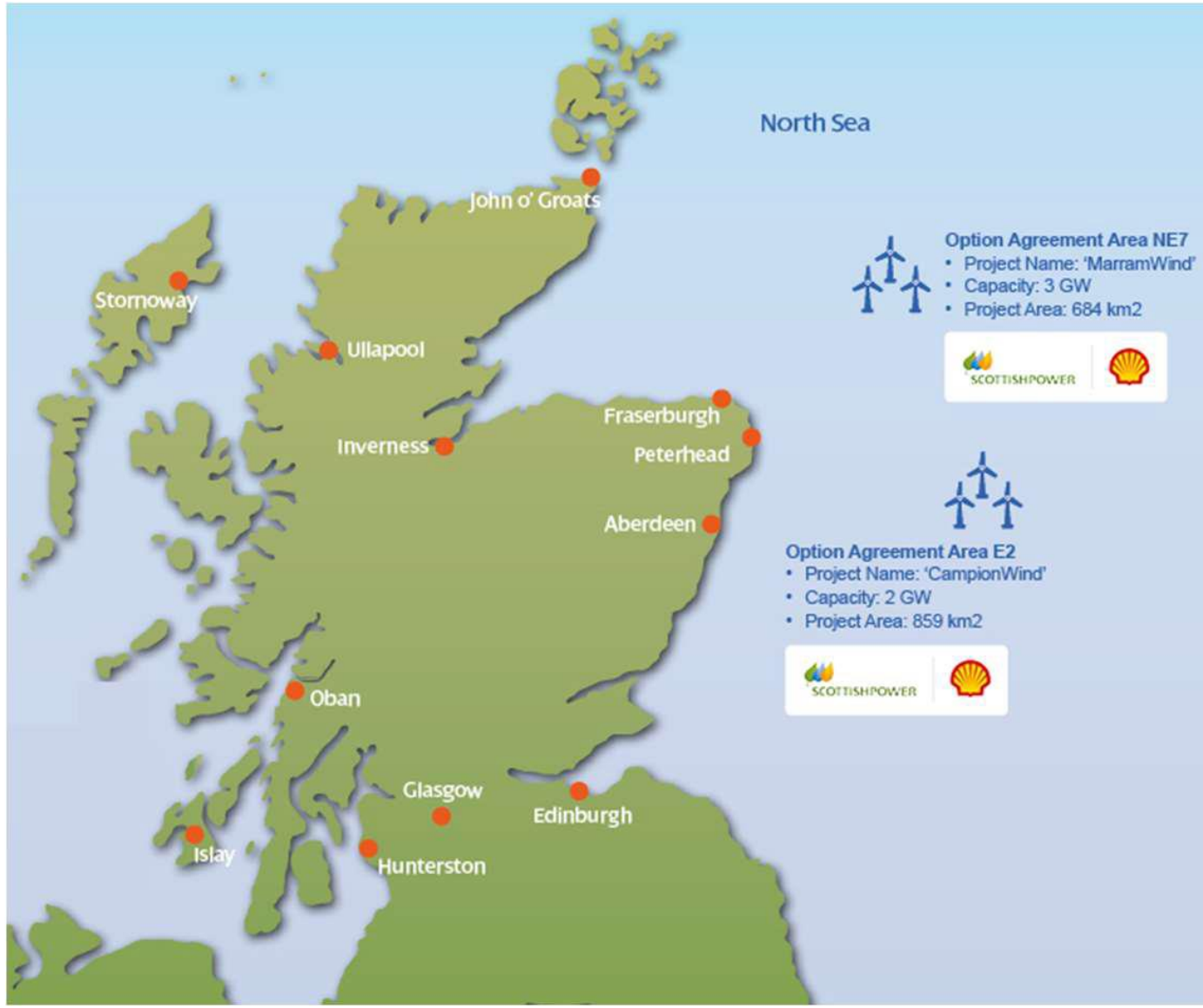
CampionWind

A joint venture between ScottishPower and Shell UK

CampionWind Project Update

DeepWind Cluster Webinar

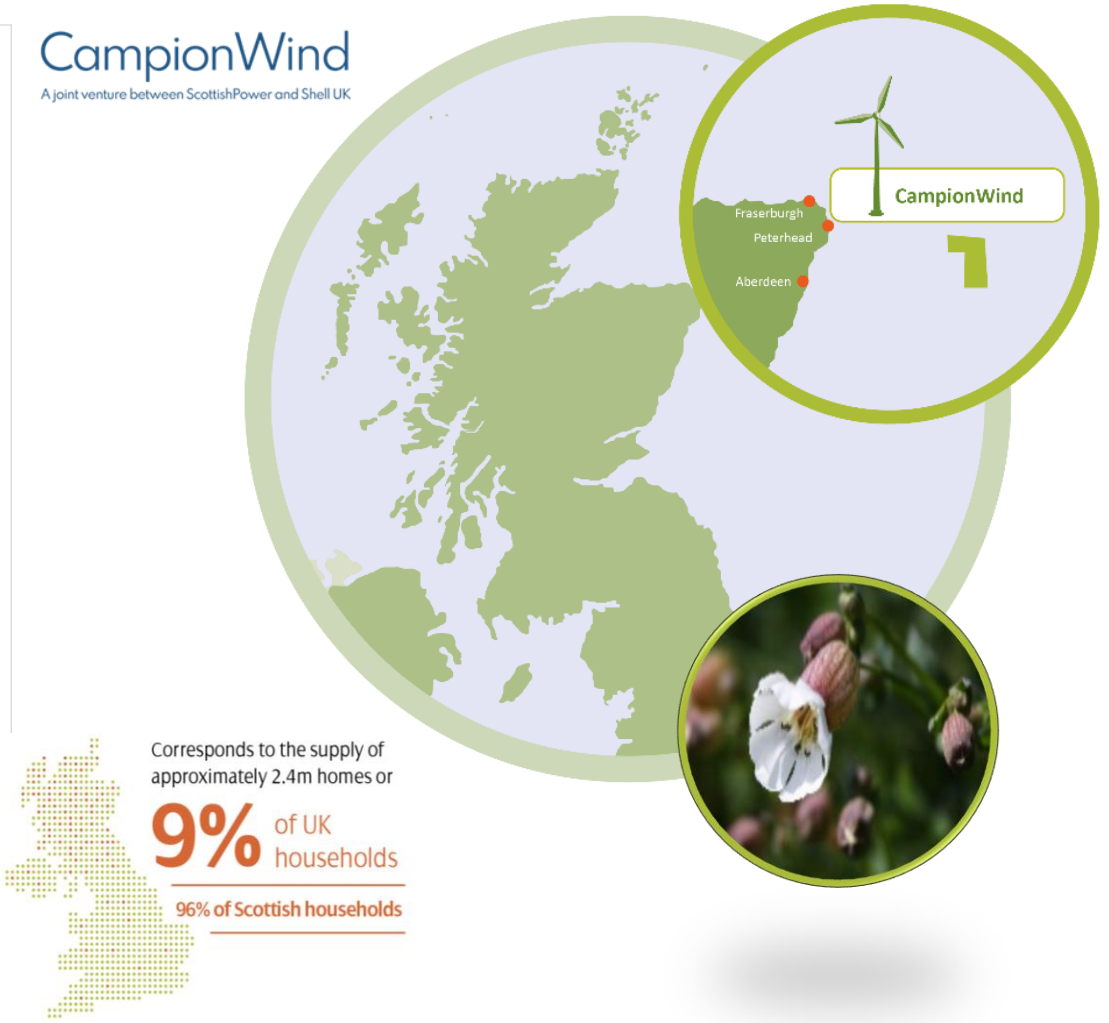
25th Aug 2022


North Sea
John o' Groats
Stornoway
Ullapool
Inverness
Fraserburgh
Peterhead
Aberdeen
Oban
Glasgow
Edinburgh
Islay
Hunterston
Option Agreement Area NE7
• Project Name: 'MarramWind'
• Capacity: 3 GW
• Project Area: 684 km2
SCOTTISHPOWER
Option Agreement Area E2
• Project Name: 'CampionWind'
• Capacity: 2 GW
• Project Area: 859 km2
SCOTTISHPOWER

CampionWind

Project Characteristics

Technology	Floating
Capacity	2,000MW
Site Area	860km2
Centre Point to Shore	119km
Mean Depth	77m (range: 62-90m)
Grid connection	Tealing



Development Update

- Regional developer group formed for E1-E3 sites with focus on bird surveys.
- Focus of this group being expanded to fisheries interface.
- Will also explore other opportunities for regional approaches for Geophysical and MetOcean surveys.

- **Regional bird surveys**
  - Commenced April 2022 (24 month duration but may be reduced to 12 month).
  - Being procured by SSE/COP on behalf of all E1 and E2 developers and cost/data sharing agreement has been established (though yet to be fully signed).
  - E3 developers will also have option to buy in to.
- **Metocean / FLIDAR**
  - Campaign to commence Sept 2022.
  - Procured in conjunction with MarramWind project.

Contracting Methodology

- **Regional bird surveys**
  - Collaborative approach with other developers.
- **Project specific bird surveys**
  - Procured via competitive tender.
- **EIA Surveys**
  - Lead EIA Consultant awarded.
  - EIA Surveys to be awarded to sub-consultants via the Lead EIA contract.
  - Surveys out with this to be procured via competitive tender.
- **Geotech/GeoPhys**
  - Procurement process to commence shortly.

Supply Chain Asks

- **Register on our supply chain portal**
  - www.campionwind.co.uk

- **Engage with the rest of the supply chain**
  - Get to know who your customer will be – Tier 1, 2, 3?
  - Developers have SCDS Commitments and Ambitions
  - Tier 1s will require local supply chains to leverage expertise and deliver Scottish content
- **Speak to us**
  - What barriers have you seen to date?
  - How can we help as developers?
  - MarramWind & CampionWind will be in attendance at RUK Floating Offshore Wind 12/13 Oct

Challenges & Opportunities

- **Grid and consenting**
  - Similar to all ScotWind developers, grid & consenting are two of the biggest challenges we face.
  - This impacts confidence over programme.
  - We are working with key stakeholders including National Grid ESO and UK Government to aim to address this challenge.
  - Grid exports are being prioritised as primary route to market however we are exploring all offtake avenues, including hydrogen.
- **Developing a competitive supply chain in Scotland**
  - With the current CfD regime focusing on price, costs are at an all time low for offshore wind and supply chain must be able to compete on price.
  - Work to be done to facilitate partnerships/supply chain consortia to deliver Scottish content at a competitive price.
  - Cooperating with wider industry to consider other ways to realise value in offshore wind

CampionWind

A joint venture between ScottishPower and Shell UK

Thank you.

Any questions?

Mara Mhor

Morgan Mayes

Mara Mhòr Offshore Wind Farm

ScotWind Supply Chain Webinar

25 August 2022

MARA MHÒR
OFFSHORE WIND FARM

A joint venture between Fred. Olsen Seawind & Vattenfall

Combining Industry Leading Experience

MARA MHÒR OFFSHORE WIND FARM

A joint venture between Fred. Olsen Seawind & Vattenfall

Bringing together the decades of Scottish industry experience of two of Europe's leading renewable energy developers

Developing a highly innovative renewable energy project that will lead the energy transition

Generating manufacturing and fabrication opportunities locally, increasing long term sustainable jobs and value creation

A 50/50 joint venture between Fred. Olsen Seawind and Vattenfall

Fred. Olsen Seawind VATTENFALL

Mara Mhòr Offshore Wind Farm

MARA MHÒR
OFFSHORE WIND FARM
A joint venture between Fred. Olsen Seawind & Vattenfall

Ownership
50% Fred. Olsen Seawind
50% Vattenfall

Project Location
~65km from Aberdeenshire region The site covers an area of ~200km²

MW Capacity
798 MW

Technology
Floating

Homes Powered Equivalent (p.a.)
800,000 homes per year

Hydrogen remains a consideration for the project

Ongoing Work and Procurement

MARA MHÒR OFFSHORE WIND FARM

A joint venture between Fred. Olsen Seawind & Vattenfall

- Detailed analysis now underway to select a foundation design and floating turbine appropriate for the site conditions and fit for the local supply chain
- Undertaking extensive ports and harbours analysis in Scotland and the UK
- Preparation of the EIA Scoping Report and baseline assessment work currently underway
- Actively coordinating the regional ornithological survey approach with other developers in the East region
- **Over £3 million awarded to Scottish suppliers** in development contracts and a further £10 million of contracts are currently under procurement

Ongoing Campaigns:

- Ornithology surveys (Q1 2022 – Q2 2023)

Ongoing Procurement:

- FLiDAR
- Geophysical surveys
- Shipping and Navigation surveys

We have a joint procurement team and procure all packages through Mara Mhòr

Larger packages undergo a 2-stage tender process (PQQ and ITT) and are assessed according to the criteria set out in the tender documents

Next Steps

MARA MHÒR OFFSHORE WIND FARM
A joint venture between Fred. Olsen Seawind & Vattenfall

- **We are continuing with:**
  - Technology review to short list floater selection
  - EIA Scoping and continuing stakeholder engagement
  - On-going survey work
  - Cable route and grid work
  - Site design and layout work
- Specific engagement on project requirements and project-specific supplier events will commence in 2023
  - Workshops planned to work with new and/or lower tiered suppliers to achieve the ability to bid for offshore wind packages, either individually or collectively
- We expect major procurement packages to commence mid 2020's with all key dates currently being reviewed and analysed
  - We will develop our approach to procuring these packages closer to the time and this will be made clear to the market

Future Procurement Packages:

- Pre-FEED
- FEED
- Supply chain analysis
- Additional survey works

Our Approach to Supply Chain

MARA MHÒR
OFFSHORE WIND FARM
A joint venture between Fred. Olsen Seawind & Vattenfall

- **Innovation:** We are putting forward feasible, implementable solutions to key industry challenges to expand upon and help build this new industry from the bottom up
- **Community:** We aim to achieve maximum value for Scotland – creating a sustainable local supply chain and bringing long-term economic benefits
- **Collaboration:** Our building block approach to supply chain is underpinned by a willingness to work with suppliers and the wider industry, whilst ensuring risk does not get pushed to the supplier at the bottom of the chain

Collaborating with industry, communities and the supply chain to deliver tangible benefits for the local and national economy

Facilitating Collaboration and Coordination

MARA MHÒR OFFSHORE WIND FARM
A joint venture between Fred. Olsen Seawind & Vattenfall

- Starting from a philosophy that seeks to elevate and develop what already exists in the market is easier and more effective than trying to slot in local content after the fact

- Our approach is designed to put local suppliers first and facilitate cooperation between them

- No longer viewing competitors as the competition – collaboration can allow suppliers to take on larger and more complex scopes locally for longer durations

Offshore projects are large and complex and there are multiple opportunities for Scottish companies

The skills and competencies already exist – we can utilise them through working together

Getting in Touch

MARA MHÒR OFFSHORE WIND FARM
A joint venture between Fred. Olsen Seawind & Vattenfall

- We are committed to a transparent and inclusive approach and will continue to be open about our processes and timescales as these mature
- We are getting our supplier portal up and running, which is coming soon
- Specific Mara Mhòr events will be held in the coming year – we will be publicising these closer to the date
- We are interested to hear about suppliers' development plans to grow to support ScotWind projects
- Continue to look out for announcements on our project website and social media channels

Stay informed:

info@maramhor.co.uk

www.maramhor.co.uk

www.linkedin.com/company/fred-olsen-seawind

www.linkedin.com/company/vattenfall

Cluaran Deas Ear

(Thistle South East)

Norman Johnston

Thistle Wind Partners

An Introduction to the Consortium and our Scottish ambitions

Global players, local engagement

Thistle Wind Partners

A brief introduction to the Thistle Wind Partners

A strong consortium with a focus on stakeholder and community engagement

DEME Concessions brings together all investments and expertise of the DEME Group in the fields of offshore wind and other renewables, green hydrogen, port development, Public Private Partnership (PPP) Infrastructure, environment, and marine resources.

DEME Concessions Wind has developed over 1.5 GW of offshore wind projects in Europe with increasing focus on the UK.

Qair Marine is the subsidiary of Qair dedicated to offshore wind and is at the forefront of floating offshore wind with the development of EolMed in the French Mediterranean and the operations and maintenance of Floatgen, the first floating offshore wind turbine in France.

Qair owns a 500 MW operation portfolio exclusively from renewable sources. Globally, the group is in the construction and financing phase of an additional 700 MW and targets an installed capacity of 5 GW within five years.

Aspiravi International, part of the Aspiravi Group develops, implements, and operates renewable energy projects with a total installed capacity of over 1.5 GW. These projects primarily pertain to wind energy but the Aspiravi Group also owns and operates biomass installations, biogas engines, and hydro-electric installations.

Thistle Wind Partners: Key Facts

A strong consortium with a focus on stakeholder and community engagement

Strong, pioneering track record:

- DEME and Aspiravi pioneered the first offshore wind projects in Belgium and continue to play an active role in the development of the industry.
- DEME as a front runner in offshore wind construction is considered a world leader.
- Qair is a pioneer of floating offshore wind in France (development and maintenance).

Thistle Wind Partners

DEME Concessions

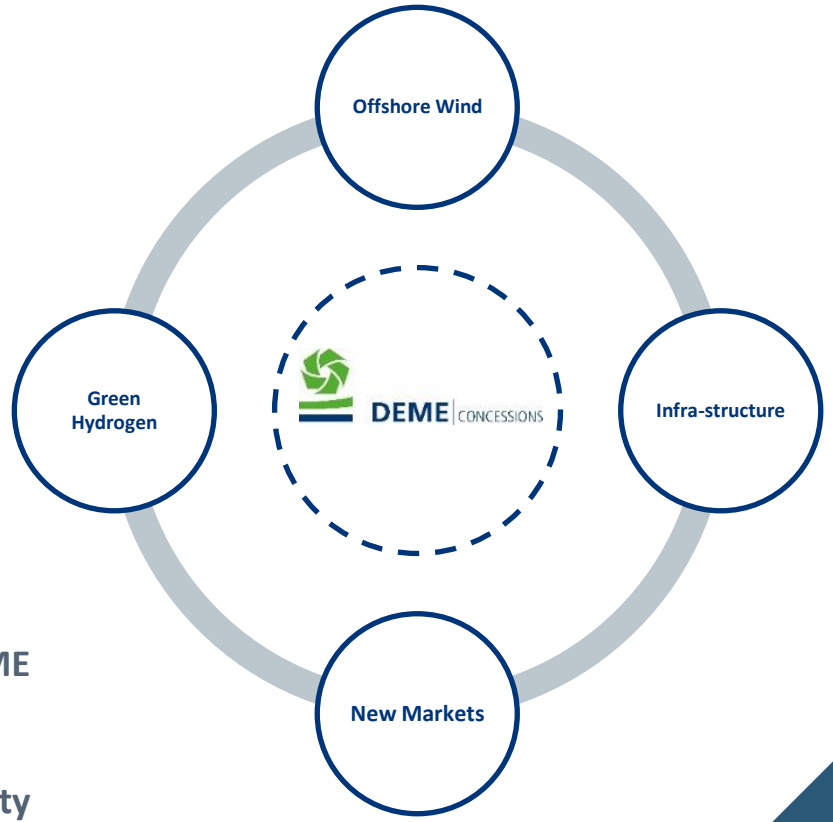
A development and investment arm of the DEME Group

€220 Mln.
Own investment

€1.5 Bln.
Equity Raised

> €7 Bln.
Closed Projects

X 2-3
Ambition 2030



- DEME Concessions is the **development and investment arm of the DEME Group.**
- Our developments have an excellent track record in **attracting third party investment** and **funding** from public and private parties.
- Advocate **early involvement** in the development process and a sincere **partnering philosophy throughout all project phases** to achieve successful project delivery.

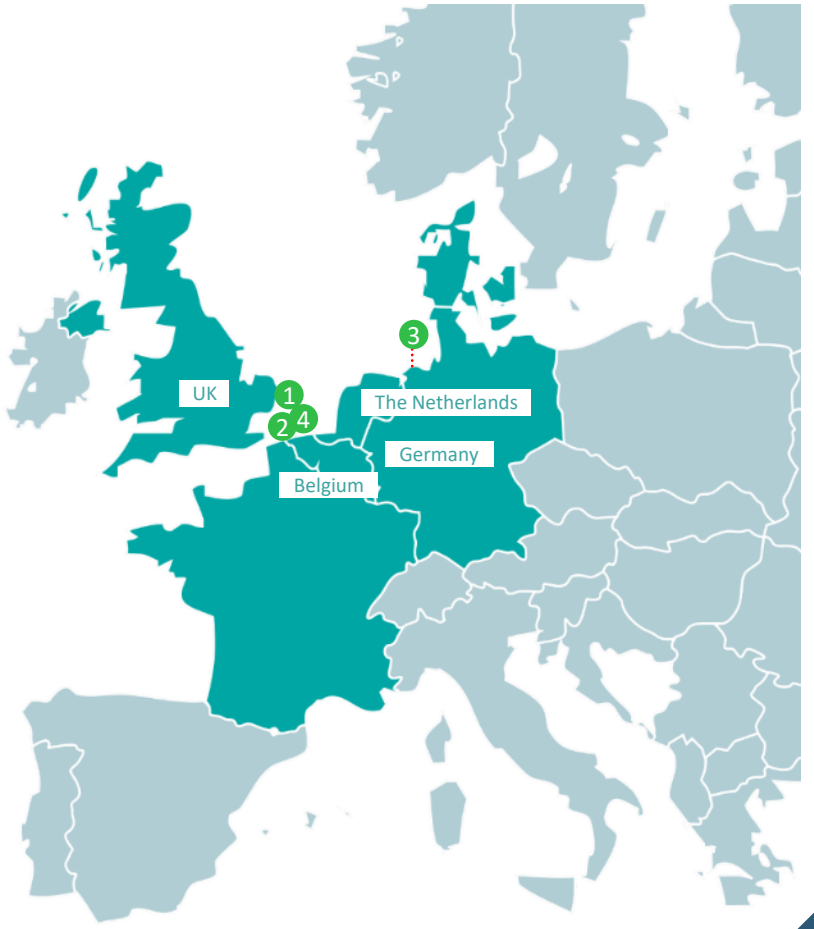
Thistle Wind Partners

DEME Concessions NV

Offshore Renewables: Developing & Financing offshore wind farms

DEME CONCESSIONS WIND

1	**C-Power** (BELGIUM)	Capacity = 325 MW Initial Share = 11,7%	Operational
2	**Rentel** (BELGIUM)	Capacity = 307 MW Initial Share = 18,9%	Operational
3	**Merkur** (GERMANY)	Capacity = 396 MW Initial Share = 12,5%	DIVESTED
4	**SeaMade** (BELGIUM)	Capacity = 488 MW Initial Share = 13,25%	Operational



Thistle Wind Partners

DEME Group

Local renewables content to-date

DEME OFFSHORE

- Strong track record in the UK and Europe with an increasing focus on Scotland.
- 30 UK projects ranging from SI to EPCI contracts, totaling circa 9 GW.
- Scottish projects to-date:
  - MeyGen 6 MW tidal project: Foundation installation (completed 2016)
  - Moray East 950 MW Offshore wind project: Foundations EPCI and inter-array cable installation (completed 2021)
  - Neart na Gaoithe 450 MW: EPCI cable contract

DBE
Wave & Tidal Solutions

- Co-developing the West Islay Tidal Energy Park (WITEP), Islay, 30 MW tidal stream project

Thistle Wind Partners

Focus on port infrastructure and supply chain: Examples

Renewable Energy Base Oostende, Belgium (REBO)

- **399 wind turbines** (2.2 GW) in the North Sea (2030: 4 GW)
- Established for construction, continuous monitoring and maintenance activities
- Reinforced quay walls and 100,000 m^2 terminal
- Cluster of circa **60 companies**
- Employment for circa **600 full-time workers**

Port La Nouvelle, France

- Heavy load quay for launching floaters, and assembly quay for supply of components
- 150,000 m^2 storage zone and lay-down area
- 160,000 m^2 assembly and production zone

REBO

Focus on port infrastructure and supply chain: Examples

REBO Development Scope

DEME Dredging, Environmental & Marine Engineering

rebo heavy weight terminal

- 10-hectare terminal at the Zeewezendok in the outer port.
- Quay walls reinforced to carry loads of up to 20 tonnes/m2

Qair Group

A Global Independent Power Producer Actor in Renewables Energy

POWER GENERATION

- ON-SHORE WIND
- SOLAR PV
- HYDRO-ELECTRICITY
- OFF-SHORE WIND
- WASTE TO ENERGY
- GREEN HYDROGEN (H2)

DIVERSIFICATION

ELECTRICITY SUPPLIER	PRIVATE EQUITY

300 Employees

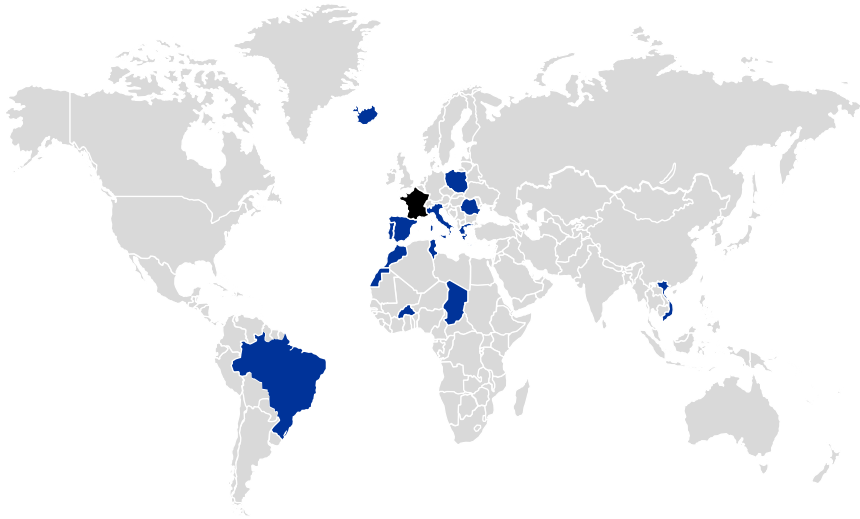
1.0 GW Operational assets by 2022

500 MW Installed capacity

30 years Renewables experience

5 GW Within the next **5** years

LOCAL PRODUCER ACTIVE IN 16 COUNTRIES



France (HQ) - Spain - Italy - Greece - Poland - Iceland – Romania - UK - Brazil - Tunisia - Burkina Faso - Tchad - Morocco - Mauritius - Seychelles - Vietnam

Pioneering experience in floating offshore wind:

- **EolMed** : Development of 30 MW floating offshore wind project, French Mediterranean
- **Floatgen** : Operation and maintenance of the first floating offshore wind turbine in France.

Thistle Wind Partners

Qair in France

Hydrogen – Hyd'Occ at Port-la-Nouvelle

Structure

AREC Occitanie – Agence Régionale Énergie Climat: 35%

Qair: 65%

HydOcc

Creation of a green hydrogen production plant by 2023

20M€: production unit (Phase 1)

10M€: supply chain development

Key features

- A high-powered unit that will produce, store, transport and market green hydrogen
- 6,000 t/year of hydrogen produced by water electrolysis (50MW electrolysers – 10MW for phase 1). Powered by electricity from regional renewable energy sources
- Location in Port-la-Nouvelle (FR) for its maritime infrastructure quality, its industrial skills, the promising means of local storage and the proximity of rail and motorway networks
- Development of various services to meet the heavy mobility needs (boat, truck, train), industrial and power generation
- Project supported by all stakeholders: elected officials, local industrial players, local associations…

Thistle Wind Partners

Qair Marine

At the Forefront of Floating Offshore Wind Development & Operation in France

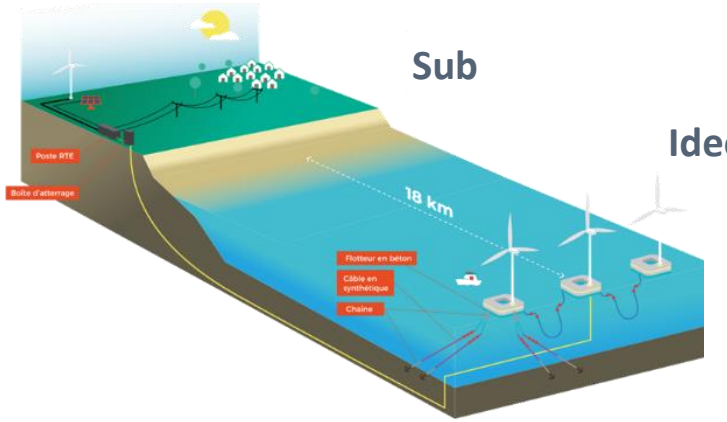
EolMed

First Awarded at the **ADEME Call for Projects** launched in 2015 for the installation of 3 floating WTGs with a total power of 30MW (MED).

Status : ***FID Q2 2021***

Technology : **WTG MVOW 10MW FF Steel Semi-Sub**

Ideol Damping Pool



Floatgen

First Floating wind turbine installed in France on the SEM-REV Site off Le Croisic.

Qair took care of first 2y O&M of the WTG **VESTAS-2MW**

2 MW

MSI

October 2018

Status : **in operation** / *Technology :* **floating concrete Semi-Sub**

Thistle Wind Partners

Aspiravi International

Working together on the energy transition

Since 2002, projects developed in Belgium and abroad.

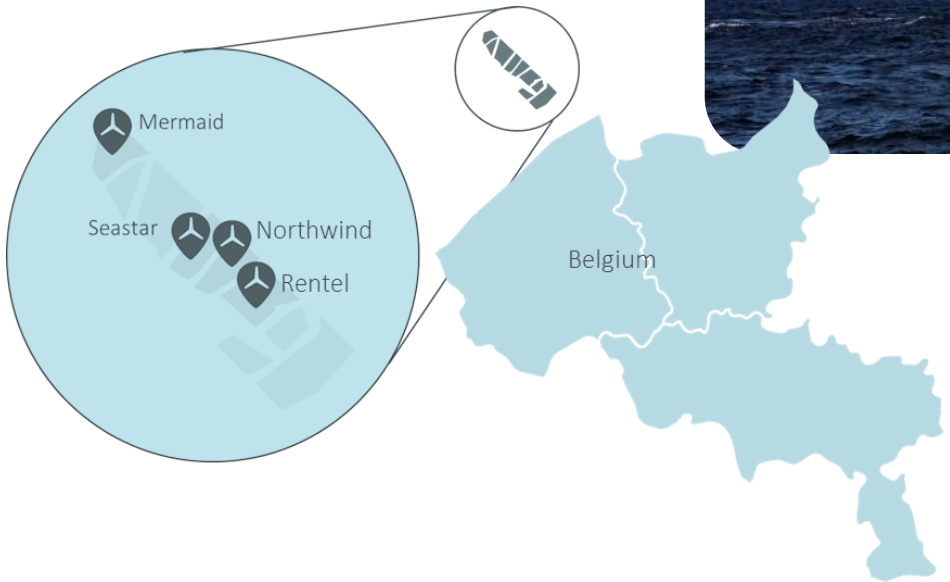
378 wind turbines

1,558 MW capacity

1,444,000 households

2,028,000-tonnes
reduction in CO_2 emissions/year

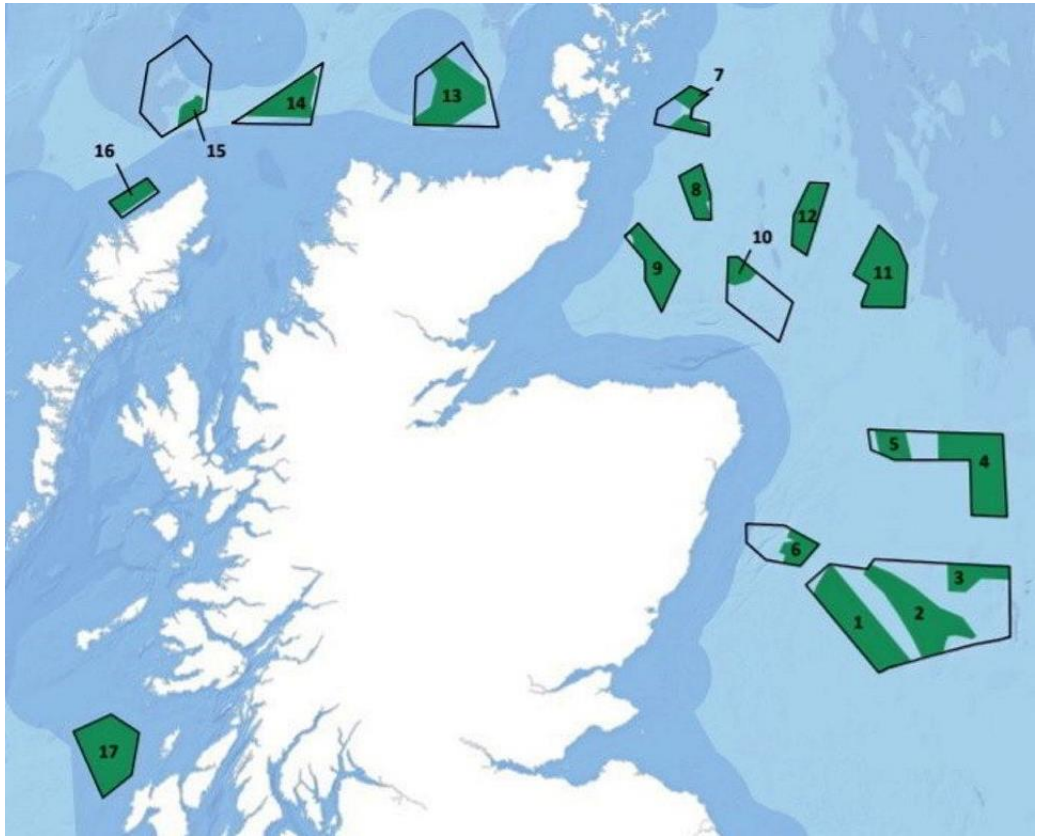
12,000 citizen-cooperants



Thistle Wind Partners

Our Development sites

E3 & NE2



E3 – Cluaran Deas Ear

- 1 GW Fixed Foundation
- Single phase
- 187 km2

NE2 – Cluaran Ear Thuath

- 1 GW Floating Foundation
- 2 phases
- 200 km2

Fast-track route to construction before 2030.

Extensive assessments of the environmental and technical nature of the ScotWind sites, technology optioneering, and grid capacity development were undertaken to ensure optimal project concepts and effective mitigation plans for derisked development.

H_2

Drawing upon the experience of DEME and Qair in the rapidly advancing Green Hydrogen landscape (e.g., HYPORT® Duqm, Oman and Hyd'Occ in Port-la Nouvelle, France), the role of Green Hydrogen will be explored to contribute to Scotland's ambitious net zero targets by 2045.

Stakeholder engagement and development of local supply chain will be key focuses.

Thistle Wind Partners

Cluaran Deas Ear (E3)

Project Concept

Cluaran Deas Ear (E3)

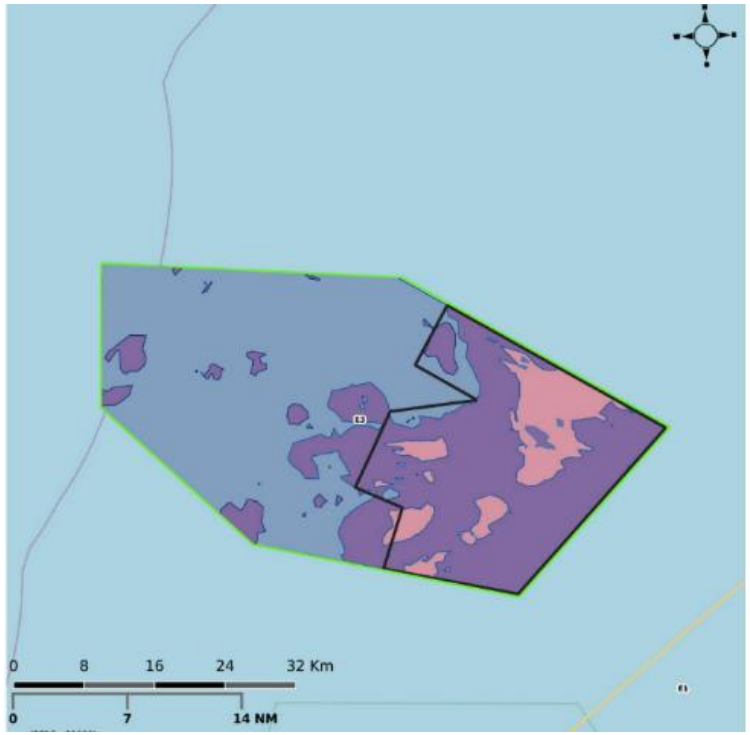
North Sea, Scotland (UK)

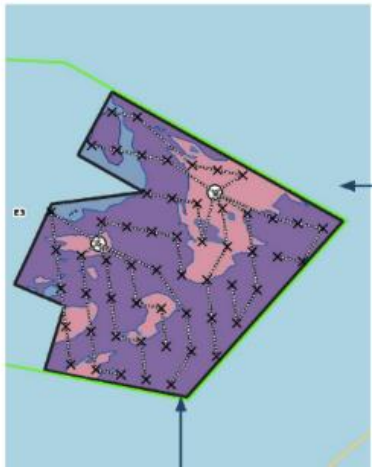
Project type: Offshore wind farm (under development)

Contract: 15-year CfD envisaged

Area: 187 km2

Capacity: 1.008 MW





Project Description

Cluaran Deas Ear (E3) is an Option Area under development in the North Sea. The concession site is located in a 187 km² area approximately 47 km from shore in the East of Scotland (UK).

Thistle Wind Partners

Cluaran Deas Ear (E3)

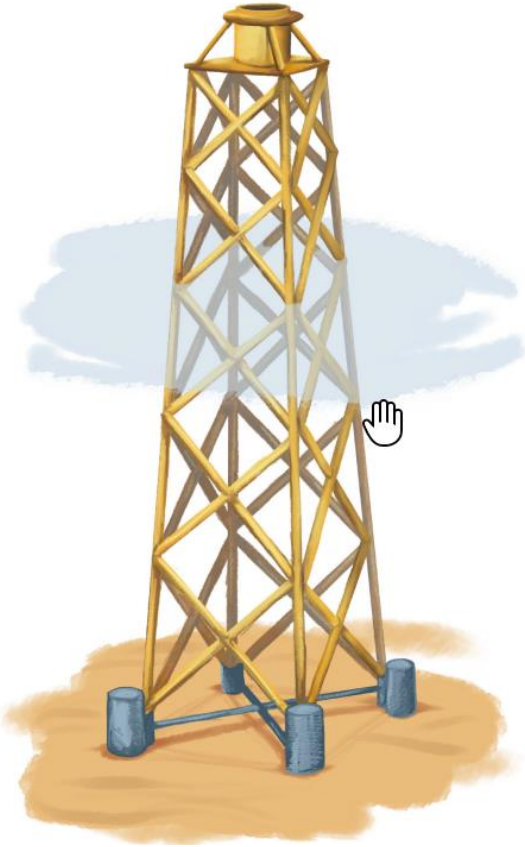
Technical Aspects

► Site

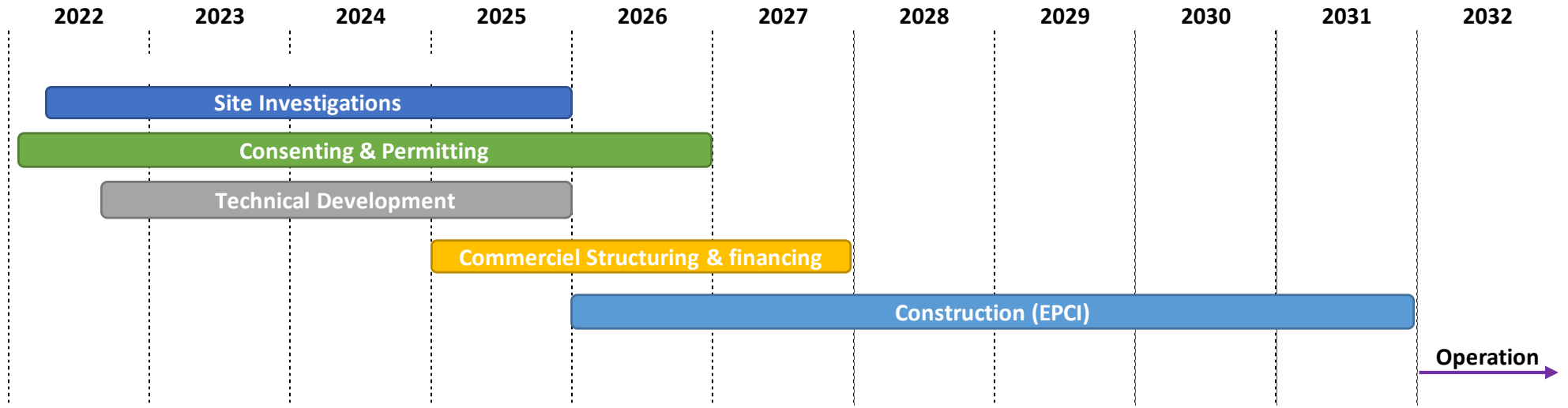
- Water depths up to 70m
- Area: 187 km^2
- ~ 24 nm from Aberdeen

► Technical

- Turbine: Next Generation
- Foundations: Fixed foundations – Jacket
- OSS's: 2 No. AC
- EXC length: ~ 200 km depending on grid connection.
- IAC length: ~ 140 km



► Project Timeline



Thistle Wind Partners

Cluaran Ear-Thuath (NE2)

Project Concept

Cluaran Ear-Thuath (NE2)

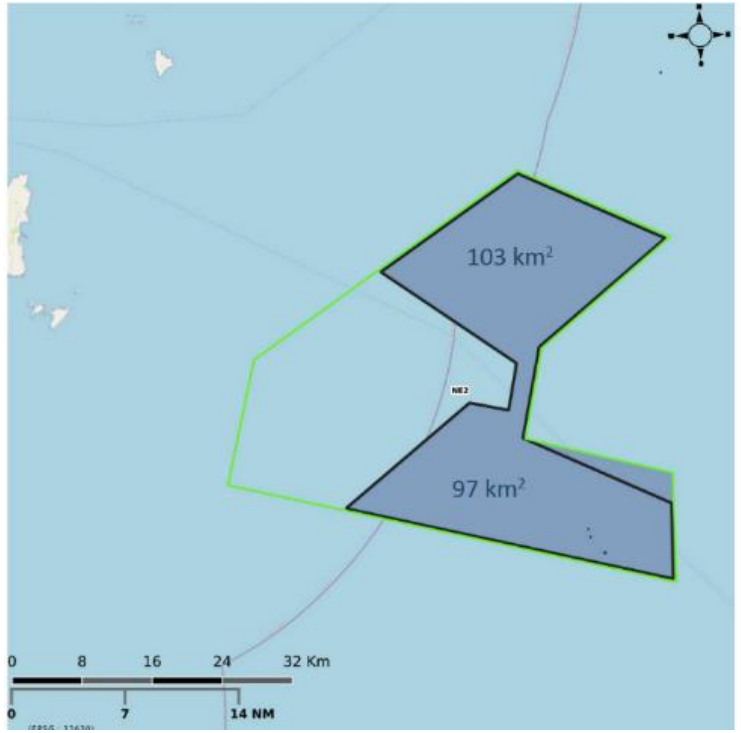
North Sea, Scotland (UK)

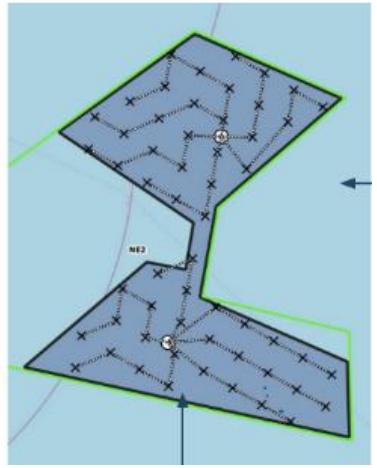
Project type: Offshore wind farm (under development)

Contract: 15-year CfD envisaged

Area: 200 km2

Capacity: 1.008 MW





Project Description

Cluaran Ear-Thuath (NE2) is an Option Area under development in the North Sea. The concession site is located in a 200 km² area approximately 33 km from shore in the North East of Scotland (UK).

Thistle Wind Partners

Cluaran Ear-Thuath (NE2)

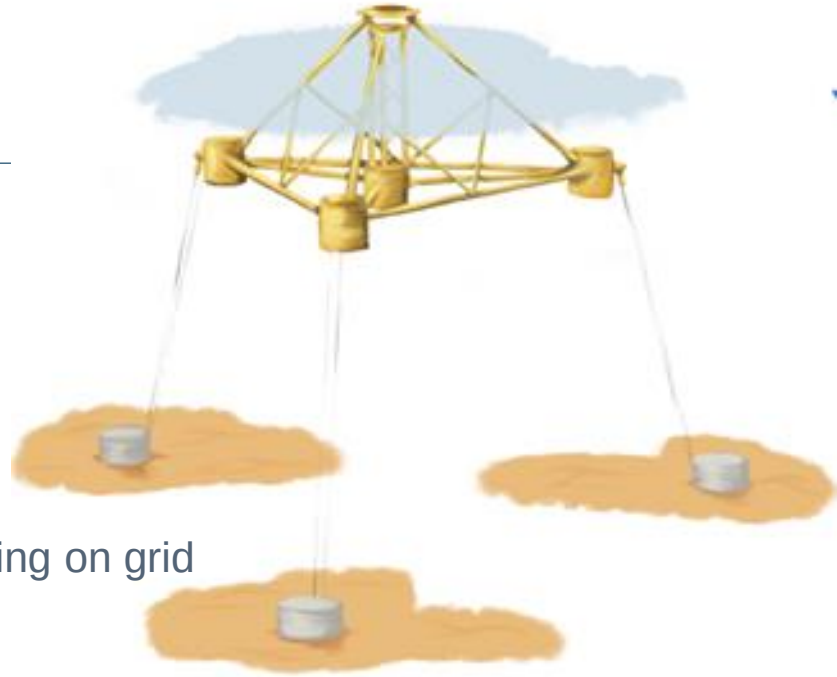
Technical Aspects

► Site

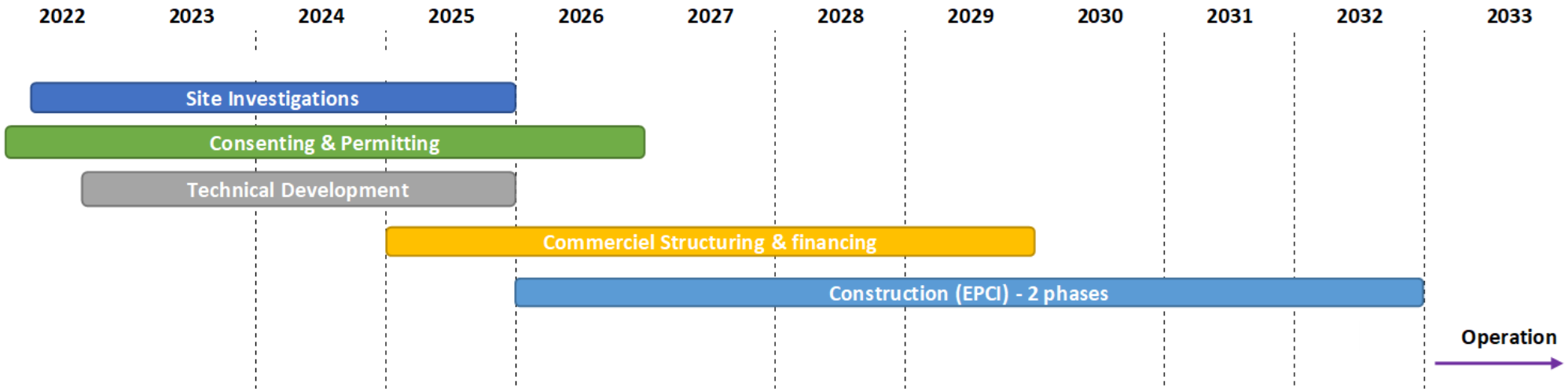
- › Water depths up to 100m
- › Area: 200 km^2
- › ~ 28 nm from Kirkwall

► Technical

- › Turbine: Next Generation
- › Foundations: Floating
- › OSS's: 2 No. AC
- › EXC length: ~ 300 km depending on grid connection.
- › IAC length: ~ 140 km



► Project Timeline



Thistle Wind Partners

Supply Chain Engagement

Ongoing Activities

- **Supply chain engagement**
  - DEME Offshore (appointed Tier 1 contractor) has started preparing supply chain engagement strategy.
  - TWP has, from a developer level, begun engaging with the local supply chain to understand experience, capabilities, aspirations, and what is important to them and the local community:
    - Orkneys supply chain engagement (18-22/04/22). TWP met with the Orkney Harbour Authorities (OHA) and fifteen local companies to introduce NE2 and explore on synergies. A follow up meeting with OHA and will further engage with these companies and other local suppliers as it develops its plans for the project (see backup)
    - TWP actively participates in the SIA Collaborative Framework meetings and is now a member of the SteerCo, with particular focus on port development.
    - TWP has recently joined the Advisory Panel for the Fit 4 Offshore program. TWP will be paired with other F4OR granted businesses ('suppliers') for 1-2-1 discussions (September 2022).
    - TWP has also engaged with the Cromarty Firth Ports Cluster.

Supply Chain Engagement

Wider Scotland Engagement Campaign

- **Supply chain engagement**
  - Thistle Wind Partners are hosting a Supply Chain Event on the 10th & 11th October at the Maryculter House Hotel in Aberdeen to present our two offshore wind projects to the local supply chain.
    - The event will be supported by The Highlands and Islands Enterprise and Scottish Enterprise to ensure the local supply chain, existing and new entrants to offshore wind have an opportunity to engage early with Thistle Wind Partners.
    - The agenda will consist of a morning presentation on the Thistle Wind projects and then one-to-one sessions in the afternoon with supply chain companies interested in have more detailed discussions.
    - Invites will be getting issued early September, if you want to know more, please email n.johnston@thistlewindpartners.scot
    - **We look forward to seeing you at our Supply Chain Event in October 2022!**

Thistle Wind Partners

Thistle Wind Partners

Q&A Session

Thank you for your participation in today's webinar

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