NORTH FALLS

Offshore Wind Farm

# Co-ordination Report (Tracked)

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| Document Reference: | 2.5~~.1~~ |
| Volume: | 2 |
| ~~APFP Regulation:~~ | ~~5(2)(q)~~ |
| Date: | ~~October 2024~~February 2025 |
| Revision: | ~~1~~2 |

## Project Reference: EN010119

| | |
|---|---|
| **Project** | North Falls Offshore Wind Farm |
| **Document Title** | Co-ordination Report (Tracked) |
| **Document Reference** | 2.5.1 |
| **~~APFP Regulation~~** | ~~5(2)(q)~~ |
| **Supplier** | Stantec |
| **Supplier Document ID** | 3331380800.CR.0724 |



| Revision | Date | Status/Reason for Issue | Originator | Checked | Approved |
|---|---|---|---|---|---|
| 0 | July 2024 | Submission | Stantec | NFOW | NFOW |
| 1 | October 2024 | S51 Advice | Stantec | NFOW | NFOW |
| 2 | February 2025 | Deadline 1 | Stantec | NFOW | NFOW |

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# 1. EXECUTIVE SUMMARY

## 1.1 Executive Summary

1.1.1 This Report provides information on the extent of coordination and collaboration undertaken to date by North Falls Offshore Wind Farm Ltd (as the 'Applicant' or 'NFOW') as part of the development of the North Falls Offshore Wind Farm (hereinafter referred to as 'North Falls' or the 'Project'). It is submitted in support of the application for a Development Consent Order (DCO) for the Project.

1.1.2 More specifically, this Report details how North Falls has co-ordinated in different ways throughout the scheme development phase: at a strategic level as part of the Department for Energy Security and Net Zero's (DESNZ) Offshore Transmission Network Review (OTNR) and Offshore Coordination Support Scheme (OCSS); and at a project level with other Nationally Significant Infrastructure Projects (NSIPs) and stakeholders.

1.1.3 The development proposals for North Falls have evolved alongside other NSIPs (listed below) and throughout this time the Applicant has engaged proactively with these projects and with stakeholders, by taking a lead-role in developing the options for both offshore and onshore infrastructure co-ordination. The three key NSIPs with which North Falls has coordinated with are:

- The Five Estuaries Offshore Wind Farm (herein referred to as 'Five Estuaries') promoted by Five Estuaries Offshore Wind Farm Ltd comprising an extension to the Galloper Offshore Wind Farm, for the construction, operation, maintenance, and decommissioning of an offshore wind farm with a generating capacity greater than 100 Megawatts (MW);
- The Sea Link Project promoted by National Grid Electricity Transmission (herein referred to as 'NGET') and comprising of a high voltage direct current (HVDC) sub-sea cable link measuring circa 130km between Suffolk and Kent; and
- The Norwich to Tilbury and East Anglia Connection Node Substation Project (hereinafter referred to as the 'Norwich to Tilbury Project') is being promoted by NGET which comprises a 184 km of new electricity transmission reinforcement between Norwich and Tilbury made up mostly of overhead line and pylons, along with some underground cables, and a new 400 kV substation on the Tendring peninsula – the East Anglia Connection Node ('EACN').

1.1.4 Co-ordination on both offshore and onshore infrastructure has the potential to reduce the impacts on the environment and local communities, whilst at the same time create efficiencies in the overall distribution of energy to the network. NFOW has sought to balance the different factors influencing coordination and has taken a systematic approach to exploring the feasibility of different offshore and onshore options, starting from the initial design stage through to the implementation and construction stages.

1.1.5 North Falls and Five Estuaries have both been allocated the same grid connection point by National Grid Electricity Systems Operator (NGESO), the site of which has been identified by NGET as being the EACN. North Falls and Five Estuaries have coordinated extensively on their development proposals to include: an aligned landfall location for the offshore export cables to come ashore, a shared onshore cable corridor, and an overlapping onshore substation zone for the co-location of their prospective substations.

1.1.6 Furthermore, North Falls and Five Estuaries have coordinated during the pre-application process and have undertaken joint working groups with the relevant stakeholders on a number of technical matters. North Falls and Five Estuaries are committed to on-going co-ordination at the construction stage where there is the potential for coordination in delivery of the two projects, which has been facilitated within each DCO application (including the ability for one project to lay ducting for the other, and shared use of accesses and compounds).

1.1.7 The Report sets out the framework for future coordination and collaboration. The wording within the text of the North Falls draft Development Consent Order (DCO) (Document Reference 6.1) enables the delivery of three build options. The Report also sets out the specific targeted measures captured within the Tripartite Position Statement (Appendix C) between the relevant parties.

1.1.8 In undertaking this exercise NFOW is ensuring that the options carried forward as part of the development consent are feasible and adaptable, as well as responsive to the different delivery scenarios that could arise - noting that none of the aforementioned NSIPs have yet been granted development consent and they are at different stages in the development process.

1.1.9 Furthermore, that the different options have been given appropriate weight in the context of the policy requirements on coordination set out in the: Overarching National Policy Statement for energy (NPS EN-1); the National Policy Statement for renewable energy infrastructure (NPS EN-3); and in the National Policy Statement for electricity networks infrastructure (NPS EN-5).

1.1.10 The Report then concludes that NFOW has appropriately considered and explored the relevant options with respect to coordinating the design of the

Project, both onshore and offshore, and that in both the process for developing the proposals and the design outcomes for the Project, NFOW have acted in accordance with the relevant policy requirements set out in NPS EN-1, NPS EN-3, and NPS EN-5.

1.1.11 NFOW will continue to engage with the relevant parties on opportunities for further coordination and this Report is intended to be a 'live' document that can be updated during the course of the Examination period where necessary.

# 2. STRUCTURE OF THIS REPORT

## 2.1 Overview

2.1.1 This Report comprises of the following sections:

- **Section 3** provides the background to the government funded coordination schemes, specifically the OTNR and OCSS.
- **Section 4** provides a summary of the relevant policies from NPS EN-1, NPS EN-3, and NPS EN-5.
- **Section 5** provides an overview of North Falls and the three key NSIPs aforementioned. This is accompanied by a figure showing the Order limits for the projects.
- **Section 6** outlines the approach taken with respect to grid connection optionality, the build options, and related delivery scenarios.
- **Section 7** outlines the approach taken by the project promoters to work collaboratively with one another in practical terms during scheme development; and then details the outcome of this work in terms of the design and siting of both offshore and onshore infrastructure.
- **Section 8** outlines the enhancement, mitigation, and compensation measures that are shared between NSIPs as well as details the delivery scenarios for how the mitigation measures will be delivered.
- **Section 9** outlines the DCO provisions that secure the coordination measures identified and to ensure that North Falls can be implemented and delivered alongside the other NSIPs
- **Section 10** provides an assessment of how North Falls complies with the relevant paragraphs of NPS EN-1, NPS EN-3, and NPS EN-5.
- **Section 11** sets out the conclusions of the Report with respect to coordination and the framework for further coordination and collaboration.

## 2.2 Document Interaction

2.2.1 It should be noted that this Report has been submitted following the submission of the Five Estuaries DCO application which included a Coordination Document (Five Estuaries Document Reference 9.30, Five

Estuaries APP-263) and an Offshore Connection Scenario Report (Five Estuaries Document Reference 9.29, Five Estuaries APP-262).

2.2.2 Whilst this Report has some overlap with specific reference to the delivery scenarios and build options between North Falls and Five Estuaries, it is broader in its remit. There are three key reasons for this approach.

2.2.3 Firstly, NFOW wish to expand upon and provide additional detail on the coordination and collaboration activities undertaken by NFOW to date that have informed the overall Project design and scheme development over a number of years.

2.2.4 The second is at the time of submission of the North Falls application to the Examining Authority (ExA) a decision from DESNZ had not been made~~is awaited~~ about whether to proceed to a second phase of funding under the Offshore Co-ordination Support Scheme ("OCSS"). North Falls and its consortium partners submitted an initial feasibility report at the end of March 2024 at the conclusion of the first phase. DESNZ have now ~~not~~ advised (in a decision published on 3 September 2024) that further funding will not be granted as part of OCSS. Section 3 of this report provides further details regarding DESNZ's decision. ~~when such a decision will be made, noting that the Government recently changed following the General Election.~~ This is an important and relevant consideration with respect to offshore co-ordination.

2.2.5 Thirdly, further engagement had been undertaken by North Falls with Five Estuaries and NGET with respect to potential mitigation measures during construction (in relation to traffic and transport matters) and this information would benefit from inclusion for the Examining Authority (ExA).

## 2.3 Document Navigation

2.3.1 This Report cross references to documents that form part of the application for North Falls and some documents related to other NSIPs. Where a reference is made to a document outside of the North Falls application but that is available online via the Planning Inspectorate's website it will do so with the scheme name, the applicant reference number, and then Examining Authority's APP number.

2.3.2 This Report does not seek to repeat wholesale sections of supporting documents but instead will summarise where appropriate to do so.

2.3.3 This Report should be read in the broader context of: the Planning Statement (Document Reference: 2.2); draft Development Consent Order (Document Reference: 6.1) and Explanatory Memorandum (Document Reference: 6.2); ES Chapter 4 Site Selection and Assessment of Alternatives (Document

Reference: 3.1.6) and ES Chapter 5 Project Description (Document Reference: 3.1.7); the Design Vision (Document Reference: 2.3) and Design and Access Statement (Document Reference: 2.4).

## 2.4 Collaboration on this report

2.4.1 This Report has been provided to Five Estuaries and NGET for their review and comment. NFOW has had regard to comments received, and subsequently made amendments to the Report. All parties were provided a final copy of the report at the point of the application submission.

2.4.2 In addition, the Tripartite Position Statement (Appendix C) which is also included within the Five Estuaries Coordination Document (Five Estuaries Document Reference 9.30, Five Estuaries APP-263) is also appended to this Report.

# 3. BACKGROUND TO THE OFFSHORE TRANSMISSION NETWORK REVIEW (OTNR) & OFFSHORE COORDINATION SUPPORT SCHEME (OCSS)

## Offshore Transmission Network Review (OTNR)

3.1.1 The need to de-risk the delivery of offshore wind projects has meant that the approach for connecting offshore wind to shore, has historically been delivered by projects constructing their own individual routes to shore in the form of radial (point-to point) connections. Due to the potential environmental and social impacts of transmission infrastructure in some cases pursuing only a radial approach may be a barrier to delivery of the government's ambitious offshore wind targets of 50GW of wind power by 2030.

3.1.2 To help mitigate these impacts, the government launched the Offshore Transmission Network Review (OTNR) in 2020. The purpose of this review was to investigate the way that the offshore transmission network is designed and delivered and sought to bring about increased coordination of offshore transmission and interconnection.

3.1.3 The OTNR included a workstream on Early Opportunities projects, which are projects that have not yet received planning approval but do have a connection offer between 2025 and 2030. Within this workstream, the East Anglia Early Opportunities Pathfinder Projects was launched where developers aimed to explore, recommend, and agree, regionally coordinated designs for Early Opportunities projects as part of the OTNR. North Falls has been an active participant in this workstream.

3.1.4 RenewableUK was asked by the Department for Business, Energy and Industry Strategy (BEIS), now DESNZ, to provide support for this workstream and Arup were commissioned by RenewableUK to undertake an analysis of the of deliverability, economics and commercials, environmental and societal impacts of coordination in the East Anglia region.

3.1.5 North Falls, Five Estuaries, NGET (with respect to SeaLink), and National Grid Ventures (with respect to EuroLink and Nautilus) have been working together to explore the potential for offshore coordination as part of this 'Early Opportunities' workstream.

3.1.6 Although these five East Anglia projects were not one of the four pathfinder projects initially selected in the first tranche by DESNZ, they confirmed their

commitment to coordination and issued a joint statement on the 7 July 2022 to this effect (Appendix A).

3.1.7 The OTNR concluded in May 2023, and the government published their response to the consultation on their recommendations set out in the Future Framework (Enduring Regime) in July 2023[1] and have also provided a summary of all of the OTNR outputs[2].

### Offshore Coordination Support Scheme (OCSS)

3.1.8 In April 2022, the government announced the Offshore Coordination Support Scheme (OCSS) as part of the British Energy Security Strategy.

3.1.9 The primary objective of the OCSS is to provide grant payments to projects or consortiums to enable the assessment of coordinated options for offshore transmission. The scheme is a competitive process under which one or more applicants may receive time limited grant funding directly from the OCSS project sponsor and owner, DESNZ.

3.1.10 The secondary objective of the OCSS is for projects to share key learnings with the project owner and sponsor, DESNZ. The scheme funding is to be used in time limited phases to assess whether a coordinated offshore solution is technically feasible, regulatory feasible and economically viable.

3.1.11 North Falls, Five Estuaries, and Sea Link acting together in a consortium led by North Falls received grant funding in a decision made by DESNZ on the 5 December 2023. The consortium was the only initiative to be awarded time limited funding through their OCSS scheme. The grant funding agreement stipulated an initial amount of up to £1.7 million to assess the feasibility of the coordination solution.

3.1.12 Following DESNZ's announcement, the consortium has undertaken a series of studies and assessments on behalf of the project owner DESNZ to assist DESNZ to explore the significant challenges and solutions to enable a coordinated offshore connection. These studies and assessments were submitted to DESNZ by the consortium members in March 2024.

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[1] https://assets.publishing.service.gov.uk/media/64bfc948d4051a000d5a92e0/otnr-future-framework-consultation-response-and-recommendations.pdf
[2] https://www.gov.uk/government/publications/offshore-transmission-network-review/offshore-transmission-network-review-summary-of-outputs

3.1.13 The options evaluated in March 2024 are as follows:

- OCSS Option 1: Sea Link is initially built and commissioned (Stage 1) as a two-ended HVDC link with an additional loop of cable close to the array area for the North Falls. At a future date when an offshore converter platform is built near the additional cable loop, Sea Link would be taken out of service, cut, and recovered at the loop. It would then be connected into the offshore converter platform to form a three-ended HVDC link (Stage 2) before connecting the offshore wind farms (Stage 3).

- OCSS Option 2: Sea Link is initially built and commissioned as a two-ended HVDC link with an HVDC switching platform in the middle (Stage 1). At a future date when an offshore converter platform is built, Sea Link would be taken out of service to connect the switching platform with the offshore converter platform. This would form a three-ended HVDC link (Stage 2) before connecting the offshore wind farms (Stage 3).

3.1.14 DESNZ ~~will~~ have now evaluated the findings of its March 2024 feasibility study and determined not ~~whether~~ to proceed with a secondary more detailed evaluation study for which a potential time limited sum of up to £11.7million of further funding could have been ~~maybe~~ awarded in the financial year ending 2025.

~~3.1.15 The outcome of this evaluation and decision for secondary grant funding by DESNZ has been delayed. It is still pending at the time of drafting this report. The impact of purdah and subsequently the general election has temporarily paused engagement from DESNZ and the political outcome and ambition following the general election is currently unknown at the time of writing this report. Further updates will be provided either by DESNZ, North Falls or its consortium once the Government's position and policies are outlined in more detail or when DESNZ re-engages in its OCSS led programme.~~

3.1.15 On 3 September 2024 (approximately two months after North Falls DCO submission), the Secretary of State for DESNZ decided not to grant further funding to explore the potential for offshore cable and offshore grid connection coordination as part of the OTNR "Early Opportunities" workstream and advised key stakeholders accordingly. Whilst the workstream identified that an offshore cable and grid connection point was technically feasible, it identified the potential for significant additional costs and delay.

3.1.16 A copy of the letter from DESNZ to the local authorities informing them of the outcome is included in Appendix D of this document. A joint statement from NFOW (North Falls), VEOWL (Five Estuaries), and NGET (Sea Link) issued following DESNZ's decision is included in Appendix E of this document.

3.1.17 While the Secretary of State has decided not to grant further funding for this workstream, an offshore cable coordinated connection point remains a grid connection option within the North Falls DCO application. It is important to note that the Works package included in the North Falls DCO application to facilitate this offshore connection is Work No. 2(b) only i.e. an offshore converter station platform. Regardless of whether Option 1, 2 or 3 is pursued, the maximum number of offshore platforms for which consent is sought remains the same (i.e. two) – see condition 11 of Part 2 of Schedules 9 and 10 of the Draft Development Consent Order **[AS-022]** which secures this.

3.1.18 Option 3 provides a connection point for North Falls to connect to an offshore coordinated cable option brought forward by a third party outside of the OTNR workstream, should that cable route and option be promoted and be environmentally, regulatory and commercially viable within appropriate timescales.

3.1.19 The Examining Authority will be aware that coordination of grid connection infrastructure (cables, substations or convertor platforms) is strongly supported by the relevant Energy National Policy Statements, and by the quantum of statutory and non-statutory relevant representations that continue to advocate for an offshore grid connection option for North Falls.

3.1.20 Whilst the National Grid onshore contracted grid connection point for North Falls comprised in Option 1 and Option 2 of the DCO application remains of utmost necessity due to the environmental, regulatory and commercial uncertainties associated with the overall co-ordinated cable delivery model for Option 3, the Applicant considers it prudent to maintain an offshore connection point (i.e. the inclusion of Work No. 42(b) converter station) within the design envelope for North Falls. This is to ensure the offshore converter platform (the offshore co-ordination connection point) required to facilitate a third parties offshore cable connection can be properly considered during Examination in recognition of the ever evolving technical and commercial grid landscape within Great Britain.

3.1.21 Currently, no third party is promoting a co-ordinated offshore cable option in collaboration with the North Falls proposed grid connection point, its Option 3.

~~3.1.16~~3.1.22 ~~However, T~~the OCSS process has been undertaken in parallel to motivated individual projects progressing with in flight coordinated scheme development and ongoing project co-operation. At present both the North Falls and Five Estuaries Projects are designed to have an onshore connection to the proposed EACN substation. As noted above, North Falls has, to maintain or preserve optionality, an additional offshore converter platform within its design envelope and draft DCO (Document Reference: 6.1), to facilitate offshore connection should it be found to be technically, regulatory, and economically viable during North Falls consenting and funding process.

# 4. NATIONAL POLICY STATEMENT CONTEXT

## National Policy Statement

4.1.1 The Planning Act 2008 made provision for National Policy Statements ('NPSs' which set out the policy framework for determination of NSIP applications.

4.1.2 NPSs integrate the UK Government's objectives for infrastructure capacity and development with its wider economic, environmental and social policy objectives, including climate change goals and targets, in order to deliver sustainable development.

4.1.3 The Planning Statement (Document Reference: 2.2) provides an overall assessment against the relevant planning policies included within NPS EN-1, NPS EN-3, and NPS EN-5. This Report specifically focuses on those paragraphs relevant to coordination and they are highlighted below.

4.1.4 NPS EN-1, NPS EN-3 and NPS EN-5 establish a policy expectation for undertakers of individual projects to collaborate and co-ordinate with other major infrastructure projects in close proximity or where there are direct overlaps between projects. More specifically:

NPS EN-1

- Paragraph 3.3.71: *"The historical approach to connecting offshore wind resulted in individual radial connections developed project-by-project. This may continue to be the most appropriate approach for some areas with single offshore wind projects that are not located in the vicinity of other offshore wind and / or offshore infrastructure that is planned or foreseen in the near future. For regions with multiple windfarms or offshore transmission projects it is expected that a more coordinated approach will be delivered. For these areas, this approach is likely to reduce the network infrastructure costs as well as the cumulative environmental impacts and impacts on coastal communities by installing a smaller number of larger connections, each taking power from multiple windfarms instead of individual point-to-point connections for each windfarm."*
- Paragraph 3.3.80: *"Related to the above and considering the potential for unwarranted and avoidable disruption, inefficiency, and visual impacts along the onshore - offshore boundary, coordination of onshore transmission, offshore transmission, and offshore generation and interconnector developments should be considered at both the strategic and more detailed project design levels. This coordinated approach is*

*likely to provide the highest degree of consumer, environmental, and community benefits."*

NPS EN-3

- Paragraph 2.8.35: *"The previous standard approach to offshore-onshore connection involved a radial connection between single wind farm projects and the shore. A coordinated approach will involve the connection of multiple, spatially close, offshore wind farms and other offshore infrastructure, wherever possible, as relevant to onshore networks."*
- Paragraph 2.8.48: *"Applicants are encouraged to work collaboratively with those other developers and sea users on co-existence/co-location opportunities, shared mitigation, compensation and monitoring where appropriate. Where applicable, the creation of statements of common ground between developers is recommended. Work is ongoing between government and industry to support effective collaboration and find solutions to facilitate to greater co-existence/co-location."*
- Paragraph 2.8.63: *"It is expected that greater coordination of offshore-onshore transmission infrastructure is likely to reduce the cumulative environmental impacts and impacts on coastal communities by installing a smaller number of larger connections."*
- Paragraph 2.8.87: *"Where appropriate, applicants are also encouraged to consider monitoring collaboratively with other developers and sea users. Work is ongoing between government and industry to support effective collaboration and the development of monitoring at a strategic level."*
- Paragraph 2.8.217: *"Where several developers are likely to have cumulative impacts on the same species or feature it may be appropriate to collaborate on mitigation and compensation measures…"*
- Paragraph 2.8.225: *"Where cumulative impacts on subtidal habitats are predicted as a result of multiple cable routes, applicants for various schemes are encouraged to work together to ensure that the number of cables crossing the subtidal zone is minimised and installation/ decommissioning phases are coordinated to ensure that disturbance is reasonably minimised."*
- Paragraph 2.8.235: *"Where cumulative impacts on subtidal habitats are predicted as a result of multiple cable routes, applicants for various schemes are encouraged to work together to ensure that the number of cables crossing the subtidal zone is minimised and installation/ decommissioning phases are coordinated to ensure that disturbance is reasonably minimised."*

NPS EN-5

- Paragraph 2.7.1: *"EN-1 explains in Section 4.10 that the Planning Act 2008 aims to create a holistic planning regime, such that the cumulative effects of the same project can be considered together. Co-ordinated applications typically bring economic efficiencies and reduced environmental impact."*
- Paragraph 2.12.6: *"… a more co-ordinated approach to designing offshore transmission is expected to be adopted compared with the previous standard approach of radial routes to shore. This applies to spatially close groups of offshore windfarms, subsea 'onshore' transmission or bootstraps, interconnectors and multi-purpose interconnectors."*
- Paragraph 2.13.1: *"The strategic network designs such as those led or enabled by National Grid Electricity System Operator (ESO) will usually form the basis for identifying proposals for co-ordinated transmission. This includes the Holistic Network Design (HND) for offshore-onshore transmission prepared by ESO."*
- Paragraph 2.13.4: *"It is recognised that proposed projects which have progressed through strategic network design exercises have been considered for strategic coordination through those exercises. However, any opportunities for subsequent local coordination between projects, irrespective of whether they have been through those exercise, should be considered in project development. This is in addition to considerations on co-ordinating delivery in construction…"*
- Paragraph 2.13.10: *"The identification of co-ordinated solution options, and any radial option, should consider the criteria for designs to be deliverable and operable, economic and efficient, minimise impact on the environment and minimise impact on the local communities. Options should seek to identify the most appropriate balance between these criteria."*
- Paragraph 2.13.11*: "The coordinated solutions assessed should seek to be ambitious in the degree of coordination, wherever possible. This includes taking account of geographically proximate projects including opportunities to connect wind farms and multi-purpose interconnectors and/or bootstraps with each other that are planned or foreseen in the near future. Evidence should demonstrate that this has been considered in the assessment of options."*
- Paragraph 2.13.14*: "Co-ordinated transmission proposals, including multi-purpose interconnectors and other types of offshore transmission (see Glossary), are expected to reduce the overall environmental and community impacts associated with bringing offshore transmission*

*onshore compared to an uncoordinated, radial approach. These reduced impacts could, for example, relate to: fewer landing sites and reduced landfall impacts; reduced overall cable length and impacts; and fewer cable corridors and reduced impacts from these."*

- Paragraph 2.13.16: *"For onshore infrastructure, reduced impacts could, for example, relate to fewer or co-located substations and converter stations and transmission lines as well as demonstrating how environmental and community impacts have been avoided as far as possible."*
- Paragraph 2.13.17: *"Applicants are expected to be able to indicate how coordination including reduction in impacts have been considered drawing on work of others, including that led or enabled by National Grid Electricity System Operator (ESO)."*

4.1.5 Section 8 of this Report provides an assessment against the relevant paragraphs listed above taken from NPS EN-1, NPS EN-3, and NPS EN-5 in the context of the coordination activities undertaken to date, and those secured within future development scenarios.

# 5. OVERVIEW OF THE PROJECTS

## 5.1 Introduction

5.1.1 This section provides an overview of North Falls, Five Estuaries, the Norwich to Tilbury Project, and the Sea Link Project including details on timings, construction phasing, and Local Authority areas.

5.1.2 Any pertinent additional information made available on the individual projects will be included in subsequent updates to this Report as appropriate.

5.1.3 This section is accompanied by Figure 9.29 (Illustrative Baseline Project Positions – Sea Link, North Falls, & Five Estuaries) which shows the locations of the main features of each project and where they interact, including grid connections. This Figure is taken from the Five Estuaries Offshore Connection Scenario Report (Five Estuaries Document Reference 9.29, Five Estuaries APP-262).

## 5.2 Overview of the Projects

**Table 5.1: Overview of North Falls and other NSIPs**

| Project Detail | North Falls | Five Estuaries | Norwich to Tilbury | Sea Link |
|---|---|---|---|---|
| **Applicant** | NFOW Ltd | FEOW Ltd | NGET | NGET |
| **Project Number** | EN010119 | EN010115 | EN020027 | EN020026 |
| **Project Type** | Generating Station | Generating Station | Electric Lines | Electric Lines (Offshore) |
| **Status within NSIP process** | Submission | Pre-Examination | Pre-Application | Pre-Application |
| **Application Submission Dates** | July 2024 | March 2024 | 2025 | Q1 2025 |
| **Authority Areas covered by the scheme** | Tendring District Council<br><br>Essex County Council | Tendring District Council<br><br>Essex County Council | Norfolk County Council<br><br>Suffolk County Council | Suffolk County Council<br><br>Kent County Council |

| Project Detail | North Falls | Five Estuaries | Norwich to Tilbury | Sea Link |
|---|---|---|---|---|
| | | East Suffolk Council<br><br>Suffolk County Council | Essex County Council<br><br>Thurrock Council<br><br>South Norfolk District Council<br><br>Mid Suffolk District Council<br><br>Babergh District Council<br><br>Tendring District Council<br><br>Colchester City Council<br><br>Braintree District Council<br><br>Chelmsford City Council<br><br>Brentwood Borough Council<br><br>Basildon Borough Council. | Dover District Council<br><br>Thanet District Council<br><br>East Suffolk Council |
| **Predicted start of construction (onshore)** | 2027 | 2027 | 2027 | 2026/2027 |
| **Predicted start of construction (offshore)** | 2030 | 2029 | N/A | 2026/2027 |
| **Predicted first generation (in service date for** | 2031 | 2031 | End 2030 | ACL 2030 |

| Project Detail | North Falls | Five Estuaries | Norwich to Tilbury | Sea Link |
|---|---|---|---|---|
| **Norwich to Tilbury)** | | | | |
| **Predicted fully operational (total array / all construction complete)** | 2031 | 2030 | 2031 | End of construction 2031/2032 |

### North Falls

5.2.1 The North Falls scheme is a proposed extension to the existing Greater Gabbard offshore wind farm which is located off the east coast of England in the Southern North Sea. The Greater Gabbard offshore wind farm was opened in 2013 and North Falls is the proposed western extension to the southern array only of the Greater Gabbard Offshore Wind Farm. The project includes provision for the construction, operation, maintenance and decommissioning of an offshore wind farm located approximately 40 kilometres off the coast of Suffolk at its closest point in the southern North Sea; including up to 57 wind turbine generators and associated infrastructure making landfall between Frinton-on-Sea and Holland-on-Sea, the installation of underground cables, and the construction of an electrical substation and associated infrastructure near to the existing Lawford Substation to the west of Little Bromley in order to connect the development to National Grid's proposed East Anglia Connection Node substation, which would be located nearby.

5.2.2 All onshore connection infrastructure would be located in the administrative area of Tendring District Council, within Essex County Council.

5.2.3 North Falls and Five Estuaries are separate joint ventures, with different shareholder groupings and as follows:

- The Five Estuaries project partners are RWE (33.3%), a Macquarie-led consortium (25%), ESB (20.9%) and Sumitomo Corporation (20.9%). RWE is leading the development of Five Estuaries on behalf of the project partners;
- The North Falls project is a 50:50 joint venture between SSE Renewables Offshore Windfarm Holdings Limited (SSER) and RWE Renewables UK Swindon Limited (RWE).

5.2.4 It is noted that RWE is a common shareholder between the two Project entities but for clarity they are separate legal entities, with distinct shareholder groupings.

### Five Estuaries

5.2.5 Five Estuaries is the proposed extension to the operational Galloper Offshore Wind Farm. The project includes provision for the construction, operation, maintenance and decommissioning of an offshore wind farm located approximately 37 kilometres off the coast of Suffolk at its closest point in the southern North Sea; including up to 79 wind turbine generators and associated infrastructure making landfall at Sandy Point between Frinton-on-Sea and Holland-on-Sea, the installation of underground cables, and the construction of an electrical substation and associated infrastructure near to the existing Lawford Substation to the west of Little Bromley in order to connect the development to National Grid's proposed East Anglia Connection Node (EACN) substation, being developed as part of the Norwich to Tilbury Project, which would be located nearby.

5.2.6 All onshore connection infrastructure would be located in the administrative area of Tendring District Council, within Essex County Council. Five Estuaries will have an overall capacity of greater than 100 Megawatts (MW).

### Sea Link

5.2.7 NGET is proposing to reinforce the network between Suffolk and Kent via a new, primarily offshore, 2 GW high voltage direct current (HVDC) link. Additionally onshore infrastructure required to deliver the Sea Link Project includes converter stations, substations and new underground and overhead electricity lines. The Project comprises three key elements comprising the Suffolk onshore scheme, the offshore scheme, and the Kent onshore scheme.

5.2.8 The Suffolk onshore scheme comprises:

- A connection from the existing transmission network via a proposed Friston substation.
- A high voltage alternating current (HVAC) underground cable of approximately 1.7 km in length between the proposed Friston substation and a proposed converter station (see next bullet).
- A 2 GW high voltage direct current (HVDC) converter station up to 26 metres high near Saxmundham.

- A HVDC underground cable connection of approximately 10 km in length between the proposed converter station near Saxmundham, and a transition joint bay approximately 900 metres inshore from a landfall point.
- A landfall on the Suffolk coast (between Aldeburgh and Thorpeness).

5.2.9 The offshore scheme comprises:

- Approximately 130 km of subsea HVDC cable, running between the Suffolk landfall location (between Aldeburgh and Thorpeness), and the Kent landfall location at Pegwell Bay

5.2.10 The Kent onshore scheme:

- A landfall point on the Kent coast at Pegwell Bay.
- A transition joint bay approximately 800 metres inshore to transition from offshore HVDC cable to onshore HVDC cable, before continuing underground for approximately 2 km to a proposed new converter station (below).
- A 2 GW HVDC converter station near Minster. A new substation would be located immediately adjacent.
- Removal of up to 1 km of existing HVAC overhead line, and installation of approximately 2.25 km of new HVAC overhead line from the converter station and substation near Minster and the existing Richborough to Canterbury overhead line.

### Norwich to Tilbury and East Anglia Connection Node Substation

5.2.11 Both the North Falls scheme and Five Estuaries scheme have grid connection offers to connect into a new proposed East Anglia Connection Node ('EACN') substation, being brought forward as part of the Norwich to Tilbury Project. The siting of the EACN, where the project connects into the national electricity transmission system, was undertaken by NGET.

5.2.12 NGET identified a search area on the Tendring Peninsula in Essex, which could be integrated as part of the Norwich to Tilbury reinforcement project, as an economic and efficient site for the EACN as set out in the Corridor and Preliminary Routeing and Siting Study published by NGET in 2022. In September 2023 NGET identified a EACN construction and operational zone within which it is anticipated the EACN substation will be located.

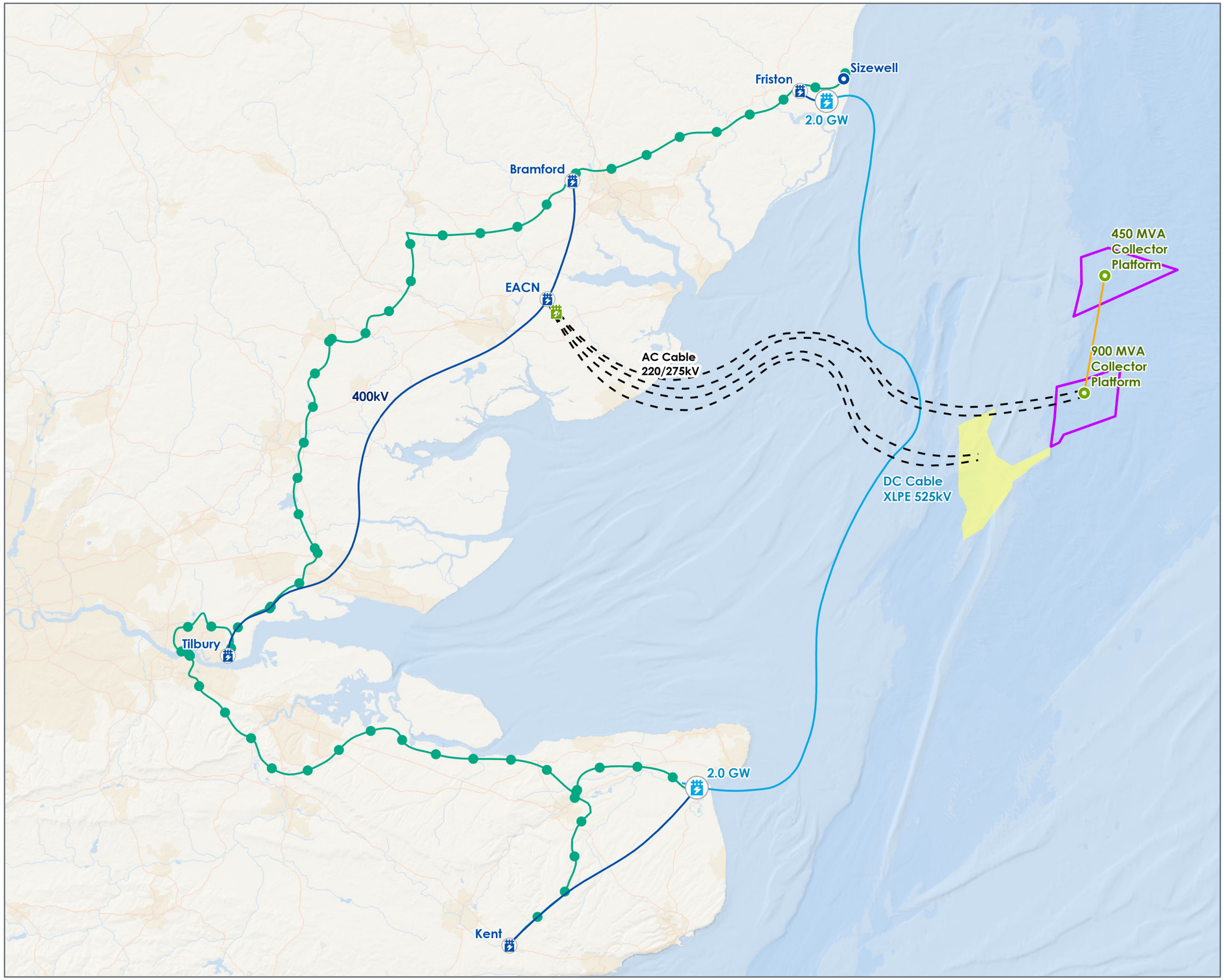
5.2.13 The proposed EACN will include a 400kV substation that facilitates the connection of the offshore generation from both the North Falls scheme and

Five Estuaries scheme to the main National Electricity Transmission System. The EACN will also include high voltage transformers, reactors and other typical high voltage plant and equipment. Both the North Falls scheme and Five Estuaries scheme will connect to the EACN with underground 400kV circuits from their own respective substations.

5.2.14 The final location and design of the EACN is not known at this stage. The configuration of the switchgear from both the North Falls scheme and Five Estuaries scheme within the footprint of the EACN substation will depend on a number of factors including the detailed design of the equipment required and the final layout.

5.2.15 As the exact location or layout of the NGET substation is not yet known the whole EACN construction and operational zone has therefore been included within the North Falls scheme and Five Estuaries scheme Order Limits to ensure that the works required to connect the new North Falls scheme and Five Estuaries scheme substations to the EACN substation are encapsulated and have been appropriately assessed.

**Figure 5.1: (Illustrative Baseline Project Positions – Sea Link, North Falls, & Five Estuaries)**




LEGEND

- Five Estuaries Site Boundary
- North Falls Site Boundary
- Onshore Substation - Transmission Operator
- Onshore Converter Station
- Onshore Substation - Wind Farm Developer
- MVA Collector Platform
- POI
- AC Cable - WF Developer
- AC Cable - Transmission Operator
- DC Cable - Sea Link
- Existing Transmission Network
- Inter Array Cable

**NOTE:**
This drawing is for illustrative purposes only and as such no warranties are given or liabilities of any kind are assumed with respect to the accuracy of such information.

0 5 10 20
Kilometers



PROJECT TITLE:

*FIVE ESTUARIES OFFSHORE WIND FARM*

DRAWING TITLE:

**Illustrative Baseline Project Positions - Sea Link, North Falls & Five Estuaries**

| VER | DATE | REMARKS | Drawn | Checked |
|---|---|---|---|---|
| 1 | 21/03/2024 | For Issue | JB | KS |
| | | | | |
| | | | | |

DRAWING NUMBER: 9.29

| SCALE: | PLOT SIZE: | DATUM: | PROJECTION: |
|---|---|---|---|
| 1:500,000 | A3 | WGS84 | UTMN31 |

FIVE ESTUARIES
OFFSHORE WIND FARM

# 6. GRID CONNECTION OPTIONALITY, DELIVERY SCENARIOS, AND BUILD OPTIONS

## 6.1 Introduction

6.1.1 This section provides an overview of the factors influencing coordination with respect to the North Falls, Five Estuaries, and the EACN element of the Norwich to Tilbury Project.

6.1.2 It highlights the relationships between the factors that influence both the design and delivery of each project. These are separated out below as follows:

- Grid connection optionality - relevant for the siting, design and construction of cable corridor and substation for North Falls, Five Estuaries, and the EACN.
- The build options - relevant for the delivery of North Falls including an onshore or offshore connection.
- The three different delivery scenarios - relevant for the construction of North Falls and Five Estuaries.

## 6.2 Grid Connection Optionality

6.2.1 NFOW has committed to exploring coordinated network designs along with other relevant projects in East Anglia. As such, NFOW is including the following options for the Project's National Grid connection point:

- Option 1: Onshore electrical connection at a National Grid connection point within the Tendring peninsula of Essex, with a project alone onshore cable route and onshore substation infrastructure;
- Option 2: Onshore electrical connection at a National Grid connection point within the Tendring peninsula of Essex, sharing an onshore cable corridor (but with separate onshore export cables) and co-locating separate project onshore substation infrastructure with Five Estuaries; or
- Option 3: Offshore electrical connection supplied by a third party.

6.2.2 These options are discussed further in ES Chapter 4 Site Selection and Alternatives Assessment (Document Reference: 3.1.6) and Chapter 5 Project Description (Document Reference: 3.1.7) and the relevant worst-case scenarios are assessed in each technical chapter (Chapters 8 to 33).

6.2.3 A decision on the selected option would be made post-consent. Grid Connection Option 2 is subject to North Falls and Five Estuaries achieving consent and financial close in timescales which are sufficiently aligned.

6.2.4 ~~In addition,~~ Please see discussion at section 3.1 of this report in relation to the OCSS outcome and the viability of Grid Connection Option 3 ~~is subject to ongoing review with regards to the OCSS and its viability (See section 3.1 of this Report regarding the OCSS outcomes)~~.

## 6.3 Build Options

6.3.1 In order to allow the flexibility for coordinated construction, the draft DCO (Document Reference: 6.1) has been drafted to allow for scenarios based on the gap between the two projects meeting their respective Final Investment Decisions (FIDs). Two 'build options', which cover the three onshore delivery scenarios are being presented as part of the application:

- Build option 1: The Applicant only constructs those works required for North Falls (which excludes the works proposed under Work No. 6B and 12B being the additional cable ducting for Five Estuaries).
- Build Option 2 (being Build Option 2A and Build Option 2B as set out in the draft DCO): The Applicant and Five Estuaries each consents ducts for their own and the other project, with the first to construct completing ducting and the later pulling electrical cables through pre-laid ducts at a later date.
- Build Option 3. The Applicant has an offshore connection.

6.3.2 The draft DCO (Document Reference: 6.1) includes a requirement providing that the Applicant must notify the relevant planning authority as to which build option will be taken forward, should any of the onshore build options be progressed.

6.3.3 From the transition joint bays above landfall to the substation location, the cable corridor has been designed to allow the installation of cables for the Applicant and cable ducts for Five Estuaries (and vice versa). Depending on which project proceeds to construction first, the second project, would then install and operate the cables within the buried ducts under its own DCO.

6.3.4 The inclusion of Works to install a second set of ducts for Five Estuaries means that the width of the corridor which may be acquired is slightly wider than it would be for North Falls in isolation, as the corridor includes works proposed under Work No. 6B and 12B for the cable ducting for Five Estuaries. However, by following this approach, the following project efficiencies, with associated reduction in overall land take and environmental impacts, can be realised:

- A single haul road with the cable corridor to support construction;
- Single access points at Temporary Construction Compounds (TCCs) from the highway network to service both projects, reducing both the number of physical works and reducing the extent of any traffic management measures required to ensure safety;
- Single crossing points on roads where site access is not required;
- Use of the same TCCs therefore reducing the total number of TCCs and the area required (minimising the interference with use of land and area of land, volume of soils and extent of vegetation which is disturbed and requires to be restored); and
- Coordinated service connection (such as mains power, water, sewage) for TCCs.

6.3.5 The substation sites for North Falls and Five Estuaries have been co-located in one area designed to co-ordinate with the EACN proposals. While each project would retain the responsibility for separate substation builds, the following would be co-ordinated to reduce environmental impacts:

a. Common access route to the substations from Bentley Road;
b. Common permanent access point and bellmouth from Ardleigh Road;
c. Screening principles for both projects; and
d. Drainage works.

6.3.6 Reduction in the potential impacts would mainly be associated with the reduction in overall land take, which include avoiding duplication of construction access works, and the associated reduction in construction traffic volumes.

6.3.7 Regardless of build option taken to deliver the onshore substation, co-locating with Five Estuaries allows the Applicant to keep impacts to a single area when considering cumulative development effects and have a lower overall land take when compared to locating the substations in different search areas.

6.3.8 Some elements of onshore construction (e.g. cable installation) would be reserved for each project regardless of the level of coordination for both technical and commercial reasons.

## 6.4 Delivery Scenarios

6.4.1 Following a commitment by NFOW and Five Estuaries to seek to co-ordinate and collaborate where practicable in order to minimise both projects' environmental and social effects, the onshore electrical connection options set

out under Option 1 and 2 have been designed in coordination with Five Estuaries.

6.4.2 The onshore cable routes of the two projects will run immediately adjacent, with the footprint required for both covered by the onshore project area. This is to allow either project to install cable ducting for both projects to realise efficiencies in construction. In addition, the onshore substations have been co-located in the same location to the west of Little Bromley. Due to electrical requirements, separate cables and onshore substations are required for each project, and therefore construction of the Five Estuaries' cabling and onshore substation is not included within the North Falls DCO application.

6.4.3 When developing a co-ordinated design onshore, North Falls and Five Estuaries have developed three possible build-out scenarios for both projects. These are:

6.4.4 **Scenario 1** – North Falls proceeds to construction and undertakes the additional onshore cable trenching and ducting works for Five Estuaries as part of a single construction activity (i.e. ducting for four electrical circuits). North Falls would undertake the cable installation and onshore substation construction for its project only (i.e. two electrical circuits). The two projects would share accesses from the public highway for onshore cable installation and substation construction. The projects would utilise and share the same Temporary Construction Compounds (TCC) for the cable installation works.

6.4.5 **Scenario 2** – Both North Falls and Five Estuaries projects proceed to construction on different but overlapping timescales (between 1 and 3 years apart), with onshore cable trenching and ducting works undertaken independently but opportunities for reuse of enabling infrastructure e.g. haul roads / site accesses etc., with the other project then reinstating once complete.

6.4.6 **Scenario 3** – Five Estuaries does not proceed to construction; or both Five Estuaries and North Falls projects proceed to construction on significantly different programmes (over 3 years apart). In the latter case the significantly different programmes would mean that haul roads and TCCs are reinstated prior to the second project proceeding. In such case cumulative impacts are for a potential construction period of 6 years+. This scenario presents no reduction in overall impacts for the projects from the sharing of infrastructure.

6.4.7 These potential build out scenarios are assessed within the project's Cumulative Effects Assessment (CEA). As with the assessment of the effects arising from the development of North Falls alone outlined above, each technical chapter of the Environmental Statement (Document References: 3.1.1 – 3.1.35) has selected one of these build out Scenarios as the worst case for the technical topic, depending on the parameters relevant to that topic. To

help provide clarity when reading the technical chapter CEA sections, each chapter sets out how these scenarios interact with the grid connection options outlined above.

6.4.8 **Table 6.1** below shows the different delivery scenarios and the corresponding build options within the draft DCO for each project. It should be noted that the delivery scenarios described in the North Falls application and the Five Estuaries application are in essence the same, with Scenario 1 maximising co-ordination by ensuring whichever project proceeds to construction first will provide the cable ducting for the other project. Scenario 2 is where projects overlap during construction but cable ducting is constructed independently. Scenario 3 is where either one project does not proceed to construction or there is a significant gap that no construction works are carried out simultaneously.

6.4.9 **Table 6.1** is shown on a single page below for ease of navigation.

**Table 6.1: North Falls and Five Estuaries Build Options and Delivery Scenarios**

| SUMMARY DESCRIPTION OF DELIVERY SCENARIOS | DELIVERY SCENARIOS | NORTH FALLS DRAFT DCO | FIVE ESTUARIES DRAFT DCO |
|---|---|---|---|
| First project constructs cable ducts for the other project | Scenario 1 | Build Option 2A & 2B | Build Option 1 |
| Construction programmes overlap but cable ducts are built independently | Scenario 2 | Build Option 1 | Build Option 2 |
| One project does not proceed or there is a significant gap in construction programmes such that no works are carried out simultaneously | Scenario 3 | | |
| Offshore grid connection within the Southern North Sea | Not relevant to the three onshore delivery scenarios but as outlined a potential future scenario ~~dependent on the outcome of the OCSS and offshore co-ordination feasibility~~. | Build Option 3 | Note Five Estuaries Offshore Connection Scenario document (Five Estuaries Reference 9.29) No additional works or powers included in their draft DCO to support offshore connection. |

# 7. COORDINATION ON SCHEME DEVELOPMENT, DESIGN, AND SITING

## 7.1 Introduction

7.1.1 This section describes the way in which NFOW has collaborated with other NSIPs when designing and developing the Project.

7.1.2 This includes coordination early in the process on matters relating to design, siting, and landscape, as well as future proofing coordination as part of the construction process.

7.1.3 For the purposes of the Application it is understood that the design must considered in line with the principles of the “Rochdale Envelope” to present a likely worst-case assessment of potential environmental effects where the design details cannot yet be fixed.

7.1.4 Whilst the respective North Falls and Five Estuaries DCO submissions, including this Report, gives as much detail as practicable, the final design and construction processes are yet to be determined. This is the same for the Sea Link Project and Norwich to Tilbury Project where they are at an earlier stage of the development process, and therefore not all details can be finalised.

7.1.5 North Falls and Five Estuaries are on similar consenting programmes and are both now submitted applications that will be undergoing Examination. Substantial work has been undertaken to minimise cumulative impacts, temporary and permanent, associated with both projects through co-ordination.

7.1.6 The aim of the collaboration between the applicants is to reduce overall environmental and social effects of the projects, particularly on communities close to the grid connection corridor and sensitive receptors. ES Chapter 4 Site Selection and Alternatives Assessment (Document Reference: 3.1.6) Sections 4.6, 4.8, and 4.9 outline the co-ordination undertaken in establishing the siting and location of the landfall, onshore cable route, and onshore substation zone with Five Estuaries.

## 7.2 Landfall

7.2.1 The outcome of the site selection process was reviewed with the objective of finding the most suitable option for bringing ashore cables for both the North Falls and Five Estuaries projects at a single onshore location.

7.2.2 Identification of the landfall and landfall compound location has been undertaken in coordination with Five Estuaries (see Section 4.6.2 ES Chapter 4 Site Selection and Assessment of Alternatives (Document Reference: 3.1.6)) and in consultation with Tendring District Council.

7.2.3 Kirby Brook was identified as the most appropriate location for a single onshore location that could specifically accommodate the size of both projects' landfall infrastructure and it was agreed as the preferred location by both North Falls and Five Estuaries jointly.

7.2.4 Five Estuaries are also proposing to undertake cable landfall works within the landfall compound identified in Figure 5.2 (ES Chapter 5 Figures (Document Reference: 3.2.3) with the works for both projects being undertaken separately.

## 7.3 Onshore and Offshore Cable Route

### Onshore

7.3.1 Section 4.9 of ES Chapter 4 Site Selection and Assessment of Alternatives (Document Reference: 3.1.6) explains the process for establishing the onshore cable route.

7.3.2 The buried onshore export cables located within the onshore cable route start from landfall at Kirby Brook on the Tendring coast and go to the onshore substation and National Grid substation inland. Identification of the onshore cable route and onshore substation location has been undertaken in coordination with Five Estuaries.

7.3.3 The indicative cable route cross section has been designed to accommodate a single installation of four cable ducts (Scenario 1), or two separate installation activities for two ducts each (Scenarios 2 and 3), depending on which build-out scenario takes place. The Temporary Construction Compounds, accesses and haul roads are designed to be shared by both projects (under Scenarios 1 and 2) where applicable.

7.3.4 The two onshore substations will be constructed and owned separately for North Falls and Five Estuaries (and transferred to the appointed Offshore Transmission Owner (OFTO)), but the option to co-ordinate on landscaping, environmental mitigation, access and drainage at the substation has been retained and will be set out during detailed design post-consent.

### Offshore

7.3.5 The design and siting of the cable locations crossing with Five Estuaries has been proposed to minimise impacts. The Build Options 1 and 2 include connections from the offshore array area to the onshore substation and there will be a number of crossings and interactions with respect to offshore cables for which co-ordination with other stakeholders including the Crown Estate will be an important consideration.

7.3.6 The proposed TSS cables have been designed to minimise impacts and in deep enough water to allow the two cables to cross without affecting water depth. This limits the potential for the design of the cable route to cause problems for shipping and navigation and has been developed in consultation with Five Estuaries.

7.3.7 North Falls will continue to engage with The Crown Estate and Five Estuaries on the construction and delivery of the crossing points and engineering of the cable routes where the two projects interact.

## 7.4 Site Selection - Onshore Substation

7.4.1 Section 4.5 of ES Chapter 4 (Document Reference: 3.1.6) outlines how the site selection process takes into account all three grid connection options. Section 4.8 explains - in relation to the onshore substation – how the site selection process was undertaken and the engagement with NGET and Five Estuaries in this process.

7.4.2 The preferred option selected represents a ‘zone’ (herein the ‘onshore substation zone’) covering two of the options identified during the initial long-listing process. By combining two options, some of the key constraints around the sites’ buried archaeology potential could be avoided, whilst retaining flexibility in the project’s design envelope, in advance of engineering design work.

7.4.3 Once a refined onshore substation works area was identified, potential locations for an onshore substation, co-located with a Five Estuaries’ onshore substation within the area were identified.

7.4.4 Factors including existing utilities and environmental constraints (overhead lines, residential receptors, existing mature trees and drainage features, buried heritage), the availability of landscaping, drainage requirements, access, ongoing connection to the national grid and technical electrical requirements were considered.

7.4.5 The conclusion of this process was the identification of co-located platforms for North Falls and Five Estuaries onshore substations. The layouts to the

platforms are indicative subject to detailed design of the substations post-consent.

7.4.6 The Tripartite Position Statement (included as Appendix C) seeks to explain the interactions around the onshore project substation areas, where there is potential for co-ordination or overlapping interests between North Falls, Five Estuaries, and NGET.

7.4.7 North Falls and Five Estuaries projects both have grid connection offers to connect into a new East Anglia Connection Node (EACN) substation, being brought forward as part of the Norwich to Tilbury reinforcement Project. The siting study of the EACN, where the project connects into the national electricity transmission system was undertaken by NGET.

7.4.8 NGET identified a search area on the Tendring Peninsula in Essex, which could be integrated as part of the Norwich to Tilbury Project, as an economic and efficient site for the EACN as set out in the Corridor and Preliminary Routeing and Siting Study published by NGET in 2022. In Q4 2022 NGET identified a EACN Land Take and furthermore a substation construction and operational footprint within which it is anticipated the EACN substation will be located.

7.4.9 Therefore, considerable work has been undertaken since the announcement of the grid connection points in 2022 with the objective of minimising the cumulative impacts associated with the projects. This has focused on three key topics near to the substation (which are further outlined in Section 8 of this Report regarding mitigating potential significant effects):

- Traffic and Transport, particularly construction traffic;
- Landscape and Visual; and
- Operational Noise.

## 7.5 Detailed Design Coordination

7.5.1 In terms of co-ordination on design and design principles, there has been a voluntary process established by North Falls with the Design Council. This has facilitated a collaboration with North Falls and Five Estuaries regarding the siting and location of their substations, with NGET examining the principles and considering the adoption of similar ones in the development of the EACN. The type of substation, whether air-insulated or gas-insulated, has been discussed, and details have been shared accordingly.

7.5.2 Section 6.4 of the Design Vision (Document Reference: 2.3) outlines in further detail the engagement activities undertaken. The Design Council has kept a log of meetings, including advice letters and feedback from various workshops, joint in-person meetings, and events, with a focus on the onshore substation design.

7.5.3 The Design Vision sets out the 14 topics within which there are a series of 'design principles' for each topic. The topics are as follows:

- Design Criteria
- Site Layout
- Built Form
- Building Materials
- Colour
- Site Access
- Public Rights of Way
- Earthworks and Landform
- Boundary Treatments
- Surfacing
- Lighting
- Planting
- Biodiversity Enhancements
- Drainage and Water

7.5.4 A Design Champion is proposed to be appointed following DCO consent. Their role is to retain over-arching responsibility for design quality throughout the Project. They will maintain an overview of the Design Vision and guide the production of a Design Guide, which will inform the detailed design of the substation.

7.5.5 North Falls and Five Estuaries have liaised to agree an indicative design process for the detailed design to be undertaken post-DCO consent which is set out in Section 1.6 of the Design Vision (Document Reference: 2.3). This includes consultation with Tendring District Council and other stakeholders.

7.5.6 The requirements set out in the draft DCO (Document Reference: 6.1) include developing detailed design of the substation works (requirement 5) in

accordance with the design principles set out in the Design Vision (Document Reference: 2.3).

## 7.6 Archaeological Investigations

7.6.1 North Falls and Five Estuaries have undertaken a coordinated series of archaeological surveys and investigations across the onshore project area. This has required the projects to work with landowners to balance the project survey requirements with considering the impacts to individual landowners and minimising the extent of access required. The collaboration between the projects has been multifaceted, involving landowner access, technical work, and the sharing of data.

7.6.2 The projects have worked together to commission desk-based surveys, including the use of aerial photography, and field work. The field work has involved geophysical surveys, trial trenching and test pitting at discreet locations, and watching briefs of ground investigations (boreholes) which have helped to develop the geoarchaeological assessment. The geophysical survey was completed over all of the available/suitable areas for survey, subject to access/ground conditions.

7.6.3 The survey works were jointly discussed and agreed with the County Archaeologist and Historic England, and undertaken in line with written schemes of investigation prepared by the appointed archaeological consultant.

7.6.4 North Falls and Five Estuaries plan to continue this approach, where practicable, for the next phase of archaeological works.

## 7.7 Transport Access Layout

7.7.1 North Falls has co-ordinated with Five Estuaries to agree shared points of access to the public highways for the construction of the cable route corridor and on the road layout and design. This has included co-ordinated approach to the design and subsequent road safety audits.

7.7.2 NGET was initially progressing its own transport studies in light of the need to construct access appropriate for overhead lines, underground cables along with the EACN. Through engagement with North Falls and Five Estuaries the potential for overlapping and complementary transport strategies that reduced effects were identified.

7.7.3 North Falls and Five Estuaries has jointly held meetings with Essex County Council as the Local Highway Authority on the arrangements for access during the construction period which has been agreed through consultation with the

Essex County Council. Further to the identification of complementary transport strategies with NGET, NGET has also attended North Falls and Five Estuaries meetings as an observer.

7.7.4 As outlined in ES Chapter 4 Site Selection and Assessment of Alternatives (Document Reference: 3.1.6) the site selection process for the location of the onshore substation resulted in the selection of Bentley Road, as the preferred site access route. This decision was arrived at jointly by North Falls and Five Estuaries in consultation with NGET.

7.7.5 Discussions are ongoing with NGET with respect to the use of Bentley Road as a site access route for construction and the assessment work that has been undertaken to inform the ES Appendix 27.1 Transport Assessment (Document Reference: 3.3.64) and the Environmental Statement (Document References: 3.1.1 – 3.1.36).

7.7.6 The ES has assessed on the basis of a worst-case scenario and NFOW will continue to collaborate with Five Estuaries and NGET with respect to construction transport matters through the development of their Construction Traffic Management plans.

## 7.8 Coordination forums and committees

7.8.1 North Falls have undertaken joint Expert Topic Groups with Five Estuaries during the scheme development phase with specific stakeholders included in **Table 7.1** below.

**Table 7.1: Joint engagement with stakeholders**

| Date | Activity | Applicant(s) attending | ES chapter reference (Volume I) |
|---|---|---|---|
| **February 2023** | Archaeology and cultural heritage ETG | NFOW and Five Estuaries | Further details are discussed in chapter:<br>• Chapter 16 Offshore Archaeology and Cultural Heritage<br>• Chapter 25 Onshore Archaeology and Cultural Heritage |
| **August 2023** | Archaeology and cultural heritage ETG | NFOW and Five Estuaries | Further details are discussed in chapter:<br>• Chapter 25 Onshore Archaeology and Cultural Heritage |
| **August 2023** | Traffic and Transport ETG | NFOW and Five Estuaries | Further details are discussed in chapter:<br>• Chapter 27 Traffic and Transport |

| Date | Activity | Applicant(s) attending | ES chapter reference (Volume I) |
|---|---|---|---|
| **September 2023** | Hydrology, Hydrogeology & Flood Risk and Geology & Ground Conditions ETG | NFOW and Five Estuaries | Further details are discussed in chapter:<br>• Chapter 19 Ground Conditions and Contamination<br>• Chapter 21 Water Resources and Flood Risk |
| **September 2023** | Traffic and Transport ETG | NFOW and Five Estuaries | Further details are discussed in chapter:<br>• Chapter 27 Traffic and Transport |
| **September 2023** | Socio-economics & Tourism and Human Health & Major Disasters ETG | NFOW and Five Estuaries | Further details are discussed in chapters:<br>• Chapter 31 Socio-economics<br>• Chapter 32 Tourism and recreation |
| **October 2023** | Airborne Noise, Air Quality and Climate Change ETG | NFOW and Five Estuaries | Further details are discussed in chapter:<br>• Chapter 20 Onshore Air Quality<br>• Chapter 26 Noise and Vibration<br>• Chapter 33 Climate Change |
| **October 2023** | Traffic and Transport ETG | NFOW and Five Estuaries | Further details are discussed in chapter:<br>• Chapter 27 Traffic and Transport |
| **January 2024** | Traffic and Transport ETG | NFOW and Five Estuaries | Further details are discussed in chapter:<br>• Chapter 27 Traffic and Transport |
| **June 2024** | Traffic and Transport ETG (National Highways) | NFOW & Five Estuaries | Further details are discussed in chapter:<br>• Chapter 27 Traffic and Transport |

## 7.9 Consultation collaboration

7.9.1 The Consultation Report (Document Reference: 4.1) sets out the full details of the consultation undertaken with the public and other stakeholders as part of both non-statutory and statutory consultation.

7.9.2 Statutory Consultation for the Project was co-ordinated with Five Estuaries to try and avoid consultation fatigue and ensure members of the public could easily draw a distinction between the two projects.

7.9.3 A list of consultation events held for North Falls are included within the Consultation Report (Document Reference: 4.1).

## 7.10 Coordination with Sea Users

7.10.1 NFOW has been in discussion with the Harwich Haven Authority with respect to shipping and navigation matters. In particular due to the need for NFOW to utilise the shipping corridor during the construction process of the offshore array and offshore cable corridor.

7.10.2 During construction this will require operating in close proximity to other shipping and navigation features including the pilot boarding station and other sunk inner shipping features that will all need coordination. Further coordination will take place with respect to ensuring similar burial depth of cables during construction and regular communication with the Harwich Haven Port Authority is planned.

7.10.3 The Outline Navigation Installation Plan (NIP) (Document Reference: 7.24) provides further detail as to the strategic approach for the installation of the offshore infrastructure, ensuring impact on marine navigation is appropriately mitigated and adherence to the relevant safety standards.

7.10.4 North Falls will continue to coordinate with Five Estuaries and other NSIPs (e.g. subsea cable / interconnector projects) in consultation with Harwich and Haven Authority and other shipping stakeholders in order to minimise impacts to shipping and navigation during construction.

# 8. SHARED ENHANCEMENT, MITIGATION, AND COMPENSATION MEASURES

## 8.1 Introduction

8.1.1 This section summarises the enhancement, mitigation, and compensation measures that have been identified and developed by NFOW in coordination with the other NSIPs.

8.1.2 The information provided represents the most up to date position but may be subject to change at the Examination, as and when information is made available.

8.1.3 This section is separated into the following topics under the three headings of Enhancement, Mitigation, and Compensation:

### Enhancement

- Biodiversity Net Gain
- Skills and Employment

### Mitigation

- Landscape and Visual;
- Traffic and Transport, particularly construction traffic and;
- Operational Noise.

### Compensation (without prejudice)

- Offshore ornithology

### Other

- Health and Safety
- Decommissioning

## 8.2 Biodiversity Net Gain (BNG)

8.2.1 North Falls Biodiversity Net Gain Strategy (Document Reference 7.22) has been developed in consultation with Five Estuaries proposals with due consideration given to their BNG Strategy. The projects will continue to work together on their BNG proposals and how these will be delivered.

8.2.2 The Biodiversity Net Gain Strategy (Document Reference: 7.22) provides full details of the proposed enhancement measures. A summary of the beneficial measures are:

- Maintenance of permanent water level within the attenuation ponds and variation in depth to create a range of marginal and habitats.
- Creation of a mosaic of habitats; woodland, scrub, hedgerow, open grassland, and aquatic habitats, including the transitions between these.

## 8.3 Skills and Employment

8.3.1 In accordance with the provisions of NPS EN-5 to seek to develop coordination solutions for onshore grid connections, NFOW have been working with Five Estuaries on a coordinated solution to reduce the overall environmental and community impacts of the proposals, and to seek to enhance the benefits of the projects where possible.

8.3.2 North Falls and Five Estuaries have produced Outline Skills and Employment Strategies (OSES) in close collaboration, which are secured through the respective draft DCO's. Although there is a separate OSES for each project, they are cognisant and reflective of each other.

8.3.3 To develop the outline strategies, including key principles and approaches, both North Falls and Five Estuaries engaged jointly with several key stakeholders in the education / training / employment / skills sector within the Essex and Suffolk area, including the local host authorities, and key education providers (e.g. University of Essex).

8.3.4 The Projects will seek to continue to develop their strategies and plans jointly to seek to maximise the benefits locally.

8.3.5 A key element is consideration of the number and type of opportunities brought forward by the Projects during the construction phase where infrastructure and therefore labour and supply chain is likely to be shared/overlap (both spatially and temporally).

## 8.4 Landscape and Visual

8.4.1 NFOW have undertaken shared Expert Technical Groups with Five Estuaries with respect to the siting of the substations.

8.4.2 Whilst North Falls and Five Estuaries have different Landscape concepts for their onshore substations the overall landscape design ethos is shared and both concepts work independently or in conjunction with another, and that both projects will ensure their designs work coherently as they develop into detailed design.

8.4.3 A strategic approach is also being taken with regards to the mitigation planting associated with the onshore project substations. Whilst each project will have their own outline planting schemes, North Falls and Five Estuaries are co-ordinating their approaches to landscape screening. Discussions are ongoing between the two projects and NGET to coordinate plans. The design for the NGET EACN project is too early in the development process, but when NGET has further developed proposals, the projects will consider those in the detailed design of their landscaping to ensure a coherent design approach is taken.

8.4.4 Further details will be included within the detailed written landscaping scheme secured within the draft DCO (Document Reference: 6.1) requirement 7.

## 8.5 Traffic and Transport

8.5.1 Under Scenario 1 North Falls and Five estuaries would share accesses from the public highway for onshore cable installation and substation construction. The projects would utilise and share the same Temporary Construction Compounds (TCC) for the cable installation works.

8.5.2 Under Scenario 2 with onshore cable trenching and ducting works undertaken independently there would be opportunities for reuse of enabling infrastructure including haul roads / site accesses, with the other project then reinstating the land once complete.

8.5.3 Construction access for both North Falls and Five Estuaries has been an important consideration with respect to alternative options considered. The location of the project's national grid connection point at NGET's EACN substation and the need for North Falls onshore substation to be located proximal to that results in at least 3km between the Strategic Road Network and the onshore substation at the nearest point.

8.5.4 Alternative options for accessing the onshore substation during construction were considered, including routing vehicles along the local road network via Little Bromley, Great Bromley, Ardleigh or Lawford. In order to minimise effects

on local communities, an option involving routing construction traffic from Bentley Road, then turning off onto the onshore cable route and utilising the off-road haul route for approximately 3km was proposed. Utilising the off-road haul route was selected to avoid impacts upon local communities as far practicable.

8.5.5 In arriving at this position North Falls and Five Estuaries have held joint meetings with both National Highways' and Essex County Council as part of the Expert Topic Group meetings to discuss the merits of this approach and agree the strategy for vehicle access during construction. As set out in section 7, there has been engagement with NGET over their access proposals with a collective approach agreed by North Falls, Five Estuaries and NGET.

8.5.6 It is understood at this stage NGET are proposing the use of Bentley Road to access its site for the construction of the EACN with further agreements under discussion. It is acknowledged that there would be a significant cumulative increase in traffic numbers along Bentley Road should all three projects overlap during construction and therefore all three projects have agreed on the requirement to improve the A120 / Bentley Road junction and widen Bentley Road.

8.5.7 Further details will be set out within each projects' Construction Traffic Management Plans as to how communication will be undertaken between projects and how traffic impacts will be managed between the projects, including for example communication around abnormal load delivery timings and routes.

## 8.6 Operational Noise

8.6.1 All three project substations (North Falls, Five Estuaries, EACN) are proposed to be situated in close proximity to each other and therefore consideration has to be given to avoiding any potential significant cumulative effects of operational noise.

8.6.2 The projects have agreed a maximum noise level at nearby identified Noise Sensitive Receptors based on current best practice (specifically BS 4142:2014+A1:2019 and World Health Guidelines) and site-specific measured data, such that the Lowest Observed Adverse Effect Level will not be exceeded. The maximum cumulative noise level has been apportioned to the three projects based on the respective location of, and the likely noise levels produced by, each of the substations. This affords individual limits reflective of the location of the receptors to each project. These limits at specific nearby receptors will be included in each respective projects DCO, which taken together will avoid any significant impact cumulatively.

8.6.3 It has been identified by the three projects that there needs to be a protocol to be followed in the event of complaints from the general public about noise during the operational period.

8.6.4 The projects have therefore committed to the production of a noise investigation protocol, which is secured by the three respective DCOs. Secured via Schedule 2 Requirement 17 of both the North Falls draft DCO (Document Reference: 6.1) and the Five Estuaries draft DCO.

## 8.7 Ecology - Offshore ornithology

8.7.1 North Falls is considering coordinating with other NSIPs including Five Estuaries on the delivery of proposed compensatory measures which form part of the North Fall's Habitats Regulations Assessment (HRA Derogation Provision of Evidence (Document Reference: 7.2). North Falls has produced a suite of documents setting out its proposed compensatory measures and the process followed in their development.

8.7.2 In summary, the ornithological features and their respective European sites for which compensation proposals are provided are: Lesser black-backed gull from the Alde Ore Estuary (AOE) SPA.

8.7.3 The Report to Inform the Appropriate Assessment (Document References: 7.1.1 – 7.1.6) concludes that an AEoI cannot be ruled out as a result of predicted mortality due to collision risk, when considered in-combination with other offshore wind farms. Consequently, North Fall's has provided proposals for compensatory measures which are secured in the draft DCO (Document Reference: 6.1), Article 51 and Schedule 15.

8.7.4 North Falls is proposing breeding habitat enhancement (e.g. predator exclusion, predator control, and/or disturbance management ) compensation measure for lesser black-backed gulls and has been in discussion with Five Estuaries to collaborate on and deliver the compensation proposals as far as reasonably practicable.

8.7.5 Discussions with other projects are ongoing regarding the offshore ornithology coordination and mitigation. North Falls will continue to engage with other NSIPs and Natural England in providing suitable compensatory measures in accordance with the Habitats Regulations.

## 8.8 Health and Safety

8.8.1 Health and Safety measures are designed to address potential hazards and risks associated with construction activities, thereby reducing the likelihood of accidents and injuries.

8.8.2 It is noted that whilst there is separate legislation which governs safety during the construction process, such as the Construction (Design and Management) Regulations 2015. It is important to understand the need for best-practice and coordination, to ensure that measures to improve and learn with respect to safety are documented across projects.

8.8.3 The potential safety measures are likely to encompass a wide range of protocols which will be determined once contractors are appointed by the projects. A significant degree of co-ordination could be required on measures such as (but not limited to):

- Risk Assessment: Prior to the commencement of any construction activity, a comprehensive risk assessment will be conducted to identify potential hazards. This will enable us to implement appropriate safety measures to mitigate these risks.
- Safety Training: All personnel involved in the project will undergo mandatory safety training. This will ensure that everyone is aware of the safety protocols and understands their role in maintaining a safe working environment.
- Emergency Response Plan: A detailed emergency response plan will be in place to ensure swift and effective action in the event of an accident or emergency.
- Regular Safety Audits: Safety audits will be conducted regularly to assess the effectiveness of the safety measures in place and to identify areas for improvement.

8.8.4 The Outline Code of Construction Practice (CoCP) (Document Reference 7.13) including the Dust Management Plan (DMP), the Soil Management Plan (SMP), the Construction Noise and Vibration Management Plan (CNVMP) which will be updated post-consent for the construction phase and will include reference to the example coordination measures identified above.

## 8.9 Decommissioning Coordination

8.9.1 An offshore decommissioning plan for North Falls would be prepared in accordance with the statutory provisions of the Energy Act 2004, which is also secured by requirement 25 of the draft DCO (offshore decommissioning) (Document Reference: 6.1). An onshore decommissioning plan is secured by

requirement 26 of draft DCO (onshore decommissioning) (Document Reference: 6.1) and must be provided to and approved by the relevant planning authority at least six months prior to decommissioning works taking place. It will consider other projects nearby that may be decommissioning at the same time, but due to a difference in proposed design lifetime, no commitments on collaborative decommissioning can be made at this time.

8.9.2 The current North Falls design life is 30 years as stated in Section 5.1 of ES Chapter 5 Project Description (Document Reference: 3.1.7).

8.9.3 Five Estuaries currently has a design life of between 24 and 40 years (as stated in Five Estuaries ES Chapter 1: Offshore Project Description section 1.14.1) (Five Estuaries Document Reference 6.2.1, APP-069), and NGET are currently looking at design lifetimes in excess of 40 years (mentioned in sections 4.10.8 and 4.10.9 of their PEIR report for cable sealing ends and underground cables).

8.9.4 As with any project it is difficult to ascertain the exact design life and sequencing for decommissioning ahead of construction being completed as there will be factors confirmed as part of detailed design that will influence the design life of the projects.

8.9.5 North Falls will engage with other projects ahead of any decommissioning alongside the existing Greater Gabbard and Galloper Wind Farms to ensure that where practicable, impacts arising from decommissioning are further mitigated through coordination opportunities.

8.9.6 Therefore, any decommissioning of the projects may not occur at the same time.

# 9. CONSENTING APPROACH AND DCO PROVISIONS

## 9.1 Introduction to consenting approach

9.1.1 This section sets out the draft DCO provisions that are aligned between North Falls and Five Estuaries to ensure that the schemes can be implemented satisfactorily in relation to one another. Furthermore, it sets out the provisions included within the draft DCO for connecting into the proposed EACN and the flexibility required to integrate with this project.

9.1.2 These provisions deal principally with matters related to coordinating the construction and delivery of North Falls, Five Estuaries, and ensuring compatibility with the proposed EACN.

9.1.3 Coordinating projects of this scale is challenging when balancing all of the relevant factors which include but is not limited to managing the temporal, spatial, technical, and commercial factors which all influence how the projects will interact in practical terms during delivery.

9.1.4 North Falls and Five Estuaries agreed to proceed with aligned or overlapping Order Limits onshore to allow for each project to progress independently whilst providing tangible and practical means of minimising the impacts arising from both construction and operation.

9.1.5 Without guarantees as to the timelines and programme for either project it has been necessary to agree a number of ‘delivery scenarios’ and ‘build options’ as highlighted in Section 6 of this Report.

9.1.6 Both projects needed to be developed with a design envelope for its onshore transmission infrastructure that would ensure the other project could be accommodated, while discussions continued on how the projects could coordinate under different delivery scenarios (given there was no guarantee the two project programmes will align).

## 9.2 Build Options with Five Estuaries

9.2.1 Part 1 Preliminary Article 2 Interpretations of the Draft Development Consent Order (Document Reference 6.1) states the following in relation to the build options:

- “build option 1” means the scenario in which the undertaker only constructs those works required for the North Falls Offshore Wind Farm grid connection and does not construct Work Nos. 6B or 12B;

- “build option 2” means build option 2A or build option 2B”
- “build option 2A” means the scenario in which the authorised project will deliver works to support grid connection co-ordination, including the laying of onshore cable ducts (Work Nos. 6B and/or 12B), for transfer to and/or use by another generating station or transmission licence holder under the 1989 Act, as part of co-ordination for grid connection works for offshore generation;
- “build option 2B” means the scenario in which the undertaker pulls cables through onshore cable ducts constructed by another generating station or transmission licence holder under the 1989 Act, as part of co-ordination for grid connection works for offshore generation;
- “build option 3” means the scenario in which the undertaker constructs only the offshore works;

## 9.3 Coordination with NGET and the proposed Norwich to Tilbury Project

9.3.1 Connection to the National Electricity Transmission Systems (NETS) will be at the EACN which is part of the Norwich to Tilbury overhead line DCO proposal. This connection will be made via cable circuits installed underground between the landfall and the grid connection.

9.3.2 A new onshore substation, for the Authorised Development, will be constructed in the vicinity of National Grid’s new EACN. The DCO includes an area for the construction of the cable connection to the EACN and acquisition of rights to install and retain the cables (Work No. 14).

9.3.3 Some flexibility is required in this area as it is not yet known where the connection to the substation will be created.

9.3.4 NGET are currently designing this substation, and the Applicant requires to be able to connect into the substation as directed by NGET having regard to the design of those works. Accordingly, the cable corridor currently allows connection to the substation at more than one point in order to be routed to any point around the EACN to ensure that the appropriate connection can be made once the connection location (which will be within Work No. 14) is specified by NGET.

## 9.4 Facilitating an Offshore Coordinated Connection

9.4.1 An offshore converter platform option has been included within the authorised development, to facilitate an offshore connection should that become feasible within appropriate timescales for North Falls. This is referred to as Build Option 3 within the draft DCO (Document Reference: 6.1).

9.4.2 The draft DCO (Document Reference: 6.1) includes sufficient provisions to allow for Build Option 3 should the circumstances arise, in the spirit of facilitating coordination.

# 10. SUMMARY AND COMPLIANCE WITH NATIONAL POLICY STATEMENTS WITH RESPECT TO COORDINATION

## 10.1 Introduction

10.1.1 This section of the Report sets out the relevant paragraphs of the NPSs (NPS EN-1, NPS EN-2, and NPS EN-3) and provides an assessment against the policies contained within them.

## 10.2 NPS EN-1

10.2.1 NPS EN-1 Paragraph 3.3.71 states:

*"The historical approach to connecting offshore wind resulted in individual radial connections developed project-by-project. This may continue to be the most appropriate approach for some areas with single offshore wind projects that are not located in the vicinity of other offshore wind and / or offshore infrastructure that is planned or foreseen in the near future. For regions with multiple windfarms or offshore transmission projects it is expected that a more coordinated approach will be delivered. For these areas, this approach is likely to reduce the network infrastructure costs as well as the cumulative environmental impacts and impacts on coastal communities by installing a smaller number of larger connections, each taking power from multiple windfarms instead of individual point-to-point connections for each windfarm."*

10.2.2 NPS EN-1 Paragraph 3.3.80 states:

*"Related to the above and considering the potential for unwarranted and avoidable disruption, inefficiency, and visual impacts along the onshore - offshore boundary, coordination of onshore transmission, offshore transmission, and offshore generation and interconnector developments should be considered at both the strategic and more detailed project design levels. This coordinated approach is likely to provide the highest degree of consumer, environmental, and community benefits."*

10.2.3 NFOW have engaged and coordinated at a strategic level with government and with other projects (notably Five Estuaries and Norwich to Tilbury) over a sustained period as outlined in Section 3 and 7 of this Report. This includes aligning with the objective of installing a smaller number of larger connections - in this case the coordinated substation developments – to mitigate the cumulative effects on the environment.

## 10.3 NP3 EN-3

10.3.1 NPS EN-3 Paragraph 2.8.35 states:

*"The previous standard approach to offshore-onshore connection involved a radial connection between single wind farm projects and the shore. A coordinated approach will involve the connection of multiple, spatially close, offshore wind farms and other offshore infrastructure, wherever possible, as relevant to onshore networks*."

10.3.2 The Project is consistent with the coordinated approach and the move away from a standard radial connection. The measures outlined in this Report demonstrate how North Falls, Five Estuaries, and NGET will work together to deliver new infrastructure.

10.3.3 NPS EN-3 Paragraph 2.8.48 states:

*"Applicants are encouraged to work collaboratively with those other developers and sea users on co-existence/co-location opportunities, shared mitigation, compensation and monitoring where appropriate. Where applicable, the creation of statements of common ground between developers is recommended. Work is ongoing between government and industry to support effective collaboration and find solutions to facilitate to greater co-existence/co-location."*

10.3.4 NFOW has been an active participant in the OTNR and OCSS and is committed to supporting government and industry in delivering offshore wind energy.

10.3.5 Section 7 of this Report describes how NFOW has led and worked collaboratively with other NSIP projects. This includes co-ordination with Five Estuaries on the cable route corridor and on the siting and location of the North Falls substation (in effect co-located with Five Estuaries). In addition to coordination with NGET on the location of the grid connection to the EACN. The draft DCO (Document Reference: 6.1) includes provisions (Section 9) to ensure these Projects can be delivered individually and collectively.

10.3.6 Section 8 of this Report describes the co-ordination approach to enhancement, mitigation, and compensation proposed by North Falls. It is noted that discussions are on-going with respect to compensatory measures for offshore ornithology and there is a commitment with other NSIPs to share and collaborate during delivery.

10.3.7 Paragraph 2.8.63 states:

*"It is expected that greater coordination of offshore-onshore transmission infrastructure is likely to reduce the cumulative environmental impacts and impacts on coastal communities by installing a smaller number of larger connections."*

10.3.8 Section 7.3 of this Report demonstrates the coordination between North Falls and Five Estuaries with respect to the landfall location of the offshore cables. By locating the Temporary Construction Compounds for both Projects adjacent to one another this would reduce the cumulative environmental effects with respect to noise, and landscape and visual.

10.3.9 NPS EN-3 Paragraph 2.8.87 states:

"*Where appropriate, applicants are also encouraged to consider monitoring collaboratively with other developers and sea users. Work is ongoing between government and industry to support effective collaboration and the development of monitoring at a strategic level.*"

10.3.10 NFOW is committed to ensuring that there is offshore collaboration with Five Estuaries during the construction period with respect to the offshore array, offshore cables, and cable crossings. This will include ongoing engagement with the Harwich and Haven Authority as the authority managing shipping and maritime navigation.

10.3.11 NPS EN-3 Paragraph 2.8.217 states:

"*Where several developers are likely to have cumulative impacts on the same species or feature it may be appropriate to collaborate on mitigation and compensation measures*…"

10.3.12 The Applicant has engaged with other developers regarding collaboration on potential compensation measures and where appropriate has referenced this in the derogation information set out in the HRA Derogation: Provision of Evidence) (Document Reference 7.2).

10.3.13 NPS EN-3 Paragraph 2.8.225 states:

*"Where cumulative impacts on subtidal habitats are predicted as a result of multiple cable routes, applicants for various schemes are encouraged to work together to ensure that the number of cables crossing the subtidal zone is minimised and installation/ decommissioning phases are coordinated to ensure that disturbance is reasonably minimised."*

10.3.14 The Applicant will continue to engage with other projects and stakeholders including Five Estuaries, NGET, and the Crown Estate with respect to cable crossings where practicable to reduce impacts on subtidal habitats and on shipping and navigation stakeholders.

## 10.4 NPS EN-5

10.4.1 NPS EN-5 Paragraph 2.12.6 states:

*"… a more co-ordinated approach to designing offshore transmission is expected to be adopted compared with the previous standard approach of radial routes to shore. This applies to spatially close groups of offshore windfarms, subsea 'onshore' transmission or bootstraps, interconnectors and multi-purpose interconnectors."*

10.4.2 NPS EN-5 Paragraph 2.13.1 states:

*"The strategic network designs such as those led or enabled by National Grid Electricity System Operator (ESO) will usually form the basis for identifying proposals for co-ordinated transmission. This includes the Holistic Network Design (HND) for offshore-onshore transmission prepared by ESO."*

10.4.3 NPS EN-5 Paragraph 2.13.4 states:

*"It is recognised that proposed projects which have progressed through strategic network design exercises have been considered for strategic coordination through those exercises. However, any opportunities for subsequent local coordination between projects, irrespective of whether they have been through those exercise, should be considered in project development. This is in addition to considerations on co-ordinating delivery in construction…"*

10.4.4 NPS EN-5 Paragraph 2.13.10 states:

*"The identification of co-ordinated solution options, and any radial option, should consider the criteria for designs to be deliverable and operable, economic and efficient, minimise impact on the environment and minimise impact on the local communities. Options should seek to identify the most appropriate balance between these criteria."*

10.4.5 North Falls and Five Estuaries have worked jointly together with NGET to ensure that there is the potential for connectivity offshore via the Sea Link interconnector project. This coordination has been informed by the work undertaken as part of the OTNR and OCSS programmes and North Falls has

taken a lead role in ensuring the options and feasibility for strategic offshore coordination is appropriately considered.

10.4.6 In addition local coordination has taken place with Five Estuaries with respect to: an aligned landfall location for the offshore export cables to come ashore, a shared onshore cable corridor, and an overlapping onshore substation zone for the co-location of their prospective substations.

10.4.7 NPS EN-5 Paragraph 2.13.11 states:

*"The coordinated solutions assessed should seek to be ambitious in the degree of coordination, wherever possible. This includes taking account of geographically proximate projects including opportunities to connect wind farms and multi-purpose interconnectors and/or bootstraps with each other that are planned or foreseen in the near future. Evidence should demonstrate that this has been considered in the assessment of options."*

10.4.8 North Falls, Five Estuaries, the Norwich to Tilbury Project, and Sea Link Project are all geographically proximate projects that have the potential to interact with one another. North Falls has engaged proactively as part of the OTNR and OCSS on the possibility of connecting offshore.

10.4.9 The flexibility within the text of the draft DCO (Document Reference: 6.1) allows for the opportunity to connect offshore via on offshore converter platform in the event the grid connection would take place offshore via the Sea Link HVDC interconnector. NFOW has been ambitious in exploring coordination opportunities at every stage in both the design and with the anticipated construction.

10.4.10 NPS EN-5 Paragraph 2.13.14 states:

*"Co-ordinated transmission proposals, including multi-purpose interconnectors and other types of offshore transmission (see Glossary), are expected to reduce the overall environmental and community impacts associated with bringing offshore transmission onshore compared to an uncoordinated, radial approach. These reduced impacts could, for example, relate to: fewer landing sites and reduced landfall impacts; reduced overall cable length and impacts; and fewer cable corridors and reduced impacts from these."*

10.4.11 North Falls and Five Estuaries have specifically coordinated to ensure the impacts on the environment and community are reduced where possible. North Falls and Five Estuaries will make landfall at the same location at Kirby Brook (under grid connection option 1 and option 2) thus ensuring the temporary impacts during construction of the transition joint bays are contained to a single location on the Tendring peninsula.

10.4.12 The onshore cable routes of the two projects will run immediately adjacent, with the footprint required for both covered by the onshore project area. This is to allow either project to install cable ducting for both projects to realise efficiencies in construction.

10.4.13 By coordinating the landfall location and the subsequent onshore cable route corridor the temporary cumulative impacts arising from construction of the cable route with respect to landscape, traffic and transport, and noise and vibration have been reduced. If separate onshore cable routes were to be pursued by North Falls and Five Estuaries then this would have likely spread the impacts to a greater geographical area (notwithstanding the cumulative effects) and this would have had further implications for the impacts on the environment and local communities.

10.4.14 North Falls and Five Estuaries engaged with shared consultant, working on behalf of both projects, for the development of the onshore cable route and is the route as proposed.

10.4.15 NPS EN-5 Paragraph 2.13.16 states:

> *"For onshore infrastructure, reduced impacts could, for example, relate to fewer or co-located substations and converter stations and transmission lines as well as demonstrating how environmental and community impacts have been avoided as far as possible."*

10.4.16 The onshore substations for North Falls and Five Estuaries have been co-located in the same location to the west of Little Bromley. ES Chapter 4 Site Selection and Assessment of Alternatives (Document Reference: 3.1.6) sets out the approach taken to establish a suitable onshore substation area. The Design Vision (Document Reference: 2.3) sets out the approach to the design and siting of the substation and the approach to the onshore substation works area with respect to landscaping, access, drainage, and earthworks.

10.4.17 North Falls and Five Estuaries originally commenced their substation site selection searches separately but following discussion with NGET and an establishment of the principle of the EACN in the proposed location they agreed that a joint co-located onshore substation zone would be beneficial.

10.4.18 Due to electrical requirements, separate cables and separate onshore substations are required for each project, and therefore construction of the Five Estuaries' cabling and onshore substation is not included within the North Falls application.

10.4.19 The outcome of coordination is an overlapping onshore substation zone with indicative locations of the respective substations on what is a co-located area. Should consent be granted detailed Landscaping plans will be prepared that

will take into account the final position of the Five Estuaries substation and vice versa in accordance with the principles outlined in Section 6 of the Design Vision (Document Reference: 2.3).

NPS EN-5 Paragraph 2.13.17:

*"Applicants are expected to be able to indicate how coordination including reduction in impacts have been considered drawing on work of others, including that led or enabled by National Grid Electricity System Operator (ESO)."*

10.4.20 North Falls and Five Estuaries have been engaged with NGET during the development of their proposals and continue to engage with NGET regarding the EACN as part of the Norwich to Tilbury Project.

10.4.21 At this stage in the development process NFOW are content that there are strong working relationships between the three parties (NFOW, VEOWL, NGET) and co-ordination will continue during the construction and delivery phases (should the NSIPs be granted development consent).

10.4.22 The build options are secured within the draft DCO (Document Reference: 6.1) and there are commitments made within the Environmental Statement with respect to environmental mitigation, as well as (without prejudice) compensatory measures with respect to protected species that NFOW has secured.

# 11. CONCLUSION

## 11.1 Conclusion

11.1.1 This Report demonstrates how NFOW has actively engaged in coordination at both a strategic and project level during the preparation of North Falls.

11.1.2 The scheme development phase of North Falls, alongside other NSIPs, has been approached in a systematic and open-minded manner to explore feasible options for offshore and onshore infrastructure coordination. This approach aims to minimise environmental and community impacts in a way that is proportionate and feasible to ensure that the efficiencies identified are deliverable.

11.1.3 **Strategic Coordination:** NFOW's involvement in government-funded coordination schemes such as the OTNR and OCSS demonstrates a standing commitment to strategic planning and collaboration with government (in DESNZ) and other NSIPs and stakeholders.

11.1.4 **Project-Level Engagement**: The proactive engagement with other NSIPs, particularly the Five Estuaries and NGET projects, has led to the development of coordinated design and siting options for onshore infrastructure including the cable route corridor and the substation location.

11.1.5 **Build Options and Delivery Scenarios**: North Falls, in collaboration with Five Estuaries have agreed a number of Build Options and Delivery Scenarios, and consulted with NGET on these options and scenarios. This ensures that there is sufficient flexibility for each Project to be delivered in their own right, but also to benefit from a co-ordinated approach in the event they overlap during construction.

11.1.6 **Policy Compliance**: The Report confirms that NFOW's coordination commitments align with the policy requirements set out in the National Policy Statements (NPS EN-1, NPS EN-3, and NPS EN-5), ensuring compliance with overarching energy and environmental objectives, and ensuring consistency with the ambitions of government to future proof offshore transmission connections (including interconnectors).

11.1.7 **Future Collaboration and Coordination**: NFOW pledges to continue engaging with the relevant parties to explore further co-ordination opportunities, with the intention of updating this report as necessary during the Examination period. At the same time securing commitments within the draft DCO (Document Reference: 6.1) via the specific provisions on co-ordination but also through the management plans secured within the DCO requirements.

11.1.8 In conclusion, North Falls exemplifies a model of responsible and co-ordinated infrastructure development, with a clear focus on reducing environmental impacts, adhering to national policies, and fostering collaborative relationships for the benefit of all stakeholders involved.

# APPENDIX A. JOINT STATEMENT FROM NORTH FALLS, FIVE ESTUARIES AND NATIONAL GRID: COMMITMENT TO EXPLORING COORDINATED NETWORK DESIGNS IN EAST ANGLIA (7 JULY 2022)

Joint statement from North Falls, Five Estuaries and National Grid: Commitment to exploring coordinated network designs in East Anglia - Published 7 July 2022

Onshore and offshore energy infrastructure are critical to delivering on the ambition for the UK to be Net Zero by 2050. As responsible developers, owners and operators of renewable generation and transmission infrastructure, we strongly support the government's ambition to make the UK the world leader in offshore wind. Delivering government ambitions of 50GW of offshore wind by 2030 will create green skilled jobs, strengthen UK security of supply, provide clean renewable power to fight climate change and help to reduce energy bills for British consumers.

National Grid Electricity Transmission (Sea Link), National Grid Ventures (Nautilus and EuroLink), North Falls (offshore wind farm) and Five Estuaries (offshore wind farm) are working together and exploring the potential for offshore coordination as part of the Offshore Transmission Network Review (OTNR) "Early Opportunities" workstream, with a view to identifying a future Pathfinder Project.

Offshore coordination of these projects could reduce, but not avoid, the need for coastal onshore infrastructure in east Suffolk and southern East Anglia and significant reinforcement of onshore infrastructure, such as the East Anglia Green project, is key to enabling a clean low carbon future irrespective of where energy comes ashore.

Whilst we welcome the progress the OTNR has made and recent publications from BEIS and the energy regulator, Ofgem, on enabling regulatory and policy changes, currently, the detailed commercial, regulatory and legislative frameworks needed to realise offshore coordination are not yet fully in place. We are working with the Government and Ofgem as they continue to progress the changes needed to enable greater coordination between these projects. So as not to impact the Government's 2030 offshore wind ambition, we continue to progress, in parallel, consent for grid infrastructure projects based on the existing regime.

North Falls

Five Estuaries

National Grid

https://www.gov.uk/government/publications/offshore-transmission-network-review-pathfinder-projects/joint-statement-from-north-falls-five-estuaries-and-national-grid-commitment-to-exploring-coordinated-network-designs-in-east-anglia [Accessed - 20 July 2024]

# APPENDIX B. JOINT STATEMENT FROM NORTH FALLS AND FIVE ESTUARIES OFFSHORE WIND FARMS AND NATIONAL GRID: PROJECTS WELCOME FUNDING TO ENABLE OPPORTUNITY TO EXPLORE COORDINATION FEASIBILITY – (DECEMBER 2023

Joint statement from North Falls and Five Estuaries Offshore Wind Farms and National Grid: Projects welcome funding to enable opportunity to explore coordination feasibility - Published December 2023

National Grid Electricity Transmission (Sea Link), North Falls (Offshore Wind Farm) and Five Estuaries (Offshore Wind Farm) have been working together to explore the potential for offshore coordination as part of the Offshore Transmission Network Review (OTNR)

“Early Opportunities” workstream. The projects acting together in a consortium led by North Falls welcome the decision from the Department of Energy Security and Net Zero (DESNZ) to provide grant funding through the Offshore Coordination Support Scheme (“OCSS”). The aim of the scheme is to develop and explore the feasibility of coordinated options for offshore transmission infrastructure.

The consortium applied for OCSS grant funding in February 2023. Following the grant announcement, the consortium will now undertake a series of studies and assessments to determine the feasibility, challenges and solutions to enable a co-ordinated offshore connection. This work will consider the economics, engineering & regulatory challenges, logistics and programme delivery aspects. The first step will be a high-level feasibility study which is expected to be available before the end of March 2024.

All three participating projects are delighted to have been awarded the grant funding. This support enables the projects to consider an alternative coordinated connection whilst, in parallel, continuing to progress existing radial proposals to ensure no delay in building the much-needed infrastructure to support the UK’s net zero targets (should the offshore coordination be determined as not deliverable). As beneficiaries of the grant, we will be required to share key learnings on how a coordinated offshore transmission approach could work.

The consortium strongly support the Government’s ambition to make the UK the world leader in offshore wind. The delivery of the UK Government’s ambition of 50GW of offshore wind by 2030 will create green skilled jobs, strengthen UK security of supply, provide clean renewable power to fight climate change and help to reduce energy bills for British consumers.

# APPENDIX C. TRIPARTITE POSITION STATEMENT

# Tripartite Position Statement

## March 2024

**Between**

Five Estuaries Offshore Wind Farm Limited

North Falls Offshore Wind Farm Limited

National Grid Electricity Transmission Plc

FIVE ESTUARIES OFFSHORE WIND FARM

NORTH FALLS Offshore Wind Farm

nationalgrid

# Tripartite Position Statement

This Statement sets out the agreed position between

- Five Estuaries Offshore Wind Farm Limited (Five Estuaries), being the promoter of the Development Consent Order application for the Five Estuaries Offshore Windfarm (Planning Inspectorate reference EN010115);
- North Falls Offshore Wind Farm Limited (North Falls), being the promoter of the Development Consent Order application for the North Falls Offshore Windfarm (Planning Inspectorate reference EN010119); and
- National Grid Electricity Transmission Plc (NGET), being the promoter of the Norwich to Tilbury Development Consent Order application (Planning Inspectorate reference EN020027).

All three being 'parties' and Five Estuaries and North Falls being collectively the 'OWFs'.

The parties have jointly prepared this Statement for submission to the Examination of their DCO applications. The parties will work together to update this as required for each Examination process.

Statement status and revisions:

| Revision | Date | Notes |
|---|---|---|
| A | [March 2024] | For submission with the Five Estuaries DCO application. North Falls DCO application is pre-submission, National Grid's DCO application is approaching statutory consultation. |
| | | |

## 1 PURPOSE OF THIS STATEMENT

1.1 This Statement provides information on the interrelationships between the parties' projects. The Statement has been prepared to support the Development Consent Order (DCO) applications for the three projects.

1.2 Noting that the three projects are at different stages in the development process. This Statement seeks to explain the interactions around the onshore project substation areas, where there is potential for co-ordination or overlapping interests. It is intended that this Statement is updated as required.

1.3 The two offshore windfarm (OWF) projects are separate joint ventures, with different shareholder groupings and are being developed as independent standalone projects. A specific North Falls / Five Estuaries Co-ordination Document is available, which sets out specific co-ordination details between the two offshore wind farm projects, particularly setting out different onshore delivery scenarios.

## 2 BACKGROUND

2.1 In response to policy in the updated National Policy Statements for energy and electricity networks infrastructure (specifically EN-1 and EN-5) on co-ordination and feedback from consultees identifying the need for closer coordination, the projects have worked together to align the three substation proposals and identify opportunities to minimise or control cumulative impacts.

2.2 The OWF projects both have grid connection offers to connect into a new East Anglia Connection Node (EACN) substation, being brought forward as part of the Norwich to Tilbury reinforcement Project. The siting study of the EACN, where the project connects into the national electricity transmission system, was undertaken by NGET.

2.3 NGET identified a search area on the Tendring Peninsula in Essex, which could be integrated as part of the Norwich to Tilbury reinforcement project, as an economic and efficient site for the EACN as set out in the Corridor and Preliminary Routeing and Siting Study published by NGET in 2022. In Q4 2022 NGET identified a EACN Land Take and furthermore a substation construction and operational footprint within which it is anticipated the EACN substation will be located.

2.4 The OWF projects and Norwich to Tilbury reinforcement project are being developed in parallel with the same ambition to be operational by 2030, with construction expected to start (subject to DCO confirmation) in early 2027. Throughout the development the project teams have met regularly to exchange design information and explore opportunities for coordination to reduce impacts on local communities.

2.5 Working together to streamline design and minimise local impacts is important to the Projects. A primary goal of coordination is to reduce the potential impact of building the substation for the three projects in the same location. Co-locating infrastructure is intended to reduce the overall environmental impact of the schemes and focus the impacts to a reduced area. The topics in which co-ordinated work has been undertaken are set out in section 5 below.

2.6 Should the projects receive development consent, these efforts will continue throughout the construction and operational phases.

## 3 OVERVIEW OF PROJECTS

### Five Estuaries Offshore Wind Farm

3.1 Five Estuaries Offshore Wind Farm Limited has submitted an application to the Planning Inspectorate on behalf of the Secretary of State, for a Development Consent Order for the Five Estuaries Offshore Wind Farm (herein referred to as VE) under section 37 of the Planning Act 2008.

3.2 VE is the proposed extension to the operational Galloper Offshore Wind Farm. The project includes provision for the construction, operation, maintenance and decommissioning of an offshore wind farm located approximately 37 kilometres off the coast of Suffolk at its closest point in the southern North Sea; including up to 79 wind turbine generators and associated infrastructure making landfall at Sandy Point between Frinton-on-Sea and Holland-on-Sea, the installation of underground cables, and the construction of an electrical substation and associated infrastructure near to the existing Lawford Substation to the west of Little Bromley in order to connect the development to National Grid's proposed East Anglia Connection Node substation, which would be located nearby. All onshore connection infrastructure would be located in the administrative area of Tendring District Council, within Essex County Council. VE will have an overall capacity of greater than 100 Megawatts (MW) and therefore constitutes a Nationally Significant Infrastructure Project (NSIP) under the Section 15 (3) of the Planning Act 2008.

### North Falls Offshore Wind Farm

3.3 North Falls is the proposed western extension to the southern array only, at the operational Greater Gabbard Offshore Wind Farm. The project includes provision for the construction, operation, maintenance and decommissioning of an offshore wind farm located approximately 42 kilometres off the coast of Suffolk at its closest point in the southern North Sea; including up to 57 wind turbine generators and associated infrastructure making landfall between Frinton-on-Sea and Holland-on-Sea, the installation of underground cables, and the construction of an electrical substation and associated infrastructure near to the existing Lawford Substation to the west of Little Bromley in order to connect the development to National Grid's proposed East Anglia Connection Node substation, which would be located nearby. All onshore connection infrastructure would be located in the administrative area of Tendring District Council, within Essex County Council. North Falls will have an overall capacity of greater than 100 Megawatts (MW) and therefore constitutes a Nationally Significant Infrastructure Project (NSIP) under the Section 15 (3) of the Planning Act 2008.

### National Grid Norwich to Tilbury and East Anglia Connection Node Substation

1.1 The way we generate electricity in the UK is changing rapidly and we are transitioning to cheaper, cleaner and more secure forms of energy, including new offshore windfarms. National Grid has a duty to facilitate new connections by making changes to the network of overhead lines, pylons, underground cables and other infrastructure that transports electricity around the country, so that everyone has access to the clean electricity from these new renewable sources. National Grid is currently developing the Norwich to Tilbury reinforcement scheme, which will provide connections for a number of new generation

facilities and facilitate the transportation of clean electricity from the north to south of England.

3.4 As part of that scheme, agreements are already in place with two offshore wind farm projects, Five Estuaries and North Falls, and are based on connection offers into a new East Anglia Connection Node (EACN) substation.

3.5 National Grid is commencing their Section 42 Statutory Consultation in Spring 2024 and intends to submit an application to the Planning Inspectorate on behalf of the Secretary of State, for a Development Consent Order for the Norwich – Tilbury project in mid 2025.

## 4 INTERACTIONS

4.1 The proposed NGET EACN 400kV Substation facilitates the connection of the offshore generation from the OWFs to the main National Electricity Transmission System. It will include HV transformers, reactors and other typical HV Plant and equipment. The two OWF projects will connect to the EACN with underground 400kV circuits from their own substations.

4.2 The OWFs DCO applications will include works for the cable connection between the new OWF substations and the NGET substation and works to facilitate the connection within the EACN substation compound,

4.3 The configuration of the OWF switchgear within the footprint of the NGET EACN substation will depend on a number of factors including the detailed design of the equipment required and the final layout of the proposed NGET EACN Substation.

4.4 As the exact location or layout of the NGET substation is not yet known the whole EACN construction and operational zone has therefore been included within the OWF Order Limits to ensure that the works required to connect the new OWF substations to the NGET EACN substation (as set out above) are encapsulated and have been appropriately assessed.

4.5 Currently, although the projects expect to make their DCO applications at different times, there is an expectation that the overall construction programmes of the three projects are likely to overlap and so it is expected that there will be the potential for cumulative construction impacts, which have been considered in the ES. The parties recognise this potential, particularly in relation to construction traffic accessing the three sites from the Strategic Road Network, but also recognise opportunities for collaborative working to mitigate effects to a substantive degree.

4.6 The Norwich-Tilbury construction programme for the EACN and the associated OHL/Cable installation works is due to commence Q1 2027 and complete in Q4 2031.

## 5 TRIPARTITE CO-ORDINATION - OWFS AND NATIONAL GRID

5.1 In line with good practice and the new policy considerations in the updated Energy NPS', particularly EN-5, *"2.14.2 the construction planning for the proposals has been co-ordinated with that for other similar projects in the area on a similar timeline;"*

5.2 Therefore, considerable work has been undertaken since the announcement of the grid connection points in 2022 with the objective of minimising the cumulative impacts associated with the projects. This has focussed on three key topics near to the substation:

(a) Traffic and Transport, particularly construction traffic

(b) Landscape and Visual, and

(c) Operational Noise

5.3 The three projects have undertaken independent options appraisals of construction access routes and shared proposals with a view to identifying a co-ordinated solution. NGET will be consulting on proposed temporary and permanent access arrangement to the EACN substation as part of its spring 2024 section 42 statutory consultations. In light of this the emphasis for the OWF projects has been to provide flexibility in their applications to allow for co-ordination with NG depending on their access proposals. This is discussed further in Section 6.

5.4 Independent, but co-ordinated design work is required to minimise impacts during the operation of the substations, this will include landscape proposals and management of operational noise.

5.5 Information has been shared between the projects to assist with Environmental Assessment.

## 6 TOPIC SUMMARIES

### Site Access

6.1 At this stage NGET is still to consult on its proposals for accessing site. The OWF projects have shared their proposals and have maintained flexibility within their designs to allow the potential for co-ordinated access proposals.

6.2 The working assumption is that NGET will use Bentley Road to access its site and therefore the Projects acknowledge there would be a significant cumulative increase in traffic numbers along Bentley Road and have all agreed on the requirement to improve the A120 / Bentley Road junction and widen Bentley Road.

6.3 Further details will be set out within each projects' Construction Traffic Management Plans as to how communication will be undertaken between projects and how traffic impacts will be managed between the projects, including for example communication around abnormal load delivery timings and routes.

### Operational Noise

6.4 All three project substations are proposed to be situated in close proximity to each other and therefore consideration has to be given to avoiding any potential significant cumulative effects of operational noise. The projects have agreed a maximum noise level at nearby identified Noise Sensitive Receptors based on the respective location of, and the likely noise levels produced by, each of the substations. This affords individual limits reflective of the location of the receptors to each project. These limits at specific nearby receptors will be included in each respective projects DCO, which taken together will avoid any significant impact cumulatively.

### Landscape Screening

6.5 A strategic approach is also being taken with regards to the mitigation planting associated with the onshore project substations. Whilst each project will have their own planting schemes, the OWFs are co-ordinating their approaches to landscape screening. The design for the NGET project is too early in the development process to incorporate a three way design to provide necessary visual mitigation for all three Onshore Substations. Discussions are ongoing between the OWFs and NGET to co-ordinate plans. When NGET has further developed proposals, the projects will work together to deliver a co-ordinated scheme for the three projects.

## 7 CO-ORDINATED COMMUNICATIONS

7.1 It is expected that a joined up approach to local liaison will be implemented during overlapping construction periods to enable stakeholders and the local community to receive co-ordinated updates and minimise confusion around who is carrying out what activity and where complaints and questions should be directed. Each project will set out its own approach in its control documents (e.g. Code of Construction Practice) Potential measures may include:

(a) Co-ordination between the communication teams of complaints and enquiries regarding the substation to ensure efficient handling of issues.

(b) Co-ordinated project updates with information from each project.

(c) Establishment of a liaison group for communities around the substation location to provide a platform for representatives of the community to receive updates and speak directly to representatives from the three projects.

(d) Co-ordinated provision of construction information, providing detailed information on how the construction activity will be carried out represented by the projects and key contractors.

## 8 ASSESSMENT APPROACH

8.1 In order for the OWF's to connect to the National Grid, the proposed National Grid Norwich to Tilbury Reinforcement Project and the associated EACN substation must be operational. National Grid has defined a construction and operational zone within which their EACN substation will be situated.

8.2 Despite its stage in the planning process, due to the OWF's reliance on this project for its connection to the National Grid, it has been given detailed consideration and treated with more certainty than other projects at similar stage in the planning process in the Cumulative Effects Assessment in each OWF projects Environmental Statement. To assist with the assessment, it has been necessary to make assumptions as to the siting, scale, form, and construction of the project, particularly the EACN substation. These assumptions have been checked and agreed to be appropriate and reasonable by NGET.

## 9 RELEVENT DCO DRAFTING

9.1 All three projects will include all the compulsory powers which would be needed to deliver their project in their DCO. The overlap in compulsory powers is being discussed between the parties to reach an agreed position as to how these will be managed and co-ordinated in practice.

9.2 Both OWFs will include the ability to compulsorily acquire rights over the land within which the EACN will be constructed to allow the projects to get their cables to the connection points which will be specified by NGET following detailed design. As those connection points are not yet known, the rights are sought over the whole area to allow flexibility to route the cables as required to meet the then current standards. The OWFs have agreed that they will not seek to acquire any existing land rights or apparatus of NGET. A commercial connection agreement will also manage the connection works between the parties within the proposed substation footprint. The OWFs have agreed to enter into reciprocal protective provisions to secure the delivery of both projects. These provisions provide each undertaker sufficient protection from overlapping development consent and

compulsory acquisition powers, providing sufficient assurance to each Examining Authority and the Secretary of State that each DCO can be granted as sought.

# APPENDIX D. LETTER FROM DESNZ TO COUNCILS ON OUTCOME OF OCSS

Department for Energy Security & Net Zero

**Department for Energy Security and Net Zero**
55 Whitehall
London, SW1A SHP

www.gov.uk

Council address

Our ref: OCSS Funding Decision
Your ref: OCSS Funding Decision

3rd September 2024

Dear Contact Name,

We are writing to notify you of the outcome of the decision on continuing funding for an offshore network coordination proposal in East Anglia, forming part of the Offshore Coordination Support Scheme (OCSS).

We recognise concerns of communities where offshore energy projects could not be included in the new strategic planning approach for electricity networks, as they already had legally binding connection agreements. The OCSS was implemented to explore the possibility for such well-advanced offshore energy projects to voluntarily coordinate infrastructure.

A consortium of North Falls and Five Estuaries (offshore windfarms), and Sea Link (an offshore transmission network reinforcement) received funding through the OCSS to develop a coordinated design. The consortium was awarded funding for the 2023/24 financial year to conduct a feasibility study, with the potential for a further tranche of funding for 2024/25, subject to a review point.

Based on the results of the feasibility study, we have determined not to continue the funding for this coordination proposal. The coordinated design would delay completion of the windfarms by approximately five years, preventing them from powering British homes and business with clean energy, and would also reduce their power output. By getting more renewable energy onto the grid more quickly, we will boost our energy independence and help to deliver on our mission for homegrown clean power by 2030.

Alongside this, the study also found that the offshore connection would increase development costs by up to £890 million. Independent estimates by the Electricity System Operator (ESO) indicate the coordinated design would also result in additional constraint costs of at least £1.5 billion over the project lifetime. These additional costs, which would lead to higher consumer bills, arise from issues with managing flows on the network resulting from the delays to the windfarms and the reduced efficiency of the design proposed under the scheme.

I hope you will understand the reasoning behind this decision and that you will appreciate the work done by the consortium and the Electricity System Operator (ESO) to explore the potential for alternative transmission options, through the OCSS and the ESO's East Anglia Study.

Coordination of transmission network infrastructure remains a priority for the government, and the feasibility work funded through the OCSS has provided valuable lessons which we will use for future policy making and share with industry. In recognition of the ongoing concerns of communities in East Anglia, we continue to engage with infrastructure developers in the

region to encourage collaboration between projects. This includes a working group of energy projects in the region, convened by government to encourage collaboration and reduce potential impact on communities.

Yours sincerely,

**Paul van Heyningen**
Deputy Director, Electricity Networks Strategy & Regulatory Policy

# APPENDIX E. JOINT STATEMENT FROM NFOW, VEOWL, NGET FOLLOWING DESNZ DECISION ON OCSS

# Joint Statement – OCSS

National Grid Electricity Transmission (Sea Link), North Falls (Offshore Wind Farm) and Five Estuaries (Offshore Wind Farm) have been working together to explore the potential for offshore coordination as part of the Offshore Transmission Network Review (OTNR) “Early Opportunities” workstream. The projects, acting together in a consortium led by North Falls, were awarded funding by the Department of Energy Security and Net Zero (DESNZ) through the Offshore Coordination Support Scheme (OCSS) in December 2023.

On 28 March 2024, the consortium submitted a high-level feasibility study that formed the first step of the grant funding agreement. The study assessed the feasibility of a coordinated offshore connection specifically: the capital costs; building blocks; construction and commissioning methodologies and overall programme associated with a coordinated solution.

The Secretary of State for Energy Security and Net Zero has reviewed this study, amongst other information and has decided not to grant further funding to the consortium. The feasibility study identified that coordination is technically feasible however, it also identified:

- an increase in capital costs of up to £890m
- constraint costs associated with an outage on Sea Link of over £500m*
- a programme delay for North Falls and Five Estuaries of up to five years

Given the significant extra costs and the negative impact on the delivery timeline of connecting more renewables to the UK energy system, especially considering the government's commitment to quadruple offshore wind and fully decarbonise the UK's electricity system by 2030, the consortium supports the Secretary of State’s decision and will not be further pursuing a coordinated offshore connection. We would like to thank DESNZ for its continued engagement throughout the grant term.

*This figure is attributed to the constraint costs associated with an outage on Sea Link in 2032/33 only.

NORTH FALLS

*Offshore Wind Farm*

## HARNESSING THE POWER OF NORTH SEA WIND

*North Falls Offshore Wind Farm Limited*

*It is being developed by a joint venture company owned equally by SSE Renewables and RWE.*

*To contact the project team please email contact@northfallsoffshore.com*



**North Falls Offshore Wind Farm Limited** Registered Address: Windmill Hill Business Park, Whitehill Way, Swindon, Wiltshire, SN5 6PB, United Kingdom

Registered in England and Wales Company Number: 12435947