NORTH FALLS

Offshore Wind Farm

Design and Access Statement

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Tables

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Glossary of Terms

Term	Definition
Cable ducts	Housing for the onshore export cables, typically comprising plastic high-density polyethylene (HDPE) pipes buried underground. Each cable circuit will require up to seven individual ducts (i.e. one per cable).
Climate Change	A change in global or regional climate patterns. Within this chapter this usually relates to any long-term trend in mean sea level, wave height, wind speed etc, due to climate change.
Cumulative effects	Additional changes caused by North Falls in conjunction with other similar developments or as a combined effect of a set of developments.
Five Estuaries	Five Estuaries Offshore Wind Farm.
Habitat	The environment of an organism and the place where it is usually found.
Haul Road	The track along the onshore cable route used to access different sections of the onshore cable route, the onshore substation and national grid substation connection works.
Landfall	The location where the offshore export cables come ashore at Kirby Brook.
Marine Scheme	The collective term for the various offshore elements of the project.
National Grid connection point	The grid connection location for the Project. National Grid are proposing to construct new electrical infrastructure (a new substation) to allow the Project to connect to the grid, and this new infrastructure will be located at the National Grid connection point.
Onshore cable corridor(s)	Onshore corridor(s) considered at PEIR within which the onshore cable route, as assessed at ES, is located.

Onshore cable route	Onshore route within which the onshore export cables and associated infrastructure would be located.
Onshore export cables	The cables which bring electricity from the offshore substation. These comprise High Voltage Alternative Currently (HVAC) cables and auxiliary cables, buried underground.
Onshore Converter Station	A facility within the Onshore Substation which converts electricity to the correct voltage before feeding it into the National Grid.
Onshore PEIR boundary	The boundary encompassing the Project landfall, onshore cable route and onshore substation, as considered within the PEIR.
Onshore Project Area	The boundary within which all onshore infrastructure required for the Project will be located (i.e. landfall; onshore cable route, accesses, construction compounds; onshore substation and 400kV onshore cable route)
Onshore Scheme	The collective term for the various onshore elements of the project.
Onshore substation	A compound containing electrical equipment required to transform and stabilise electricity generated by the Project so that it can be connected to the National Grid.
Scoping Opinion	A Scoping Opinion is adopted by the Secretary of State for North Falls.
Scoping Report	A report that is designed to ascertain which issues the Environmental Impact Assessment process should cover.
Stakeholder engagement	Refers to the voluntary engagement undertaken in addition to the statutory consultation requirements under the Planning Act 2008.
The Project or ‘North Falls’	North Falls Offshore Wind Farm, including all onshore and offshore infrastructure.

1. INTRODUCTION

1.1 Background

1.1.1 North Falls Offshore Wind Farm (the 'Project' or 'North Falls') will comprise an offshore generating station with a capacity exceeding 100 megawatts (MW). The Authorised Development is set out in Schedule 1 to the draft Development Consent Order (Document Reference: 6.1).

1.1.2 The Project is therefore classified as a nationally significant infrastructure project (NSIP) under sections 14(1)(a) and 15(3) of the Planning Act 2008 and requires development consent in accordance with section 31 of the Planning Act 2008.

1.1.3 North Falls would be developed as an extension to the existing Greater Gabbard Offshore Wind Farm (GGOW). GGOW is a 504MW (megawatt) offshore wind farm which has been operational since 2012 and generates enough low-carbon renewable energy each year to power the equivalent of more than 400,000 United Kingdom (UK) homes.

1.1.4 North Falls would comprise up to 57 offshore wind turbine generators and foundations, up to two offshore substation platforms (OSPs) and a platform interconnector cable, offshore cabling, onshore cabling, onshore substation, and connection to the national grid. The location of the project area is shown in the Location Plan (Offshore) (Document reference: 5.2) and in the Location Plan (Onshore) (Document Reference: 5.1).

1.2 The Applicant

1.2.1 North Falls is being developed by North Falls Offshore Wind Farm Ltd (NFOW) (the Applicant), which is a joint venture between SSE Renewables Offshore Windfarm Holdings Limited (SSER) and RWE Renewables UK Swindon Limited (RWE), both of which are highly experienced operators and developers of offshore wind projects. Both organisations are committed to developing renewable energy in the UK.

1.2.2 SSER is a leading developer, owner, and operator of renewable energy across the UK and Ireland, with a portfolio of operational onshore wind, offshore wind, and hydro energy projects. Part of the SSER strategy is to drive the transition to a net zero future through the world class development, construction, and operation of renewable energy assets.

1.2.3 RWE Renewables, a subsidiary of the RWE Group, is one of the world's leading renewable energy companies. The company has existing onshore and offshore wind farms, photovoltaic plants, and battery storage facilities with a

combined capacity of approximately 9GW. RWE Renewables is driving the expansion of renewable energy in more than 15 countries on four continents.

1.2.4 Lessons learned and experiences from previously consenting, constructing and operating this extensive portfolio of offshore wind farms have informed the design of North Falls, and provided an understanding of the potential impacts of the Project by drawing on available monitoring data.

1.3 Purpose of this document

1.3.1 The purpose of this Design and Access Statement (DAS) is to demonstrate compliance with the relevant national and local design policies.

1.3.2 The DAS has been written in concise and non-technical language (in so far as possible) to improve accessibility and allow greater public participation on the overall design proposals and in the context of the relevant planning policies.

1.3.3 The DAS sits alongside the Design Vision (Document Reference: 2.3) which sets out how design parameters, primary and secondary mitigation, landscape and ecological enhancements and biodiversity net gain measures interact to create an overarching Vision for the development of the Onshore Substation that respects its landscape and heritage context, with an accompanying set of coherent design principles to guide detailed design post-approval.

1.3.4 The Design Vision (Document Reference: 2.3) also contextualises the site and surroundings as well as considers the specific local planning guidance in relation to landscape, heritage, and design, and is focused on the design and layout of the Onshore Substation.

1.3.5 There is no specific guidance provided for the preparation of Design and Access Statements in relation to NSIPs. The focus of this DAS is to demonstrate that the relevant design policies have been given due regard in the development of the Project as a whole.

1.3.6 This DAS has had regard to the guidance produced by the Commission for Architecture and the Built Environment (CABE). This DAS has also had regard to the Planning Practice Guidance on making an application, whilst not applicable to NSIPs, the broad principles of the guidance are a useful reference point[1].

1.3.7 Lastly, this DAS also sets out how the provisions within the draft Development Consent Order (DCO) (Document Reference: 6.1) manage and control the design of the different onshore elements of the Project at the detailed design

[1] Making an application: Design and Access Statements, Department for Levelling Up, Housing and Communities, 2014.

stage. This includes through the limits of deviation, specific design parameters, and the requirements.

1.4 Design Approach

1.4.1 The final design of North Falls is not known at this stage. As such, North Falls has been designed using a 'Rochdale Envelope' approach which is employed when some details of a whole project have not yet been confirmed, for example the precise dimensions or appearance of structures.

1.4.2 Maximum development parameters are tested in the supporting documentation to cover all possible future design scenarios with flexibility where appropriate. Environmental Statement (ES) Chapter 6 EIA Methodology (Document Reference: 3.1.8) details the assessment methodology used.

1.4.3 The Project has incorporated comments received at the non-statutory and statutory consultations as well as from technical stakeholders as set out in detail within the Consultation Report (Document Reference: 4.1).

1.4.4 The Applicant is cognisant that part of good design includes ensuring that opportunities to collaborate with other nearby developments during the design and construction phases are pursued. The Project has sought to find opportunities for design collaboration with other NSIPs such as the Norwich to Tilbury Project proposed by National Grid which includes the East Anglia Connection Node substation (herein referred to as 'EACN') and the Five Estuaries Offshore Wind Farm (herein referred to as 'Five Estuaries'). Further detail on the specific co-ordination measures between the projects can be found in the Co-ordination Report (Document Reference: 2.5).

1.5 Structure of this report

1.5.1 This Report comprises of the following sections:

- **Section 2** provides a summary of the policy context for good design;
- **Section 3** outlines the design evolution of the project;
- **Section 4** outlines the design parameters and principles of the project;
- **Section 5** outlines the environmental design principles of the project;
- **Section 6** outlines how design is secured within the Development Consent Order;
- **Section 7** provides an assessment of the Project against the design policies withing the relevant National Policy Statements (NPS EN-1, NPS EN-3, and NPS EN-5), the National Planning Policy Framework (NPPF),

the relevant Tendring District Local Plan policies, and the draft Ardleigh Neighbourhood Plan 2021-2033 (2024); and

- **Section 8** provides a summary of the matters covered in this Report.

2. POLICY AND GUIDANCE CONTEXT

2.1 Planning Act 2008

2.1.1 The Planning Act 2008 (PA2008) is the primary legislation that established the legal framework for applying for, examining and determining applications for NSIPs.

2.1.2 The PA2008 makes provision for National Policy Statements (NPSs). NPSs are designed to set the policy framework for determination of NSIP applications. They 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.

2.1.3 NPSs are produced by the UK Government and set out national policy against which proposals for major infrastructure projects will be assessed. Planning decisions will be taken within the clear policy framework set out in the NPS making the decision-making process transparent.

2.2 Overview of relevant policy and guidance

2.2.1 The following national policy documents are relevant to design and access and considered in this DAS. They are as follows:

- Overarching National Policy Statement for Energy (NPS EN-1) (2023);
- National Policy Statement for Renewable Energy Infrastructure (NPS EN-3) (2023);
- National Policy Statement for Electricity Networks Infrastructure (NPS EN-5) (2023);
- National Planning Policy Framework (NPPF) (2023); and
- National Design Guide (2021).

2.2.2 The following local policy documents are relevant to design and access and considered in this DAS. They are as follows:

- Tendring District Local Plan Tendering District Local Plan 2013-2033 and Beyond-North Essex Authorities' Shared Strategic Section 1 Plan (Adopted 2021); and
- Tendring District Local Plan 2013-2033 and Beyond: Section 2 (Adopted 2022).

2.3 National Policy Statements

2.3.1 There are 12 National Policy Statements (NPSs) in total relating to different types of infrastructure projects, 3 of which are relevant to North Falls:

- Overarching National Policy Statement for Energy (NPS EN-1);
- National Policy Statement for Renewable Energy Infrastructure (NPS EN-3); and
- National Policy Statement for Electricity Networks Infrastructure (NPS EN-5).

2.3.2 The NPSs establish a policy expectation for achieving good design. The key policy requirements relating to design for each of the 3 relevant NPS's are summarised in Section 7 of this DAS alongside the assessment of compliance.

2.4 National Planning Policy Framework (2023)

2.4.1 The National Planning Policy Framework (NPPF) (2023) sets out the government's planning policies for England and how these are expected to be applied. While the NPPF does not contain specific policies for NSIPs, and NPSs are the primary policy framework against which NSIPs are determined, the NPPF still forms part of the Government's overall national planning policy and relevant in the determination of NSIPs.

2.4.2 The NPPF contains guidance on promoting sustainable transport; requiring good design; promoting healthier communities; conserving and enhancing the natural and historic environments; and meeting the challenges of climate change.

2.5 National Design Guide (2021)

2.5.1 The NPPF is clear that creating high quality buildings and places is fundamental to what the planning and development process should achieve. The National Design Guide (2021) illustrates how well-designed place that are beautiful, healthy, greener, enduring, and successful can be achieved in practice. It forms part of the Government's collection of planning practice guidance and should be read alongside the NPSs, NPPF and other guidance. Sustainability is a key aspect of well-designed places and is woven into the National Design Guide.

2.5.2 The focus of the National Design Guide (2021) is the creation of well-designed places as a whole but it can be used to provide guidance on how individual proposals can contribute to the overall objective of creating well-designed places.

2.5.3 The National Design Guide addresses the question of how we recognise well-designed places, by outlining and illustrating the Government's priorities for well-designed places in the form of ten characteristics which are as follows:

- Context – enhances the surroundings;
- Identity – attractive and distinctive;
- Built form – a coherent pattern of development;
- Movement – accessible and easy to move around;
- Nature – enhanced and optimized;
- Public Spaces – safe, social and inclusive;
- Uses – mixed and integrated;
- Homes and buildings – functional, healthy and sustainable;
- Resources – efficient and resilient; and
- Lifespan – made to last.

2.6 Local Planning Policy

The Adopted Development Plan

2.6.1 The North Falls onshore project area falls under the jurisdiction of Essex County Council, and Tendring District Council. The Development Plan comprises of the:

- Tendring District Local Plan 2013-2033 and Beyond: North Essex Authorities' Shared Strategic Section 1 (adopted January 2021, the 'Section 1 Plan');
- Tendring District Local Plan 2013-2033 and Beyond: Section 2 (adopted January 2022, the 'Section 2 Plan'); and
- Essex County Council Minerals Local Plan, July 2014.

2.6.2 There are no adopted Neighbourhood Plans that cover the Order Limits.

Local Planning Guidance

2.6.3 The following documents are considered to be pertinent relevant local guidance with respect to design and have been considered in detail within the Design Vision (Document Reference: 2.3):

- Tendring Landscape Character Assessment – LCA 7A, (TLCA, 2001);
- Essex Design Guide (EDG, 2018);
- Essex Sustainable Drainage Systems Design Guide (ESuDS, 2020);
- Essex Green Infrastructure Strategy (EGIS, 2020);
- Essex Tree Palette (ETP, 2018);
- Dedham Vale AONB Guidance on the selection and use of colour in development (July 2018); and
- Dedham Vale National Landscape Lighting Design Guide (2023).

Emerging Planning Policy/ Guidance

2.6.4 Essex County Council (ECC) are currently consulting on a draft Replacement Minerals Local Plan 2025 - 2040. The consultation opened on the 6th of February 2024 and closed at 5pm on the 19th March 2024. The emerging Minerals Plan will replace the current Minerals Local Plan 2014 – 2029 (adopted 2019), if adopted.

2.6.5 The emerging Minerals Plan is at the Regulation 18 stage so at an early stage in its preparation. ECC do not provide a definitive date for next steps but have indicated the next consultation (Regulation 19) may take place late 2024 or early 2025.

2.6.6 The draft Neighbourhood Plan for Ardleigh (2021-2023) (2024) covers a small portion of the Order Limits where the proposed onshore substation zone is located - specifically the National Grid East Anglia Connection Node (EACN substation area). The Ardleigh Neighbourhood Plan is scheduled to reach referendum stage in September 2024.

3. PROJECT EVOLUTION

3.1 Introduction

3.1.1 North Falls has been developed since February 2017, when the Crown Estate launched an opportunity for the operators of existing wind farms to apply for project extensions. The extension opportunity was identified to help achieve the urgent need for renewable energy and in recognition that extensions to existing offshore wind farms are a proven way of efficiently developing more offshore generating capacity.

3.1.2 Subsequently in August 2019, The Crown Estate confirmed that the Greater Gabbard Extension project, now known as 'North Falls', would be awarded an Agreement for Lease (AfL).

3.1.3 On the 16th of July 2021 the Applicant submitted a scoping report to the Planning Inspectorate and received a Scoping Opinion in August 2021 (Document Reference: 7.25).

3.1.4 The Applicant prepared a PEIR (Preliminary Environmental Information Report) in the format of an Environmental Statement (ES) that formed the basis of the project information submitted for statutory consultation. Following that consultation, the PEIR documentation has been updated into the final ES that accompanies the Application.

3.1.5 The Applicant has engaged in post-scoping, pre-application consultation with both statutory and non-statutory consultees, a series of regular consultation meetings with key stakeholders on technical matters, as well as with the public.

3.1.6 Statutory consultation been carried out, under the requirements of Sections 42, 47 and 48 of the PA2008. Resulting from this consultation the Applicant has made several changes to the design.

3.1.7 Several key areas where the North Falls scheme have evolved include:

- **Landfall established**: Following desk-based engineering and environmental review, alongside collaboration with Five Estuaries a landfall location has been narrowed with Kirby Brook identified as the least constrained and most technically feasible location for landfall due to the greater availability of space for incoming offshore cable routes for the North Falls and Five Estuaries projects (as four circuits).

- **Onshore Substation location**: identification of a combined onshore substation works area along Ardleigh Road, west of the village of Little Bromley has been identified with capacity to accommodate North Falls and Five Estuaries, realising efficiencies and minimising effects associated with construction activities.

- **Onshore Cable route**: Refined combined cable corridor reducing from 500m to a typically 90m-wide onshore cable route between landfall and onshore substations.

3.1.8 The design evolution of the North Falls scheme has been reported at each consultation stage and as such it is pertinent to detail how the design of the Project has evolved over time following each consultation. This Report is not a complete summary of the design response to consultation feedback. Instead, the consultation stages are used as reference points in the timeline of the Project to detail the design evolution.

3.1.9 Another key consideration in the design evolution of the Project has been the continued engagement with the Design Council and so this is briefly summarised in this Report. A full copy of all advice received from the Design Council is included in Section 9 of the Design Vision (Document Reference: 2.3)

3.2 Environmental Scoping

3.2.1 The Applicant entered into a formal Environmental Scoping exercise in July 2021. The purpose of this was to allow the Applicant to be clear on what the Local Planning Authority considered the likely significant effects of the Onshore Scheme.

3.2.2 The Planning Inspectorate issued the Scoping Opinion (Document Reference: 7.25) on behalf of the Secretary of State (SoS) on the 26 August 2021 which outlined the topics to be addressed as part of the ES along with comments on the methodology to be used for particular topics.

3.2.3 In addition, the response noted that to ensure high quality development that responds to and enhance local landscape character and distinctiveness, the siting and design of the proposed development should reflect local characteristics and, wherever possible use local materials. Account should be taken of local design policies, design codes and guides as well as guidance in the National Design Guide and National Model Design Code.

3.3 Consultation

3.3.1 In December 2021 National Grid Electricity Transmission (NGET) provided informal confirmation that the grid connection location for North Falls would be in the vicinity of Ardleigh, to the north-west of the Tendring Peninsula between Colchester and Manningtree. This enabled the site selection process for the onshore substation location and onshore cable route as outlined in ES Chapter 4 Site Selection and Assessment of Alternatives (Document Reference: 3.1.6)

3.3.2 A consultation was held over a six-week period from 25th October 2021 to 10th December 2021, allowing the applicant to introduce the Project to the public, share initial plans and gather feedback.

3.3.3 A second non statutory consultation was held over a seven-week period from 17th October 2022 to 9th December 2022

3.3.4 Following this in accordance with Sections 42, 47 and 48 of the PA2008 a Statutory Consultation was carried out closing in July 2023.

3.3.5 Finally, a third non statutory targeted consultation was held as a result of additional changes to the updated proposals following localised changes to the Projects onshore PEIR boundary. These localised changes resulted in additional land being include in the proposed Order Limits. This targeted consultation closed in April 2024.

3.3.6 A comprehensive account of consultation activities undertaken at all stages from non-statutory consultation through to statutory consultation is provided within Sections 4-12 of the Consultation Report (Document Reference: 4.1) which accompanies the Application.

3.4 Design Council Engagement

3.4.1 A daylong meeting was held with the Design Council's Design Review Panel in December 2023. This comprised an accompanied site visit, stopping at key viewpoints identified within the PEIR-stage Landscape and Visual Impact Assessment (LVIA), followed by an in-person briefing in Colchester. The Design Review Panel comprised a range of architects, landscape architects, ecologists and sustainability consultants.

3.4.2 Following the meeting a detailed Design Advice letter was issued. The letter and schedule identifying responses to the range of issues are included in the Design Vision Appendices (Document Reference: 2.3).

3.4.3 A second meeting with the Design Review Panel was held in March 2024. This was an online meeting which focused on the development of the landscape strategy. The letter and schedule identifying responses to the range of issues is included in the Design Vision Appendices (Document Reference: 2.3).

3.4.4 A third online meeting with the design review panel was held on the 17th June 2024. This meeting focused on the design team's response to the second advice letter and the measures taken to achieve the criteria for 'Good Design', as set out in NPS EN-1. Following the meeting a third Advice Letter was issued by the Design Council, and the specific changes incorporated into the Project and the feedback to be actioned post DCO consent are outlined in section 6.4 of the Design Vision (Document Reference: 2.3).

3.5 Grid Connection Optionality

3.5.1 One area of optionality is in relation to the National Grid connection point. As discussed in Chapter 1, NFOW is committed to working with the Department for Energy Security and Net Zero (DESNZ) to explore grid connection options and as such, NFOW has co-operated with the Offshore Transmission Network Review (OTNR) process. In addition, NFOW has applied to the Offshore Coordination Support Scheme (OCSS) in consortium with National Grid Electricity Transmission (NGET) and Five Estuaries Offshore Wind Farm Ltd (VE OWFL) for an offshore connection to Sea Link, a marine cable between Suffolk and Kent proposed by NGET as part of their Great Grid Upgrade. Therefore the option of an onshore connection must be retained in the interim. The following grid connection options are therefore included in the Project design envelope:

- Option 1: Onshore electrical connection at a National Grid connection point within the Tendring peninsula of Essex (discussed in Section 5.7), 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 route and onshore cable duct installation (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.

3.6 Delivery Scenarios

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

- 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 TCCs for the cable installation works.
- 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.

- 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.

3.6.2 Further information regarding the extent of co-ordination undertaken to date and future co-ordination of North Falls, Five Estuaries, and other NSIPs is included within Sections 3-8 of the Co-ordination Report (Document Reference: 2.5).

4. DESIGN AND ACCESS PARAMETERS AND CONSIDERATIONS

4.1 Introduction

4.1.1 The following section summarises the key design and access parameters related to the different onshore components of the Project, that will inform the final detailed design of the Project.

4.1.2 The Onshore Scheme comprises of three main elements.

- The Landfall Location;
- Buried onshore export cables located within the onshore cable route. These cables run from landfall at Kirby Brook to the onshore substation and National Grid substation; and
- The onshore substation for North Falls

4.1.3 Further details of the Onshore Scheme can be found in Section 5.6 and 6.7 of ES Chapter 5 Project Description (Document Reference: 3.1.7).

4.2 Use

4.2.1 An onshore connection (grid connection option 1 and 2) to the National Grid network is an essential requirement of the Project. Without the onshore connection the export of renewable power from the Marine Scheme to the wider network would not be possible.

4.2.2 It should be noted that potential for an offshore grid connection is included within the draft DCO (Document Reference: 6.1), further information in regard to this option (referred to as grid connection option 3) is provided within the Co-ordination Report (Document Reference: 2.5) and Section 5.3.1 of ES Chapter 5 Project Description (Document Reference: 3.1.7).

4.3 Layout

4.3.1 The final layout of the Onshore Scheme, including the cable route and Onshore Converter Station location is yet to be determined and will be constrained by operational, technical, constructional and policy requirements. Notwithstanding this, the Applicant has committed to a series of ‘design principles’ (as contained in the Design Vision (Document Reference: 2.3)) as part of the maximum design scenario which provides certainty on some

aspects of the design of the Onshore Scheme. These design principles are outlined in Section 5 of the Design Vision (Document Reference: 2.3) and summarised in this report.

4.4 Landscape

4.4.1 Impact upon the Historic Landscape Character of the Site during construction of the landfall and onshore export cables will be minimised by returning landscapes to their pre-construction condition and character, through a sensitive program of backfilling and landscaping post construction. Some assets may require recording prior to the construction process, and specific provisions made during backfilling and reinstatement.

4.4.2 The onshore substation will be designed to reduce the overall height and massing of associated structures where possible. Landscape proposals will include measures for the enhancement of local biodiversity during the substations operational period. This includes landscape screening of the onshore substation through hedgerow and woodland planting. The intention of the proposed landscape treatment is to help to integrate the onshore substation into the existing landscape of arable fields, woodlands, boundary trees and hedgerows. As the planting and landscaping matures over time it will further integrate with the surrounding context.

4.4.3 Committed landscape mitigation and biodiversity enhancement principles which include new hedgerow and woodland planting are outlined in the Design Vision (Document Reference: 2.3). The Design Vision (Document Reference: 2.3) and Outline Landscape and Ecological Management Strategy (OLEMS) (Document Reference: 7.14) also includes details on likely plant species, specifications and provides details on planting areas.

4.4.4 The site selection process has included consideration of landscape and visual criteria including landscape character and landscape susceptibility to change; landscape designations; principal visual receptors; and physical suitability of the site and potential for mitigation. This is detailed further in ES Chapter 30 Landscape and Visual Impact Assessment (Document Reference: 3.1.32).

4.5 Amount & Scale

4.5.1 The scale of the Onshore Scheme is primarily dictated by the operational and functional requirements of the Project. The key aspects include:

- The Landfall location: Following desk based engineering and environmental review, a potential landfall location of Kirby Brook was identified as the least constrained and most technically feasible location (and included sufficient space for Five Estuaries and North Falls landfall infrastructure);

- The onshore export cables route has been identified with the capacity to deliver four sets of cable ducts, with a varied width of between 72m-90m; and

- The onshore substation has been identified for an area of land near to little Bromley extending to a maximum platform area of 280m x 210m.

4.6 Appearance

4.6.1 Only manhole covers will be visually present along the cable route once the Onshore Scheme is complete, thereby limiting the need for design interventions.

4.6.2 The onshore substation will be the most visually prominent aspect of the Onshore Scheme. The onshore converter station will be contained within a permanent secure fenced compound.

4.6.3 The visual appearance of the onshore substation will be particularly influenced by the choice of construction materials, the configuration (both internally and externally), and extent of landscaping and screening.

4.6.4 To ensure effective use of land, landscaping will need to be used where appropriate in order to minimise the potential visual impacts of the new onshore substation. The Applicant has committed to a series of measures as part of the maximum design scenario. An example landscaping principle is the aim for no removal of mature trees or woodland and a commitment to microsite the onshore cable route around trees to avoid the need for replacement planting along the onshore cable route.

4.6.5 Figure 4.1 of this report below shows the existing vegetation and watercourses around the site.

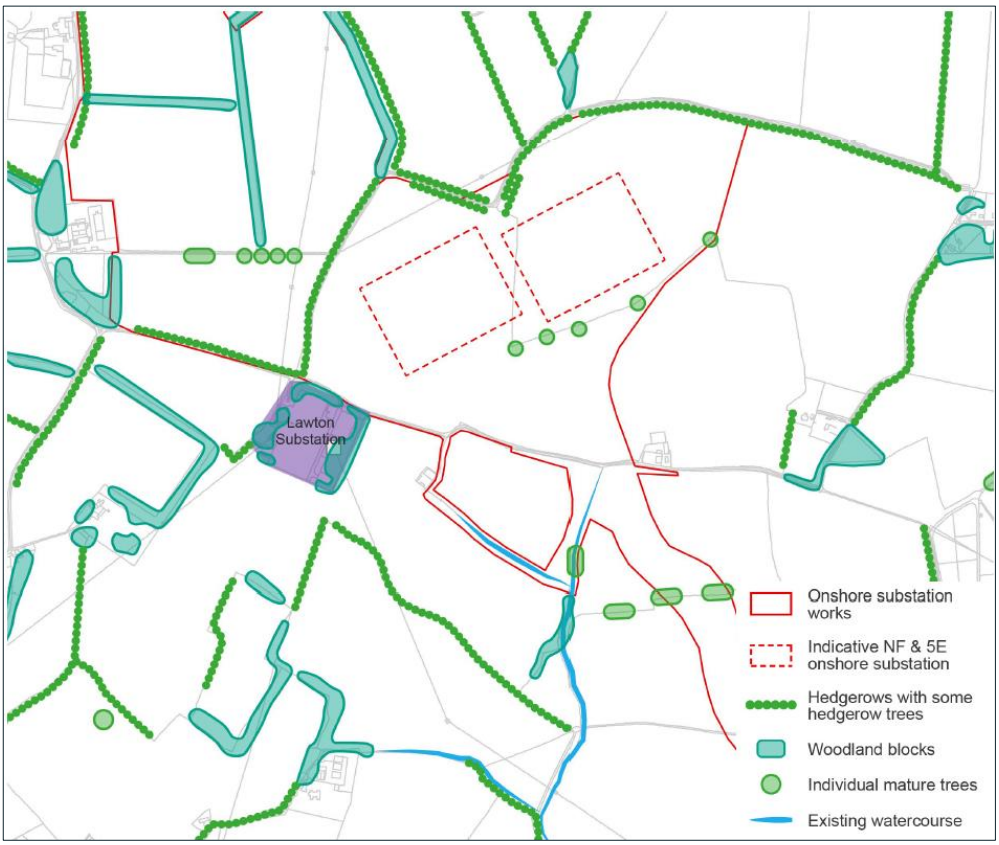

Figure 4.1: Existing vegetation and watercourses around the site (Design Vision, Chapter 4.2, page 25, Figure 3)

Security

4.6.6 Palisade fencing will likely be used for boundary treatments as it provides security and durability for which there is a need to ensure the safety of the public. Consideration will be given to the colour of the fencing to help better integrate it into the surrounding landscape. The height, position, and type of planting will be considered in the context of the palisade fencing to screen where practicable elements of the onshore substation.

Lighting

4.6.7 The use of artificial light will be minimised to levels that are sufficient to ensure the safety and security requirements are met but any consequential light scatter outside of the substation compound is minimised. Dark corridors around the site boundary and unlit areas should be maintained as to not disturb any local wildlife.

4.7 Access

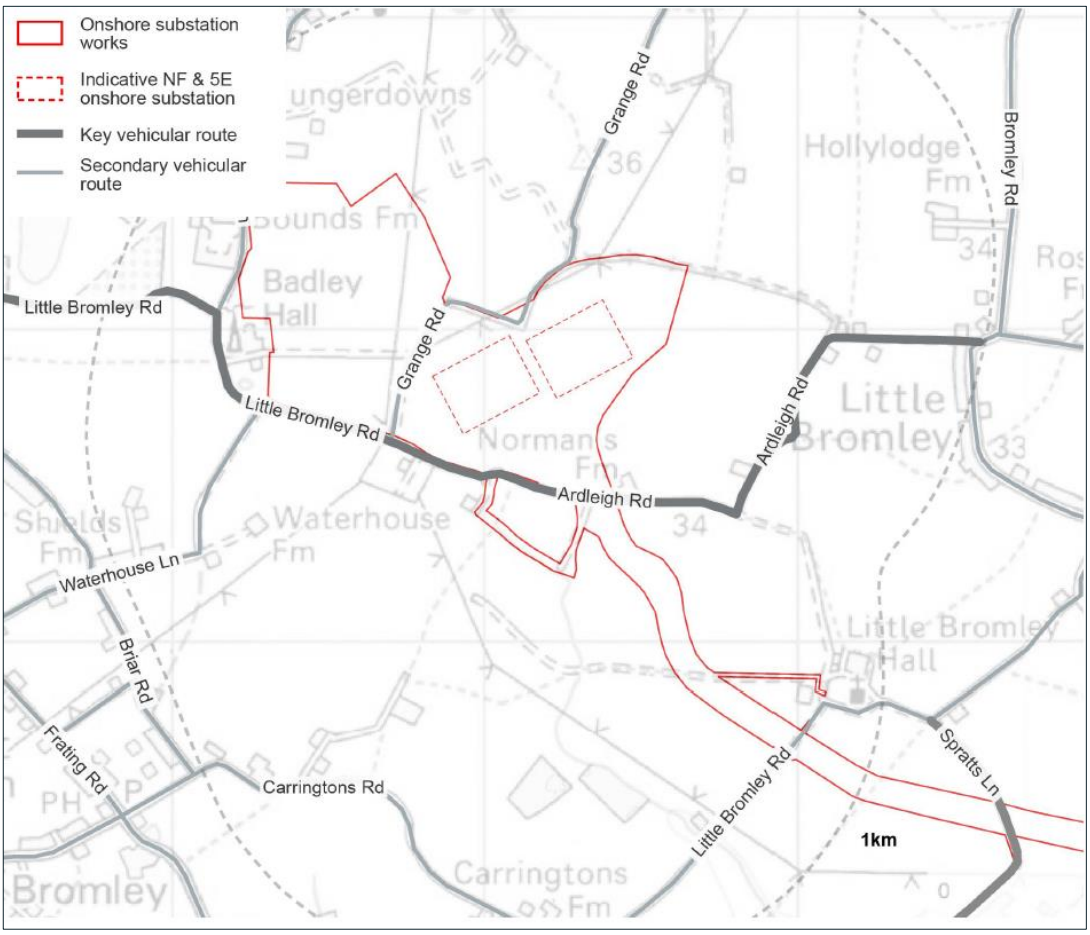

Figure 4.2: Existing vehicular routes around the site (Design Vision, Chapter 7.6, Page 59, Figure 4 (Document Reference: 2.3)

4.7.1 When developing a coordinated design onshore, North Falls and Five Estuaries have developed a series of possible build-out scenarios for both projects.

4.7.2 Under Scenario 1 North Falls and Five Estuaries would share access 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.

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

4.7.4 Under 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 Temporary Construction Compounds are reinstated prior to the second project proceeding.

4.7.5 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.

4.7.6 Alternative options for accessing the onshore substation during construction were considered as outlined in ES Chapter 4 Site Selection and Alternatives Assessment (Document Reference: 3.1.6), 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 as practicable.

4.7.7 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.

4.7.8 Personnel access to the underground cable infrastructure, including the ancillary infrastructure such as communications boxes, is required for maintenance purposes. Access to the underground cable infrastructure can be achieved through strategically placed manholes which provide sufficient opportunity to undertake maintenance activities. Personnel can access the manholes with the necessary equipment on foot and as such there is no requirement for permanent parking provision along the cable route.

4.7.9 The onshore substation once constructed will be unmanned; however, staff will periodically visit to carry out routine checks and maintenance. Most annual maintenance will be short, but, if necessary, some campaigns may be longer.

4.7.10 Based upon experience of operating similar sites the Applicant estimates that there could be a total of one LV and two HGVs at an approximate frequency of every two to four months.

4.7.11 Noting the very low numbers of vehicle movements during the operational phase, access to the onshore substation would be provided via Ardleigh Road with 'access management measures', such as the use of escort vehicles implemented to allow occasional HGV access to the onshore substation to pass oncoming traffic, reducing the potential for delays.

4.7.12 The Project's transformers are designed not to require replacement during the lifetime of the Project and as such, operational access to the onshore substation for abnormal loads is not anticipated to be required, however in the unlikely event that replacement is required access would either be via the new National Grid access or if not available, the temporary haul road would be reinstated from Bentley Road.

4.8 Site Plans

4.8.1 Figure 4.3 shows the zone of theoretical visibility of the onshore substation works area. The North Falls substation area is shown as Site 02 to the east and the Five Estuaries substation area is shown at Site 01 to the west.

4.8.2 Figure 4.4 shows the Outline Landscape Strategy Masterplan which shows the proposed planting and screening of the two substation areas for both North Falls and Five Estuaries.

Figure 4.3: Substation Sitting Zone Visibility (Figure 8 of the Design Vision (Document Reference: 2.3))

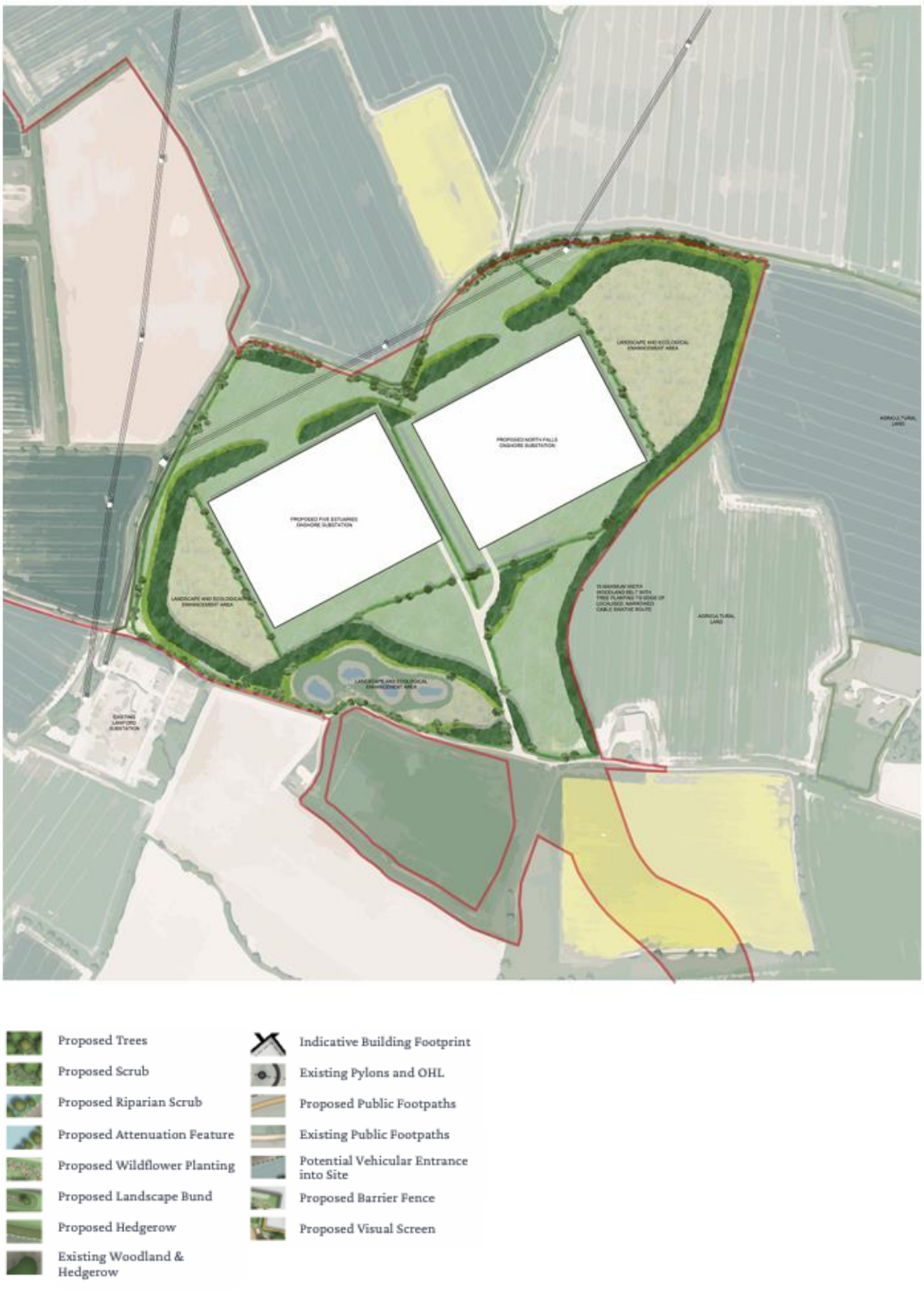

Figure 4.4: Outline Landscape Strategy Masterplan (Figure 20 Design Vision (Document Reference: 2.3)

5. DESIGN PRINCIPLES

5.1 Introduction

5.1.1 The evaluation of the site (Section 2), policy considerations (Section 2) and project evolution (Section 3) has led to the development of a series of design principles (as contained in the Design Vision (Document Reference: 2.3)) which will be used to inform the detailed design of the Onshore Scheme.

5.1.2 The design principles relate to the individual aspects of the Onshore Scheme: the landfall location; onshore export cables; and the onshore substation.

5.1.3 The Onshore Scheme (unless an offshore connection is pursued as per grid connection Option 3) will connect to the proposed East Anglia Connection Node (EACN) substation. The design of the connection to the existing substation is also subject to a very limited scope because of the operational restrictions and requirements imposed by National Grid.

5.1.4 The design principles are summarised here but outlined in full within the Design Vision (Document Reference: 2.3).

5.2 Landfall

5.2.1 The only infrastructure that will be visible above ground for the landfall aspect of the Onshore Scheme once complete will be the manhole covers which are required to gain access to the link boxes associated with the Transition Joint Bay ('TJB') for maintenance purposes.

5.2.2 The design principles related to the landfall aspect of the Onshore Scheme have been developed accordingly and can be summarised as follows:

- Ensure the material chosen for the manhole covers can withstand the saline environment due to its proximity to the sea.
- Situate the manhole covers in the least sensitive locations, where possible, in particular seek to minimise habitat loss.
- Seek to collate infrastructure together, such as communications boxes and links, to minimise the number of manhole covers required.

5.3 Onshore Export Cables

5.3.1 At this stage in the Project's design, an onshore cable route has been identified with the capacity to deliver grid connection Option 2, i.e. the installation of four sets of cable ducts (as required for North Falls and Five Estuaries). The cable route has been designed for a typical width of up to 72m in areas where open cut trenching is the proposed construction method, 90m where trenchless techniques are proposed and up to 130m in areas where the trenchless crossing is particularly complex. The only infrastructure that will be visible above ground for the onshore export cables once complete will be the manhole covers which are required to gain access for maintenance purposes.

5.3.2 The design principles related to the underground onshore export cables of the Onshore Scheme have been developed accordingly and can be summarised as follows:

- Ensure the material chosen for the manhole covers can withstand the saline environment due to its proximity to the sea.
- Situate the manhole covers in the least sensitive locations, where practicable, in particular seek to minimise habitat loss.
- Seek to collate infrastructure together, such as communications boxes and links, to minimise the number of manhole covers required.

5.4 North Falls Substation

5.4.1 The onshore substation will be contained within a permanent building with an associated secure fenced compound and will comprise the electrical infrastructure required to convert HVDC electricity into HVAC electricity for connection into the national grid, via the National Grid substation. The final size and configuration of the Onshore Substation has not yet been determined.

5.4.2 However, at this stage the design of the onshore substation has been designed to comply with the principle of 'good design' for energy infrastructure as outlined in NPS EN-1. The substation will be located near to Little Bromley within a maximum area of 280m x 210m to accommodate the onshore substation platform, along with a wider onshore substation works area. This works area will contain ancillary works including temporary construction works, access, drainage, landscaping and environmental mitigation.

5.4.3 The onshore substation will be an air insulated switchgear (AIS) design where high voltage equipment is installed outdoor with open air terminations and will accommodate several ancillary structures, as outlined in Section 5.4.7 of ES Chapter 5 Project Description (Document Reference: 3.1.7).

5.4.4 The largest structures within the Substation will be the SATCOM building with an approximate height of 10m, while the tallest height of any structure would be the lightning masts at 18m.

5.4.5 A permanent vehicular access is required to the onshore substation for operations staff to monitor and maintain electrical equipment and plant. Any permanent vehicular access will be a private single carriageway road with the appropriate drainage.

5.4.6 The onshore substation will be the most visually prominent aspect of the Onshore Scheme. As such, the design principles have been developed accordingly and can be summarised as follows:

- Seek to maximise perimeter landscaping as much as is practicable, including the retention of existing habitats where practicable.
- Ensure any new landscaping is in keeping with the local species.
- Seek to reduce the glare and spread of upward light from interior and exterior light, where practicable.
- Ensure the boundary treatments are designed and constructed using durable materials to minimise security risks.
- Ensure vehicular parking is designed in accordance with the LPA's Car Parking Standards.
- Liaise with the LPA Highways Team on the design of the private access road.
- Seek to identify the most direct vehicular access route, where practicable, to minimise the amount of material required.
- Seek to minimise the amount of exterior equipment by maximizing internal space due to the saline environment, security risks and potential visual impacts.
- Ensure the Onshore Substation is designed for a minimum of a 30 year lifespan through the choice of materials, layout and specification.
- Ensure the Onshore Substation configuration compliments the boundary treatments, landscaping and Site Context.

6. SECURING DESIGN WITHIN THE DEVELOPMENT CONSENT ORDER (DCO)

6.1 Design within the DCO

6.1.1 The core elements of the Onshore Scheme's design including the relevant project mitigations are secured via respective elements of the draft DCO (Document Reference: 6.1). Final details will be agreed with relevant stakeholders prior to discharge of the relevant DCO requirements and informed by the design and engineering needs.

6.1.2 The Application is based on a Maximum Design scenario that specifies a range of design parameters, rather than a fixed design. This provides flexibility of options where the full details are not known at the time of application and represents the 'worst case scenario'. This is outlined in greater detail within Section 5.3 Project Design Envelope, of ES Chapter 5 Project Description (Document Reference: 3.2.7).

6.2 Management Plans

6.2.1 An example of a mechanism within the DCO process which will be used to secure the Project's design are management plans. These will be pertinent and can be utilised for different elements of the Project.

6.2.2 Management plans are secured where necessary through the draft DCO (Document Reference: 6.1) and where relevant are to align with the design principles set out in the Design Vision (Document Reference: 2.3).

6.2.3 The following management plans and strategies submitted are relevant to the design and are as follows:

- Outline Project Environmental Management Plan (PEMP) (Document Reference: 7.6);
- Outline Onshore Written Scheme of Investigation (WSI) (Document Reference: 7.12);
- Outline Landscape and Ecological Management Strategy (OLEMS) (Document Reference: 7.14);
- Outline Horizontal Directional Drill Method Statement and Contingency Plan (Document Reference: 7.15);
- Outline Operational Drainage Strategy (Document Reference: 7.19); and

- Biodiversity Net Gain Strategy (Document Reference: 7.22)

6.3 Design Champion

6.3.1 In addition, the option of a Design Champion has been considered by the Applicant. The purpose of the design champion role is to enable and support the application of the Design Vision (Document Reference: 2.3) throughout the construction process.

6.3.2 Implementing and utilising this role through the construction period aims not only to secure a higher quality scheme for the end user, but also to deliver wider public benefits of an environmental, economic, and social nature.

6.4 Flexibility in design

6.4.1 The design parameters secured in requirement 6 of Schedule 1 Part 3 of the draft DCO (Document Reference: 6.1) are to provide sufficient flexibility in the delivery of the onshore substation within the limits of the 'Rochdale Envelope' as outlined within ES Chapter 5 Project Description (Document Reference: 3.1.7).

6.4.2 The following parameters relevant to the onshore substation are outlined within Table 5.27 of ES Chapter 5 Project Description (Document Reference: 3.1.7) and are as follows:

- The highest part of any building, any external electrical equipment or enclosure, excluding lightening rods, must not exceed a height of 13m above Ordnance Datum;
- The maximum footprint of the onshore substation platform must not exceed 280m x 210m; and
- The lightning rods within the fenced compound must not exceed a height of 18m above Ordnance Datum;

6.4.3 The above parameters have been applied to the environmental impact assessment prepared and presented in the Environmental Statement submitted with the Application.

6.4.4 The draft DCO (Document Reference: 6.1) also provides provisions for the grid connection option 3, whereby an offshore substation connection is pursued, as opposed to an onshore substation connection. Further information on this option and the background to an offshore connection is provided in the Co-ordination Report (Document Reference: 2.5).

6.5 Summary

6.5.1 In summary, the Project will continue to progress as part of a design process that will take place post consent, securing design principles to ensure the ideas and design commitments are carried through to delivery, and to ensure a robust design process overall.

7. COMPLIANCE WITH NATIONAL AND LOCAL DESIGN POLICIES

7.1 Introduction

7.1.1 The following section summarises the steps taken to ensure the Project has had due regard to the National Policy Statements (NPS EN-1, NPS EN-3, and NPS EN-5), the NPPF, the Tendring District Local Plan 2013-2033 and Beyond Sections 1 and 2 (2021,2022), and the draft Ardleigh Neighbourhood Plan (2020-2033) (2024) with respect to the policies relevant to design.

7.1.2 The Planning Statement (Document Reference: 2.2) provides an overall assessment of the Project against the relevant national and local planning policies.

7.2 National Policy Statement (NPS) Compliance

Overarching National Policy Statement for Energy (EN-1)

Table 7.1: NPS EN-1 Accordance Table

PARAGRAPH REFERENCE	NPS EN-1 POLICY WORDING ON DESIGN	ACCORDANCE WITH NPS EN-1
NPS EN-1 4.7.1	The visual appearance of a building, structure, or piece of infrastructure, and how it relates to the landscape it sits within, is sometimes considered to be the most important factor in good design. But high quality and inclusive design goes far beyond aesthetic considerations. The functionality of an object – be it a building or other type of infrastructure – including fitness for purpose and sustainability, is equally important.	With respect to the Onshore Scheme the Environmental Statement Chapter 4 Site Selection and Assessment of Alternatives (Document Reference: 3.1.6) sets out the process that was undertaken to establish a suitable landfall location, onshore cable route, and substation zone. In addition, the Design Vision (Document Reference: 2.3) sets out the approach to understanding the site context and character, and then outlines the design response that will be further guided by the design principles at the detailed design stage. The design process has sought to balance the functional requirements for the Onshore Scheme whilst at the same time considering the overall design and siting; this has included undergrounding cabling, minimising above ground plant, sensitively locating the onshore substation to avoid areas with adverse effects, and proposing appropriate landscape mitigation and biodiversity enhancements at the onshore substation.

PARAGRAPH REFERENCE	NPS EN-1 POLICY WORDING ON DESIGN	ACCORDANCE WITH NPS EN-1
		Coordination with Five Estuaries and National Grid has been an important factor in ensuring that the cumulative impacts on the onshore landscape are reduced, and the siting of both North Falls and Five Estuaries onshore substations within a co-located zone near to Ardleigh is an appropriate response to the local context. North Falls is predicted to have a moderate adverse (significant in EIA terms) effect on the landscape fabric and visual amenity of the study area surrounding the onshore substation during operation. The area within which significant effects would occur is approximately bounded by Ardleigh Road to the south, Grange Road to the south-west, Wormseywood Farm to the north, and the junction of Barn Lane and Ardleigh Road to the east. Significant visual effects are predicted at viewpoint 2, 3 and 5, which represent higher sensitivity residential or recreational receptors and are located within 1km of the onshore substation. No significant effects (in EIA terms) were identified for designated landscapes, including National Landscape designations. The offshore array area and its design and siting is constrained by a number of technical factors but principally, by its very nature of being an extension to the existing Greater Gabbard Offshore Wind Farm, it is geographically constrained. Section 4.4 of ES Chapter 4

PARAGRAPH REFERENCE	NPS EN-1 POLICY WORDING ON DESIGN	ACCORDANCE WITH NPS EN-1
		Site Selection and Assessment of Alternatives (Document Reference: 3.1.6) provides further details as to how the array area was determined. Section 29.11 of ES Chapter 29 Seascape, Landscape, and Visual (Document Reference: 3.1.31) provides a summary of the likely significant effects and concludes that during operation there are no significant effects predicted on the landscape character of onshore landscape character types and no significant effects on the special qualities of the Suffolk & Essex Coast & Heaths National Landscape from the proposed offshore array. Significant effects (moderate) are predicted on views from viewpoint 8-13 and on the Suffolk Coastal Path. The Applicant has sought to balance the functional requirements of the Project with other important factors such as the impacts on the landscape and seascape to ensure that overall, the Project represents good design. It is considered that the Project is in accordance with paragraph 4.7.1.
NPS EN-1 4.7.2 – 4.7.4	Applying good design to energy projects should produce sustainable infrastructure sensitive to place, including impacts on heritage, efficient in the use of natural resources, including land-use, and energy used	The Project has been sensitive to its surroundings and to place, including impacts on heritage (through avoidance of notable heritage sites and buried heritage) and in achieving an efficient land-use (for example by seeking to

PARAGRAPH REFERENCE	NPS EN-1 POLICY WORDING ON DESIGN	ACCORDANCE WITH NPS EN-1
	in their construction and operation, matched by an appearance that demonstrates good aesthetic as far as possible. It is acknowledged, however that the nature of energy infrastructure development will often limit the extent to which it can contribute to the enhancement of the quality of the area. Good design is also a means by which many policy objectives in the NPSs can be met, for example the impact sections show how good design, in terms of siting and use of appropriate technologies, can help mitigate adverse impacts such as noise. Projects should look to use modern methods of construction and sustainable design practices such as use of sustainable timber and low carbon concrete. Where possible, projects should include the reuse of material. Given the benefits of good design in mitigating the adverse impacts of a project, applicants should consider how good design can be applied to a project during the early stages of the project lifecycle.	minimise the length of the cable corridor and co-ordinating with Five Estuaries on the landfall location at Kirby Brook). Section 4.6, 4.8, and 4.9 of ES Chapter 4 Site Selection and Assessment of Alternatives (Document Reference: 3.1.6) sets out the approach to avoiding sensitive receptors in determining an appropriate location for the landfall, onshore substation, and cable route corridor respectively. The Design Vision (Document Reference: 2.3) sets out how the Project has evolved and how it has taken into consideration the surrounding character and been informed by feedback with the Design Council and other stakeholders. Section 1.2 of the Outline Code of Construction Practice (OCoCP) (Document Reference: 7.13) sets out the general principles that will be included within the detailed CoCP; this includes how the Project intends to ensure sustainable design practices by following a carbon management process (the PAS 2080:2023 Carbon Management in Buildings and Infrastructure) and following the ‘Best practicable means’ to minimise noise during construction. Other best practice methods of construction in relation to soil and waste management and the control of dust are included. ES Chapter 26 Noise and Vibration (Document Reference: 3.1.28)

PARAGRAPH REFERENCE	NPS EN-1 POLICY WORDING ON DESIGN	ACCORDANCE WITH NPS EN-1
		provides an assessment of the likely significant effects during construction and operation. The Project has sought to minimise construction impacts arising cumulatively through the shared landfall location and shared onshore cable route with Five Estuaries (in the event they are constructed at similar times). The Consultation Report (Document Reference: 4.1) sets out how the Project has engaged throughout the scheme development phase including with the Design Council and has had due regard to those responses. It is considered that the Project is in accordance with paragraphs 4.7.2 – 4.7.4.
NPS EN-1 4.7.5 – 4.7.6	To ensure good design is embedded within the project development, a project board level design champion could be appointed, and a representative design panel used to maximise the value provided by the infrastructure. Design principles should be established from the outset of the project to guide the development from conception to operation. Applicants should consider how their design principles can be applied post-consent. Whilst the applicant may not have any or very limited choice in the physical appearance of some energy	The Design Vision (Document Reference: 2.3) sets out the Design Principles for the onshore substation and Section 5 of this report sets out the matters considered with respect to onshore design. The Applicant remains committed to ensuring design matters are properly embedded in the development of the Project and the Applicant is considering a Design Champion for the detailed design phase of the Project. As outlined in Section 4.2.7 of the Design Vision (Document Reference: 2.3) there are opportunities which

PARAGRAPH REFERENCE	NPS EN-1 POLICY WORDING ON DESIGN	ACCORDANCE WITH NPS EN-1
	infrastructure, there may be opportunities for the applicant to demonstrate good design in terms of siting relative to existing landscape character, landform and vegetation. Furthermore, the design and sensitive use of materials in any associated development such as electricity substations will assist in ensuring that such development contributes to the quality of the area. Applicants should also, so far as is possible, seek to embed opportunities for nature inclusive design within the design process.	were identified in the proposed location of the substation that include a flat topography that provides flexibility and opportunities to increase planting and vegetation. In addition, opportunities to reinforce the pattern of field boundaries with new hedgerows and planting in keeping within the landscape character area. The onshore substation will avoid the use of reflective materials and the exact colour palette will be determined through the detailed design. Hard landscape features will also be sensitive to the local character and could include self-binding gravel, reinforced gravel surfaces, or reinforced grass where appropriate. It is considered that the Project is in accordance with paragraphs 4.7.5 – 4.7.6.
NPS EN-1 4.7.7 – 4.7.8	Applicants must demonstrate in their application documents how the design process was conducted and how the proposed design evolved. Where a number of different designs were considered, applicants should set out the reasons why the favoured choice has been selected. Applicants should consider taking independent professional advice on the design aspects of a proposal. In particular, the Design Council can be	Section 4.6, 4.8, and 4.9 of ES Chapter 4 Site Selection and Assessment of Alternatives (Document Reference: 3.1.6) sets out the approach to avoiding sensitive receptors in determining an appropriate location for the landfall, onshore substation, and cable route corridor respectively. Following confirmation of the onshore grid connection location by NGET three options were identified, with Kirby Brook being deemed most appropriate, due to the ability

PARAGRAPH REFERENCE	NPS EN-1 POLICY WORDING ON DESIGN	ACCORDANCE WITH NPS EN-1
	asked to provide design review for nationally significant infrastructure projects and applicants are encouraged to use this service. Applicants should also consider any design guidance developed by the local planning authority.	of this location to accommodate the onshore landfall works for both North Falls and Five Estuaries. The onshore substation site selection exercise undertaken was multi-disciplinary, iterative and consultative, seeking to ensure a breadth of information was used to inform the identification of locations for the project's infrastructure. This involved establishing an area of search, a long list, and then undertaking a 'Red Amber Green' (RAG) assessment of the long list. After which a series of further studies were undertaken (see Table 4.4 of ES Chapter 4) to reduce the uncertainties arising from the options. A further RAG of these options culminated in a preferred option known as the 'onshore substation zone' - covering two of the options identified during the initial long-listing process. Following feedback on the Preliminary Environmental Impact Report (PEIR) an onshore substation works area was identified in collaboration with Five Estuaries to form a combined area and is the area assessed in the ES. This area includes provision for ancillary infrastructure as listed in Section 4.8.5.2 of the ES Chapter 4 Site Selection and Assessment of Alternatives (Document Reference: 3.1.6).

PARAGRAPH REFERENCE	NPS EN-1 POLICY WORDING ON DESIGN	ACCORDANCE WITH NPS EN-1
		With respect to the onshore cable corridor there was a four-stage process undertaken as outlined in paragraph 107 of ES Chapter 4 Site Selection and Assessment of Alternatives (Document Reference: 3.1.6) that followed the Project's 'golden rules' (ES Appendix 4.1 Site Selection Goden Rules (Document Reference: 3.3.1.1). This generated an initial ten corridors that was then refined. The cable corridor - which is shared with Five Estuaries - was then further refined through a series of RAG assessments. Section 1.7 of the Design Vision (Document Reference: 2.3) sets out the process for engagement undertaken including activities prior to EIA Scoping and prior to the publication of the Preliminary Environmental Information Report (PEIR). This has included Expert Technical Group (ETGs) with stakeholders on design matters and public consultation. A series of formal reviews have been undertaken with the Design Council which comprises of independent experts. Section 2.3 of the Design Vision (Document Reference: 2.3) details the relevant local design guidance considered in the development of the Project and the design principles. The Coordination Report (Document Reference: 2.5) also provides specific reference to how

PARAGRAPH REFERENCE	NPS EN-1 POLICY WORDING ON DESIGN	ACCORDANCE WITH NPS EN-1
		the design has been considered alongside the Five Estuaries and National Grid EACN projects. It is considered that the Project is in accordance with paragraphs 4.7.7 – 4.7.8.
NPS EN-1 4.7.10 – 4.7.11	In the light of the above and given the importance which the Planning Act 2008 places on good design and sustainability, the Secretary of State needs to be satisfied that energy infrastructure developments are sustainable and, having regard to regulatory and other constraints, are as attractive, durable, and adaptable (including taking account of natural hazards such as flooding) as they can be. In doing so, the Secretary of State should be satisfied that the applicant has considered both functionality (including fitness for purpose and sustainability) and aesthetics (including its contribution to the quality of the area in which it would be located, any potential amenity benefits, and visual impacts on the landscape or seascape) as far as possible.	The Project has sought to respond appropriately to the site and its surrounding context recognising both opportunities and constraints. Good design and measures ensuring sustainable development have been embedded into the site selection process and the Project appropriately balances the need for efficient transmission infrastructure and its overall impacts on local communities and the environment both offshore and onshore. Impacts on landscape, seascape, and visual amenity have been key factors in determining the design of the Project and steps to reduce the cumulative effects arising from other projects has been considered, to reduce the impacts and where necessary ensure mitigation is effective such that the residual effects are reduced as far as practicable. Details of the mitigation secured as part of the Application are found in the Schedule of Mitigation (Document Reference: 2.6).

PARAGRAPH REFERENCE	NPS EN-1 POLICY WORDING ON DESIGN	ACCORDANCE WITH NPS EN-1
NPS EN-1 4.7.12 - 4.7.15	In considering applications, the Secretary of State should take into account the ultimate purpose of the infrastructure and bear in mind the operational, safety and security requirements which the design has to satisfy. Many of the wider impacts of a development, such as landscape and environmental impacts, will be important factors in the design process. The Secretary of State should consider such impacts under the relevant policies in this NPS. Assessment of impacts must be for the stated design life of the scheme rather than a shorter time period. The Secretary of State should consider taking independent professional advice on the design aspects of a proposal. In particular, the Design Council can be asked to provide design review for nationally significant infrastructure projects. Further advice on what the Secretary of State should expect applicants to demonstrate by way of good design is provided in the technology specific NPSs where relevant.	The operational requirements for the Project are set out in ES Chapter 5 Project Description (Document Reference: 3.1.7) with further details provided in the Cable Statement (Document Reference: 7.27) and the Safety Zone Statement (Document Reference: 7.23). As outlined in the sections above ES Chapter 4 Site Selection and Assessment of Alternatives (Document Reference: 3.1.6) details how sensitive receptors (including the landscape, habitats, and other environmental receptors) were considered in the site selection process. The Design Vision (Document Reference: 2.3) sets out how the Project responds to the site and its surroundings and how the detailed design will be informed by the design principles as set out in the Design Vision – for which there has been consistent stakeholder engagement and independent design reviews. Engagement with the Design Council has taken place prior to submission of the application across a series of meetings where their advice has helped inform the design. The Design Council's advice letters and the Applicant's responses to these letters are included in the Design Vision in Section 9 (Document Reference: 2.3).

PARAGRAPH REFERENCE	NPS EN-1 POLICY WORDING ON DESIGN	ACCORDANCE WITH NPS EN-1
		It is considered that the Project is in accordance with paragraphs 4.7.12 – 4.7.15.

National Policy Statement for Renewable Energy Infrastructure (EN-3)

Table 7.2: NPS EN-3 Accordance Table

PARAGRAPH REFERENCE	NPS EN-3 POLICY WORDING ON DESIGN	ACCORDANCE WITH NPS EN-3
NPS EN-3 2.5.1 – 2.5.3	Section 4.7 of EN-1 sets out the criteria for good design that should be applied to all energy infrastructure. Proposals for renewable energy infrastructure should demonstrate good design, particularly in respect of landscape and visual amenity, opportunities for co-existence/co-location with other marine and terrestrial uses, and in the design of the project to mitigate impacts such as noise and effects on ecology and heritage.	The Co-ordination Report (Document Reference: 2.5) sets out the approach taken to scheme development and the collaboration with Five Estuaries and National Grid, to try and limit the impacts with respect to landscape, visual amenity, traffic and transport, and other environmental mitigation. The proposed onshore substation zone that would include the substations for both North Falls and Five Estuaries would mitigate the likely cumulative effects arising from an alternative scenario of the two substations being located near to one another, but not co-located. The Applicant and six other offshore wind extension projects granted development rights in 2019 by the Crown

PARAGRAPH REFERENCE	NPS EN-3 POLICY WORDING ON DESIGN	ACCORDANCE WITH NPS EN-3
	Defra will consult on a series of Offshore Wind Environmental Standards (OWES) before drafting clear OWES Guidance. The OWES Guidance will aim to support the achievement of good design for offshore wind farms and/or offshore transmission infrastructure which is detailed in section 2.8.90.	Estate are necessarily constrained, in part, by their geographical positioning and the criteria under which they were granted rights. Therefore, whilst impacts have been mitigated there are limitations to the offshore mitigation available with respect to seascape and landscape effects. OWES have not yet been adopted however NFOW has prepared an Environmental Statement (Document References: 3.1.1 – 3.1.36) and Habitats Regulation Assessment (Document References: 7.1.1 – 7.1.6), and the Project complies with the relevant design policies contained within NPS EN-1 and NPS EN-5, the NPPF, as well as relevant local design guidance. It is considered that the Project is in accordance with paragraphs 2.5.1 – 2.5.3.

Table 7.3: NPS EN-5 Accordance Table

PARAGRAPH REFERENCE	NPS EN-5 POLICY WORDING ON DESIGN	ACCORDANCE WITH NPS EN-5
NPS EN-5 2.2.1 – 2.2.5	The Secretary of State should bear in mind that the initiating and terminating points – or development zone – of new electricity networks infrastructure is not substantially within the control of the applicant. Siting is determined by: • the location of new generating stations or other infrastructure requiring connection to the network, and/or • system capacity and resilience requirements determined by the Electricity System Operator. These twin constraints, coupled with the government's legislative commitment to net zero by 2050, strategic commitment to new interconnectors with neighbouring North Seas countries and an ambition of up to 50GW of offshore wind generation by 2030, means that very significant amounts of new electricity networks	NFOW note the fact that there are external factors which influence the location of the electricity networks infrastructure for North Falls. NFOW has been in discussion with National Grid with respect to the location of the EACN and have also created flexibility within the draft DCO (Document Reference: 6.1) with respect to the possibility of an offshore connection via the Sea Link Project (interconnector). NFOW has been a lead participant in the Offshore Transmission Network Review (OTNR) and Offshore Coordination Support Scheme (OCSS)) and is cognisant of the need to ensure strategic coordination with other NSIPs. Further information is provided within Section 3 of the Co-ordination Report (Document Reference: 2.5) as to the role of NFOW in this process and the status of the OTNR and OCSS. Whilst the Applicant is aware it retains control for identifying routeing it has sought to coordinate with Five Estuaries to reduce impacts on local communities and the environment by ensuring a shared landfall location, cable

PARAGRAPH REFERENCE	NPS EN-5 POLICY WORDING ON DESIGN	ACCORDANCE WITH NPS EN-5
	infrastructure is required, including in areas with comparatively little build-out to date. However, a strategic and holistic approach to onshore and offshore network planning, as set out in paragraphs 2.7 – 2.8, will identify the most efficient way of meeting decarbonisation targets and should reduce the overall amount of network infrastructure required. Additionally, applicants retain control in managing the identification of routing and site selection between the identified initiating and terminating points or within the development zone.	route corridor, and a co-located onshore substation works area for both project's substations. It is considered that the Project is in accordance with paragraphs 2.2.1 – 2.2.5.
NPS EN-5 2.2.6	Moreover, the locational constraints identified above do not, of course, exempt applicants from their duty to consider and balance the site-selection considerations set out below, much less the policies on good design and impact mitigation detailed in sections 2.4-2.9.	ES Chapter 4 Site Selection and Assessment of Alternatives (Document Reference: 3.1.6) details the site selection process undertaken and the relevant policies in relation to good design are considered in this Report and the Design Vision (Document Reference: 2.3). North Falls has pursued a co-ordinated approach with Five Estuaries to minimise the impacts where practicable arising from the two projects and to ensure a co-ordinated landfall location, onshore cable corridor, and onshore substation works area.

PARAGRAPH REFERENCE	NPS EN-5 POLICY WORDING ON DESIGN	ACCORDANCE WITH NPS EN-5
		Selecting locations as individual projects for the aforementioned infrastructure would have potentially resulted in a more simplified engineering solution for either project but the Applicant has recognised the importance of co-ordination and the need to work collaboratively with other NSIPs, in the context of the potential cumulative impacts and the policy requirements on co-ordination. It is considered that the Project is in accordance with paragraph 2.2.6.
NPS EN-5 2.2.7 – 2.2.9	The connection between the initiating and terminating points of a proposed new electricity line will often not be via the most direct route. Siting constraints, such as engineering, environmental or community considerations will be important in determining a feasible route. There will usually be a degree of flexibility in the location of the development's associated substations, and applicants should consider carefully their location, as well as their design. In particular, the applicant should consider such characteristics as the local topography, the possibilities for screening of the infrastructure and/or other options	Section 4.9 of Chapter 4 Site Selection and Assessment of Alternatives (Document Reference: 3.1.6) outlines the approach undertaken with respect to the onshore cable route including the collaboration undertaken with Five Estuaries to establish a corridor. Section 4.8 of Chapter 4 Site Selection and Assessment of Alternatives (Document Reference: 3.2.6) sets out the methodology for establishing an appropriate location for the onshore substation that has included suitable locations for co-locating with Five Estuaries' onshore substation. The methodology included identifying an area of search, then a long list, a short-list, and a further series of studies of the short-listed options.

PARAGRAPH REFERENCE	NPS EN-5 POLICY WORDING ON DESIGN	ACCORDANCE WITH NPS EN-5
	to mitigate any impacts. (See Section 2.10 below and Section 5.10 in EN-1.)	The onshore substation zone identified through this process is an approximately 60ha area located either side of Ardleigh Road to the east of the village of Ardleigh in Tendring district, Essex. Further refinement was undertaken post-PEIR in collaboration with Five Estuaries. Factors for both the substation and cable route that were considered included: existing utilities and environmental constraints (overhead lines, residential receptors; existing mature trees and drainage features; buried heritage); the availability of landscaping; drainage requirements; access; Horizontal Directional Drilling techniques for the installation of cables to reduce impacts on sensitive receptors; ongoing connection to the national grid; and technical electrical requirements. It is considered that the Project is in accordance with paragraphs 2.2.7 – 2.2.9.
NPS EN-5 2.2.10	As well as having duties under Section 9 of the Electricity Act 1989, (in relation to developing and maintaining an economical and efficient network), applicants must take into account Schedule 9 to the Electricity Act 1989, which places a duty on all transmission and distribution licence holders, in formulating proposals for new electricity networks	The Project has sought to minimise its impacts on the environment through a careful site selection process as outlined in ES Chapter 4 Site Selection and Assessment of Alternatives (Document Reference: 3.2.6) – See Section 4.6 with respect to identification of landfall location, Section 4.8 with respect to identification of the

PARAGRAPH REFERENCE	NPS EN-5 POLICY WORDING ON DESIGN	ACCORDANCE WITH NPS EN-5
	infrastructure, to "have regard to the desirability of preserving natural beauty, of conserving flora, fauna and geological or physiographical features of special interest and of protecting sites, buildings and objects of architectural, historic or archaeological interest; and …do what [they] reasonably can to mitigate any effect which the proposals would have on the natural beauty of the countryside or on any such flora, fauna, features, sites, buildings or objects.	onshore substation, and Section 4.9 with respect to identification of the onshore cable route. This exercise included considering a range of factors and sought to avoid sensitive receptors in the site selection process. For the Onshore Substation a series of further studies were undertaken as outlined in Table 4.4 of ES Chapter 4 Site Selection and Assessment of Alternatives (Document Reference: 3.2.6) to further refine the selected location. The site selection process included a constraint mapping exercise which considered the relevant factors. For example regard to 'natural beauty' was considered when including National Parks and National Landscapes, and registered parks and gardens. Regard to Flora and Fauna was considered with respect to designations such as SPAs, Ramsar sites, SSSIs, Ancient Woodland, and Local Nature Reserves. Regard to geological or physiographical features of special interest and of protecting sites was considered with respect to Flood Zones 2 and 3, agricultural land classification, and historic landfill sites. Regard to buildings and objects of architectural, historic or archaeological interest was considered with respect to including conservation areas,

PARAGRAPH REFERENCE	NPS EN-5 POLICY WORDING ON DESIGN	ACCORDANCE WITH NPS EN-5
		listed buildings, and scheduled monuments within the site selection process. Where likely significant effects could not be avoided appropriate mitigation is secured as outlined in the Schedule of Mitigation (Document Reference: 2.6). Overall it is considered that the Applicant has had due regard to regard to the desirability of preserving natural beauty, of conserving flora, fauna and geological or physiographical features of special interest and of protecting sites, buildings and objects of architectural, historic or archaeological interest and has where necessary reasonably mitigated any likely significant effects. The Environmental Statement (Document References: 3.1.1 – 3.1.36) and Habitats Regulation Assessment (Document References: 7.1.1 – 7.1.6) have appropriately considered the impacts of the Project with respect to the matters referred to in paragraph 2.210. It is considered that the Project is in accordance with paragraph 2.2.10.
NPS EN-5 2.2.11	Depending on the location of the proposed development, statutory duties under Section 85 of the Countryside and Rights of Way Act 2000, Section 11A of the National Parks and Access to the Countryside	The Applicant notes the amendments to Section 85 of the Countryside and Rights of Way Act 2000 that are relevant in this case.

PARAGRAPH REFERENCE	NPS EN-5 POLICY WORDING ON DESIGN	ACCORDANCE WITH NPS EN-5
	Act 1949 (as amended by Section 62 of the Environment Act 1995), and Section 17A of the Norfolk and Suffolk Broads Act 1988 may be relevant. Applicants should note amendments to each of these provisions contained in Section 245 of the Levelling Up and Regeneration Act 2023.	As stated in ES Chapter 30 Landscape and Visual Impact Assessment (Document Reference: 3.1.32) the site is not located in any nationally designated landscapes (National Parks or National Landscape) or locally designated landscapes (Areas of Special Character, as identified in the emerging Tendring District Local Plan 2013-2033 and beyond, publication draft). The Suffolk Coast and Heaths National Landscape is located outside of the study area being situated around 2km to the north. The Viewpoint assessment in ES Chapter 30 LVIA (Document Reference: 3.1.32) confirms that visibility from the National Landscape, towards the onshore substation zone is limited. Due to distance and the limited nature of actual visibility, landscape effects on the special qualities of the National Landscape are unlikely to be significant. The Dedham Vale National Landscape is located to the north-west of the study area. ES Chapter 30 LVIA (Document Reference: 3.1.32) outlines that the potential for notable views of the onshore substation from this designated landscape is considered unlikely, given the more inland location, narrower nature of the river corridor and intervening vegetation.

PARAGRAPH REFERENCE	NPS EN-5 POLICY WORDING ON DESIGN	ACCORDANCE WITH NPS EN-5
		The Project has committed to incorporating sensitive lighting to adhere to the guidance set out in the Lighting Design Guide for Dedham Vale National Landscape, wherever possible to preserve the dark sky environment. The Applicant notes that the amended duties under Section 85 of the Countryside and Rights of Way Act 2000 are placed on relevant authorities (which in this case does not include the Applicant). ES Chapter 30 Landscape and Visual Impact Assessment (Document Reference: 3.1.32) concludes no significant effects during operation on the National Landscapes aforementioned and therefore is consistent with the principle of conserving and enhancing the National Landscapes. The Applicant considers that the Project is consistent with the duty placed on the relevant authority to have regard to its duty to seek to further the purposes of conserving and enhancing the natural beauty of the National Landscapes, in this case the Suffolk Coast and Heaths National Landscape and Dedham Vale National Landscape. It is considered the Project is in accordance with paragraph 2.2.11.

Table 7.4: NPPF Accordance Table

PARAGRAPH REFERENCE	NPPF POLICY WORDING	ACCORDANCE WITH NPPF
NPPF 131	The creation of high quality, beautiful and sustainable buildings and places is fundamental to what the planning and development process should achieve. Good design is a key aspect of sustainable development, creates better places in which to live and work and helps make development acceptable to communities. Being clear about design expectations, and how these will be tested, is essential for achieving this. So too is effective engagement between applicants, communities, local planning authorities and other interests throughout the process.	The Design Vision (Document Reference: 2.3) sets out the process for developing the detailed design of the Onshore Scheme and sets out the design expectations through the design principles with which the design will be consistent with. The design process has sought to balance the functional requirements for the Onshore Scheme whilst at the same time considering the overall design and siting; this has included undergrounding cabling, minimising above ground plant, sensitively locating the onshore substation to avoid areas with adverse effects, and proposing appropriate landscape mitigation and biodiversity enhancements at the onshore substation. Section 4.6, 4.8, and 4.9 of ES Chapter 4 Site Selection and Assessment of Alternatives (Document Reference: 3.1.6) provides an explanation of the process undertaken

PARAGRAPH REFERENCE	NPPF POLICY WORDING	ACCORDANCE WITH NPPF
		by NFOW on the siting and location of the landfall location, onshore cable route, and onshore substation. This has included co-ordination with Five Estuaries and National Grid in relation to the East Anglia Connection Node substation. This coordination has led to a shared landfall location of Kirby Brook, a shared onshore cable corridor, and a co-located onshore substation zone for Five Estuaries and North Falls. This has reduced the cumulative impacts of developments and has been achieved through on-going engagement with the local community and other stakeholders including Tendring District Council and Essex County Council. It is considered that the Project is in accordance with paragraph 131.
NPPF 135	Planning policies and decisions should ensure that developments: a. will function well and add to the overall quality of the area, not just for the short term but over the lifetime of the development; b. are visually attractive as a result of good architecture, layout and appropriate and effective landscaping;	The principles contained within parts a) – f) are relevant to the Project notwithstanding the fact that this paragraph appears more readily applicable to commercial, residential, and other developments (of a different scale and type) that are not considered to be Nationally Significant Infrastructure Projects (NSIPs). Section 2.3 of the Design Vision (Document Reference: 2.3) sets out the various local planning and landscape character guidance that has been considered in the development of the Design Principles and the Outline

PARAGRAPH REFERENCE	NPPF POLICY WORDING	ACCORDANCE WITH NPPF
	c. are sympathetic to local character and history, including the surrounding built environment and landscape setting, while not preventing or discouraging appropriate innovation or change (such as increased densities); d. establish or maintain a strong sense of place, using the arrangement of streets, spaces, building types and materials to create attractive, welcoming and distinctive places to live, work and visit; e. optimise the potential of the site to accommodate and sustain an appropriate amount and mix of development (including green and other public space) and support local facilities and transport networks; and f. create places that are safe, inclusive and accessible and which promote health and well-being, with a high standard of amenity for existing and future users; and where crime and disorder, and the fear of crime, do not undermine the quality of life or community cohesion and resilience.	Landscape and Ecological Management Strategy (Document Reference: 7.14) sets out the Outline Landscape Strategy that has been informed by the local context (understood in landscape, visual, archaeological, ecological, noise, and drainage terms). The siting of the substation has taken into account the layout of surrounding development and sought to position it with sufficient distance to ensure the substation and landscaping will integrate within its setting. There is scope to enhance and reinforce the pattern of field boundaries, including new hedgerow planting with scattered trees, in keeping with the baseline characteristics of the receiving Landscape Character Area. Ensuring safety of electrical substations is an important factor in determining the boundary treatment and planting. It has been ensured that there is sufficient and safe setback between substation infrastructure and locations with public access. It is considered that the Project is in accordance with paragraph 135.
NPPF 137	Design quality should be considered throughout the evolution and assessment of individual proposals. Early discussion between applicants, the local planning	The Consultation Report (Document Reference: 4.1) sets out the overall approach to consultation undertaken by NFOW as part of both non-statutory and statutory

PARAGRAPH REFERENCE	NPPF POLICY WORDING	ACCORDANCE WITH NPPF
	authority and local community about the design and style of emerging schemes is important for clarifying expectations and reconciling local and commercial interests. Applicants should work closely with those affected by their proposals to evolve designs that take account of the views of the community. Applications that can demonstrate early, proactive and effective engagement with the community should be looked on more favourably than those that cannot.	consultation. ES Chapter 7 Technical Consultation (Document Reference: 3.1.9) sets out the approach taken with respect to the technical environmental matters. NFOW have consistently sought feedback and had due regard to it in the preparation and development of the Project itself. This has taken place at a strategic level with the government as part of the Offshore Coordination Support Scheme (OCSS) and Offshore Transmission Network Review (OTNR) and at a project-level with other NSIPs. In addition, there has been consistent engagement with local residents and the local planning and highway authorities. Chapters 7 and 12 of the Consultation Report (Document Reference: 4.1) provides a full summary of feedback received and how this has informed the Project. This has included regular meetings with the local authorities and consultation events with the general public. The Project has demonstrated an on-going dialogue with stakeholders and an enthusiasm to engage at all practicable opportunities. It is considered that the Project is in accordance with paragraph 137.

PARAGRAPH REFERENCE	NPPF POLICY WORDING	ACCORDANCE WITH NPPF
NPPF 139	Development that is not well designed should be refused, especially where it fails to reflect local design policies and government guidance on design, taking into account any local design guidance and supplementary planning documents such as design guides and codes. Conversely, significant weight should be given to: a. development which reflects local design policies and government guidance on design, taking into account any local design guidance and supplementary planning documents such as design guides and codes; and/or b. outstanding or innovative designs which promote high levels of sustainability, or help raise the standard of design more generally in an area, so long as they fit in with the overall form and layout of their surroundings.	The Project has, as outlined in the sections above, been well designed and responsive to local design guidance and the local context. The Project will continue to be appraised during detailed design (as outlined in the Design Vision) (Document Reference: 2.3) and this will ensure design quality in the final delivery of the onshore substation and associated infrastructure. It is considered that the Project is in accordance with paragraph 139.

7.3 Local Plan Policies – Design Compliance

7.3.1 It is noted that under Section 60 of the Planning Act 2008 notice must be given to the relevant local authorities inviting them to submit a local impact report following acceptance of an application. Typically, this includes an assessment against the relevant local planning policies although it is for the local authorities to decide on what basis they prepare their local impact report.

7.3.2 Furthermore, under Section 104(2)(b) of the Planning Act 2008 where a National Policy Statement has affect the Secretary of State must have regard to any local impact report.

7.3.3 The below table provides a comprehensive analysis of the relevant local planning policies related to design; however, the Applicant recognises that further information regarding relevant local policies may be provided within a local impact report for which the Applicant will respond to in due course.

7.3.4 The key design related policies within the Tendring District Local Plan 2013-2033 and Beyond: North Essex Authorities' Shared Strategic Section 1 (adopted January 2021, the 'Section 1 Plan'):

- Policy SP1 – Presumption in Favour of Sustainable Development;
- Policy SP7 – Place Shaping Principles;
- Policy SPL 3 - Sustainable Design;
- Policy PPL 3 - The Rural Landscape;
- Policy DI1 - Infrastructure Delivery and Impact Mitigation.

Table 7.5: Tendring District Local Plan Accordance Table

REFERENCE	TENDRING DISTRICT LOCAL PLAN 2013-2033	ACCORDANCE WITH LOCAL PLAN
Tendring District Local Plan Section 1 Plan		
SP1 Presumption in Favour of sustainable development	When considering development proposals, the Local Planning Authorities will take a positive approach that reflects the presumption in favour of sustainable development contained in the National Planning Policy Framework. The Council will work pro-actively with applicants to find solutions which mean that proposals can be approved wherever possible, and to secure development that improves the economic, social, and environmental conditions in the area.	The overall objective of the Project is to help deliver the UK Government's target of 50GW of offshore wind energy by 2030 and to improve the UK's ability to secure and control its energy needs. This is consistent with sustainable development as outlined in the NPPF and would deliver environmental, economic, and social benefits. The Onshore Scheme has been designed to respect its context and consider local distinctiveness of the natural, historic, and built environment. Section 4 of the Design Vision (Document Reference: 2.3) provides a detailed study of the local context in particular assessing the local landscape character of the area. It is considered the Project is in accordance with policy SP1.
Policy SP7 - Place shaping principles	All new development should:	Section 3 of the Design Vision (Document Reference: 2.3) outlines the local context with respect to the onshore substation, and how

REFERENCE	TENDRING DISTRICT LOCAL PLAN 2013-2033	ACCORDANCE WITH LOCAL PLAN
	• Respond positively to local character and context to preserve and enhance the quality of existing places and their environs; • Protect and enhance assets of historical or natural value; • Incorporate biodiversity creation and enhancement measures; • Enhance the public realm through additional landscaping, street furniture and other distinctive features that help to create a sense of place; • Include parking facilities that are well integrated as part of the overall design; • Include measures to promote environmental sustainability including addressing energy and water efficiency, and provision of appropriate water and wastewater and flood mitigation measures; and • Protect the amenity of existing and future residents and users with regard to noise, vibration, smell, loss of light, overbearing and overlooking.	this has been incorporated into the substation location and design. ES Chapter 25 Onshore Archaeology and Cultural Heritage (Document Reference: 3.1.27) outlines the mitigation measures undertaken to best conserve heritage assets in proximity to the Order Limits where practicable. The Biodiversity Net Gain Strategy (Document Reference: 7.22) sets out how the Project will increase biodiversity within the Order Limits. The amenity of local residents and their position as sensitive receptors has been considered. In particular two of the design principles regarding Site Layout consider impacts on local residents: • Reducing visual impact of the onshore substation in the local landscape and for visual receptors; and

REFERENCE	TENDRING DISTRICT LOCAL PLAN 2013-2033	ACCORDANCE WITH LOCAL PLAN
		• Creating a uniform arrangement that limits visual clutter and makes screening or visual mitigation possible. Early design discussions and design reviews with the local planning authority have been part of the development of the design of the Onshore Scheme and the Project will continue to protect the amenity of existing and future residents: during construction via the management plans to protect residents from noise, dust, and other construction impacts and during operation by ensuring the appropriate screening and landscaping is delivered. It is considered the Project is in accordance with policy SP7.
Tendring District Local Plan Section 2 Plan		
SPL 3 - Sustainable Design	Part A: Design – Development should make a positive contribution to the quality of the local environment and protect or enhance the local character, meeting the following criteria: • Relate well to its site and surroundings;	Section 2.3 of the Design Vision (Document Reference: 2.3) sets out the various local planning and landscape character guidance that has been considered in the development of the Design Principles and the Outline Landscape and Ecological Management

REFERENCE	TENDRING DISTRICT LOCAL PLAN 2013-2033	ACCORDANCE WITH LOCAL PLAN
	• Respect or enhance the local landscape; • Maintain or enhance important existing site features of landscape, ecological, heritage or amenity value; • Design boundary treatments and hard and soft landscaping as an integral part of the design.	Strategy (Document Reference: 7.14) sets out the Outline Landscape Strategy that has been informed by the local context (understood in landscape, visual, archaeological, ecological, noise, and drainage terms). The siting of the substation has taken into account the layout of surrounding development and sought to position it with sufficient distance to ensure the substation and landscaping will integrate within its setting. There is scope to enhance and reinforce the pattern of field boundaries, including new hedgerow planting with scattered trees, in keeping with the baseline characteristics of the receiving Landscape Character Area. Ensuring safety of electrical substations is an important factor in determining the boundary treatment and planting offsets. It is considered the Project is in accordance with Part A of policy SPL 3.

REFERENCE	TENDRING DISTRICT LOCAL PLAN 2013-2033	ACCORDANCE WITH LOCAL PLAN
SPL 3 - Sustainable Design	Part B: Practical Requirements – Development must meet practical requirements, meeting the following criteria: • Ensure access to the site is practicable and the highway network can safely accommodate additional traffic generated from the proposal; • The applicant/developer can demonstrate how the proposal will minimise the production of greenhouse gases and impact on climate change as per Building Regulations and planning policy requirements; • Provision is made for adequate private amenity space, waste storage and recycling facilities, vehicle and cycle parking; and • The development reduces flood risk and integrates sustainable drainage within the development, creating amenity and enhancing biodiversity.	Section 27.6 of ES Chapter 27 Traffic and Transport (Document Reference: 3.1.29) provides a full assessment of the Project with respect to the impacts on local roads. The Project has sought to coordinate with Five Estuaries in the development of the proposed haul road for the cable corridor and in the onshore substation works area. ES Chapter 33 Climate Change (Document Reference: 3.1.35) provides a full assessment of the likely significant effects with respect to Climate Change and concludes a significant beneficial effect with the implementation of mitigation measures. ES Appendix (Document Reference: 3.3.1.1-3.3.71) provides a full assessment of the flood risks of the Project. It concludes on the basis of the flood risk identified both to and from the Project, and consideration of both the Sequential Test and Exception Test, that the Project is appropriate in terms of flood risk and is in accordance with the NPS, NPPF and the supporting PPG. The Biodiversity Net Gain Strategy (Document Reference: 7.22) sets out the

REFERENCE	TENDRING DISTRICT LOCAL PLAN 2013-2033	ACCORDANCE WITH LOCAL PLAN
		approach to biodiversity enhancements. The Outline Landscape and Ecological Management Strategy (OLEMS) (Document Reference: 7.14) sets out how the Project will maintain the landscape and ecology over the 30 year period. It is considered the Project is in accordance with Part B of policy SPL 3.
SPL 3 - Sustainable Design	Part C Impacts and Compatibility – Development should be compatible with surrounding uses and minimise any adverse environmental impacts, meeting the following criteria: • Not have a materially damaging impact on the privacy, daylight or other amenities of occupiers of nearby properties; • Not have unacceptable levels of pollution; • Not materially harm through pollution from an existing or committed use the health safety or amenity or users of the proposed development; • During the construction phase comply with a 'considerate constructors' scheme';	The site selection process for the landfall, onshore cable route, and onshore substation as documented in ES Chapter 4 Site Selection and Assessment of Alternatives (Document Reference: 3.1.6) has included avoiding residential receptors. Table 20.56 of ES Chapter 20 Air Quality (Document Reference: 3.1.22) provides a summary of the likely significant effects of the Project. With the implementation of mitigation measures, North Falls is predicted to have no significant effects on air quality during all project phases. The Schedule of Mitigation (Document Reference: 2.6) sets out the full extent of

REFERENCE	TENDRING DISTRICT LOCAL PLAN 2013-2033	ACCORDANCE WITH LOCAL PLAN
	• Incorporate climate change adaptation measures and Technology from the outset; • Avoid adverse impacts upon the environment, or as a last resort compensate for adverse environmental impacts;	mitigation required as set out in the various Chapters of the ES. An Outline Code of Construction Practice (CoCP) (Document Reference: 7.13) has been developed which will be adhered to throughout the construction process. The CoCP will include an assessment of the potential risks to human health and controlled waters receptors posed by construction activities and will detail industry good practice measures that will be implemented to avoid, minimise and mitigate these potential impacts. The CoCP will also include a plan for dealing with unexpected contamination. An outline version of the CoCP has been submitted as part of the DCO application and will be secured within the final CoCP submitted post-consent as part of the requirements. ES Chapter 33 Climate Change (Document Reference: 3.1.35) provides a comprehensive summary of the potential effects of the Project on climate change, and proposed mitigation measures. These include, considering the impact of climate change when specifying trees and plants for planting

REFERENCE	TENDRING DISTRICT LOCAL PLAN 2013-2033	ACCORDANCE WITH LOCAL PLAN
		and drainage proposals accommodating 1 in 100 year + 45% allowing for future climate change. It is considered the Project is in accordance with Part C of policy SPL 3.
Policy PPL 3 The Rural Landscape	The Council will protect the rural landscape and will not support development which would cause an overriding harm to its character or appearance.	The Project has incorporated high quality landscaping design from the outset. The organisation of the site layout has been developed to retain key valued landscape, heritage, green and blue infrastructure and ensure new vegetation can successfully integrate within its surrounds. Measures to reduce the need for extensive cut and fill or retaining structures will be considered. Furthermore, existing features which contribute towards the character of the area, or amenity have been retained wherever possible and sympathetically incorporated into the overall design of the scheme, through a combination of hard and soft landscaping. In addition, a commitment has been made to use underground cable systems rather than overhead lines, to ensure that the existing

REFERENCE	TENDRING DISTRICT LOCAL PLAN 2013-2033	ACCORDANCE WITH LOCAL PLAN
		landscape will be able to continue to provide the current rural setting. Coordination with Five Estuaries and National Grid has been an important factor in ensuring that the cumulative impacts on the onshore landscape are reduced, and the siting of both North Falls and Five Estuaries onshore substations within a co-located zone near to Ardleigh is an appropriate response to the local context. North Falls is predicted to have a moderate adverse (significant in EIA terms) effect on the landscape fabric and visual amenity of the study area surrounding the onshore substation during operation. The area within which significant effects would occur is approximately bounded by Ardleigh Road to the south, Grange Road to the south-west, Wormseywood Farm to the north, and the junction of Barn Lane and Ardleigh Road to the east. Significant visual effects are predicted at viewpoint 2, 3 and 5, which represent higher sensitivity residential or recreational receptors and are located within 1km of the onshore substation. No significant effects (in EIA terms) were identified for

REFERENCE	TENDRING DISTRICT LOCAL PLAN 2013-2033	ACCORDANCE WITH LOCAL PLAN
		designated landscapes, including National Landscape designations. The offshore array area and its design and siting is constrained by a number of technical factors but principally, by its very nature of being an extension to the existing Greater Gabbard Offshore Wind Farm, it is geographically constrained. Section 4.4 of ES Chapter 4 Site Selection and Assessment of Alternatives (Document Reference: 3.1.6) provides further details as to how the array area was determined. Section 29.11 of ES Chapter 29 Seascape, Landscape, and Visual (Document Reference: 3.1.31 provides a summary of the likely significant effects and concludes that during operation there are no significant effects predicted on the landscape character of onshore landscape character types and no significant effects on the special qualities of the Suffolk & Essex Coast & Heaths National Landscape. from the proposed offshore array. Significant effects (moderate) are predicted on views from viewpoint 8-13 and on the Suffolk Coastal Path.

REFERENCE	TENDRING DISTRICT LOCAL PLAN 2013-2033	ACCORDANCE WITH LOCAL PLAN
		The Applicant has sought to appropriately balance the functional requirements of the Project with other important factors such as the impacts on the landscape and seascape to ensure that overall the Project represents good design and responds positively to the local context. This approach has been developed in consultation with the Design Council and the local planning and highway authorities. It is considered that the Project is in accordance with policy PPL 3.
Policy DL1 Infrastructure Delivery and Impact Mitigation	All new development should be supported by, and have good access to, all necessary infrastructure.	The Project, as an extension to the existing Greater Gabbard Wind Farm, has been designed in order to make best use of existing facilities and infrastructure, whilst making appropriate provision for new or additional infrastructure as required during both the construction and operation. Co-ordination between North Falls and Five Estuaries has been undertaken to ensure that both projects have a deliverable and feasible project – this includes a suitable landfall

REFERENCE	TENDRING DISTRICT LOCAL PLAN 2013-2033	ACCORDANCE WITH LOCAL PLAN
		location, a shared cable route, and a co-located substation zone. It is considered that the Project is in accordance with policy DL1.

7.4 Neighbourhood Plan Policies

7.4.1 As noted in section 2.6 of this report there are no adopted Neighbourhood Plans that cover the Order Limits in its entirety. However, the draft Ardleigh Neighbourhood Plan (2020-2033) (2024) does cover a small portion of the onshore Order Limits in the northern substation area where the National Grid EACN substation is proposed (see Work No. 14 of the draft DCO (Document Reference: 6.1). It should be noted that this very small section of the Order Limits is within the very edge of the neighbourhood plan area and not within the village envelope of Ardleigh as set out in the plan.

7.4.2 The draft Ardleigh Neighbourhood Plan (2020-2033) (2024) is due for referendum in September 2024 according to the plan webpage.

7.4.3 For completeness an assessment of the relevant design policies of the draft neighbourhood plan has been undertaken. Although the Applicant notes that there are relevant NPSs (NPS EN-1, NPS-EN3, NPS EN-5) which have effect under Section 104(2)(a) of the PA2008 and therefore, given the primacy of the NPSs and the limited geographical area within which the neighbourhood plan applies with respect to the Order Limits of the Project as a whole, it is therefore considered that the draft Ardleigh Neighbourhood Plan (2020-2023) (2024) is of limited weight at this stage, for the reasons aforementioned and given it has not been adopted at the time of submission.

Table 7.6: draft Ardleigh Neighbourhood Plan Accordance Table

POLICY REFERENCE	DRAFT ARDLEIGH NEIGHBOURHOOD PLAN	ACCORDANCE WITH NEIGHBOURHOOD PLAN
Policy EP Natural, Built & Historic Environment	Development which is consistent with all other relevant Neighbourhood Plan policies will be supported provided its design pays due regard to the contents of the Village Design Statement.	The site selection process as documented in ES Chapter 4 Site Selection and Assessment of Alternatives (Document Reference: 3.1.6) has included avoiding sensitive heritage, ecological, and residential receptors through the initial long list and through the development of the combined North Falls and Five Estuaries onshore cable route corridor and onshore substation zone. It is noted upon analysis of the Ardleigh Village Design Statement (2011) that the content of the statement predominantly relates to the envelope of the existing village settlement, for which the Project falls outside entirely – it is circa 1.9km from the village to the north-western boundary of the Order Limits. The Zone of Theoretical Visibility ES Chapter 30 Figures (Document Reference: 3.1.32) shows almost no visibility from the eastern side of the village, with intervening vegetation also present. Ardleigh village is also outside of the study area assessed in ES Chapter 20 LVIA (Document Reference: 3.1.22) due to the distance between the village and the boundary of the Order Limits. Therefore, given the limited visibility and distance between the village and boundary of the Order Limits, it is considered that the Project is consistent with the objectives of the Ardleigh Village Design Statement

POLICY REFERENCE	DRAFT ARDLEIGH NEIGHBOURHOOD PLAN	ACCORDANCE WITH NEIGHBOURHOOD PLAN
		(2011) that is seeking to protect the character of the village. Furthermore, sufficient landscape screening to the western boundary of the onshore substation zone will provide further landscape and visual mitigation. The Project is considered in accordance with draft Policy EP, Natural, Built & Historic Environment.

8. SUMMARY

8.1 Conclusion

8.1.1 The purpose of this DAS is to support the Design Vision (Document Reference: 2.3) and demonstrate that the Project has had due regard to the relevant design policies contained within the NPS EN-1, NPS EN-3, NPS EN-5, the NPPF, the Tendring District Local Plan 2013-2033 and Beyond Sections 1 and 2 (2021,2022), the draft Ardleigh Neighbourhood Plan (2020-2023) (2024).

8.1.2 NFOW has undertaken an extensive design process and has consistently sought feedback from stakeholders, including the Design Council as an independent design panel, on different aspects of the Project. This has led to a more cohesive and holistic design that has included co-ordination with Five Estuaries and National Grid with respect to the EACN. With Five Estuaries there is a co-ordinated landfall location, onshore cable route, and co-located substation works area.

8.1.3 The Design Vision (Document Reference: 2.3) and the design principles contained within it will ensure that the detailed design of the Project delivers against the criteria set out and will ensure an appropriate response to the local context.

8.1.4 Further consideration as to the design and appearance of elements of the Project will be undertaken post-consent when there is a greater clarity with respect to the functional requirements and aesthetic factors for those elements. The Project is committed to ensuring design quality is maintained and will continue to work collaboratively with other NSIPs to ensure good design can be achieved.

8.1.5 The Project is consistent with the overarching objective of achieving good design; not only in the design outcomes but in ensuring an inclusive approach to the design development process, starting at a strategic level through engagement with the government on offshore coordination via the OCSS and OTNR, and at a more local level with Tendring District Council, Essex County Council, and the Design Council, as well as through non-statutory and statutory consultation.

References

Planning Practice Guidance
Making an application: Design and Access Statements, Department for Levelling Up, Housing and Communities, 2014 https://www.gov.uk/guidance/making-an-application#Design-and-Access-Statement [Accessed 10 July 2024]

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