

STROMAR

Welcome to the Stromar public information event

Thank you for attending today's public information event where we are pleased to share our plans for the Stromar Floating Offshore Wind Farm.

To secure our own energy needs and to reduce the impacts of climate change, it is important that we can generate energy in greener and more sustainable ways. Scotland's excellent wind resources present an opportunity to be a world leader in floating offshore wind.

Stromar could:

- Be one of the world's largest floating offshore wind farms and when complete, make a significant contribution towards the Scottish and UK Governments' Net Zero targets
- Provide greater energy security and maximise economic opportunities - creating new jobs and boosting the local supply chain

“This information event is being held ahead of the statutory consultation process to ensure community stakeholders are informed of our proposals as early as possible and are given an opportunity to feed in their views which will be considered in the design and development of the project.”



Nicholas Ritchie
Stromar Project Director

Please use this opportunity to meet the team, learn more about the project and ask any questions you may have. We welcome any feedback you may have on our proposals.

We look forward to speaking with you today.

stromarwind.co.uk

STROMAR

Meet the team

Stromar is a joint venture combining three companies at the forefront of floating offshore wind globally: Ørsted, BlueFloat Energy, and Renantis.



Ørsted

Ørsted has an unparalleled track record in offshore wind, having developed and built more offshore wind projects globally than any other company in the world. Ørsted has strong environmental and consenting, engineering, procurement, construction, and installation experience. Ørsted also has rich experience in working with local communities to realise the benefits that these world-leading projects can bring. Ørsted has 12 operational offshore wind farms in the UK with a combined capacity of 5.6GW, powering over 6 million UK homes a year.

BlueFloat ENERGY

BlueFloat Energy brings its team's knowledge and experience in developing, financing and building floating wind projects around the world, including Scotland. BlueFloat Energy is supported by 547 Energy, the Quantum Energy Partners' platform dedicated to clean energy investments.

Renantis

Renantis is known for its pioneering approach and experience with community ownership and engagement, particularly in Scotland. Renantis has been delivering renewable energy since 2002 and has a global portfolio of 1,420 MW in operation. Sustainability is part of Renantis' DNA, creating shared value for all stakeholders, safeguarding and enhancing the environment in which they operate and building relationships with communities.

The Stromar project team has constituent members from all three companies to leverage the strength of capabilities in the joint venture.

stromarwind.co.uk

STROMAR

Project overview

Stromar is a proposed floating offshore wind farm development in the outer Moray Firth, off the coast of Caithness (around 50km east of Wick) with plans for the green energy generated to be exported via an underground cable link coming onshore between Fraserburgh and Rosehearty, before connecting to the National Grid near New Deer.

The wind farm will consist of up to 71 turbines in water depths of 60-100m, in a seabed area of around 265km².

Generating up to 1 gigawatt (GW) of green electricity is enough to power the equivalent needs of close to one million homes each year¹. This makes it one of the world's largest floating offshore wind farm developments.

Stromar underpins Scotland's potential to become a global leader in the rapidly emerging floating wind industry, allowing us to place turbines in much deeper waters with stronger and more consistent winds.

¹The equivalent number of homes is calculated by: Wind farm installed capacity (in MW) multiplied by the number of hours in one year (8,760) multiplied by the average load factor for offshore wind (being the average load factor for offshore wind over the last three years of data published within the Digest of United Kingdom Energy Statistics, BEIS, 2022), divided by the average annual household energy consumption (being the average annual household energy consumption over the last three years of data published within Energy Consumption in the UK 2022, BEIS, 2022).



STROMAR

stromarwind.co.uk

STROMAR

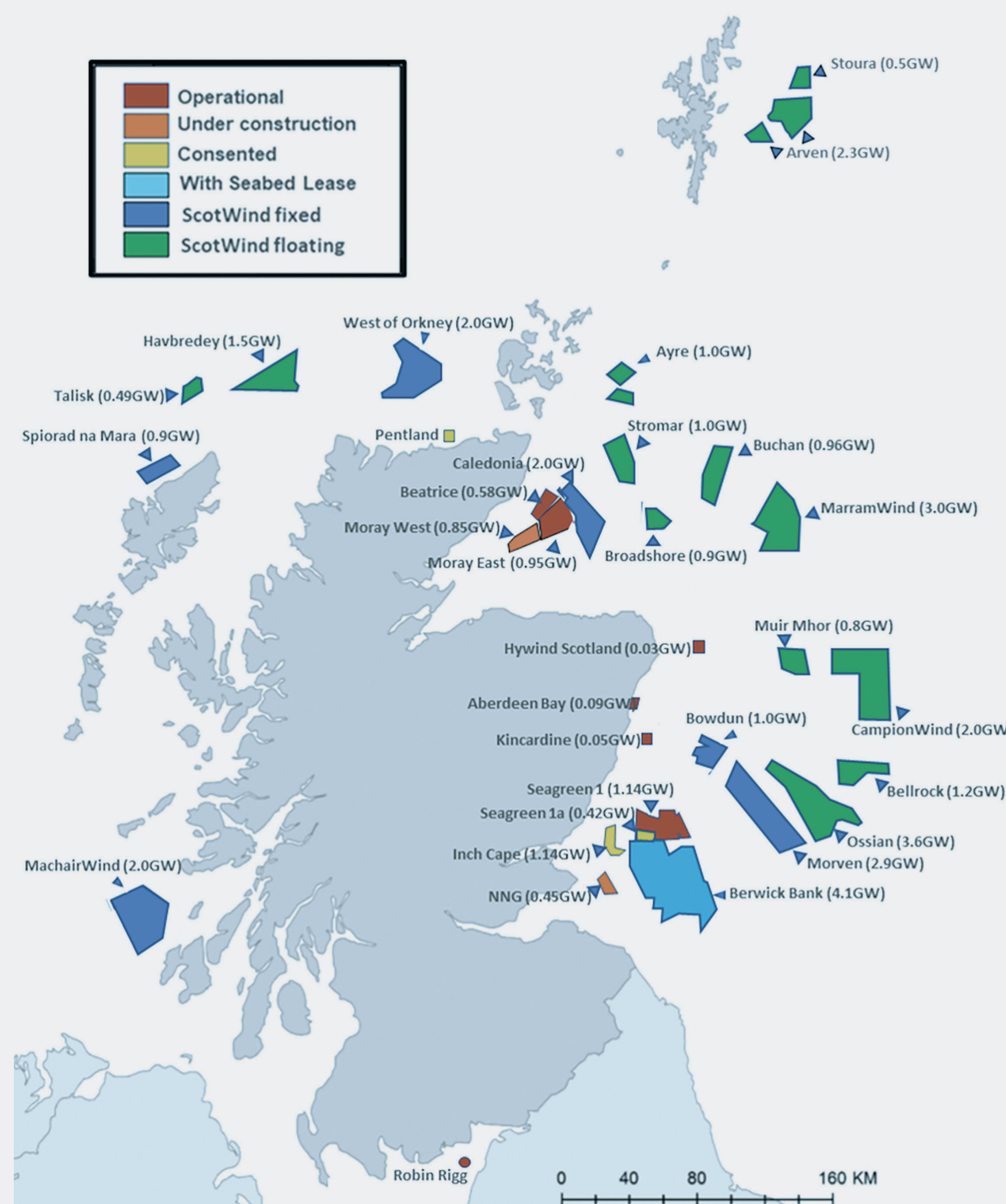
Stromar and ScotWind

In April 2022, the project partners Ørsted, Bluefloat Energy and Falck Renewables (now Renantis) signed an Option Agreement with Crown Estate Scotland after being awarded the right to develop Stromar as part of the ScotWind offshore wind leasing round.

ScotWind is the leasing process which enables developers to apply for seabed rights to plan and build wind farms in Scottish waters. There are 20 ScotWind projects with as much as 28.6GW of new offshore wind generating capacity to be developed over the next decade. Stromar is one of these projects, aiming to provide 1GW.

Almost 70% (19.27GW) will be powered by floating offshore wind farms with the remainder being in shallower waters with turbines fixed to the seabed.

ScotWind, which is used as a term for the projects that developers are progressing, kick-started the first offshore wind leasing round in Scottish waters for over a decade. It was also the first ever since the management of offshore wind rights were devolved to Scotland.



ScotWind Round

SITE	DEVELOPERS	CAPACITY
Bowdun	Thistle Wind Partners	1,008MW
Caledonia	Ocean Winds	2,000MW
MachairWind	ScottishPower Renewables	2,000MW
Morven	BP and EnBW	2,907MW
Spiorad na Mara	Northland Power	900MW
West of Orkney	RIDG, Corio Generation and TotalEnergies	2,000MW
Arven	Mainstream RP and Ocean Winds	2,300MW
Ayre	Thistle Wind Partners	1,008MW
Bellrock	BlueFloat Energy, Renantis Partnership	1,200MW
Broadshore	BlueFloat Energy, Renantis Partnership	900MW
Buchan	Floating Energy Alliance	960MW
CampionWind	ScottishPower Renewables and Shell	2,000MW
Havbredey	Northland Power	1,500MW
Murrumbidgee	ScottishPower Renewables and Shell	3,000MW
Muir Mhor	Vattenfall and Fred Olsen Renewables	798MW
Ossian	SSE Renewables, CIP and Marubeni	3,610MW
Stoura	ESB Asset Management	500MW
Stromar	Ørsted and BlueFloat Energy, Renantis Partnership	1,000MW
Talisk	Magnora Offshore Wind	495MW

Image courtesy of DeepWind/
Highlands and Islands Enterprise

Total = 30,086MW
Floating Wind = 19,271MW (64%)

stromarwind.co.uk

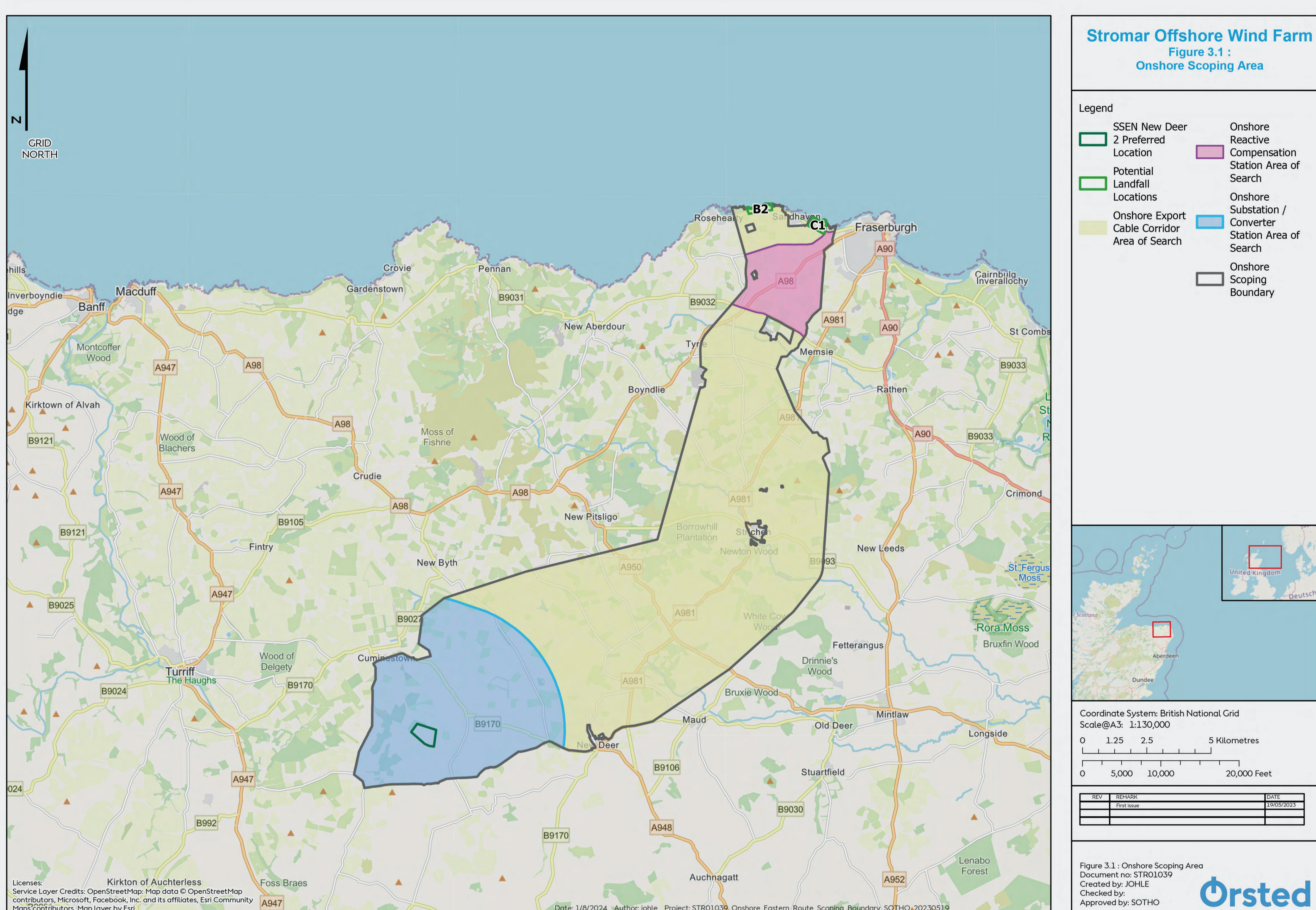
STROMAR

Onshore infrastructure

Onshore, the Stromar project will require underground cables to connect the offshore cables at the landfall (between Fraserburgh and Rosehearty) before connecting to the National Grid near New Deer.

A comprehensive site selection exercise has been undertaken for Stromar to identify the most appropriate sites for the proposed onshore infrastructure. This process has considered environmental, commercial, social, economic, and technical factors.

The project team has also worked with Aberdeenshire Council and NatureScot to identify and further refine areas of search for each of the components of the proposed onshore plans.



The proposals are at a very early stage. The planning process is ongoing and further refinements to the areas of search for the proposed onshore development will take place once more detailed information, such as onshore surveys and further consultation with stakeholders, is undertaken.

A series of public consultation events will be held throughout 2024 to ensure the communities are fully informed and that their views are considered in the site design and development of the project.

In addition, the project team is exploring the opportunity to install energy storage technology which will manage the peaks and troughs in supply and demand as well as other services. We believe that energy storage will play a vital role in maximising sustainable green energy production and provide the much-needed operational flexibility required to deliver greener and more affordable electricity for consumers.

stromarwind.co.uk

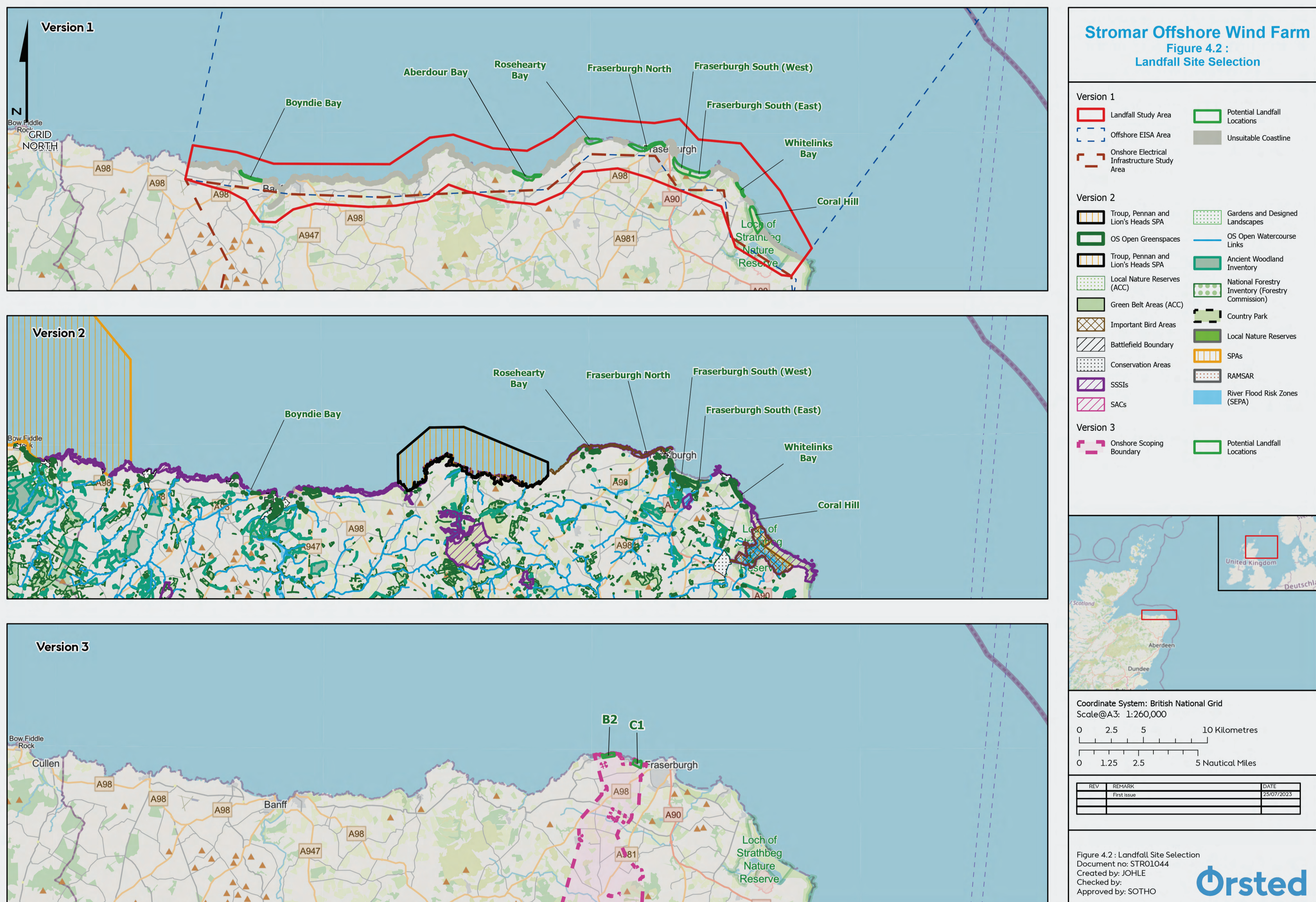
STROMAR

Onshore Cable Corridor & Landfall

With the project at an early stage, the proposed plans are high level and indicative. The project has adopted a 'design envelope' approach to include sufficient flexibility to accommodate further refinement during the detailed design process.

An onshore scoping area has been identified at this stage, which is a wider area within which the proposed onshore development will be located. Areas of search within the onshore scoping area have also been identified for exploring potential locations where the offshore cables would make landfall. Once installed, the cables will be covered over and the ground reinstated to the previous state.

The map below highlights the sequential landfall refinement process. The considerations below were also used to help identify potential locations.



Key considerations include:

- Grid connection at New Deer 2 Substation
- A minimum landfall width requirement of 500m
- Identifying the shortest route possible to minimise overall project footprint
- Avoiding key sensitive features where possible (for example, environmental designated sites)
- Minimising disruption to populated areas
- Coastal geomorphology enabling construction using the chosen technology (e.g. cliff height and slope)
- Providing sufficient space for construction of the proposed onshore development

stromarwind.co.uk

STROMAR

Offshore

The name 'Stromar' comes from a combination of the Scottish island of Stroma - which lies around 27 km north of Wick near to where the floating wind farm will be located - and the Scots Gaelic word 'mar' which means sea.

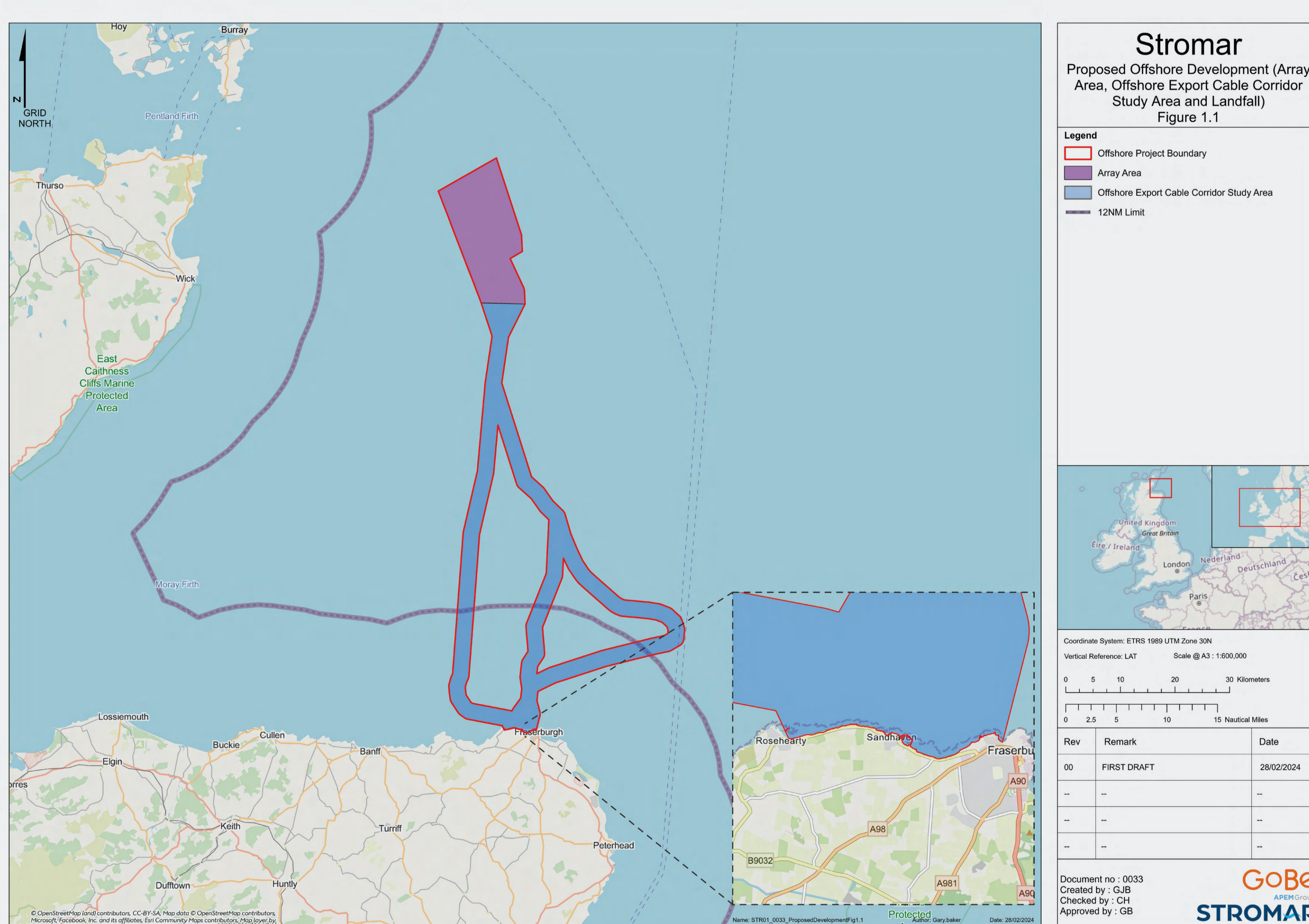
Through the 'ScotWind' leasing round, the project partners were granted exclusive rights to develop Stromar in an area in the outer Moray Firth, off the coast of Caithness (around 50km east of Wick). The agreement terms are dependent upon the project being awarded all key consents and permissions from the relevant regulatory authorities to construct and operate the windfarm.

The area is approximately 265 km² in size with key components of Stromar comprising:

- A maximum of 71 wind turbines including associated infrastructure, floating foundations, and seabed anchorages
- An offshore substation, its substructure and foundations
- An offshore reactive compensation station, its substructure and foundations
- Scour protection for the turbine and substation foundations which prevents any potential issues with structural stability and may also be required to protect the inter-array and export cable
- Inter-array cables which connect the turbines to each other on strings terminating at the offshore substation
- Offshore export cables which connect the offshore substation with the onshore infrastructure at landfall underground
- Cable protection and joint pits on unburied or shallow buried sections of cables and at cable crossings where required

Water depths in the project area vary from 60m to 100m and this is why a floating wind turbine design is recommended. This offers the preferred solution, due to the significant water depth, as well as presenting an opportunity to use the latest technology.

Stromar will generate power continuously in one of the toughest environments in the world. It will be built to be as resilient as its namesake, a rugged island facing the elements.



265km²
Area of seabed



60-100m
Water depth



50k
East of Caithness

stromarwind.co.uk

STROMAR

Floating wind farms

Successfully building floating offshore wind farms at scale will tap into as much as 80% of the world's offshore wind resource. As one of the global leaders in the deployment of floating wind, Scotland is home to two of the world's largest operational floating wind farms with a third under development set to supersede these as the world's largest project.

The Hywind project off the coast of Peterhead marked a world first floating offshore wind farm. It started generating electricity in 2017 and represented a major step forward for global offshore wind farm development.

Unlike more traditional 'bottom-fixed' offshore wind technology, where the turbine is mounted on top of a structure fixed to the seabed, floating wind projects use a floating foundation connected to the seabed by a mooring arrangement, enabling projects to be sited in deeper waters further away from the coast.

A Floating Offshore Wind Farm from construction to operation

1 The foundation is constructed and assembled at the port site on land

2 The foundation is launched into the water quayside on a barge

3 The tower, nacelle and blades are installed by a crane placed on land

4 The structure (foundation and turbine) is towed by tugboat to the site offshore

5 The structure is hooked up to array cables and mooring lines

6 The turbine is in operation



stromarwind.co.uk

STROMAR

Project progress

The Stromar project has made considerable progress since being granted the right to develop Stromar in early 2022.

During 2023, initial surveys and measurements were carried out to support completion of the project's Scoping Report, which sets out how the partners plan to assess and manage environmental impacts.

The project also started a programme of supply chain engagement which will be ongoing throughout the development of the project.

In January 2024, the Scoping Reports for both the Environmental Impact Assessment (EIA) and the Habitats Regulations Appraisal screening report were submitted to the Marine Directorate and Aberdeenshire Council for the offshore and onshore aspects of the project.

The reports can be viewed on our dedicated Stromar website via this link: www.stromarwind.co.uk/library

Further environmental surveys and assessments will be undertaken in 2024 with several ecology and ornithology surveys having already taken place.

The outputs from this work will inform the layout and design of the proposed development, enabling a robust assessment of the environmental effects including identifying any additional secondary commitments that are proposed to prevent, reduce or offset any likely significant adverse effects on the environment.

An indicative timeline for the Stromar project is outlined below.

*Project milestone dates are subject to the output from National Grid Holistic Network Design Follow-up Exercise (HNDFUE), and other key stakeholder timelines outwith the span of the Stromar project.

2022

Awarded seabed rights to develop Stromar project.

2023

Initial surveys and measurements carried out with completion of Scoping Report, which sets out in more detail how Stromar plans to assess and manage environmental impacts.

2024

A series of non-statutory and statutory public consultation events will be held.

2025

Project partners submit planning application.

2026

Planning consent expected.

Late 2020s

Construction of Stromar could commence.

Early 2030s

Stromar generates first power.

stromarwind.co.uk

STROMAR

Supply chain & skills

Scotland has the potential to develop a globally competitive floating offshore wind supply chain which could see Scottish companies delivering projects right across the globe, much in the same way as the oil and gas supply chain has for decades.



Through consistent engagement, we aim to develop domestic supply chain partners, helping Scotland become a global hub for innovation, technology, manufacturing, and energy expertise. We are committed to working with suppliers across the project scope to enable the delivery of Stromar.

We are already working closely with local companies and organisations such as Prosper (formerly the Scottish Council for Development and Industry), Highlands and Islands Enterprise and Scottish Enterprise to identify opportunities to build a sustainable supply chain.

Stromar's developers - Ørsted, BlueFloat Energy and Renantis - have also signed the Scottish Offshore Wind Energy Council's Collaborative Framework Charter, which brings together 24 signatories to jointly develop Scottish ports and other businesses. The Collaborative Framework will improve understanding of the future level of investment required and build a pipeline of supply chain opportunities in Scotland.

Other activities include:

- Collaborating with the Scottish Association for Marine Science (SAMS) on a range of research studies to further our understanding on a wide range of environmental factors.
- Joint sponsors of The PowerHouse which is a global centre of excellence backed by Opportunity Cromarty Firth and aimed at developing innovative applied research and development in the fields of floating offshore wind and green hydrogen. It also acts as a specialist educational hub to provide training on these technologies for school children, students and workers.
- We are actively engaged in the Strategic Investment Model (SIM) process which will look to develop skills and the local supply chain, and form collaboration between developers to bring forward these areas in Scotland.

stromarwind.co.uk

STROMAR

Community benefit

The Stromar team is committed to genuine community involvement and creating opportunities that benefit communities and local businesses in the North-east and across Scotland.

As part of this, we are working in partnership with community ownership experts, Energy4All, to identify options for how Scottish communities will benefit from Stromar. We welcome feedback on how this is being shaped.

Energy4All has a 15-year track record in establishing cooperatives at seven of Renantis' onshore wind farms in Scotland, and Ørsted have a successful history of working with local communities to ensure they benefit from renewable energy projects.

Over the last decade, Ørsted has invested more than £14billion in constructing its UK offshore wind farms. This is helping to transform coastal communities across the UK through investment in local facilities, the creation of high-skilled jobs and apprenticeships, and the development of competitive, export-orientated local supply chains.

We believe in sharing the benefits of the green energy transformation with the communities where we operate and look forward to building on our community engagement track record.

We aim to invest billions of pounds in the Scottish supply chain over the lifetime of the project. We will also work with local schools, colleges, and universities, to train and reskill the workforce for green energy jobs to ensure Scottish workers, both developing and existing talent, are the long-term beneficiaries of our supply chain investments.



The Stromar team is also involved with several community initiatives so far including:

- Supporting Aberdeen-based charity TechFest in its mission to provide Science, Technology, Engineering and Mathematics (STEM) learning opportunities to young people. Together, we are developing new hands-on workshops for primary and secondary pupils to introduce them to wind energy and demonstrate how STEM subjects are applied to careers in renewable energy.
- Attending Fraserburgh Academy Renewables Convention in March 2023. This was a schools-based outreach programme and saw our team being interviewed by pupils about the offshore wind industry and career opportunities.
- Working with the University of Strathclyde to deliver a lecture as part of its Environmental Management course.

stromarwind.co.uk

STROMAR

What happens next...

Thank you for attending our public information event. All the information provided today is also available to view again on our virtual exhibition which is available on our website - www.stromarwind.co.uk

We really value your feedback and would appreciate if you could complete a questionnaire about our plans.

You can complete the questionnaire form at the event today and either return to a member of the team, post in the designated postbox or return to us using our Freepost address. You can also complete a questionnaire online on our website via the QR code below.

We will consider all feedback and use it to help refine our plans for Stromar. Your feedback and information about how we have taken your comments into account will also be included in a consultation report which will form part of our planning application in due course. This report will be publicly available and details about this will be publicised once the report is published.

We will also be providing advance notice of our statutory consultation events which will be held later this year. You can keep updated on this and the project's progress via the contact details below.

How to get in touch with us

There are many ways you can keep in touch with the team at Stromar Offshore Wind Farm including signing up to the mailing list on the project website.

Website:

www.stromarwind.co.uk

Email:

info@stromarwind.co.uk

Post:

FREEPOST Stromar (no stamp required)

OR SCAN THE QR CODE



Thank You

stromarwind.co.uk