Pre-Application Consultation Event - May 2022

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PENTLAND FLOATING OFFSHORE WIND FARM

WELCOME

Welcome to the virtual public exhibition and consultation for the Pentland Floating Offshore Wind Farm. This is the second consultation event and is designed to keep local residents and other interested stakeholders informed and to encourage feedback as the Pentland Floating Offshore Wind Farm progresses towards submission of its application documents. We are committed to working with local communities and stakeholders to help shape the development of our proposal.

This consultation is being undertaken both virtually and in-person. This virtual exhibition is similar to what you would expect to find at a traditional public exhibition including information boards on the proposal, opportunities to ask the team questions and possibilities to provide feedback. In addition we will hold two drop-in events in Thurso and Reay at which the project team will be available to answer questions on the project.

This virtual exhibition includes images, maps, frequently asked questions and an introduction video to provide an overview of the project and current development activities.

IN PERSON DROP-IN EVENTS

On Wednesday 11 May 2022 a public consultation event will be held at the Reay Golf Course from 14.00 - 20.00.

On Thursday 12 May 2022 a public consultation event will be held at the North Coast Visitor Centre in Thurso from 11.00 - 17.00.

LIVE CHAT QUESTION & ANSWER SESSION

On Wednesday 18 May 2022 the project team will be available to answer any further questions you may have on a live chat function in the virtual public exhibition during the following times: 12:00 - 14:30 and 18:00 - 20:30.

You can provide feedback through the feedback form in this virtual exhibition until 20 May 2022.

Our website **www.pentlandfloatingwind.com** provides provides further information about the project. Should you have any further questions or feedback once the consultation period for this exhibition has closed, you can contact us at **pentland-stakeholder@cop.dk**.

If you would like to provide us feedback on the event, consultation closes on 20 May 2022. The virtual exhibition space will remain live throughout the planning process.

WHO WE ARE

Pentland Floating Offshore Wind Farm is being developed by Highland Wind Limited which is majority owned by a fund managed by Copenhagen Infrastructure Partners (CIP) with Hexicon AB as a minority shareholder. Project development activities are being led by CIP's development partner, Copenhagen Offshore Partners (COP). The project development team is based in COP's Global Floating Wind Competence Centre, recently established in Edinburgh.

CIP Copenhagen Infrastructure Partners

Copenhagen Infrastructure Partners P/S (CIP) is a fund management company focused on energy infrastructure including offshore wind, onshore wind, solar photovoltaic (PV), biomass and energy-from-waste, transmission and distribution, reserve capacity and storage, and other energy assets like Power-to-X.

CIP has offices in Copenhagen, Hamburg, New York, Tokyo, Utrecht, Melbourne and London. CIP was founded in 2012 by senior executives from the energy industry in cooperation with PensionDanmark. CIP manages eight funds and has approximately €16 billion under management.

www.cipartners.dk

COP COPENHAGEN OFFSHORE PARTNERS

Copenhagen Offshore Partners (COP) is a leading and experienced provider of project development, construction management, and operational management services to offshore wind projects.

The company is headquartered in Denmark and has offices in Taiwan, USA, Australia, Japan, South Korea, UK & Vietnam. COP's team of specialists has a broad range of competencies within project management, early and late-stage project development, engineering, construction, procurement, operational management as well as business development and project financing.

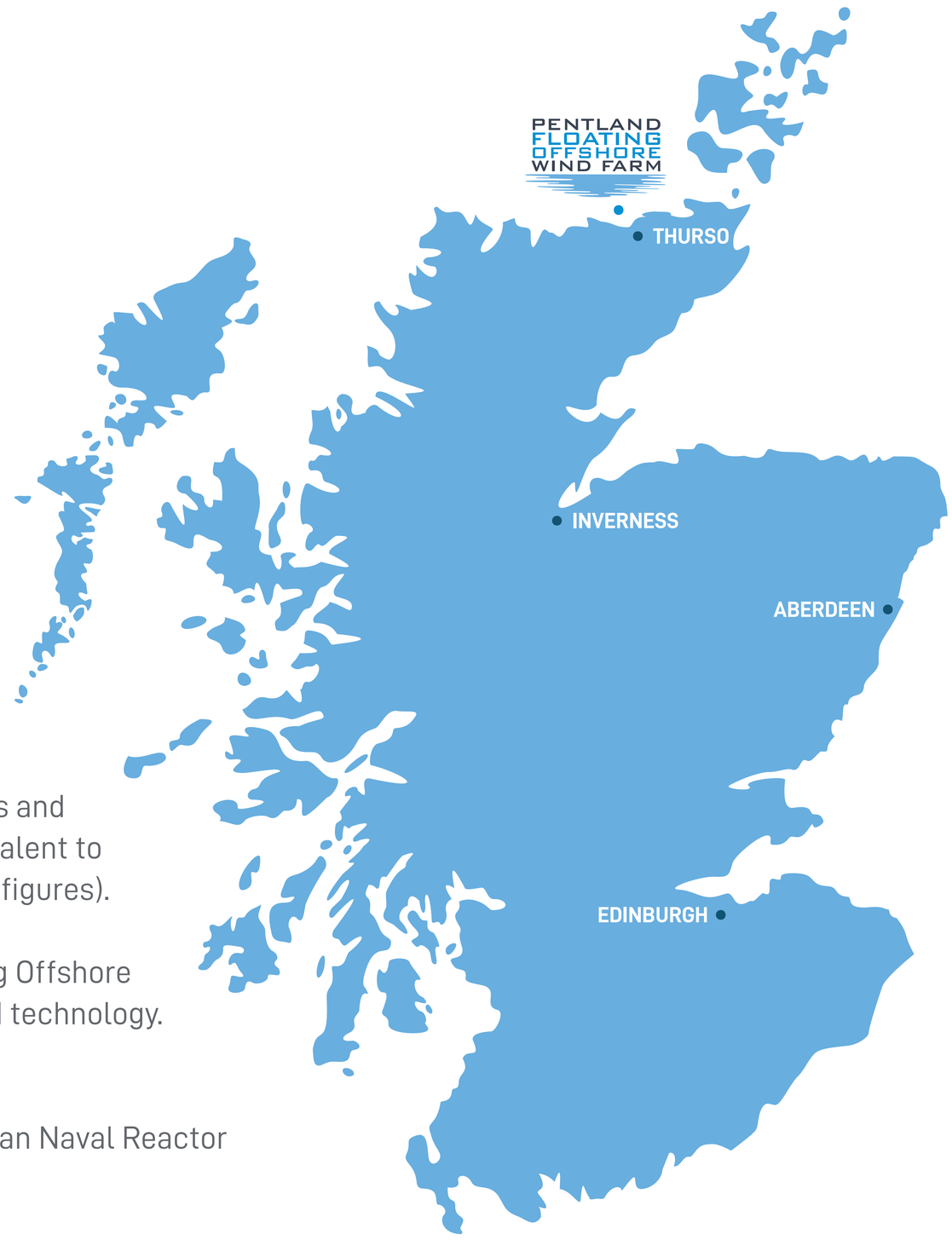
www.cop.dk

hexicon

Hexicon AB is a leading floating offshore wind technology and project developer. It was founded in 2009 and is headquartered in Stockholm, Sweden.

www.hexicon.eu

THE PENTLAND FLOATING OFFSHORE WIND FARM



Pentland Floating Offshore Wind Farm will be located off the coast of Dounreay, Caithness.

The Pentland Floating Offshore Wind Farm will comprise up to ten turbines and will provide enough energy to power to approximately 70,000 homes, equivalent to approximately 65% of homes in the Highland Council Area (based on 2020 figures).

A single turbine will be deployed as the first stage of the Pentland Floating Offshore Wind Farm in 2025 to allow time to test and demonstrate the floating wind technology. The remaining turbines (up to nine) will be deployed during 2026.

The onshore substation for the project will be located adjacent to the Vulcan Naval Reactor Test Establishment (NRTE) and the former Dounreay Nuclear Facility.

Environmental Impact Assessments for the Pentland Floating Offshore Wind Farm are currently being prepared and will be submitted to Marine Scotland and the Highland Council in 2022.

DEVELOPMENT

A staged approach to the deployment of the floating technology underpins the development of the Pentland Floating Offshore Wind Farm, as well as our future floating projects in Scotland and globally.

INNOVATION

The innovative technology trialled in this project will be key to the commercialisation of this floating technology. It will deliver valuable insight into developing floating wind technology in Scotland.

LEARNING

The learnings from this will help contribute to the development of a strong Scottish supply chain for floating wind.

PENTLAND FLOATING OFFSHORE WIND FARM

WHY FLOATING OFFSHORE WIND?

Currently the majority of offshore wind farms in Scotland are fixed directly to the seabed, there are only two floating wind farms in operation. Unlike traditional fixed bottom wind farms, floating wind farms use wind turbine generators mounted on a floating substructure which is connected to the seabed using mooring lines and anchors. Much of the seabed around Scotland is too deep to be well suited to fixed bottom turbines. Floating offshore wind provides a technological solution which enables the production of large amounts of renewable energy which underpins Scotland and the UK's energy transition and is key to achieving net zero.

Generic floating structure – for illustrative purposes only, not a representation of the final substructure or mooring and anchoring design

BENEFITS TO SCOTLAND

- Floating offshore wind offers the offshore wind industry key opportunities to create a new supply chain and job opportunities.
- Fixed bottom wind is now one of the most economically competitive forms of energy and it is expected that floating wind will follow suit.
- Scotland is a world leader in floating technology and is well positioned to capitalise on advances in the sector due to experience in oil and gas and maritime heritage.
- The significant global pipeline for floating offshore wind could create export opportunities for the local supply chain in Scotland.

INSTALLATION

One of the advantages with floating offshore wind is the capacity for the complete wind turbine and substructure assembly to be towed to site where it is hooked up to the pre-installed mooring system which allows it to be installed much quicker than fixed bottom turbines that require calmer seas and wind conditions during installation.

SUBSEA CABLES

A key design difference between a fixed bottom and floating turbine is the dynamic nature of the cables. The cable system must accommodate the movement of the floating substructure. This is typically achieved by adding a buoyancy element into the design.

FLOATING SUBSTRUCTURES

Currently there are over 40 floating wind turbine generators (WTGs) substructure concepts at differing stages of technical maturity in the industry. Each has varying dimensions to meet the unique engineering challenges associated with floating turbines, turbine sizes and project specific requirements.

MOORING & ANCHORS

The mooring and anchoring systems are responsible for maintaining the position of the floating wind turbine generators (WTGs) during the most extreme events or energetic storms. There are a number of different anchoring solutions available which can be deployed depending on the site conditions.

The final project design has not yet been determined and will depend on the seabed conditions, engineering studies and environmental impacts assessed. The Pentland Floating Offshore Wind Farm Project has adopted a project design envelope approach to retain flexibility to capitalise on innovations during the next stages of the project.

PENTLAND FLOATING OFFSHORE WIND FARM

PROJECT DESCRIPTION

OFFSHORE PROPOSAL

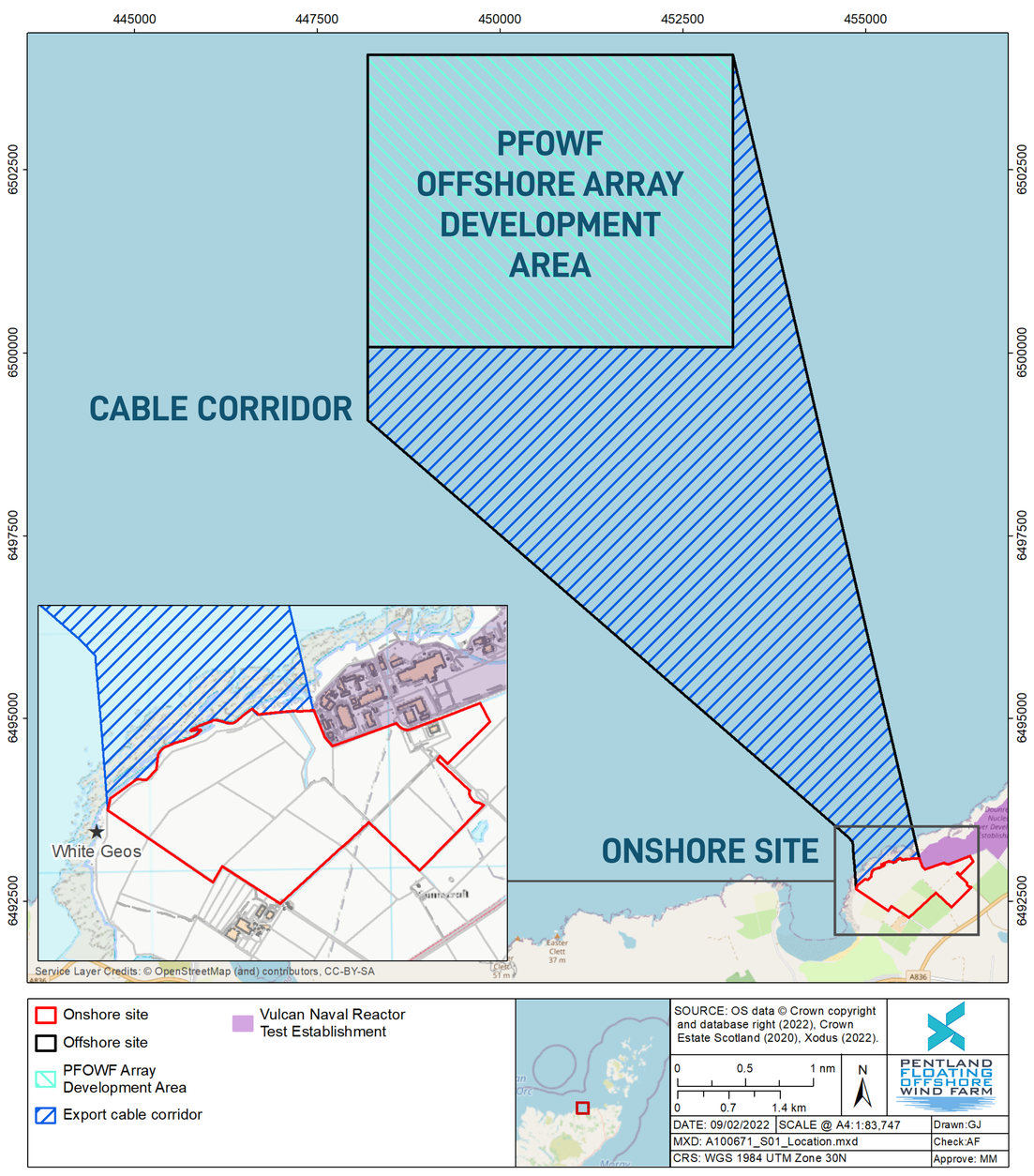
PROJECT DESIGN ENVELOPE

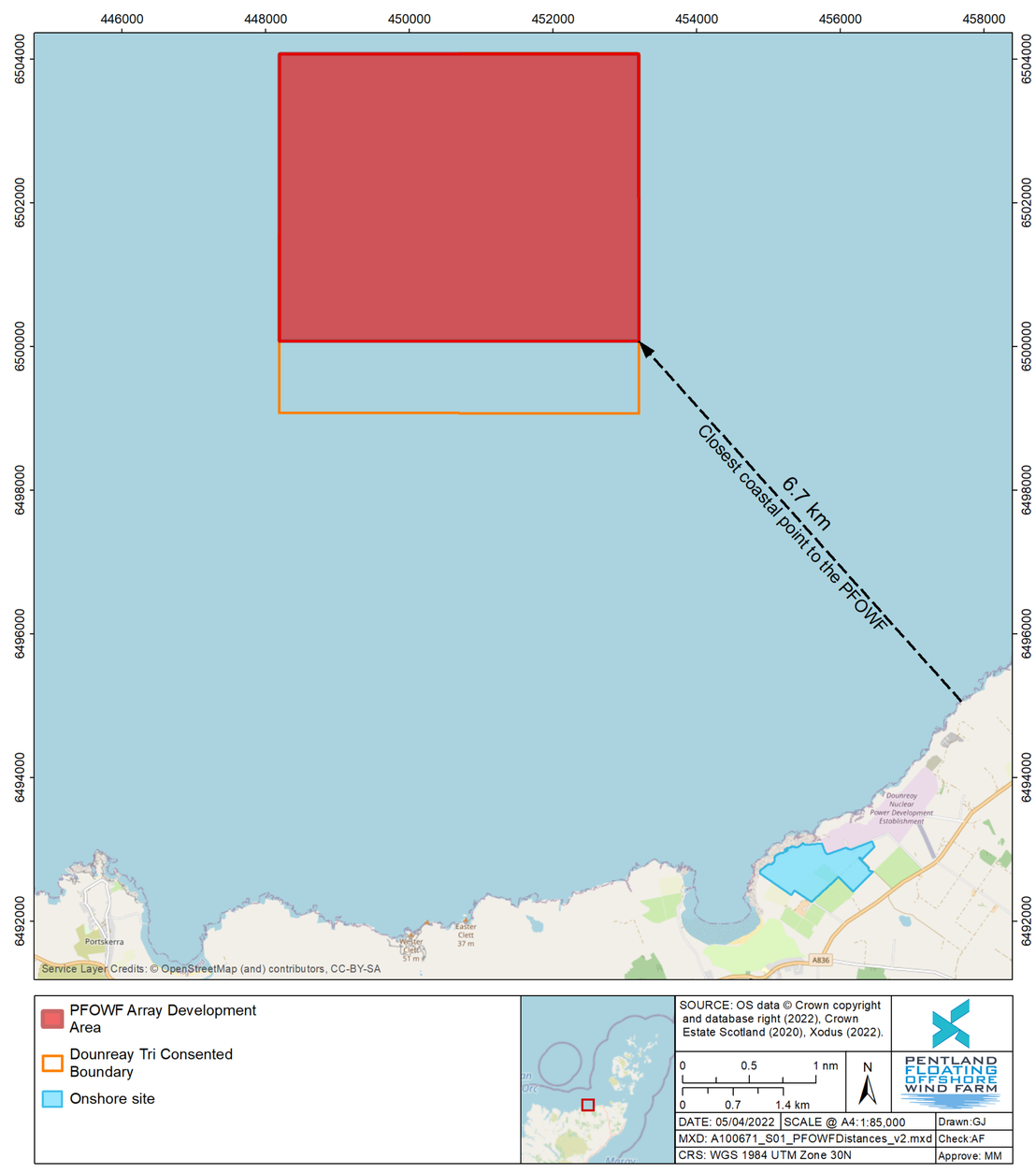
The Pentland Floating Offshore Wind Farm has adopted a design envelope approach to develop the project. This is a common approach with major infrastructure projects including offshore wind farms. The design envelope approach does not consent specific technology, but allows outline consent to be granted and enables projects impacts to be assessed on the basis of maximum parameters or worst case scenarios for specific receptors. This gives projects the flexibility to utilise new innovations in emerging floating wind technology and greater information on site conditions once this is available.

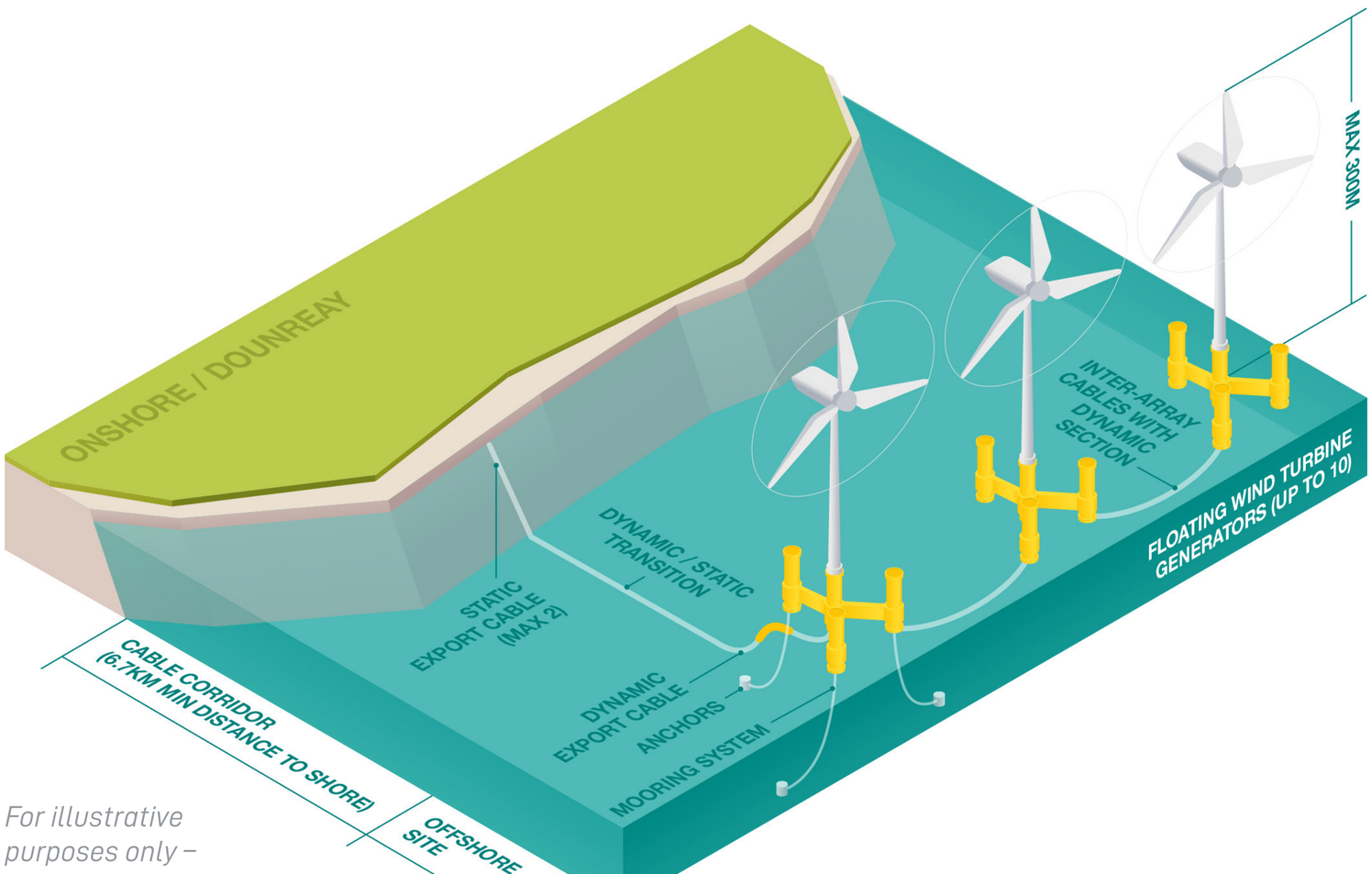
The Environmental Impact Assessment will consider the parameters that represent the worst impact for receptors caused by the development. As such, the project design envelope presented here shows the proposed maximum parameters for the project. The final project parameters may not reach these maximum limits and the final project design will be submitted for approval prior to construction.

The Pentland Floating Offshore Wind Farm offshore development area is 20 km^2 within the Pentland Firth, approximately 6.7 km north of the coast of Dounreay, Caithness. The offshore infrastructure works will comprise:

- Up to a maximum of ten floating wind turbine generators;
- Turbines will have a maximum tip height of 300 m;
- Floating substructures (one per turbine) to support the turbines;
- Mooring systems (anchors and mooring lines) to ensure the turbines stay within a given footprint;
- A network of inter-array cabling linking the individual wind turbines; and
- A maximum of two offshore export cables connecting the offshore wind farm to the onshore substation.







For illustrative purposes only – not to scale

As part of the Envionmental Impact Assessment (EIA) process, we undertook the following activities:

- Geophysical and geotechnical seabed surveys;
- Environmental surveys;
- Technical and engineering studies; and
- Discussions with stakeholders and the local community.

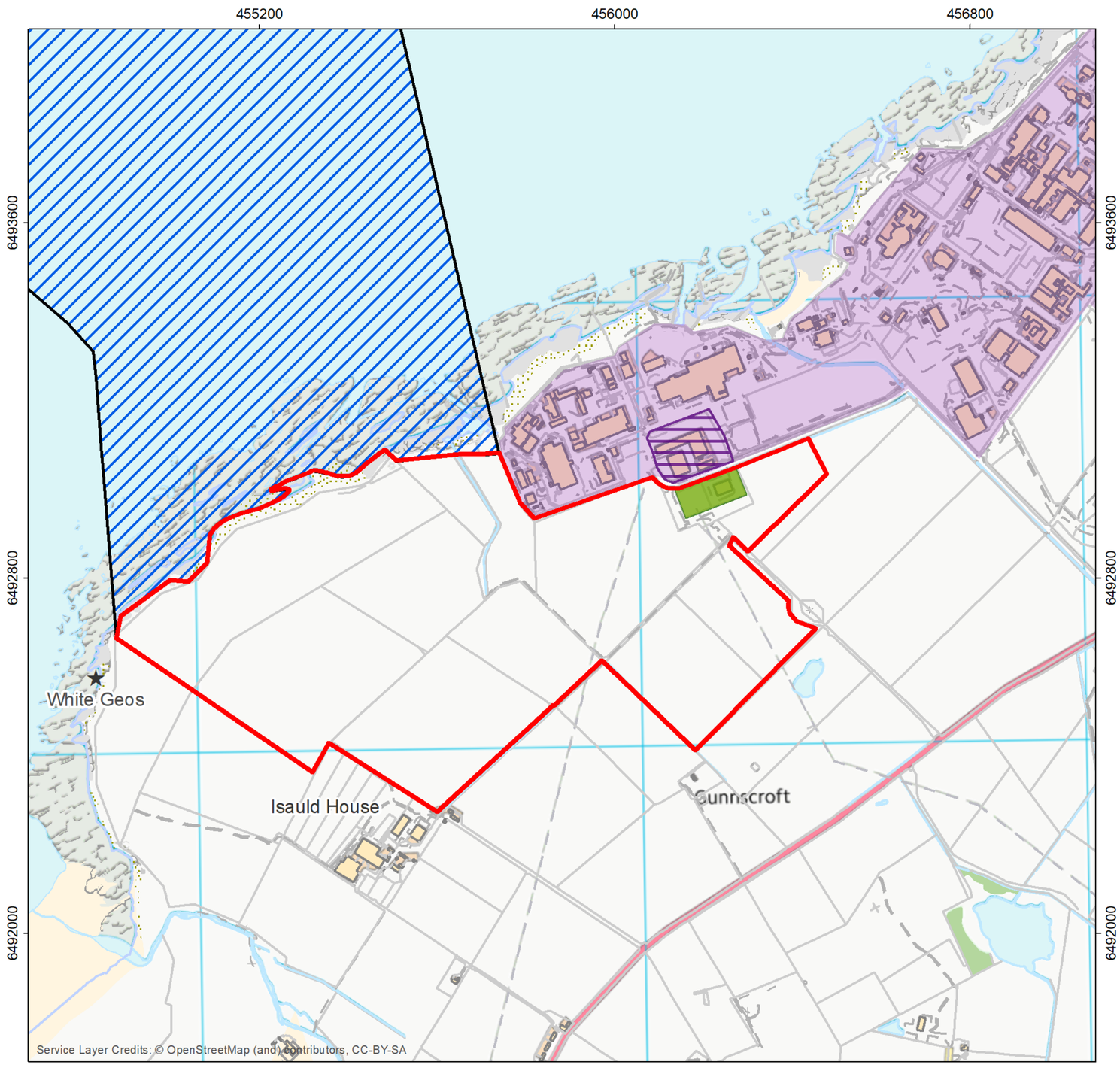
Through these activities we were able to gain an understanding of the conditions of the site which will ensure that the optimal design can be adopted for the project.

PENTLAND FLOATING OFFSHORE WIND FARM

PROJECT DESCRIPTION

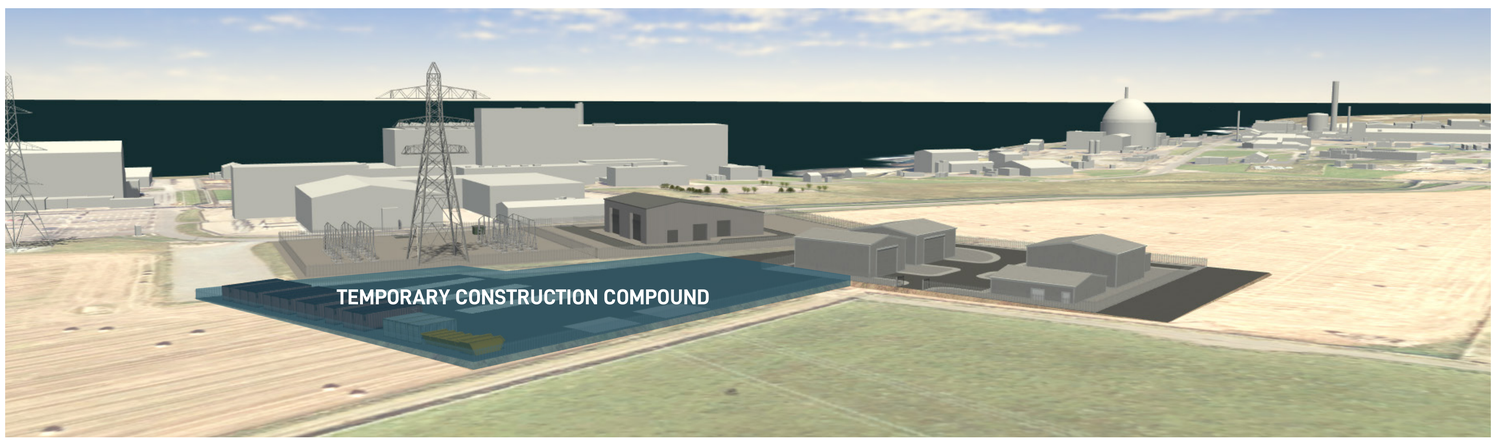
ONSHORE PROPOSAL

A landfall site has been identified at Dounreay, immediately adjacent to the Vulcan Naval Reactor Test Establishment (NRTE) and the former Dounreay Nuclear Facility.



Onshore site
Offshore site
Export cable corridor
Vulcan Naval Reactor Test Establishment
Dounreay Substation
Existing SSE Dounreay Substation
White Geos

SOURCE: OS data © Crown copyright and database right (2022), Crown Estate Scotland (2020), Xodus (2022).
0 0.085 0.17 nm
0 0.1 0.2 km
N
PENTLAND FLOATING OFFSHORE WIND FARM
DATE: 09/02/2022 | SCALE @ A4:1:15,000 | Drawn:GJ
MXD: A100671_S01_OnshoreSiteLocation.mxd | Check:AF
CRS: WGS 1984 UTM Zone 30N | Approve: MM



The onshore infrastructure will comprise:

- A cable landfall west of the Vulcan nuclear facility – the preferred option is for the cable to be brought to shore by Horizonal Directional Drilling (HDD) depending on HDD feasibility studies;
- An a maximum of two onshore cables buried to a depth of approximately 1 metre;
- A cable Transition Joint Bay (TJB) where offshore and onshore cables are spliced together;
- An onshore substation and switchgear; and
- A temporary construction compound.

It is currently proposed that the grid connection point will be into the existing SSE 132/33/11 kV Dounreay Substation and a connection agreement has been received from Scottish and Southern Electricity Networks (SSEN) Transmission.

The onshore substation or switchgear will include the electrical equipment required to connect the Project to the grid. This may include switchgear, transformers, harmonic filter, reactive compensation devices, protection equipment, batteries and other auxiliary equipment. The entire footprint is likely to be an area of approximately 100 m x 60 m (0.60 hectares).

While the majority of electrical plant is expected to be located indoors, due to the coastal location some equipment may also be located outside. The equipment is expected to be broadly adjacent to existing infrastructure in the area. The onshore infrastructure will be located within the red line boundary shown on the above map. The exact location of the access roads will be decided at a later stage.

For illustrative purposes only – final substation design and location may differ

SEASCAPE, LANDSCAPE & VISUAL IMPACTS

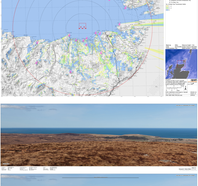
As part of our Environmental Impact Assessment (EIA), we are undertaking a Seascape and Landscape Visual Impact Assessment (SLVIA).

The SLVIA considers the potential visual effects of the Pentland Firth Offshore Wave and Tidal Demonstration Project from 12 coastal viewpoints. Photomontages and animations are presented below and provide a representative view of what the project would look like from the selected viewpoints.

These photomontages and animations have been produced using the Pentland Firth Offshore Wind Farm's survey vessel as a 'surrogate' visibility to ensure the worst case scenario is considered. Photomontages were selected to present the Fulcrum visibility from these locations that are representative of the various receptors, users, residential and visitors to the area.

For each viewpoint, a photomontage with the surrogate visibility is presented, with the tip height is presented as the worst case scenario. As the Pentland Firthing Offshore Wind Farm's survey vessel is considerably bigger for non-turbines, two animations are presented for each viewpoint, one with an indicative tower and nacelle and one with the tip height and one with an indicative nacelle of the turbines at 90m to tip height.

The presented layouts are indicative at this stage and the final turbine configuration will be dependent on the final consent. Comparative baseline photographs from the viewpoints are presented in the table below. In addition, an image which shows the location of the viewpoints and the zone for the five turbine indicative layout is included to provide an indication of the area in which the turbines are likely to be visible from.



PENTLAND FLOATING OFFSHORE WIND FARM

CONSENTS & ASSESSMENTS

The project will make two separate applications for both the offshore and onshore components.

OFFSHORE
Marine licences and consent under Section 36 of the Electricity Act 1989 will be sought from Marine Scotland for the offshore infrastructure.

ONSHORE
An application for planning permission will be made under Section 57 of the Town and Country Planning (Scotland) Act 1997 to The Highland Council for the onshore elements of the project.

ENVIRONMENTAL IMPACT ASSESSMENT (EIA)
EIA is a systematic process which identifies and assesses the potential significant environmental effects of a project, informs the design of the project from an environmental perspective, and sets out standard industry and additional mitigation measures to eliminate or minimise the project's effect on the environment. An EIA report is the written output of the EIA process.

Two EIA reports will be produced for the project, one for the onshore project components and one for the offshore project components. These will demonstrate that all potentially significant effects on the environment have been considered and assessed and that appropriate mitigation measures to reduce any significant effects are identified and commitments made to implement these.

RESPONDING TO FEEDBACK RECEIVED DURING THE FIRST CONSULTATION EVENT
During the first consultation process we received valuable feedback regarding local concerns over certain aspects of the project. The Pentland Floating Offshore Wind Farm is currently undertaking Environmental Impact Assessments (offshore and onshore), to establish the potential impacts on various receptors in the vicinity of the Project. An extensive programme of surveys have been undertaken to underpin the Environmental Impact Assessments (EIA). The final results of both the offshore and onshore assessments will be detailed within the respective Offshore and Onshore EIA Reports but preliminary results, where available, are indicated below:

VISUAL IMPACTS
Feedback was received concerning the potential visual impacts of the Pentland Floating Offshore Wind Farm. In particular, there were concerns regarding the inclusion of wirelines rather than photo montages at the previous consultation event. In order to address this feedback, we have developed photomontages for selected viewpoints. To further aid understanding, we have also developed a virtual reality representation of the windfarm which provides an indication of what the windfarm will look like from different locations along the coastline, and this is available in the virtual exhibition space. The photomontages can be seen on Board 6: Seascape, Landscape and Visual Impacts. The impact assessments on seascape, landscape and visual amenity are currently on-going, and the final results of the turbine and substation visual assessments will be detailed within the respective Offshore and Onshore EIA Reports.

IMPACT ON TOURISM
Feedback was received concerning the potential impact of the Pentland Floating Offshore Wind Farm on tourism. Studies have shown that existing and proposed wind farm developments are predicted to have little overall economic effect on tourism in Scotland. For more information: https://www.climatexchange.org.uk/research/projects/the-impact-of-wind-farms-on-scottish-tourism/. Assessments of the impacts of the Pentland Floating Offshore Wind Farm on tourism are on-going but preliminary results show that there will be no significant effects on tourism throughout the life-cycle of the project. The final results of the assessment will be available in the Offshore EIA Report.

IMPACT ON BIRDS
During the first consultation event, feedback was received concerning the potential impact of the Pentland Floating Offshore Wind Farm on birds. Detailed assessments on marine and terrestrial birds are currently being undertaken and are supported by in-depth modelling with input from industry leading experts and consultation with regulators. In terms of the Onshore Development, preliminary results of the terrestrial ornithology impact assessment indicate that there will be no significant effects on ornithology features from the onshore development activities. For the Offshore Development, the modelling is still on-going. The final results will be detailed within the respective Offshore and Onshore EIA Reports.

IMPACT ON MARINE MAMMALS
We received feedback concerning the potential impact of the Pentland Floating Offshore Wind Farm on marine mammals. Detailed assessments on the potential impacts on marine mammals and other megafauna e.g. basking sharks are currently being completed. These are supported by the results of aerial surveys and underwater noise modelling. Currently the underwater noise modelling assessments are on-going with input from industry leading experts. However, preliminary results of the underwater noise modelling highlight that there will be no significant effects on marine mammals from the pre-construction and construction related activities. The final results of the assessments, including the findings of effects on marine mammals from other assessed impacts will be detailed within the Offshore EIA Report.

IMPACTS ON SHIPPING & NAVIGATION
Feedback was received concerning the potential impact of the Pentland Floating Offshore Wind Farm on shipping and navigation. The impact assessment on shipping and navigation has been supported by vessel traffic surveys and various consultations, including hazard identification workshops with relevant stakeholders. Currently the impact assessment is on-going. However, it is anticipated from preliminary results that there will be no significant effects on shipping and navigation with the implementation of standard best practices and mitigations. The final results of the assessments will be detailed within the Offshore EIA Report.

IMPACT ON FISHERIES
During the first consultation event, concerns were raised on the potential impact of the Pentland Floating Offshore Wind Farm on fisheries. Local fishers were initially engaged for site investigation surveys in 2021. A consultation workshop was held in November 2021 and SFF, SWFPA OFA, NECRIFG and local fishers were invited to attend. The Project FIR reached out to local fishers in the area to supply flyers for the workshop to maximise attendance as far as practicable. Since the workshop was held, the project has undertaken to reduce the number of anchors and mooring lines from 12 to 9 which will reduce the impacts on other sea users. We have used the feedback from the workshop in the EIA to assess impacts on commercial fisheries. Moving forwards we will continue to engage with the fishing industry. Preliminary results from the commercial fisheries impact assessment indicate that there will be no residual significant effects with the implementation of mitigations which will be detailed in the Fisheries Management and Mitigation Strategy. The final results of the assessment will be detailed within the Offshore EIA Report.

IMPACTS ON FISH ECOLOGY
Detailed assessments are currently being undertaken to assess the potential impacts of the Pentland Floating Offshore Wind Farm on fish ecology. This is supported by underwater noise modelling and the results of the benthic habitat surveys. Currently the underwater noise modelling assessments are on-going with input from industry leading experts. However, based on preliminary results of the underwater noise modelling and other supporting assessments, it is anticipated that there will be no significant effects on fish ecology. The final results of the assessments will be detailed within the Offshore EIA Report.

IMPACTS ON BENTHIC ECOLOGY
Detailed assessments are currently being undertaken to assess the potential impacts of the Pentland Floating Offshore Wind Farm benthic ecology. This is supported by the findings of benthic habitat surveys carried out across the Offshore Site in 2021. It is anticipated from preliminary assessment results that there will be no significant effects on benthic ecology. The final results of the assessments will be detailed within the Offshore EIA Report.

IMPACTS ON TERRESTRIAL HABITATS & ECOLOGY
The terrestrial habitats and ecology impact assessments have been supported by a number of terrestrial ecology and habitat surveys at the Onshore Site. The findings of these assessments show that no significant effects on terrestrial ecological features are predicted on sensitive coastal and wetland habitats, watercourses, protected or notable plants, bats, and other protected mammals, reptile species and invertebrates. The full details of the assessment and results will be provided in the Onshore EIA Report.

IMPACTS ON AVIATION
The impact assessment for aviation and radar activity is on-going. However, it is anticipated from preliminary results that there will be no significant effects on aviation and radar with the implementation of standard best practices and mitigations. The final results of the assessments will be detailed within the Offshore EIA Report.

BENEFITS TO THE LOCAL COMMUNITY & SUPPLY CHAIN
The Project is currently consulting on community benefit approach. The project is committed to supporting local suppliers, where possible, and developing the project so that it promotes the welfare, livelihood and sustainability of local communities. You can find more details on Board 8: Benefits to the Community on how to get involved in the consultation process and further information on supply chain engagement and contribution to the local economy.

BENEFITS TO THE COMMUNITY

We want to ensure the Pentland Floating Offshore Wind Farm provides long term benefits to communities local to the development. We are working with local schools and universities to provide support to skills development in the renewable industry. We are currently consulting on the development of a community benefit fund. We have also completed a supply chain assessment and socio-economic studies to understand the benefits the project will bring to the community through jobs and value created.

COMMUNITY BENEFIT FUND

We are at the early stages of developing a community benefit fund for the Pentland Floating Offshore Wind Farm, which would likely become available on commissioning of the array project. The fund will support local projects that are focused on climate smart initiatives.

We have commissioned Foundation Scotland who are consulting locally on the development of this fund and would welcome your views. A representative from Foundation Scotland will be available at the in-person drop-in events being held in Thurso and Reay. You can also provide feedback on the community benefit fund through an online questionnaire available at: **www.foundationscotland.org.uk/pentland**

SUPPLY CHAIN ASSESSMENT & LOCAL VALUE CREATION

The Pentland Floating Offshore Wind Farm is committed to supporting local suppliers where possible and developing the Project so that it promotes the welfare, livelihood and sustainability of local communities. In 2021 the project team met with a number of local suppliers and negotiated a Memorandum of Understanding with Scrabster Harbour Trust, to work together on the development of operations and maintenance requirements, services and facilities. This shows a commitment to work collaboratively to investigate the potential for construction support services and major component change out for the floating wind turbines.

In 2021, we undertook a social and economic study in partnership with the University of the Highlands and Islands (UHI) and leading industry experts, to understand the positive impacts the project will have (both directly and indirectly) on the community, for example, through providing jobs, Gross Value Added (GVA) potential and demand for local services. We have also commissioned a supply chain study to inform the socio-economic work in order to assess local supply chain capability and identify opportunities to support the project.

It is anticipated that during the lifetime of the Pentland Floating Offshore Wind Farm, between 750-800 FTE job-years in Caithness and between 2,400-3,300 FTE job-years in the Highlands and Islands will be created. The Pentland Floating Offshore Wind Farm is anticipated to create around £50 million for Caithness and £150-200 million for Highlands and Islands of Gross Value Added at 2021 prices. These numbers will be updated as we finalise the detailed design, procurement activities and construction and operations and maintenance strategies. The socio-economic impacts of the Project will be assessed in detail within the Environmental Impact Assessment, as set out on Board 7: Consents & Assessments.

SKILLS DEVELOPMENT

The Pentland Floating Offshore Wind Farm is supporting an Education and Training Fund which will award scholarships to selected students from Thurso and Farr High Schools, who are going on to to study higher education and training programmes focussed on Science, Technology, Engineering and Mathematics.

We are proud to have students from the University of Highland and Islands (UHI) and the University of Strathclyde interning with the project, enabling them to gain offshore wind industry experience. Meet Grant, an intern on the Pentland Floating Offshore Wind Farm:

GRANT ANDERSON

I am currently in my final year of Energy Engineering at the UHI Outer Hebrides and working as an intern on the Pentland Floating Offshore Wind Farm. The internship has allowed me to be fully involved with a range of different disciplines including engineering, health and safety and project management. I have been able to apply many elements of my degree program during the internship including data analysis, report writing and computer modelling. More importantly, it has allowed me to get relevant hands-on experience on a current project which will be valuable for any future employment in the offshore wind world. I have really enjoyed being part of a dynamic and motivated team.

PENTLAND FLOATING OFFSHORE WIND FARM

INDICATIVE DEVELOPMENT TIMELINE

Q3 2021 – Q2 2022
Offshore EIA Report Preparation

Q2 2022
Submission of Offshore Application to Marine Scotland

Q3 2022
Submission of Onshore Application to Highland Council

Q2 2022
Offshore Geotechnical Survey

Q1 2023
Onshore Consent Determination

2026
Completion of Construction

Q2 2022
Public Consultation Event 2

Q2 2021 – Q3 2022
Onshore EIA Report Preparation

Q2 2022
Offshore Geotechnical and UXO Surveys

Q2 – Q3 2022
Consultation Period on the Submitted Applications

Q1 2023
Offshore Consent Determination

2025
Commencement of Construction

THE DEVELOPMENT PROCESS

PREPARATION OF THE EIA REPORTS

The Pentland Floating Offshore Wind Farm is currently at the stage of preparing the EIA Reports for Submission. Within the EIA Reports, impacts of the proposed onshore and offshore project design will be assessed by competent experienced professionals, using the relevant baseline information collected, various guidance, good practice guidelines and expert judgement. All the findings and proposed mitigation measures identified through the EIA process will be presented in the Offshore and Onshore EIA Reports. Desk based assessments and field studies helped to define the baseline environment and identify receptors for consideration and the assessments are supported by detailed modelling and technical studies. For further information, please see Board 7: Consents and Assessments.

The project design and EIA scope draws on the feedback from statutory consultees and the comments received during the first Public Consultation Event. Your views and feedback during this second consultation period will continue to help shape the development of our project proposals.

SUBMISSION OF APPLICATIONS

A planning application for the onshore transmission works for the Pentland Floating Offshore Wind Farm under the Town and Country Planning (Scotland) Act 1997 will be submitted to The Highland Council. Additionally, an application for a marine licence and consent under Section 36 of the Electricity Act 1989 for the offshore development will be submitted to Marine Scotland. At this point, there will be a period for the public to formally comment on the proposals, information to the public on how to respond will be advertised through local press.

DETERMINATION OF APPLICATION

It is anticipated that it will take up to 1 year for the applications to be determined. During this time the project will continue with engineering studies to finalise the project requirements. During this time detailed supply chain discussions will also be held as well as finalising our community benefits associated with the project.

PREPARATION FOR CONSTRUCTION

The consents granted will likely have a number of conditions associated with them. Information on the detail of the project will be submitted in order to ensure they are in line with the consented project. Construction and environmental management and monitoring plans detailing how the project will be delivered will also be submitted for approval.

CONSTRUCTION

It is anticipated that construction will commence in 2025. The construction of the project is anticipated to take place within a two year period. An independent Environmental Clerk of Works will be employed to ensure that the construction is carried out in line with the consent.

PENTLAND FLOATING OFFSHORE WIND FARM

FAQS

Q: Who are Highland Wind Limited?
A: Pentland Floating Offshore Wind Farm is being developed by Highland Wind Limited which is majority owned by a fund managed by Copenhagen Infrastructure Partners (CIP) with Hexicon AB as a minority shareholder. Copenhagen Infrastructure Partners P/S (CIP) is a fund management company focused on energy infrastructure including offshore wind, onshore wind, solar photovoltaic (PV), biomass and energy-from-waste, transmission and distribution, reserve capacity and storage, and other energy assets like Power-to-X. It was founded in 2012 and currently has approximately EUR 16 billion under management. CIP is a major investor in the offshore wind sector and has significant investments in a number of offshore wind projects around the world. Copenhagen Offshore Partners (COP), which conducts offshore wind development activities on behalf of the funds managed by CIP, has recently opened an office in Edinburgh to support the funds' increasing engagement in Scotland, with a particular focus on floating wind.

Q: What are the benefits of floating wind and do we need it?
A: Almost 80% of the world's wind resource is in water deeper than 60 metres. It is where windspeeds are stronger and more consistent meaning higher capacity factors. It is looking extremely likely that floating wind will be essential to meet the UK's net-zero emission targets and is needed to deliver on ambitions set by the Committee on Climate Change. You can read more about floating wind on Board 3 – Why Floating Wind?

Q: How does Dounreay Trì Project fit in with your proposal?
A: The Pentland Floating Offshore Wind Farm Project is an update to the Dounreay Trì Project that was granted key consents and a site lease in 2017. The original Dounreay Trì Project consisted of a two-turbine offshore wind farm, with an installed capacity of between 8 to 12 MW, approximately 6 km off Dounreay, Caithness. Highland Wind Limited acquired the Project and associated consent, licences and site lease in 2021. The Pentland Floating Offshore Wind Farm will be built out under a new consent that is the subject of this exhibition.

Q: What are your plans?
A: The primary objective of the Pentland Floating Offshore Wind Farm is to test and demonstrate a technology solution for floating wind in Scotland. By developing the project in stages, through deploying the single turbine followed by the remaining turbines a year later, the capabilities of the local supply chain in Scotland will be better understood. This understanding will allow us to support the development of a strong local supply chain for floating wind in Scotland, helping to meet climate change targets, and providing highly skilled jobs and energy security. Highland Wind Limited firmly believes that this project will be an enabler for larger scale developments resulting from the current ScotWind Leasing Round and in turn will result in knowledge exchange and export opportunities in relation to the global floating offshore wind market.

Q: What technology are you using?
A: Highland Wind Limited will develop the project using the optimal technical, environmental and commercial solution. Currently, this technology is still evolving so the exact technological requirements for the project are still under consideration. We will look to establish our selected technology and suppliers once we have gathered all the information from our metocean and seabed surveys to ensure the most efficient and technically feasible options are taken forward. Nonetheless, we are planning on using up to 10 turbines, with the maximum height of the turbine blade tip from the sea surface being 300 metres.

Q: Will I see the Pentland Floating Offshore Wind Farm from the shore?
A: The Pentland Floating Offshore Wind Farm Application Boundary will be approximately 6.7 km from shore, this distance has been increased by 1 km from the previously consented boundary for the Dounreay Tri Project in order to further reduce any visual impacts. It is anticipated that the closest turbine will be at least 8km offshore from Sandside Bay. A selection of montages and wirelines have been produced for relevant viewpoints around the coastline and demonstrate the likely views from shore for the maximum tip of the 300 m turbines. You can find these on Board 6: Seascape, Landscape and Visual Impact Assessment.

Q: Will there be disruptions during construction?
A: We are working to engage closely with landowners, local residents, the Maritime Coastguard Authority, ports and harbours and Traffic and Transport Scotland to ensure the development minimises disruptions to local communities as far as possible. We already understand there are some concerns regarding construction and operational traffic in the local area. This will be taken into account in our application.

Q: What about environmental impacts on seabirds and other marine life?
A: Renewable energy technologies are key to combating the effects of climate change, which is considered one of the biggest threats to marine life. Floating wind is part of the solution for a greener and safer future. Nonetheless, any development activity in the marine environment has the potential to impact on marine life and seabirds. We are committed to following best practice and have proactively undertaken environmental surveys and have conducted assessments, monitoring and modelling to minimise any impact on wildlife during the project's development. The project team continues to engage with key environmental and conservation stakeholders and other relevant consultees in order to inform the scope of the Environmental Impact Assessments (EIA) and detail of the project related to the EIA.

Q: When will the Pentland Floating Wind Farm be completed?
A: The single turbine demonstrator is planned to be deployed as the first stage of the Pentland Floating Offshore Wind Farm in 2025 to allow time to test and demonstrate the floating wind technology. We are planning to finish construction and installation of the remaining turbines during 2026.

Q: How many homes will you power?
A: The Pentland Floating Offshore Wind Farm will provide enough green energy for approximately 70,000 homes per year, equivalent to approximately 65% of households in The Highland Council Area (based on 2020 figures). This would offset up to 125,000 tonnes of CO2 when considering all types of fossil fuels (https://www.gov.scot/publications/renewable-and-conversioncalculators/).

Q: How are you involving the local community?
A: We are committed to robust stakeholder engagement. We have contacted local communities and community councils to offer a project overview. During 2021, COVID19 made it difficult to engage in person so much of our consultation was held virtually. As restrictions around COVID-19 have been eased we are able to engage in person. We have decided to hold this consultation event both virtually and in-person to ensure that it is accessible to the most amount of people. Our website contains information on the project or you can contact the Project Team directly at pentland-stakeholder@cop.dk. Alternatively, feedback can also be provided using the feedback form, available in the virtual exhibition room. There is also the opportunity to converse directly with the Project Team at the consultation event at the Reay Golf Course from 14.00 - 20.00 on 11 May and at the North Coast Visitor Centre in Thurso from 11.00 - 17.00 on 12 May. In addition, the team will be available to answer questions online on the 18 May between 12.00 - 14.30 and 18.00 - 20.30 through an online chat function in this exhibition space.

Q: What are the benefits to the local community?
A: Highland Wind Limited is committed to ensuring this Project provides long term benefits to the local community. We have undertaken social and economic studies with involvement of the University of the Highlands and Islands (UHI) and leading industry experts to understand the positive impacts the project will have (both directly and indirectly) on the community, for example, through providing jobs, Gross Value Added (GVA) potential and demand for local services. Furthermore, we have commissioned a supply chain study to complement the socio-economic work in order to assess local supply chain capability and identify opportunities to support the project. We are at the early stages of developing a Community Benefits Fund, which would likely become available on commissioning of the array project. We will seek advice from a number of parties on the best way to administer this fund and would welcome any local views on this.

Q: How many jobs will this development provide to the local community?
A: It is anticipated that during the lifetime of the Pentland Floating Offshore Wind Farm, between 750-800 FTE job-years in Caithness and between 2400-3300 FTE job-years in the Highlands and Islands will be created. More information on the jobs and value created can be found on Board 8: Benefits to the Community.

Q: Who else are you engaging with in the application process?
A: To date we have been in contact with a number of stakeholders including the Highland Council, Marine Scotland, Scrabster and Wick Harbour Authorities, local fisheries, NatureScot, Northern Lighthouse Board, the Maritime Coastguard Authority, SEPA, landowners, Dounreay Site Restoration Limited, NRTE Vulcan, Crown Estate Scotland, RSPB, Dounreay Stakeholder Group, Caithness West Community Council and Melvich Community Council. We plan to continue engagement as the application progresses towards submission.

Q: I want to keep informed on project updates, how do I do this?
A: Updates on the project will be provided on our website at www.pentlandfloatingwind.com. There will be an opportunity for the community to make formal comment on the proposals to Scottish Ministers and The Highland Council once our applications have been submitted. Details on how to go about this will be provided in a local newspaper and published on our website at the time of submission.