NORTH FALLS

Offshore Wind Farm

CONSULTATION REPORT

APPENDIX F.1 TO F.12.2 PART 1

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NORTH FALLS

Offshore Wind Farm

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APPENDIX F

F.1

Stage 3 (statutory) consultation brochure

NORTH FALLS

Offshore Wind Farm

STATUTORY CONSULTATION

Tuesday 16 May to Friday 14 July 2023

NORTH FALLS STATUTORY CONSULTATION

North Falls Offshore Wind Farm, an extension project to the existing 504 megawatt (MW) Greater Gabbard Offshore Wind Farm, is being developed in the southern North Sea more than 20km off the UK coast. Its site is in two parts which together cover a total area of 150km². The project has accepted an offer from National Grid to connect to the national electricity network at a new substation in Tendring, Essex. Onshore electricity cables would be installed underground from landfall near Frinton-on-Sea to this new substation.

North Falls is being developed by North Falls Offshore Wind Farm Limited, a 50/50 joint venture company owned by SSE Renewables and RWE.

The project is holding its statutory consultation phase from Tuesday 16 May until Friday 14 July 2023.

Purpose of this consultation

This third phase of consultation aims to give people a further chance to review, influence and provide comments on our project proposals, specifically on our preliminary environmental information report (PEIR). The PEIR sets out initial findings from the environmental impact assessment (EIA) work completed over the past three years.

The EIA investigates the potentially significant effects that our proposals may have on the environment and on local communities and details how they are avoided or mitigated, where possible.

The proposals presented in this consultation are not the final application, rather this is an opportunity for the local community and others with an interest in the project to influence the details of the application before it is submitted to the Planning Inspectorate.

North Falls Preliminary Environmental Information Report (PEIR)

The North Falls Offshore Wind Farm Preliminary Environmental Information Report (PEIR) is a complex and detailed document comprising three volumes and a non-technical summary. It is recommended you start your review with the North Falls Non-technical Summary (NtS) as it gives a high level overview and can help to signpost you to the PEIR chapters, details and documents that are likely to be of most interest.

The full PEIR can be viewed online or at our face-to-face consultation events, while hard copies of the NtS can be requested. Brief extracts of the NtS, along with references to the corresponding PEIR chapters can be found in this consultation booklet.

As well as the NtS, the PEIR comprises 33 technical chapters covering every aspect of the project from ecology and ornithology to traffic and shipping; chapter figures, and appendices. The PEIR also includes three additional reports:

- **Schedule of Mitigation**
- **Design Vision**
- **Habitats Regulations Assessment**

How to provide feedback

You can give your feedback by using the feedback form available online or at the face-to-face events, by using the online consultation map or by email and post.

Online consultation portal:
stat.northfallsoffshore.com

Link to the PEIR documents only:
www.northfallsoffshore.com/peir

Email: contact@northfallsoffshore.com

Freepost: FREEPOST North Falls

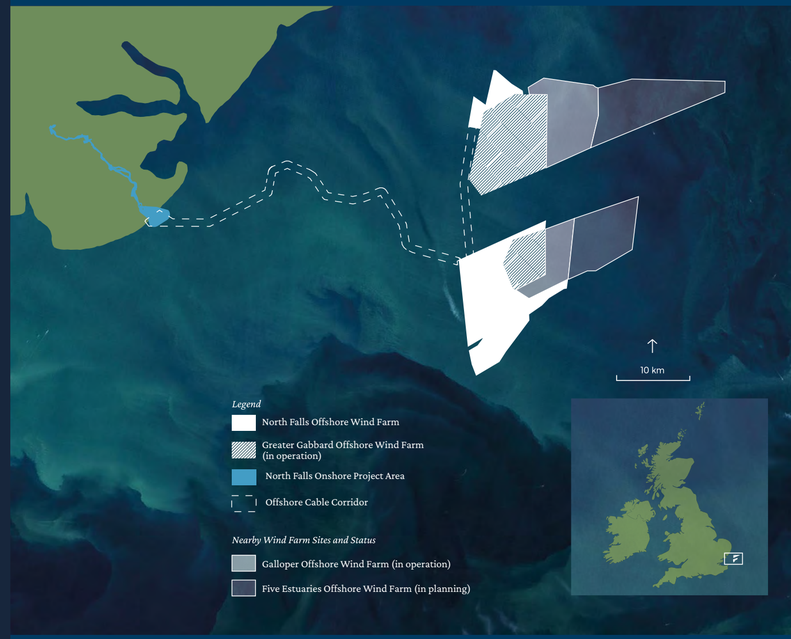
Telephone: 0800 254 5340

Website: www.northfallsoffshore.com

Programme of consultation events

Date (2023)	*Time*	*Venue*
Friday 2 June 2023	3:30pm to 7:30pm	**Great Bromley Village Hall,** Parsons Hill, Great Bromley, Colchester, CO7 7JA
Saturday 3 June 2023	9am to 1pm	**Tendring Village Hall,** Tendring, Clacton-on-Sea, CO16 0BG
Thursday 8 June 2023	3:30pm to 7:30pm	**McGrigor Hall,** 85 Fourth Ave, Frinton-on-Sea, CO13 9EB
Friday 9 June 2023	3:30pm to 7:30pm	**Thorpe-le-Soken Women's Institute Hall,** High Street, Thorpe-le-Soken, CO16 0EF
Saturday 10 June 2023	9am to 1pm	**Ardleigh Village Hall,** Station Road, Ardleigh, Essex, CO7 7RS
Tuesday 13 June 2023	6pm to 7:30pm	**Webinar** (Zoom)*
Wednesday 21 June 2023	6pm to 7:30pm	**Webinar** (Zoom)*

**There is a link to register on the online consultation portal: stat.northfallsoffshore.com*



Map 1 – Location of North Falls and adjoining offshore wind projects

NORTH FALLS NON-TECHNICAL SUMMARY

The North Falls Non-technical Summary (NtS) is a 70 page standalone document providing an overview of the potential environmental effects of North Falls in relatively non-technical terms. The full details for each area presented in the NtS can be found in the North Falls PEIR, however it is useful to start with this summary document to identify key areas of interest.

As well as describing the project, the NtS explains the need case for North Falls, details how its different aspects have been selected and explains the environmental impact assessment work to date. It outlines the role of national policy statements in the decision-making process plus the role of other relevant policies, and covers the project's consultation approach (also covered in the North Falls Statement of Community Consultation).

The NTS structure and content align to the topics which are covered in the PEIR as follows:

OFFSHORE

- Marine geology, oceanography and physical processes
- Marine water and sediment quality
- Benthic and intertidal ecology
- Fish and shellfish ecology
- Marine mammals
- Offshore ornithology
- Commercial fisheries
- Shipping and navigation
- Offshore and intertidal archaeology and cultural heritage
- Aviation and radar
- Infrastructure and other users

ONSHORE

- Ground conditions and contamination
- Onshore air quality
- Water resources and flood risk
- Land use and agriculture
- Onshore ecology
- Onshore ornithology
- Onshore archaeology and cultural heritage
- Noise and vibration
- Traffic and transport

PROJECT-WIDE

- Human health
- Seascape, landscape and visual impact assessment
- Landscape and visual impact assessment
- Socio-economics
- Tourism and recreation
- Climate change

The North Falls Non-technical Summary includes a number of tables, plates and figures to support the chapters and ends with a conclusion section as well as references.

Conclusion

For all the offshore topics and for most of the onshore topics, the preliminary project assessments have concluded that, with mitigation, there would be no significant adverse effects in environmental impact assessment terms other than the following where significant residual effects have been identified:

- **Land use and agriculture,** with permanent loss of agricultural land during operation of the onshore substation; and
- **Onshore ecology,** with temporary loss of some hedgerows and associated temporary impacts on bats and dormice. Replanting of hedgerows post-construction should lead to moderately beneficial impacts in the longer term.

For project-wide topics, significant effects have been identified in relation to:

- **Seascape, landscape and visual,** due to the visibility of the wind farm from certain areas of the coast during its operation this will influence the seascape and landscape character; and
- **Landscape and visual,** with respect to effect on the landscape fabric and visual amenity of the onshore substation zone during the project's construction and operation.

Beneficial effects were identified for a number of topics, including around onshore ecology due primarily to the project's commitment to biodiversity net gain; socio-economics, with skills and supply chain opportunities, and contribution to combatting climate change.

North Falls has committed to implementing mitigation measures to ensure that any potential impacts are minimised as far as reasonable and practicable, and to reduce the potential for significant effects.

PROJECT FACTS AND FIGURES

22KM
DISTANCE TO SHORE (CLOSEST)

Off the UK coast in the southern North Sea

UP TO 72
TURBINES

Depending on the size of turbine selected

150KM²
TOTAL AREA

Total area across two sites

UP TO TWO
SUBSTATIONS

Offshore substations/platforms to facilitate the export of electricity to an onshore or offshore connection point

24KM
UNDERGROUND CABLE

Of underground onshore cable to transport the power from landfall to the new onshore substation (assuming an onshore grid connection)

FOUR
TIMES THE EXISTING LAWFORD SUBSTATION

Size of the onshore substation footprint, with similar surrounding landscaping

£1.5
BILLION

Likely investment in UK electricity infrastructure

POWER MORE THAN 400K
UK HOMES

The potential number of UK homes supplied with their electricity (depending on final installed capacity)

50GW
OF OFFSHORE WIND BY 2030

North Falls would support this government target

PEIR reference
Chapter 1 - *Introduction*

NORTH FALLS

Offshore Wind Farm

North Falls is being developed by a joint venture company owned equally by SSE Renewables and RWE.

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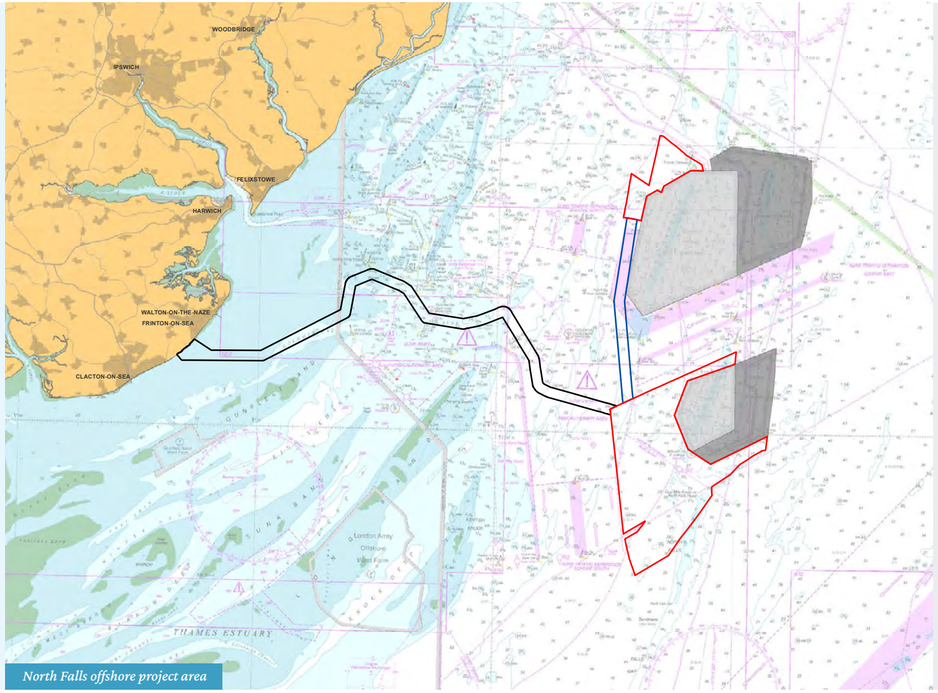
OFFSHORE PROJECT AREA MAP



LEGEND

- North Falls Array Areas
- Offshore Cable Corridor
- Interconnector Cable Corridor
- Galloper Offshore Wind Farm
- Greater Gabbard Offshore Wind Farm

0 2.5 5 10 nm

0 4.25 8.5 17 km

ONSHORE PROJECT AREA MAP

LEGEND

- North Falls Onshore Project Area
- East Anglia GREEN Proposed Substation Location
- North Falls Onshore Substation Zone

0 1 2 4 km

STORY SO FAR

Together SSE Renewables and RWE have been active in the East Anglia region since the organisations jointly developed and constructed the Greater Gabbard Offshore Wind Farm, located 25km off the coast of Suffolk in the North Sea and operated out of Lowestoft. The 504 megawatt (MW) project started construction in 2008 and at the time was the world's largest offshore wind farm. It has 140 wind turbines and was commissioned in September 2012. North Falls is an extension project to Greater Gabbard.

Extensions timeline

In February 2017, The Crown Estate, manager of the seabed, launched a process for wind farm operators to apply for extensions to their existing projects. This opportunity closed in May 2018, with eight project applications received.

A plan level habitats regulations assessment (HRA), was undertaken to assess the possible impact of the proposed wind farm extensions on relevant nature conservation sites of European importance.

Expert independent advisors were utilised and there were consultations with the statutory marine planning authorities, the statutory nature conservation bodies and a number of non-governmental stakeholders.

In August 2019, The Crown Estate announced the conclusion of the HRA confirming that seven of the 2017 extension application projects, representing a total generating capacity of 2.85GW, would progress to the award of development rights, including what is now called North Falls Offshore Wind Farm.

The Agreement for Lease between North Falls Offshore Wind Farm and The Crown Estate was signed in Autumn 2020 and the project is now in development with the aim of submitting its application to the Planning Inspectorate in 2023 and receiving a development consent order (DCO) in 2025.

Construction would then take place in the latter part of the decade with a view to the project being operational by 2030, aligned to Government targets.

Pre-application phase - progress since 2020

Since North Falls signed its Agreement for Lease with The Crown Estate, the project team has been in what is called the pre-application stage. As a nationally significant infrastructure project (NSIP), North Falls must be consented under the Planning Act 2008 development consent process, which was introduced to streamline the decision-making for such projects. The process includes six stages which are shown in the diagram on the opposite page, the first being pre-application.

Applicants, such as North Falls, must go through this six stage process to gain permission to build and operate their NSIP. The permission is called a development consent order (DCO). The Planning Inspectorate is the government agency responsible for examining and making recommendations on applications for NSIPs with the final decision being made by the Secretary of State for the Department for Energy Security and Net Zero.

Environmental impact assessment

The pre-application phase for North Falls will run until the DCO application is finalised and submitted to the Planning Inspectorate. The primary focus of this phase has been carrying out an environmental impact assessment (EIA), a systematic and iterative approach to assessing the environmental, social and economic effects the project may have. A baseline has been established via years of onshore and offshore surveys to collect data which has subsequently been analysed to build up a picture of every element from onshore ecology and ornithology to offshore archaeology and fishing activity. Throughout this period there has been ongoing technical design and engineering work to ensure the project is deliverable, as well as consultation and ongoing stakeholder engagement.

North Falls Scoping Report

At the first stage of the EIA, North Falls prepared a scoping report and requested a scoping opinion from the Secretary of State in July 2021. The North Falls Scoping Report outlined what would be considered during the EIA and the proposed data gathering and methodology employed to characterise the existing environment, assess potential impacts and develop mitigation measures. The feedback received from the relevant local planning authorities and statutory consultees resulted in a scoping opinion adopted by the Secretary of State in August 2021.

Preliminary Environmental Information Report (PEIR)

Since the last phase of consultation, the North Falls PEIR has been progressed and is now the subject of this consultation. This is a technical document covering the full range of every element that has been considered to date, its potential impacts and proposed mitigations. This is in effect a status on the project's EIA process and on the progress of the preparation of the development consent application.

Feedback given on the PEIR will be used to produce the final document required for the application, the Environmental Statement.

North Falls Environmental Statement (ES)

Looking ahead, the North Falls Environmental Statement (ES) will be the final output of the EIA undertaken by the North Falls project team. It will be an evolution of the PEIR presented in this consultation and will incorporate the results of the surveys, assessments and project technical details as well as the outcomes of responses from our consultations.

The ES will also describe any changes made to the project proposals since the PEIR and the mitigation measures that will be implemented. It forms a key part of the submitted DCO application, accompanying the final application when it is submitted to the Planning Inspectorate.

APPLICATION PROCESS – THE SIX STEPS

1 Pre-application

Look out for information in local media and in public places near the location of the project, such as the library. Or you can register to recieve updates. North Falls will be developing the power proposals and will consult widely as part of the development.

2 Acceptance

The planning Inspectorate, on behalf of the Secretary of State, has **28 days** to decide whether North Falls application meets the required standards to proced to examination, including whether the consultation has been adequate.

3 Pre-examination

You can now register as an interested party; you will be kept informed of progress and opportunities to put your case. Inspectors will hold a Preliminary Meeting and set the timetable for examination.

4 Examination

You can send in your comments in writing. You can request to speak at a public hearing. The Inspectorate has **6 months** to carry out the examination.

5 Decision

A recommendation to the relevant Secretary of State will be issued by the Inspectorate within **3 months**. The Secretary of State then has a further **3 months** to issue a decision on the proposal.

6 Post-decision

There is the opportunity for legal challenge.

PEIR reference
Chapter 6. - *EIA Methodology*

PUBLIC CONSULTATION

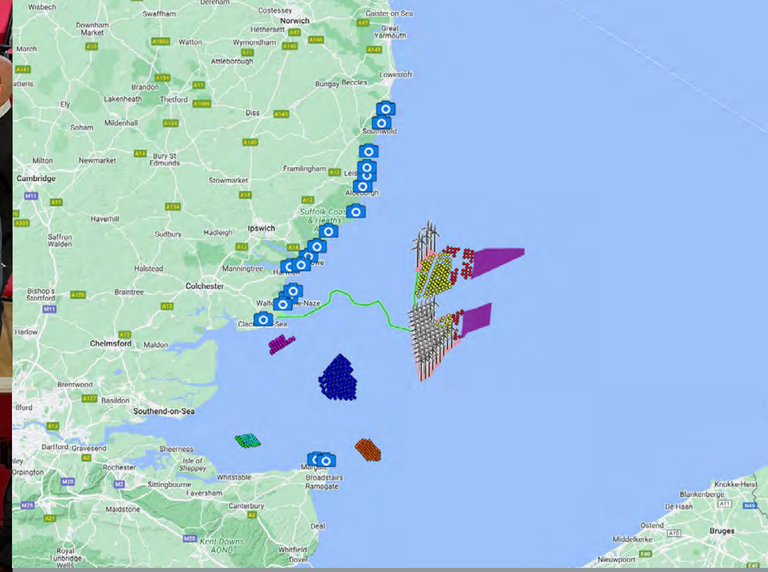
North Falls has so far held two rounds of community consultation with the information provided and feedback received still available to view online. These were held in parallel with targeted topic-specific activity with statutory stakeholders. Feedback from the consultations has been considered as part of the evolving project proposals. This feedback has influenced a number of key project actions and decisions:

- All the project's onshore cables are to be buried
- Cables will be installed by drilling beneath Holland Haven Marshes Site of Special Scientific Interest, including Holland Haven Local Nature Reserve and Frinton Golf Club to avoid disturbing the surface
- No work will take place in the intertidal zone to limit disruption at the coast
- Offshore cable placement and construction will avoid sensitive areas of the seabed
- A 3D model has been produced to enable people to visualise the wind farm from key coastal viewpoints
- Construction traffic will be routed and timed to avoid school drop off and pick up, and minimise impacts on local community events
- A temporary haul road within the construction corridor will minimise the amount of traffic on the local road network
- Landscaping will be provided around the onshore substation in consultation with the community
- The project will aim to achieve a biodiversity net gain following construction
- Inclusion of an option to connect to an offshore grid connection, if made available to North Falls by a third party
- A land drainage consultant will be engaged to develop pre and post-construction farm drainage plans
- Ongoing close cooperation with Five Estuaries to minimise cumulative impacts where possible

In March 2022, the North Falls Statement of Community Consultation was published, setting out the project's approach to consultation including who will be consulted and how. This third consultation phase provides the opportunity for the public to give the North Falls team useful information and influence the proposals that will be included in the final application.

PEIR reference
Chapter 7. - *Technical consultation*

Previous consultation events



3D computer-generated visualisation

Please visit the North Falls computer-generated interactive model to see how the wind farm could look form 17 different viewpoints. These are:

1. Covehithe
2. Southwold Pier
3. Dunwich Coastguard cottages
4. Sizewell Beach
5. Cliffs above Thorpeness
6. Aldeburgh
7. Orford Ness
8. Shingle Street
9. Pulhamite Cliffs
10. Felixstowe Seafront Gardens
11. Landguard Fort
12. Walton-on-the-Naze
13. Naze Tower
14. Frinton-on-Sea
15. Clacton-on-Sea
16. Margate Oval Clifton
17. North Foreland

THE NEED FOR NORTH FALLS

Nationally significant infrastructure project

In the past 12 years the capacity of the UK's offshore wind farms has increased from only one gigawatt (GW) in 2010 to almost 14GW in early-2023. The costs per megawatt hour of offshore wind have been driven down by almost two-thirds, the sector directly employs more than 26,000 people, and it supplies on average around 15% of the nation's electricity. In short, the offshore wind sector has become one of Britain's most laudable industrial success stories. However, it is still a sector in its relative youth, with plenty of potential for further growth in the UK and for export internationally.

Environmental targets

There are a number of overarching UK environmental targets and goals which set the national framework for tackling climate change and for renewable energy production. These include the legally binding target to reduce the net UK carbon account and therefore reduce greenhouse gas emissions to zero by 2050. These are implemented through the Climate Change Act 2008 and the 2019 Amendment Order.

In support, the British Energy Security Strategy published in April 2022 sets out the need to increase the pace of offshore wind deployment to deliver 50GW of offshore wind by 2030. And in March this year, Powering up Britain was published bringing together both the Energy Security Plan and Net Zero Growth Plan, as a blueprint for the UK to develop its own sources of clean energy to boost energy independence and green industries.

Powering up Britain is the manifesto that will guide the new Department for Energy Security and Net Zero on its ambitions on four areas of security: climate, consumer, energy and economic. Offshore wind, and projects like North Falls, will have a central role to play in meeting each of them.

While the green agenda needs to navigate multiple obstacles in order to deliver on to deliver on the promise of billions in investment and much-needed jobs, projects like North Falls will play an essential role in reaching the targets. We intend to continue to work closely with all our stakeholders, the Government, local communities and the supply chain to ensure we make a positive contribution to the nation's climate ambitions, energy security and economic prosperity.

Climate change

Scientists continue to see changes in the Earth's climate in every region and across the whole climate system, including continued rise in sea levels and dramatic climate events. Climate change as a result of greenhouse gas emissions is a global issue associated with impacts on weather, ecosystems, human health and welfare. The role of human influence on the climate is undisputed.

Offshore wind farms generate clean, green electricity powering millions of homes and businesses without burning fossil fuels. They have a vital role to play in the fight against climate change. While reducing greenhouse gases is at the core, the onus is also on developers to ensure new offshore wind farms are built responsibly, sustainably and employing the most efficient technology.

Cost of offshore wind

The price of offshore wind has fallen to an all-time low with the most recent contracts for difference auction bids coming in at £37.35 per megawatt hour (MWh). These "contracts for difference" guarantee offshore wind developers a fixed price to sell electricity for 15 years. If the market price falls below the contract price, the Government subsidises the difference. If the market is higher, the companies pay money back to the Government.

Since wholesale energy prices began to skyrocket last year - in May 2022, electricity prices reached a high of £263.79 - wind farms have been paying back money to the Government. This means that if more offshore wind farms were operational now, electricity prices could potentially be much lower.

Energy security

As well as reduced costs, North Falls will also play a role in helping to stabilise the nation's energy prices and improve its energy security.

By generating more electricity from offshore wind, the UK will be less reliant on international energy imports, for example oil and gas, and therefore more self-sufficient. It will also become less susceptible to global price fluctuations in such commodities, which should lead to reduced costs for consumers. The invasion of Ukraine has given a stark reminder of the need for the UK to sure up its energy supplies and as one of the windiest nations in Europe, the UK is well placed to take advantage of offshore wind technology.

Other benefits of the project

As well as helping to protect the environment and contributing to the UK's net zero ambitions, North Falls will bring numerous local benefits by way of jobs, local economy and community involvement. North Falls has completed an initial socio-economic benefits study as part of its impact assessment to better clarify the type and extent of opportunities for the local area.

In terms of employment, over the lifetime of the project there will be a wide range of direct, indirect and induced local jobs available, from highly skilled to more manual roles. These jobs will be with the project team itself, as well as with businesses and contractors across the supply chain with the total number of annual full-time equivalent (FTE)* local jobs calculated at around 4000.

In terms of local supply chain opportunities, the study calculated that the gross value added (GVA)** for the local area as a result of North Falls could be up to £400 million for the lifetime of the project across the supply chain. Local companies will be well placed to take advantage of the opportunities which will be promoted via both the project and its Tier 1 and 2 suppliers as the project progresses.

** Annual full-time equivalent (FTE) is a unit to measure employed people in a way that makes them comparable although they may work different number of hours per week.*

*** Gross value added (GVA) measures the contribution to the economy of each individual producer, industry or sector.*

Planning policies

National Policy Statements (NPS) were prepared by the UK government in 2011 in accordance with the obligations of the Climate Change Act 2008, and set out a case for the need and urgency for new energy infrastructure. In total there are three National Policy Statements relevant to the decision-making process on North Falls:

- **EN-1 Overarching Energy,** which highlights that there should be a presumption in favour of granting consent for projects which fall within relevant NPSs and recognises that offshore wind is a key factor in meeting UK policy objectives
- **EN-3 Renewable Energy Infrastructure,** which covers national significant renewable energy infrastructure, including offshore generating stations in excess of 100MW
- **EN-5 Electricity Networks Infrastructure,** which covers the electrical infrastructure in conjunction with EN-1.

The PEIR demonstrates how the development of North Falls would comply with and support the policies stipulated by these statements. On 30 March 2023 a consultation was launched on draft revisions to the NPS with the final revised versions expected to be designated by the Government in mid-2023. These will be taken into account by North Falls as the project progresses.

Regarding other planning policies, local authorities are required to prepare and maintain up-to-date Local Development Plans which set out their objectives for the use and development of land within their jurisdiction, and general policies for implementation. The onshore project area falls under the jurisdiction of Tendring District Council and Essex County Council. Relevant Local Development Plans have been considered during the onshore site selection for the project to mitigate conflict with site-specific planning allocations.

PEIR reference

Chapter 2.	*Need for the Project*
Chapter 3.	*Policy and Legislative context*
Chapter 31.	*Climate change*
Chapter 33.	*Socio Economics*

Feedback question:

Do you have any suggestions as to how North Falls could work with Essex-based businesses to help them take advantage of potential contracting opportunities with the project?

GREATER GABBARD

As an extension project, North Falls would aim to emulate the initiatives of its sister project Greater Gabbard and therefore these provide an example of the type of socio-economic benefits that could be achieved:

- **Greater Gabbard represented a total investment of around £1.5 billion** and a new facility was constructed in Lowestoft, Suffolk for the project's operations & maintenance base.
- **Around 120 long-term, skilled jobs were created to operate and maintain the wind farm,** with 95% of those recruited from the local area. These roles were in addition to the hundreds of jobs created during construction.
- **Greater Gabbard has engaged 10 apprentices since the start of operation**, offered junior engineer roles and employed ex-fishermen on crew transfer vessels as part of the drive to find locally skilled people to fill roles. In 2022, the project announced a five-year trainee plan to further grow apprentice numbers.
- **Since starting operation, the project has invested more than £250,000 in community funds** and local training initiatives, and in late 2022 a further £50,000 fund was announced in celebration of the project's 10 year anniversary.

SITE SELECTION

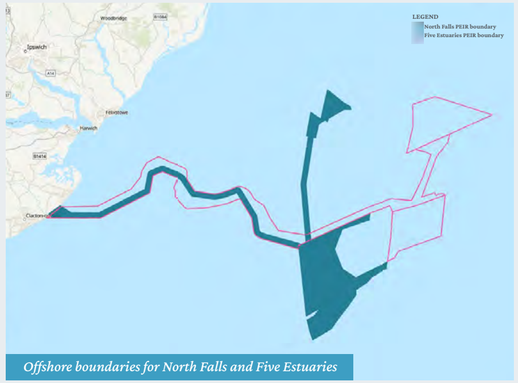
The siting and refinement of the North Falls offshore and onshore project areas considered environmental, physical, technical, commercial and social aspects and opportunities, engineering needs and the feedback from early engagement with communities and stakeholders.

The process has been iterative with proposals informed by ongoing environmental studies, and influenced by multiple factors from different disciplines, including by public consultation at different stages of development.

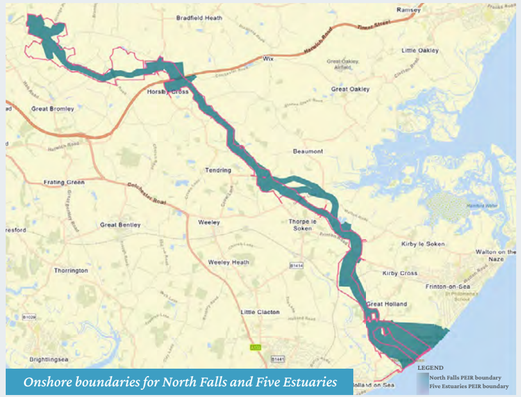
This consultation provides the opportunity to influence what is proposed inside the project's red line boundary. There will also be future consultation with the communities near the substation site, specific to the substation design. Should the project receive consent it will be subject to planning conditions, called requirements. These requirements will ensure the local authority and other key stakeholders are integral to the detailed design process.

Consideration of other projects

Opportunities for co-ordination with other projects have been sought during the project design, particularly with Five Estuaries, a proposed extension to the existing Galloper Offshore Wind Farm. Like North Falls, Five Estuaries has been offered a connection to the national grid at a point opposite Lawford substation, near the village of Ardleigh. Due to the projects' proximity to each other and given stakeholder feedback noting a preference for collaboration, the projects have sought to co-ordinate on proposed onshore infrastructure where practicable, primarily for the onshore substation zone and onshore cable corridor. Both projects have committed to burying all their onshore electricity cables.



Offshore boundaries for North Falls and Five Estuaries



Onshore boundaries for North Falls and Five Estuaries

Offshore Transmission Network Review

There are currently numerous challenges related to whether North Falls could be offered a feasible and practicable offshore grid connection to replace the onshore grid connection in Tendring, North Essex in time to meet the 2030 ambitions. These challenges are beyond North Falls control with examples including: need for new regulations around grid charging; revised rules related to the government's contract for difference auction to allow for joint bids, and the current offshore transmission owner (OFTO) obligations. Other challenges relate to how different projects are allowed to work together, for example, if one is required to make anticipatory investments to oversize their infrastructure so a later second project can benefit.

Through the OTNR, North Falls is engaged in technical, regulatory and programme discussions with the Office of Gas and Electricity Markets (Ofgem), the Department of Energy Security and Net Zero, third party transmission providers and others, to address these challenges.

However, to maintain momentum and avoid the risk of project delays, North Falls will continue to progress with our onshore grid connection whilst assessing offshore grid connection options. By progressing both onshore and offshore grid connection options, and potentially including both in its application, North Falls aims to be in a position to be operational by 2030, therefore contributing to the UK targets for both offshore wind and net zero.

Offshore site selection

The initial site selection was run by The Crown Estate as part of its process to award extensions to existing operational projects. Criteria included, for example, that extensions must share a boundary with the existing wind farm. As Greater Gabbard has two array areas separated by a shipping route, North Falls is similarly separated into two array areas. Additional constraints considered included: anchorage areas, military areas, existing cables and pipelines.

Offshore site selection has also included the proposed interconnector cable corridor between the northern and southern array areas and the offshore export cable corridor. North Falls followed key principles including selecting the most direct route to shore, and minimising impacts to designated sites, other users of the sea and navigation. Five cable corridor options were originally identified, and following consultation with marine and maritime stakeholders, a final offshore cable corridor is now proposed in the PEIR.

Landfall

North Falls commissioned a study to identify suitable locations for landfall when it became clear that National Grid would offer a grid connection on Tendring Peninsula. With the results of this study and influence from the community as a result of the first two phases of consultation, the area between Frinton-on-Sea and Clacton-on-Sea was identified as the least constrained landfall location and taken forward for further assessment.

Onshore substation

Over the past two years, North Falls has sought to identify suitable options for the project's onshore substation to accommodate either North Falls alone or combined with Five Estuaries.

A broad 'area of search' was identified followed by a constraints mapping exercise to identify an initial 'long list' of potential options for the location of the onshore substation. Consultation with an expert topic group, supported by statutory bodies, was undertaken on the long list options and the site selection process. Parcels of less constrained land were identified within the area of search, and further assessment were undertaken to identify the preferred option: the onshore substation zone. This covers two potential sites capable of accommodating both North Falls and Five Estuaries.

Onshore cable corridor

For the onshore cable corridor a series of initial 400m wide options were identified based on assumptions around the transmission infrastructure required for the project. Key high-level constraints were identified, with engineering, environmental, land and planning input sought to inform this initial site selection stage. To align with national policy and stakeholder feedback and with influence from the project's public consultation activity, North Falls and Five Estuaries began working more collaboratively on the underground onshore export cable infrastructure locations. A combined cable corridor study looked at the potential for a single onshore cable corridor option for both projects.

Within the North Falls PEIR, the area identified for assessment comprises a single combined cable corridor connecting the landfall search area to the onshore substation zone of up to 243m wide. This is still subject to ongoing refinement through data collection, engineering assessments and consultation.

Grid connection

The onshore grid connection location was decided via National Grid's Connection and Infrastructure Options Note (CION) process, which took place between March 2019 and April 2021. Having understood that the grid connection would be located in Tendring, Essex, this location has been used as the basis of the North Falls site selection process. In parallel, through the Offshore Transmission Network Review (OTNR), North Falls is also evaluating options for an offshore gid connection. Such an option would be provided by a third party and regulated by UK and EU law (see further details on next page).

Feedback question:

What outcome would you like from the Offshore Transmission Network Review?

PEIR reference

Chapter 4. *Site Selection and Assessment of Alternatives*

- *Marine Conservation Zone Assessment*
- *Habitats Regulations Assessment*

THE PROJECT

Components, optionality and construction

Project description

North Falls has an offshore array area of 150km² split into two sections within the Outer Thames Estuary, in the southern North Sea. Its closest point to land is 22.5km from the East Anglia coast near Orford.

The current proposals for North Falls include up to 72 wind turbines on fixed foundations, the design of which is still to be determined but could include: monopile, suction bucket, gravity base or jacket. Array cables will connect the turbines in strings to either one or two offshore substation platforms, also on foundation(s). These contain electrical equipment and ancillary components to transform the voltage of the electricity generated by the turbines, so it can be transported either to the onshore transmission network or to an offshore connection point. Scour protection would be placed around the base of each of the foundations and seabed cables as required.

A subsea interconnector will join the project's northern and southern sections. In the event of an onshore grid connection, subsea export cables will bring the power to shore at a location known as 'landfall'. From there, underground onshore cables would carry the power to a new onshore substation and then on to the national grid.

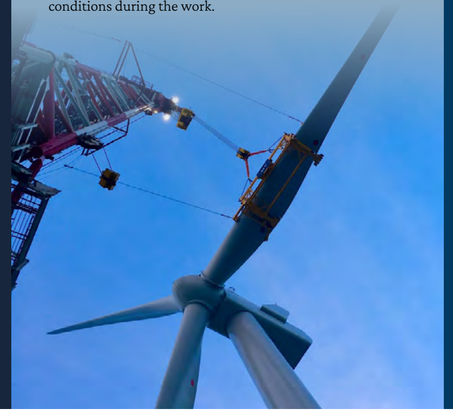
At this stage of the project, some optionality is required to future-proof the development consent order and therefore a 'design envelope' approach has been adopted. The design envelope includes maximum and minimum parameters to be fully transparent and ensure that the worst case scenario is quantified and assessed.

Offshore works

The North Falls array area, where the turbines and offshore substation platform(s) will be located, is split into two boundaries separated by a shipping route. The northern and southern array boundaries cover areas of approximately 21km² and 129km², respectively.

Prior to offshore construction, pre-construction surveys would be undertaken to plan potential minor siting adjustments and identify whether unexploded ordnance and boulder clearance is required. Any other seabed obstructions such as discarded fishing gear or abandoned cables would also be removed.

Offshore construction should take around three years however the programme can be affected by the final design and layout of the components, supply chain and weather conditions during the work.



Connection options

One key area of optionality is around connection to the national grid. North Falls is committed to working with the Department of Energy Security and Net Zero to explore grid connection options as part of the Offshore Transmission Network Review (OTNR) process and as such has committed to exploring coordinated network designs, along with four other projects in East Anglia.

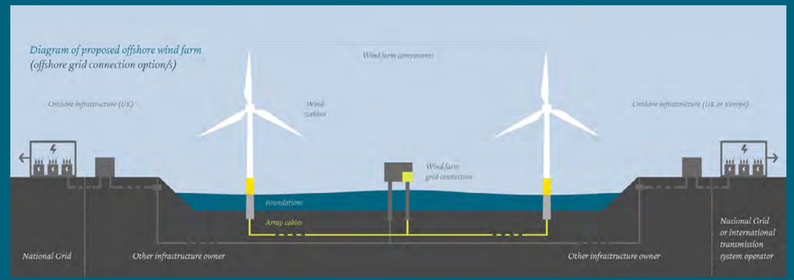
This means we are currently reviewing three options for the grid connection point:

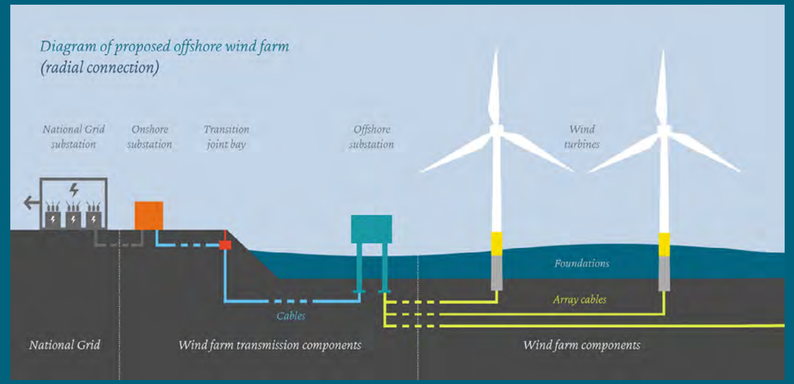
Option 1: Onshore electrical connection at a connection point within Tendring, Essex, with a project alone onshore cable route and onshore substation infrastructure;

Option 2: Onshore electrical connection at a National Grid connection point within Tendring, Essex, sharing an onshore cable route with separate onshore export cables with another project (such as Five Estuaries) where practicable; or

Option 3: Offshore electrical connection supplied by a third-party electricity network provider. Such a connection will potentially be identified through the OTNR process.

North Falls grid connection options





PEIR reference
Chapter 5. *Project Description*

Diagrams are a simplified representation only and not to scale. Actual distances will be dependant on geography of the project.

PROJECT DESCRIPTION

Onshore works

North Falls' onshore infrastructure is proposed to be located entirely within Tendring, Essex. Its footprint is referred to as the 'onshore project area' with the exact siting of the infrastructure being refined through site selection, and with consideration given to consultation feedback and data from our surveys.

There are three key areas that make up the onshore project area as follows:

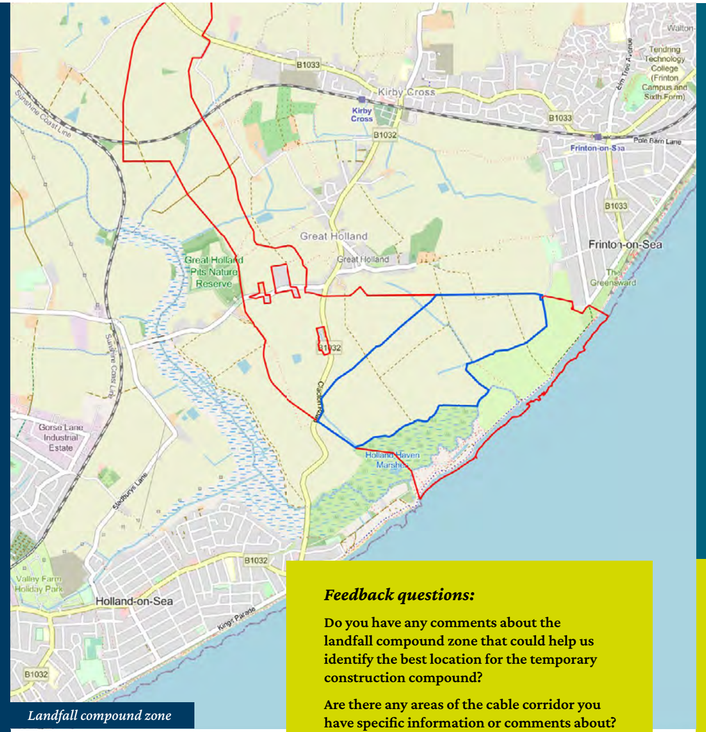
1. Landfall

The landfall is where the offshore export cables are brought onshore and connect to the onshore export cables within transition joint bays. It is likely to be located near Frinton-on-Sea with construction work being undertaken from a temporary compound within what we refer to as the landfall compound zone. A construction technique called horizontal directional drilling will be used to install the cables at landfall. At our previous consultation we asked for any details that may help us to select the location for our temporary construction compound. This question remains important to us, as we are still to finalise the exact location of the construction compound. Please do share any local knowledge or ideas with us by submitting feedback.

2. Onshore cable corridor

From the landfall, onshore export cables, laid in ducts along the cable route, will carry electricity approximately 24km to the onshore substation. So far North Falls has identified broad onshore cable corridor(s) up to 243m in width, which will be refined down to a predominantly 60m-wide working width where the construction works for the onshore export cables will take place. Some sections may be wider to allow for more complex crossings such as railway lines, main roads or hedgerows. Some additional land adjacent to, or near, the cable corridor will also be required for temporary construction compounds.

At this stage the current corridor(s) still have a degree of flexibility and optionality. There will be further engineering design studies and ground investigation works, ongoing engagement with landowners and consultation feedback to take into account prior to the submission of the project's application. When it comes to construction, the export cables will be installed by open cut trenching, or trenchless techniques where needed, with land reinstated and returned to its former use after the work is completed with the exception of any land affected by permanent above ground infrastructure, specifically the onshore substation.



Landfall compound zone

Feedback questions:

Do you have any comments about the landfall compound zone that could help us identify the best location for the temporary construction compound?

Are there any areas of the cable corridor you have specific information or comments about?

3. Onshore substation

Again, the precise location of the onshore substation and grid connection is subject to ongoing consultation, however assuming a radial connection, the substation will be located in the onshore substation zone (see map). The onshore substation will feature either air insulated switchgear where the high voltage equipment is installed outdoors, or gas insulated switchgear where high voltage equipment is located within a building. A maximum area of 0.080km2 (8ha) would be required for the onshore substation. In addition there would be drainage and accesss infrastructure, and extensive landscaping such as bunds, woodland and hedgerow planting.

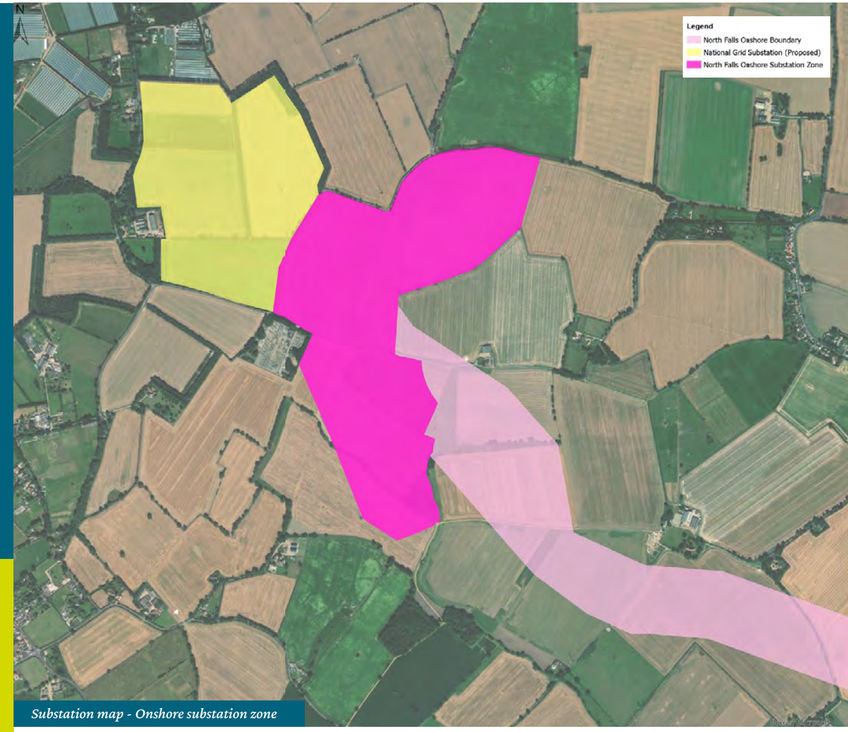
North Falls considered issues of good design from an early stage in the development of the project. Initially as part of the golden rules used for the site selection process but more recently through the preparation of a Design Vision Statement which sets out the project's design strategy for the onshore substation, identifying the constraints and opportunities relevant for electrical infrastructure situated in the local landscape.

PEIR reference

Chapter 5. *Project Description*
- *Design Vision*

Feedback question:

Looking at the proposed onshore substation zone, is there anything North Falls should know that could help with the final siting of the electrical infrastructure?



Substation map - Onshore substation zone

ASSESSMENTS AND IMPACTS

The North Falls PEIR assesses a wide range of potential impacts for physical, biological and human environmental topics for the whole project lifecycle.

This section takes a high-level look at the key topics that are relevant to the offshore and onshore elements of the project, as well as those relevant project-wide. For full details on each specific topic you can review the relevant chapter.

OFFSHORE

Marine geology, oceanography and physical processes

Boat-based geophysical and benthic surveys and desk-reviews of available data were undertaken to assess impacts on marine geology, oceanography and physical processes such as changes to suspended sediment concentrations, changes in seabed level, interruptions to bedload sediment transport and indentations on the seabed. Mitigation will be incorporated into the project design where practicable including: effective and strategic turbine spacing.

Marine water and sediment quality

The surveys mentioned above also enabled assessment of potential increases in suspended sediment and the potential deterioration of water quality due to the release of existing contaminants. Through the commitment to use best practice techniques to reduce the likelihood of any accidental release of pollutants the project is predicted to have no significant impact on marine water and sediment quality.

Fish and shellfish ecology

Species of commercial importance identified in our studies include sole, whelk, bass, thornback ray, horse mackerel, herring, cod, and plaice. The studies also covered locations for species of conservation importance at certain times of the year, and spawning and nursery grounds. Impacts reviewed include physical disturbance and habitat loss, underwater noise from construction activities, changes in fishing activity, increased suspended sediments and the potential impact of electromagnetic fields around the cables during operation. Mitigation such as cable burial, cable protection, noise-limiting construction protocols and pollution protection measures will be implemented where practicable to ensure no significant impacts on fish and shellfish ecology.

Fisheries survey

Benthic and intertidal ecology

North Falls' seabed sampling and intertidal surveys, as well as desk-based research, specifically identified habitats or species in the Kentish Knock East Marine Conservation Zone (MCZ) which overlaps with North Falls' southern array area and the Margate and Long Sands Special Area of Conservation (SAC), south of the offshore cable corridor.

Impacts identified include: temporary physical disturbance, increased suspended sediment concentrations, re-mobilisation of contaminated sediments and underwater noise and vibration. Mitigation incorporated into the project design, such as selection of export cable route and cable burial, means effects would not be significant, even when cumulated with other projects. As well as the relevant PEIR chapter, more can be read on the SAC in the Report to Inform Appropriate Assessment and MCZ Assessment.

Offshore ornithology

North Falls undertook 24 monthly digital aerial surveys flown along transects across the array site plus buffer zones to record existing bird populations. The impacts assessed for the project include direct disturbance, displacement, collision risk and indirect effects on prey species and habitat. Mitigation measures include sensitive site selection of the offshore cable corridor to minimise overlap with the Outer Thames Estuary SPA, and a minimum air gap of 27m (five metres above the gap proposed in the North Falls Scoping Report) to reduce the risk of collisions, and a best-practice shipping protocol which may include actions such as designing transit routes to minimise disturbance within the SPA, restricting and minimising vessel movements, avoiding over-revving of engines and crew training.

Through the use of mitigation measures, the project should not have significant effects on ornithology, even in cumulation with other projects except for some specific species such as the kittiwake and black-backed gull, where there may be a significant impact in terms of collision risk.

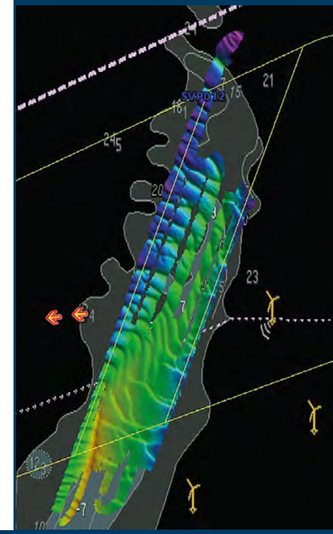

Common Seagull

Marine mammals

North Falls undertook two years of monthly aerial surveys for both marine mammals and seabirds. High resolution digital data was collected providing imagery for marine megafauna over the project's two array areas with a four kilometre buffer. As well as use of wider desk-based sources, these surveys provided information on the numbers and density of harbour porpoise, minke whale, grey seal and harbour seal.

Impacts identified could include: potential hearing damage and disturbance / behavioural impacts or barrier effects from underwater noise; an increase in vessel collision risk and indirect effects through changes to water quality and prey resources. Mitigation measures proposed include: soft-start and ramp-up for piling activities; use of best practice guidance to reduce vessel collision risk and implementation of a project environmental monitoring plan to manage potential pollution events. Additional mitigation will be implemented through a marine mammal mitigation plan, with an outline to be submitted alongside the DCO application.

Seabed survey (Marine geology)



Feedback question:

Do you have any comments about any of the offshore-related assessments or on the mitigation measures proposed?

PEIR reference

Chapter 8.	*Marine Geology Oceanography and Physical Processes*
Chapter 9.	*Marine Water and Sediment Quality*
Chapter 10.	*Benthic and Intertidal Ecology*
Chapter 11.	*Fish and Shellfish Ecology*
Chapter 12.	*Marine Mammals*
Chapter 13.	*Offshore Ornithology*

ASSESSMENTS AND IMPACTS

Commercial fisheries

Assessments have identified the project is likely to have a number of potential impacts on commercial fisheries such as loss or restricted access of fishing grounds; displacement of fishing activities into other areas; increased sailing times; interference with fishing activities, and safety issues for fishing. Ways these will be dealt with include the appointment of a fisheries liaison officer for the duration of the construction phase, development of a Fisheries Liaison and Coexistence Plan detailing the approach to liaison with fisheries stakeholders, and development of a Code of Good Practice for project vessels. In terms of the project design there is a commitment to bury subsea cables, with cable protection to be used where this is not possible. Cable protection will be designed to minimise potential risk of gear snagging and the locations of protected cables will be shared.

Shipping and navigation

Vessel traffic surveys were conducted over two periods in 2022 using Automatic Identification System (AIS), radar, and visual observations to ensure a full account of traffic within the area. The surveys, along with desk-based research, informed the assessment of impacts including: risk of vessel-to-structure or vessel-to-vessel collision; vessel displacement on vessels using nearby ports, and a reduction of emergency capabilities due to increased incident rates and/or reduced access for Search and Rescue (SAR) responders. An additional impact (interaction with subsea cables including cable protection) was assessed for the operational phase.

However, these risks can be largely mitigated by implementation of safety measures, adherence to international regulations and conventions, working with consultees on the turbine layout and with thorough emergency response planning and communication of information to other sea users.

Aviation and radar

Aviation and radar assessments focussed on potential impacts to civil and military radars for example due to: the height of construction vessels, the creation of an aviation obstacle environment causing permanent interference, or increased air traffic in areas related to wind farm activity. The project will use obstacle location charts in aeronautical documents, marking and lighting turbines and application of minimum separation distances, as well as targeted communication, to ensure there are no significant impacts.

Infrastructure and other users

This chapter of the PEIR focusses on potential impacts or interference with infrastructure or other users of the marine area such as existing offshore cables, wind farms, oil and gas infrastructure, aggregate sites, and Ministry of Defence (MoD) practice and exercise areas or disposal sites.

Mitigation has been incorporated into the project design, which includes engagement with infrastructure owners and operators to agree commercial and technical arrangements prior to construction. Information will be provided via Notices to Mariners and crossing and proximity agreements will be put in place post-consent with relevant asset owners. These will also be in consultation with Trinity House to determine appropriate lighting and marking and alignment of turbines to provide obstruction free search and rescue access.

Sunken passenger ship Mecklenburg

Offshore and intertidal archaeology and cultural heritage

This refers to such issues as ship or plane wreck sites, or marine geophysical anomalies of archaeological interest, which were assessed during a marine geophysical survey in 2021, alongside desk-based research. Potential impacts related to direct (physical) impacts to known and also to potential heritage sites, as well as indirect impacts to the heritage assets and seascape character for example and changes to physical processes. There are no known sites within the study area that are subject to statutory protection. North Falls will use archaeological exclusion zones or minor siting adjustments as mitigation with full details on the proposed approach, and investigation into the final design of North Falls, to be covered in an Outlined Written Scheme of Investigation.

PEIR reference

Chapter 14.	*Commercial Fisheries*
Chapter 15.	*Shipping and Navigation*
Chapter 16.	*Offshore Archaeology and Cultural Heritage*
Chapter 17.	*Aviation and Radar*
Chapter 18.	*Infrastructure and Other Users*

ASSESSMENTS AND IMPACTS

ONSHORE

Ground conditions and contamination

A Code of Construction Practice (CoCP) will be adhered to throughout construction, which will include an assessment of any risks to human health, soils and water, and will outline how industry best practice measures will be implemented to avoid, minimise and mitigate potential impacts. An outline version of the CoCP will be submitted as part of the project's DCO application.

Onshore air quality

Best practice dust mitigation measures will be followed, as well as other measures to be outlined in the CoCP (mentioned above), to minimise impacts such as construction dust, emissions from non-road mobile machinery and construction road vehicle exhaust emissions. Air quality considerations have been included in the site selection process for the onshore substation and associated infrastructure.

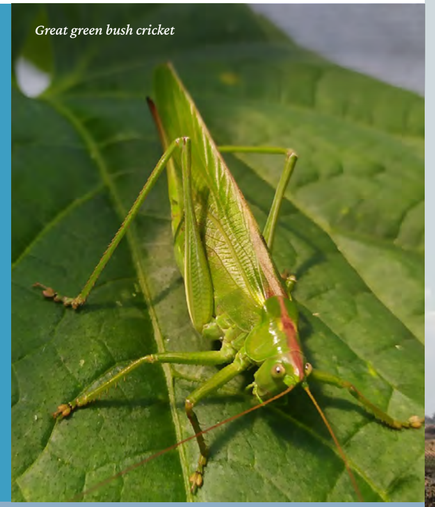
Onshore ecology

North Falls has undertaken extensive habitat surveys as well as surveys specific to species such as bats, reptiles, water vole and otters, hazel dormice and great crested newts.

The impacts assessed include those on: Holland Haven Marshes Site of Special Scientific Interest (SSSI) and Holland Haven Local Nature Reserve (LNR); other designated sites; hedgerows and arable field margins; impacts on specific species, and the spread of invasive non-native species.

To address impacts, the proposed location of the cable route and onshore substation avoid designated sites, ancient woodlands, and specific habitats. Construction methods will be chosen carefully and an Ecological Management Plan (EMP) in line with best practice measures, will be implemented during construction.

All habitats subject to temporary construction impacts will be reinstated. In addition, North Falls has committed to delivering a minimum of 10% biodiversity net gain for the project.



Great green bush cricket

Water resources and flood risk

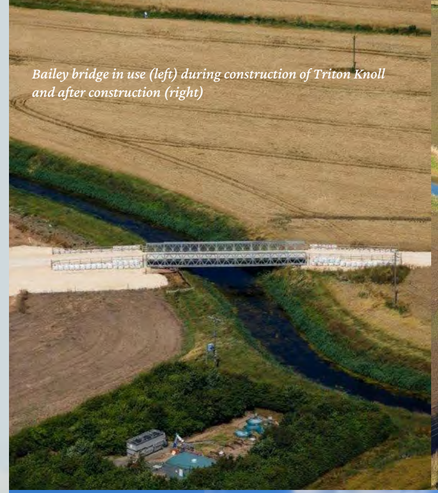
The physical characteristics of the watercourses within the onshore project area were assessed with specific potential impacts such as direct disturbance of surface water bodies, increased sediment supply, contaminants, changes to surface and groundwater flows, and flood risk. Mitigation and soil management measures will be included in the CCoP and also in a Soil Management Plan.

During construction, trenchless methods will be used to install cables at rivers and most ordinary watercourses, temporary Bailey bridges will be used across rivers, and best practice measures will be employed at trenched crossings. A land drainage consultant will develop pre- and post-construction drainage plans.

Land use and agriculture

North Falls continues to engage with landowners and occupiers about the project, their land holdings and how the impacts of the project can be mitigated. Factors considered have included: minimising land take; reducing severed land parcels; aligning with field boundaries, and avoiding higher quality agricultural land, land subject to Environmental Stewardship or Countryside Stewardship schemes and land allocated in local plans.

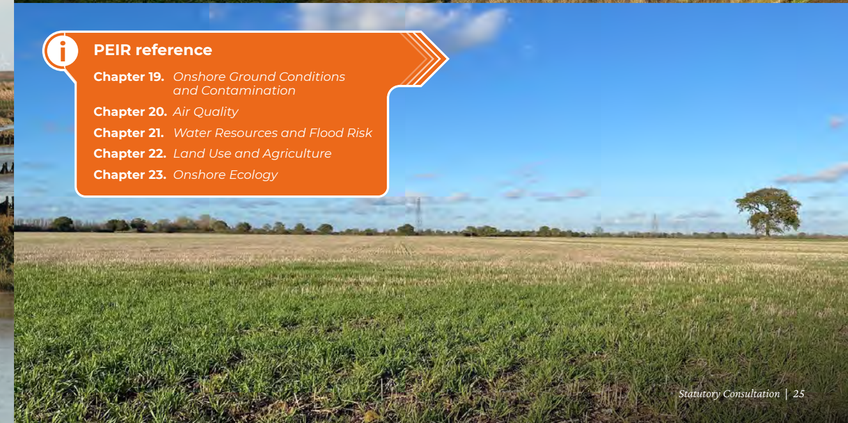
Mitigations to address potential impacts on land use and agriculture will be secured as part of CoCP and Soil Management Plan, and will include the appointment of a land drainage consultant to develop pre- and post-construction drainage plans, and an agricultural liaison officer to work with landowners/occupiers throughout.



Bailey bridge in use (left) during construction of Triton Knoll and after construction (right)

PEIR reference

Chapter 19. *Onshore Ground Conditions and Contamination*
Chapter 20. *Air Quality*
Chapter 21. *Water Resources and Flood Risk*
Chapter 22. *Land Use and Agriculture*
Chapter 23. *Onshore Ecology*



ASSESSMENTS AND IMPACTS

Onshore ornithology

North Falls has undertaken onshore ornithological surveys during both non-breeding and breeding seasons and considered potential direct impacts such as habitat loss, as well as indirect impacts due to construction disturbance, such as noise and light, and operation and maintenance activities. Mitigation measures will be integral to the EMP mentioned above and will include design and construction methodology and habitat reinstatement.

Onshore archaeology and cultural heritage

North Falls conducted an historic environment walkover survey, geoarchaeological desk-based assessment, further research and an archaeological geophysical survey, with further trial trenching investigations also taking place throughout 2023. The work highlighted that indirect and direct physical impacts are predicted to occur on heritage assets, both non-designated and designated. The cable route will be further refined and micro-sited to avoid areas of high archaeological potential and there will be a need to undertake additional surveys to refine the archaeological mitigation requirements.

Noise and vibration

Baseline surveys have been conducted near the proposed landfall and onshore substation zones to assess potential noise and vibration impacts. Site selection has considered nearby residential properties, with noise and vibration mitigation to be detailed in the CoCP. This is likely to include: restricted use of plant, speed limits, use of quieter working methods, and phasing of works to avoid sensitive times.

During operation, certain onshore substation equipment would be enclosed and vibration isolation mounts used.

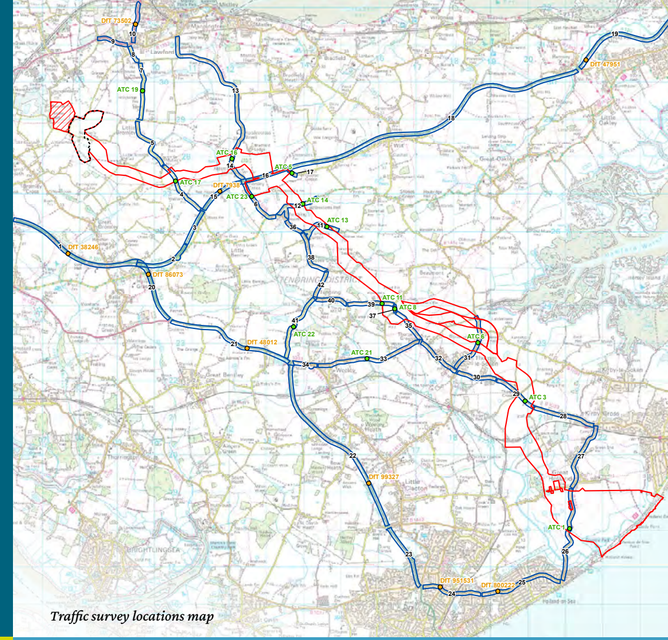
Three developments in addition to North Falls were scoped into the cumulative impacts assessment for further review due to their scale and potential for overlapping. Namely: East Anglia GREEN, Five Estuaries Offshore Wind Farm and Little Bromley Battery Energy Storage System. Whichever construction contractor North Falls uses would be required to coordinate with the other relevant contractors to minimise the potential for cumulative impacts. Details on that liaison and on mitigations will be specified in the final Construction Environmental Management Plan (CEMP) and Construction Traffic Management Plan (CTMP).

Traffic and transportation

The impacts assessed in the project's traffic and transport reviews included: traffic-induced community separation, pedestrian and cyclist amenity, highway safety, and traffic delays due to delivery of abnormal loads.

These issues can be reduced by restricting timeframes for heavy goods vehicle (HGV) movements, through the use of temporary haul roads along the onshore cable route, by creating vehicle crossovers and controlling project vehicle routes. HGV movements would be restricted through Thorpe-le-Soken and vehicles routed from certain sensitive roads to the temporary haul road, or along other designated routes. No construction traffic will be permitted to travel via alternative routes.

The full strategy for traffic and transport management during construction will be covered in the Outline CTMP, which will be submitted with the development consent order application. This will contain details of how HGV movements would be controlled, monitored and enforced and will provide details of the mechanisms for managing access design and offsite highway works.



Traffic survey locations map

Feedback question:

Do you have any comments about any of the onshore-related assessments or on the mitigation measures proposed?

PEIR reference

Chapter 24. *Onshore Ornithology*
Chapter 25. *Onshore Archaeology and Cultural Heritage*
Chapter 26. *Noise and Vibration*
Chapter 27. *Traffic and Transport*

ASSESSMENT AND IMPACTS

PROJECT-WIDE TOPICS

Human health

As this is a topic that has relevance across the project, the assessment of human health impacts has drawn on information from several PEIR chapters including those covering marine water and sediment quality; ground conditions and contamination; onshore air quality; water resources and flood risk; noise and vibration; traffic and transport; socio-economics; tourism and recreation, and climate change. The assessment considered potential impacts of North Falls on noise, air quality, ground and/or water contamination, physical activity, journey times and/or reduced access, employment, electro-magnetic fields and wider society.

These issues have been considered throughout site selection and planning and by specifying the use of certain construction methods, traffic management and cable design to ensure the project does not have significant effects on human health during its lifecycle.

Landscape and visual

In assessing the landscape and visual impacts of the onshore elements of North Falls, those factors considered included potential changes to landscape elements and fabric; changes to landscape character; changes to landscape designations; and changes to visual amenity.

Mitigation measures were incorporated as part of the site selection process, as well as in the choice of construction methods, through proposed habitat reinstatement and within the project design. Additional landscape mitigation and biodiversity enhancement, which includes new hedgerow and woodland planting, will also be undertaken. Further details on these can be read in the project's Design Vision.

Seascape, landscape and visual

The study area for seascape, landscape and visual impacts was defined as a 60km radius around the proposed array areas, including parts of the Thames estuary, Suffolk, Essex, and Kent. The assessment is based on the maximum potential turbine size to ensure it was future-proofed in case of technological advances.

North Falls is predicted to impact views from certain Suffolk coastal areas such as Sizewell Beach, sections of the Suffolk Coast Path and Suffolk Coast and Heaths AONB due to visibility of its turbines during operation influencing the seascape and landscape character.

Photomontages are available in the PEIR chapter (Chapter 29) to enable those with an interest to see how the wind farm could look. There is also a 3D computer-generated interactive model with 17 different viewpoints to provide further visual examples in different conditions. Please use the QR code to view the model.

Climate change

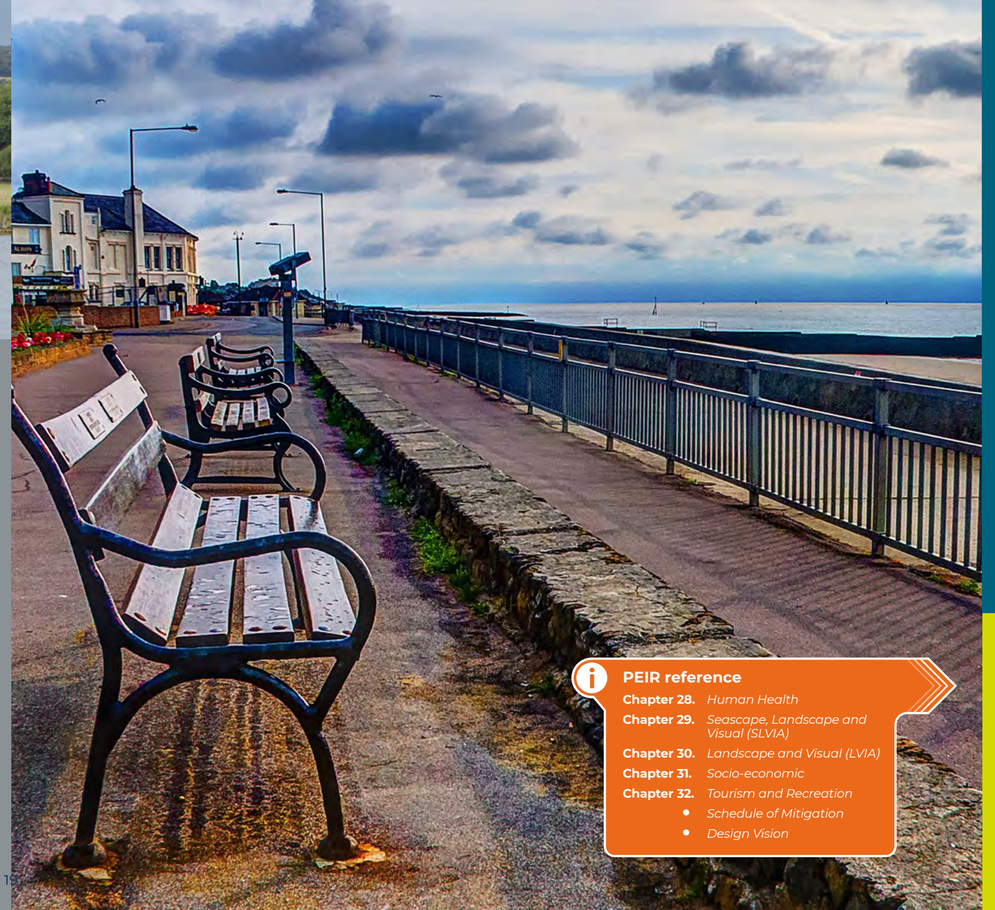
The project was assessed for greenhouse gas emissions throughout its lifecycle with the main emissions sources being embodied emissions from within onshore and offshore materials, and those from marine vessels, road traffic, and construction machinery. Mitigation has been incorporated into the project design to reduce, eliminate, and/or compensate for emissions.

Given the emissions reduction the wind farm will represent when compared with electricity production from fossil fuels, North Falls is predicted to have a significant benefit in relation to climate change.

Socio-economics

In terms of socio-economics, the potential direct and indirect benefits have been reviewed as well as adverse effects on: economy, health infrastructure, social and community infrastructure, imports and exports, volume and value of fishing catch and mineral resources.

The benefits predicted for the project include increases in gross value added (the value of goods and services of the local and national economy) and job-creation through use of the local supply chain and direct and indirect employment. The adverse effects relate to pressure on local infrastructure, disturbance (noise, air, visual), plus potential disruption to fishing and minerals. For these adverse effects, a wide range of mitigation measures will be implemented during construction, such as vehicle delivery time and routing restrictions as well as ongoing stakeholder engagement, and during operations through design to reduce visual impact.



PEIR reference

- **Chapter 28.** *Human Health*
- **Chapter 29.** *Seascape, Landscape and Visual (SLVIA)*
- **Chapter 30.** *Landscape and Visual (LVIA)*
- **Chapter 31.** *Socio-economic*
- **Chapter 32.** *Tourism and Recreation*
  - *Schedule of Mitigation*
  - *Design Vision*

Tourism and recreation

Marine, coastal and onshore tourism and recreational assets in Essex and Suffolk were reviewed for all project phases. For the project's construction phase impacts assessed were road traffic disruption, a reduction in tourist numbers and spending, and the availability of holiday accommodation due to non-resident workers. During the project's operation, impacts assessed were related to negative perceptions of offshore wind farms.

The project's comprehensive site selection process aimed to minimise impacts on the natural surroundings, on designated areas, ancient monuments or listed buildings, and tourist destinations. At the start of the project underground cables were specified, and other mitigation measures proposed include a rolling construction programme, implementation of flexible management plans and good communications throughout any works.

Do you have any further comments or feedback on the project?

WAYS TO HAVE YOUR SAY

We welcome your feedback and have provided a number of ways for you to respond to this consultation.

Face-to-face events
We are holding five face-to-face events at locations near the project search area as well as two webinars at 6pm on Tuesday 13 June and 6pm on Wednesday 21 June. Details of the events and where/how to join are at the front of this booklet.

Online consultation
All information and links to consultation documents, including the online feedback questionnaire, can be found via the consultation portal: **stat.northfallsoffshore.com** which can also be accessed via our website: **www.northfallsoffshore.com**.

The consultation portal also includes a consultation map where you can pinpoint specific locations you have questions or comments on.

Feedback questionnaire
A feedback questionnaire is available at our face-to-face events, online or by request via phone or email. To mail a response you can download the PDF questionnaire or request a hard copy, and once completed send it to: **FREEPOST North Falls.**

Website
You can also send your comments or feedback to us via the online contact form on our website: **www.northfallsoffshore.com**

Email and telephone:
We welcome emails to: **contact@northfallsoffshore.com**,
or you can ring us on: **0800 254 5340**

Post
To send your response by mail please use: **FREEPOST North Falls**.
No stamp required.

To stay in touch
Sign up to email updates or let us know if you would prefer a printed version of the information to be sent to your home.

Other contact details
If you are a landowner with related queries please contact the project's land agent **Dalcour Maclaren:**
Address: Unit 1 Staplehurst Farm, Western on the Green, Bicester, Oxfordshire, OX25 3QU
E: **northfalls@dalcourmaclaren.com**
T: **01622 623025**

If you are from the fisheries industry please contact our fisheries consultants **Brown & May Marine Ltd:**
Address: Progress Way, Mid Suffolk Business Park Eye, Suffolk, IP23 7HU
E: **northfalls@brownmay.com**
T: **01379 772871**

We thank you for taking the time to participate in this consultation.

NORTH FALLS

Offshore Wind Farm

sse Renewables | RWE

CONTACT US

Website: **www.northfallsoffshore.com**
Telephone: **0800 254 5340**
Email: **contact@northfallsoffshore.com**
Post: **FREEPOST North Falls**

NORTH FALLS

Offshore Wind Farm

APPENDIX F

F.2

Stage 3 (statutory) consultation feedback form

FEEDBACK FORM FOR NORTH FALLS CONSULTATION

COMMENTS DUE BY FRIDAY 14 JULY 2023

CONTACT DETAILS

Name _____

Address _____

_____ Postcode _____

Telephone number _____

Email address _____

Do you represent an organisation? If so, which one?

_____

Do you wish to be kept updated on the project?

◯ Yes ◯ No

NEED AND POLICY

1. Do you have any suggestions as to how North Falls could work with Essex-based businesses to help them take advantage of potential contracting opportunities with the project?

SITE SELECTION

2. What outcome would you like from the Offshore Transmission Network Review?

PROJECT DESCRIPTION

3. **Do you have any comments about the landfall compound zone that could help us identify the best location for the temporary construction compound?**

4. **Are there any areas of the onshore cable corridor you have specific information or comments about?**

5. **Looking at the proposed onshore substation zone, is there anything North Falls should know that could help with the final siting of the electrical infrastructure?**

OFFSHORE

6. Do you have any comments about any of the offshore-related assessments or on the mitigation measures proposed?

ONSHORE

7. Do you have any comments about any of the onshore-related assessments or on the mitigation measures proposed?

PROJECT-WIDE

8. Are you supportive of the North Falls Offshore Wind Farm project?

◯ **Yes** ◯ **Yes, conditional on changes** (please provide details below)

◯ **No** ◯ **Don't know**

OTHER

9. Do you have any further comments to add?

PLEASE COMPLETE THIS FORM AND RETURN IT BY FRIDAY 14 JULY 2023 TO NORTH FALLS

At the event: please hand your feedback form to one of the team members or drop it in the box provided

Mail it to: FREEPOST North Falls

Scan and email it to: contact@northfallsoffshore.com

THANK YOU FOR TAKING PART IN OUR CONSULTATION

DATA PRIVACY NOTICE

Camargue Group Limited is supporting North Falls Offshore Wind Farm Limited with its consultation process. Camargue Group Limited ("we" or "us") is committed to ensuring the privacy of your personal information. In this notice we explain how we hold, process and retain your personal data.

HOW WE USE YOUR PERSONAL DATA

We may process information that you provide to us. This data may include the following:

- Your name;
- Your address;
- Your telephone number;
- Your email address;
- Your employer or any group on whose behalf you are authorised to respond; and
- Your feedback in response to the North Falls Offshore Wind Farm Non-Statutory Consultation.

We will use your personal data for the following purposes:

- To record accurately and analyse any questions you raise during the consultation or feedback you have provided in response to the consultation.
- To report on our consultation, detailing what issues have been raised and how we have responded to that feedback (please note that the information contained in the consultation report will be aggregated and will not identify specific individuals).
- To personalise communications with individuals we are required to contact as part of future consultation or communications.
- The legal basis for processing this data is that it is necessary for our legitimate interest, namely for the purpose of ensuring the consultation process, analysis and reporting are accurate and comprehensive.
- In addition to the specific purposes for which we may process your personal data set out above, we may also process any of your personal data where such processing is necessary for compliance with a legal obligation to which we are subject.

PROVIDING YOUR PERSONAL DATA TO OTHERS

We may provide your personal data to the following recipients:

- North Falls Offshore Wind Farm Limited and SSE Renewables and RWE on whose behalf we are collecting your feedback in order to analyse and report on the responses received.
- Third party service providers and professional advisors who provide services to the North Falls Offshore Wind Farm project. This includes but is not limited to Barton Willmore now Stantec and Pinsent Masons LLP.
- Any relevant local planning authority or council.
- The relevant Secretary of State.
- The Planning Inspectorate, who may decide to publish this information on their website.
- Our insurers/ professional advisers. We may disclose your personal data to our insurers and/or professional advisers insofar as reasonably necessary for the purposes of obtaining and maintaining insurance cover, managing risks, obtaining professional advice and managing legal disputes.

RETAINING AND DELETING PERSONAL DATA

- Personal data that we process for any purpose shall not be kept for longer than is necessary for that purpose.
- Your interest in the project will be published in the Book of Reference which we have a legal duty to make public during the Development Consent Order process. This includes the name and address of any person or company whose property or land may be effected by the development. It will not disclose your email address or phone number.

Unless we contact you and obtain your consent for us to retain your personal data for a longer period, we will delete your personal data as soon as practicable following the outcome of the consultation process.

We may retain your personal data where such retention is necessary for compliance with a legal obligation to which we are subject.

YOUR RIGHTS

The rights you have in relation to your personal information under data protection law are:

- The right to access;
- The right to rectification;
- The right to erasure;
- The right to restrict processing;
- The right to object to processing;
- The right to data portability; and
- The right to complain to a supervisory authority.

You may exercise any of your rights in relation to your personal data by writing to us using the details below.

OUR DETAILS

We are registered in England and Wales under registration number 3954008, and our registered office is at Eagle Tower, Montpellier Drive, Cheltenham GL50 1TA.

You can contact us:

- by freephone: 0800 254 5340
- by email: contact@northfallsoffshore.com
- by letter: FREEPOST North Falls

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THANK YOU FOR TAKING PART IN OUR CONSULTATION

FIND OUT MORE

For more information about the project visit ***www.northfallsoffshore.com***

CONTACT US

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NORTH FALLS
Offshore Wind Farm

NORTH FALLS

Offshore Wind Farm

APPENDIX F

F.3

Stage 3 (statutory) consultation website pages

NORTH FALLS STATUTORY CONSULTATION

Now open for comments

Tuesday 16 May until Friday 14 July 2023

North Falls Offshore Wind Farm, an extension project to the existing 504 MW Greater Gabbard Offshore Wind Farm, is being developed in the southern North Sea more than 20km off the UK coast. Its site is in two parts which together cover a total area of 150km². The project has an agreement with National Grid to connect to the national electricity network at a new substation in Tendring, Essex. Onshore electricity cables would be installed underground from landfall near Frinton-on-Sea to this new substation.

North Falls is being developed by North Falls Offshore Wind Farm Limited, a 50/50 joint venture company owned by SSE Renewables and RWE.

The project is now holding its statutory consultation phase which is your key chance to influence the proposals by providing feedback and comments. You can do so via this consultation portal, by using one of the feedback methods detailed below or by attending one of our face-to-face events or webinars. Responses related to the consultation should be received 11.59pm on 14 July 2023.

Programme of events

Date	*Time*	*Location*
Friday 2 June 2023	3.30pm to 7.30pm	Great Bromley Village Hall, Parsons Hill, Great Bromley, Colchester, CO7 7JA
Saturday 3 June 2023	9am to 1pm	Tendring Village Hall, Tendring, Clacton-on-Sea, CO16 0BG
Thursday 8 June 2023	3.30pm to 7.30pm	McGrigor Hall, 85 Fourth Ave, Frinton-on-Sea, CO13 9EB
Friday 9 June 2023	3.30pm to 7.30pm	Thorpe-le-Soken Women's Institute Hall, High Street, Thorpe-le-Soken, CO16 0EF
Saturday 10 June 2023	9am to 1pm	Ardleigh Village Hall, Station Road, Ardleigh, Essex, CO7 7RS
Tuesday 13 June 2023	6.00pm	**Online Zoom Webinar** - Click here to Register
Wednesday 21 June 2023	6.00pm	**Online Zoom Webinar** - Click here to Register

* To register for the webinar please click the link on the date you would like to join.

How will it look

To show how the North Falls offshore site could look we have produced a 3D computer-generated visualisation that includes viewpoints from 17 coastal locations. For those in Suffolk and Kent, where the key issue is around visual impact, consultation panels with links to our visualisation will be on display in Felixstowe Library, Aldeburgh Library, Southwold Library and Whitstable Library for the duration of the consultation.

Purpose of this consultation

This consultation is our third phase of consultation and its purpose is to give people a further chance to review, influence and provide comments on our project proposals, and specifically on our preliminary environmental information report (PEIR). This report sets out our initial findings from the environmental impact assessment (EIA) work that has been completed over the past three years. The EIA investigates the potentially significant effects that our proposals may have on the environment and on local communities and details how they are avoided or mitigated where possible.

The proposals presented in this consultation are not the final application, rather this is an opportunity for the local community and others with an interest in the project to influence the details of the application before it is submitted to the Planning Inspectorate.

Non-technical summary

The North Falls Offshore Wind Farm Preliminary Environment Information Report (PEIR) is a complex and detailed document comprising three volumes and a Non-technical Summary (NtS). It is recommended you start your review with the Non-technical Summary as it gives a high level overview and can help to signpost you to the PEIR chapters, details and documents that are likely to be of most interest.

You can download a PDF of the NtS via the document link opposite. You can also find brief extracts of the document, along with links to relevant PEIR chapters, on this consultation portal page (using the dropdown menu above or link below).

DOWNLOAD NON-TECHNICAL SUMMARY

North Falls PEIR

A Guide to the PEIR, which gives details of the chapters and documents it comprises, can be found here. To see the full list of PEIR documents, you can use the link opposite.

As well as the NtS mentioned above, the PEIR comprises three volumes namely:

Volume I - Technical PEIR chapters. There are 33 chapters covering every aspect of the project from ecology and ornithology to traffic and shipping.

Volume II - Chapter figures. These are the maps and drawings that support each chapter.

Volume III - Chapter appendices. There are a number of appendices that also align to the information found in the chapters.

As well as the chapters and their supporting figures and appendices, additional reports for review are:

- Schedule of Mitigation
- Design Vision
- Habitats Regulations Assessment
- Marine Conservation Zone Assessment

In addition, this consultation portal has been devised to help lead you through the PEIR depending on your main area of interest. By following the drop-down menus (above) or links (below) you can access topic-specific pages that give summary details and signpost you to the relevant PEIR chapters.

VIEW GUIDE TO THE PRELIMINARY ENVIRONMENTAL INFORMATION REPORT

VIEW PRELIMINARY ENVIRONMENTAL INFORMATION REPORT (ALL DOCUMENTS)

How to provide feedback

You can give your feedback by completing the feedback form, by leaving comments direct on to the consultation map or by attending one of the face-to-face consultation events or webinars (details above).

You can also contact us directly via the website, freephone, email or post.

LEAVE FEEDBACK VIA OUR FEEDBACK FORM

LEAVE COMMENTS ON OUR CONSULTATION MAP

Consultation menu

Read our consultation materials by clicking on the links below or by using the nav bar at the top of the page.

VIEW NON-TECHNICAL SUMMARY
VIEW PROJECT DESCRIPTION
VIEW STORY SO FAR
VIEW OFFSHORE
VIEW NEED AND POLICY
VIEW ONSHORE
VIEW SITE SELECTION
VIEW PROJECT WIDE

The need for North Falls

In the past 12 years the capacity of the UK's offshore wind farms has increased from only one gigawatt (GW) in 2010 to almost 14GW in early-2023. The costs per megawatt hour of offshore wind have been driven down by almost two-thirds, the sector directly employs more than 26,000 people, and it supplies on average around 15% of the nation's electricity. In short, the offshore wind sector has become one of Britain's most laudable industrial success stories. However, it is still a sector in its relative youth, with plenty of potential for further growth in the UK and for export internationally.

Full details around project need and relevant national policies can be found in the PEIR chapters:

VIEW CHAPTER 2 NEED FOR THE PROJECT

VIEW CHAPTER 3 POLICY AND LEGISLATIVE CONTENT IN THE NORTH FALLS PEIR

Environmental targets

There are a number of overarching UK environmental targets and goals which set the national framework for tackling climate change and for renewable energy production. These include the legally binding target to reduce the net UK carbon account and therefore reduce greenhouse gas emissions to zero by 2050. These are implemented through the Climate Change Act 2008 and the 2019 Amendment Order.

In support, the British Energy Security Strategy published in April 2022 sets out the need to increase the pace of offshore wind deployment to deliver 50GW of offshore wind by 2030. And in March this year, Powering up Britain was published bringing together both the Energy Security Plan, and Net Zero Growth Plan, as a blueprint for the UK to develop its own sources of clean energy to boost energy independence and green industries.

Powering up Britain is the manifesto that will guide the new Department for Energy Security and Net Zero on its ambitions on four areas of security: climate, consumer, energy and economic. Offshore wind, and projects like North Falls, will have a central role to play in meeting each of them.

While the green agenda needs to clear multiple hurdles to deliver on the promise of billions in investment and much-needed jobs, projects like North Falls will play an essential role in reaching the targets. We intend to continue working closely with all our stakeholders, Government, local communities and the supply chain to ensure we make a positive contribution to the nation's climate ambitions, energy security and economic prosperity.

The UK Government's Powering up Britain manifesto for the Department of Energy Security and Net Zero

DOWNLOAD MANIFESTO (PDF)

Climate change

Scientists continue to see changes in the Earth's climate in every region and across the whole climate system, including continued rise in sea levels and dramatic climate events. Climate change as a result of greenhouse gas emissions is a global issue associated with impacts on weather, ecosystems, human health and welfare. The role of human influence on the climate system is undisputed.

Offshore wind farms generate clean, green electricity powering millions of homes and businesses without burning fossil fuels. They have a vital role to play in the fight against climate change. While reducing greenhouse gases is at the core, the onus is also on developers to ensure new offshore wind farms are built responsibly, sustainably and employing the most efficient technology.

Full details of the climate change rationale for the project can be found in PEIR chapter:

VIEW CHAPTER 33 CLIMATE CHANGE

Cost of offshore wind

The price of offshore wind has fallen to an all-time low with the most recent contracts for difference auction bids coming in at €37.35 per megawatt hour (MWh). These "contracts for difference" guarantee offshore wind developers a fixed price to sell electricity for 15 years. If the market price falls below the contract price, the Government subsidises the difference. If the market is higher, the companies pay money back to the government.

Since wholesale energy prices began to skyrocket last year – in May 2022, electricity prices reached a high of £263.79 – wind farms have been paying back money to the Government. This means that if more offshore wind farms were operational now, electricity prices could potentially be much lower.

Energy security

As well as reduced costs, North Falls will also play a role in helping to stabilise the nation's energy prices and improve its energy security.

By generating more electricity from offshore wind, the UK will be less reliant on international energy imports, for example oil and gas, and therefore more self-sufficient. It will also become less susceptible to global price fluctuations in such commodities, which should lead to reduced costs for consumers. The invasion of Ukraine has given a stark reminder of the need for the UK to sure up its energy supplies and as one of the windiest nations in Europe, the UK is well placed to take advantage of offshore wind technology.

Other benefits of the project

As well as helping to protect the environment and contributing to the UK's net zero ambitions, North Falls will bring numerous local benefits by way of jobs, local economy and community involvement. North Falls has completed an initial socio-economic benefits study as part of its impact assessment to better clarify the type and extent of opportunities for the local area.

Full details around socio-economic benefits can be found in the PEIR chapter:

VIEW CHAPTER 31 – SOCIO-ECONOMICS

- Since starting operation, the project has invested more than £250,000 in community funds and local training initiatives, and in late 2022 a further £50,000 fund was announced in celebration of the project's 10 year anniversary.

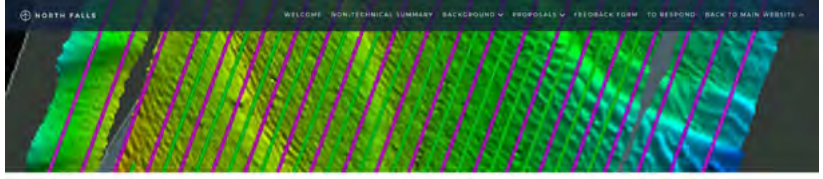
Planning policies

National Policy Statements (NPS) were prepared by the UK government in 2011 in accordance with the obligations of the Climate Change Act 2008, and set out a case for the need and urgency for new energy infrastructure. In total there are three National Policy Statements relevant to the decision-making process on North Falls:

- **EN-1 Overarching Energy,** which highlights that there should be a presumption in favour of granting consent for projects which fall within relevant NPSs and recognises that offshore wind is a key factor in meeting UK policy objectives;
- **EN-3 Renewable Energy Infrastructure,** which covers national significant renewable energy infrastructure, including offshore generating stations in excess of 100MW;
- **EN-5 Electricity Networks Infrastructure,** which covers the electrical infrastructure in conjunction with EN-1.

The PEIR demonstrates how the development of North Falls would comply with and support the policies stipulated by these statements. On 30 March 2023 a consultation was launched on draft revisions to the NPS with the final revised versions expected to be designated by the Government in mid-2023. These will be taken into account by North Falls as the project progresses.

Regarding other planning policies, local authorities are required to prepare and maintain up-to-date Local Development Plans which set out their objectives for the use and development of land within their jurisdiction, and general policies for implementation. The onshore project area falls under the jurisdiction of Tendring District Council and Essex County Council. Relevant Local Development Plans have been considered during the onshore site selection for the project to mitigate conflict with site-specific planning allocations.



Site selection and assessment of alternatives

The siting and refinement of the North Falls offshore and onshore project areas considered environmental, physical, technical, commercial and social aspects and opportunities, engineering needs and the feedback from early engagement with communities and stakeholders.

The process has been iterative with proposals informed by ongoing environmental studies, and influenced by multiple factors from different disciplines, including by public consultation at different stages of development.

This consultation provides the opportunity to influence what is proposed inside the project's red line boundary. There will also be future consultation with the communities near the substation site, specific to the substation design.

Should the project receive consent it will be subject to planning conditions, called requirements. These requirements will ensure the local authority and other key stakeholders are integral to the detailed design process.

In our 2022 consultation we explained the site selection process with the information still available to view here:

VIEW SITE SELECTION PROCESS

Feedback Questions

2. What outcome would you like from the Offshore Transmission Network Review?

Character Count: 7000

Enter your feedback

+ ADD TO FEEDBACK

Consideration of other projects

Opportunities for co-ordination with other projects have been sought during the project design, particularly with Five Estuaries, a proposed extension to the existing Galloper Offshore Wind Farm. Like North Falls, Five Estuaries has been offered a connection to the national grid at a point opposite Lawford substation, near the village of Ardleigh. Due to the projects' proximity to each other and given stakeholder feedback noting a preference for collaboration, the projects have sought to co-ordinate on proposed onshore infrastructure where practicable, primarily for the onshore substation zone and onshore cable corridor. Both projects have committed to burying all their onshore electricity cables.

Further details about the site selection and how alternatives have been assessed can be found in the PEIR chapter:

VIEW CHAPTER 4 SITE SELECTION AND ASSESSMENT OF ALTERNATIVES

DOWNLOAD OFFSHORE BOUNDARIES MAP

DOWNLOAD ONSHORE BOUNDARIES MAP

Offshore site selection

The initial site selection was run by The Crown Estate as part of its process to award extensions to existing operational projects. Criteria included, for example, that extensions must share a boundary with the existing wind farm. As Greater Gabbard has two array areas separated by a shipping route, North Falls is similarly separated into two array areas. Additional constraints considered included: anchorage areas, military areas, existing cables and pipelines.

Offshore site selection has also included the proposed interconnector cable corridor between the northern and southern array areas and the offshore export cable corridor. North Falls followed key principles including selecting the most direct route to shore, and minimising impacts to designated sites, other users of the sea and navigation. Five cable corridors options were originally identified, and following consultation with marine and maritime stakeholders, a final offshore cable corridor is now proposed in the PEIR.

Landfall

North Falls commissioned a study to identify suitable locations for landfall when it became clear that National Grid would offer a grid connection on Tendring Peninsula. With the results of this study and influence from the community as a result of the first two phases of consultation, the area between Felixstowe and Clacton-on-Sea was identified as the least constrained landfall location and taken forward for further assessment.

Onshore cable corridor

For the onshore cable corridor a series of initial 400m wide options were identified based on assumptions around the transmission infrastructure required for the project. Key high-level constraints were identified, with engineering, environmental, land and planning input sought to inform this initial site selection stage. To align with national policy and stakeholder feedback and with influence from the project's public consultation activity, North Falls began working more collaboratively with Five Estuaries on the underground onshore export cable infrastructure locations. A combined cable corridor study looked at the potential for a single onshore cable corridor option for both projects.

Within the North Falls PEIR, the area identified for assessment comprises a single combined cable corridor connecting the landfall search area to the onshore substation zone of up to 243m wide. This is still subject to ongoing refinement through data collection, engineering assessments and consultation.

Other documents within the PEIR that are relevant to site selection and assessment can be found here:

VIEW DRAFT REPORT TO INFORM APPROPRIATE ASSESSMENT (RIAA)

VIEW HABITATS REGULATIONS ASSESSMENT SCREENING REPORT (RIAA APPENDIX 1)

VIEW HABITATS REGULATIONS ASSESSMENT DRAFT IN PRINCIPLE COMPENSATION OPTIONS

VIEW MARINE CONSERVATION ZONE (MCZ) ASSESSMENT PRELIMINARY STAGE 1 ASSESSMENT

VIEW APPENDIX 1 MARINE CONSERVATION ZONE (MCZ) ASSESSMENT SCREENING REPORT

VIEW APPENDIX 2 MARINE CONSERVATION ZONE (MCZ) ASSESSMENT BIOTOPE SENSITIVITY RANGES

VIEW APPENDIX 3 MARINE CONSERVATION ZONE ASSESSMENT (MCZ) IN PRINCIPLE MEASURES OF EQUIVALENT ENVIRONMENTAL BENEFIT REVIEW (MEEB)

DOWNLOAD ONSHORE CABLE CORRIDOR SITE SELECTION MAP

Grid connection

The onshore grid connection location was decided via National Grid's Connection and Infrastructure Options Note (CION) process, which took place between March 2019 and April 2021. Having understood that the grid connection would be located in the Tendring, Essex, this location has been used as the basis of the North Falls site selection process. In parallel, through the Offshore Transmission Network Review (OTNR) North Falls is also evaluating options for an offshore grid connection. Such an option would be provided by a third party and regulated by UK and EU law (see further details below).

Onshore substation

Over the past two years, North Falls has sought to identify suitable options for the project's onshore substation to accommodate either North Falls alone or combined with Five Estuaries.

A broad 'area of search' was identified follow by a constraints mapping exercise to identify an initial 'long list' of potential options for the location of the onshore substation. Consultation with an expert topic group, supported by statutory bodies, was undertaken on the long list options and the site selection process. Parcels of less constrained land were identified within the area of search, and further assessment undertaken to identify the preferred option: the onshore substation zone. This covers two potential sites capable of accommodating both North Falls and Five Estuaries.

DOWNLOAD ONSHORE SUBSTATION AREA MAP

Offshore Transmission Network Review

North Falls is participating in the ongoing Offshore Transmission Network Review (OTNR) which is addressing offshore transmission-related barriers to new offshore wind projects that are set to play a central role in the UK meeting its commitment to net zero emissions by 2050.

This review has brought together government departments and industrial bodies as well as key stakeholders involved in the delivery of offshore wind, interconnectors and offshore networks. It involves work to identify and bring forward any legislation or regulations needed to enable a more strategic approach and greater coordination around offshore grid connections.

There are currently numerous challenges related to whether North Falls could be offered a feasible and practicable offshore grid connection to replace the onshore grid connection in Tendring, North Essex in time to meet the 2030 ambitions. These challenges are beyond North Falls' control with examples including: need for new regulations around grid charging; revised rules related to the government's contract for difference auction to allow for joint bids, and the current offshore transmission owner (OFTO) obligations. Other challenges relate to how different projects are allowed to work together, for example, if one is required to make anticipatory investments to oversize their infrastructure so a later second project can benefit.

Through the OTNR, North Falls is engaged in technical, regulatory and programme discussions with the Office of Gas and Electricity Markets (Ofgem), the Department of Energy Security and Net Zero, third party transmission providers and others, to address these challenges.

However to maintain momentum and avoid the risk of project delays, North Falls will continue to progress with our onshore grid connection whilst assessing offshore grid connection options. By progressing both onshore and offshore grid connection options, and potentially including both in its application, North Falls aims to be in a position to be operational by 2030, therefore contributing to the UK targets for both offshore wind and net zero.

The connection options are detailed in the project description available under proposals on the dropdown menu above.

For more information on the Offshore Transmission Network Review visit:

VIEW OFFSHORE TRANSMISSION NETWORK REVIEW

North Falls grid connection

As with all offshore wind farms, North Falls will require a grid connection point to export the power it generates to the national grid - the UK's high voltage electricity system. In 2019, North Falls specified what it needed in terms of a grid connection to the National Grid. The National Grid owns the national grid, and it is their responsibility to connect new sources of electricity to the grid, installing additional infrastructure at existing substation sites or constructing new substations as required.

North Falls has accepted an offer from the National Grid for a grid connection in Tendring Essex. Our engineering design, survey and planning work to date has been undertaken in relation to this grid connection and this consultation will seek your views on the outputs of that work.

In parallel, North Falls has committed to working with other projects in East Anglia to determine if there are opportunities to coordinate network designs. For the purposes of this consultation, we are eager to hear views on our current proposals based on the existing connection option in Tendring, Essex. It is possible that this will be the route the project takes forward in our application, so we encourage you to provide specific comments on the proposals in this consultation, rather than referring only to a preference for an alternative solution, which may not be feasible.

Background

Together SSE Renewables and RWE have been active in the East Anglia region since the organisations jointly developed and constructed the Greater Gabbard Offshore Wind Farm, located 25 kilometres off the coast of Suffolk in the North Sea and operated out of Lowestoft. The 504 megawatt (MW) project started construction in 2008 and at the time was the world's largest offshore wind farm. It has 140 wind turbines and was commissioned in September 2012. North Falls is an extension project to Greater Gabbard.

DOWNLOAD THE LATEST NORTH FALLS FACTSHEET (PDF)

Extensions timeline

In February 2017, The Crown Estate, manager of the seabed, launched a process for wind farm operators to apply for extensions to their existing projects. This opportunity closed in May 2018, with eight project applications received.

A plan level habitats regulations assessment (HRA), was undertaken to assess the possible impact of the proposed wind farm extensions on relevant nature conservation sites of European importance.

Expert independent advisors were utilised and there were consultations with the statutory marine planning authorities, the statutory nature conservation bodies and a number of non-governmental stakeholders.

In August 2019, The Crown Estate announced the conclusion of the HRA confirming that seven of the 2017 extension application projects, representing a total generating capacity of 2.85GW, would progress to the award of development rights, including what is now called North Falls Offshore Wind Farm.

The Agreement for Lease between North Falls Offshore Wind Farm and The Crown Estate was signed in Autumn 2020 and the project is now in development with the aim of submitting its application in 2023 and receiving a development consent order (DCO) in 2025.

Construction would then take place in the latter part of the decade with a view to the project being operational by 2030, aligned to Government targets.

Visit The Crown Estate website to find out more about its role in the UK's offshore wind industry:

VISIT THE CROWN ESTATE WEBSITE

Greater Gabbard under construction

Pre-application phase - progress since 2020

Since North Falls signed its Agreement for Lease with The Crown Estate, the project team has been in what is called the pre-application stage. As a nationally significant infrastructure project (NSIP), North Falls must be consented under the Planning Act 2008 development consent process, which was introduced to streamline the decision-making for such projects. The process includes six stages which are shown in the diagram opposite, the first being pre-application.

Applicants, such as North Falls, must go through this six stage process to gain permission to build and operate their NSIP. The permission is called a development consent order (DCO). The Planning Inspectorate is the government agency responsible for examining and making recommendations on applications for NSIPs with the final decision being made by the Secretary of State for the Department for Energy Security and Net Zero.

Visit the Planning Inspectorate website to find out more about the development consent application process:

VISIT PLANNING INSPECTORATE WEBSITE

DOWNLOAD APPLICATION PROCESS DIAGRAM (PDF)

Environmental impact assessment

The pre-application phase for North Falls will run until the DCO application is finalised and submitted to the Planning Inspectorate. The core of this work has been carrying out an environmental impact assessment (EIA), a systematic and iterative approach to assessing the environmental, social and economic effects the project may have. A baseline has been established via years of onshore and offshore surveys to collect data which has subsequently been analysed to build up a picture of every element from onshore ecology and ornithology to offshore archaeology and fishing activity. Throughout this period there has been ongoing technical design and engineering work to ensure the project is deliverable, as well as two phases of consultation and ongoing stakeholder engagement.

Full details of the environment impact assessment can be found in the PEIR chapter:

VIEW CHAPTER 6 EIA METHODOLOGY

North Falls Scoping Report

As the first stage of the EIA, North Falls prepared a scoping report and requested a scoping opinion from the Secretary of State in July 2021. The North Falls Scoping Report outlined what would be considered during the EIA and the proposed data gathering and methodology employed to characterise the existing environment, assess potential impacts and develop mitigation measures. The feedback received from the relevant local planning authorities and statutory consultees resulted in a scoping opinion adopted by the Secretary of State in August 2021.

All documentation related to North Falls, including the Scoping Report and Scoping Opinion can be found on the project page of the Planning Inspectorate website:

VISIT PLANNING INSPECTORATE NORTH FALLS PROJECT PAGE

Public consultation

North Falls has so far held two rounds of community consultation with the information provided and responses received still available to view online. These were held in parallel to targeted topic-specific activity with statutory stakeholders. Feedback from the consultations has been considered as part of the evolving project proposals. This feedback has influenced a number of key project actions and decisions:

- All the project's onshore cables are to be buried
- Cables will be installed by drilling beneath Holland Haven Marshes Site of Special Scientific Interest, including Holland Haven Local Nature Reserve and Frinton Golf Club to avoid disturbing the surface.
- No work will take place in the intertidal zone to limit disruption at the coast.
- Offshore cable placement and construction will avoid sensitive areas of the seabed
- A 3D model has been produced to enable people to visualise the wind farm from key coastal viewpoints
- Construction traffic will be routed and timed to avoid school drop off and pick up, and minimise impacts on local community events
- A temporary haul road within the construction corridor will minimise the amount of traffic on the local road network
- Landscaping will be provided around the onshore substation in consultation with the community
- The project will aim to achieve a biodiversity net gain (BNG) following construction
- Inclusion of an option to connect to an offshore grid connection, if made available to North Falls by a third party
- A land drainage consultant will be engaged to develop pre and post-construction farm drainage plans
- Ongoing close cooperation with Five Estuaries to minimise cumulative impacts where possible

In March 2022, the North Falls Statement of Community Consultation was published, setting out the project's approach to consultation including who will be consulted and how.

This third consultation phase provides the opportunity for the public to give the North Falls team useful information and influence the proposals that will be included in the final application.

from the project's 2021 introductory consultation and 2022 non-statutory consultation use the links below.

VISIT 2021 CONSULTATION PORTAL

VISIT 2022 CONSULTATION PORTAL

Full details about North Falls consultation can be found in the PEIR chapter:

VIEW CHAPTER 7 - TECHNICAL CONSULTATION

Definitions of stakeholder groups

Those directly affected including statutory bodies, the relevant Local Authorities, landowners and others with an interest in the land or who may be affected by the construction and operation of a consented scheme. These groups are sometimes referred to as Section 42 consultees.

The local community, which is defined as those people living or working within a defined distance of the onshore infrastructure or those who may have an interest in the area, for example, local archaeology groups and mariners and the fishing community or other non-statutory groups. These are sometimes referred to as Section 47 consultees.

The general public, or those people beyond the local community who will primarily be reached through national newspaper advertisements and on the project website. These are sometimes referred to as Section 48 consultees.

Targeted activities will be carried out for each group of consultees.

DOWNLOAD STATEMENT OF COMMUNITY CONSULTATION

Preliminary Environmental Information Report (PEIR)

Since the last phase of consultation, the North Falls Preliminary Environmental Information Report (PEIR), has been progressed and is now the subject of this consultation. This is a technical document covering the full range of every element that has been considered to date, its potential impacts and proposed mitigations. This is in effect a status on the project's EIA process and on the progress of the preparation of the development consent application.

Feedback given on the PEIR will be used to produce the final document required for the application, the Environmental Statement.

To see a list of all the PEIR documents, and to access both online and PDF versions, please use this link.

VIEW ALL PEIR DOCUMENTS

North Falls Environmental Statement (ES)

Looking ahead, the North Falls Environmental Statement (ES) will be the final output of the EIA undertaken by the North Falls project team. It will be an evolution of the PEIR presented in this consultation and will incorporate the results of the surveys and assessments, project technical details as well as the outcomes of responses from our consultations.

The ES will also describe any changes made to the project proposals since PEIR and the mitigation measures that will be implemented. It forms a key part of the submitted DCO application, accompanying the final application when it is submitted to the Planning Inspectorate.

High level overview

The North Falls Non-technical Summary (NtS) is a 70-page standalone document providing an overview of the potential environmental effects of North Falls in relatively non-technical terms. The full details for each area presented in the NtS can be found in the North Falls Preliminary Environmental Information Report, however it is useful to start with this summary document before moving on to the details in the full PEIR.

As well as describing the project, the NtS explains the need case for North Falls, details how different aspects of the project have been selected and explains the environmental impact assessment work to date. It outlines the role of national policy statements in the decision making process plus the role of other relevant policies, and covers the project's consultation activity and approach. You can also read more about the approach to consultation in the North Falls Statement of Community Consultation (see link opposite).

The core of the summary document focuses on the project itself with a project description, including offshore and onshore works, and a summary of the design parameters. Its structure and content align to the topics which are covered in the PEIR as follows:

The full introduction to the PEIR can be found in:

VIEW CHAPTER 1 INTRODUCTION

DOWNLOAD NON-TECHNICAL SUMMARY

DOWNLOAD STATEMENT OF COMMUNITY CONSULTATION

Offshore

- Marine geology, oceanography and physical processes
- Marine water and sediment quality
- Benthic and intertidal ecology
- Fish and shellfish ecology
- Marine mammals
- Offshore ornithology
- Commercial fisheries
- Shipping and navigation
- Offshore and intertidal archaeology and cultural heritage
- Aviation and radar
- Infrastructure and other users

DOWNLOAD NORTH FALLS OFFSHORE PROJECT AREA MAP

Onshore

- Ground conditions and contamination
- Onshore air quality
- Water resources and flood risk
- Land use and agriculture
- Onshore ecology
- Onshore ornithology
- Onshore archaeology and cultural heritage
- Noise and vibration
- Traffic and transport

DOWNLOAD NORTH FALLS ONSHORE PROJECT AREA MAP

Project-wide

- Human health
- Seascape, landscape and visual impact assessment
- Landscape visual impact assessment
- Socio-economics
- Tourism and recreation
- Climate change

The North Falls Non-technical Summary includes a number of tables, plates and figures to support the chapters, for example the North Falls onshore and offshore project area maps shown opposite.

Conclusion

The NtS ends with a conclusion section as well as references. For all the offshore topics and for most of the onshore topics, the preliminary project assessments have concluded that, with mitigation, there would be no significant adverse effects in environmental impact assessment terms other than the following where significant residual effects have been identified:

- Land use and agriculture, with permanent loss of agricultural land during operation of the onshore substation; and
- Onshore ecology, with temporary loss of some hedgerows and associated temporary impacts on bats and dormice. Replanting of hedgerows post-construction should lead to moderately beneficial impacts in the longer term.

For project-wide topics, significant effects have been identified in relation to:

- Seascape, landscape and visual, due to the visibility of the wind farm from certain areas of the coast during its operation. This will influence the seascape and landscape character; and
- Landscape and visual with respect to effect on the landscape fabric and visual amenity of the onshore substation zone during the construction and operation of the project.

Beneficial effects were identified for a number of topics, including around onshore ecology due primarily to the project's commitment to biodiversity net gain; socio-economics, with skills and supply chain opportunities, and contribution to combatting climate change.

North Falls has committed to implementing mitigation measures to ensure that any potential impacts are minimised as far as reasonable and practicable, and to reduce the potential for significant effects.

To read about all the proposed mitigation measures for each of the potential impacts you can read the:

SCHEDULE OF MITIGATION

Key facts and figures

Located **22 kilometres** off the UK coast in the southern North Sea, covering an area of **150 km²** across two sites

Up to **72 turbines**, depending on the size of turbine selected

Up to **two** offshore substations/platforms to facilitate the export of electricity to an onshore or an offshore connection point

An onshore grid connection would mean around **24 kilometres** of underground onshore cable to transport the power from landfall to the new onshore substation

The onshore substation would have a footprint around **four** times the size of the existing Lawford Substation, with similar surrounding landscaping

Likely investment in UK electricity infrastructure of more than **£1.5 billion**

Potential to supply more than **400,000 UK homes** with their annual electricity needs using clean renewable power depending on final installed capacity

Contributing to the UK government's ambitions of **50GW** of offshore wind by 2030 (current figure is around 14GW)

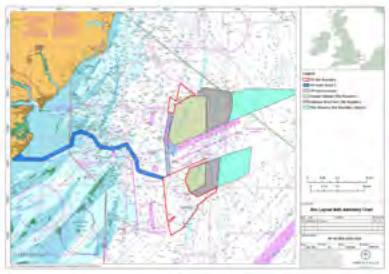
RWE sse

North Falls is being developed by a joint venture company owned equally by SSE Renewables and RWE.

Offshore topics

The North Falls PEIR assesses a wide range of potential impacts for physical, biological and human environmental topics for the whole project lifecycle. This page takes a high-level look at the key topics that are relevant to the offshore element of the project.

For full details on each of the specific offshore topics you can click on the relevant chapter link opposite.



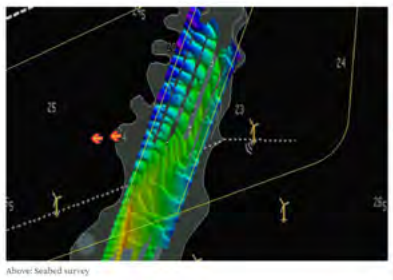
DOWNLOAD OFFSHORE MAP

Full details of the topics described on this page can be found in the relevant offshore PEIR chapters with links below:

- VIEW CHAPTER 8 MARINE GEOLOGY OCEANOGRAPHY AND PHYSICAL PROCESSES
- VIEW CHAPTER 9 MARINE WATER AND SEDIMENT QUALITY
- VIEW CHAPTER 10 BENTHIC AND INTERTIDAL ECOLOGY
- VIEW CHAPTER 11 FISH AND SHELLFISH ECOLOGY
- VIEW CHAPTER 12 MARINE MAMMALS
- VIEW CHAPTER 13 OFFSHORE ORNITHOLOGY
- VIEW CHAPTER 14 COMMERCIAL FISHERIES
- VIEW CHAPTER 15 SHIPPING AND NAVIGATION
- VIEW CHAPTER 16 OFFSHORE ARCHAEOLOGY AND CULTURAL HERITAGE
- VIEW CHAPTER 17 AVIATION AND RADAR
- VIEW CHAPTER 18 | INFRASTRUCTURE AND OTHER USERS

Marine geology, oceanography and physical processes

Boat-based geophysical and benthic surveys and desk-reviews of available data were undertaken to assess impacts on marine geology, oceanography and physical processes such as changes to suspended sediment concentrations, changes in seabed level, interruptions to bedload sediment transport and indentations on the seabed. Mitigation will be incorporated into the project design where practicable including effective and strategic turbine spacing, piling instead of drilling and micro-siting, and burying cables.



Above: Seabed survey

Marine water and sediment quality

The surveys mentioned above also enabled assessment of potential increases in suspended sediment and the potential deterioration of water quality due to the release of existing contaminants. Through the commitment to use best practice techniques to reduce the likelihood of any accidental release of pollutants the project is predicted to have no significant impact on marine water and sediment quality.

Benthic and intertidal ecology

North Falls' seabed sampling and intertidal surveys, as well as desk-based research, specifically identified habitats or species in the Kentish Knock East Marine Conservation Zone (MCZ) which overlaps North Falls' southern array area and the Margate and Long Sands Special Area of Conservation (SAC), south of the offshore cable corridor. Impacts identified include: temporary physical disturbance, increased suspended sediment concentrations, re-mobilisation of contaminated sediments and underwater noise and vibration. Mitigation incorporated into the project design, such as selection of export cable route and cable burial, means effects would not be significant, even when cumulated with other projects. As well as the relevant PEIR chapter, more can be read on the SAC in the Report to Inform Appropriate Assessment and MCZ Assessment.

Above: Fugro Mercator survey vessel

Fish and shellfish ecology

Species of commercial importance identified in North Falls studies include sole, whelk, bass, thornback ray, horse mackerel, herring, cod, and plaice. The studies also covered locations for species of conservation importance at certain times of the year, and spawning and nursery grounds. Impacts reviewed include physical disturbance and habitat loss, underwater noise from construction activities, changes in fishing activity, increased suspended sediments and the potential impact of electromagnetic fields around the cables during operation. Mitigation such as cable burial, cable protection, noise-limiting construction protocols and pollution protection measures will be implemented where practicable to ensure no significant impacts on fish and shellfish ecology.

Marine mammals

North Falls undertook two years of monthly aerial surveys for both marine mammals and seabirds. High resolution digital data was collected providing imagery for marine megafauna over the project's two array areas with a four kilometre buffer. As well as use of wider desk-based sources, these surveys provided information on the numbers and density of harbour porpoise, minke whale, grey seal, and harbour seal.

Impacts identified could include: potential hearing damage and disturbance/behavioural impacts or barrier effects from underwater noise, an increase in vessel collision risk, and indirect effects through changes to water quality and prey resources. Mitigation measures proposed include: soft-start and ramp-up for piling activities; use of best practice guidance to reduce vessel collision risk and implementation of a project environmental monitoring plan to manage potential pollution events. Additional mitigation will be implemented through a marine mammal mitigation plan, with an outline to be submitted alongside the DCO application.

Offshore ornithology

North Falls undertook 24 monthly digital aerial surveys flown along transects across the array site plus buffer zones to record existing bird populations. The impacts assessed for the project include direct disturbance, displacement, collision risk and indirect effects on prey species and habitat. Mitigation measures include sensitive site selection of the offshore cable corridor to minimise overlap with the Outer Thames Estuary SPA, and a minimum air gap of 27 metres (five metres above the gap proposed in the North Falls Scoping Report) to reduce the risk of collisions, and a best-practice shipping protocol which may include actions such as designing transit routes to minimise disturbance within the SPA, restricting and minimising vessel movements, avoiding over-revving of engines and crew training.

Through the use of mitigation measures, the project should not have significant effects on ornithology, even in cumulation with other projects except for some specific species such as the kittiwake and black-backed gull, where there may be a significant impact in terms of collision risk.

Above: Common seagull

Commercial fisheries

Assessments have identified the project is likely to have a number of potential impacts on commercial fisheries such as loss or restricted access to fishing grounds; displacement of fishing activities into other areas; increased sailing times; interference with fishing activities, and safety issues for fishing. Ways these will be dealt with include the appointment of a fisheries liaison officer for the duration of the construction phase and development of a Fisheries Liaison and Coexistence Plan detailing the approach to liaison with fisheries stakeholders, and development of a Code of Good Practice for project vessels.

In terms of the project design there is a commitment to bury subsea cables, with cable protection to be used where this is not possible. Cable protection will be designed to minimise potential risk of gear snagging and the locations of protected cables will be shared.

Above: Fisheries survey

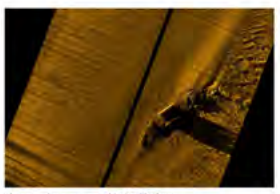
Shipping and navigation

Vessel traffic surveys were conducted over two periods in 2021 to using Automatic Identification System (AIS), radar, and visual observations to ensure a full account of traffic within the area. The surveys along with desk-based research informed the assessment of impacts including: risk of vessel-to-structure or vessel-to-vessel collision; vessel displacement; on vessels using nearby ports, and a reduction of emergency capabilities due to increased incident rates and/or reduced access for Search and Rescue (SAR) responders. An additional impact (interaction with subsea cables including cable protection) was assessed for the operational phase.

However these risks can be largely mitigated by implementation of safety measures, adherence to international regulations and conventions, working with consultees on the turbine layout and with thorough emergency response planning and communication of information to other sea users.

Offshore and intertidal archaeology and cultural heritage

This refers to such issues as ship or plane wreck sites, or marine geophysical anomalies of archaeological interest, which were assessed during a marine geophysical survey in 2021, alongside desk-based research. Potential impacts related to direct (physical) impacts to known and also to potential heritage sites, as well as indirect impacts to the heritage assets and seascape character for example, changes to physical processes. There are no known sites within the study area that are subject to statutory protection. North Falls will use archaeological exclusion zones or minor siting adjustments as mitigation with full details on the proposed approach, and investigation into the final design of North Falls, to be covered in an Outlined Written Scheme of Investigation (WSI).



Above: Sunken passenger ship Mecklenburg

Aviation and radar

Aviation and radar assessments focussed on potential impacts to civil and military radars for example due to the height of construction vessels, the creation of an aviation obstacle environment causing permanent interference, or increased air traffic in areas related to wind farm activity. The project will use obstacle location charts in aeronautical documents, marking and lighting turbines and application of minimum separation distances, as well as targeted communication, to ensure there are no significant impacts.

Infrastructure and other users

This chapter of the PEIR focusses on potential impacts or interference with infrastructure or other users of the marine area such as existing offshore cables, wind farms, oil and gas infrastructure, aggregate sites, and Ministry of Defence (MoD) practice and exercise areas or disposal sites.

Mitigation has been incorporated into the project design, which includes engagement with infrastructure owners and operators to agree commercial and technical arrangements prior to construction. Information will be provided via Notices to Mariners and crossing and proximity agreements will be put in place post-consent with relevant asset owners. These will also be in consultation with Trinity House to determine appropriate lighting and marking and alignment of turbines to provide obstruction free search-and-rescue access.

Feedback Questions

6. Do you have any comments about any of the offshore-related assessments or on the mitigation measures proposed?

Character Count: 7000

Enter your feedback

+ ADD TO FEEDBACK

Onshore topics

The North Falls PEIR assesses a wide range of potential impacts for physical, biological and human environmental topics for the whole project lifecycle. This page takes a high-level look at the key topics that are relevant to the onshore element of the project.

For full details on each of the specific onshore topics you can click on the relevant chapter link opposite.

Full details of the topics described on this page can be found in the relevant onshore PEIR chapters with links below:

- VIEW CHAPTER 19 ONSHORE GROUND CONDITIONS AND CONTAMINATION
- VIEW CHAPTER 20 AIR QUALITY
- VIEW CHAPTER 21 WATER RESOURCES AND FLOOD RISK
- VIEW CHAPTER 22 LAND USE AND AGRICULTURE
- VIEW CHAPTER 23 ONSHORE ECOLOGY
- VIEW CHAPTER 24 ONSHORE ORNITHOLOGY
- VIEW CHAPTER 25 ONSHORE ARCHAEOLOGY AND CULTURAL HERITAGE
- VIEW CHAPTER 26 NOISE AND VIBRATION
- VIEW CHAPTER 27 TRAFFIC AND TRANSPORT

Cable corridor flythrough video

This flythrough gives a high level view of the proposed cable corridor including cutaway sections to the construction methodologies likely to be used including: trenching and horizontal directional drilling.

Ground conditions and contamination

A Code of Construction Practice (CoCP) will be adhered to throughout construction, which will include an assessment of any risks to human health, soils and water, and will outline how industry best practice measures will be implemented to avoid, minimise and mitigate potential impacts. An outline version of the CoCP will be submitted as part of the project's DCO application.

Onshore air quality

Best practice dust mitigation measures will be followed, as well as other measures to be outlined in the CoCP (mentioned above), to minimise impacts such as construction dust, emissions from non-road mobile machinery and construction road vehicle exhaust emissions. Air quality considerations have been included in the site selection process for the onshore substation and associated infrastructure.

Feedback Questions

7. Do you have any comments about any of the onshore-related assessments or on the mitigation measures proposed?

Character Count: 7000

Enter your feedback

+ ADD TO FEEDBACK

Water resources and flood risk

The physical characteristics of the watercourses within the onshore project area were assessed with specific potential impacts such as direct disturbance of surface water bodies, increased sediment supply, contaminants, changes to surface and groundwater flows, and flood risk. Mitigation and soil management measures will be included in the CCoP and also in a Soil Management Plan.

During construction, trenchless methods will be used to install cables at rivers and most ordinary watercourses, temporary Bailey bridges will be used across rivers, and best practice measures will be employed at trenched crossings. A land drainage consultant will develop pre-and post-construction drainage plans.

Above: Bailey bridge used during Triton Knoll construction (before and after)

Land use and agriculture

North Falls continues to engage with landowners and occupiers about the project, their land holdings and how the impacts of the project can be mitigated. Factors considered have included: minimising land take; reducing severed land parcels; aligning with field boundaries, and avoiding higher quality agricultural land, land subject to Environmental Stewardship or Countryside Stewardship schemes and land allocated in local plans. Mitigations to address potential impacts on land use and agriculture will be secured as part of CoCP and Soil Management Plan, and will include the appointment of a land-drainage consultant to develop pre- and post-construction drainage plans, and an agricultural liaison officer to work with landowners/occupiers throughout.

Onshore ecology

North Falls has undertaken extensive habitat surveys as well as surveys specific to species such as bats, reptiles, water vole and otters, hazel dormice and great crested newts.

The impacts assessed include those on: Holland Haven Marshes Site of Special Scientific Interest (SSSI) and Holland Haven Local Nature Reserve (LNR); other designated sites; hedgerows and arable field margins; impacts on specific species, and the spread of invasive non-native species.

To address impacts, the proposed location of the cable route and onshore substation avoid designated sites, ancient woodlands, and specific habitats. Construction methods will be chosen carefully and an Ecological Management Plan (EMP) in line with best practice measures, will be implemented during construction. All habitats subject to temporary construction impacts will be reinstated. In addition, North Falls has committed to deliver a minimum of 10% biodiversity net gain for the project.

Onshore ornithology

North Falls has undertaken onshore ornithological surveys during both non-breeding and breeding seasons and considered potential direct impacts such as habitat loss, as well as indirect impacts due to construction disturbance, such as noise and light, and operation and maintenance activities. Mitigation measures will be integral to the EMP mentioned above and will include design and construction methodology and habitat reinstatement.

Onshore archaeology and cultural heritage

North Falls conducted an historic environment walkover survey, geoarchaeological desk-based assessment, further research and an archaeological geophysical survey, with further trial trenching investigations planned for later in 2023. The work highlighted that indirect and direct physical impacts are predicted to occur on heritage assets, both non-designated and designated. The cable route will be further refined and micro-sited to avoid areas of high archaeological potential and there will be a need to undertake additional surveys to refine the archaeological mitigation requirements.

Noise and vibration

Baseline surveys have been conducted near the proposed landfall and onshore substation zones to assess potential noise and vibration impacts. Site selection has considered nearby residential properties, with noise and vibration mitigation to be detailed in the CoCP. This is likely to include: restricted use of plant, speed limits, use of quieter working methods, and phasing of works to avoid sensitive times. During operations certain onshore substation equipment would be enclosed and vibration isolation mounts used.

Three developments in addition to North Falls were scoped into the cumulative impacts assessment for further review due to their scale and potential for overlapping. Namely: East Anglia GREEN, Five Estuaries Offshore Wind Farm and Little Beemley Battery Energy Storage System. Whichever construction contractor North Falls appointed would be required to coordinate with the other relevant contractors to minimise the potential for cumulative impacts. Details on that liaison and on mitigations will be specified in the final Construction Environmental Management Plan (CEMP) and Construction Traffic Management Plan (CTMP).

Traffic and transport

The impacts assessed in the project's traffic and transport reviews included: traffic-induced community separation, pedestrian and cyclist amenity, highway safety, and traffic delays due to delivery of abnormal loads.

These issues can be reduced by restricting timeframes for heavy goods vehicle (HGV) movements, through the use of temporary haul roads along the onshore cable route, by creating vehicle crossovers and controlling project vehicle routes. HGV movements would be restricted through Thorpe-le-Soken and vehicles routed from certain sensitive roads to the temporary haul road, or along other designated routes. No construction traffic will be permitted to travel via alternative routes.

The full strategy for traffic and transport management during construction will be covered in the Outline CTMP, which will be submitted with the development consent order application. This will contain details of how HGV movements would be controlled, monitored and enforced and will provide details of the mechanisms for managing access design and offsite highway works.

DOWNLOAD TRAFFIC SURVEY LOCATIONS MAP

Project description

North Falls has an offshore array area of 150km² split into two sections within the Outer Thames Estuary, to the southeast North Sea. Its closest point to land is 22.5km from the East Anglia coast near Orford.

The current proposals for North Falls include up to 72 wind turbines on fixed foundations, the design of which is still to be determined but could include: monopile, suction bucket, gravity base or jacket. Array cables will connect the turbines in strings to either one or two offshore substation platforms, also on foundation(s). These contain electrical equipment and ancillary components to transform the voltage of the electricity generated by the turbines, so it can be transported either to the onshore transmission network or to an offshore connection point. Scour protection would be placed around the base of each of the foundations and seabed cables as required.

A subsea interconnector will join the project's northern and southern sections. In the event of an onshore grid connection, subsea export cables will bring the power to shore at a location known as 'landfall'. From there, underground onshore cables would carry the power to a new onshore substation and then on to the national grid.

At this stage of the project some optionality is required to future proof the development consent order and therefore a 'design envelope' approach has been adopted. The design envelope includes maximum and minimum parameters to be fully transparent and ensure that the worst case scenario is quantified and assessed.

The full project description can be found in the PEIR chapter:

VIEW CHAPTER 5 - PROJECT DESCRIPTION

North Falls project at a glance

Infrastructure	Feature	Parameter
Array	Total array area	150km²
	Northern array	20.9km²
	Sothern array	128.6km²
	Closest distance to shore	22.5km
	Water depth relative to Lowest Astronomical Tide	5 to 59m (30m mean)
Turbines	Maximum number of turbines	72
	Maximum turbine rotor diameter	337m
	Maximum rotor tip height (above Mean High Water Springs (MHWS))	397m
	Minimum clearance above sea-level (above MHWS)	27m
	Minimum separation between turbines	1150m downwind, 820m cross wind
Offshore subsea cables	Offshore cable corridor length	379m
	Maximum number of offshore export cable circuits	4
	Maximum array cable length (includes interconnector cable)	228km

Connection options

One key area of optionality is around connection to the national grid. North Falls is committed to working with the Department of Energy Security and Net Zero to explore grid connection options as part of the Offshore Transmission Network Review (OTNR) process and as such has committed to exploring coordinated network designs, along with four other projects in East Anglia.

This means we are currently reviewing three options for the electrical infrastructure:

- **Option 1:** Onshore electrical connection at a National Grid connection point within Tendring, Essex, with a project shore -onshore cable route and onshore substation infrastructure;
- **Option 2:** Onshore electrical connection at a National Grid connection point within Tendring, Essex, sharing all or part of an onshore cable route with separate onshore export cables with another project (such as Five Estuaries) where practicable, or;
- **Option 3:** Offshore electrical connection supplied by a third-party electricity network provider. Such a connection will potentially be identified through the OTNR process.

DOWNLOAD RADIAL CONNECTION DIAGRAM

Offshore works

The North Falls array area, where the turbines and offshore substation platform(s) will be located, is split into two boundaries separated by a shipping route. The northern and southern array boundaries cover areas of approximately 21km² and 129km², respectively.

Prior to offshore construction, pre-construction surveys would be undertaken to plan potential minor siting adjustments and identify whether unexploded ordnance and boulder clearance is required. Any other seabed obstructions such as discarded fishing gear or abandoned cables would also be removed.

Offshore construction should take around three years however the programme can be affected by the final design and layout of the components, supply chain and weather conditions during the work.

DOWNLOAD OFFSHORE GRID CONNECTION DIAGRAM

Onshore works

North Falls' onshore infrastructure is proposed to be located entirely within Tendring, Essex. Its footprint is referred to as the 'onshore project area' with the exact siting of the infrastructure being refined through site selection, and with consideration given to consultation feedback and data from our surveys. There are three key areas that make up the onshore project area as follows:

- Landfall
- Onshore cable corridor
- Onshore substation

Above: Greater Gabbard Substation

For more information about the project's design strategy for the onshore substation, please see the PEIR document:

VIEW DESIGN VISION

Feedback Questions

3. Do you have any comments about the landfall compound zone that could help us identify the best location for the temporary construction compound?

Character Count: 7000

Enter your feedback

4. Are there any areas of the onshore cable corridor you have specific information or comments about?

Character Count: 7000

Enter your feedback

5. Looking at the proposed onshore substation zone, is there anything North Falls should know that could help with the final siting of the electrical infrastructure?

Character Count: 7000

Enter your feedback

ADD TO FEEDBACK

Landfall

The landfall is where the offshore export cables are brought onshore and connect to the onshore export cables within transition joint bays. It is likely to be located near Frinton -on-Sea, with construction work being undertaken from a temporary compound within what we refer to as the landfall compound zone. A construction technique called horizontal directional drilling (HDD) will be used to install the cables at landfall. At our previous consultation we asked for any details that may help us to select the location for our temporary construction compound. This question remains as we are still to finalise the exact location of the construction compound.

DOWNLOAD LANDFALL COMPOUND ZONE MAP

Onshore cable corridor

From the landfall, onshore export cables, laid in ducts along the cable route will carry electricity approximately 24 kilometres to the onshore substation. So far North Falls has identified broad onshore cable corridor(s) up to 243m in width, which will be refined down to a predominantly 60 metre-wide working width where the construction works for the onshore export cables will take place. Some sections may be wider to allow for more complex crossings such as railway lines, main roads or hedgerows. Some additional land adjacent to, or near, the cable corridor will also be required for temporary construction compounds.

At this stage the current corridor(s) still have a degree of flexibility and optionality. There will be further engineering design studies and ground investigation works, ongoing engagement with landowners and consultation feedback to take into account prior to the submission of the project's application. When it comes to construction, the export cables will be installed by open cut trenching, or trenchless techniques where needed, with land reinstated and returned to its former use after the work is completed with the exception of any land affected by permanent above ground infrastructure, specifically the onshore substation.

Onshore substation

Again, the precise location of the onshore substation and grid connection is subject to ongoing consultation, however assuming a radial connection, the substation will be located in the onshore substation zone (see map opposite). The onshore substation will feature either air insulated switchgear where the high voltage equipment is installed outdoors, or gas insulated switchgear where high voltage equipment is located within a building. In addition there would be drainage and access infrastructure, and extensive landscaping such as bunds, woodland and hedgerow planting. A maximum area of 0.080km² (8ha) would be required for the onshore substation.

North Falls considered issues of good design from an early stage in the development of the project. Initially as part of the golden rules used for the site selection process but more recently through the preparation of a Design Vision Statement included as part of this consultation. This sets out the project's design strategy for the onshore substation, identifying the constraints and opportunities relevant for electrical infrastructure situated in the local landscape.

DOWNLOAD ONSHORE SUBSTATION ZONE MAP

Onshore cable construction Sofia and Dogger Bank C

Recyclable blades for Kaskasi Offshore Wind Farm

Substation jacket foundation at Kaarpion

Photos showing the onshore construction of Triton Knoll Offshore Wind Farm, which used similar techniques to those proposed for North Falls.

Before construction at Triton Knoll

During construction at Triton Knoll

After construction at Triton Knoll

Project-wide impacts

The North Falls PEIR assesses a wide range of potential impacts for physical, biological and human environmental topics for the whole project lifecycle. This page takes a high-level look at the project-wide chapters not covered elsewhere on this consultation portal namely: human health; seascape, landscape and visual; landscape and visual, and tourism and recreation.

For full details on each of the specific topics you can click on the relevant chapter link opposite.

For more on the project-wide impacts, including visual impacts and to see computer-generated visualisations you can read the following PEIR chapters:

VIEW CHAPTER 28 HUMAN HEALTH

VIEW CHAPTER 29 SEASCAPE, LANDSCAPE AND VISUAL (SLVIA)

VIEW CHAPTER 30 LANDSCAPE AND VISUAL (LVIA)

VIEW CHAPTER 31 SOCIO-ECONOMIC

VIEW CHAPTER 32 TOURISM AND RECREATION

Human health

As this is a topic that has relevance across the project, the assessment of human health impacts has drawn on information from several PEIR chapters including those covering marine water and sediment quality; ground conditions and contamination; onshore air quality; water resources and flood risk; noise and vibration; traffic and transport; socio-economics; tourism and recreation, and climate change. The assessment considered potential impacts of North Falls on noise, air quality, ground and/or water contamination, physical activity, journey times and/or reduced access, employment, electro-magnetic fields and wider society.

These issues have been considered throughout site selection and planning and by the specifying the use of certain construction methods, traffic management and cable design to ensure the project does not have significant effects on human health during its lifecycle.

Feedback Questions

8. Are you supportive of the North Falls Offshore Wind Farm project?

- Yes
- Yes (conditional on changes - please provide details below)
- No
- Don't know

Character Count: 7000

Enter your feedback

+ ADD TO FEEDBACK

How will the project look

To enable people to see how the offshore wind farm could look from shore, we have prepared this 3D interactive visualisation model with viewpoints from 17 different onshore locations. The model features the two different turbine sizes as well as options for different weather conditions. By toggling between the options you can see a range of the potential visual impacts.

Instructions on how to navigate the model have been included to help you navigate the options.

CLICK HERE TO VIEW INTERACTIVE MODEL

Seascape, landscape and visual

The study area for seascape, landscape and visual impacts was defined as a 60 kilometre radius around the proposed array areas, including parts of the Thames estuary, Suffolk, Essex, and Kent. The assessment is based on the maximum potential turbine size to ensure it was future-proofed in case of technological advances.

North Falls is predicted to impact views from certain Suffolk coastal areas such as Sizewell Beach, sections of the Suffolk Coast Path and Suffolk Coast and Heaths AONB due to visibility of its turbines during operation influencing the seascape and landscape character.

Photomontages available in Volume 2 (Figures) of Chapter 29 to enable those with an interest to see how the wind farm could look. There is also a 3D computer-generated interactive model (link above) with 17 different viewpoints included to provide further visual examples in different conditions.

Landscape and visual

In assessing the landscape and visual impacts of the onshore elements of North Falls, those factors considered included potential changes to landscape elements and fabric; changes to landscape character; changes to landscape designations; and changes to visual amenity.

Mitigation measures were incorporated as part of the site selection process, as well as in the choice of construction methods, through proposed habitat reinstatement and within the project design. Additional landscape mitigation and biodiversity enhancement, which includes new hedgerow and woodland planting, will also be undertaken. Further details on these can be read in the project's Design Vision.

For more information about the project's design strategy for the onshore substation, please see the PEIR document:

VIEW SUBSTATION DESIGN VISION

Socio-economics

In terms of socio-economics, the potential direct and indirect benefits have been reviewed as well as adverse effects on: economy, health infrastructure, social and community infrastructure, imports and exports, volume and value of fishing catch and mineral resources.

The benefits predicted for the project include increases in 'gross value added' (GVA) (the value of goods and services of the local and national economy) and job-creation through use of the local supply chain and direct and indirect employment. The adverse effects relate to pressure on local infrastructure, disturbance (noise, air, visual), plus potential disruption to fishing and minerals. For these adverse effects, a wide range of mitigation measures will be implemented during construction, such as vehicle delivery time and routing restrictions as well as ongoing stakeholder engagement, and during operations through design to reduce visual impact.

Tourism and recreation

Marine, coastal and onshore tourism and recreational assets in Essex and Suffolk were reviewed for all project phases. For the project's construction phase impacts assessed were road traffic disruption, a reduction in tourist numbers and spending, and the availability of holiday accommodation due to non-resident workers. During the project's operation, impacts assessed were related to negative perceptions of offshore wind farms.

The project's comprehensive site selection process aimed to minimise impacts on the natural surroundings, on designated areas, ancient monuments or listed buildings, and tourist destinations. At the start of the project underground cables were specified, and other mitigation measures proposed include a rolling construction programme, implementation of flexible management plans and good communications throughout any works.

Climate change

The project was assessed for greenhouse gas emissions throughout its lifecycle with the main emissions sources being embodied emissions from within onshore and offshore materials, and those from marine vessels, road traffic, and construction machinery. Mitigation has been incorporated into the project design to reduce, eliminate, and/or compensate for emissions. Given the emissions reduction the wind farm will represent when compared with electricity production from fossil fuels, North Falls is predicted to have a significant benefit in relation to climate change.

FEEDBACK FORM

Need and policy

Page 1 of 8

1. Do you have any suggestions as to how North Falls could work with Essex-based businesses to help them take advantage of potential contracting opportunities with the project?

Character Count: **7000**

Enter your feedback

CONTINUE→

Feedback Sections

FEEDBACK FORM

Site selection

Page 2 of 8

2. What outcome would you like from the Offshore Transmission Network Review?

Character Count: **7000**

Enter your feedback

←GO BACK

CONTINUE→

Feedback Sections

- Need and policy
- Site selection
- Project description
- Offshore
- Onshore
- Project wide
- Other
- Contact details *Required*

FEEDBACK FORM

Project description

Page 3 of 8

3. Do you have any comments about the landfall compound zone that could help us identify the best location for the temporary construction compound?

Character Count: **7000**

Enter your feedback

4. Are there any areas of the onshore cable corridor you have specific information or comments about?

Character Count: **7000**

Enter your feedback

5. Looking at the proposed onshore substation zone, is there anything North Falls should know that could help with the final siting of the electrical infrastructure?

Character Count: **7000**

Enter your feedback

←GO BACK

CONTINUE→

Feedback Sections

- Need and policy
- Site selection
- Project description
- Offshore
- Onshore
- Project wide
- Other
- Contact details *Required*

FEEDBACK FORM

Offshore

Page 4 of 8

6. Do you have any comments about any of the offshore-related assessments or on the mitigation measures proposed?

Character Count: **7000**

Enter your feedback

←GO BACK

CONTINUE→

Feedback Sections

FEEDBACK FORM

Onshore

Page 5 of 8

7. Do you have any comments about any of the onshore-related assessments or on the mitigation measures proposed?

Character Count: **7000**

Enter your feedback

←GO BACK

CONTINUE→

Feedback Sections

- Need and policy
- Site selection
- Project description
- Offshore
- Onshore
- Project wide
- Other
- Contact details *Required*

FEEDBACK FORM

Project wide

Page 6 of 8

8. Are you supportive of the North Falls Offshore Wind Farm project?

◯ Yes ◯ Yes (conditional on changes - please provide details below) ◯ No ◯ Don't know

Character Count: **7000**

Enter your feedback

←GO BACK

CONTINUE→

Feedback Sections

POWERED BY Camargue

FEEDBACK FORM

Other

Page 7 of 8

9. Do you have any further comments to add?

Character Count: **7000**

Enter your feedback

←GO BACK

CONTINUE→

Feedback Sections

- Need and policy
- Site selection
- Project description
- Offshore
- Onshore
- Project wide
- Other
- Contact details *Required*

FEEDBACK FORM

Contact details

Page 8 of 8

First name *

Enter your feedback

Last name *

Enter your feedback

Address

Enter your feedback

Postcode *

Enter your feedback

Telephone number

Enter your feedback

Email address

Enter your feedback

Do you represent an organisation? If so, which one?

Enter your feedback

Do you wish to be kept updated on the project?

◯ Yes ◯ No

←GO BACK

CONTINUE→

Feedback Sections

- Need and policy
- Site selection
- Project description
- Offshore
- Onshore
- Project wide
- Other
- Contact details *Required*

FEEDBACK FORM

Review your feedback

Field name	Your response
First name	Hannah
Last name	Pingriff
Address	1
Postcode	WR2 6AU
Telephone number	07792058816
Email address	hannahmrobinson@outlook.com
Do you represent an organisation? If so, which one?	-

I'm not a robot reCAPTCHA Privacy - Terms

←GO BACK

SUBMIT FEEDBACK →

Feedback Sections

- Need and policy
- Site selection
- Project description
- Offshore
- Onshore
- Project wide
- Other
- Contact details *Complete*

Ways to have your say

We welcome your feedback and have provided a number of ways for you to respond to this consultation.

DOWNLOADABLE PDF OF FEEDBACK FORM

LEAVE COMMENTS ON OUR CONSULTATION MAP

Face-to-face events

You can attend our five face-to-face events that will be held at locations near the project's proposed onshore infrastructure locations. Details of the events can be found below

Webinars

We will be hosting two webinars at 6pm on Tuesday, 13 June and 6pm on Wednesday, 21 June. To register please follow the link provided in the table below.

Programme of events

Date	*Time*	*Location*
Friday 2 June 2023	3.30pm to 7.30pm	Great Bromley Village Hall, Parsons Hill, Great Bromley, Colchester, CO7 7JA
Saturday 3 June 2023	9am to 1pm	Tendring Village Hall, Tendring, Clacton-on-Sea, CO16 0BG
Thursday 8 June 2023	3.30pm to 7.30pm	McGrigor Hall, 85 Fourth Ave, Frinton-on-Sea, CO13 9EB
Friday 9 June 2023	3.30pm to 7.30pm	Thorpe-le-Soken Women's Institute Hall, High Street, Thorpe-le-Soken, CO16 0EF
Saturday 10 June 2023	9am to 1pm	Ardleigh Village Hall, Station Road, Ardleigh, Essex, CO7 7RS
Tuesday 13 June 2023	6.00pm	Online Zoom Webinar - Click here to Register
Wednesday 21 June 2023	6.00pm	Online Zoom Webinar - Click here to Register

* To register for the webinar please click the link on the date you would like to join.

Online consultation

You can also to respond to the online consultation by using our:

Feedback form

A feedback form with questions has been prepared to help guide responses. You can access it here.

The questions have also been spread out individually through the online consultation portal. This is to enable you to read about a specific topic and then respond to the question that relates to it. If you respond to questions one-by-one in this way, your responses will be collated so you can review them before you submit your completed questionnaire.

Consultation map

You can also pinpoint specific locations you have questions or comments on using this consultation map.

Website

You can also send your comments or feedback to us via the online contact form on our website: www.northfallsoffshore.com.

Email and telephone:

We also welcome emails to: contact@northfallsoffshore.com, or you can ring us on 0800 254 5340

Post

All postal responses can be sent to: North Falls FREEPOST. No stamp required. To send your feedback questionnaire by post a PDF can be downloaded from the consultation portal or hard copy requested from North Falls, and once completed mailed to the freepost address.

We thank you for taking the time to participate in this consultation.

To stay in touch

Sign up to email updates or let us know if you would prefer a printed version of information to be sent to your home.

Other contact details

If you are a landowner with related queries please contact the project's land agent Dalcour Maclaren:

Unit 1 Staplehurst Farm,
Weston-on-the-Green,
Bicester,
Oxfordshire,
OX25 3QU

E: northfalls@dalcourmaclaren.com
T: 01622 623025

If you are from the fisheries industry please contact our fisheries consultants Brown & May Marine Ltd:

Progress Way,
Mid Suffolk Business Park Eye,
Suffolk,
IP23 7HU

E: northfalls@brownmay.com
T: 01379 772871

Privacy Policy for North Falls Offshore Wind Farm Consultation

Data Privacy Notice

Camargue Group Limited is supporting North Falls Offshore Wind Farm with its consultation process. Camargue Group Limited ("we" or "us") is committed to ensuring the privacy of your personal information. In this notice we explain how we hold, process and retain your personal data.

How we use your personal data

We may process information that you provide to us. This data may include the following:

- Your name;
- Your address;
- Your telephone number;
- Your email address;
- Your employer or any group on whose behalf you are authorised to respond; and
- Your feedback in response to the North Falls Offshore Wind Farm consultation

We will use your personal data for the following purposes:

- To record accurately and analyse any questions you raise during the consultation or feedback you have provided in response to the consultation.
- To report on our consultation, detailing what issues have been raised and how we have responded to that feedback (please note that the information contained in the consultation report will be aggregated and will not identify specific individuals).
- To personalise communications with individuals we are required to contact as part of future consultation or communications.
- The legal basis for processing this data is that it is necessary for our legitimate interest, namely for the purpose of ensuring the consultation process, analysis and reporting are accurate and comprehensive.
- In addition to the specific purposes for which we may process your personal data set out above, we may also process any of your personal data where such processing is necessary for compliance with a legal obligation to which we are subject.
- Providing your personal data to others

We may provide your personal data to the following recipients:

- SSE Renewables and RWE on whose behalf we are collecting your feedback in order to analyse and report on the responses received.
- Third party service providers and professional advisors who provide services to the North Falls Offshore Wind Farm project. This includes but is not limited to Barton Willmore now Stantec and Pinsent Masons LLP
- Any relevant local planning authority or council.
- The relevant Secretary of State.
- The Planning Inspectorate, who may decide to publish this information on their website.
- Our insurers/ professional advisers. We may disclose your personal data to our insurers and/or professional advisers insofar as reasonably necessary for the purposes of obtaining and maintaining insurance cover, managing risks, obtaining professional advice and managing legal disputes.
- Retaining and deleting personal data
- Personal data that we process for any purpose shall not be kept for longer than is necessary for that purpose.
- Your interest in the project will be published in the Book of Reference which we have a legal duty to make public during the Development Consent Order process. This includes the name and address of any person or company whose property or land may be effected by the development. It will not disclose your email address or phone number.

Unless we contact you and obtain your consent for us to retain your personal data for a longer period, we will delete your personal data as soon as practicable following the outcome of the consultation process.

We may retain your personal data where such retention is necessary for compliance with a legal obligation to which we are subject.

Your rights

The rights you have in relation to your personal information under data protection law are:

- The right to access;
- The right to rectification;
- The right to erasure;
- The right to restrict processing;
- The right to object to processing;
- The right to data portability; and
- The right to complain to a supervisory authority.

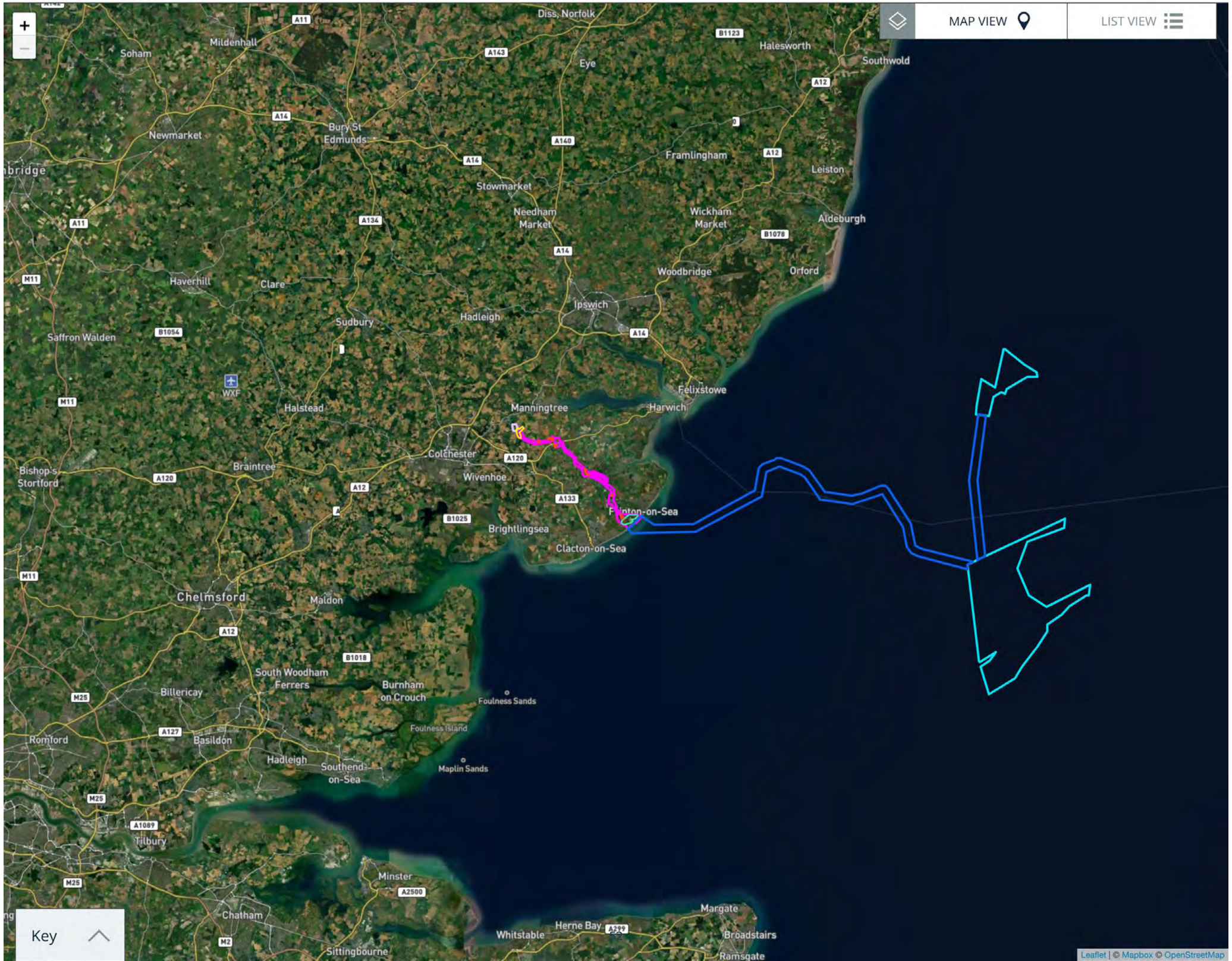
You may exercise any of your rights in relation to your personal data by writing to us using the details below.

Our details

We are registered in England and Wales under registration number 3954008, and our registered office is at Eagle Tower, Montpellier Drive, Cheltenham, GL50 1TA.

NORTH FALLS

Back to consultation portal



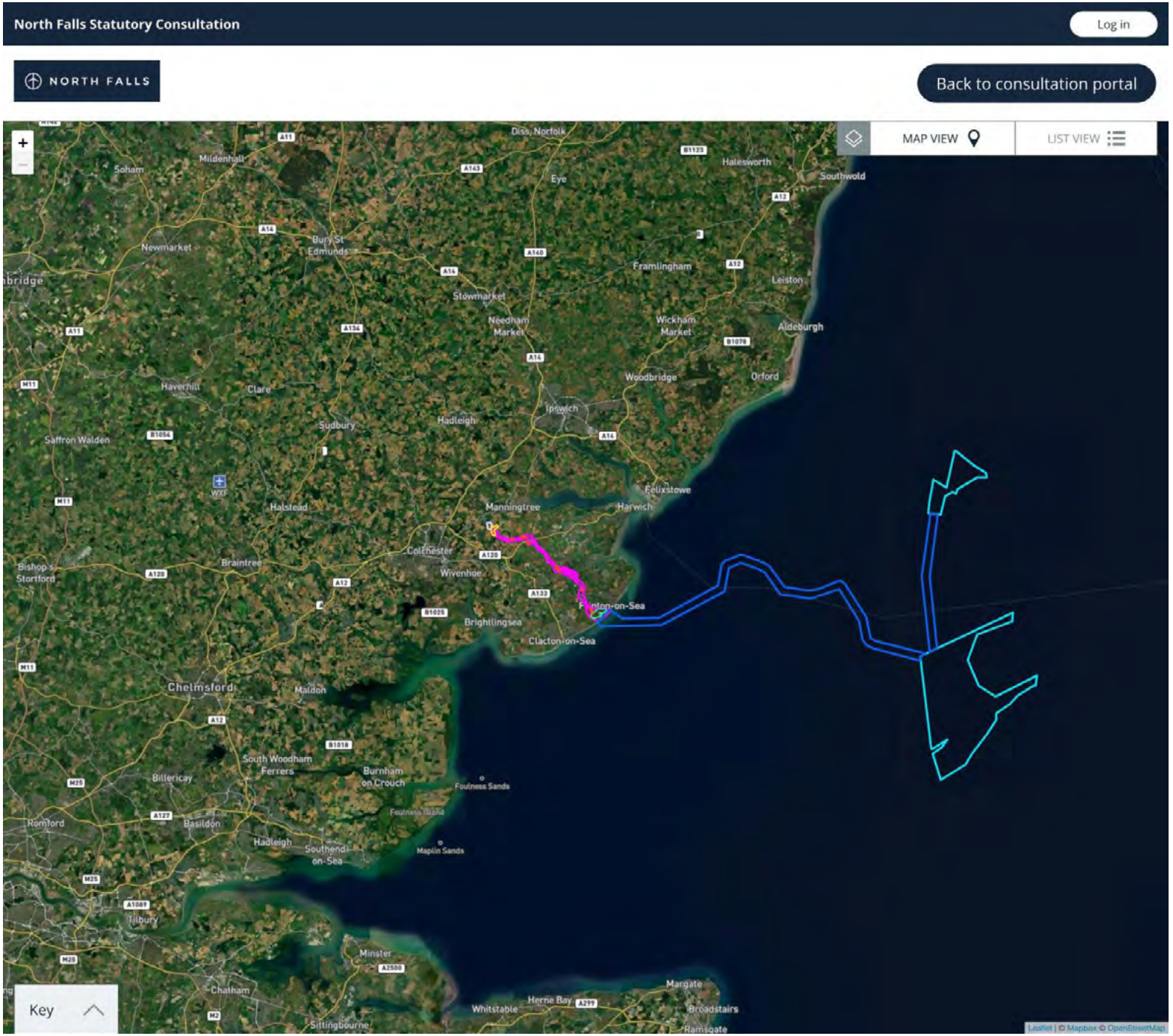
NORTH FALLS

Offshore Wind Farm

APPENDIX F

F.3.1

Stage 3 (statutory) consultation online interactive map


North Falls Statutory Consultation
Log in
NORTH FALLS
Back to consultation portal
MAP VIEW
LIST VIEW
Diss, Norfolk
Soham
Mildenhall
Eye
Halesworth
Southwold
Newmarket
Bury St Edmunds
Framlingham
Leiston
Stowmarket
Needham Market
Wickham Market
Aldeburgh
Haverhill
Clare
Woodbridge
Orford
Ipswich
Sudbury
Hadleigh
Saffron Walden
Felixstowe
Halstead
Manningtree
Harwich
Colchester
Braintree
Wivenhoe
Bishop's Stortford
Brightlingsea
Clacton-on-Sea
Chelmsford
Maldon
South Woodham Ferrers
Burnham on Crouch
Foulness Sands
Billericay
Romford
Basildon
Hadleigh
Southend-on-Sea
Maplin Sands
Tilbury
Minster
Chatham
Margate
Herne Bay
Whitstable
Broadstairs
Ramsgate
Sittingbourne
Key
Leaflet | © Mapbox © OpenStreetMap

NORTH FALLS

Offshore Wind Farm

APPENDIX F

F.4

Stage 3 (statutory) consultation exhibition panels

WELCOME TO OUR STATUTORY CONSULTATION

NORTH FALLS

Offshore Wind Farm

North Falls Offshore Wind Farm, an extension project to the existing 504 megawatt (MW) Greater Gabbard Offshore Wind Farm, is being developed in the southern North Sea more than 20km off the UK coast. Its site is in two parts which together cover a total area of 150km².

The project has an agreement with National Grid to connect to the national electricity network at a new substation in Tendring, Essex. Onshore electricity cables would be installed underground from landfall near Frinton-on-Sea to this new substation.

North Falls is being developed by North Falls Offshore Wind Farm Limited, a 50/50 joint venture company owned by SSE Renewables and RWE.

The project is holding its statutory consultation phase from Tuesday 16 May until Friday 14 July 2023.

PURPOSE OF THIS CONSULTATION

This third phase of consultation aims to give people a further chance to review, influence and provide comments on our project proposals, and specifically on our preliminary environmental information report (PEIR). Our PEIR sets out initial findings from the environmental impact assessment (EIA) work completed over the past three years. The work investigated the potentially significant effects that our proposals may have on the environment or on local communities and details how they are to be avoided or how they will be mitigated.

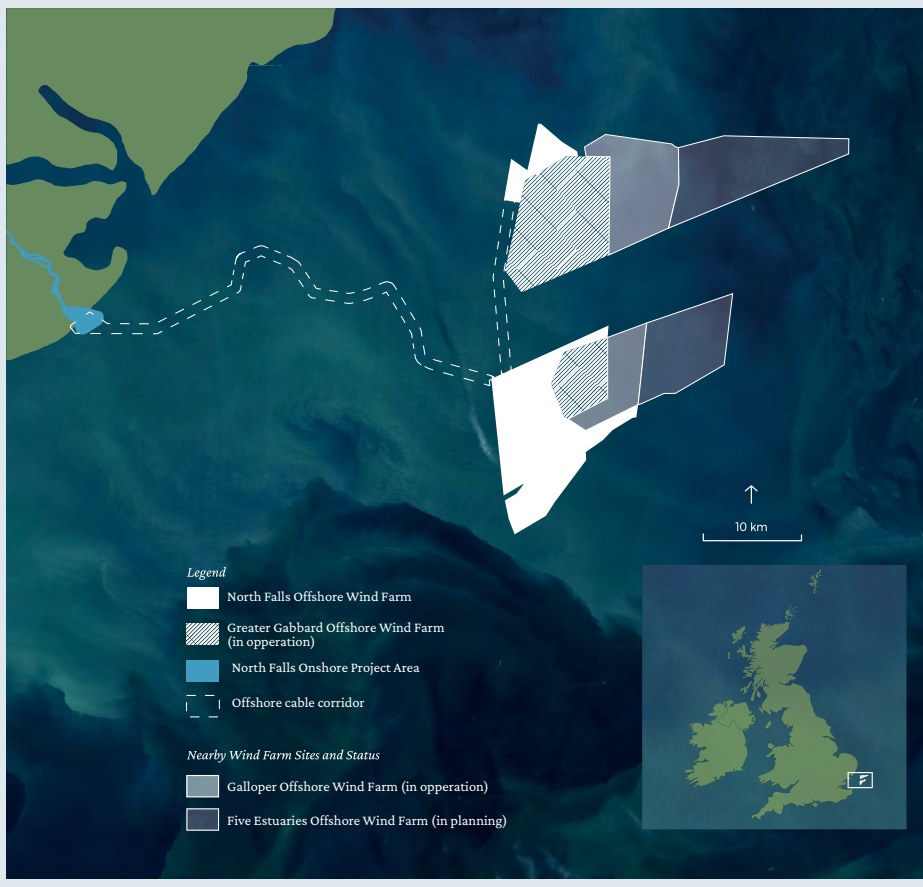
The proposals presented in this consultation are not the final application, rather this is an opportunity for the local community and others with an interest in the project to influence the details of the application before it is submitted to the Planning Inspectorate.

NORTH FALLS PRELIMINARY ENVIRONMENT INFORMATION REPORT (PEIR)

Our PEIR is a complex and detailed document comprising three volumes and a non-technical summary. It is recommended you start your review with the North Falls Non-technical Summary (NtS) as it gives a high level overview and can help to signpost you to the PEIR chapters, details and documents that are likely to be of most interest. The full PEIR can be viewed online or here today at our consultation, along with hard copies of the NtS. Brief extracts of the NtS, along with references to the corresponding PEIR chapters can be found on these panels.

As well as the NtS, the PEIR comprises: 33 technical chapters covering every aspect of the project from ecology and ornithology to traffic and shipping; chapter figures, and appendices. The PEIR also includes three additional reports:

- Schedule of Mitigation
- Design Vision
- Habitats Regulations Assessment



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NORTH FALLS NON-TECHNICAL SUMMARY

NORTH FALLS

Offshore Wind Farm

The North Falls Non-technical Summary (NtS) is a 70-page standalone document providing an overview of the potential environmental effects of North Falls in relatively non-technical terms. The full details for each area presented in the NtS can be found in the North Falls PEIR, however it is useful to start with this summary document to identify key areas of interest.

As well as describing the project, the NtS explains the need case for North Falls, details how its different aspects have been selected and explains the environmental impact assessment work to date. It outlines the role of national policy statements in the decision-making process plus the role of other relevant policies, and covers the project's consultation approach.

The NtS structure and content align to the topics which are covered in the PEIR. The North Falls Non-technical Summary includes a number of tables, plates and figures to support the chapters and ends with a conclusion section as well as references.

CONCLUSION

For all the offshore topics and for most of the onshore topics, the preliminary project assessments have concluded that, with mitigation, there would be no significant adverse effects in environmental impact assessment terms other than the following where significant residual effects have been identified:

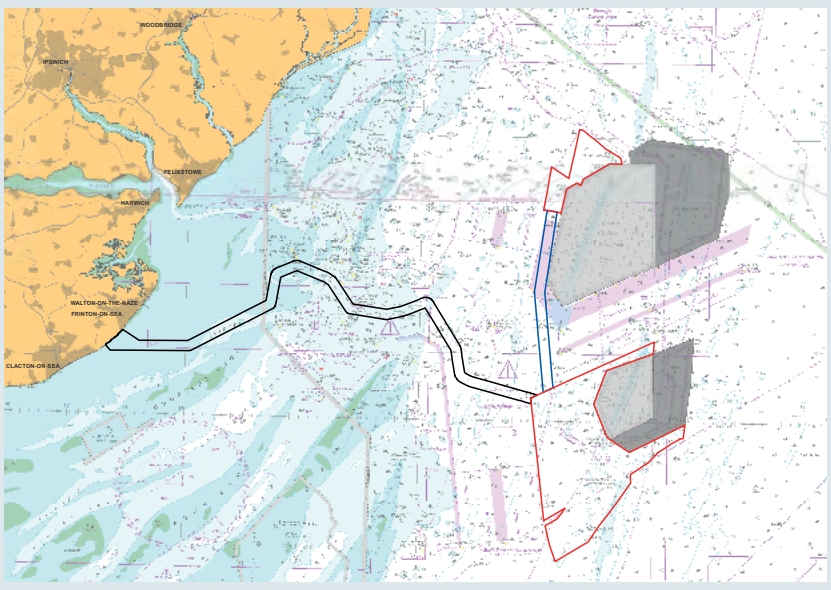
- Land use and agriculture, with permanent loss of agricultural land during operation of the onshore substation; and
- Onshore ecology, with temporary loss of some hedgerows and associated temporary impacts on bats and dormice. Replanting of hedgerows post-construction should lead to moderately beneficial impacts in the longer term.

For project-wide topics, significant effects have been identified in relation to:

- Seascape, landscape and visual, due to the visibility of the wind farm from certain areas of the coast during its operation. This will influence the seascape and landscape character; and
- Landscape and visual with respect to effect on the landscape fabric and visual amenity of the onshore substation zone during the project's construction and operation.

Beneficial effects were identified for a number of topics, including around onshore ecology due primarily to the project's commitment to biodiversity net gain; socio-economics, with skills and supply chain opportunities; and contribution to combatting climate change.

North Falls has committed to implementing mitigation measures to ensure that any potential impacts are minimised as far as reasonable and practicable, and to reduce the potential for significant effects.



North Falls offshore project area

North Falls onshore project area

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KEY FACTS AND FIGURES

NORTH FALLS

Offshore Wind Farm

22KM
DISTANCE TO SHORE (CLOSEST)

Off the UK coast in the southern North Sea

UP TO 72
TURBINES

Depending on the size of turbine selected

150KM²
TOTAL AREA

Total area across two sites

UP TO TWO
SUBSTATIONS

Offshore substations/platforms to facilitate the export of electricity to an onshore or an offshore connection point

24KM
UNDERGROUND CABLE

Of underground onshore cable to transport the power from landfall to the new onshore substation (assuming an onshore grid connection)

FOUR
TIMES THE EXISTING LAWFORD SUBSTATION

Size of the onshore substation footprint, with similar surrounding landscaping

£1.5
BILLION

Likely investment in UK electricity infrastructure

POWER MORE THAN 400K
UK HOMES

The potential number of UK homes supplied with their electricity (depending on final installed capacity)

50GW
OF OFFSHORE WIND BY 2030

North Falls would support this government target

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PRE-APPLICATION PHASE - PROGRESS SINCE 2020

NORTH FALLS

Offshore Wind Farm

Since North Falls signed its Agreement for Lease with The Crown Estate, the project team has been in what is called the pre-application stage. As a nationally significant infrastructure project (NSIP), North Falls must be consented under the Planning Act 2008 development consent process, which was introduced to streamline the decision-making for such projects.

Applicants, such as North Falls, must go through this six stage process to gain permission to build and operate their NSIP. The permission is called a development consent order (DCO). The Planning Inspectorate is the government agency responsible for examining and making recommendations on applications for NSIPs with the final decision being made by the Secretary of State for the Department for Energy Security and Net Zero.

APPLICATION PROCESS – THE SIX STEPS

1 Pre-application

Look out for information in the local media and in public places near the location of the project, such as the library. Or you can register to receive updates. North Falls will be developing the project proposals and will consult widely as part of that development.

2 Acceptance

The Planning Inspectorate, on behalf of the Secretary of State, has **28 days** to decide whether the North Falls application meets the required standards to proceed to examination, including whether the consultation has complied with relevant legal requirements.

3 Pre-examination

You can now register as an interested party; you will be kept informed of progress and opportunities to put your case. Inspectors will hold a Preliminary Meeting and set the timetable for examination.

4 Examination

You can send in your comments in writing. You can request to speak at a public hearing. The Inspectorate has **6 months** to carry out the examination.

5 Decision

A recommendation to the relevant Secretary of State will be issued by the Inspectorate within **3 months**. The Secretary of State then has a further **3 months** to issue a decision on the proposal.

6 Post-decision

There is the opportunity for legal challenge.

ENVIRONMENTAL IMPACT ASSESSMENT

The pre-application phase for North Falls will run until the DCO application is finalised and submitted to the Planning Inspectorate. The core of this work has been carrying out an environmental impact assessment (EIA), a systematic and iterative approach to assessing the environmental, social and economic effects the project may have.

PRELIMINARY ENVIRONMENTAL INFORMATION REPORT (PEIR)

Since the last phase of consultation the North Falls PEIR has been progressed and is now the subject of this consultation. This is a technical document covering every element that has been considered to date, its potential impacts and proposed mitigations. This consultation is a status update on the project's EIA process and on the progress of the preparation of the application.

Feedback given on the PEIR will be used to produce the final document required for the application, the Environmental Statement.

NORTH FALLS ENVIRONMENTAL STATEMENT (ES)

Looking ahead, the North Falls Environmental Statement (ES) will be the final output of the EIA. It will be an evolution of the PEIR presented here and will incorporate the results of the surveys and assessments, project technical details as well as the outcomes of responses from our consultations.

It forms a key part of the submitted DCO application, accompanying the final application for the Planning Inspectorate.

PEIR reference
Chapter 6. *EIA Methodology*

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PUBLIC CONSULTATION

NORTH FALLS

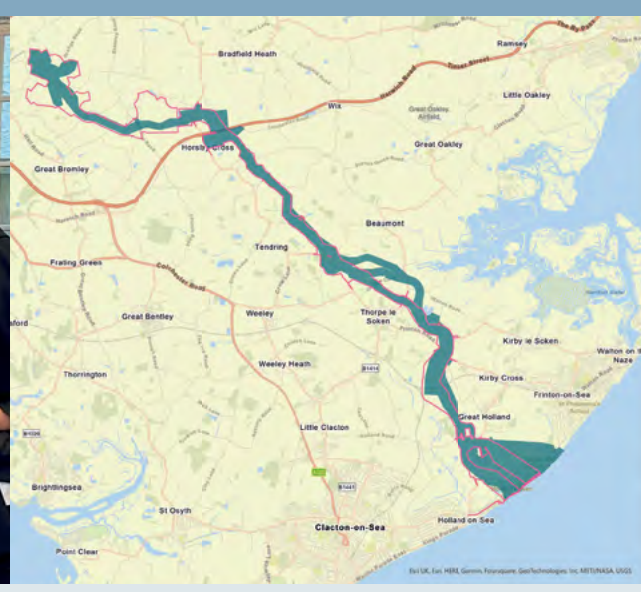
Offshore Wind Farm

Feedback from our consultation so far has influenced a number of key project actions and decisions:

- All the project's onshore cables are to be buried
- Cables will be installed by drilling beneath Holland Haven Marshes Site of Special Scientific Interest, including Holland Haven Local Nature Reserve and Frinton Golf Club to avoid disturbing the surface.
- No work will take place in the intertidal zone to limit disruption at the coast
- Offshore cable placement and construction will avoid sensitive areas of the seabed
- A 3D model has been produced to enable people to visualise the wind farm from key coastal viewpoints
- Construction traffic will be routed and timed to avoid school drop off and pick up, and minimise impacts on local community events
- A temporary haul road within the construction corridor will minimise the amount of traffic on the local road network
- Landscaping will be provided around the onshore substation in consultation with the community
- The project will aim to achieve a biodiversity net gain following construction
- Inclusion of an option to connect to an offshore grid connection (if made available to North Falls by a third party)
- A land drainage consultant will be engaged to develop pre- and post-construction farm drainage plans
- Ongoing close cooperation with Five Estuaries to minimise cumulative impacts where possible

In March 2022, the North Falls Statement of Community Consultation was published, setting out the project's approach to consultation including who will be consulted and how.

This third consultation phase provides the opportunity for the public to give the North Falls team useful information and influence the proposals that will be included in the final application.



PEIR reference
Chapter 7. *Technical consultation*

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PROJECT DESCRIPTION COMPONENTS, OPTIONALITY AND CONSTRUCTION

NORTH FALLS

Offshore Wind Farm

North Falls has an offshore array area of 150km² split into two sections within the Outer Thames Estuary, in the southern North Sea. Its closest point to land is 22.5km from the coast near Orford, Suffolk.

The current proposals for North Falls include up to 72 wind turbines on fixed foundations. Array cables will connect the turbines in strings to either one or two offshore substation platforms.

A subsea interconnector will join the project's northern and southern sections. In the event of an onshore grid connection, subsea export cables will bring the power to shore at a location known as 'landfall'. From there, underground onshore cables would carry the power to a new onshore substation and then on to the national grid.

At this stage optionality is required to future-proof the project and therefore a 'design envelope' approach has been adopted.

CONNECTION OPTIONS

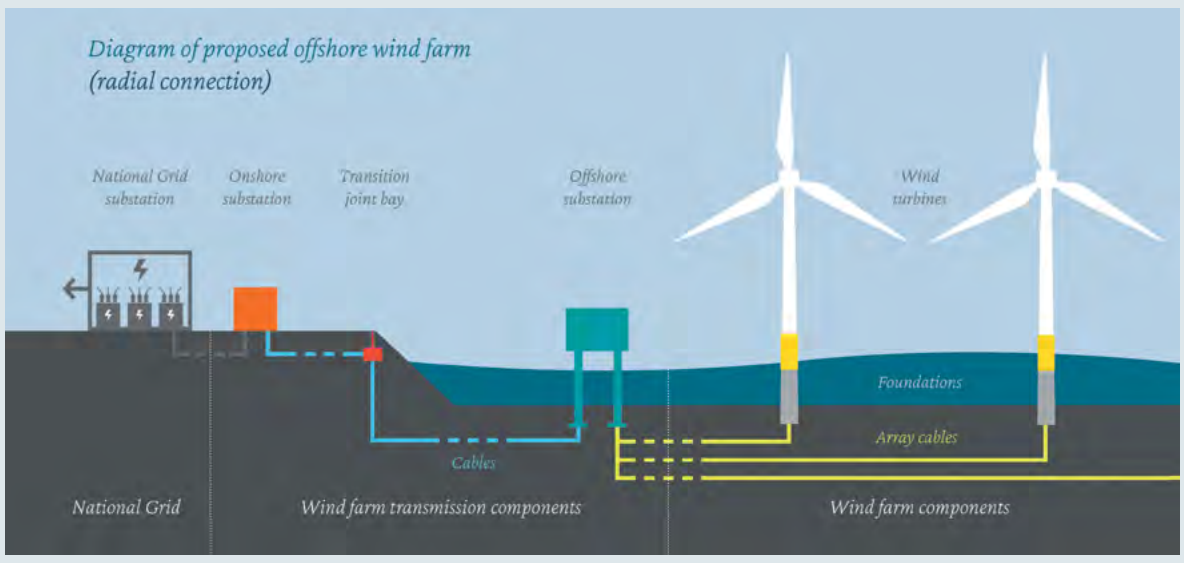
One key area of optionality is around connection to the national grid. North Falls is working with Government to explore grid connection options as part of the Offshore Transmission Network Review (OTNR) process and has committed to exploring coordinated network designs, along with four other projects in East Anglia.

This means we are currently reviewing three options for the grid connection point:

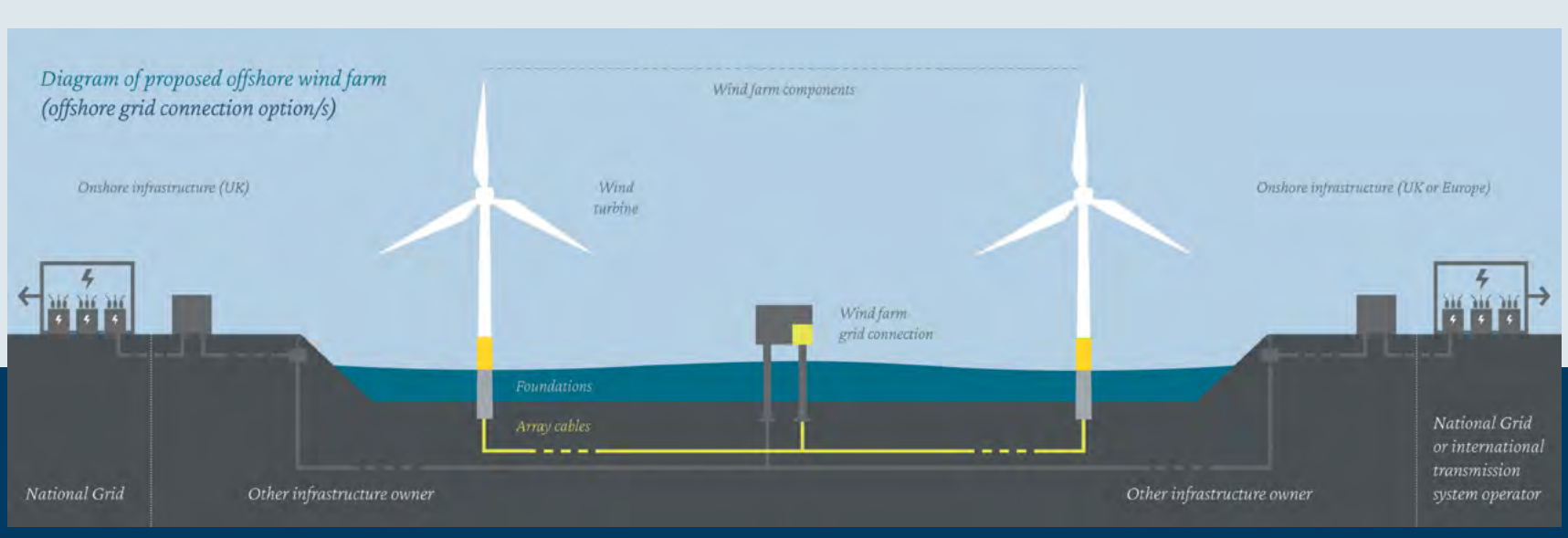
Option 1: Onshore electrical connection at a National Grid connection point within Tendring, Essex, with a project alone onshore cable route and onshore substation infrastructure;

Option 2: Onshore electrical connection at a National Grid connection point within Tendring, Essex, sharing all or part of an onshore cable route with separate onshore export cables with another project (such as Five Estuaries) where practicable; or

Option 3: Offshore electrical connection supplied by a third-party electricity network provider. Such a connection will potentially be identified through the OTNR process.



Onshore grid connection option



Offshore grid connection option

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PROJECT DESCRIPTION COMPONENTS, OPTIONALITY AND CONSTRUCTION

NORTH FALLS

Offshore Wind Farm

OFFSHORE WORKS

The North Falls array area, where the turbines and offshore substation platform(s) will be located, is split into two boundaries separated by a shipping route. The northern and southern array boundaries cover areas of approximately 21km^2 and 129km^2, respectively.

Offshore construction should take around three years however the programme can be affected by the final design and layout of the components, supply chain and weather conditions during the work.

ONSHORE WORKS

North Falls' onshore infrastructure is proposed to be entirely within Tendring, Essex. Its footprint is referred to as the 'onshore project area' with the exact siting of the infrastructure being refined through site selection, with consideration given to consultation feedback and survey data.

There are three key areas that make up the onshore project area: landfall, onshore cable corridor and onshore substation

1. LANDFALL

The landfall is where the offshore export cables are brought onshore and connect to the onshore export cables within transition joint bays. It is likely to be located near Frinton-on-Sea with construction work being undertaken from a temporary compound within what we refer to as the landfall compound zone.

Landfall compound zone

Feedback question:
Do you have any comments about the landfall compound zone that could help us identify the best location for the temporary construction compound?

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PROJECT DESCRIPTION COMPONENTS, OPTIONALITY AND CONSTRUCTION

NORTH FALLS

Offshore Wind Farm

2. ONSHORE CABLE CORRIDOR

From the landfall, onshore export cables laid in ducts along the cable route will carry electricity approximately 24 kilometres to the onshore substation. So far North Falls has identified broad onshore cable corridor(s) up to 243m in width, which will be refined to a predominantly 60 metre-wide working width where the construction works for the onshore export cables will take place.

At this stage the current corridor(s) still have a degree of flexibility and optionality. When it comes to construction, the export cables will be installed by open cut trenching, or trenchless techniques where needed, with land reinstated and returned to its former use after the work is completed.

3. ONSHORE SUBSTATION

The precise location of the onshore substation and grid connection is subject to ongoing consultation, however assuming a radial connection, the substation will be located in the onshore substation zone (see map). A maximum area of 0.080km^2 (8ha) would be required for the onshore substation.

North Falls has prepared a Design Vision Statement which sets out the project's design strategy for the onshore substation, identifying the constraints and opportunities relevant for electrical infrastructure situated in the local landscape.

PEIR Reference

Chapter 5. *Project Description*
- *Design Vision*

Feedback questions:

Are there any areas of the cable corridor you have specific information or comments about?

Looking at the proposed onshore substation zone, is there anything North Falls should know that could help with the final siting of the electrical infrastructure?

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OFFSHORE: OFFSHORE TOPICS CONSIDERED IN THE PEIR

NORTH FALLS
Offshore Wind Farm

More details of each offshore topic covered in the PEIR can be found in the consultation booklet, the non-technical summary or in the relevant chapter itself (see list below and next panel). For this panel and the one which follows we have summarised the topics which have had the most interest to date.

FISH AND SHELLFISH ECOLOGY

Species of commercial importance identified in our studies include sole, whelk, bass, thornback ray, horse mackerel, herring, cod, and plaice. The studies also covered locations for species of conservation importance at certain times of the year, and spawning and nursery grounds. Impacts reviewed include physical disturbance and habitat loss, underwater noise from construction activities, changes in fishing activity, increased suspended sediments and the potential impact of electromagnetic fields around the cables during operation. Mitigation such as cable burial, cable protection, noise-limiting construction protocols and pollution protection measures, will be implemented where practicable .

MARINE MAMMALS

North Falls undertook two years of monthly aerial surveys for both marine mammals and seabirds. High resolution digital data was collected providing imagery for marine megafauna over the project's two array areas with a four kilometre buffer. As well as use of wider desk-based sources, these surveys provided information on the numbers and density of harbour porpoise, minke whale, grey seal and harbour seal.

Impacts identified such as potential hearing damage and disturbance/behavioural impacts or barrier effects from underwater noise or an increase in vessel collision risk will be addressed via measures such as: soft-start and ramp-up for piling activities; use of best practice guidance to reduce vessel collision risk and implementation of a project environmental monitoring plan. Additional mitigation will be implemented through a marine mammal mitigation plan, with an outline to be submitted alongside the DCO application.

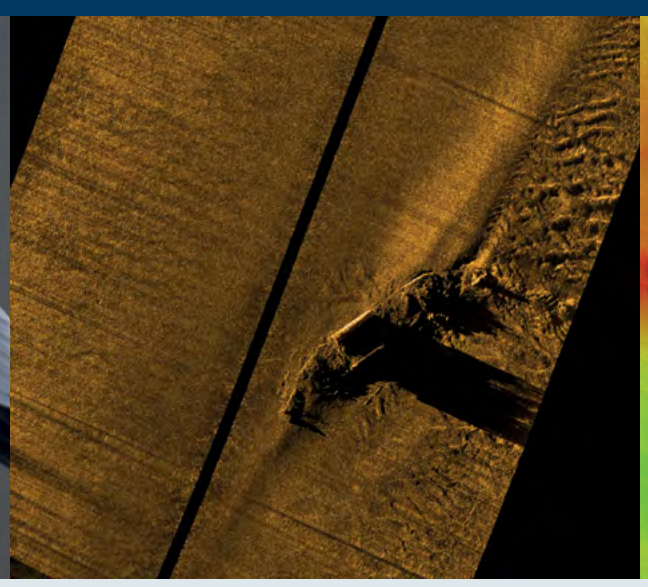
OFFSHORE ORNITHOLOGY

North Falls undertook 24 monthly digital aerial surveys flown along transects across the array site plus buffer zones to record existing bird populations. The impacts assessed for the project include direct disturbance, displacement, collision risk and indirect effects on prey species and habitat.

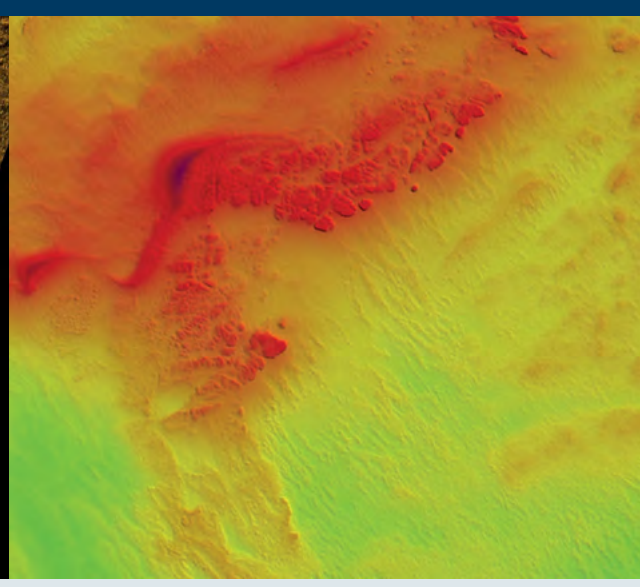
Mitigation measures include sensitive site selection of the offshore cable corridor to minimise overlap with the Outer Thames Estuary SPA, and a minimum air gap of 27 metres (five metres above the gap proposed in the North Falls Scoping Report) to reduce the risk of collisions, and a best-practice shipping protocol which may include actions such as designing transit routes to minimise disturbance within the SPA, restricting and minimising vessel movements, avoiding over-revving of engines and crew training.

Through the use of mitigation measures, the project should not have significant effects on ornithology, even in cumulation with other projects except for some specific species such as the kittiwake and black-backed gull, where there may be a significant impact in terms of collision risk.

Common seagull



Sunken passenger ship Mecklenburg (archaeology)



Seabed survey (marine geology)

PEIR Reference

Chapter 8. *Marine Geology Oceanography and Physical Processes*
Chapter 9. *Marine Water and Sediment Quality*
Chapter 10. *Benthic and Intertidal Ecology*
Chapter 11. *Fish and Shellfish Ecology*
Chapter 12. *Marine Mammals*
Chapter 13. *Offshore Ornithology*

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Offshore Wind Farm

COMMERCIAL FISHERIES

Assessments have identified the project is likely to have a number of potential impacts on commercial fisheries such as loss or restricted access to fishing grounds; displacement of fishing activities into other areas; increased sailing times; interference with fishing activities, and safety issues for fishing. These will be addressed through the appointment of a fisheries liaison officer for the duration of the construction phase, development of a Fisheries Liaison and Coexistence Plan detailing the approach to liaison with fisheries stakeholders, and development of a Code of Good Practice for project vessels. There is a commitment to bury subsea cables, with cable protection to be used where this is not possible. Cable protection will be designed to minimise potential risk of gear snagging and the locations of protected cables will be shared.

However these risks can be largely mitigated by implementation of safety measures, adherence to international regulations and conventions, working with consultees on the turbine layout and with thorough emergency response planning and communication of information to other sea users.

Fisheries survey

Fugro Mercator survey vessel

PEIR Reference

Chapter 14. *Commercial Fisheries*
Chapter 15. *Shipping and Navigation*
Chapter 16. *Offshore Archaeology and Cultural Heritage*
Chapter 17. *Aviation and Radar*
Chapter 18. *Infrastructure and Other Users*

Feedback question:
Do you have any comments about any of the offshore-related assessments or on the mitigation measures proposed?

ONSHORE: ONSHORE TOPICS CONSIDERED IN THE PEIR

NORTH FALLS
Offshore Wind Farm

More details of each onshore topic covered in the PEIR can be found in the consultation booklet, the non-technical summary or in the relevant chapter itself (see list below and next panel). For this panel and the one which follows we have summarised the topics which have had the most interest to date.

GROUND CONDITIONS AND CONTAMINATION

A Code of Construction Practice (CoCP) will be adhered to throughout construction, which will include an assessment of any risks to human health, soils and water, and will outline how industry best practice measures will be implemented to avoid, minimise and mitigate potential impacts.

Essex agricultural field

WATER RESOURCES AND FLOOD RISK

The physical characteristics of the watercourses within the onshore project area were assessed with specific potential impacts such as direct disturbance of surface water bodies, increased sediment supply, contaminants, changes to surface and groundwater flows, and flood risk. Mitigation and soil management measures will be included in the CCoP and also in a Soil Management Plan.

During construction, trenchless methods will be used to install cables at rivers and most ordinary watercourses, temporary Bailey bridges will be used across rivers, and best practice measures will be employed at trenched crossings.

LAND USE AND AGRICULTURE

North Falls continues to engage with landowners and occupiers about the project, their land holdings and how the impacts of the project can be mitigated. Factors considered have included: minimising land take; reducing severed land parcels; aligning with field boundaries, and avoiding higher quality agricultural land, land subject to Environmental Stewardship or Countryside Stewardship schemes and land allocated in local plans.

Mitigations to address potential impacts on land use and agriculture will be secured as part of the CoCP and Soil Management Plan, and will include the appointment of a land drainage consultant to develop pre- and post-construction drainage plans, and an agricultural liaison officer to work with landowners/occupiers throughout.

ONSHORE ECOLOGY

North Falls has undertaken extensive habitat surveys as well as surveys specific to species such as bats, reptiles, water vole and otters, hazel dormice and great crested newts.

The impacts assessed include those on: Holland Haven Marshes Site of Special Scientific Interest (SSSI) and Holland Haven Local Nature Reserve (LNR); other designated sites; (permanent or temporary) loss of woodland, hedgerows and arable field margins; impacts on specific species, and the spread of invasive non-native species.

To address impacts, the proposed location of the cable route and onshore substation avoids designated sites, ancient woodlands, and specific habitats. Construction methods will be chosen carefully and an Ecological Management Plan (EMP) in line with best practice, will be implemented during construction. All habitats subject to temporary construction impacts will be reinstated. In addition, North Falls has committed to deliver a minimum of 10% biodiversity net gain for the project.

PEIR Reference

Chapter 19. *Onshore Ground Conditions and Contamination*
Chapter 20. *Air Quality*
Chapter 21. *Water Resources and Flood Risk*
Chapter 22. *Land Use and Agriculture*
Chapter 23. *Onshore Ecology*

Feedback question:
Do you have any comments about any of the onshore-related assessments or on the mitigation measures proposed?

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ONSHORE: ONSHORE TOPICS CONSIDERED IN THE PEIR

NORTH FALLS
Offshore Wind Farm

ONSHORE ORNITHOLOGY

North Falls has undertaken onshore ornithological surveys during both non-breeding and breeding seasons and considered potential direct impacts such as habitat loss, as well as indirect impacts due to construction disturbance, such as noise and light, and operation and maintenance activities. Mitigation measures will be integral to the EMP mentioned on the previous panel and will include design and construction methodology and habitat reinstatement.

Brent goose

ONSHORE ARCHAEOLOGY AND CULTURAL HERITAGE

North Falls conducted an historic environment walkover survey, geoarchaeological desk-based assessment, further research and an archaeological geophysical survey, with further trial trenching investigations also taking place throughout 2023.

NOISE AND VIBRATION

Baseline surveys near the proposed landfall and onshore substation zones assessed potential noise and vibration impacts. Site selection has considered nearby residential properties, with noise and vibration mitigation to be detailed in the CoCP. This is likely to include: restricted use of plant, speed limits, use of quieter working methods, and phasing of works to avoid sensitive times. During operations certain onshore substation equipment would be enclosed and vibration isolation mounts used.

TRAFFIC AND TRANSPORT

The impacts assessed in the project's traffic and transport reviews included: traffic-induced community separation, pedestrian and cyclist amenity, highway safety, and traffic delays due to delivery of abnormal loads.

These issues can be reduced by restricting timeframes for heavy goods vehicle (HGV) movements, through the use of temporary haul roads along the onshore cable route, by creating vehicle crossovers and controlling project vehicle routes. HGV movements would be restricted through Thorpe-le-Soken and vehicles routed from certain sensitive roads to the temporary haul road, or along other designated routes. No construction traffic will be permitted to travel via alternative routes.

The full strategy for traffic and transport management during construction will be covered in the Outline CTMP, which will be submitted with the application. This will contain details of how HGV movements would be controlled, monitored and enforced and will provide details of the mechanisms for managing access design and offsite highway works.

SEASCAPE, LANDSCAPE AND VISUAL

The study area for seascape, landscape and visual impacts was defined as a 60 kilometre radius around the proposed array areas, including parts of the Thames estuary, Suffolk, Essex, and Kent. The assessment is based on the maximum potential turbine size to ensure it is future-proofed in case of technological advances.

North Falls is predicted to impact views from certain Suffolk coastal areas such as Sizewell Beach, sections of the Suffolk Coast Path and Suffolk Coast and Heaths AONB due to visibility of its turbines during operation influencing the seascape and landscape character.

Photomontages are available in Volume 2 (Figures) of Chapter 29 to enable those with an interest to see how the wind farm could look. There is also a 3D computer-generated interactive model with 17 different viewpoints to provide further visual examples in different conditions. Please use the QR code to view the model.

PEIR Reference

Chapter 24. *Onshore Ornithology*
Chapter 25. *Onshore Archaeology and Cultural Heritage*
Chapter 26. *Noise and Vibration*
Chapter 27. *Traffic and Transport*

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PROJECT-WIDE: PROJECT-WIDE TOPICS CONSIDERED IN THE PEIR

NORTH FALLS
Offshore Wind Farm

More details of each project-wide topic covered in the PEIR can be found in the consultation booklet, the non-technical summary or in the relevant chapter itself (see list below). For this panel we have summarised the topics which have had the most interest to date.

LANDSCAPE AND VISUAL

In assessing the landscape and visual impacts of the onshore elements of North Falls, those factors considered included potential changes to landscape elements and fabric; changes to landscape character; changes to landscape designations; and changes to visual amenity.

Mitigation measures were incorporated as part of the site selection process, as well as in the choice of construction methods, through proposed habitat reinstatement and within the project design. Additional landscape mitigation and biodiversity enhancement, which includes new hedgerow and woodland planting, will also be undertaken. Further details on these can be read in the project's Design Vision.

SOCIO-ECONOMICS

In terms of socio-economics, the potential direct and indirect benefits have been reviewed as well as adverse effects on: economy, health infrastructure, social and community infrastructure, imports and exports, volume and value of fishing catch and mineral resources.

The benefits predicted for the project include increases in 'gross value added' (GVA) (the value of goods and services of the local and national economy) and job-creation through use of the local supply chain and direct and indirect employment. The adverse effects relate to pressure on local infrastructure, disturbance (noise, air, visual), plus potential disruption to fishing and minerals. For these adverse effects, a wide range of mitigation measures will be implemented during construction, such as vehicle delivery time and routing restrictions as well as ongoing stakeholder engagement, and during operations through design to reduce visual impact.

TOURISM AND RECREATION

Marine, coastal and onshore tourism and recreational assets in Essex and Suffolk were reviewed for all project phases. For the project's construction phase impacts assessed were road traffic disruption, a reduction in tourist numbers and spending, and the availability of holiday accommodation due to non-resident workers. During the project's operation, impacts assessed were related to negative perceptions of offshore wind farms.

The project's comprehensive site selection process aimed to minimise impacts on the natural surroundings, on designated areas, ancient monuments or listed buildings, and tourist destinations. At the start of the project underground cables were specified, and other mitigation measures proposed include a rolling construction programme, implementation of flexible management plans and good communications throughout any works.

PEIR Reference

Chapter 28. *Human Health*
Chapter 29. *Seascape, Landscape and Visual (SLVIA)*
Chapter 30. *Landscape and Visual (LVIA)*
Chapter 31. *Socio-economic*
Chapter 32. *Tourism and Recreation*
- *Schedule of Mitigation*
- *Design Vision*

Feedback questions:
Are you supportive of the North Falls Offshore Wind Farm project?
Do you have any further comments or feedback on the project?

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HOW TO RESPOND
WAYS TO HAVE YOUR SAY

NORTH FALLS
Offshore Wind Farm

We welcome your feedback and have provided a number of ways for you to respond to this consultation.

FACE-TO-FACE AND ONLINE EVENTS

We are holding five face-to-face events in Essex as well as two webinars at 6pm on Tuesday 13 June and Wednesday 21 June at 6pm. Details of the events and where and how to join are in the North Falls Consultation Booklet.

EMAIL AND TELEPHONE

We welcome emails to:
contact@northfallsoffshore.com,
or you can ring us on **0800 254 5340**

WEBSITE

You can also send your comments or feedback to us via the online contact form on our website:
www.northfallsoffshore.com

POST

To send your response by mail please use:
North Falls FREEPOST. No stamp required.

FEEDBACK QUESTIONNAIRE

Please fill in the feedback questionnaire at this event and hand it in today or take it home and once completed either scan and email it to:
contact@northfallsoffshore.com or post it to **North Falls FREEPOST**.

TO STAY IN TOUCH

Sign up to email updates or let us know if you would prefer a printed version of information to be sent to your home.

ONLINE CONSULTATION

All information and links to consultation documents, including the online feedback questionnaire, can be found via the consultation portal:
https://stat.northfallsoffshore.com which can also be accessed via our website:
www.northfallsoffshore.com.

The consultation portal also includes a consultation map where you can pinpoint specific locations you have questions or comments on and leave them there.

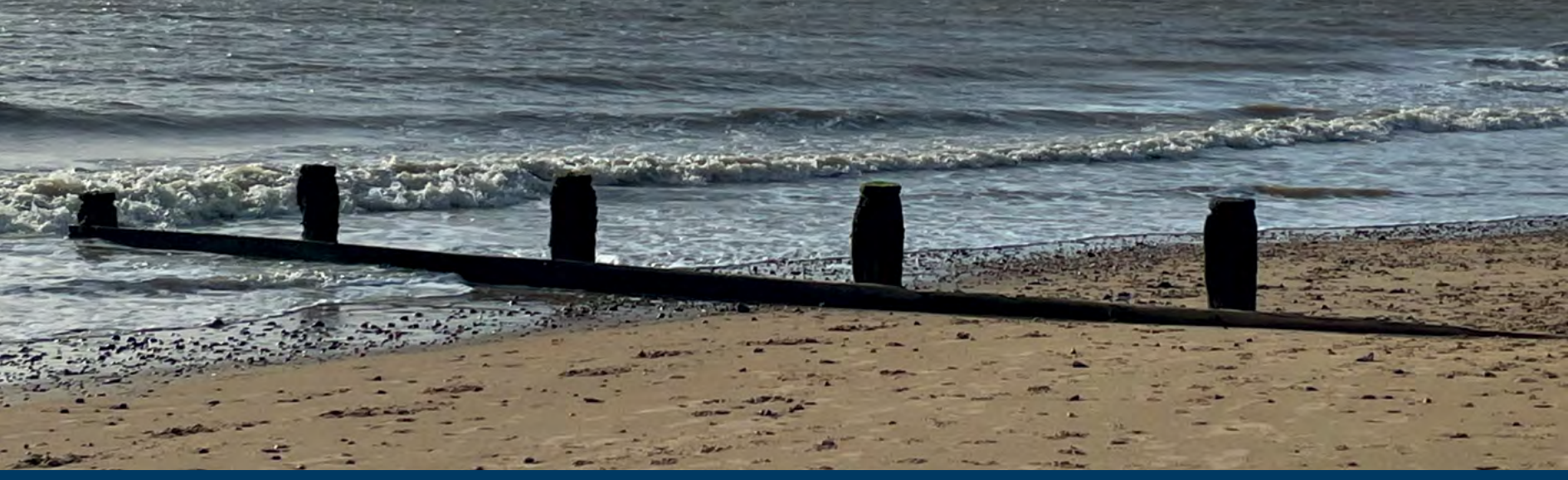
OTHER CONTACT DETAILS

For **land related** queries contact the project's land agent Dalcour Maclaren:
Address: Unit 1, Staplehurst Farm, Weston-on-the-Green, Bicester OX25 3QU

E: **northfalls@dalcourmaclaren.com**
T: **01622 623025**

For **fisheries related** queries contact our fisheries consultants Brown & May Marine Ltd:
Address: Progress Way, Mid Suffolk Business Park Eye, Suffolk, IP23 7HU

E: **northfalls@brownmay.com**
T: **01379 772871**



We thank you for taking the time to participate in this consultation.

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NORTH FALLS

Offshore Wind Farm

APPENDIX F

F.4.1

Kent/Suffolk specific panels in situ


NORTH FALLS
Offshore Wind Farm
NORTH FALLS
OFFSHORE WIND FARM
CONSULTATION OPEN FROM 16 MAY TO 14 JULY 2023
North Falls, an extension to the existing Greater Gabbard Offshore Wind Farm, is being developed in the southern North Sea. Located around 20km off the coast, its offshore site is in two parts which together cover a total area of 150km². The project has an offer from National Grid to connect to the national grid at a new substation in Tendring, Essex. Underground onshore electricity cables would run from landfall near Frinton-on-Sea to this new substation.
Although North Falls will not have electrical infrastructure in Suffolk we would like to give local people the opportunity to review our proposals and provide feedback, particularly on potential visual impacts of the project from the coast.
All potential impacts are set out in the North Falls Preliminary Environmental Information Report (PEIR), a detailed document with topic-specific chapters, reports and a non-technical summary.
HOW WILL IT LOOK?
VIEW OUR
INTERACTIVE 3D MODEL
To help people see how the wind farm could look we have created an interactive computer model with views from 17 different coastal locations. You can change the height of turbines and alter the weather to see the wind farm in different conditions.
HOW TO FIND OUT MORE AND GIVE FEEDBACK
• Visit our consultation portal: www.stat.northfallsoffshore.com or access it via the project website: www.northfallsoffshore.com
• Use the online feedback form or consultation map to provide comments
• Come to one of our five in-person events in Essex or sign up to a webinar
• Email: contact@northfallsoffshore.com
• Post: FREEPOST North Falls
THIS CONSULTATION CLOSES ON FRIDAY 14 JULY 2023.
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Open
suffolklibraries.co.uk


NORTH FALLS
Offshore Wind Farm
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NORTH FALLS
Offshore Wind Farm
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Use the online feedback form or consultation map to provide comments
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Email: contact@northfallsoffshore.com
Post: FREEPOST North Falls
THIS CONSULTATION CLOSES ON FRIDAY 14 JULY 2023.
www.NorthFallsOffshore.com
RWE
Caring
WHATEVER YOUR NEED YOU MATTER TO US
Staff only

NORTH FALLS

Offshore Wind Farm

APPENDIX F

F.5

Stage 3 (statutory) consultation external signage


ARDLEIGH VILLAGE HALL
NORTH FALLS
Offshore Wind Farm
CONSULTATION EVENT HERE TODAY
www.northfallsoffshore.com
STOP

NORTH FALLS

Offshore Wind Farm

APPENDIX F

F.6

Stage 3 (statutory) consultation factsheet

NORTH FALLS

Offshore Wind Farm

ABOUT NORTH FALLS OFFSHORE WIND FARM

OVERVIEW

North Falls Offshore Wind Farm is an extension to the existing 504MW Greater Gabbard Offshore Wind Farm. The project is being developed in the southern North Sea, more than 20km off the UK coast.

The site is in two parts, which together cover a total area of 150km². The project is being developed by North Falls Offshore Wind Farm Limited, a joint venture company owned equally by SSE Renewables and RWE.

Spring/Summer 2023

DESCRIPTION

North Falls offshore site is located in the southern North Sea with its closest point to land being 22.5km from the Suffolk coast, near Orford. The site is split into two areas, within which the turbines, array cables, and up to two offshore platform/substation(s) would be installed. The northern area covers close to 21km² while the larger southern area covers around 130km².

The layout of the turbines and the location and design of the offshore platform/substation(s) will be finalised post-consent. The project's transmission components will depend on the final grid connection option, whether at a feasible and practicable offshore location or onshore at the proposed new National Grid substation in Tendring, North Essex.

With an offshore grid connection, the electricity generated would be transported via subsea cables to an offshore connection owned and operated by a separate party. From there, it would run via subsea cables to a point onshore, and onwards to the national electricity transmission system – the national grid.

In case of an onshore grid connection, the electricity generated would be transmitted to shore by subsea cables to a proposed landfall on the Essex coast, near Frinton-on-Sea. From there it would be transmitted 24km by **underground cables** to a new North Falls onshore substation, and then further to a new National Grid substation.

The project's design will be refined through further environmental assessment and consultation work prior to submission of the Development Consent Order application.

PROJECT BENEFITS

An initial socio-economic benefits study to clarify the type and extent of potential opportunities for the local area was completed by North Falls in late 2022.

In terms of employment, over the lifetime of the project there will be a wide range of direct, indirect and induced local jobs, from highly skilled to more manual roles. These jobs will be with the project team itself, as well as with businesses and contractors across the supply chain. The initial socio-economic benefit study has put the total number of annual full-time equivalent (FTE)* local jobs at around 4000.

While in relation to local supply chain opportunities, the study calculated that the gross value add (GVA)** for the local area as a result of North Falls could be up to £400 million for the lifetime of the project across the supply chain.

* Annual full-time equivalent (FTE) is a unit to measure employed people in a way that makes them comparable although they may work a different number of hours per week.
** Gross value add (GVA) measures the contribution to the economy of each individual producer, industry or sector.

AT A GLANCE

150km²
TOTAL AREA OF TURBINE ARRAYS

UP TO **72**
MAXIMUM NUMBER OF TURBINES

22.5km
DISTANCE TO SHORE (CLOSEST)

2
MAXIMUM NUMBER OF OFFSHORE SUBSTATION PLATFORMS

£400
MILLION GROSS VALUE ADD FOR THE LOCAL AREA

4,000
ANNUAL FULL-TIME EQUIVALENT JOBS

24km
LENGTH OF ONSHORE CABLE ROUTE

ADDITIONAL BENEFITS

MORE THAN **£1.5bn**
POTENTIAL INVESTMENT IN UK ENERGY INFRASTRUCTURE

50GW
CONTRIBUTING TO THE UK GOVERNMENT'S AMBITIONS OF 50GW OFFSHORE WIND BY 2030

400,000
HOMES EQUIVALENT TO BE PROVIDED WITH CLEAN GREEN ENERGY

FIND OUT MORE

For more information on the project visit
www.northfallsoffshore.com

CONTACT US

Telephone: **0800 254 5340**
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F.7

KiT cards


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F.8

Branded materials


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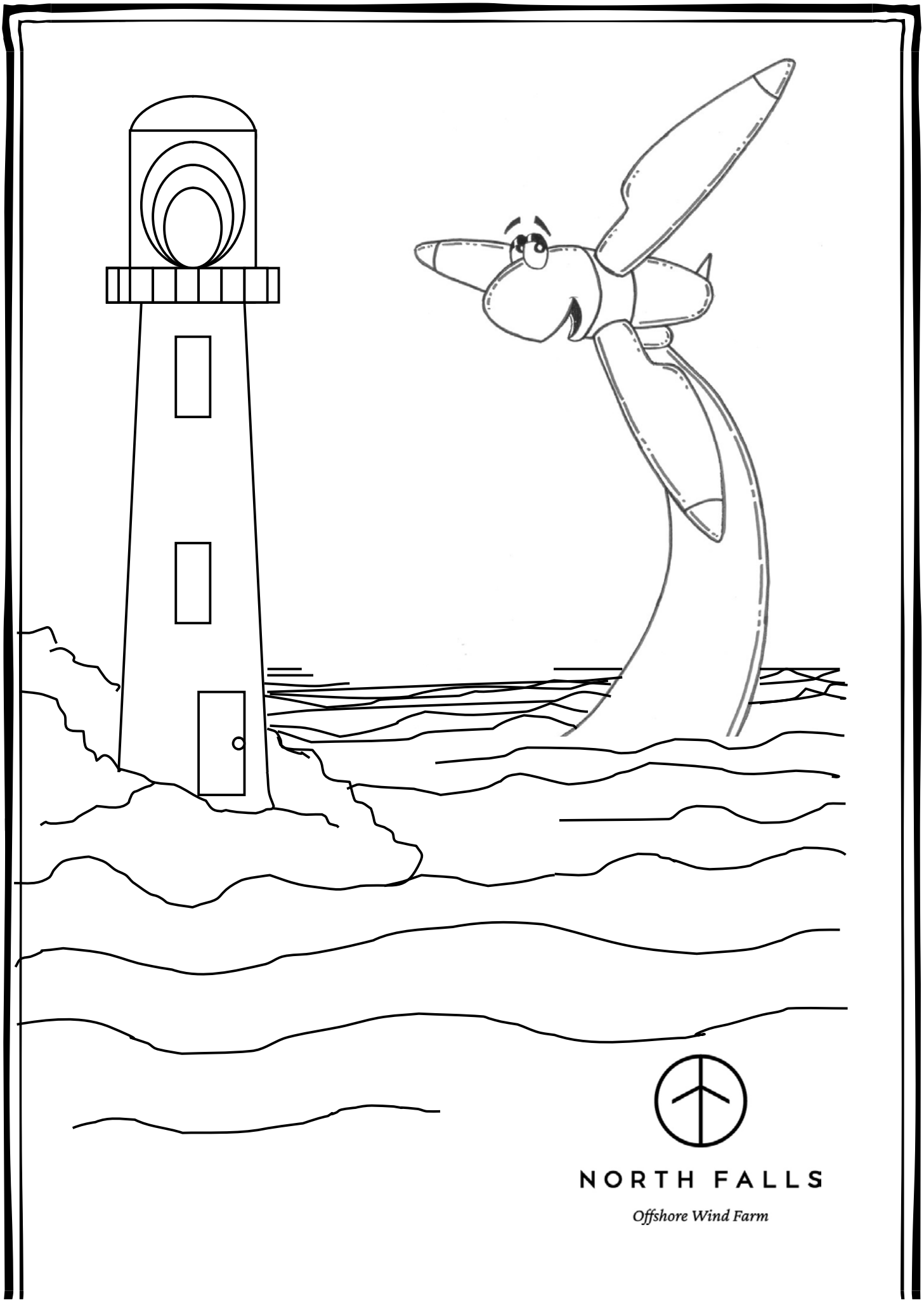
APPENDIX F

F.9

Children's colouring in sheet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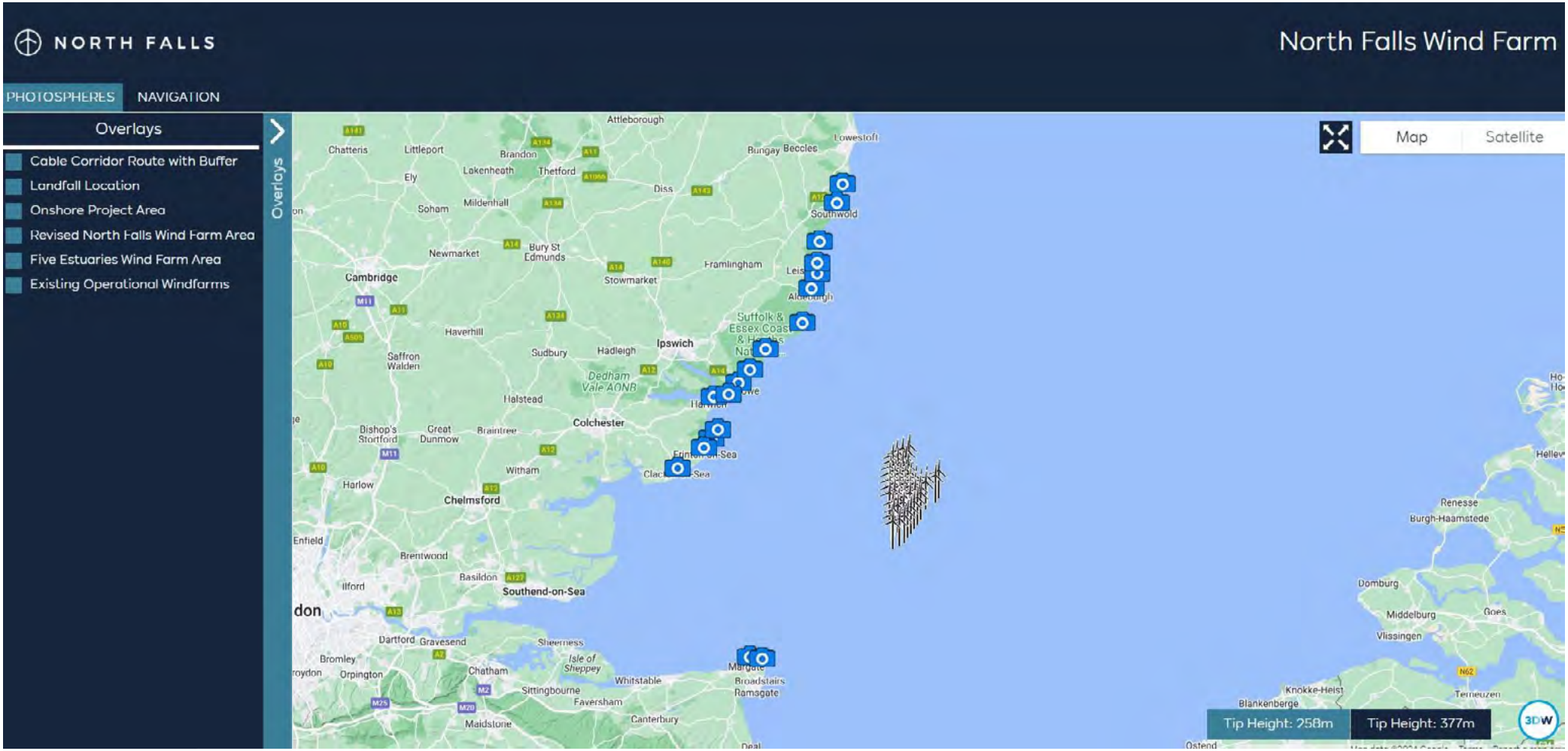
Digital visualisation for statutory consultation events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PHOTOSPHERES
NAVIGATION
Overlays
Cable Corridor Route with Buffer
Landfall Location
Onshore Project Area
Revised North Falls Wind Farm Area
Five Estuaries Wind Farm Area
Existing Operational Windfarms
Overlays
Map
Satellite
Attleborough
Chatteris
Littleport
Brandon
Lowestoft
Bungay
Beccles
Ely
Lakenheath
Thetford
Diss
Soham
Mildenhall
Southwold
Newmarket
Bury St Edmunds
Framlingham
Cambridge
Stowmarket
Haverhill
Suffolk & Essex Coast & Heaths
Saffron Walden
Sudbury
Hadleigh
Ipswich
Dedham Vale AONB
Halstead
Colchester
Bishop's Stortford
Great Dunmow
Braintree
Witham
Harlow
Chelmsford
Enfield
Brentwood
Basildon
Ilford
Southend-on-Sea
Dartford
Gravesend
Sheerness
Bromley
Orpington
Isle of Sheppey
Chatham
Whitstable
Sittingbourne
Faversham
Maidstone
Canterbury
Broadstairs
Ramsgate
Deal
Renesse
Burgh-Haamstede
Domburg
Middelburg
Goes
Vlissingen
Knokke-Heist
Blankenberge
Terneuzen
Ostend
Tip Height: 258m
Tip Height: 377m
3DW

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F.11

Picture from statutory consultation in-person events


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CONSULTATION
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PROJECT DESCRIPTION
COMPONENTS, OPTIONALITY
AND CONSTRUCTION
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Webinar presentation for the statutory consultation

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Welcome
Statutory consultation - webinar 1

Agenda

1. Housekeeping - taking part in today's event
2. Project team introduction
3. Presentation
4. Q&A
5. Close

Taking part in today's event

If you're having any technical issues, please let us know in the chat box.

You can use the Q&A box to ask questions throughout – these will be answered by the team at the end of the presentation.

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Housekeeping

- Please be respectful of others' views.
- During the presentation, please submit questions via the Q&A box.
- Questions will be answered by the project team following the presentation.
- Questions and comments will be unattributed.
- The session will be recorded and posted on the project website to view following this event.
- Further to this webinar you can submit any further views and comments you have in writing, or using the online form on the website.
- Deadline for receipt of all feedback to this consultation is **Friday 14 July 2023**.

Introducing the team here today

- Project Director, Andy Paine
- Consents Manager, Daniel Harper
- Offshore Consents, Tom Crawford
- Onshore Consents, Gordon Campbell
- Stakeholder & Communications, Sue Vincent
- Engineering Manager, David Reid

Introducing North Falls

North Falls – who are we:

- North Falls is an extension to the operational **Greater Gabbard Offshore Wind Farm**
- Located in the **southern North Sea** approximately 22 kilometres from the East Anglia coast with two areas separated by a shipping route.
- The northern and southern array cover areas of 21km^2 and 129km^2, respectively.
- Current proposed installed capacity is 504MW
- North Falls is being developed by a joint venture company owned 50/50 by **SSE Renewables** and **RWE**.

Up to 72
Maximum number of wind turbines

22.5km
Distance to shore (closest)

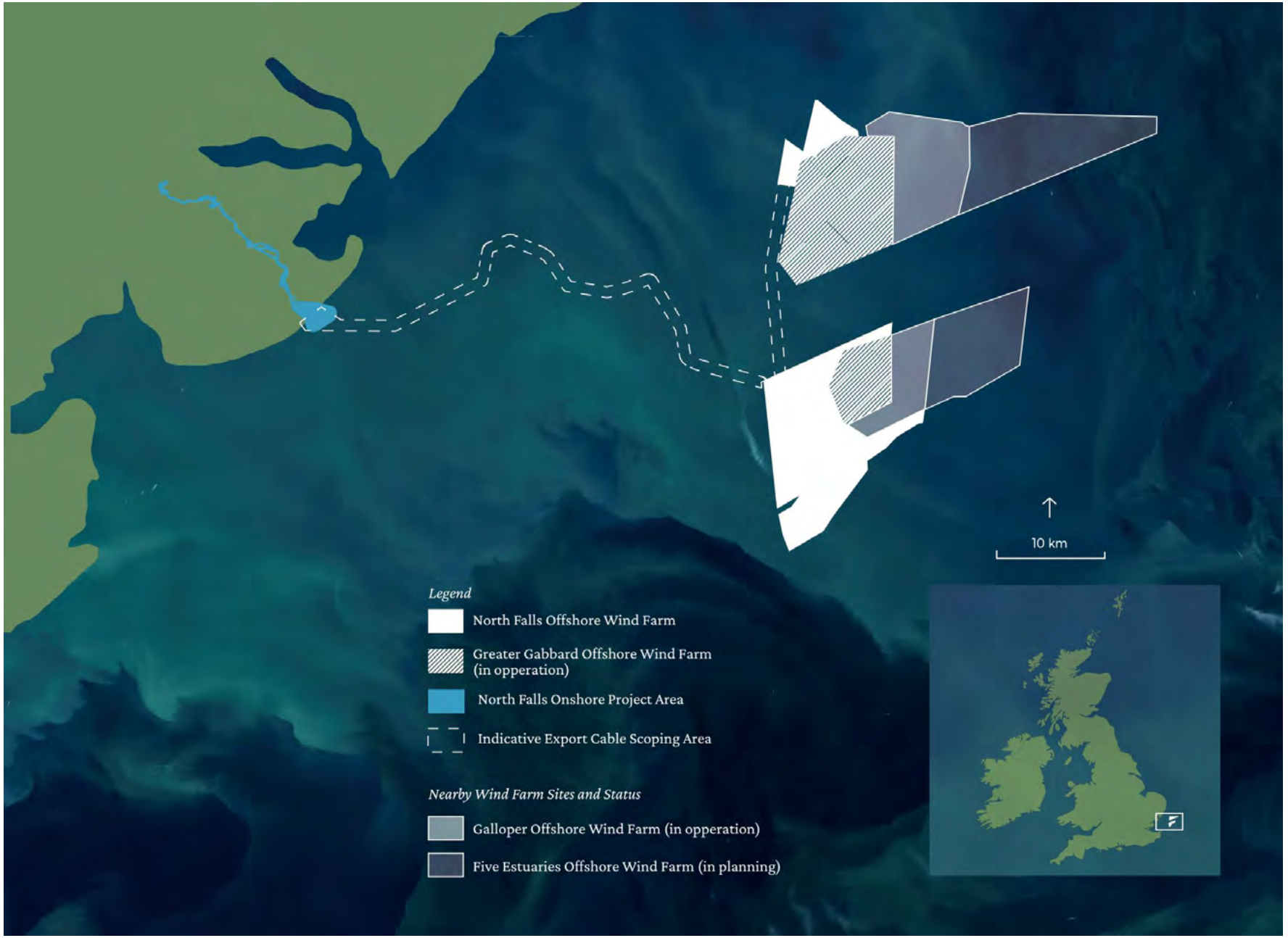
150km^2
Turbine array areas coverage

400,000
Homes equivalent to be provided with clean green energy

More than £1.5bn
Potential investment in UK energy infrastructure

50GW by 2030
Contributing to government net zero ambitions

Location of North Falls



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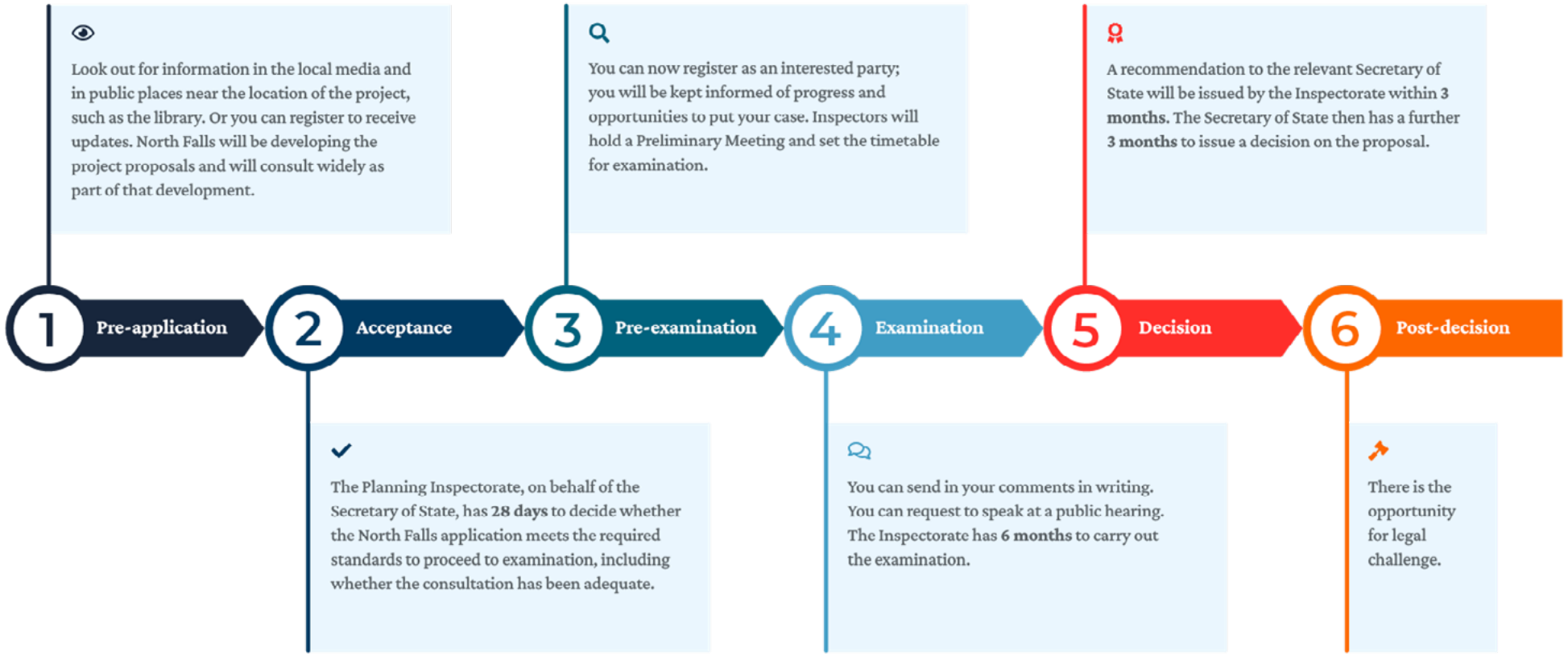
The North Falls story so far

- **Summer 2020 –** received an Agreement for Lease from The Crown Estate.
- Since then, the project has been working towards the submission of a **development consent order (DCO) application**.
- We have undertaken onshore and offshore surveys, assessed project constraints, carried out engineering design work, engaged with stakeholders and undertaken community consultation with the current consultation open for comments **until Friday 14 July**.
- The DCO application with supporting environmental statement and reports is currently due for submission in **late-2023**.
- **2024/25:** Planning Inspectorate makes recommendation to the Secretary of State who announces consent decision.
- **2025-2030:** Project design complete, major component and construction contracts awarded, final investment decision achieved and wind farm constructed.

Nationally significant infrastructure project

As a nationally significant infrastructure project (NSIP), North Falls must be consented under the six stage Planning Act 2008 development consent process. We are now in the **pre-application phase**.



Rationale for the project

Rationale for the project

Net zero targets

- Helps to meet the government's target of 50GW offshore wind by 2030.

Climate change

- Offshore wind farms generate clean, green energy that powers millions of homes without burning fossil fuels.

Cost of offshore wind

- In the past 10 years the cost per megawatt hour of offshore wind has been driven down by almost two-thirds and it supplies on average around 15% of the nation's electricity.
- Increasing levels of offshore wind deployment will help lower energy costs.

Energy security

- By generating more electricity from offshore wind, the UK will be less reliant on international energy imports and less susceptible to global price fluctuations.

Socio-economic benefits from North Falls

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North Falls also aims **to emulate the initiatives of Greater Gabbard** in terms of socio-economic benefit**.**

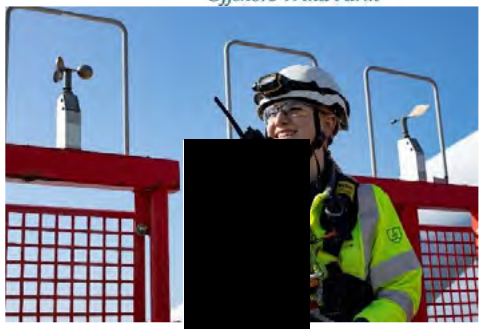
- **Total investment of around £1.5 billion** into UK energy infrastructure.
- **New facility constructed in Lowestoft.**
- Around **100 long-term, skilled O&M jobs** (95% recruited locally).
- **Hundreds of jobs during construction**.
- **10 apprentices**, junior engineer roles and **ex-fishermen employed.**
- **Five-year trainee plan** to further grow the apprentice numbers.
- Invested more than **£250,000 in community funds** and local training initiatives, plus a further **£50,000 fund** was announced in celebration of the project's 10 year anniversary.

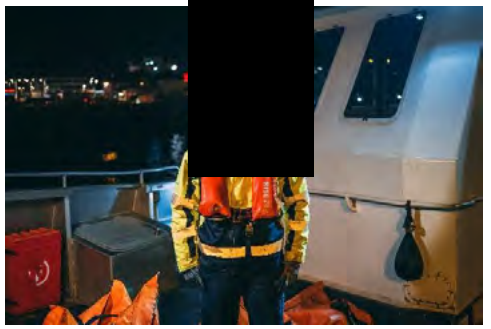
North Falls initial socioeconomic benefit study found to project is likely to contribute:

4,000
Annual full-time equivalent jobs

£400 million
Gross value add for the local area

- *Annual full-time equivalent is a unit to measure employed people in a way that makes them comparable although they may work different number of hours per week.*
- *Gross value added measures the contribution to the economy of individual producer, industry or sector.*





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Consultation

Pre-application phase - consultation

- **Consultation** is key to the pre-application phase and crucial to the development process.
- The first public consultation was held in late 2021 following feedback on our **scoping report,** second in late 2022 updated on the progress of our **environmental impact assessment**
- We are now in our third consultation phase, with focus on the **preliminary environmental information report.**
- The proposals are **not the final application**, so this is the key opportunity to influence the details before submission.

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What are we consulting on?

- This consultation presents our **preliminary environmental information report (PEIR)** which covers the full range of each element considered to date, its potential impacts and proposed mitigations. It is set out in chapters as follows:

Offshore	Onshore	Project-wide
➢Marine geology, oceanography and physical processes ➢Marine water and sediment quality ➢Benthic and intertidal ecology ➢Fish and shellfish ecology ➢Marine mammals ➢Offshore ornithology ➢Commercial fisheries ➢Shipping and navigation ➢Offshore and intertidal archaeology and cultural heritage ➢Aviation and radar ➢Infrastructure and other users	➢Ground conditions and contamination ➢Onshore air quality ➢Water resources and flood risk ➢Land use and agriculture ➢Onshore ecology ➢Onshore ornithology ➢Onshore archaeology and cultural heritage ➢Noise and vibration ➢Traffic and transport	➢Human health ➢Seascape, landscape and visual impact assessment ➢Landscape visual impact assessment ➢Socio-economics ➢Tourism and recreation ➢Climate change

- To get an overview of what is being consulted on it is recommended to start with the **North Falls Non-technical Summary** (NtS) - a 70-page standalone document which summarises the PEIR and provides signposts to further information.

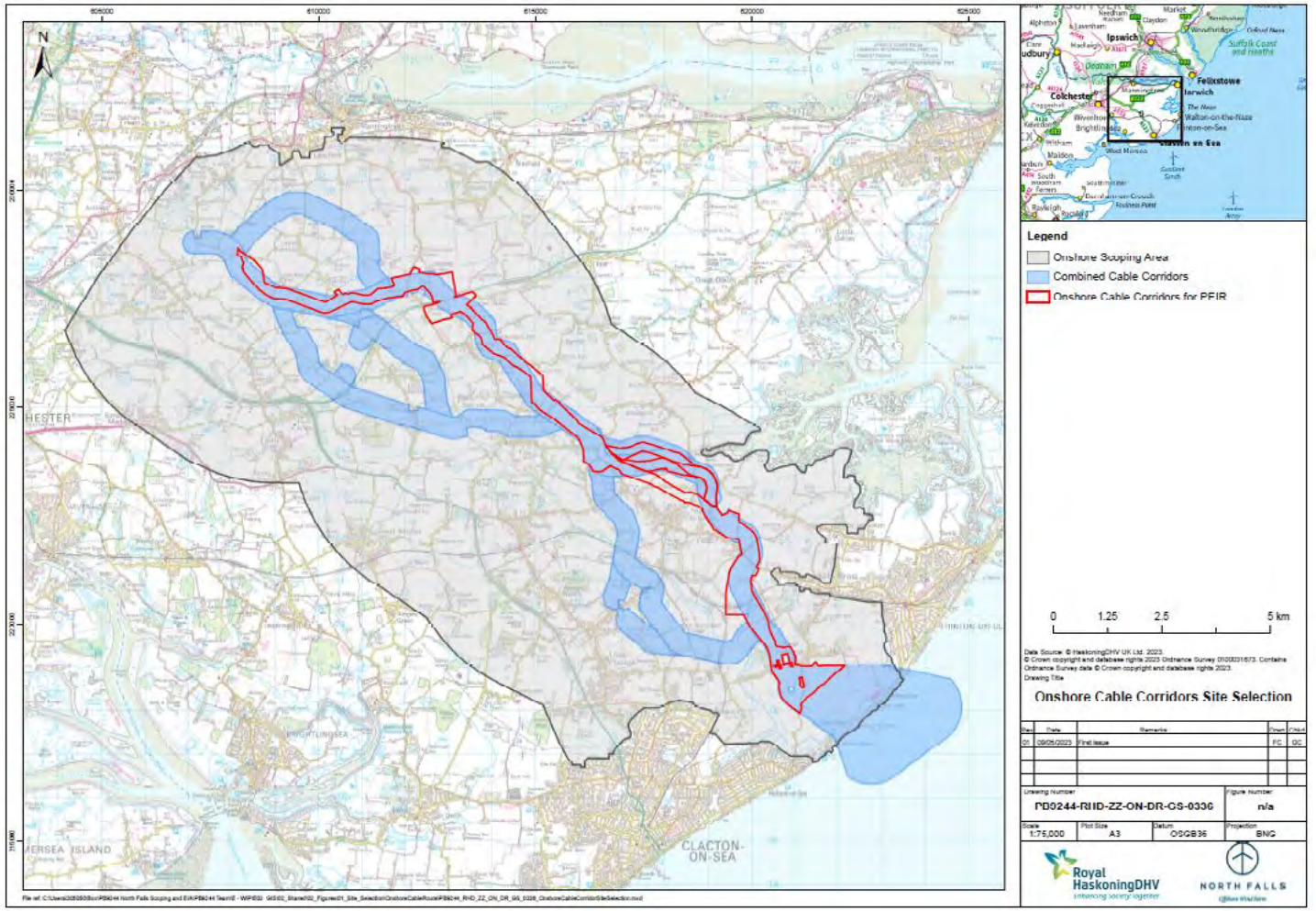
Consultation influence so far

- All the project's onshore cables are to be **buried**
- **Cables will go under** Holland Haven Marshes Site of Special Scientific Interest (SSSI), including Holland Haven Local Nature Reserve and Frinton Golf Club
- **No work will take place in the intertidal** zone to limit disruption at the coast
- Offshore cable placement and construction will **avoid sensitive areas of the seabed**
- **Interactive 3D model** produced so people can visualise the wind farm from key coastal sites
- Construction traffic will be routed and timed to avoid school drop off and pick up, and minimise impacts on local community events
- A **temporary interior haul road** will minimise the traffic on the local road network.
- **Landscaping** around the onshore substation will be provided in consultation with the community
- The project will aim to achieve a **10% biodiversity net gain** following construction
- Inclusion of **offshore grid connection option**
- A **land drainage consultant** will be engaged to develop pre and post-construction farm drainage plans
- Ongoing **cooperation with Five Estuaries** to minimise cumulative impacts where possible

Site selection

Site selection process

- **The siting, design and refinement of the offshore and onshore project areas considered:** environmental, physical, technical, commercial and social aspects and opportunities, engineering needs and stakeholder feedback.
- **The process has been iterative** with proposals influenced by multiple factors from different disciplines, including by public consultation at different stages.



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Working closely with Five Estuaries

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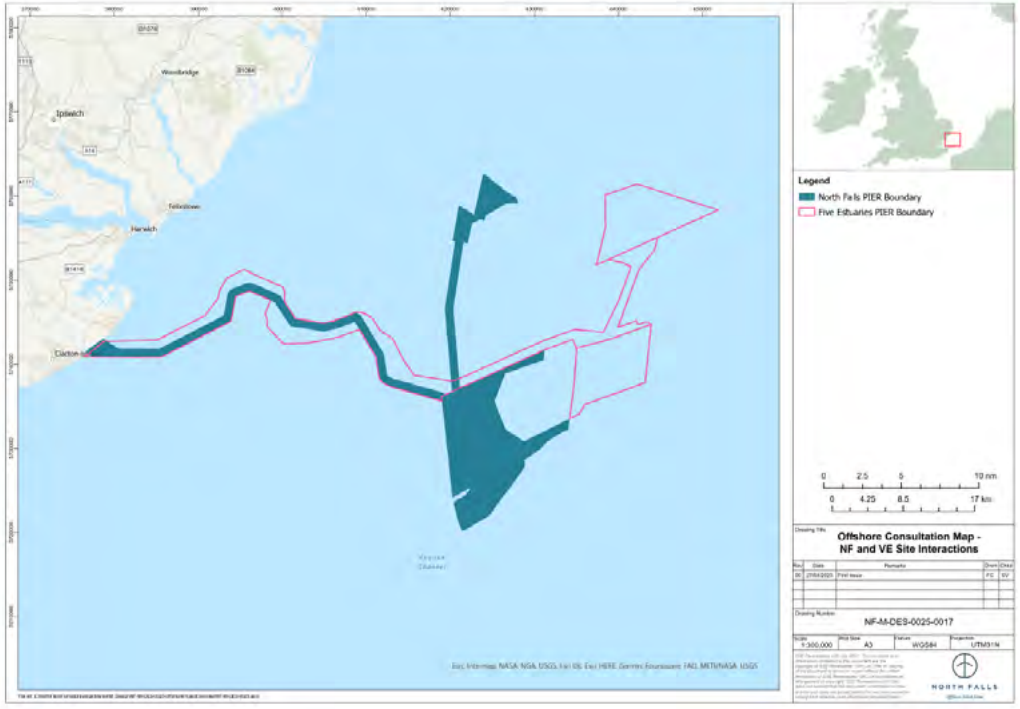
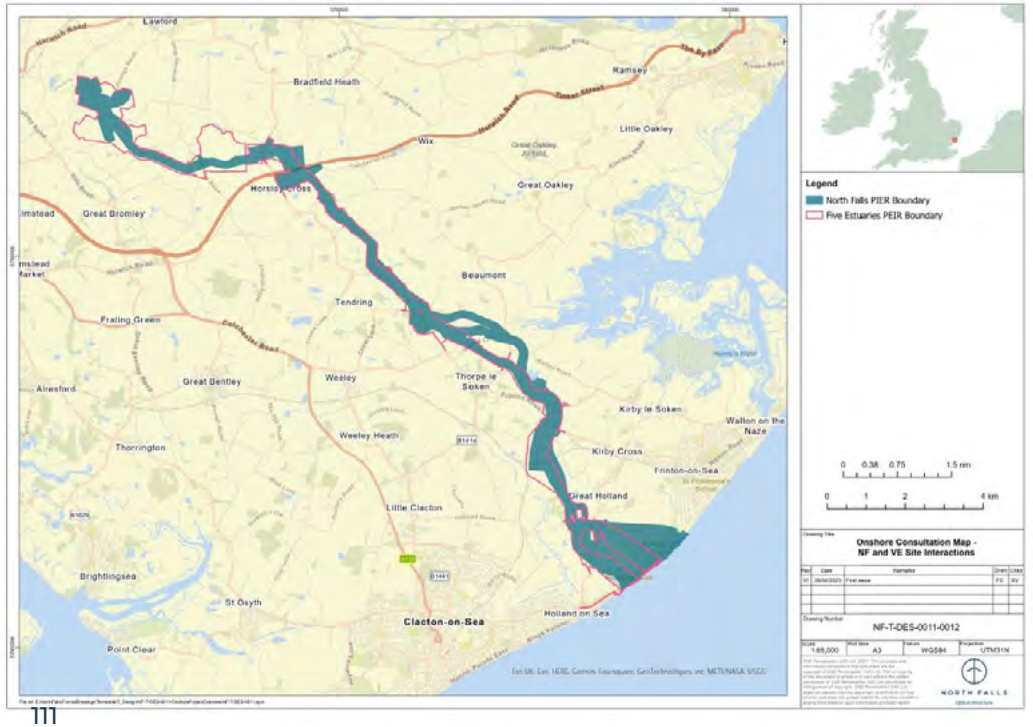
- **Opportunities for co-ordination** have been sought during the project design, particularly with Five Estuaries, which also has grid connection in Tendring, Essex.
- Due to the projects' proximity the projects have **sought to co-ordinate where practicable** – on onshore infrastructure, joint surveys and stakeholder feedback.
- Both projects have committed to **burying** all their onshore electricity cables.





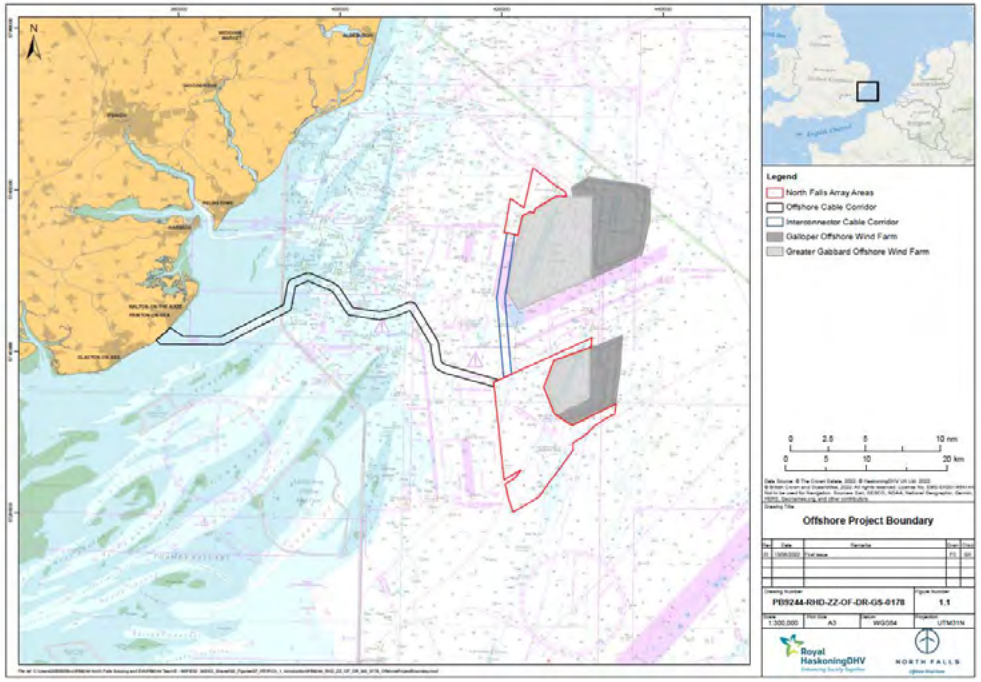
Grid connection including Offshore Transmission Network Review

- As with all offshore wind farms, North Falls needs to export the power it generates to the national grid - the UK's high voltage electricity system.
- North Falls has accepted **a grid connection offer from National Grid** at a location in Tendring, Essex. An offshore option has also been included in our PEIR.
- We are actively exploring possibilities for such an offshore connection and contributing to the **Offshore Transmission Network Review** (OTNR).
- To **maintain momentum, avoid the risk of project delays** and **meet 2030 ambitions**, we are progressing the onshore connection while assessing offshore options.
- As part of this North Falls in partnership with others has applied for grant funding under the **Offshore Coordination Support Scheme (OCSS)**

Project description - offshore

Project description – offshore

- The proposals include **wind turbines** on fixed foundations, the design of which is to be determined.
- **Array cables** would connect the turbines in strings to either one or two **offshore substations**, also on foundations.
- An **interconnector** would join the project's northern and southern sections.
- In the event of the onshore grid connection (in Tendring, Essex), subsea export cables will bring the power to shore at **landfall**, near Frinton-on Sea.
- Before construction, surveys would help to **plan minor siting changes** and identify unexploded ordnance and boulder clearance needs. **Obstructions** such as discarded fishing gear or abandoned cables would be removed.
- Offshore construction should take **around three years**



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North Falls transmission infrastructure optionality (PEIR)

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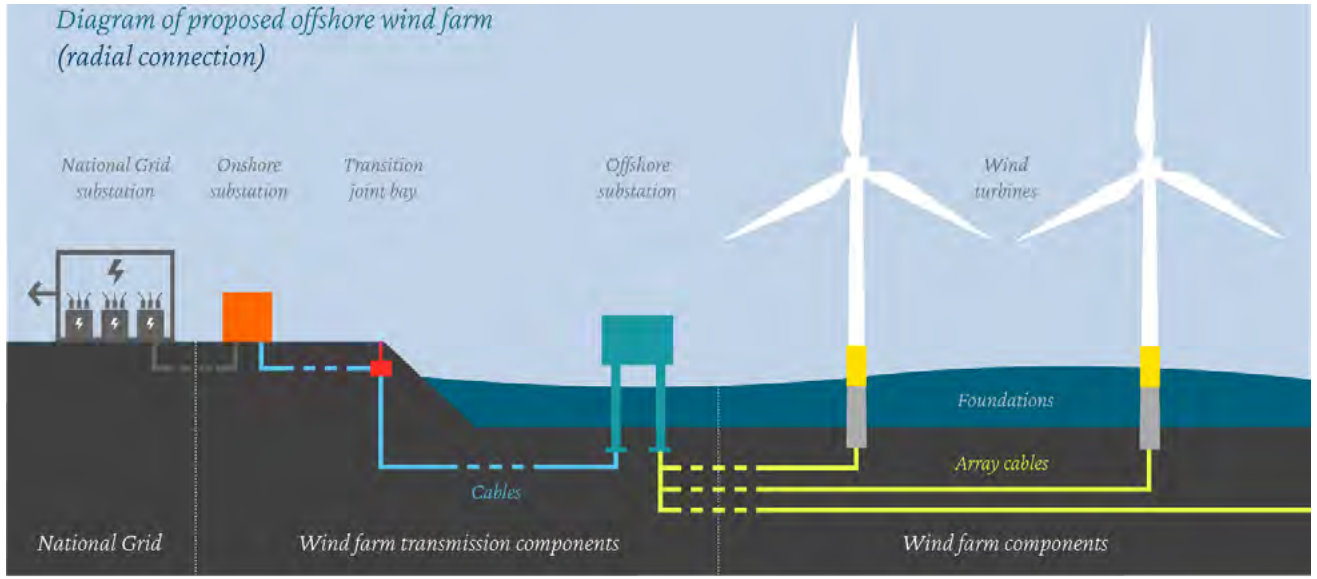
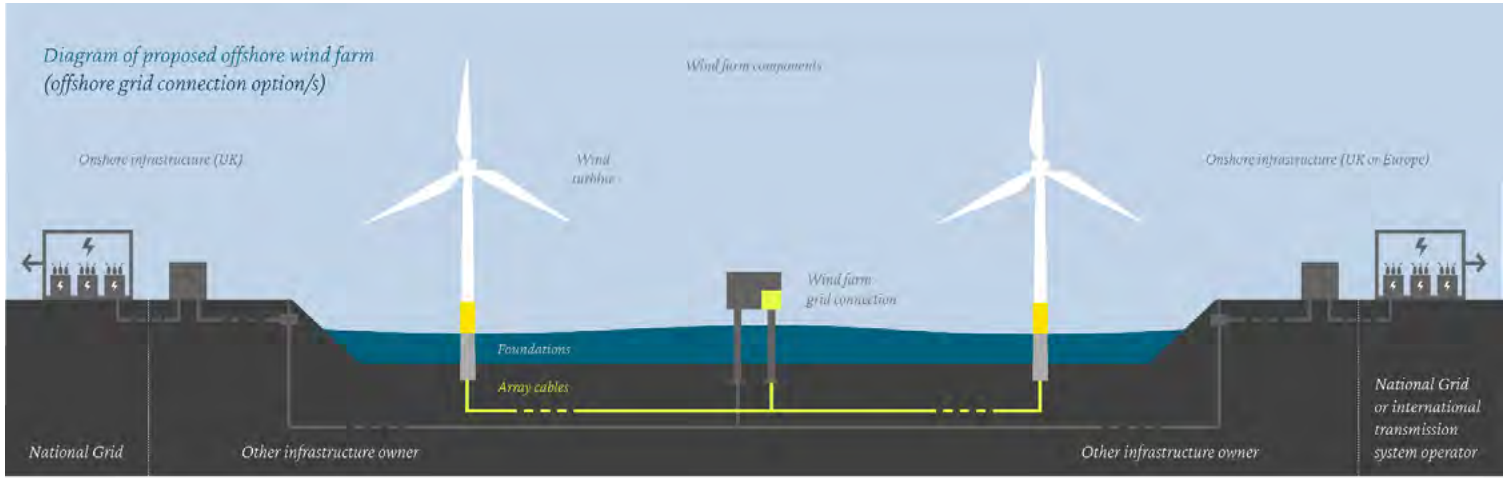
Option 1:
Project alone onshore cable route and onshore substation infrastructure

Option 2:
Sharing all or part of an onshore cable route with another project (such as Five Estuaries) where practicable.



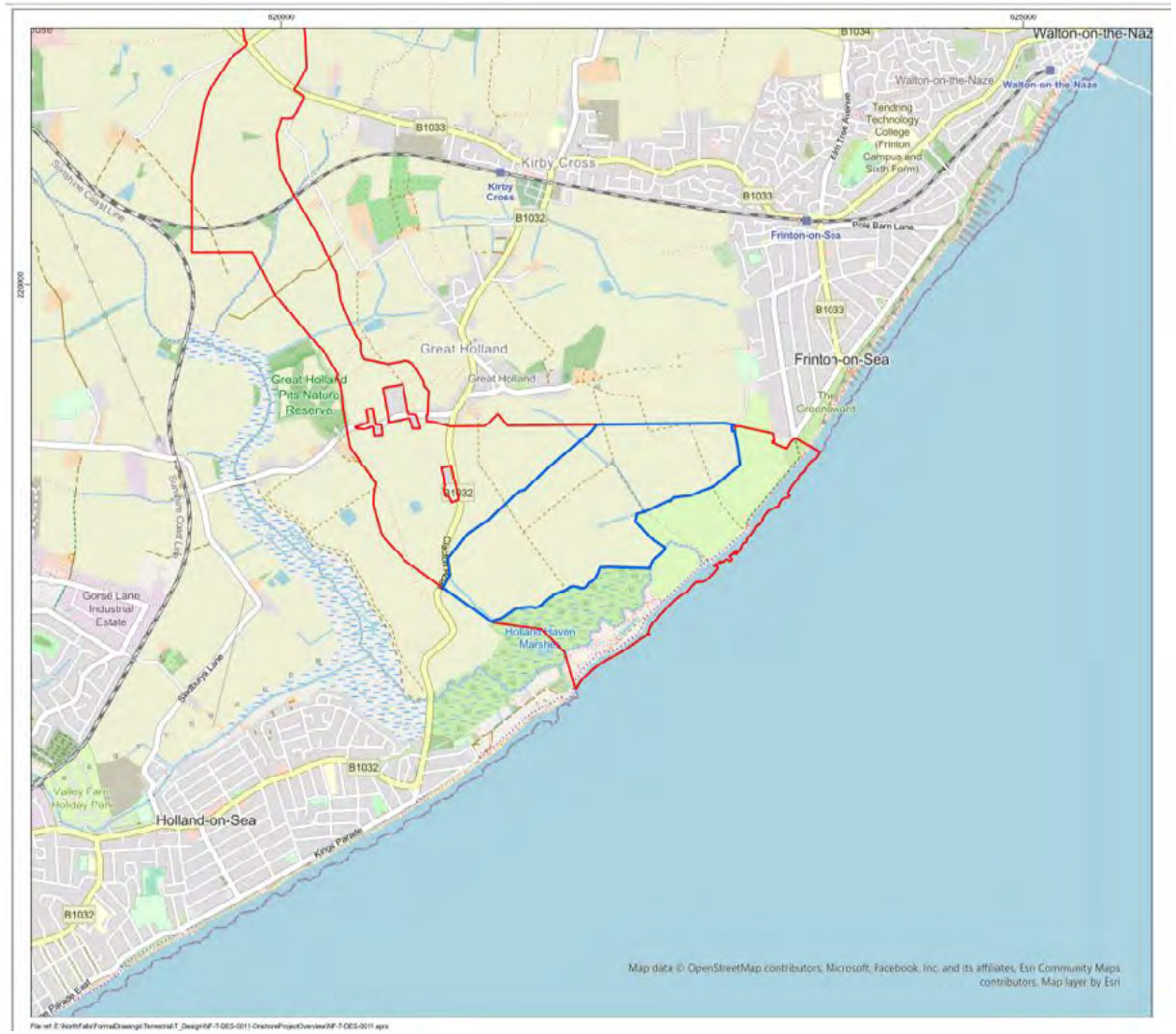
Option 3:
Offshore connection supplied by a **third-party electricity network provider** – potentially identified through the OTNR process.



Project description - onshore

Onshore: Landfall

- **Landfall is** where the offshore export cables are brought onshore and connect to the onshore export cables within transition joint bays.
- Likely location near Frinton-on-Sea with construction work undertaken from a **temporary compound.**
- A construction technique called **horizontal directional drilling** will be used to install the cables at landfall.



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Landfall construction compound previous example


Landfall construction compound - before


Landfall construction compound - after

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Onshore – Cable corridor

- From the landfall, onshore export cables laid in ducts will carry electricity **approximately 24 kilometres** from Great Holland roughly northwest towards Little Bromley via Landermere, Tendring Green and Horsley Cross to the onshore substation.
- Currently a broad corridor up to 243m in width, which will be refined to **a predominantly 60 metre-wide working width** where the construction works will take place.
- Installation will be by **open cut trenching**, or **trenchless techniques** where needed,
- Land will be **reinstated and returned to its former use** after the work is completed.

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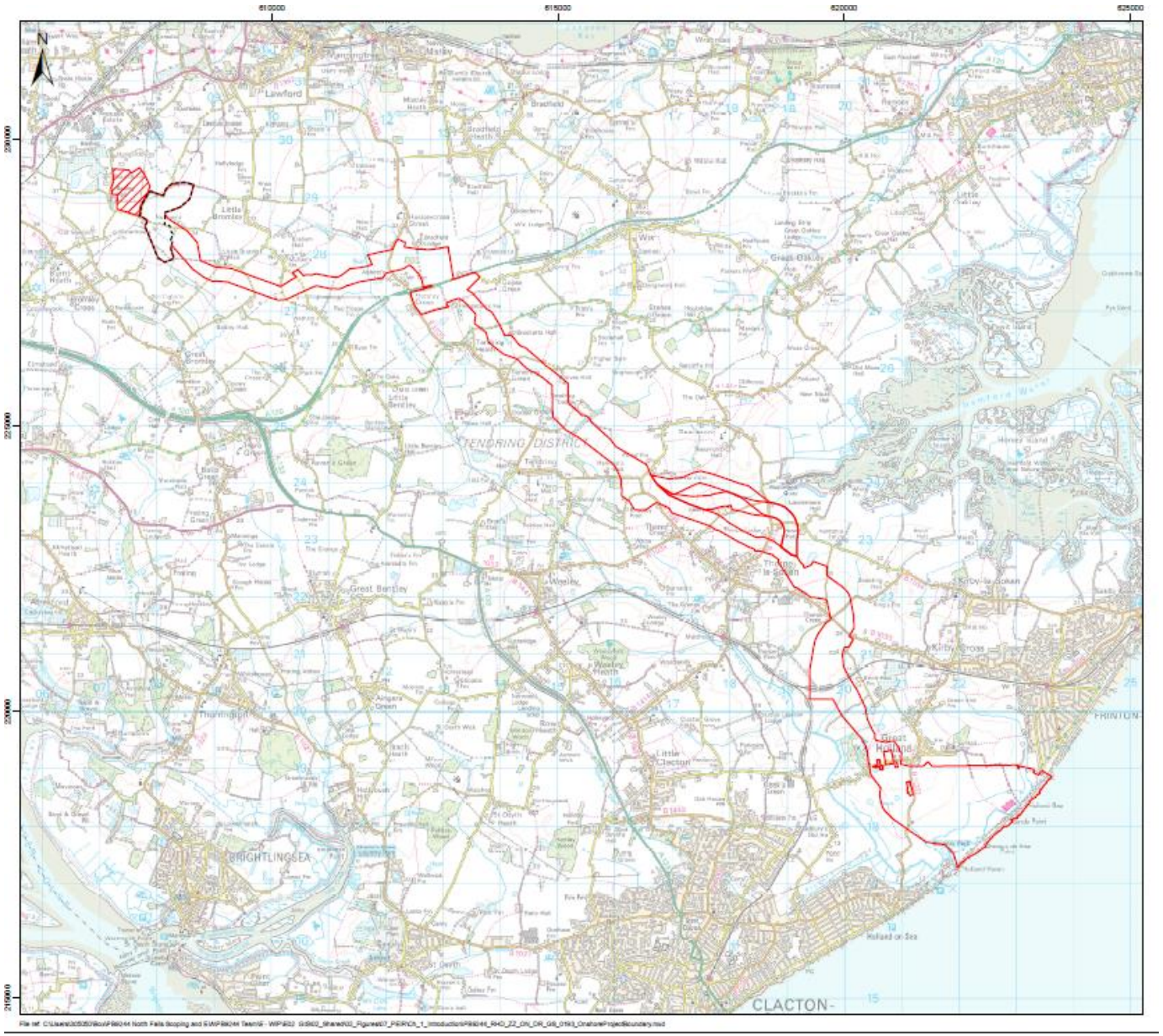
Onshore cable corridor map



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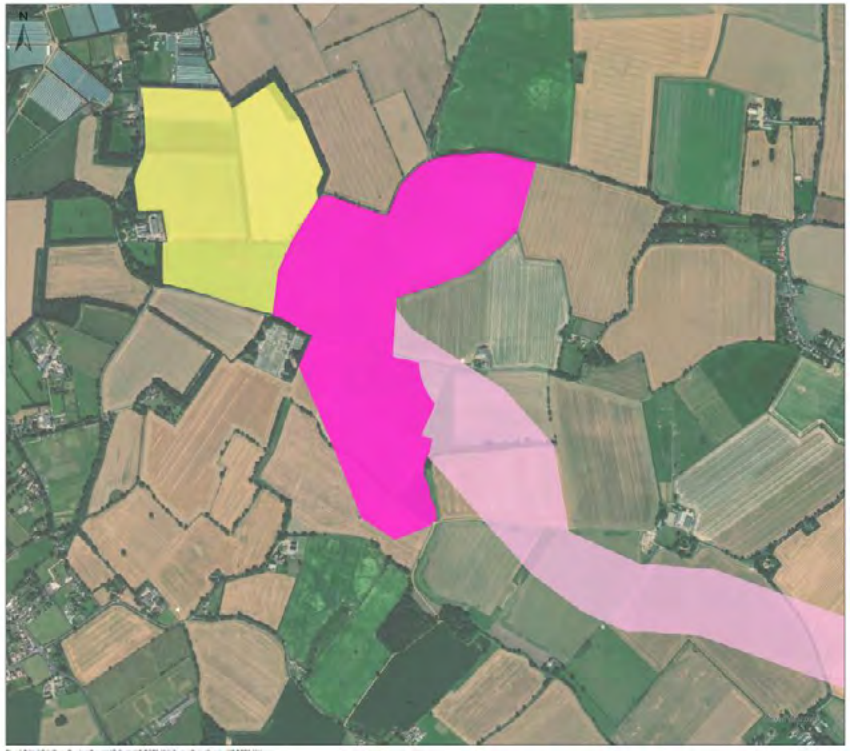
Onshore - Substation

- Assuming a radial connection, the substation will be located in the **onshore substation zone** (dark pink). A **maximum area of 0.080km² (8ha)** would be required for the onshore substation.
- North Falls has prepared a **Design Vision Statement** setting out the design strategy for the substation, identifying constraints and opportunities relevant for electrical infrastructure in the local landscape.



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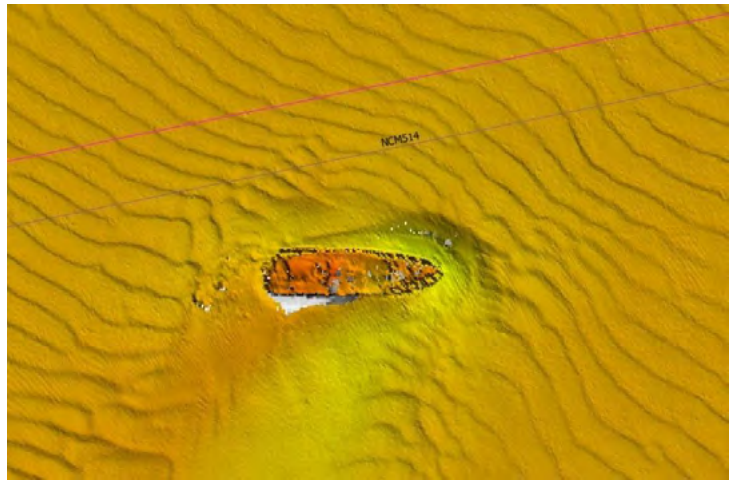
Assessment and impacts - offshore

Assessing potential impacts

- North Falls PEIR assesses a wide range of potential impacts for **physical, biological** and **human environmental** topics for the whole project lifecycle.
- They were assessed relevant to **offshore** and **onshore** elements of the project, as well as those that are **project-wide**.
- The following slides cover the areas where North Falls has had the most focused **interest from stakeholders**, with information on all topics to be found in the PEIR.



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Offshore assessment and impacts (1)

Fish and shellfish ecology

- Studies of sole, whelk, bass, thornback ray, horse mackerel, herring, cod, and plaice, that covered locations for species of conservation importance, and spawning and nursery grounds. Impacts reviewed:
  - physical disturbance and habitat loss
  - underwater noise from construction activities
  - changes in fishing activity
  - potential impact of electromagnetic fields
- **Mitigations:** cable burial, cable protection, noise-limiting construction protocols and pollution protection measures.

Marine mammals

- Two years of monthly aerial surveys for both marine mammals and seabirds assessed harbour porpoise, minke whale, grey seal and harbour seal. Impacts assessed were:
  - potential hearing damage and disturbance/ behavioural impacts
  - increase in vessel collision risk
- **Mitigations:** soft-start and ramp-up for piling; best practice guidance to reduce vessel collision risk and environmental monitoring and marine mammal mitigation plans.

Offshore assessment and impacts (2)

Offshore ornithology

- 24 monthly digital aerial surveys across the array site plus buffer zones recorded existing bird populations. Impacts assessed:
  - direct disturbance
  - displacement
  - collision risk
  - indirect effects on prey species and habitat.
- **Mitigations:** sensitive site selection, a minimum air gap of 27 metres (5 metres above requirements) to reduce collision risk, and a best-practice shipping protocol.

Commercial fisheries

- Assessments identified potential impacts such as loss or restricted access of fishing grounds; displacement of fishing activities; increased sailing times; interference, and safety issues.
- **Mitigations:** A fisheries liaison officer will be in place for construction, a Fisheries Liaison and Coexistence Plan and a Code of Good Practice for project vessels developed, plus subsea cables will be buried with cable protection used where burial not possible.

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Assessment and impacts - onshore

Onshore assessment and impacts (1)

Water resources and flood risk

- Watercourses were assessed with focus on potential impacts such as:
  - direct disturbance of surface water bodies
  - increased sediment supply
  - contaminants
  - changes to surface and groundwater flows
  - flood risk

Mitigation and soil management measures will be included in the Code of Construction Practice (CoCP) and in a Soil Management Plan (SMP) such as trenchless construction methods, Bailey bridges, and best practice at trenched crossings.

Land use and agriculture

- Ongoing engagement with landowners and occupiers about how project impacts can be mitigated including: aligning with field boundaries, avoiding higher quality agricultural land, land subject to schemes or allocated in local plans.
- **Mitigations** will be secured as part of the CoCP and SMP, and will include appointing a land drainage consultant and agricultural liaison officer to work with landowners/occupiers throughout.

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Onshore assessment and impacts (2)

Onshore ecology

- Undertaken **extensive habitat surveys as well as species specific surveys**: bats, reptiles, water vole and otters, hazel dormice and great crested newts.
- Impacts assessed: Designated sites; (permanent or temporary) loss of hedgerows and arable field margins; impacts on species, and spread of invasive non-native species.

Mitigations: Avoid designated sites, ancient woodlands, and specific habitats, construction methodology, and a best practice Ecological Management Plan (EMP) . All habitats will be reinstated and aim to achieve **10% biodiversity net gain**.

Onshore ornithology

- Two years of breeding and wintering bird surveys have been undertaken in relation to sensitive habitat. We assessed both direct impacts (habitat loss) and indirect impacts due to disturbance (noise and light).

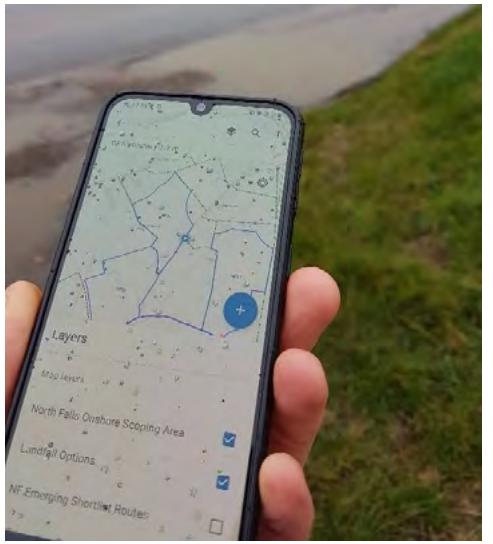
Mitigations: will be integral to the EMP including design and construction methods and habitat reinstatement**.**

Onshore archaeology and cultural heritage

- We conducted an historic environment walkover survey, geoarchaeological assessment, and an archaeological geophysical survey, with further investigations later in 2023.

Mitigations: Additional surveys will inform the micro-siting of the cable route to avoid areas of high archaeological potential.


Water vole latrine



Onshore assessment and impacts (3)

Noise and vibration

- Baseline surveys were undertaken. Impacts assessed included potential noise and vibration impacts on nearby residential properties, with noise and vibration mitigation to be detailed in the CoCP.

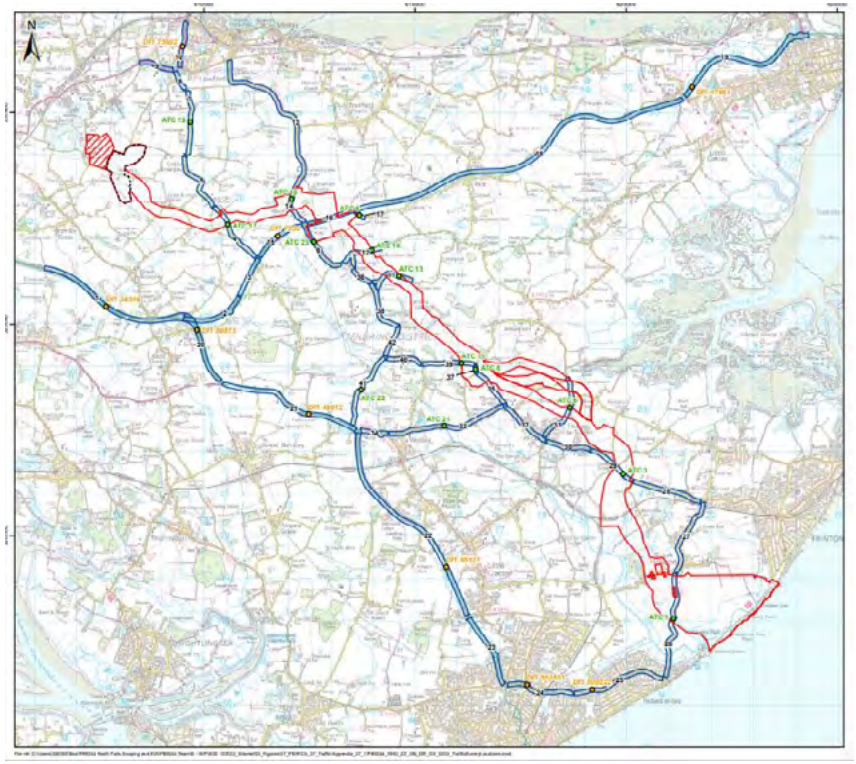
Mitigations: Properties avoided during site selection. During construction they will include restricted use of plant, speed limits, quieter working methods and phasing of works. Once in operation certain equipment would be enclosed and vibration isolation mounts used.

Traffic and transport

- The impacts assessed included: traffic-induced community separation, pedestrian and cyclist amenity, highway safety, and traffic delays due to delivery of abnormal loads.

Mitigations: restricting timeframes and routes for heavy goods vehicle (HGV) movements, use of temporary haul roads along the onshore cable route, creating of vehicle crossovers and controlling project vehicle routes. No construction traffic will be permitted to travel via alternative routes.

- The full strategy for traffic and transport management during construction will be in the **Outline Construction Traffic Management Plan**, to be submitted with the application.



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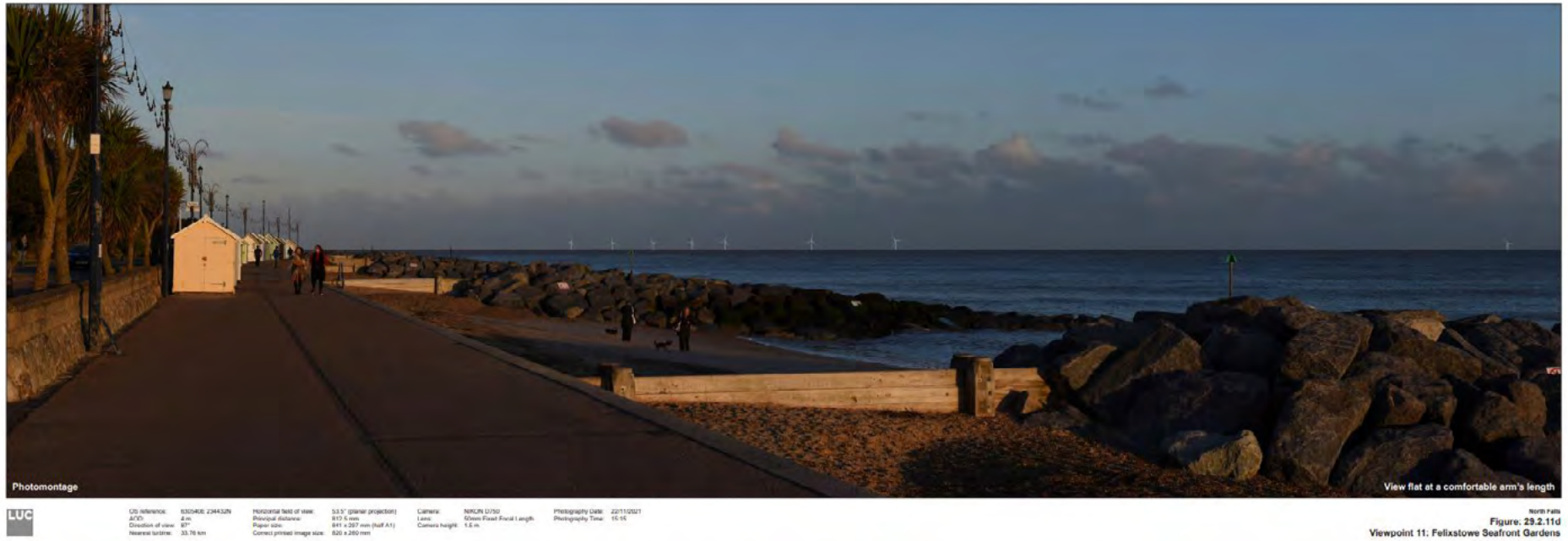
Assessments and impacts – project-wide

Project-wide assessment and impacts (1)

Seascape, landscape and visual

- The study area was a 60 kilometre radius around the arrays, and based on maximum potential turbine size.
- Views from certain Suffolk coastal areas such as sections of the Suffolk Coast Path are expected to influence the seascape and landscape character due to turbine visibility.
- Photomontages are in **Volume 2 (Figures) Chapter 29** and there is a **3D computer-generated interactive model** online with 17 different viewpoints showing different conditions .



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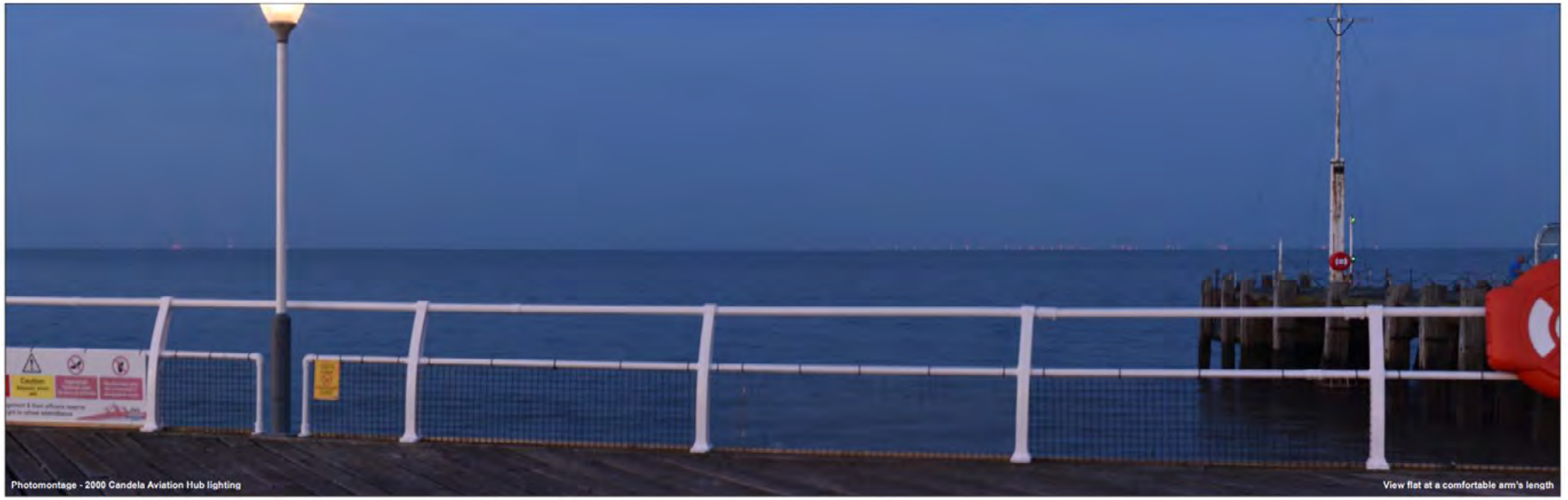

LUC

Figure: 29.2.15e
Viewpoint 15: Clacton on Sea

LUC

Figure: 29.2.13d
Viewpoint 13: Naze Tower

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Project-wide assessment and impacts (2)

Landscape and visual

- Factors assessed included potential changes to:
  - landscape elements and fabric
  - landscape character
  - landscape designations
  - visual amenity

Mitigations: site selection process, choice of construction methods, through proposed habitat reinstatement, within the project design and additional landscape mitigation and biodiversity enhancement, including new hedgerow and woodland planting. See our **Design Vision**.

Socio-economics

- The potential direct and indirect benefits have been reviewed as well as adverse effects on: economy, health infrastructure, social and community infrastructure, imports and exports, fishing catch and mineral resources.
- Benefits include increases in 'gross value added' (the value of goods and services of the **local** and national economy) and job-creation through the local supply chain and direct and indirect employment. Adverse effects relate to pressure on local infrastructure, disturbance (noise, air, visual), plus disruption to fishing and minerals.
- **Mitigations:** vehicle delivery time and routing restrictions as well as ongoing stakeholder engagement, and design to reduce visual impact.

PEIR conclusion

Preliminary assessment conclusions

For offshore and most onshore topics, the preliminary assessments concluded that, with mitigation, there would be **no significant adverse effects** in environmental impact assessment terms **other than the following where there would be significant residual effects:**

- Land use and agriculture, with permanent loss of agricultural land for the onshore substation
- Onshore ecology, with temporary loss of some hedgerows and associated temporary impacts on bats and dormice. Replanting of hedgerows post-construction should lead to moderately beneficial impacts in the longer term.

For project-wide topics, significant effects identified:

- Seascape, landscape and visual, due to the visibility of the wind farm from certain areas of the coast
- Landscape and visual with respect to effect on the landscape fabric and visual amenity of the onshore substation without mitigation. Mitigation will be considered and proposed with the aim to reduce effects to a non-significant level.

Beneficial effects were identified for a number of topics including:

- Onshore ecology due primarily to the project's commitment to biodiversity net gain; socio-economics, with skills and supply chain opportunities. and contribution to combatting climate change.

North Falls has committed to ensuring that any potential impacts are minimised as far as reasonable and practicable, and to reducing the potential for significant effects.

Taking part in this statutory consultation

You can provide feedback in several ways:

Online consultation portal: www.stat.northfallsoffshore.com
Via a feedback form or on the consultation map where you the location referred to can be pinned.

In writing:
Send your written comments to us at **FREEPOST North Falls.**

Email and telephone:
We also welcome emails to **contact@northfallsoffshore.com,** or you can ring us on **0800 254 5340.**

To stay in touch:
Sign up via **www.northfallsoffshore.com** to receive **email updates** or let us know if you would prefer a **printed version of information** to be sent to your address.

Other contact details:
For **landowners** please contact the project's land agent Dalcour Maclaren:
E: northfalls@dalcourmaclaren.com T: 01622 623025

Those from the **fisheries industry** please contact our fisheries consultants Brown & May Marine Ltd:
E: northfalls@brownmay.com T: 01379 772871

The deadline for submitting responses is Friday 14 July 2023

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And finally, any questions?

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Thank you
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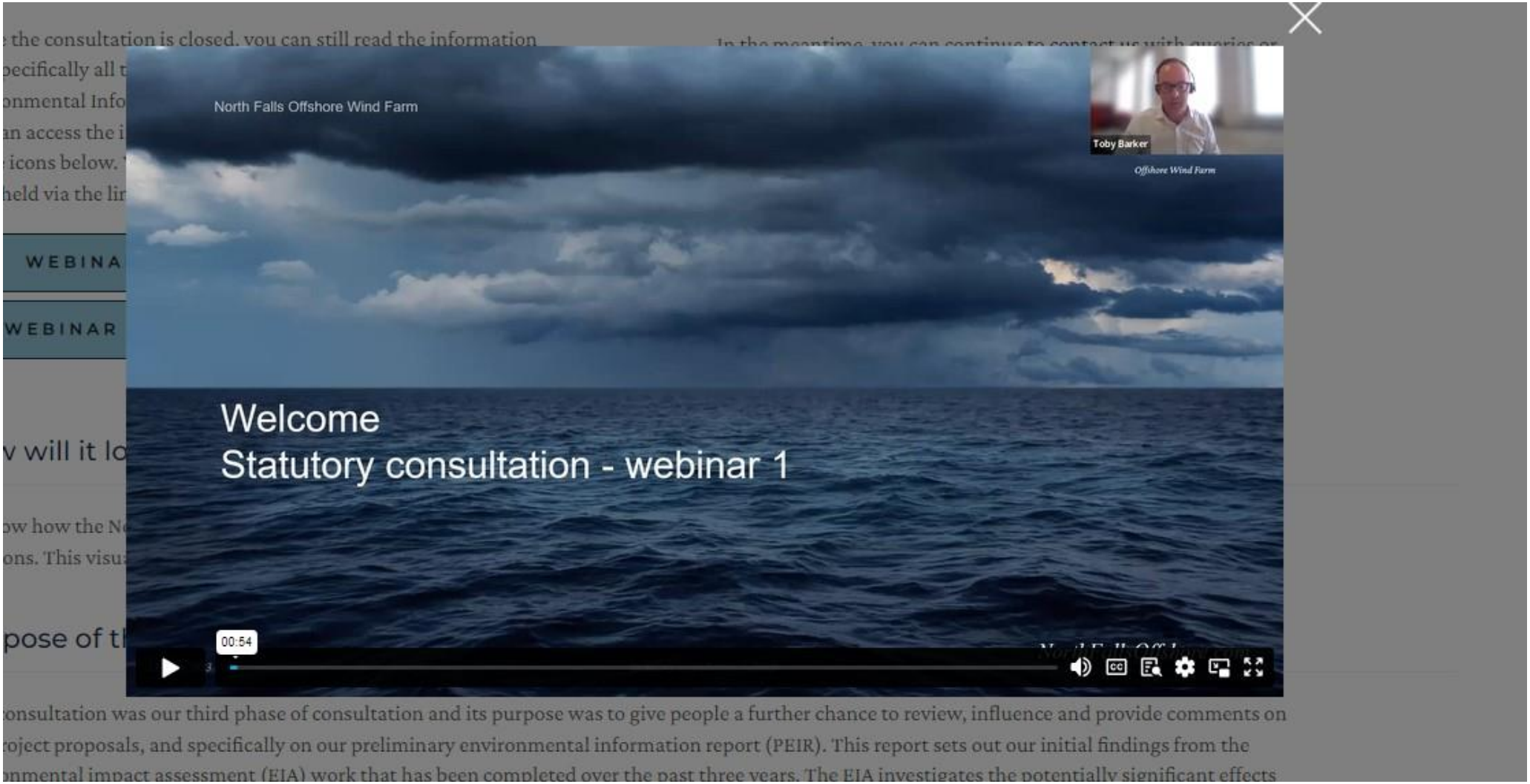
APPENDIX F

F.12.1

Stage 3 (statutory) consultation webinar 1 on website


North Falls Offshore Wind Farm
Toby Barker
Offshore Wind Farm
Welcome
Statutory consultation - webinar 1
00:54

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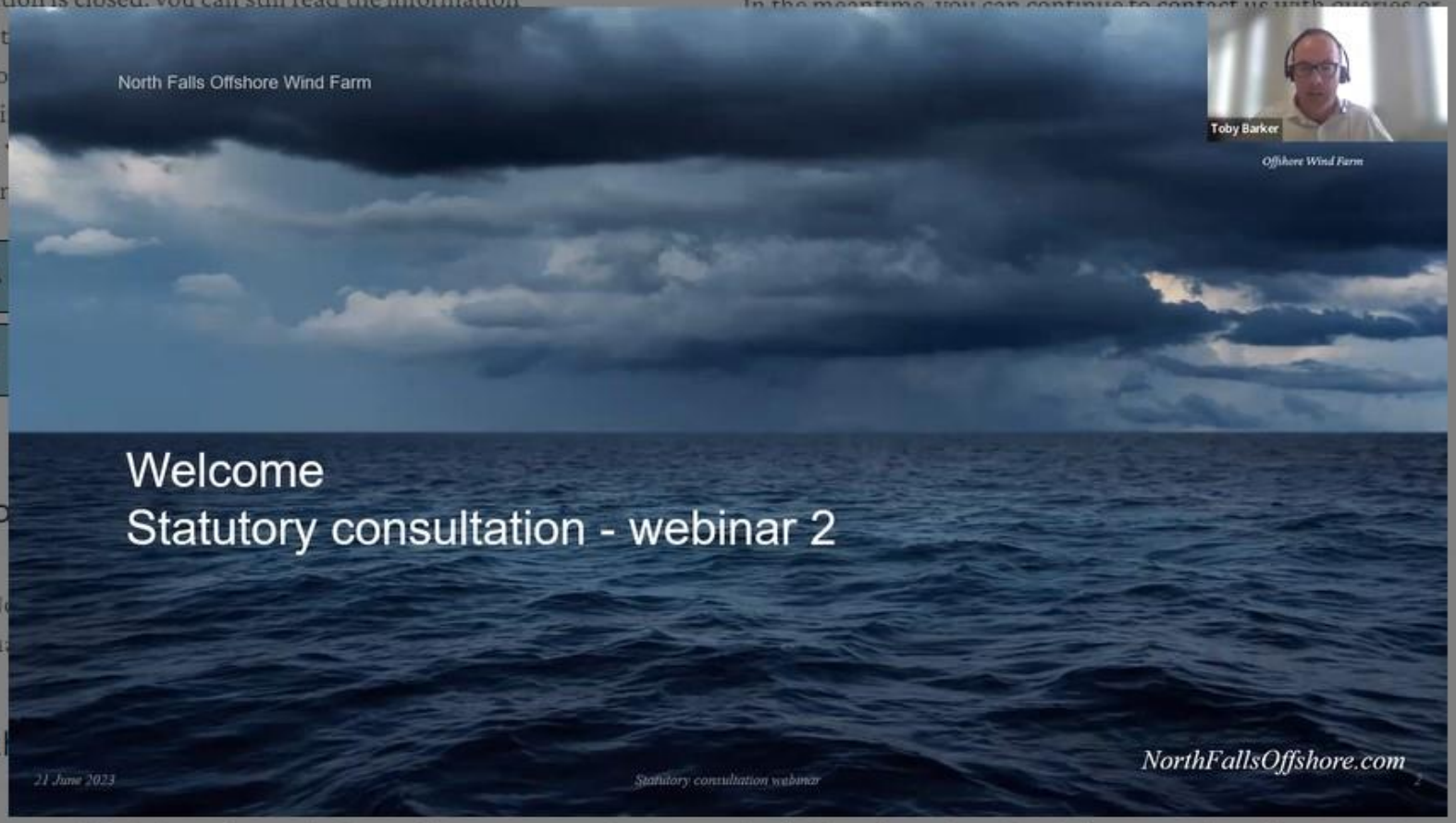
APPENDIX F

F.12.2

Stage 3 (statutory) consultation webinar 2 on website


North Falls Offshore Wind Farm
Toby Barker
Offshore Wind Farm
Welcome
Statutory consultation - webinar 2
21 June 2023
Statutory consultation webinar
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