NORTH FALLS

Offshore Wind Farm

Planning Statement

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Glossary of Terms

Array area	The offshore wind farm area, within which the wind turbine generators, array cables, platform interconnector cable, offshore substation platform(s) and/or offshore convertor platform will be located.
Array cables	Cables which link the wind turbine generators with each other, and the offshore substation platform(s) and/or the offshore convertor platform.

Astronomical tide	The predicted tide levels and character that would result from the gravitational effects of the earth, sun and moon without any atmospheric influences.
Automatic Identification System (AIS)	A system by which vessels automatically broadcast their identity, key statistics including location, destination, length, speed and current status, e.g., “under power”. Most commercial vessels and United Kingdom (UK)/European Union (EU) fishing vessels over 15 m length are required to carry AIS.
Aviation archaeology	The remains of crashed aircraft and archaeological material associated with historic aviation activities.
Beach	A deposit of non-cohesive sediment (e.g. sand, gravel) situated on the interface between dry land and the sea (or other large expanse of water) and actively ‘worked’ by present-day hydrodynamic processes (i.e. waves, tides and currents) and sometimes by winds.
Beam trawl	A trawl net whose lateral spread during trawling is maintained by a beam across its mouth.
Bedload	Sediment particles that travel near or on the bed.
Benthic	Relating to or occurring at the sea bottom.
Bentley Road Improvement Works	Works involving the widening and improvement of the carriageway along Bentley Road required to facilitate heavy goods vehicle and abnormal indivisible load access to the onshore cable route and the onshore substation.
Cable circuit	The onshore and offshore export cables are comprised of cable ‘circuits’. Each cable circuit is typically comprised of three power cables, as well as fibre cables and earth cables. It is expected that each circuit would compromise up to seven cables in total.
Cable Construction Compound	Area set aside to facilitate construction of the onshore cable route. Will be located adjacent to the onshore cable route, with access to the highway.
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).
Clay	Fine sediment with a typical particle size of less than 0.002mm.
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.

CO2e	Carbon dioxide equivalent is a metric measure that is used to compare emissions from various greenhouse gases (GHGs) on the basis of their global warming potential by converting amounts of other GHGs to the equivalent amount of carbon dioxide (CO2).
Coastal catchment	Land which drains directly to the coastal or estuarine waters, rather than through a river water body – not part of a river water body catchment
Coastal processes	Collective term covering the action of natural forces on the shoreline and nearshore seabed.
Collision	The act or process of colliding (contact) between two moving objects.
Crest	Highest point on a bedform or wave.
Cumulative effects	Additional changes caused by North Falls in conjunction with other similar developments or as a combined effect of a set of developments.
Cumulative Effects Assessment (CEA)	Assessment of impacts as a result of the incremental changes caused by other similar (often significant) infrastructure projects together with North Falls.
Decommissioning	The period during which a development and its associated processes are removed from active operation.
Demersal	Living on or near the seabed.
Ebb tide	The falling tide, immediately following the period of high water and preceding the period of low water.
Economic Value	Economic value (as measured by GVA) generated through the first round of capital expenditure, i.e. North Falls' spend prime contractors within each impact area of the study (direct GVA). This also includes GVA which is supported through the supply chain expenditure of these contractors (indirect GVA). This does not include induced effects (which are generated through the salary expenditure of employees whose jobs are supported by the development).
Elasmobranch	Any cartilaginous fish of the subclass Elasmobranchii which includes the sharks, rays and skates.
Employment offshore	Direct employment impacts associated with the first round of capital expenditure on offshore infrastructure, i.e. North Falls' spend on onshore infrastructure with prime contractors within each impact area of the study. As well as employment which is associated with the suppliers of companies that supply goods and services as part of the supply chain of the onshore infrastructure of North Falls.

Employment onshore	Direct employment impacts associated with the first round of capital expenditure on onshore infrastructure, i.e. North Falls spend on onshore infrastructure with prime contractors within each impact area of the study. As well indirect employment impacts which are associated with the suppliers of companies that supply goods and services as part of the supply chain of the onshore infrastructure of North Falls. This does not include induced effects.
Environmental Impact Assessment (EIA)	The process of evaluating the likely significant environmental effects of a proposed project or development over and above the existing environment.
Erosion	The process of evaluating the likely significant environmental effects of a proposed project or development over and above the existing environment.
Evidence Plan Process	A voluntary consultation process with specialist stakeholders to agree the approach to the EIA and information to support the HRA through ETG meetings.
Five Estuaries	Five Estuaries Offshore Wind Farm
Flood Tide	The rising tide, immediately following the period of low water and preceding the period of high water.
Full-time equivalent (FTE) jobs	Full-time equivalent (FTE) is a unit that indicates the workload of an employed person. An FTE of 1.0 is equivalent to one full-time employee, whilst a part-time employee working half the hours a full-time employee does would be recorded as 0.5 FTE.
Geoarchaeology	The application of earth science principles and techniques to the understanding of the archaeological record. Includes the study of soils and sediments and of natural physical processes that affect archaeological sites such as geomorphology, the formation of sites through geological processes and the effects on buried sites and artefacts.
Glacial/interglacial	A glacial period is a period of time within an ice age that is marked by colder temperatures and glacier advances. Interglacial corresponds to periods of warmer climate between glacial periods. There are three main periods of glaciation within the last 1 million years, the Elsterian, the Saalian and the Weichselian which ended about 12,000 years ago. The Holocene period corresponds to the current interglacial.
Gravel	Loose, rounded fragments of rock larger than sand but smaller than cobbles. Sediment larger than 2mm (as classified by the Wentworth scale used in sedimentology).

Gross Value Added (GVA)	The measure of the value of goods and services produced in an area, industry or sector of an economy. At the level of a firm, it is broadly equivalent to employment costs plus a measure of profit.
Groundwater	Water stored below the ground in rocks or other geological strata
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.
Heavy Goods Vehicle (HGV)	HGV is the term for any vehicle with a Gross Weight over 3.5 tonnes. This is also used as a proxy for HGVs and buses / coaches recognising the similar size and environmental characteristics of the respective vehicle types.
High water	Maximum level reached by the rising tide.
Historic seascape character	The attributes that contribute to the formation of the historic character of the seascape
Holocene	The last 10,000 years of earth history.
Horizontal Directional Drill (HDD)	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).
Impact	The changes resulting from an action which may be either positive or negative.
Indirect effects	Effects that result indirectly from North Falls as a consequence of the direct effects, often occurring away from the site, or as a result of a sequence of interrelationships or a complex pathway. They may be separated by distance or in time from the source of the effects.
Interconnector cable	Former cable between the northern and southern array areas
Intertidal	Area on a shore that lies between Mean High Water Springs (MHWS) and Mean Low Water Springs (MLWS)
Landfall	The location where the offshore export cables come ashore at Kirby Brook.
Landfall compound	Compound at landfall within which HDD or other trenchless technique would take place.

Landfall search area	The area considered at PEIR, comprising the Essex coast between Clacton-on-Sea and Frinton-on-Sea within which landfall is located.
Link Boxes	Underground chambers or above ground cabinets next to the onshore export cables housing low voltage electrical earthing links.
Local onshore infrastructure and services	For the purposes of this assessment onshore infrastructure and services includes health services and housing infrastructure.
Long-term	Refers to a time period of decades to centuries.
Low water	The minimum height reached by the falling tide.
Magnitude	A term that combines judgements about the size and scale of the effect, the extent of the area over which it occurs, whether it is reversible or irreversible and whether it is short term or long term in duration'. Also known as the 'degree' or 'nature' of change.
Main River	Usually larger rivers and streams. The Environment Agency carries out maintenance, improvement or construction work on Main Rivers to manage flood risk
Marine Guidance Note (MGN)	A system of guidance notes issued by the Maritime and Coastguard Agency (MCA) which provide significant advice relating to the improvement of the safety of shipping at sea, and to prevent or minimise pollution from shipping.
Mean High Water Springs	Mean High Water Springs is the average height throughout the year, of two successive high waters, during a 24-hour period in each month when the range of the tide is at its greatest (Spring tides).
Micro-siting	Small scale refinement to the location of offshore infrastructure during detailed design to avoid key constraints.
Movement	A two-way trip (i.e. the arrival and departure from site) for the transfer of employees or goods.
National Grid connection point	The grid connection location for the Project. National Grid is 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.
National Grid substation connection works	Infrastructure required to connect the Project to the National Grid connection point.
Nationally Significant	Nationally Significant Infrastructure Projects are major infrastructure developments in England and Wales which

Infrastructure Project (NSIP)	are consented by DCO. These include proposals for offshore renewable energy projects with an installed capacity of over 100MW in England.
Navigational Risk Assessment (NRA)	A document which assesses the hazards to shipping and navigation of a proposed Offshore Renewable Energy Installation (OREI) based upon the FSA.
Nearshore	The zone which extends from the swash zone to the position marking the start of the offshore zone).
North Falls	North Falls Offshore Wind Farm, including all onshore and offshore infrastructure.
Numerical modelling	Refers to the analysis of coastal processes using computational models.
Offshore	Area seaward of nearshore in which the transport of sediment is not caused by wave activity.
Offshore converter platform	Should an offshore connection to a third party HVDC interconnector cable be selected, an offshore converter platform would be required. This is a fixed structure located within the array area, containing HVAC and HVDC electrical equipment to aggregate the power from the wind turbine generators, increase the voltage to a more suitable level for export and convert the HVAC power generated by the wind turbine generators into HVDC power for export to shore via a third party HVDC interconnector cable.
Offshore cable corridor	The corridor of seabed from array area to the landfall within which the offshore export cables will be located.
Offshore export cables	The cables which bring electricity from the offshore substation platform(s) to the landfall, as well as auxiliary cables.
Offshore platform(s)	Fixed structure(s) located within the array area, which may be an offshore converter platform or an offshore substation platform
Offshore project area	The overall area of the array area and the offshore cable corridor.
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 take the electricity from landfall to the onshore substation. These comprise High Voltage Alternative Current (HVAC) cables, buried underground.

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 National Grid substation extension).
Onshore scoping area	The boundary within which all onshore infrastructure required for the Project will be located, as considered within the North Falls EIA Scoping Report.
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.
Onshore substation construction compound	Area set aside to facilitate construction of the onshore substation. Will be located adjacent to the onshore substation (location not yet defined).
Onshore substation works area	Area within which all temporary and permanent works associated within the onshore substation are located, including onshore substation, construction compound, access, landscaping, drainage and earthworks.
Onshore substation zone	The area considered at PEIR, within which the onshore substation will be located.
Ordinary Watercourse	Other rivers are called ‘Ordinary Watercourses’. Lead local flood authorities, district councils and internal drainage boards carry out flood risk management work on Ordinary Watercourses
Pelagic	Living in the water column.
Planning Inspectorate	The Planning Inspectorate deals with planning appeals, national infrastructure planning applications, examinations of local plans and other planning-related and specialist casework.
Platform interconnector cable	Cable connecting the offshore substation platforms (OSP) or the OSP and offshore converter platform (OCP)
Pleistocene	An epoch of the Quaternary Period (between about 2 million and 10,000 years ago) characterised by several glacial ages.
Prehistoric Period	Broad term encompassing the Palaeolithic, Mesolithic, Neolithic, Bronze Age and Iron Age.
Preliminary Environmental	The PEIR presented findings of the assessment to allow an informed view to be developed of North Falls, the assessment approach that was undertaken, and the

Information Report (PEIR)	preliminary conclusions on the likely significant effects of North Falls and environmental measures proposed.
Primary Surveillance Radar (PSR)	A radar system that measures the bearing and distance of targets using the detected reflections of radio signals.
Receptor	These are as defined in Regulation 5(2) of The Infrastructure Planning (Environmental Impact Assessment) Regulations 2017 and include population and human health, biodiversity, land, soil, water, air, climate, material assets, cultural heritage and landscape that may be at risk from exposure to pollutants which could potentially arise as a result of the Project.
Requirement	Requirements are similar to planning conditions in Town and Country Planning Act decisions, specifying conditions and restrictions on the development and matters for which detailed approval needs to be obtained before the development can be lawfully begun.
Risk	The combination of the frequency and the severity of the consequence
Safety Zone	A marine zone outlined for the purposes of safety around a possibly hazardous installation or works / construction area.
Sand	Sediment particles, mainly of quartz with a diameter of between 0.063mm and 2mm. Sand is generally classified as fine, medium or coarse.
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.
Scour protection	Protective materials to avoid sediment being eroded away from the base of the wind turbine generator foundations and offshore substation platform(s) or / and offshore converter platform (OCP) foundations as a result of the flow of water.
Sea level	Generally, refers to 'still water level' (excluding wave influences) averaged over a period of time such that periodic changes in level (e.g. due to the tides) are averaged out.
Seabed features	Features seen on the seafloor in the sidescan sonar or multibeam bathymetry data which are interpreted to represent heritage assets, or potential heritage assets. Also includes magnetic anomalies which may represent shallow buried ferrous material of archaeological interest.

Seabed prehistory	Archaeological remains on the seabed corresponding to the activities of prehistoric populations that may have inhabited what is now the seabed when sea levels were lower.
Search and Rescue	The search and provision of aid to people who are in distress or imminent danger.
Secondary A Aquifer	These are permeable layers capable of supporting water supplies at a local rather than strategic scale, and in some cases forming an important source of base flow to rivers. These are generally aquifers formerly classified as minor aquifers.
Secondary B Aquifer	These are predominantly lower permeability layers which may store and yield limited amounts of groundwater due to localised features such as fissures, thin permeable horizons and weathering. These are generally the water-bearing parts of the former non-aquifers.
Secretary of State	The person who makes the decision to grant development consent.
Sediment	Particulate matter derived from rock, minerals or bioclastic matter.
Sediment transport	The movement of a mass of sediment by the forces of currents and waves.
Sensitivity	A term applied to specific receptors, combining judgements of the susceptibility of the receptor to the specific type of change or development proposed and the value associated to that receptor.
Setting	The NPPF identifies setting as that which encompasses an asset's surroundings in which it is experienced. The extent of setting is not fixed and can contribute both positively and negatively to the heritage significance of an asset.
Shore platform	A platform of exposed rock or cohesive sediment exposed within the intertidal and subtidal zones.
Short-term	Refers to a time period of months to years.
Significance	A measure of the importance of the environmental effect, defined by criteria specific to the environmental aspect.
Significant effects	It is a requirement of the EIA Regulations to determine the likely significant effects of the development on the environment which should relate to the level of an effect and the type of effect. Where practicable, significant effects should be mitigated.

Stakeholder engagement	Refers to the voluntary engagement undertaken in addition to the statutory consultation requirements under the Planning Act 2008.
Study area	Area where potential impacts from the Project could occur, as defined for each individual EIA topic.
Surface water flooding	Surface water flooding occurs when rainwater does not drain away through normal drainage systems or soak into the ground, but lies on or flows over the ground instead
Suspended sediment	The sediment moving in suspension in a fluid kept up by the upward components of the turbulent currents or by the colloidal suspension.
Temporary construction compound	Area set aside to facilitate construction of the onshore cable route. Will be located adjacent to the onshore cable route, with access to the highway where required.
The Applicant	North Falls Offshore Wind Farm Limited (NFOW)
The Project or 'North Falls'	North Falls Offshore Wind Farm, including all onshore and offshore infrastructure.
Tidal range	Difference in height between high and low water levels at a point.
Tide	The periodic rise and fall of the water that results from the gravitational attraction of the moon and sun acting upon the rotating earth.
Traffic and Transport Study Area (TTSA)	Area where potential impacts from the Project could occur, as defined for each individual EIA topic.
Transition joint bay	Underground structures that house the joints between the offshore export cables and the onshore export cables.
Trenchless crossing	Use of a technique to install limited lengths of cable below ground without the need to excavate a trench from the surface, used in sensitive areas of the onshore cable route to prevent surface disturbance. Includes techniques such as Horizontal Directional Drilling.
Trenchless crossing compound	Areas within the onshore cable route which will house trenchless crossing (e.g. HDD) entry or exit points.
Unproductive Strata	These are predominantly rock layers or drift deposits with low permeability that have negligible significance for water supply or river base flow.
Vehicle (HGV, Traffic) trips	A two-way trip (i.e. the arrival and departure from site) for the transfer of employees or goods.

Vulnerability	Risk x receptor sensitivity in relation to shipping hazards (discussed further in ES Appendix 15.1)
Wave height	The vertical distance between the crest and the trough.
Wind turbine generator (WTG)	Power generating device that is driven by the kinetic energy of the wind.
Zone of Influence (ZOI)	The area surrounding North Falls which could result in likely significant effects.
400kV onshore cable route	Onshore route within which the 400kV onshore cables and associated infrastructure would be located.
400kV onshore cables	The cable circuits which take the electricity from the onshore substation on to the national grid connection point. These comprise High Voltage Alternative Current (HVAC) cables, buried underground.

1. INTRODUCTION

1.1 Overview

1.1.1 This Planning Statement has been prepared on behalf of North Falls Offshore Wind Farm Limited (the 'Applicant') to accompany a Development Consent Order (DCO) application for the North Falls Offshore Wind Farm Project (hereafter 'North Falls' or 'the Project') to be located off the East Anglia coastline. North Falls is a proposed western extension to the existing southern array area of Greater Gabbard Offshore Wind Farm.

1.1.2 This Planning Statement is one of a series of documents that accompanies the DCO application (the Application) in accordance with Section 37 of the Planning Act 2008 and Regulations 5 and 6 of the Infrastructure Planning (Application: Prescribed Forms and Procedures) Regulations 2009 (the 'APFP Regulations'). The APFP Regulations do not require a Planning Statement to support applications for development consent, however, Planning Statements are a useful tool; collating principal matters into a single document and as such it has been prepared to assist the Secretary of State in determining the Application. The Application has been subject to Environmental Impact Assessment (EIA), the outcomes of which have been reported in the Environmental Statement (ES) that accompanies the Application. The Project has also been subject to Habitats Regulation Assessment (HRA) to determine its potential effects on European Designated Sites and Species.

1.1.3 The outcomes of the EIA and the HRA have informed the content of this Planning Statement, specifically in relation to assisting the determination of accordance of the Project with relevant National Policy Statements (NPS), marine policy and national and local planning policy.

1.2 The Applicant

1.2.1 The Applicant is North Falls Offshore Wind Farm Limited (NFOW) 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.

1.2.2 SSE Renewables is a leading developer, owner, and operator of renewable energy across the UK and Ireland, with a portfolio of around 4 GW of operational onshore wind, offshore wind, and hydro generation 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 is one of the world's leading renewable energy companies. The company has onshore and offshore wind farms, photovoltaic plants, and battery storage facilities with a combined capacity of approximately 9GW.

1.2.4 Both SSER and RWE Renewables hold an extensive portfolio of existing UK offshore wind farms. In addition to the existing portfolio, which includes the recently consented Awel-y-Mor offshore wind farm off the coast of North Wales, RWE Renewables and SSER are each in the process of consenting a range of other offshore wind developments including:

- Five Estuaries off the east coast of England;
- Dogger Bank South offshore wind farms, off the north east coast of England;
- Berwick Bank offshore wind farm off the east coast of Scotland; and
- Dogger Bank D offshore wind farm, off the north east coast of England.

1.2.5 This provides the Project with valuable experience from consenting, constructing, and operating offshore wind farms, experience which has been used to inform the design of North Falls. It also provides a sound understanding of the potential impacts of the Project through the ability to draw on available monitoring data.

1.3 Background to the Proposals

1.3.1 Greater Gabbard Offshore Wind Farm located 25km off the coast of Suffolk in the North Sea is joint venture between SSER and RWE Renewables and has been in operation since 2012.

1.3.2 In February 2017, The Crown Estate launched an opportunity for 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.

1.3.3 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).

1.3.4 On the 16th July 2021 the Applicant submitted a scoping report to the Planning Inspectorate (Document Reference: 7.25) and received a formal scoping opinion (PINS, 2021) (Document Reference: 7.25) in August 2021 and transboundary screening document on 3rd February 2022. This is provided in Volume 1, Annex 3.2: Transboundary Screening for the purposes of regulation 32 of the 2017 EIA Regulations.

1.3.5 The Applicant prepared a PEIR (Preliminary Environmental Information Report) in the format of an 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.

1.3.6 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.

1.3.7 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, quantum and scale and construction methodologies proposed.

1.3.8 A comprehensive account of consultation activities undertaken is provided within the Consultation Report which accompanies the Application (Document Reference: 4.1).

1.4 Statement Structure

1.4.1 This Planning Statement is structured as follows:

- Section 2: provides an overview of the Projects coordination with Five Estuaries Offshore Wind Farm.
- Section 3: provides descriptions of the site and components of the North Falls Project and includes an overview of the site selection and design process.
- Section 4: presents the policy and legal framework against which the application will be examined and decided.
- Section 5: considers the compliance of the Project with topic-specific planning policies with reference to the NPS and other relevant policy.
- Section 6: provides an overview of the need for the Project and weighs up the planning balance in an overall conclusion.

2 COORDINATION WITH FIVE ESTUARIES OFFSHORE WIND FARM

2.1 Joint Design Approach

2.1.1 The Five Estuaries Offshore Windfarm ('Five Estuaries') is a proposed extension to the operational Galloper Offshore Windfarm; the sister project to Greater Gabbard Offshore Wind Farm.

2.1.2 Whilst North Falls and Five Estuaries are being developed as two distinct projects with separate ownerships, shareholders (albeit RWE is a common shareholder but separate legal entity) and development teams they have been allocated the same connection point and connection date to the national electricity transmission network. The proposed connection is the East Anglian Connection Node (EACN), which is part of National Grid's Norwich to Tilbury reinforcement project.

2.1.3 NPSs establish a policy expectation for promoters of individual major infrastructure projects to collaborate with other major infrastructure project promoters in proximity or where there are direct overlaps with projects.

2.1.4 Specifically, NPS require:

- NPS EN-3, Paragraph 2.8.48: "*Applicants are encouraged to work collaboratively with those other developers and sea users on co-existence/co-location opportunities, shared mitigation, compensation and monitoring where appropriate. Where applicable, the creation of statements of common ground between developers is recommended. Work is ongoing between government and industry to support effective collaboration and find solutions to facilitate greater co-existence/co-location*."
- NPS EN-5 Paragraph 2.12.6: "*… a more co-ordinated approach to designing offshore transmission is expected to be adopted compared with the previous standard approach of radial routes to shore. This applies to spatially close groups of offshore windfarms, subsea 'onshore' transmission or bootstraps, interconnectors and multi-purpose interconnectors*."
- NPS EN-5 Paragraph 2.13.14: "C*o-ordinated transmission proposals, including multi-purpose interconnectors and other types of offshore transmission (see Glossary), are expected to reduce the overall environmental and community impacts associated with bringing offshore transmission onshore compared to an uncoordinated, radial approach. These reduced impacts could, for example, relate to: fewer landing sites and reduced landfall impacts; reduced overall cable length and impacts; and fewer cable corridors and reduced impacts from these*."

- NPS EN-5 *Paragraph 2.13.16: "For onshore infrastructure, reduced impacts could, for example, relate to fewer or co-located substations and converter stations and transmission lines as well as demonstrating how environmental and community impacts have been avoided as far as possible.*" (NPS EN-5).

2.1.5 Accordingly, the projects have complied with policy in seeking to identify and pursue opportunities for collaborative working and delivery where reasonably practicable. Full details of the coordination between North Falls and Five Estuaries projects are set out in the Co-ordination Report (Document Reference: 2.5) that accompanies the Application.

2.1.6 Co-ordination between the two projects has been increasing as key site selection decisions have been taken and preliminary designs have progressed. Once it was clear both projects had similar onshore cable corridor routes the projects moved to closer liaison, information sharing and joint planning. The primary goal of the coordination is to reduce, where practicable the potential impacts of building the onshore connection to the national electricity transmission network for the two projects.

2.1.7 In summary, the two wind farm projects have worked together to:

- Align landfall locations for the export cables to come ashore,
- Develop a shared onshore export cable corridor, and
- Select a single site for both onshore substations to collocate.

2.1.8 The shared design of the onshore infrastructure keeps potential impacts from the projects to a single swathe of land and enables coordination during cable ducting installation, with the potential to significantly reduce impacts on the environment and local community during the overall construction phase.

2.1.9 The onshore cable routes of the two projects will run immediately adjacent with the footprint required for both covered by the onshore project area. This is to allow either project to install cable ducting for the other project to realise efficiencies in cable installation. In addition, the onshore substations have been co-located. Due to electrical and regulatory requirements, separate cables and onshore substations are required and therefore construction of the Five Estuaries onshore substation is not included in the North Falls Application. Paragraph 2.1.12 of this Statement sets out the delivery scenarios in further detail.

2.1.10 Designing the two projects has been a typical iterative process, guided by the collaboration between both undertakers, environmental assessments, and consultation with statutory and non-statutory consultees. Not all the design aspects of both schemes can be confirmed at this stage, some will be developed further following the appointment of a lead construction contractor. Therefore, whilst the respective DCO applications give as much detail as appropriate at this time, the final design and construction processes are yet to be determined. Accordingly, some optionality is required to future-

proof the DCO. One area of optionality is in relation to the national grid connection point and the possibility of an offshore connection point.

2.1.11 The following grid connection options are included in the Project design envelope and assessed in the accompanying ES:

- Option 1: onshore electrical connection at a National Grid connection point within the Tendring peninsula of Essex (discussed in section 5.8), 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 onshore electrical connection at a national grid connection point within the Tendring peninsula of Essex, sharing an onshore cable route (but with separate onshore export cables) with another project (i.e., five estuaries), where practicable; or
- Option 3: offshore electrical connection, supplied by a third-party.

2.1.12 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 schemes from sharing of infrastructure.

2.1.13 ES chapters have considered how different construction scenarios set out in the Co-ordination Report (Document Reference: 2.5) affect the assessments. The ES chapters acknowledge that there are multiple scenarios and clearly identify which has been assumed to be worst case for the purposes of the assessment.

2.1.14 In summary, the Project fully accords with the relevant policies relating to co-ordination as set out above at 2.1.4 by following a collaborative approach in the design and delivery of North Falls and Five Estuaries. This has included co-ordinating cable corridors, facilitating the ability to duct to another project and facilitating a potential offshore connection, should this become viable. Section 12 of the Co-ordination Report (Document Reference: 2.5) provides a summary of compliance against the relevant paragraphs of NPS EN-1, NPS EN-3, and NPS EN-5.

2.2 PROJECT DESCRIPTION

Introduction

2.2.1 This section sets out a summary of the components of the Project. A detailed description is set out in Environmental Statement (ES) Chapter 5 Project Description (Document Reference: 3.1.7).

Project Location

2.2.2 As previously noted, North Falls is a proposed extension to the operational Greater Gabbard Offshore Wind Farm. The Project's single offshore array area covers 95km2 and is located approximately 40km off the East Anglia coastline in the southern North Sea. The offshore project area is shown on Figure 1.1 ES Chapter 1 Introduction (Document Reference: 3.2.1). North Falls' onshore infrastructure is proposed to be located entirely within the Tendring Peninsula of Essex. The onshore project area is shown in Figure 1.2 of ES Chapter 1 Introduction (Document Reference: 3.2.1)

Project Design Envelope

2.2.3 As detailed above (Section 2.1) a degree of optionality is required regarding the Project. As such a design envelope approach has been followed in accordance with NPS EN-3 (paragraph 2.8.74) which recognises that:

"Owing to the complex nature of offshore wind farm development, many of the details of a proposed scheme may be unknown to the applicant at the time of the application to the secretary of state. Such aspects may include:

- *The precise location and configuration of turbines and associated development;*

- *The foundation type and size;*
- *The installation technique or hammer energy;*
- *The exact turbine blade tip height and rotor swept area;*
- *The cable type and precise cable or offshore transmission route; and*
- *The exact locations of offshore and/or onshore substations."*

2.2.4 Accordingly, to allow for flexibility the design envelope is therefore based on maximum and minimum parameters. The final design of North Falls lies within the range of parameters assessed in the EIA and detailed in ES Chapter 5 Project Description (Document Reference: 3.1.7) and is summarised at Table 1.1 of this Statement.

Development Components

2.2.5 The offshore development area comprises of the following key pieces of infrastructure. Under Options 1 and 2 (as defined at 2.1.11):

- Wind turbine generators (WTG) and their associated foundations;
- Up to two offshore platforms (OSP) and their associated foundations to facilitate the export of electricity via the Project's offshore export cables; and
- Subsea cables:
  - Array cables between the WTGs and between the WTGs and the OSP(s);
  - Platform interconnector cable between the OSPs, if required;
  - Offshore export cables between the OSP(s) and landfall;
  - Scour protection around foundations, where required; and
  - Surface laid cable protection, where required.

2.2.6 Option 3 (as defined at 2.1.11):

- WTG and their associated foundations;
- Up to one OSP and associated foundation to aggregate electricity from the wind turbine generators;
- One offshore converter platform (OCP) and associated foundation to increase the voltage to a more suitable level of electricity for export and convert the High Voltage Alternating power generated by the WTG into HVDC power for export via an HVDC interconnector cable;
- Array cables between the WTGs and between the WTGs and OSP(s)/OCP;

- Scour protection around foundations, where required; and
- Surface laid cable protection, where required.

2.2.7 The North Falls project will also require onshore infrastructure to transmit and connect the offshore wind farm to the National Grid. Under Options 1 and 2 these comprise:

- Landfall;
- Onshore export cables housed within cable ducts and associated joint bays and link boxes;
- Onshore substation and ancillary works;
- Connection to the National Grid; and
- Works to widen and improve Bentley Road and provision of access route for non-motorised users.

2.2.8 Under option 2, this also includes:

- Cable ducts for the installation for Five Estuaries onshore export cables.

2.3 Offshore Infrastructure: Wind Turbines

2.3.1 North Falls will comprise up to 57no. WTGs with necessary infrastructure required to transmit the generated power to the National Grid. Offshore wind turbine models are constantly improving as technology evolves. Therefore, the exact design of the turbine will be finalised post-consent. Nevertheless, the selected turbines will be within the worst-case scenario parameters that are set out in ES Chapter 5 Project Description (Document Reference: 3.1.7).

2.3.2 The final layout of the Project will be decided post-consent, considering detailed studies and technical design information. Turbine size selection, within the consented parameters, is driven by commercial factors, and market conditions at the time. In developing the final layout, the Applicant would aim to reduce environmental impacts and impacts to other users where practicable whilst maximising energy yield and efficiencies. Therefore, exact locations are not included in the DCO application and have been assessed on a reasonable worst case scenario basis.

2.4 Offshore Infrastructure: Substation Platform

2.4.1 NFOW will require a maximum of two offshore substation platforms (OSPs) depending on the electrical system voltage and final layout. The OSPs provide a connection point for the array cables and contain primary electrical equipment and ancillary components that are required to transform the voltage of the electricity generated at the WTGs to a higher voltage suitable for transporting power to the onshore electrical transmission network.

2.4.2 The location of the OSP(s) will be confirmed during the post-DCO detailed design process. The design of the OSP(s) will include a platform 'topside', supported above sea level on a foundation structure which have been assessed on a reasonable worst-case scenario of +61.6m above median high-water levels. Further details on OSP design parameters are contained in ES Chapter 5 Project Description (Document Reference: 3.1.7).

2.5 Offshore infrastructure: converter platform

2.5.1 Under option 3 (an offshore connection) an offshore converter platform (OCP) would be required to facilitate transmission of electricity from the North Falls WTGs and/or OSP. This would be a fixed structure located within the array area, the location of which would be confirmed during the post-DCO design process, containing electrical equipment to aggregate the power from the WTG increasing voltage to a suitable level for export to shore.

2.6 Offshore Infrastructure: Subsea Cables

2.6.1 High voltage alternating current (HVAC) array cables will link together the WTGs and link the WTGs to the OSP(s). Export cables carry power from the array back to the landfall, and then in turn onto the onshore HVAC export cable. A platform interconnector cable will be used to connect OSPs (for Options 1 and 2) or between the OSP and OCP (for Option 3).

2.6.2 Cables will be buried below the seabed wherever practicable. The installation method and target burial depth will be defined post-consent based on a cable burial risk assessment considering ground conditions. It is anticipated that the offshore cables will be installed via ploughing, jetting, trenching, or a combination of these techniques, depending on ground conditions along the specific cable route. Other installation methods could also be considered, see Section 5.6.7 of ES Chapter 5 Project Description for further details.

2.7 Offshore Infrastructure: Scour protection (option 3 only)

2.7.1 Foundations may require scour protection to avoid sediment being eroded away from the base of the foundations as a result of the flow of water. The exact requirements will be identified post consent, prior to the start of construction, based on the final WTG and OSP locations and detailed site surveys. Additional details are provided in Section 5.6.39 of ES Chapter 5 Project Description.

2.8 Onshore Infrastructure: Landfall (Options 1 and 2 Only)

2.8.1 The Project's onshore infrastructure is proposed to be located entirely within the Tendring peninsula of Essex. The offshore export cables are proposed to be brought ashore and connected to the onshore export cables at Kirby Brook where they are jointed to the onshore export cables within the temporary landfall compound.

2.9 Onshore Infrastructure: Onshore Export Cables

2.9.1 An onshore cable route has been identified with the capacity to deliver four sets of cable ducts to facilitate coordination with Five Estuaries, with a varied width of between 72m-90m. The onshore cable route is shown on Figure 5.2 of ES Chapter 5 project Description (Document Reference: 3.2.3).

2.9.2 New accesses from the local highway network will be constructed in advance of the construction works to facilitate access to the onshore cable route. All construction accesses would be removed and land reinstated following completion of construction. Full details of the construction methods proposed for the installation of the onshore cable are included at Section 5.6 of ES Chapter 5 Project Description (Document Reference: 3.1.7).

2.10 Onshore Infrastructure: North Falls Substation

2.10.1 An onshore substation will be required to convert the electricity produced by the offshore windfarm into a current that can be accepted by the National Grid.

2.10.2 At this stage the design of the onshore substation a location has been defined near to Little Bromley extending to a maximum area of 280 x 210m to accommodate the onshore substation platform, along with a wider onshore substation works area which will contain ancillary works, including temporary construction works, access, drainage, landscaping, and environmental mitigation.

2.10.3 The onshore substation will be an air insulated switchgear (AIS) design where the high voltage equipment is installed outdoors with open air terminations and will accommodate several ancillary structures, including:

- Control building.
- Storage/amenity building;
- STATCOM building;
- Transformers;
- Switchgear,

- Watertanks; and
- Distribution Network Operators (DNO) packaged substation.

2.10.4 The largest structures within the substation would be the SATCOM building with an approximate height of 10m. The tallest height of any structure would be the lightening masts at 198m. The onshore substation will seek to adhere to principle of 'good design' for energy infrastructure as outlined in NPS EN-1 (DESNZ, 2023). To this end the Applicant has prepared a design vision document (Document Reference:: 004577036-03) which outlines a series of design principles that have and will continue to be used to guide the development proposals for the project. This document will underpin all ongoing design work for the Project and will frame the development of the onshore substation design to ensure it meets the principles of good design for energy infrastructure.

2.10.5 Landscaping, operational drainage and a new permanent operational access are also required.

2.11 Onshore Infrastructure: Grid Connection

2.11.1 To accommodate the electricity produced by North Falls, there is the requirement for the construction of a new National Grid substation.

2.11.2 The 400 kV export cable connection will be underground circuit(s) running from the North Falls onshore substation to the new National Grid East Anglia Connection Node (EACN) 400kV substation to be constructed on the Tendring Peninsula. The new National Grid substation facilitates the connection of the offshore generation to the main National Electricity Transmission System and will include high voltage transformers, reactors and other typical high voltage plant and equipment. National Grid's substation will be consented separately by National Grid as part of their DCO for the EACN. The works to construct the new National Grid substation will be undertaken by National Grid.

2.11.3 The North Falls DCO application will include works for the underground cable connection between the new North Falls onshore substation to the new National Grid substation and some specific works to facilitate the buried cable connection within the National Grid substation as follows:

- Installation of switchgear bays in the National Grid EACN 400kV Substation;
- Installation of troughs / ducts to facilitate the 400kV circuits, Protection & Control cables from the North Falls onshore substation into the switchgear bays;
- Installation and termination of the 400kV circuits and Protection & Control cables between the North Falls substation and the switchgear in the National Grid substation;

- Installation of protection and control equipment (if required) within the National Grid relay building; and
- Temporary infrastructure such as haul roads and construction compounds to facilitate access, egress, laydown, storage, and welfare containers which would be placed within proximity of the work area.

2.12 Summary of project design parameters

2.12.1 **Table 2.1** below sets out the key design parameters for the onshore and offshore infrastructure used to inform the EIA included in the ES.

Table 2.1: Summary of project design parameters for ES

Infrastructure	Feature	Parameter
Array	Total array area	95km^2
	Closest distance to shore	40km
	Water depth relative to Lowest Astronomical Tide (LAT)	5 to 58m (30m mean)
Wind turbine generators	Maximum number of WTGs	57
	Maximum WTG rotor diameter	337m
	Maximum rotor tip height (above Mean High Water Springs (MHWS))	377.4m
	Minimum clearance above sea-level (above MHWS)	27m
	Indicative minimum separation between WTGs	1180m downwind direction and 944m in the cross wind direction.
Offshore subsea cables	Offshore cable corridor length	57km
	Maximum number of offshore export cable circuits	2
	Maximum array cable length	190km
	Maximum platform interconnector cable length	20km
Offshore platforms	Maximum number of OSPs/OCP	2 (either 2 OSP or 1 OSP and 1 OCP)
Landfall	Maximum number of transition joint bays	2
	Onshore export cable length	24km

Infrastructure	Feature	Parameter
Onshore export cables	Indicative onshore cable route construction width	Up to 72m (open cut trenching) Up to 90m (trenchless crossings) Up to 130m (complex trenchless crossings)
	Cable trench dimensions	1.2m (width at base) – 3.5m (width at top) x 2m (depth)
	Maximum depth at trenchless crossings	20m
	Maximum number of onshore circuits	Up to 2 circuits, typically comprising 3 power cables, 3 telecommunications cables and 1 earth cable in each circuit (up seven cables in total)
Construction compounds	Estimated number of temporary construction compounds	Up to 11
	Temporary construction compounds (main)	150 x 150m
	Temporary construction compounds (satellite)	100 x 100m
	Temporary construction compounds (trenchless crossing compounds)	75 x 150m
	Maximum onshore substation construction compound footprint	250 x 150m
Onshore substation	Maximum onshore substation platform footprint	280 x 210m
	Maximum onshore substation equipment height	18m

3 SITE SELECTION AND DESIGN EVOLUTION

3.1.1 Schedule 4 of the Infrastructure Planning (Environmental Impact Assessment) Regulations 2017 requires a description of the reasonable alternatives, in terms of location, studies by the developer which are relevant to the proposed project and an indication of the main reasons for selecting the chosen option, including a comparison of the environmental effects. ES Chapter 4 Site Selection and Consideration of Alternatives (Document Reference: 3.1.6) sets out the full details of the site selection process to define the North Falls onshore and offshore areas and is summarised below.

3.2 Site Selection Approach

3.2.1 The site selection process for offshore wind farms (OWFs) in the UK is governed by the existing legislative, policy and guidance framework for the development of electrical infrastructure and for environmental assessment within the UK (see ES Chapter 3 Policy and Legislative Context (Document Reference: 3.1.5) for more information).

3.2.2 The siting, design, and refinement of the North Falls offshore and onshore project areas has followed a site selection process, taking account of environmental, physical, economic, and social effects and opportunities, as well as engineering, technical and commercial feasibility. The aim was to identify project areas that would be environmentally acceptable, deliverable, and consentable, whilst also enabling efficiency and economic benefits. The site selection and project design process also involved early engagement with communities and stakeholders. This ensured that site selection decisions were communicated with people and allowed feedback to influence and refine the project design. Full details on the site selection process are provided in ES Chapter 4 Site Selection and Assessment of Alternatives (Document Reference: 3.1.6).

3.2.3 The site selection process commenced with the identification of an extension to the existing GGOW in 2019. Then National Grid advised that the grid connection search area was in the region of the Tendring Peninsula, which enabled a site selection process to be undertaken to identify a landfall search area, and subsequent identification of the offshore cable corridor to connect the North Falls array area and landfall search area.

3.2.4 At scoping stage an ‘onshore scoping area' was considered, which was subsequently refined to a landfall search area, onshore cable corridors and an onshore substation zone in the Preliminary Environmental Information Report (PEIR), before being further refined to the onshore areas presented in this Application. For the offshore project area, the Scoping Report and PEIR included two array areas and an interconnector corridor. In December 2021, National Grid provided informal confirmation that the grid connection location for North Falls would be in the vicinity of Ardleigh, to the north-west of Tendring

Peninsula between Colchester and Manningtree. This enabled the site selection process for the onshore substation location and onshore cable route.

3.2.5 In addition, NFOW has applied to the Offshore Coordination Support Scheme (OCSS) in consortium with National Grid Electricity Transmission (NGET) and Five Estuaries for an offshore connection to the Sea Link 'bootstrap'. Therefore, the following grid connection options are included in the Project design envelope (discussed further in ES Chapter 5 Project Description (Document Reference: 3.1.7))

- Option 1: Onshore electrical connection at a National Grid connection point within the Tendring peninsula of Essex, with a project alone onshore cable route and onshore substation infrastructure;
- Option 2: Onshore electrical connection at a National Grid connection point within the Tendring peninsula of Essex, sharing an onshore cable route (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.

3.2.6 The site selection process considered all three options.

3.2.7 The site selection process was underpinned by a set of 'golden rules'; a set of assumptions and principles which set the framework for the site selection exercise, and which were adhered to throughout the process. The golden rules are presented in ES Chapter 4 Appendix 4.1 (Document Reference: 3.3.1.1) were derived using best practice guide for site selection, including The Crown Estate's Cable Route Protocol, the National Grid's Horlock Rules (for the siting of substations) and Holford Rules (for the siting of transmission infrastructure), as well as NPS EN-1, EN-3 and EN-5 and other relevant planning considerations.

3.2.8 Following statutory consultation on the PEIR, a review of consultation feedback and additional data and information available was undertaken, including but not limited to:

- Ongoing EIA studies;
- Evidence Plan process;
- Shipping stakeholder engagement;
- Community and landowner feedback;
- Ecological designations and recreational assets;
- Results from the priority programme of archaeological geophysical survey;
- National Grid engagement;
- Landscaping design proposals; and
- Project design parameter refinements.

3.2.9 In addition, the projects reached an agreement to undertake a joint engineering exercise to identify potential locations for the onshore substation for both the Five Estuaries and North Falls projects within a combined onshore substation works area.

3.2.10 The selection process followed allowed the findings of the environmental assessments and public consultation to guide the evolution of the Project design and has allowed the plans for the offshore development area to be modified to avoid, reduce, or mitigate potentially adverse impacts as far as practicable.

3.2.11 Refinements to the offshore elements of the Project include:

- Amended array area: Removal of the previously proposed northern array area to minimise impacts on shipping and seascape, particularly the Suffolk and Essex Coast and Heaths Area of Outstanding Natural Beauty (AONB). The change has resulted in an increased offshore distance for onshore visual receptors from 22Km at its closest point to approximately 40Km.
- Reduced Array extent: The array area has been reduced from 150km2 to 95km2 to facilitate provision of an increased shipping and navigation buffer and avoid designated areas.
- Reduced number of WTGs: The maximum number of turbines has also been reduced since the PEIR to 57 of the smallest turbines (from 72) or 34 of the largest turbines (from 40) to reduce environmental impacts, such as impacts on visual receptors and ornithology, but ensure the Project remains viable and provide an important contribution to reaching the UK Government renewable energy and climate change targets.
- Offshore Cable Routing: The proposed offshore cable route directly avoids sensitive areas of heavy traffic for Ultra Large Container Vessels and the Margate and Long Sands SAC and Kentish Knock East MCZ.

3.2.12 Refinements to the onshore elements include:

- Landfall established: Following desk-based engineering and environmental review, alongside collaboration with Five Estuaries a potential 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 (and 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 two independent construction activities; and

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

4 LEGAL AND POLICY CONTEXT

4.1 Introduction

4.1.1 This section outlines the legislative and policy framework relevant to North Falls, that which should be considered by the Secretary of State when determining this application for development consent under PA2008.

4.1.2 Further details of international and national climate change legislation and wider policy context can be found in ES Chapter 3: Policy and Legislative Context (Document Reference: 3.1.5).

4.2 International Climate Change and Renewable Energy Policy Context

United Nations Convention on Climate Change

4.2.1 The United Nations Framework Convention on Climate Change (UNFCCC) came into force in March 1994 and is an intergovernmental environmental treaty. The framework sets out non-binding greenhouse gas (GHG) emission reduction limits and guidance on how specific treaties may be negotiated to bring further action towards UNFCCC objectives. The main objective is *the "stabilization of greenhouse gas concentrations in the atmosphere at a level that would prevent dangerous anthropogenic interference with the climate system."*

4.2.2 4.2.2 The UK is a signatory to the Kyoto Protocol which is linked to the UNFCCC and provides commitments for the State parties to reduce GHG emissions. The Kyoto Protocol was ratified by the UK Government in 2002 and its commitments were transposed into UK law by the Climate Change Act 2008 (as amended).

4.3 National Climate Change and Renewable Energy Policy Context

Climate Change Act 2008 and Climate Change Act 2008 (2050 Target Amendment) Order 2019 (CCA2008)

4.3.1 The CCA2008 forms the basis of the UK's approach to tackling and responding to climate change. The aim of the CCA2008 was to commit the United Kingdom to become net zero by 2050, by giving Ministers powers to introduce the measures necessary to achieve a range of greenhouse gas reduction targets.

4.3.2 The CCA2008 places a duty on the UK government to ensure their net carbon account and greenhouse gas (GHG) emissions is reduced, initially by 80%

relative to 1990 levels by 2050, as underpinned by international agreements and commitments. To achieve this target, the UK government committed to implement five-yearly carbon budgets to restrict the amount of emissions they legally emit within each five-year period.

4.3.3 The Climate Change Act 2008 (2050 Target Amendment) Order 2019 amended the Climate Change Act 2008, to enshrine in law a more challenging commitment that the net UK carbon account for the year 2050 is at least 100% lower than the 1990 baseline ('net zero').

4.4 National Planning Legislation

Planning Act 2008 (PA2008)

4.4.1 The PA2008 is the primary legislation establishing the legal framework for applying for examining and determining applications for NSIPs including in the energy sector. It was introduced to provide an effective and efficient system for approving major infrastructure projects of national importance, both offshore and onshore.

4.4.2 S.15 PA2008 sets out that an offshore generating station located in waters in, or adjacent to, England/within the UK Renewable Energy Zone, with a generating capacity of more than 100MW comprises a NSIP. North Falls will have a generating capacity in excess of 100MW and is located in English waters and therefore is classed as an NSIP.

4.4.3 S. 31 of the PA2008 states that NSIP require development consent in the form of a DCO, applications for which are to be determined by the relevant Secretary of State (SoS). The Planning Inspectorate is the executive agency responsible for the NSIP planning process.

4.4.4 S.37 of PA2008 requires an application for an order granting development consent to be made to the Secretary of State (SoS). An application for DCO must:

a. Specify the development to which it relates

b. Be made in the prescribed form

c. Be accompanied by the consultation report, and

d. Be accompanied by documents and information of a prescribed description.

4.4.5 For the purposes of S. 46 PA2008 the Applicant has notified the SoS (via the Planning Inspectorate) that an application for an order granting development consent will be submitted in the third quarter of 2024.

4.4.6 S. 104 of the PA2008 sets out that NSIP must be determined in accordance with relevant National Policy Statements (NPS) unless certain exceptions apply. Specifically, Section 104(2) states that, in deciding the application the SoS must have regard to:

a. *"Any national policy statement which has effect in relation to development of the description to which the application relates (a "relevant national policy statement"); (aa) the appropriate marine policy documents (if any), determined in accordance with section 59 of the Marine and Coastal Access Act 2009;*

b. *Any local impact report (within the meaning given by section 60(3)) submitted to the Secretary of State, before the deadline specified in a notice under section 60(2),*

c. *Any matters prescribed in relation to development of the description to which the application relates, and*

d. *Any other matters which the Secretary of State thinks are both important and relevant to the Secretary of State's decision."*

4.4.7 S. 104(3) of the PA2008 details several exemptions to a decision being made in accordance with NPS, where the Secretary of State would be satisfied that one of the following would apply:

- (4) This subsection applies if the [SoS] is satisfied that deciding the application in accordance with any relevant national policy statement would lead to the United Kingdom being in breach of any of its international obligations.
- (5) This subsection applies if the [SoS is] satisfied that deciding the application in accordance with any relevant national policy statement would lead to the [SoS] being in breach of any duty imposed on the [SoS] by or under any enactment.
- (6) This subsection applies if the [SoS] is satisfied that deciding the application in accordance with any relevant national policy statement would be unlawful by virtue of any enactment.
- (7) This subsection applies if the [SoS] is satisfied that the adverse impact of the Project would outweigh its benefits.
- (8) This subsection applies if the [SoS] is satisfied that any condition prescribed for deciding an application otherwise than in accordance with a national policy statement is met.
- (9) For the avoidance of doubt, the fact that any relevant national policy statement identifies a location as suitable (or potentially suitable) for a

particular description of development does not prevent one or more of subsections (4) to (8) from applying.'

4.4.8 Therefore, compliance with the policies set out in the relevant NPSs and the identification of any specified exceptions is considered a key test within the DCO process. This also allows for the application to be considered in the context of NPS policies relating to the deliverability of renewable energy and in relation to any identified adverse impacts.

Infrastructure Planning (Environmental Impact Assessment) Regulations 2017

4.4.9 Environmental Impact Assessment (EIA) is a tool for examining and assessing the potential impacts of a development on the physical, biological, and human environment allowing for management and mitigation measures to be identified to improve the environmental design of a project and allows for beneficial impact to be identified.

4.4.10 An EIA is required under European Union (EU) Directive 2011/92/EU (as amended by Directive 2014/52/EU)) on the assessment of the effects of certain public and private projects on the environment (EIA Directive). The EIA Directive is transposed into English law for NSIPs by The Infrastructure Planning (Environmental Impact Assessment) Regulations 2017 (the EIA Regulations 2017).

4.4.11 The Applicant has also issued notification in accordance Regulation 8(1)(b) of the Infrastructure Planning (Environmental Impact Assessment) Regulations 2017 that they propose to provide an Environmental Statement (ES) in respect of the proposed development.

Environment Act 2021: Biodiversity Net Gain

4.4.12 In November 2021, Parliament passed the Environment Act 2021 which makes provisions for a range of matters, including inter alia:

- Provision for targets, plans and policies for improving the natural environment;
- Creation of the Office for Environmental Protection (OEP); and
- A range of measures in relation to nature and biodiversity, water, and air quality.

4.4.13 The Environment Act 2021 acts as a framework of environmental protection in the UK, and aims to improve air and water quality, biodiversity, and waste reduction. The Environment Act also established the OEP. The OEP's principal function is to contribute to environmental protection and the improvement of

the natural environment by holding government and other public authorities to account.

4.4.14 The Government's 25 Year Environment Plan (HM Government, 2018) describes an ambition to leave the environment in a better state than that which it inherited for the next generation. This ambition is supported by the National Planning Policy Framework (NPPF) which makes general provisions for the delivery of biodiversity net gain.

4.4.15 The Environment Act 2021 contains measures for the protection and improvement of the environment, including biodiversity net gain under which developers of proposals subject to the Town and Country Planning Act 1990 regime are required to ensure a biodiversity gain of at least 10%, maintained for a minimum 30 years. This includes the requirement to measure the existing and proposed biodiversity value of development sites using the statutory biodiversity metric and to set out a plan for the proposed biodiversity increase to ensure that the development leaves the natural environment in a measurably improved condition.

4.4.16 Although the statutory provisions of the Environment Act 2021 relating to NSIPs are not yet in force, biodiversity net gain will be a requirement for NSIPs across all terrestrial infrastructure projects, or the terrestrial components of such projects. It is currently anticipated that statutory biodiversity net gain will become applicable to NSIP applications submitted from November 2025, and it is understood that the statutory target biodiversity net gain for the onshore project infrastructure will be up to 10%. Consequently, the Project is not required to demonstrate BNG. Notwithstanding, the Applicant is exploring opportunities to deliver biodiversity net gain (BNG) for the onshore elements of the Project, as articulated within the Environment Act 2021.

4.4.17 There is currently no marine biodiversity net gain requirement relating to the offshore infrastructure below Mean Low Water Springs (MLWS). It is acknowledged that Defra has undertaken consultation on the principles of marine net gain and how to introduce a net gain approach to infrastructure in the marine environment (Defra, 2022). At the time of application there is no policy or guidance on the approach to marine net gain. The Applicant is however, exploring opportunities to deliver marine net gains for the offshore elements of the Project. It is noted however, that through the implementation of the mitigation hierarchy no significant residual effects on marine habitats are anticipated to result from the Project (see section 5.2 to 5.4 of this Statement).

4.5 National planning Policy for Offshore Wind Power

National Policy statements

4.5.1 Section 104(3) of the PA2008 sets out that a DCO application must be decided in accordance with any relevant NPS, unless certain specified exceptions apply.

4.5.2 NPSs are designed to set the policy framework for the 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, to deliver sustainable development. The Examining Authority will have regard to applicable NPSs in its examination of applications for development consent. As noted above, the relevant SoS must also have regard to them and decide the application in accordance with applicable NPSs, subject to specified exceptions. NPSs include the UK Government's objectives for the development of nationally significant infrastructure in a particular sector, and set out:

- How these objectives will contribute to sustainable development;
- How these objectives have been integrated with other UK Government policies;
- How actual and projected capacity and demand have been taken into account;
- Relevant issues in relation to safety or technology;
- Circumstances where it would be particularly important to address the adverse impacts of development; and
- A clear framework for investment and planning decisions.

4.5.3 There are 12 designated NPSs relating to different types of infrastructure projects. Of these there are six energy NPSs, three of which are relevant to the Project, specifically:

- Overarching NPS for Energy (NPS EN-1);
- NPS for Renewable Energy Infrastructure (NPS EN-3) which covers nationally significant renewable energy infrastructure (including offshore generating stations in excess of 100 MW); and
- NPS for Electricity Networks Infrastructure (NPS EN-5) which covers the electrical infrastructure associated with an NSIP.

Overarching NPS For Energy (En-1)

4.5.4 NPS EN-1 sets out the national policy for energy related nationally significant infrastructure projects and should be read in conjunction with the relevant technology-specific NPSs for the energy sector.

4.5.5 NPS EN-1 sets out the need for energy NSIPs, noting that the UK requires a mix of energy infrastructure types if it is to achieve security of supply, reduce greenhouse gas emissions and meet legally binding targets. EN-1 states that:

- *"Given the vital role of energy to economic prosperity and social well-being, it is important that our supplies of energy remain secure, reliable and affordable."*

4.5.6 NPS EN-1 recognises that the UK needs to reduce its reliance on a high carbon energy mix to reduce GHG emissions and improve the security, availability, and affordability of energy through diversification. The Government has committed to reduce GHG emissions by 78 per cent by 2035 under the Sixth Carbon Budget. According to the Net Zero Strategy this means that by 2035, all our electricity will need to come from low carbon sources, subject to security of supply, whilst meeting a 40-60 per cent increase in demand.

4.5.7 The UK Government has concluded that there is a critical national priority (CNP) for the provision of nationally significant low carbon infrastructure. Low carbon infrastructure for the purposes of this policy means: for electricity generation, all onshore and offshore generation that does not involve fossil fuel combustion (that is, renewable generation, including anaerobic digestion and other plants that convert residual waste into energy, including combustion, provided they meet existing definitions of low carbon; and nuclear generation), as well as natural gas fired generation which is carbon capture ready for electricity grid infrastructure, all power lines in scope of NPS EN-5 including network reinforcement and upgrade works, and associated infrastructure such as substations.

4.5.8 This is not limited to those associated specifically with a particular generation technology, as all new grid projects will contribute towards greater efficiency in constructing, operating, and connecting low carbon infrastructure to the National Electricity Transmission System.

4.5.9 Applicants for CNP infrastructure must continue to show how their application meets the requirements in the NPS and the relevant technology specific NPS, applying the mitigation hierarchy, as well as any other legal and regulatory requirements.

4.5.10 NPS EN-1 recognises that given the urgent need for new electricity infrastructure and the time it takes for electricity NSIPs to move from design conception to operation, there is an urgent need for new (and particularly low carbon) electricity NSIPs to be brought forward as soon as possible.

4.5.11 The Government is committed to increasing the amount of renewable energy capacity and recognises that wind is amongst the lowest cost and secure sources of electricity supply. A secure, reliable, affordable net zero consistent system in 2050 is therefore likely to have wind as a significant generator. As part of delivering this, UK Government announced in the British Energy Security Strategy an ambition to deliver up to 50 gigawatts (GW) of offshore wind by 2030, including up to 5GW of floating wind and the requirement in the Energy White Paper for sustained growth in the capacity of onshore wind (Paragraph 3.3.21).

4.5.12 EN-1 sets out that the SoS should assess all applications for development consent on the basis that the government has demonstrated that there is a need for NSIP infrastructure which is urgent. In addition, the SoS has determined that substantial weight should be given to this need when considering applications for development consent under PA2008 (Paragraphs 3.2.6 and 3.2.7).

4.5.13 In considering any proposed development, when weighing its adverse impacts against its benefits, the Secretary of State should take into account:

- Its potential benefits including its contribution to meeting the need for energy infrastructure, job creation, reduction of geographical disparities, environmental enhancements, and any long-term or wider benefits.
- its potential adverse impacts, including on the environment, and including any long-term and cumulative adverse impacts, as well as any measures to avoid, reduce, mitigate, or compensate for any adverse impacts, following the mitigation hierarchy.
- The decision maker may consider other documents such as Development Plan documents that may be considered both important and relevant. However, EN-1 makes clear that in the event of conflict between an energy NSIP and policies set out in the Local Development Framework(s), the NPS takes precedence in the decision-making process (Paragraph 4.1.15).
- NPS EN-1 also identifies criteria for good design for Energy Infrastructure. It is stated that whilst the visual appearance of a building or structure is often considered the most important factor in good design, quality inclusive design goes beyond aesthetic considerations. The functionality of infrastructure including its fitness for purpose and sustainability is equally important (Paragraph 4.7.1).
- 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 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 (Paragraph 4.7.2).
- With regards to biodiversity net gain policy in England only applies to terrestrial and intertidal components of projects. Principles for Marine Net Gain are currently being rolled out by the Government, who will provide guidance in due course. There are provisions in the Environment Act 2021 to allow Marine Net Gain to be made mandatory for NSIPs in the future. Projects should therefore not only avoid, mitigate, and compensate harms, following the mitigation hierarchy, but also consider whether there are opportunities for enhancements (section 4.6).

NPS For Renewable Energy (En-3)

4.5.14 The NPS EN-3 covers nationally significant renewable energy infrastructure including energy from offshore wind greater than 100MW.

4.5.15 Electricity generation from renewable sources of energy is an important element in the Government's development of a low-carbon economy. As set out in the British Energy Security Strategy (BESS), the Government expects that offshore wind (including floating wind) will play a significant role in meeting demand and decarbonising the energy system. EN3 reiterates the ambition to deploy up to 50GW of offshore wind capacity (including up to 5GW floating wind) by 2030, with an expectation that there will be a need for substantially more installed offshore capacity beyond this to achieve net zero carbon emissions by 2050.

4.5.16 Paragraph 2.5.2 requires proposals for renewable energy infrastructure to demonstrate good design, particularly in respect of landscape and visual amenity, and in the design of the project to mitigate impacts such as noise and effects on ecology and heritage.

4.5.17 NPS EN-3 details a number of technical considerations, such as grid connection and flexibility in project details, and impacts that should be taken into account when determining proposals for offshore windfarms including ecology, historic environment, and navigation and shipping.

NPS For Electricity Networks Infrastructure (En-5)

4.5.18 The NPS EN-5 is relevant for proposals that include transmission lines and distribution systems and associated infrastructure such as substations and converter stations.

4.5.19 NPS EN-5 recognises that the electricity generating infrastructure that is required in the UK needs to move to a low carbon economy and that maintaining security of supply will be heavily dependent on a fit for purpose electricity network. The network will need to be able to cope with a more complex supply system with more varied sources of generation.

4.5.20 When planning and evaluating the proposed development's contribution to environmental and biodiversity net gain, it will be important – for both the applicant and the Secretary of State – to supplement the generic guidance set out in NPS EN-1 (Section 4.6) with recognition that the linear nature of electricity networks infrastructure can allow for excellent opportunities to:

- Reconnect important habitats via green corridors, biodiversity stepping zones, and reestablishment of appropriate hedgerows; and/or
- Connect people to the environment, for instance via footpaths and cycleways constructed in tandem with environmental enhancements.

4.5.21 Alongside NPS EN-3, this NPS also sets out at section 2.9 several generic impacts that should be considered when determining a DCO. The generic impacts listed in NPS EN-5 include biodiversity and geological conservation, landscape and visual, noise and vibration, and electric and magnetic fields. It is emphasised that this list is it not intended to be exhaustive, and applicants are required to assess all likely significant effects of their proposals.

4.6 Marine Policy Framework

Marine and Coastal Access Act 2009

4.6.1 The Marine and Coastal Access Act 2009 (MCAA) sets out a spatial planning system for improved management and protection of the marine and coastal environment. The MCAA established the Marine Management Organisation (MMO), the authority tasked with ensuring the delivery of sustainable development in the marine area. The MMO remains the monitoring and enforcement body in respect of the conditions and restrictions set out in the deemed Marine Licences.

4.6.2 The MCAA enables the designation of Marine Conservation Zones (MCZs) in England and Wales as well as UK offshore areas. MCZs are intended to conserve a functioning marine ecosystem without a specific bias towards any particular species or habitat.

4.6.3 The MCAA contains provisions for the coastal environment, including improving access to the coast and undertaking Integrated Coastal Zone Management, which brings policy makers, decision makers and stakeholders together to manage coastal and estuarine areas.

Marine Policy Statement 2011

4.6.4 The PA2008 104(2)(b) requires the Secretary of State when deciding DCO applications to have regard to relevant marine plans.

4.6.5 The Marine Policy Statement (MPS) adopted by all UK administrations provides the policy framework for the preparation of Marine Plans, establishing how decisions affecting the marine area should be made in order to enable sustainable development.

4.6.6 4.6.6 The UK vision for the marine environment is for ‘clean, healthy, safe, productive and biologically diverse oceans and seas’.

4.6.7 4.6.7 The MPS states that whilst harnessing and connecting offshore wind is more technologically challenging and expensive than onshore wind, it has larger potential due to a stronger and more consistent wind source leading to higher power outputs. Offshore wind has the potential to have the biggest

impact in the medium-term on security of energy supply and carbon emission reductions.

4.6.8 4.6.8 The MPS sets out (at paragraph 3.3.4) that when decision makers are determining applications for energy infrastructure they should take into account:

- The national level of need for energy infrastructure, as set out in the Overarching NPS for Energy (EN-1 which applies in England and Wales, the National Planning Framework which applies in Scotland and the Strategic Energy Framework in Northern Ireland;
- The positive wider environmental, societal and economic benefits of low carbon electricity generation and carbon capture and storage as key technologies for reducing carbon dioxide emissions; and
- The potential impact of inward investment in offshore wind, wave, tidal stream and tidal range energy related manufacturing and deployment activity; as well as the impact of associated employment opportunities on the regeneration of local and national economies. All of these activities support the objective of developing the UK's low carbon manufacturing capability.

4.6.9 The MPS accepts that renewable energy infrastructure can potentially have adverse effects on fish, mammals, and birds but at the same time recognises at paragraph 3.3.19 that:

- *"The UK has some of the best wind resources in the world and offshore wind will play an important and growing part in meeting our renewable energy and carbon emission targets and improving energy security by 2020, and afterwards towards 2050"*

  and that:

- *"Offshore wind has the potential to have the biggest impact in the medium-term on security of energy supply and carbon emission reductions through its commercial scale output".*

Marine Plans

4.6.10 The Project's Offshore Area covers both the East Inshore and East Offshore Marine Plans and the South East Inshore Marine Plan areas. Together with the MPS, the marine plans underpin the planning system for England's seas. They provide a clear approach to managing resources, and the activities and interactions in the East Inshore and Offshore areas. The marine plans do not establish new requirements or policies; however, they do clarify the intent of national policy to the marine plan areas.

4.6.11 An assessment of the projects compliance with the policies and objectives of the Marine Plans is provided in the Marine Plan Assessment (Document Reference:: 7.2)

The East Inshore and East Offshore Marine Plans 2014

4.6.12 The East Inshore and East Offshore Marine Plans (together 'the East Marine Plans') were the first marine plans to be adopted in England. The East Inshore Marine Plan Area includes the area of sea stretching from Flamborough Head to Felixstowe and extends out to the seaward limit of the territorial sea (approximately 12 nautical miles). The East Offshore Marine Plan Area extends from the seaward limit of the territorial sea out to the boundary of the Exclusive Economic Zone including maritime borders with the Netherlands, Belgium and France. The East Marine Plan areas support over 50% of England's current offshore wind capacity. Offshore wind energy production occurs alongside 29 marine protected area designations, including 6 marine conservation zones and a proposed highly protected marine area. The East Marine Plan areas are also important for aggregates and fisheries, as well as for ports and shipping.

4.6.13 The East Marine Plan contain 11 objectives, which are supported by 38 plan policies. Both the policies and objectives of the plans were developed to help deliver the government's vision and high-level marine objectives (HLMOs), as set out in the UK Marine Policy Statement.

4.6.14 The overall vision for the East Marine Plan areas is:

- *"By 2034, sustainable, effective and efficient use of the East Inshore and East Offshore Marine Plan Areas has been achieved, leading to economic development while protecting and enhancing the marine and coastal environment, offering local communities new jobs, improved health and well-being. As a result of an integrated approach that respects other sectors and interests, the East marine plan areas are providing a significant contribution, particularly through offshore wind energy projects, to the energy generated in the United Kingdom and to targets on climate change".*

4.6.15 In accordance with Policy EC3, proposals that will help the East Marine Plan areas to contribute to offshore wind energy generation should be supported. This is also reinforced by Policy WIND2 which states that proposals for Offshore Wind Farms inside Round 3 zones, including relevant supporting projects and infrastructure, should be supported. While North Falls is not in a Round 3 zone, the 2017 Extension projects (including North Falls) were brought forward to expedite offshore wind development, recognising the urgent need for renewable energy.

4.6.16 In addition, the East Marine Plans list several objectives (Objective, 6, 7 and 8) relating to biodiversity, ecosystems and ecological networks and Policy

BIO1 and BIO2, which relate to the protection of habitats and species that are protected or of conservation concern in the East Marine Plans and adjacent areas (marine, terrestrial), and where appropriate, the enhancement of biodiversity and geological interests.

4.6.17 Appropriate provision should be made for infrastructure on land which supports activities in the marine area and vice versa in line with Policy GOV1.

4.6.18 Sections 54 and 61 of the Marine and Coastal Access Act 2009 require the plans to be kept under review and reports published every 3 years following their adoption. The second and third reports prepared by the MMO found numerous changes to the legislative and policy landscape since the adoption of the East marine plans. Examples of the key context changes found include shifts in national priorities to support the expansion of offshore wind development, as well as the delivery of the government's net zero targets and goals for improving the environment.

4.6.19 In 2023, the Secretary of State for Environment, Food and Rural Affairs agreed with the Marine Management Organisation's recommendation to replace the East Inshore and East Offshore Marine Plans. The two adopted East Inshore and East Offshore Marine Plans will be replaced with a new amalgamated marine plan which will be the first of a second generation of plans for English waters.

4.6.20 It is in early stages of production with a target adoption date of 2027. At time of submission of the Application no further available. The current adopted East Inshore and East Offshore Marine Plans therefore remain relevant for consideration by the Secretary of State.

South East Inshore Marine Plan 2021

4.6.21 The South East Inshore Marine Plan area stretches from Felixstowe in Suffolk to near Folkestone in Kent, covering approximately 1,400 kilometres of coastline, taking in a total of approximately 3,900 square kilometres of sea. The French marine area, East Inshore and Offshore Marine Plan areas and the south inshore marine plan area border the South East Inshore Marine Plan area. There is no offshore marine plan in the south east.

4.6.22 The vision for the South East Marine Plan area by 2041 is for it to be substantial maritime gateway to the world with thriving important ports. The valuable cultural heritage, environmental assets and seascape of the south east are more appreciated and resilient including to the impacts of climate change and coastal change and the important role that marine and estuarine environments and their biodiversity play in mitigating climate change is realised. Decisions made in the marine plan area apply an ecosystem approach of natural capital framework so that the environment is in a better state than before, and Good Environmental Status is achieved. The South East Marine Plan promotes good governance and has solved challenges and

conflicts in the crowded marine plan area through enabling plan-led decisions, taking account of cumulative effects and coordinating the co-existence of activities (South East Marine Plan page 16).

4.6.23 The vision for the South East Inshore Marine Plan is to be achieved through 13 objectives which reflect the high-level marine objectives set out in the MPS. These include Objective 7 that the coast and its resources are safe to use and Objective 8 for recognition of the important role the marine environment has in mitigating climate change. Objectives 11, 12 and 13 seek to ensure that biodiversity is protected, conserved and where appropriate recovered, delivering healthy resilient marine ecosystems and supporting rare, vulnerable and valued species.

4.6.24 The plan objectives are supported by 55 Policies, which include Policy SE-REN-3 which sets out support in principle for proposals for the installation of infrastructure to generate offshore renewable energy, inside areas of identified potential.

4.6.25 Policy SE-CAB-1 recognises that subsea cabling is important to the growth and sustainability of telecommunications, offshore wind farms and electricity transmission. SE-CAB-2 seeks to avoid the loss of existing and potential future landfall sites and supports all proposals that consider the requirement for future cable landfall opportunities, ensuring that socially and economically vital cable activities can continue.

4.6.26 The South East Inshore Marine Plan area is very busy with high-density navigation routes, strategically important navigation routes and passenger services. SE-PS-3 confirms that proposals that pose a risk to safe navigation or the viability of these routes and services should not be authorised. SE-PS-3 aims to protect these routes and services by enabling and promoting safe, profitable and efficient marine businesses.

4.6.27 Policy SE-HER-1 sets out support for proposals that demonstrate they will conserve and enhance the significance of heritage assets and Policy SE-CP-1 requires proposals not to have a significant adverse impact on the character and visual resource of the seascape and landscape of the area.

4.7 Planning Policy and Guidance

4.7.1 The following sub-sections consider national, regional, and local plans and policy, as set out in section 104 PA2008.

National Planning Policy Framework 2023

4.7.2 The National Planning Policy Framework (NPPF) sets out the Governments definition of sustainable development and identifies how planning policies for England are expected to be applied.

4.7.3 The NPPF does not contain specific policies for NSIP. As detailed above, these are determined in accordance with the decision-making framework in the PA2008 (as amended) and NPSs, as well as any other matters that the Secretary of State thinks are important and relevant to the planning decision, which may include the NPPF.

4.7.4 The key principles of relevance to the Project are listed in **Table 4.1**.

Table 4.1: NPPF Principles

Principle	NPPF Advice (with respective paragraph number)
Achieving Sustainable Development	The NPPF is purposefully positive, opportunity focused and pro-growth in seeking to facilitate development which will contribute to meeting the wider Government objectives. Paragraph 7 sets out that its main purpose is to deliver sustainable development, which has three obligations, social, environmental, and economic. North Falls is an inherently sustainable development and will assist in the achievement of this goal.
Promoting Sustainable Transport	All developments that will generate significant amounts of movement should be required to provide a travel plan, and the application should be supported by a transport statement or transport assessment so that the likely impacts of the proposal can be assessed (paragraph 117)
Making Effective Use of Land	Planning policies and decisions should promote an effective use of land in meeting the need for homes and other uses, while safeguarding and improving the environment and ensuring safe and healthy living conditions (paragraph 123).
Achieving Well-Designed Places	Planning policies and decisions should ensure that developments: 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; are visually attractive as a result of good architecture, layout and appropriate and effective landscaping; 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) (paragraph 135).
Meeting the Challenge of Climate Change, Flooding and Coastal Change	The planning system should support the transition to a low carbon future in a changing climate, taking full account of flood risk and coastal change. It should help to: shape places in ways that contribute to radical reductions in greenhouse gas emissions, minimise vulnerability and improve resilience; encourage the reuse of existing resources; and support renewable and low carbon energy and associated infrastructure (paragraph 157). New development should be planned for in ways that: a) avoid increased vulnerability to the range of impacts arising from

Principle	NPPF Advice (with respective paragraph number)
	climate change. When new development is brought forward in areas which are vulnerable, care should be taken to ensure that risks can be managed through suitable adaptation measures, including through the planning of green infrastructure; and b) can help to reduce greenhouse gas emissions, such as through its location, orientation, and design. Any local requirements for the sustainability of buildings should reflect the Government's policy for national technical standards (paragraph 159). To help increase the use and supply of renewable and low carbon energy and heat, plans should: • provide a positive strategy for energy from these sources, that maximises the potential for suitable development, and their future re-powering and life extension, while ensuring that adverse impacts are addressed appropriately (including cumulative landscape and visual impacts); • consider identifying suitable areas for renewable and low carbon energy sources, and supporting infrastructure, where this would help secure their development; and • identify opportunities for development to draw its energy supply from decentralised, renewable, or low carbon energy supply systems and for co-locating potential heat customers and suppliers. (paragraph 160).
Planning and Flood Risk	All plans should apply a sequential, risk-based approach to the location of development – taking into account all sources of flood risk and the current and future impacts of climate change – so as to avoid, where possible, flood risk to people and property (paragraph 167).
Conserving and Enhancing the Natural Environment	Planning policies and decisions should contribute to and enhance the natural and local environment by: (a) protecting and enhancing valued landscapes, sites of biodiversity or geological value and soils (in a manner commensurate with their statutory status or identified quality in the development plan); (b) recognising the intrinsic character and beauty of the countryside, and the wider benefits from natural capital and ecosystem services – including the economic and other benefits of the best and most versatile agricultural land, and of trees and woodland; (c) maintaining the character of the undeveloped coast, while improving public access to it where appropriate;

Principle	NPPF Advice (with respective paragraph number)
	(d) minimising impacts on and providing net gains for biodiversity, including by establishing coherent ecological networks that are more resilient to current and future pressures; (e) preventing new and existing development from contributing to, being put at unacceptable risk from, or being adversely affected by, unacceptable levels of soil, air, water or noise pollution or land instability. Development should, wherever possible, help to improve local environmental conditions such as air and water quality, taking into account relevant information such as river basin management plans; and (f) remediating and mitigating despoiled, degraded, derelict, contaminated and unstable land, where appropriate (paragraph 180).
Conserving and Enhancing the Historic Environment	When considering the impact of a proposed development on the significance of a designated heritage asset, great weight should be given to the asset's conservation (and the more important the asset, the greater the weight should be). This is irrespective of whether any potential harm amounts to substantial harm, total loss or less than substantial harm to its significance. (paragraph 205) Where a proposed development will lead to substantial harm to (or total loss of significance of) a designated heritage asset, local planning authorities should refuse consent, unless some or all the following apply: (a) the nature of the heritage asset prevents all reasonable uses of the site; and (b) no viable use of the heritage asset itself can be found in the medium term through appropriate marketing that will enable its conservation; and (c) conservation by grant-funding or some form of not for profit, charitable or public ownership is demonstrably not possible; and (d) the harm or loss is outweighed by the benefit of bringing the site back into use. (paragraph 207).

Local Policy

4.7.5 The NPSs provide the primary basis for decision making of a DCO under the PA2008. However, under section 104(2)(d) of the PA2008, the Secretary of

State must have regard to any other matters which the Secretary of State thinks are both important and relevant to their decision.

4.7.6 The Secretary of State must have regard to any Local Impact Report produced by the Local Authority. S. 60 (3) of the PA2008 defines a Local Impact Report as "a report in writing giving details of the likely impact of the proposed development on the authority's area (or any part of that area)". The content of the Local Impact Report is a matter for the Local Authority, but this may include relevant development plan policies.

4.7.7 The North Falls onshore project area falls under the jurisdiction of the following county council and local planning authorities:

- Essex County Council; and
- Tendring District Council

Essex County Council

4.7.8 **Table 4.2** provides a summary of local planning documents of Essex County Council relevant to the Project.

Table 4.2: Essex County Policies and Strategies of Relevance

Policy	Summary
Everyone's Essex: our plan for levelling up the county, 2021 to 2025	This planning policy document contains the vision, objectives and strategic planning policies for development in Essex until 2025. Of particular relevance are the following commitments: Economy, Green Growth: "*We will develop Essex as a centre for innovation, supporting new technologies and business models to enable our economy to transition to net zero and secure green jobs for the future by ensuring we have the right local skills and drawing in investment opportunities*." Environment, Net Zero: "*We will work across the council and the county to hit our net zero targets, by ensuring that the council significantly reduces its carbon footprint, whilst also supporting an acceleration in the progress towards sustainable housing and energy, and active and alternative forms of travel across the county. We will work with communities and businesses, providing advice and support to enable and empower local action to reduce greenhouse gas emissions and build climate resilience.*"
Essex Transport Strategy: The	Assesses transport needs and challenges and sets out its transport aspirations over the 2011 – 2026 period. To improve maintenance of existing transport networks, support

Policy	Summary
Local Transport Plan for Essex	sustainable economic growth and regeneration; reduce carbon emissions.
Essex County Council Local Flood Risk Management Strategy	Aims to manage the risk of flooding in the region and inform all groups and individuals who may have an interest in, or an ability to influence or manage flood risk.
Net Zero: Making Essex Carbon Neutral	Net Zero: Making Essex Carbon Neutral, sets out recommendations to 2050 and recognises that Essex County Council (ECC) cannot tackle this challenge alone. This document outlines the immediate actions ECC is taking directly and in concert with partners to drive effective progress against the Essex Climate Action Commission's (ECAC) recommendations. One of the priorities is to support the development of renewable energy generation in the county.
Essex County Council Minerals Local Plan	Contains policies that determine how the Council determine minerals development in the county up to 2029, the steps needed to make it happen and the measures necessary to assess the progress. Policy S8 of the MLP states that for Mineral Safeguarding Areas: "*Mineral Safeguarding Areas are designated for mineral deposits of sand and gravel, silica sand, chalk, brickearth and brick clay considered to be of national and local importance, as defined on the Policies Map. The Mineral Planning Authority shall be consulted on: a) all planning applications for development on a site located within an MSA that is 5ha or more for sand and gravel, 3ha or more for chalk and greater than 1 dwelling for brickearth or brick clay; and b) any land-use policy, proposal or allocation relating to land within an MSA being considered by the Local Planning Authority for possible development as part of preparing a Local Plan (with regard to the above thresholds). Non-mineral proposals that exceed these thresholds shall be supported by a minerals resource assessment to establish the existence or otherwise of a mineral resource of economic importance. If, in the opinion of the Local Planning Authority, surface development should be permitted, consideration shall be given to the prior extraction of existing minerals*."

Policy	Summary
Essex County Council Green Infrastructure Strategy	The strategy provides a plan to guide the future planning and delivery of green infrastructure in Essex.
Essex County Council Rural Strategy	The Essex Rural Partnership brings together organisations in the public, private and voluntary sectors to co-ordinate action on the major economic, social, and environmental issues facing rural Essex.
NSIPs Policy (2022)	Sets out the Council's position in relation to NSIPs in general terms, including how and when it will engage in the DCO process.

Tendring District Council

4.7.9 The adopted Development Plan covering the onshore area comprises of:

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

4.7.10 Key Policies of relevance to the North Falls Project are detailed in **Table 4.3**.

Table 4.3: Tendring District Local Planning Policies of Relevance.

Policy	Summary
Tendring District Local Plan Section 1 Plan	
Policy 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. They will always 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.
Policy SP2: Recreational Disturbance Avoidance and	Contributions will be secured from development towards mitigation measures in accordance with the Essex Coast Recreational Disturbance Avoidance and Mitigation Strategy 2018-2038 (RAMS).

Policy	Summary
Mitigation Strategy (RAMS);	
Policy SP7: Place Shaping Principles;	All new development should… include measures to promote environmental sustainability including addressing energy and water efficiency, and provision of appropriate water and wastewater and flood mitigation measures including the use of open space to provide flora and fauna rich sustainable drainage solutions.
Tendring District Local Plan Section 2 Plan	
Objective 2 Employment/ Commercial	Seeks to create conditions for economic growth and employment opportunities across various economic sectors including established business sectors and growing sectors, such as renewable energy and care and assisted living. Also seeks to support diversity of employment opportunities through development of employment land to reduce the need to travel and promote sustainable growth.
Objective 7 The Historic Environment	Supports the conservation and enhancement of Tendring's District historic environment.
Objective 8 Biodiversity	Seeks to provide interconnected multi-functional natural green and blue spaces securing biodiversity and geodiversity net gain, promoting healthy lifestyles, and enhancing the quality of the natural and built environment.
Policy SPL 3 Sustainable Design	Ensures that all new development: • makes a positive contribution to the quality of the local environment and protects or enhances local character; • meets practical requirements (in terms of highway networks, access, safety and security, greenhouse gas emissions, design for daylight, outlook and privacy, private amenity space, waste storage, recycling, and parking); • is compatible with surrounding uses and minimises adverse environmental impacts; and • incorporates climate change adaptation measures and technology from the outset, including reduction of emissions, renewable and low carbon energy production, passive design, and through green infrastructure techniques.

Policy	Summary
Policy HP 3 Green Infrastructure	Aims to use green infrastructure as means of adapting to and mitigating the effects of climate change and ensures that all new development is designed to include and protect and enhance existing green Infrastructure in the local area.
Policy PPL1 Development and Flood Risk;	All development proposals should include appropriate measures to respond to the risk of flooding on and/or offsite.
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.
Policy PPL 4: Biodiversity and Geodiversity;	Sites designated for their international, European and national importance to nature conservation: including Ramsar sites; Special Protection Areas(SPAs); Special Areas of Conservation (SACs); Marine Conservation Zones (MCZs); National Nature Reserves (NNRs); and Sites of Special Scientific Interest (SSSIs) will be protected from development likely to have an adverse effect on their integrity. As a minimum, there should be no significant impacts upon any protected species. Sites designated for their local importance to nature conservation, including Local Wildlife Sites (LoWS), Ancient Woodlands Protected Verges and aged or veteran trees will be protected from development likely to have an adverse impact on such sites or features. Proposals for new infrastructure and major development should consider the potential for enhanced biodiversity, appropriate to the site and its location, including, where appropriate, within Green Infrastructure.
Policy PPL 7 Archaeology	Ensures that new development proposals which would or might affect designated or non-designated archaeological remains is supported by an appropriate desk-based assessment. The Council will not support new development which is not able to demonstrate that known or possible archaeological remains will be suitably protected from loss or harm or have an appropriate level of recording.
Policy PPL10: Renewable Energy Generation and	Proposals for renewable energy schemes will be considered having regard to their scale, impact (including

Policy	Summary
Energy Efficiency Measures	cumulative impact) and the amount of energy which is to be generated.
Policy CP2 Improving the Transport Network	Seeks to secure provision for a safe and efficient transport network for new development proposals. For major developments, measures to prioritise cycle and pedestrian movements, should be included.
Policy DI1 Infrastructure Delivery and Impact Mitigation	All new development should be supported by, and have good access to, all necessary infrastructure.

Neighbourhood Plans

4.7.11 A Neighbourhood Plan allows communities to take a proactive approach to deciding the future of the places where they live and work. Once 'made' (adopted) a Neighbourhood Plan has the same legal status as the district wide Local Plan and will be used alongside the Local Plan in deciding planning applications that fall within its area.

4.7.12 A very small extent of the Project Onshore Area lies within the boundaries of Ardleigh Neighbourhood Plan. The parcel of land within the Neighbourhood Plan boundary is to accommodate the 400kV East Anglia Connection Node (EACN) as illustrated on ES Chapter 5 Figure 5.2 (Document Reference: 3.2.3).

4.7.13 As detailed at section 2.11 of this Statement the National Grid EACN substation facilitates the connection of the offshore generation to the main National Electricity Transmission System. The EACN will be consented separately by National Grid as part of their DCO Application and the works to construct the new EACN substation will be undertaken by National Grid.

4.7.14 The North Falls Project will connect to the EACN via cables and associated infrastructure (See Section 2.11 of this Statement). As details of the EACN are forthcoming, the entirety of the EACN area has been included within the North Falls Onshore Project Area to facilitate a flexible connection design response.

4.7.15 The Neighbourhood Plan was subject to independent examination in July 2023. In May 2024 the Examiners Report was published finding that the Neighbourhood Plan met the Basic Conditions and could proceed to referendum which is scheduled to take place in September 2024.

5 ACCORDANCE WITH NATIONAL POLICY STATEMENTS AND OTHER NATIONAL AND LOCAL POLICY

5.1 Overview

5.1.1 This section of the Statement presents an overview of the projects accordance with key policies of the NPS as well as other relevant policy including Marine Plans, and national and local planning policy where relevant. It is presented under the individual topic chapters of the ES submitted with the Application and details a summary of the EIA findings.

5.1.2 The policies listed here are not exhaustive but rather highlight key policy considerations. Each chapter of the ES includes details of how specific NPS applicant assessment requirements for each topic have been addressed. For the sake of brevity these are not repeated here; the reader is directed to each ES chapter for clarity and discussion on this point.

5.1.3 It is also highlighted that detailed consideration of the Project's compliance with the specific policies of the East Marine Plans and the South East Inshore Marine Plan is demonstrated in accompanying document Marine Plan Assessment (Document Reference: 7.5) to which the reader is directed.

5.2 Marine Geology, Oceanography and Physical Processes

Summary of Topic Policy Considerations

National Policy Statements

5.2.1 NPS EN-1 Paragraphs 5.6.16 to 5.6.23 set out that, in decision making, the Secretary of State should be satisfied that the proposed development will be resilient to coastal erosion and deposition, taking account of climate change and mitigation measures, during the project's operational life and any decommissioning period.

5.2.2 Section 2.8 of NPS EN-3 provides additional detail regarding potential impact of offshore wind infrastructure on the marine environment. Paragraph 2.8.11 sets out how direct effects on the physical environment can have indirect impacts on other receptors. In determining applications for offshore wind, NPS EN-3 directs the Secretary of State (at paragraph 2.8.309) must be satisfied that the design and methods of construction reasonably minimise impact on the physical environment.

Other Relevant Policy

5.2.3 A key principle of the MPS is to manage competing demands, reduce conflict and promote compatibility in the marine area (Paragraphs 2.2.1, 2.3.1.5 and 3.8.10). It requires marine plans to consider cumulative impacts (Paragraph 2.3.1.6). There is an expectation in the MPS to ensure that the collective

pressure of human activities is kept within levels compatible with achievement of Good Environmental Status.

5.2.4 Objective 6 of the East Marine Plans reflects policies and commitments on the wider ecosystem set out in the Marine Policy Statement. It is recognised (at paragraph 184) that elements of the ecosystem beyond specific biodiversity interests include (inter alia): water quality characteristics, coastal processes and the interaction between various pressures acting on the environment.

5.2.5 Policy ECO1 of the East Marine Plans sets out that cumulative impacts affecting the ecosystem of the East Marine Plans should be addressed in decision making.

5.2.6 Policy SE-MPA-4 of the South East Inshore Marine Plan ensures that proposals take account of adverse impacts on individual sites and the overall network, protecting important habitats and geological features. Proposals that cannot avoid, minimise or mitigate adverse effects will not be supported.

Summary of Compliance

5.2.7 This topic is assessed in ES Chapter 8 Marine Geology, Oceanography and Physical Processes (Document Reference: 3.1.10).

5.2.8 Information on physical processes within the physical processes study area was collected through detailed desktop review of existing studies and datasets and supported by numerical modelling, and the assessments were undertaken having full regard to the relevant sections of NPS EN-1 and NPS EN-3. The assessment was also supplemented with additional information from other offshore wind farms (e.g. GGOW and GWF), including modelling of tides and sedimentary processes.

5.2.9 Water depths in the array area range from 5m below LAT up to 58m, while along the offshore cable corridor, water depths range between 1.5m below LAT to 42.4m. Tidal flows are directed to the north-north-east during the ebb tide and to the south-south-west during the flood tide. Modelled current velocities are similar on both states of the tide, ranging from 0.9m/s to 1.3m/s. Primary wave direction is from the north-north-east to south-south-west axis, with the most common wave heights between 0.5m and 1.5m.

5.2.10 The geology of North Falls is predominantly Eocene to Holocene, generally consisting of Holocene deposits overlying Pleistocene channel complexes and infill deposits, which overlie the London Clay Formation and the Harwich Formation.

5.2.11 Potential impacts assessed for the construction and decommissioning phases include:

- Changes to suspended sediment concentrations;

- Changes in seabed level; and
- Interruptions to bedload sediment transport and indentations on the seabed, from installation of offshore infrastructure and preparatory seabed works.

5.2.12 Potential impacts assessed for the operation and maintenance phase include:

- Changes to the tidal, wave and sediment transport regimes due to the presence of structures on the seabed;
- Loss of seabed area;
- Morphological and sediment transport effects; and
- Changes in suspended sediment concentrations and indentations on the seabed.

5.2.13 Mitigation has been incorporated into the project design, including turbine spacing which reduces interactions between the effects of individual turbines; using micro-siting where practicable to minimise the requirements for seabed preparation prior to installation; and burying cables where practicable to reduce the impact on sediment transportation processes.

5.2.14 Table 8.51 of ES Chapter 8: Marine Geology, Oceanography and Physical Processes (Document Reference: 3.1.10) provides a summary of the potential environmental effects arising from the Project. With the implementation of mitigation measures, North Falls is predicted to have no greater than negligible adverse (not significant in EIA terms) effects on marine geology, oceanography and physical processes during all project phases.

5.2.15 There is potential for cumulative effects to occur with Five Estuaries Offshore Wind Farm and other projects. However, when considering proposed mitigation measures, it is not anticipated that cumulative effects are likely to be significant in EIA terms.

5.2.16 Accordingly, it has been demonstrated that North Falls accords with requirements of NPS EN-1, NPS EN-3, East Marine Plan Policy ECO1 and South East Inshore Marine Plan Policy SE-MPA-1 in respect of physical marine processes.

5.2.17 The presumption in favour of consent as an energy NSIP and CNP is unaffected by the limited effects on Marine Geology Oceanography and Physical Processes.

5.3 Marine Water and Sediment Quality

Summary of Key Topic Policy Considerations

National Policy Statements

5.3.1 Section 5.16 of NPS EN-1 set out a series of principles that will be considered by the Secretary of State when reaching a decision on marine water and sediment quality. EN-1 (5.16.3) requires an assessment of the proposed project on water quality and water environment.

5.3.2 Section 2.8 of NPS EN-3 provides additional detail regarding potential impact of offshore wind infrastructure on the marine environment. Paragraphs 2.8.111 sets out how direct effects on the physical environment can have indirect impacts on other receptors. In determining applications for offshore wind, NPS EN-3 directs the Secretary of State (at paragraph 2.8.309) must be satisfied that the design and methods of construction reasonably minimise impact on the physical environment.

Other Relevant Policy

5.3.3 A key principle of the MPS is to manage competing demands, reduce conflict and promote compatibility in the marine area (Paragraphs 2.2.1, 2.3.1.5 and 3.8.10). It requires marine plans to consider cumulative impacts (Paragraph 2.3.1.6). There is an expectation in the MPS that more should be done than is currently provided for in existing measures, to ensure that the collective pressure of human activities is kept within levels compatible with achievement of Good Environmental Status.

5.3.4 Objective 6 of the East Marine Plans reflects policies and commitments on the wider ecosystem set out in the Marine Policy Statement. It is recognised (at paragraph 184) that elements of the ecosystem beyond specific biodiversity interests include (inter alia): water quality characteristics, coastal processes and the interaction between various pressures acting on the environment.

5.3.5 Policy ECO1 of the East Marine Plans sets out that cumulative impacts affecting the ecosystem of the East marine plans should be addressed in decision making and Policy ECO2 requires risk posed by potential for release of hazardous substances to be taken into account.

5.3.6 Policy SE-WQ-1 of the South East Inshore Marine Plan supports activities with a primary objective to protect, enhance and restore water quality. It also manages activities that may cause deterioration of water quality by ensuring that adverse impacts from proposals are avoided, minimised and mitigated.

Summary Of Compliance

5.3.7 This topic is assessed in ES Chapter 9 Marine Water and Sediment Quality (Document Reference: 3.1.11).

5.3.8 In accordance with the relevant requirements for assessment set out in NPS EN-1 and NPS EN-3 Site specific data was collected from a geophysical survey of the array area and offshore cable corridor between May and August 2021. A seabed survey was also undertaken at the same time, where samples were taken for particle size analysis and chemical contaminant analysis. Other water quality and sediment related data from previous years were also used to inform this assessment. These sources included reports and data from the Clean Seas Environmental Monitoring Programme (CESAMP), the Environment Agency Catchment Data Explorer, and wider data on benthic surveys and water profiles.

5.3.9 Marine sediment and water quality are closely related to the marine geology and physical processes impact assessment and so they share the same study area of 15km around the offshore project area.

5.3.10 Sediment across the study area comprises a mix of gravel, sand and mud. Sand was the predominant sediment type in the array area.

5.3.11 The offshore cable corridor runs through the Water Environment Regulations (WER) Essex coastal water body, which is characterised as a 'heavily modified' water body due to flood and coastal protection management. It is currently classified as having an overall 'moderate' status.

5.3.12 There are nine designated bathing waters within the Essex coastal WER water body. The Holland bathing water is located adjacent to the offshore cable corridor/landfall area and the Frinton bathing water is located approximately 1.2km to the north. Both Holland and Frinton are classified as having excellent bathing water quality.

5.3.13 Potential impacts assessed for the construction, operation and maintenance and decommissioning phases include:

- Increase in suspended sediment; and
- Deterioration of water quality due to the release of existing contaminants in the sediment.

5.3.14 Mitigation will be incorporated to minimise these impacts by the commitment to use good practice techniques, such as ensuring relevant risk assessments are carried out for chemicals to be used at sea, and ensuring spill kits are available nearby in the event of chemical spill to reduce the likelihood and severity of any accidental release of pollutants.

5.3.15 Table 9.19 of ES Volume 2 Chapter 9 (Document Reference: 3.1.11) provides a summary of the potential environmental effects of the Project on marine water and sediment quality. With the implementation of mitigation measures,

North Falls is predicted to have no greater than minor adverse (not significant in EIA terms) effects on marine water and sediment quality during all project phases.

5.3.16 There is potential for cumulative effects to occur with Five Estuaries Offshore Wind Farm and other projects. However, when considering proposed mitigation measures, it is not anticipated that cumulative effects are likely to be significant in EIA terms.

5.3.17 Accordingly, it has been demonstrated that North Falls accords with requirements of NPS EN-1 and NPS EN-3, East Marine Plans Policies ECO1 and ECO2 and South East Inshore Marine Plan policy SE-WQ-1.

5.3.18 The presumption in favour of consent as an energy NSIP and CNP is unaffected by the negligible potential effects on Marine Water and Sediment Quality.

5.4 Benthic and Intertidal Ecology

Summary Of Key Topic Policy Considerations

National Policy Statements

5.4.1 Part 5.4 of NPS EN-1 sets out matters relevant to Biodiversity and geological conservation at national level. It is recognised at paragraph 5.4.1 that '*Biodiversity is the variety of life in all its forms and encompasses all species of plants and animals and the complex ecosystems of which they are a part'*.

5.4.2 NPS EN-1 paragraph 5.4.44 directs that if significant harm to biodiversity cannot be avoided then the Secretary of State will give significant weight to any residual harm.

5.4.3 NPS EN-1 (paragraph 5.4.41) sets out that the benefits of nationally significant low carbon energy infrastructure development may include benefits for biodiversity and geological conservation interests and these benefits may outweigh harm to these interests. The Secretary of State may take account of any such net benefit where it can be demonstrated.

5.4.4 NPS EN-1 paragraph 5.4.42 states that as a general principal development should, in line with the mitigation hierarchy, aim to avoid significant harm to biodiversity and geological conservation interests. Where significant harm cannot be avoided, impacts should be mitigated, and as last resort appropriate compensation measures should be sought.

5.4.5 Paragraph 2.8.33 of NPS EN-3 sets out that whilst technical suitability of foundation design is not in itself a matter for the Secretary of State they will need to be satisfied that the foundations will not have an unacceptable adverse effect on marine biodiversity, the marine environment or marine heritage assets.

Other Relevant Policy

5.4.6 5.4.6 A key principle of the Marine Policy Statement (MPS) is to manage competing demands, reduce conflict and promote compatibility in the marine area (paragraphs 2.2.1, 2.3.1.5 and 3.8.10). It requires marine plans to considering cumulative impacts: Marine plans should *"... identify how the potential impacts of activities will be managed, including cumulative effects"* (2.3.1.6). There is an expectation that more is done than currently provided for in existing measures, to ensure that the collective pressure of human activities is kept within levels compatible with achievement of Good Environmental Status.

5.4.7 5.4.7 Objective 6 of the East Marine Plans reflects policies and commitments on the wider ecosystem set out in the Marine Policy Statement. It is recognised (at paragraph 184) that elements of the ecosystem beyond specific biodiversity interests include (inter alia): water quality characteristics, coastal processes and the interaction between various pressures acting on the environment.

5.4.8 5.4.8 Policy ECO1 of the East Marine Plans sets out that cumulative impacts affecting the ecosystem of the East marine plans should be addressed in decision making and Policy BIO1 sets out that appropriate weight should be attached to biodiversity reflecting the need to protect biodiversity, taking account of the best available evidence.

5.4.9 5.4.9 Policy SE-BIO-2 of the South East Inshore Marine Plan supports and encourages proposals that enhance or facilitate native species or habitat adaptation or connectivity. It requires proposals to manage negative effects which may significantly adversely impact the functioning of healthy resilient and adaptable marine ecosystems. Proposals that cannot avoid, minimise, mitigate or compensate significant adverse impacts will not be supported.

Summary of Compliance

5.4.10 This topic is assessed in ES Chapter 10 Benthic and Intertidal Ecology (Document Reference: 3.1.12). The assessment detailed in the ES has been carried out in accordance with the relevant requirements for assessment set out in NPS EN-1 and NPS EN-3.

5.4.11 Benthic communities are the animals and plants associated with the seabed (living on or within the seabed substrate). Intertidal is the shore area between the level of mean highwater springs and mean low water springs. Direct effects on the intertidal area will be avoided as the Applicant has committed to drill the export cables under the intertidal zone.

5.4.12 Benthic and intertidal site characterisation was undertaken using geophysical surveys, benthic seabed sampling and an intertidal survey.

5.4.13 In addition, a desk-based review of available data from wider resources supported the assessment and used benthic survey reports from the neighbouring Greater Gabbard and Galloper offshore wind farms.

5.4.14 The study area is as defined for marine geology, oceanography and physical processes, based on an understanding of the tidal regime. The study area encompasses the offshore project area and a 15km buffer.

5.4.15 The principal receptors with respect to benthic and intertidal ecology are those habitats or species identified to be present. Of particular note are the Kentish Knock East MCZ which lies adjacent to the array area and the Margate and Long Sands SAC which lies adjacent to the offshore cable corridor.

5.4.16 Potential impacts assessed for the construction and decommissioning phases include:

- Temporary physical disturbance;
- Increased suspended sediment concentrations;
- Re-mobilisation of contaminated sediments; and
- Underwater noise and vibration.

5.4.17 For the operation and maintenance phase, potential impacts assessed include:

- Temporary physical disturbance from maintenance activities;
- Long term habitat loss from infrastructure on the seabed;
- Increased suspended sediment concentrations;
- Re-mobilisation of contaminated sediments;
- Underwater noise and vibration;
- Interactions of electromagnetic fields (EMF);
- Colonisation of introduced substrate, including by non-native species; and
- Indirect effects on intertidal zone.

5.4.18 Mitigation has been incorporated into the project design, including: the array area has been reduced to avoid direct overlap with the Kentish Knock East MCZ; the offshore cable corridor avoids overlap with the Margate and Long Sands SAC; the use of horizontal directional drilling at landfall to avoid impacts to the intertidal zone;; committing to burying cables where practicable to reduce the effects of habitat loss and EMF; micro-siting where practicable around seabed obstacles such as reefs to minimise potential effects on receptors; and employing biosecurity measures to reduce the potential spread of invasive non-native species.

5.4.19 Table 10.30 of ES Chapter 10: Benthic and Intertidal Ecology (Document Reference: 3.1.12) provides a summary of the potential environmental effects.

With the implementation of mitigation measures, North Falls is predicted to have no greater than minor adverse (not significant in EIA terms) effects on the benthic and intertidal ecology during all project phases.

5.4.20 There is potential for cumulative effects to occur with Five Estuaries Offshore Wind Farm and other projects. However, when considering proposed mitigation measures, it is not anticipated that cumulative effects are likely to be significant in EIA terms.

5.4.21 In addition to the ES, separate reports have been produced which specifically assess the effects on the SAC (see the Report to Inform Appropriate Assessment, Document Reference: 7.1) and the MCZ (see the MCZ Assessment, Document Reference: 7.3). They conclude that there will be no significant effects on the Margate and Long Sands SAC or Kentish Knock MCZ.

5.4.22 Accordingly, it has been demonstrated that North Falls accords with requirements of NPS EN-1 and NPS EN-3 and East Marine Policies ECO1 and BIO1.

5.4.23 The presumption in favour of consent as an energy NSIP and CNP is unaffected by the limited minor averse potential effects on Benthic and Intertidal Ecology.

5.5 Fish and Shellfish Ecology

Summary of Key Topic Policy Considerations

National Policy Statements

5.5.1 Part 5.4 of NPS EN-1 sets out matters relevant to Biodiversity and geological conservation at national level. It is recognised that 'Biodiversity is the variety of life in all its forms and encompasses all species of plants and animals and the complex ecosystems of which they are a part' (paragraph 5.4.1).

5.5.2 NPS EN-1 (paragraph 5.4.41) sets out that the benefits of nationally significant low carbon energy infrastructure development may include benefits for biodiversity and geological conservation interests and these benefits may outweigh harm to these interests. The Secretary of State may take account of any such net benefit where it can be demonstrated.

5.5.3 NPS EN-1 states that as a general principal development should, in line with the mitigation hierarchy, aim to avoid significant harm to biodiversity and geological conservation interests. Where significant harm cannot be avoided, impacts should be mitigated, and as a last resort appropriate compensation measures should be sought.

5.5.4 NPS EN-1 sets out matters relevant to Biodiversity and geological conservation at national level. It is recognised, at paragraph 5.4.1 that

"*Biodiversity is the variety of life in all its forms and encompasses all species of plants and animals and the complex ecosystems of which they are a part*".

5.5.5 NPS EN-1 paragraph 5.4.44 directs that if significant harm to biodiversity cannot be avoided then the Secretary of State will give significant weight to any residual harm.

5.5.6 Paragraph 2.8.33 of NPS EN-3 sets out that whilst technical suitability of foundation design is not in itself a matter for the Secretary of State they will need to be satisfied that the foundations will not have an unacceptable adverse effect on marine biodiversity, the marine environment or marine heritage assets.

5.5.7 Paragraphs 2.8.302 to 2.8.306 of NPS EN-3 sets out offshore wind-specific biodiversity policy. Specific considerations set out in NPS EN-3 (2.8.148 and 2.8.149) apply to the effect of offshore wind energy infrastructure proposals on fish and shellfish as set out below:

- *"There is potential for the construction and decommissioning phases, including activities occurring both above and below the seabed, to interact with seabed sediments and therefore have the potential to impact fish communities, migration routes, spawning activities, and nursery areas of particular species.*
- *There are potential impacts associated with energy emissions into the environment (e.g. noise or electromagnetic fields (EMF)), as well as potential interaction with seabed sediments."*

Other Relevant Policy

5.5.8 A key principle of the Marine Policy Statement (MPS) is to manage competing demands, reduce conflict and promote compatibility in the marine area (paragraphs 2.2.1, 2.3.1.5 and 3.8.10). It requires marine plans to considering cumulative impacts: Marine plans should *"... identify how the potential impacts of activities will be managed, including cumulative effects'* (2.3.1.6). There is an expectation that more is done than currently provided for in existing measures, to ensure that the collective pressure of human activities is kept within levels compatible with achievement of Good Environmental Status.

5.5.9 Objective 6 of the East Marine Plans reflects policies and commitments on the wider ecosystem set out in the Marine Policy Statement. It is recognised (at paragraph 184) that elements of the ecosystem beyond specific biodiversity interests include (inter alia): water quality characteristics, coastal processes and the interaction between various pressures acting on the environment.

5.5.10 Policy ECO1 of the East Marine Plans sets out that cumulative impacts affecting the ecosystem of the East marine plans should be addressed in decision making and Policy BIO1 sets out that appropriate weight should be attached to biodiversity reflecting the need to protect biodiversity, taking account of the best available evidence.

5.5.11 South East Inshore Marine Plan Policy SE-FISH-3 encourages and supports proposals that deliver biodiversity gain for essential fish habitats. It enables sustainable use of marine resources within environmental limits, alongside productive fisheries, by requiring proposals to avoid impacts on essential fish habitats or, if avoidance of impacts is not possible, to manage impacts on essential fish habitats.

Summary of Compliance

5.5.12 This topic is assessed in ES Chapter 11 Fish and Shellfish Ecology (Document Reference: 3.1.13).

5.5.13 The assessment detailed in the ES has been carried out in accordance with the relevant requirements for assessment set out in NPS EN-1 and NPS EN-3.

5.5.14 A desk-based review of available data was undertaken using the results of several fish surveys from other projects, such as GGOW and GWF, to provide an indication of relevant species present in the offshore project area. It also included data from wider sources and publications such as the International Council for the Exploration of the Sea (ICES) and the Marine Management Organisation (MMO). In addition, sediment samples collected from the benthic baseline characterisation survey in 2021, were also used to analyse the distribution of suitable habitat for herring and sand eels among others.

5.5.15 Fish and shellfish ecology receptors have been identified taking account of the presence/abundance in the study area; the location of spawning and nursery grounds relative to the offshore project area; conservation importance; commercial importance; and their role within the North Sea's food-web. The full list of key fish and shellfish species considered in the assessment is given in Chapter 11 Fish and Shellfish Ecology of the North Falls ES (Document Reference: 3.1.13).

5.5.16 Species of commercial importance in the array area and offshore cable corridor include Dover sole, whelk, bass and thornback ray bass, skate, herring, turbot, brill, lobster and brown crab. These species are targeted from a mix of trawling, netting and potting.

5.5.17 Fish and shellfish species of conservation importance which have the potential to be found in the study area include migratory species (European eel, shads, river and sea lampreys, Atlantic salmon, sea trout, smelt); elasmobranchs (sharks, skates and rays); and other species with designated conservation status.

5.5.18 Spawning grounds for herring, lemon sole, plaice, sand eel, Dover sole, sprat, whiting and cod have all been defined in the offshore project area. Nursery grounds for the species mentioned above as well as mackerel, thornback ray, and tope have also been defined within the offshore project area.

5.5.19 Potential impacts assessed for the construction and decommissioning phases include:

- Impacts to fish and shellfish due to temporary physical disturbance and temporary loss of habitat as a result of foundation installation;
- Disturbance of fish due to underwater noise from construction activities including piling and clearance of ordnance;
- Impacts on fish and shellfish populations due to changes in fishing activity; and
- Smothering of fish and shellfish and their eggs due to increased suspended sediments and remobilisation of contaminated sediments.

5.5.20 For the operation and maintenance phase, potential impacts assessed include:

- Long term habitat loss for fish and shellfish from the placement of infrastructure on the seabed;
- Smothering of fish and shellfish and their eggs due to increased suspended sediments and redeposition to maintenance activities such as cable repairs;
- Impacts to fish and shellfish due to the remobilisation of contaminated sediments;
- Disturbance of fish due to underwater noise during operation of the wind turbines and maintenance;
- Disturbance resulting from electromagnetic fields surrounding the cables during operation;
- Alteration of fish and shellfish habitat and introduction of non-native species resulting from the introduction of hard substrate (foundations and protection e.g. rock); and
- Impacts on fish and shellfish populations due to changes in fishing activity.

5.5.21 Mitigation proposed within the assessment includes burying cables and the use of cable protection methods where cables cannot be buried to reduce electromagnetic fields; the adoption of a soft-start and ramp-up protocol whereby underwater noise from piling starts low and gradually increases to allow mobile animals such as fish to move away; a restriction in piling activity during November to January which is spawning season for Downs herring; and lastly pollution protection measures to ensure that sediment and water quality are not impacted throughout construction.

5.5.22 Table 11.55 of ES Chapter 11: Fish and Shellfish Ecology (Document Reference: 3.1.13) provides a summary of the potential environmental effects. With the implementation of mitigation measures, North Falls is predicted to

have no greater than minor adverse (not significant in EIA terms) effects on the fish and shellfish receptors (alone or cumulatively with other projects).

5.5.23 Accordingly, it has been demonstrated that North Falls accords with the requirements of NPS EN-1 and NPS EN-3 and Marine Plan Policies ECO1 and BIO1 and South East Inshore Marine Plan Policy SE-FISH-3.

5.5.24 Having regard to NPS EN-1 paragraph 3.3.63 which confirms that the urgent need for CNP infrastructure *"will in general outweigh any other residual impacts not capable of being addressed by application of the mitigation hierarchy"* such that the presumption in favour of consent for CNP is not affected.

5.6 Marine Mammals

5.6.1 This topic is assessed in ES Chapter 12 Marine Mammals (Document Reference: 3.1.14).

Summary of Key Topic Policy Considerations

National Policy Statements

5.6.2 NPS EN-1 (paragraph 5.4.41) sets out that the benefits of nationally significant low carbon energy infrastructure development may include benefits for biodiversity and geological conservation interests and these benefits may outweigh harm to these interests. The Secretary of State may take account of any such net benefit where it can be demonstrated.

5.6.3 NPS EN-1 states that as a general principal development should, in line with the mitigation hierarchy, aim to avoid significant harm to biodiversity and geological conservation interests. Where significant harm cannot be avoided, impacts should be mitigated, and as last resort appropriate compensation measures should be sought.

5.6.4 Paragraph 5.4.1 of NPS EN-1 sets out matters relevant to Biodiversity and geological conservation at national level. It is recognised that "*Biodiversity is the variety of life in all its forms and encompasses all species of plants and animals and the complex ecosystems of which they are a part*".

5.6.5 NPS EN-1 paragraph 5.4.44 directs that if significant harm to biodiversity cannot be avoided then the Secretary of State will give significant weight to any residual harm.

5.6.6 Paragraph 2.8.33 of NPS EN-3 sets out that whilst technical suitability of foundation design is not in itself a matter for the Secretary of State, they will need to be satisfied that the foundations will not have an unacceptable adverse effect on marine biodiversity, the marine environment or marine heritage assets.

5.6.7 Paragraphs 2.8.302 to 2.8.306 of NPS EN-3 sets out offshore wind-specific biodiversity policy. Specific considerations set out in NPS EN-3 (2.8.127 and 2.8.135) apply to the effect of offshore wind energy infrastructure proposals on marine mammals with specific reference made to noise disturbance.

5.6.8 Paragraph 2.8.312 to 2.8.314 of NPS EN-3 relate to the Secretary of State's decision-making, and set out that:

- *"….the preferred methods of construction, in particular the construction method needed for the proposed foundations and the preferred foundation type, where known at the time of application, are designed so as to reasonably minimise significant disturbance effects on marine mammals.*
- *Unless suitable noise mitigation measures can be imposed by requirements to any development consent the Secretary of State may refuse the application".*

Other Relevant Policy

5.6.9 A key principle of the MPS is to manage competing demands, reduce conflict and promote compatibility in the marine area (paragraphs 2.2.1, 2.3.1.5 and 3.8.10). It requires marine plans to considering cumulative impacts: Marine plans should *"... identify how the potential impacts of activities will be managed, including cumulative effects'* (2.3.1.6). There is an expectation that more is done than currently provided for in existing measures, to ensure that the collective pressure of human activities is kept within levels compatible with achievement of Good Environmental Status.

5.6.10 All cetaceans in Northern European waters are listed under Annex IV of the EU Directive 92/43/EEC on the Conservation of natural habitats and of wild fauna and flora (the Habitats Directive) as EPS of Community Interest and in need of strict protection. The harbour porpoise, bottlenose dolphin, harbour seal and grey seal have protection under Annex II as species of Community Interest whose conservation requires the designation of SACs.

5.6.11 Objective 6 of the East Marine Plans reflects policies and commitments on the wider ecosystem set out in the Marine Policy Statement. It is recognised (at paragraph 184) that elements of the ecosystem beyond specific biodiversity interests include (inter alia): water quality characteristics, coastal processes and the interaction between various pressures acting on the environment.

5.6.12 Policy ECO1 of the East Marine Plans sets out that cumulative impacts affecting the ecosystem of the East marine plans should be addressed in decision making and Policy BIO1 sets out that appropriate weight should be attached to biodiversity reflecting the need to protect biodiversity, taking account of the best available evidence.

5.6.13 South East Inshore Marine Plan policy SE-UWN-2 supports management of underwater noise, requiring proposals take appropriate noise reduction

actions. It enables clear and proportionate regulation to make sure marine activity respects environmental limits and protects biodiversity.

Summary of Compliance

5.6.14 The assessment detailed in the ES has been carried out in accordance with the relevant requirements for assessment set out in NPS EN-1 and NPS EN-3. Site-specific aerial surveys were undertaken for both marine mammals and seabirds. High resolution digital data was collected by HiDef Aerial Surveying Limited, monthly over 24 months to provide two years of data to inform the assessment. In addition, wider desk-based sources were used to provide information on abundance and density of marine mammals in and around the North Sea.

5.6.15 The study area for marine mammals has been defined on the basis of marine mammals being highly mobile and transitory in nature; therefore, it is necessary to examine species occurrence not only within the offshore project area, but also over the wider area. For each species of marine mammal, study areas have been defined based on the relevant species populations.

5.6.16 The assessment considered the following species:

- Harbour porpoise;
- Minke whale;
- Grey seal; and
- Harbour seal.
- The North Falls offshore project area lies within the Southern North Sea Special Area of Conservation, which is designated for harbour porpoise.

5.6.17 Potential impacts assessed for the construction phase include:

- Auditory injury and disturbance or behavioural impacts resulting from underwater noise during piling, and due to acoustic deterrent device (ADD) activation prior to piling;
- Auditory injury and disturbance or behavioural impacts resulting from underwater noise during other construction activities, including seabed preparations, rock placement and cable installation;
- Underwater noise and disturbance from construction vessels;
- Vessel interaction (collision risk);
- Barrier effects as a result of underwater noise;
- Disturbance at seal haul-out sites;
- Changes to water quality; and
- Changes to prey resource.

5.6.18 For the operation and maintenance phase, potential impacts assessed include:

- Auditory injury and disturbance or behavioural impacts resulting from operational WTGs;
- Auditory injury and disturbance or behavioural impacts resulting from underwater noise during maintenance activities, including cable protection and cable reburial;
- Underwater noise and disturbance from maintenance vessels;
- Vessel interaction (collision risk);
- Barrier effects as a result of underwater noise;
- Disturbance at seal haul-out sites;
- Changes to water quality; and
- Changes to prey resource.

5.6.19 For decommissioning, the following impacts were assessed:

- Underwater noise and disturbance from decommissioning activities;
- Underwater noise and disturbance from vessels;
- Barrier effects as a result of underwater noise;
- Increased collision risk with vessels;
- Disturbance at seal haul-out sites;
- Barrier effects due to underwater noise during decommissioning;
- Changes to water quality; and
- Changes to prey resource.

5.6.20 A number of mitigation measures are proposed to reduce the effects on marine mammals, including:

- Soft-start and ramp-up for piling activities;
- Adherence to good practice guidance to reduce vessel collision risk (e.g. follow set vessel routes and number of vessel movements kept to a minimum); and
- Implementation of a Project Environmental Monitoring Plan to manage potential pollution events.

5.6.21 Additional mitigation will be implemented through a Marine Mammal Mitigation Plan (MMMP) which aims to reduce impacts of physical injury or hearing damage. The MMMP will be developed in consultation with relevant stakeholders with consideration of relevant guidance, in accordance with the outline MMMP (Document Reference: 7.7) submitted alongside the DCO application. The additional mitigation secured through the Marine Mammal Mitigation Plan includes use of trained and dedicated personnel to watch for

marine mammals and delay the start of piling if marine mammals are present within a specified area. This would also be supplemented with passive acoustic monitoring to detect marine mammals underwater. Other additional mitigation could include the use of acoustic deterrent devices to encourage marine mammals to move away from piling activities.

5.6.22 Table 12.127 of ES Chapter 12 (Document Reference: 3.1.14) provides a summary of the potential environmental effects. With the implementation of mitigation measures, North Falls is predicted to have no greater than minor adverse (not significant in EIA terms) effects on marine mammals during all its phases.

5.6.23 There is potential for cumulative effects to occur with Five Estuaries Offshore Wind Farm and other projects. However, when considering proposed mitigation measures, it is not anticipated that cumulative effects are likely to be significant in EIA terms.

5.6.24 In addition to the ES, a separate report has been produced which specifically assesses the effects on designated sites, including those designated for marine mammals (see the Report to Inform Appropriate Assessment, (Document Reference: 7.1). This concludes that there will be no significant effects on the sites designated for marine mammals.

5.6.25 Accordingly, it has been demonstrated that the Project, subject to the mitigation proposed, accords with the requirements of NPS EN-1 and NPS EN-3, the MPS and Policies BIO1 and ECO1 of the East Marine Plans and Policy SE-UWN-2 of the South East Inshore Marine Plan.

5.6.26 In accordance with NPS EN-1 paragraph 3.3.63, the presumption in favour of consent for CNP infrastructure is not affected.

5.7 Offshore Ornithology

5.7.1 This topic is assessed in ES Volume I Chapter 13 Offshore Ornithology (Document Reference: 3.1.15)

Summary of Key Topic Policy Considerations

National Policy Statements

5.7.2 Part 5.4 of NPS EN-1 sets out matters relevant to Biodiversity and geological conservation at national level. It is recognised that ‘Biodiversity is the variety of life in all its forms and encompasses all species of plants and animals and the complex ecosystems of which they are a part’ (paragraph 5.4.1).

5.7.3 NPS EN-1 (paragraph 5.4.41) sets out that the benefits of nationally significant low carbon energy infrastructure development may include benefits for biodiversity and geological conservation interests and these benefits may

outweigh harm to these interests. The Secretary of State may take account of any such net benefit where it can be demonstrated.

5.7.4 NPS EN-1 states that as a general principal development should, in line with the mitigation hierarchy, aim to avoid significant harm to biodiversity and geological conservation interests. Where significant harm cannot be avoided, impacts should be mitigated, and as last resort appropriate compensation measures should be sought.

5.7.5 NPS EN-1 paragraph 5.4.44 directs that if significant harm to biodiversity cannot be avoided then the Secretary of State will give significant weight to any residual harm.

5.7.6 Paragraph 2.8.33 of NPS EN-3 sets out that whilst technical suitability of foundation design is not in itself a matter for the Secretary of State, they will need to be satisfied that the foundations will not have an unacceptable adverse effect on marine biodiversity, the marine environment or marine heritage assets. Paragraphs 2.8.302 to 2.8.352 of NPS EN-3 sets out offshore wind-specific biodiversity policy. Specific considerations set out in NPS EN-3 (2.8.315 and 2.8.316) apply to the effect of offshore wind energy infrastructure proposals on birds with specific reference made to potential collision risk and displacement.

Other Relevant Policy

5.7.7 A key principle of the MPS is to manage competing demands, reduce conflict and promote compatibility in the marine area (paragraphs 2.2.1, 2.3.1.5 and 3.8.10). It requires marine plans to considering cumulative impacts: Marine plans should "*... identify how the potential impacts of activities will be managed, including cumulative effects"* (2.3.1.6). There is an expectation that more is done than currently provided for in existing measures, to ensure that the collective pressure of human activities is kept within levels compatible with achievement of Good Environmental Status.

5.7.8 Objective 6 of the East Marine Plans reflects policies and commitments on the wider ecosystem set out in the Marine Policy Statement. It is recognised (at paragraph 184) that elements of the ecosystem beyond specific biodiversity interests include (inter alia): water quality characteristics, coastal processes and the interaction between various pressures acting on the environment.

5.7.9 Policy ECO1 of the East Marine Plans sets out that cumulative impacts affecting the ecosystem of the East marine plans should be addressed in decision making and Policy BIO1 sets out that appropriate weight should be attached to biodiversity reflecting the need to protect biodiversity, taking account of the best available evidence.

Summary of Compliance

5.7.10 The assessment detailed in the ES has been carried out in accordance with the relevant requirements for assessment set out in NPS EN-1 and NPS EN-3. Site-specific aerial surveys were undertaken for both marine mammals and seabirds. High resolution digital data was collected by HiDef Aerial Surveying Limited, providing digital imagery over the array area with a 4km buffer with an additional extension of 12km in the west to include areas of importance for red-throated diver in January and February 2021. These surveys were conducted monthly over 24 months to provide two years of data to inform the assessment. In addition, wider desk-based sources were used to provide information on abundance and density of seabirds in and around the North Sea.

5.7.11 Birds present in offshore waters and potentially affected by the construction, operation, maintenance and decommissioning of North Falls are predominantly seabirds (auks, gulls, terns, gannets, skuas, shearwaters, petrels and divers). These species may be present during the breeding season and non-breeding season (including the spring/autumn migration/passage periods). Other bird species that may be affected include waterfowl (e.g. swans, geese, ducks and waders) and other bird species which may fly through the North Falls array area during the spring and/or autumn migration/passage periods.

5.7.12 Additional bird species were recorded irregularly including migratory waterfowl (brent goose, shelduck, whimbrel and wigeon), raptors (peregrine, osprey and sparrowhawk), passerines (carrion crow, chaffinch, fieldfare and starling) and feral pigeon.

5.7.13 Potential impacts assessed for the construction phase include:

- Direct disturbance and displacement during construction of the export cables;
- Direct disturbance and displacement from construction activity on array area; and
- Indirect effects on prey species and habitats.

5.7.14 For the operation and maintenance phase, potential impacts assessed include:

- Direct disturbance and displacement;
- Collision risk;
- Combined effects of collision risk and displacement; and
- Indirect effects on prey species and habitats.

5.7.15 For decommissioning, the following impacts were assessed:

- Direct disturbance and displacement from decommissioning activities; and
- Indirect effects on prey species and habitats.

5.7.16 Mitigation proposed includes the complete removal of the former northern array and refinement of the former southern array (now the array area), increasing the distance from the Outer Thames Estuary Special Protection Area, reduction in the number of turbines (from 72 to 57), reduction in the number of largest turbine model (from 40 to 34), sensitive site selection of the offshore cable corridor to reduce the length of overlap with the Outer Thames Estuary Special Protection Area. Furthermore, a minimum air gap between the sea level and the bottom of the turbines of 27m (5m above the minimum requirement) will be used to reduce the risk of collisions, and a shipping protocol will be implemented to reduce disturbance to higher risk species such as the red-throated diver. This would include measures such as designing transit routes to minimise disturbance within the Special Protection Area, avoiding over-revving of engines and by briefing vessel crews on how and why vessel management practices are implemented.

5.7.17 Table 13.58 in ES Chapter 13 Offshore Ornithology (Document Reference: 3.1.15) provides a summary of the potential environmental effects of the Project. With the implementation of mitigation measures, North Falls is predicted to have no greater than minor adverse (not significant in EIA terms) effects on ornithological receptors during all its phases.

5.7.18 There is potential for cumulative effects to occur with Five Estuaries Offshore Wind Farm and other projects. However, when considering proposed mitigation measures, it is not anticipated that cumulative effects are likely to be significant in EIA terms, with the exception of collision risk for great black-backed gull, kittiwake, and the lesser black-backed gull which were all assessed to be potentially significant in EIA terms.

5.7.19 The effects must be considered having regard to NPS EN-1 paragraph 3.3.63 which confirms that the urgent need for CNP infrastructure "...*will in general outweigh any other residual impacts not capable of being addressed by application of the mitigation hierarchy*" such that the presumption in favour of consent for CNP is not affected.

5.7.20 In addition to the ES, a separate report has been produced which specifically assesses the effects on designated sites, including those designated for ornithology (see the Report to Inform Appropriate Assessment, Document Reference:: 7.1). This report concludes that there will be no significant effects on sites designated for ornithology, with the exception of in-combination collision risk on lesser black-backed gull from the Alde Ore Estuary Special Protection Area. The Applicant has therefore proposed compensation for this species (discussed further in the Lesser Black-backed Gull Compensation Document (Document Reference:: 7.2.2).

5.7.21 Following consultation with Natural England, potential compensation proposals are also provided in relation to red throated diver from the Outer Thames Estuary Special Protection Area and in relation to kittiwake, guillemot and razorbill from the Flamborough and Filey Coast Special Protection Area, should the Secretary of State decide that there is a significant effect on these species. These potential compensation proposals are provided without prejudice of the Applicant's position that there will be no significant effects on these species.

5.7.22 Overall, it has been demonstrated that North Falls accords with the general requirements of NPS EN-1 and NPS EN-3 and Marine Plan Policies ECO1 and BIO1.

5.8 Commercial Fisheries

Summary of Key Topic Policy Considerations

National Policy Statements

5.8.1 Part 4 of NPS EN-1 sets out a series of general principles that will be taken in account when reaching a decision. Paragraph 4.1.2 requires that*: "The Secretary of State should start with a presumption in favour of granting consent to applications for energy NSIPs".*

5.8.2 Paragraph 4.1.6 of NPS EN-1 states that, in reaching a decision, the Secretary of State should have regard to *"environmental, social and economic benefits and adverse impacts, at national, regional and local levels".*

5.8.3 Paragraph 2.8.318 to 2.8.324 of NPS EN-3 relates to the Secretary of State's decision making, specifically in relation to commercial fishing and sets out that (inter alia):

- *"The Secretary of State should be satisfied that the site selection process has been undertaken in a way that reasonably minimises adverse impacts on fish stocks, including during peak spawning periods and the activity of fishing itself.*
- *The Secretary of State should consider the extent to which the proposed development occupies any recognised important fishing grounds and whether the project would prevent or significantly impede protection of sustainable Commercial Fisheries or fishing activities".*

5.8.4 Paragraph 2.8.322 states that the Secretary of State should be satisfied that the applicant has sought to design the proposal having consulted representatives of the fishing industry with the intention of minimising the loss of fishing opportunity taking into account effects on other marine interests.

Other Relevant Policy

5.8.5 The MPS expresses support for the fishing sector, and regarding displacement, advocates *"seeking solutions such as co-location of activity wherever possible"*. Paragraphs 3.8.1, 3.8.2 and 2.3.1.5 stipulate that the process of marine planning should 'enable the co-existence of compatible activities wherever possible' and supports the reduction of real and potential conflict as well as maximising compatibility and encouraging co-existence of activities.

5.8.6 East Marine Plan Policy FISH1 supports fishing activity by avoiding adverse impacts resulting from development in the East marine plan areas and focuses specifically on access to fishing grounds. Policy FISH2 seeks to contribute to the aims of the MPS (paragraph 3.8.1) in supporting the long-term existence of the fishing sector through support of stock recruitment by avoiding any adverse impact on spawning and nursery grounds.

5.8.7 South East Inshore Marine Plan Policy SE-FISH-1 supports proposals that support a sustainable fishing industry, including its diversification. Policy SE-FISH-2 supports enhanced access for sustainable fishing activities, enabling continued sustainable marine resource use and seeks to limit significant adverse impacts from other marine activities on access for fishing activities.

Summary of Compliance

5.8.8 This topic is assessed in ES Volume 1 Chapter 14 Commercial Fisheries (Document Reference: 3.1.16).

5.8.9 A desk-based study informed the commercial fisheries assessment by the review and analysis of available fisheries data covering the years between 2018 and 2022, any relevant publications and extensive consultation with local fisheries stakeholders in accordance with the relevant requirements for assessment set out in NPS EN-1 and NPS EN-3.

5.8.10 The study area used to characterise the commercial fisheries baseline has been defined with reference to the ICES rectangles that overlap with the offshore project area (ICES rectangle 32F1 and 32F2).

5.8.11 The most relevant ICES rectangle to the offshore project area (32F1), captures the majority of the offshore project area i (including the whole offshore cable corridor and practically the whole array area). This area is mostly targeted by local UK vessels under 15m in length that operate a range of gear including pots, trawls, nets and longlines for species such as whelks, sole, bass, thornback ray and others. Some of these vessels are multi-purpose and switch between fishing gear to target species depending on the time of year. The array area in 32F1 is targeted by larger UK vessels over 15m, potting for whelks and beam trawling for sole and other demersal species.

5.8.12 The offshore project area is also fished by Belgian and Dutch beam trawlers, Belgian demersal trawlers and French pelagic trawlers.

5.8.13 Potential impacts assessed for the construction and decommissioning phases include:

- Temporary loss or restricted access to fishing grounds;
- Displacement of fishing activities into other areas;
- Increased sailing times to all fishing grounds;
- Interference with fishing activities (navigational conflict);
- Safety issues for fishing vessels (e.g. snagging); and
- Impacts on commercial fisheries as a result of impacts on exploited fish and shellfish species.

5.8.14 For the operation and maintenance phase, potential impacts assessed include:

- Temporary loss or restricted access to traditional fishing grounds;
- Long-term loss or restricted access to traditional fishing grounds;
- Displacement of fishing activities into other areas;
- Increased sailing times to all fishing grounds;
- Interference with fishing activities (navigational conflict);
- Safety issues for fishing vessels (e.g. snagging); and
- Impacts on commercial fisheries as a result of impacts on exploited fish and shellfish species.

5.8.15 Mitigation measures proposed include the appointment of a Fisheries Liaison Officer (FLO) for the duration of the construction phase and development of a Fisheries Liaison and Coexistence Plan detailing the approach to liaison with fisheries stakeholders through construction and operation. Measures will also include promulgation of timely and efficient notifications, implementation of a claims procedure for loss of/damage to fishing gear, and development of a Code of Good Practice for project vessels. Mitigation included in the project design also includes a commitment to bury subsea cables where practicable, with cable protection to be used where that is not possible. Cable protection will be designed to minimise the risk of gear snagging, and location information for protected cables will be shared with relevant stakeholders. Where appropriate and practicable, post-lay and burial inspection surveys will be undertaken.

5.8.16 Table 14.17 of ES Chapter 14 provides a summary of the potential environmental effects of the Project on Commercial Fishing. With the implementation of mitigation measures, North Falls is predicted to have no greater than minor adverse (not significant in EIA terms) effects on commercial fisheries during all its phases.

5.8.17 There is potential for cumulative effects to occur with Five Estuaries Offshore Wind Farm and other projects. However, when considering proposed mitigation measures, it is not anticipated that cumulative effects are likely to be significant in EIA terms.

5.8.18 Accordingly, it has been demonstrated that the Project accords with the requirements of NPS EN-1 and NPS EN-3, East Marine Plans and the South East Inshore Marine Plan.

5.8.19 The presumption in favour of consent as an energy NSIP and CNP proposal is unaffected by the potential effects on commercial fisheries, which are not significant in EIA terms.

5.9 Shipping and Navigation

Summary of Key Topic Policy Considerations

National Policy Statements

5.9.1 NPS EN-1, although it does not specifically refer to shipping and navigation, remains relevant due to its overarching guidance principles.

5.9.2 NPS EN-3 contains more specific guidance, relevant to the Secretary of State's decision-making process with regard to shipping and navigation. EN-3 requires applicants to undertake a Navigational Risk Assessment (paragraph 2.8.189), in accordance with relevant Government guidance, and to consider the impact a project may have on recreational craft.

Other Relevant Policy

5.9.3 East Marine Plans Policy PS1 directs that proposals that require static sea surface infrastructure or that significantly reduce under-keel clearance should not be authorised in International maritime Organization (IMO) designated routes. Policy PS2 details that proposals that require static sea surface infrastructure that encroaches onto important navigation routes should not be authorised unless there are exceptional circumstances. Policy PS3 specifies that developments should not be authorised where use of IMO routes may be compromised. Indirect consequences for navigational safety, due to displacement of activities, are addressed under GOV3.

5.9.4 South East Inshore Marine Plan Policy SE-PS-3 confirms that proposals that pose a risk to safe navigation or the viability of these routes and services (through static seas surface infrastructure or reduction of under-keel clearance) should not be authorised.

Summary of Compliance

5.9.5 This topic is assessed in ES Volume 1 Chapter 15 Shipping and Navigation (Document Reference: 3.1.17).

5.9.6 The assessment of Shipping and Navigation effects has been carried out in accordance with the relevant requirements for assessment set out in NPS EN-3. Vessel traffic surveys were conducted between January 29 and March 2 2022 (winter); June 29 and July 28 2022 (summer); and then again between January 17 and February 1, 2022 (winter). The data included Automatic Identification System (AIS), radar, and visual observations, ensuring a full account of non-AIS traffic within the area. Additional desk-based data was considered to supplement the vessel traffic survey data to inform the assessment. The study area for shipping and navigation has been defined as a 10 nautical mile (nm) (18.5km) buffer of the array area and 2nm (3.7km) around the offshore cable corridor.

5.9.7 Commercial vessels are principally routed in the study area according to the following routing measures: the Sunk North, East and South TSSs; the Sunk Outer Precautionary Area (upon which the three TSS converge); the Sunk Inner Precautionary Area (adjacent to the Sunk Outer Precautionary Area); Long Sand Head Two Way Route; and the Area to be Avoided (the central part of the Sunk Outer Precautionary Area).

5.9.8 Three pilot boarding locations are in the vicinity of the array area. One of these is the Sunk Pilot Station, located within the offshore cable corridor.

5.9.9 The closest ports to the Project are Felixstowe Port and Harwich Port, both located at the mouth of the Stour and Orwell Estuaries, approximately 22nm and 23nm to the west of the array area, respectively.

5.9.10 There are a number of charted anchorage areas inshore of the array area including the closest to the array area the Sunk DW Anchorage; approximately 1.6nm north of the offshore cable corridor. The Sunk Inner Anchorage is also located 0.9nm from the offshore cable corridor.

5.9.11 There are three deep water routes in the study area which are used by large vessels heading into ports.

5.9.12 The vessel traffic surveys showed that an average of 134 vessels per day was recorded within the study area during the winter vessel traffic surveys, rising to 147 during the summer survey. The increase in summer was observed to be primarily associated with increased volumes of wind farm traffic and recreational vessels. On average, two vessels per day intersected the array area during winter and five vessels per day during the summer period.

5.9.13 Cargo vessels accounted for more than half of all traffic, followed by tankers, which accounted for approximately one fifth of traffic. An average of 8

recreational vessels were recorded per day in the summer survey, with less than one per day in winter.

5.9.14 With respect to maritime incidents baseline in the study area:

- 17 search and rescue helicopter taskings were undertaken for incidents between April 2015 and March 2023;
- 94 incidents were responded to by the Royal National Lifeboat Institution (RNLI) within the study area between 2013 and 2022; and
- 21 incidents were recorded by the Marine Accident Investigation Branch (MAIB) within the study area between 2013 and 2021.

5.9.15 Potential impacts assessed for the construction and decommissioning phases include:

- Vessel to structure collision;
- Vessel displacement;
- Increased risk of vessel-to-vessel collisions (third party to third party vessels and third party to project vessels);
- Impacts on vessels involved in marine aggregate operations;
- Impacts on vessels transiting to/from local ports in the area; and
- Reduction of emergency capabilities due to the increased incident rates and/or reduced access for search and rescue responders.

5.9.16 For the operation and maintenance phase, potential impacts assessed include:

- Interaction with subsea cables including cable protection;
- Vessel to structure collision;
- Vessel displacement;
- Increased risk of vessel-to-vessel collisions (third party to third party vessels and third party to project vessels);
- Impacts on vessels involved in marine aggregate operations;
- Impacts on vessels transiting to/from local ports in the area; and
- Reduction of emergency capabilities due to the increased incident rates and/or reduced access for search and rescue responders.

5.9.17 A number of embedded mitigation measures are proposed, including: reductions to the array area to reduce impacts on nearby shipping lanes; appropriate lighting and marking and use of safety zones; adherence to the Convention on the International Regulations for Preventing Collisions at Sea (1972) and the International Convention for the Safety of Life at Sea (1974), and Marine Guidance Note (MGN) 654; coordination of project vessel movements and use of guard vessels, where appropriate; adherence to an

Emergency Response Cooperation Plan; promulgation of information via Notice to Mariners, Kingfisher Bulletins and UK Hydrographic Office/nautical charts; and assessment of required cable protection measures.

5.9.18 In addition, the Applicant has committed that, unless otherwise agreed with the Maritime and Coastguard Agency, the Applicant will implement a Structure Exclusion Zone, whereby all surface piercing infrastructure including blades will be located at least 1 nautical mile from the local routeing measures. Further details are provided in the Navigational Risk Assessment (ES Appendix 15.1, Document Reference:: 3.3.16).

5.9.19 Table 15.15 of the Shipping and Navigation Chapter of the ES provides a summary of the potential environmental effects and identifies approaches to mitigation and proposed monitoring during the construction, operational, and decommissioning phases. With the implementation of mitigation measures, North Falls is predicted to have no greater than tolerable or broadly acceptable (not significant in EIA terms) impacts to shipping and navigation receptors during all its phases.

5.9.20 There is potential for cumulative effects to occur with Five Estuaries Offshore Wind Farm and other projects. However, when considering proposed mitigation measures, it is not anticipated that cumulative effects are likely to be significant in EIA terms.

5.9.21 Therefore, effects on shipping and navigation should not weigh against the substantial benefits of the Project when considering the planning balance.

5.9.22 Accordingly, it has been demonstrated that the Project accords with the requirements of NPS EN-1, NPS EN-3, the East Marine Plans and the South East Inshore Marine Plan.

5.9.23 The presumption in favour of consent as an energy NSIP and CNP proposal is unaffected by the potential effects on commercial fisheries, which are not significant in EIA terms.

5.10 Offshore and Intertidal Archaeology and Cultural Heritage

Summary of Key Topic Policy Considerations

National Policy Statements

5.10.1 Part 5.9 of NPS EN-1 sets out matters relevant to the Historic Environment at national level. It is recognised (at paragraph 5.9.1) that: "*the construction, operation and decommissioning of energy infrastructure has the potential to result in adverse impacts on the historic environment".*

5.10.2 Paragraphs 5.9.22 to 5.9.36 set out matters the Secretary of State should have regard to in reaching a decision, including proposed mitigation, specifically in respect of matters relating to the Historic Environment. It is confirmed that the

Secretary of State should seek to identify and assess the particular significance of any heritage asset that may be affected by the proposed development, including by development affecting the setting of a heritage asset.

5.10.3 Specifically, regarding Offshore Archaeology and Cultural Heritage, NPS EN-3 requires that the Secretary of State should be satisfied that a project has been designed sensitively considering known heritage assets and their status, including features like protected wrecks (2.8.166 of NPS EN-3). Paragraph 2.8.252 sets out that important heritage assets should be avoided, and this can be achieved through the implementation of exclusion zones around known and potential assets that prelude development activities in their boundaries (paragraph 2.8.253).

5.10.4 NPS EN-3 also sets out that assessment may also include the identification of any beneficial effects on the marine historic environment, for example through improved access or the contribution to new knowledge that arises from investigation (paragraph 2.8.176).

Other Relevant Policy

5.10.5 East Marine Policy SOC2 seeks to ensure that existing marine and coastal heritage assets are protected from detrimental impact from development.

5.10.6 South East Inshore Marine Policy SE-HER-1 supports proposals that demonstrate they will conserve and enhance the significance of heritage assets.

Summary of Compliance

5.10.7 This topic is assessed in ES Chapter 16 Offshore and Intertidal archaeology and cultural heritage (Document Reference: 3.1.18).

5.10.8 The assessment of effects has been carried out in accordance with the relevant requirements for assessment set out in NPS EN-1 and NPS EN-3. The assessment was based on the marine geophysical survey undertaken by Fugro in 2021, alongside desk-based resources. Geophysical data was collected in the array area and offshore cable corridor and provided to Wessex Archaeology for processing and interpretation.

5.10.9 The offshore archaeology and cultural heritage existing environment within the study area (footprint of the offshore project area) covers seabed prehistory; maritime archaeology; aviation archaeology; historic seascape character; and buried archaeology.

5.10.10 There are no known in situ seabed prehistory sites within the study area. However, a number of finds of prehistoric material have been reported from the study area and the immediate vicinity of the offshore cable. There is potential for numerous channel deposits to contain archaeological material,

and paleoenvironmental material. Well-preserved paleogeographic features were identified in the array area and the offshore cable corridor.

5.10.11 There are no known maritime and aviation archaeological sites within the study area that are subject to statutory protection. There are three modern wrecks within the offshore project area, however, they are not of archaeological interest due to their age.

5.10.12 Geophysical data has demonstrated the presence of 1,514 seabed features which have been identified as being of archaeological or potential archaeological interest. The large number of features reflects considerable historic maritime activity in the study area, the approach to the Thames having been a historically busy area for shipping, with significant military activity in the twentieth century.

5.10.13 The potential for encountering previously undiscovered in situ archaeological sites within the intertidal zone is anticipated to be very low, and there are no known, extant heritage assets present within the intertidal zone. As well as the use of horizontal directional drilling to install the cable beneath the intertidal zone, which reduces the potential for interactions with heritage assets, historic coastal erosion and subsequent coastal management regimes from the 18th century onwards have significantly reduced the potential for buried remains.

5.10.14 It is anticipated that historic seascape character types have capacity to accommodate changes associated with North Falls.

5.10.15 Potential impacts assessed for the construction, operation and maintenance, and decommissioning phases include:

- Direct (physical) impacts to both known and potential heritage sites;
- Indirect impacts to the heritage assets and seascape character from changes to physical processes such as changes in seabed levels and sediment movement; and
- Impacts to the setting of heritage assets.

5.10.16 The mitigation measures proposed include the use of Archaeological Exclusion Zones around: known wreck sites; marine geophysical anomalies of archaeological interest recorded in the North Falls geophysical data; and previously recorded sites that have not been seen in the North Falls geophysical data. To mitigate the impact on potential heritage assets, micro-siting has been applied to previously recorded sites where no prior geophysical data has been collected. Further investigation has also been suggested for any identified anomalies that cannot be avoided by micro-siting or by implementing mitigation measures. Full details of the proposed mitigation delivery approach, and investigation into the final design of North Falls, are provided in an outline Written Scheme of Investigation (Document Reference: 7.11).

5.10.17 Table 16.27 of ES Chapter 16: Offshore and Intertidal Archaeology and Cultural Heritage of the Environmental Statement provides a summary of the potential environmental effects of the Project. With the implementation of mitigation measures, North Falls is predicted to have no greater than minor adverse (not significant in EIA terms) effect on offshore and intertidal archaeology and cultural heritage during all its phases.

5.10.18 There is potential for cumulative effects to occur with Five Estuaries Offshore Wind Farm and other projects. However, when considering proposed mitigation measures, it is not anticipated that cumulative effects are likely to be significant in EIA terms, with the exception of potential beneficial cumulative direct (physical) effects due to sharing data with Academics to inform research. The Cumulative Effects Assessment (CEA) concluded the potential impacts on a regional level can be mitigated by contribution to regional research initiatives and 'joined-up' post-consent investigations in liaison with key stakeholders.

5.10.19 Accordingly, it has been demonstrated that North Falls accords with requirements of NPS EN-1 and NPS EN-3, East Marine Policy SOC2 and South East Inshore Marine Plan Policy SE-HER-1.

5.10.20 The presumption in favour of consent as an energy NSIP and CNP is unaffected by the limited potential effects on Offshore archaeology and cultural heritage.

5.11 Aviation and Radar

Summary of Key Topic Policy Considerations

National Policy Statements

5.11.1 Section 5 of NPS EN-1 sets out the Secretary of State will need to be satisfied that the effects on civil and military aerodromes, aviation technical sites and other defence interests have been addressed and any necessary assessment of the proposal, including cumulative effects, on aviation or defence interests has been carried out, along with any relevant mitigation.

5.11.2 Paragraph 5.5.53 of NPS EN-1 informs that where there are conflicts between the Governments energy and transport policies and military interests the decision maker should expect the relevant parties to have made appropriate efforts to work together to identify realistic and pragmatic solutions.

5.11.3 NPS EN-3 at paragraph 2.8.250 reiterates the policy position in NPS EN-1 that impacts on civil and military radar and other aviation and defence interests will need to be considered.

Other Relevant Policy

5.11.4 South East Inshore Marine Plan Policy SE-DEF-1 aims to avoid conflict between defence activities and proposals within the marine plan area by requiring proposals that affect Ministry of Defence area to seek agreement from the Ministry of Defence.

Summary of Compliance

5.11.5 This topic is assessed in ES Volume 1 Chapter 17 Aviation and Radar (Document Reference: 3.1.19).

5.11.6 Desk-based data was used to inform the aviation and radar assessments. UK flight and navigation related information for 2022 was gathered from sources such as the Civil Aviation Publication 032: UK and UK Military Aeronautical Information Publication, providing full coverage across the North Falls aviation and radar study area in accordance with the relevant requirements for assessment set out in NPS EN-1 and EN-3.

5.11.7 The study area for aviation and radar has been defined on the basis of the potential for WTGs within the North Falls array area to interfere with civil and military radars and the potential for the WTGs to become aviation obstacles or obstructions. Modelling has been undertaken to determine whether Primary Surveillance Radars (PSRs) will detect North Falls WTGs.

5.11.8 There is a possibility that part or all of the North Falls WTGs will be detected by PSRs at Southend and Wattisham. In addition, in their pre-application advice, the Ministry of Defence (MoD) state that WTGs will be detected by Neatishead PSR, however Radar Line of Sight modelling indicates that the WTGs would not be visible at the Neatishead and the turbine parameters have been reduced since this statement from the MoD. The Applicant continues to engage with the MoD.

5.11.9 The planned height of the North Falls WTGs means helicopters operating within the relevant helicopter route will have less than the required 1,000ft (305m) obstacle clearance when crossing the North Falls array area in poor meteorological conditions.

5.11.10 The nearest search and rescue base is at Lydd Airport, approximately 99km south-west of the North Falls array area and its helicopters can provide rescue services up to approximately 460km away from base.

5.11.11 Potential impacts assessed for the construction phases include:

- Impacts on civil and military radar systems, due to the height of construction vessels (i.e. cranes and partially complete structures);
- Creation of an aviation obstacle environment; and
- Increased air traffic in areas related to wind farm activity.

5.11.12 For the operation and maintenance phase, potential impacts assessed include:

- WTGs causing permanent interference on civil and military radars;
- Creation of an aviation obstacle environment; and
- Increased air traffic in areas related to wind farm activity.

5.11.13 For decommissioning, the following potential impacts were assessed:

- WTGs causing permanent interference on civil and military radars;
- Removal of aviation obstacle environment; and
- Increased air traffic in areas related to wind farm activity.

5.11.14 The mitigation proposed includes the use of obstacle location charts in aeronautical documents, marking and lighting of WTGs in accordance with relevant guidelines and application of minimum separation distances. Additional notification measures will include Notices to Airmen, Aeronautical Information Circulars and publicity in relevant aviation publications/magazines. Mitigation in relation to radar will be agreed with the MoD.

5.11.15 It is noted the array area would be within the operational range of radar systems serving both civil and military agencies. Without additional mitigation, the likely effects on receptors receiving changes to their operational environment have been assessed to be major significant. However, it is anticipated that the potential risk posed to aviation and MoD operations can be wholly and successfully mitigated through various technical solutions applied to current generation PSRs. It is anticipated that, during the operational life of North Falls, the MoD and NERL will procure 'next generation' PSRs which should not require the application of mitigation measures to allow them to provide an appropriate surveillance picture in the presence of WTGs. Following the application of either additional mitigation or the use of these next generation PSRs, the residual effect is assessed to be not significant.

5.11.16 Table 17.9 of ES Chapter 17provides a summary of the potential environmental effects of the Project. With the implementation of mitigation measures, North Falls is predicted to have no significant effects on aviation and radar receptors during all its phases.

5.11.17 There is potential for cumulative effects to occur with Five Estuaries Offshore Wind Farm and other projects. However, when considering proposed mitigation measures, it is not anticipated that cumulative effects are likely to be significant in EIA terms.

5.11.18 Accordingly, it has been demonstrated that North Falls accords with requirements of NPS EN-1 and NPS EN-3 and the objective of South East Inshore Marine Plan Policy SE-DEF-1.

5.11.19 The presumption in favour of consent as an energy NSIP and CNP is unaffected by the limited potential effects on aviation and radar.

5.12 Infrastructure and Other Users

Summary of Key Topic Policy Considerations

National Policy Statements

5.12.1 NPS EN-1, although it does not specifically refer to infrastructure and other users, remains relevant due to its overarching guidance principles.

5.12.2 NPS EN-3 requires developments to be appropriately sited to minimise conflicts with other sea users (paragraph 2.8.44).

5.12.3 Where an OWF is proposed close to existing operational offshore infrastructure or has the potential to affect existing offshore operational activities NPS EN-3 requires that an assessment of the potential effects of the Project on existing or permitted infrastructure is undertaken covering the lifespan of the project (paragraph 2.8.197 and 2.8.198).

5.12.4 Accordingly, Applicants should engage with interested parties with an aim to resolve as many issues as possible prior to submission on an application (paragraphs 2.8.56, 2.8.200,2.8.273/4 and 2.8.267) to ensure OWF and other users of the sea co-exist successfully (paragraph 2.8.203)

Other Relevant Policy

5.12.5 South East Inshore Marine Plan Policy SE-CO-1 encourages proposals to optimise the use of space and incorporate opportunities for co-existence and co-operation with existing activities. Policy SE-INF-1 supports proposals or appropriate marine infrastructure which facilitates land-based activities.

Summary of Compliance

5.12.6 This topic is assessed in ES Volume 1 Chapter 18: Infrastructure and Other Users (Document Reference: 3.1.20).

5.12.7 In accordance with the relevant requirements for assessment set out in NPS EN-1 and NPS EN-3 desk-based data was used to inform the infrastructure and other users assessment.

5.12.8 The study area encompasses a 50km zone of influence around the offshore project area. Infrastructure and users in the study area include: offshore cables; wind farms; oil and gas infrastructure; aggregate sites; MoD practice and exercise areas (PEXAs); and disposal sites. Commercial fisheries and shipping are considered separately (see Sections 3.1.7 and 3.1.8). Existing infrastructure and other users includes:

- 13 existing and consented offshore wind farms in the study area;

- 3 existing offshore cables, and 2 proposed cables which intersect the offshore project area;
- The closest outfall pipe (sewage) is located 0.2km from the offshore cable corridor;
- The closest aggregate production area is located adjacent to the array area;
- 4 closed disposal sites in the offshore project area, 3 open disposal sites;
- 5 non-danger military PEXA's overlap or are in proximity to the offshore project area; and
- There is also potential for wartime unexploded ordnance within the southern North Sea.

5.12.9 Potential impacts assessed for the construction, operation and maintenance, and decommissioning phases include:

- Potential interference with other wind farms (navigational safety issues; aviation; overlap of infrastructure and potential interactions; increased pressure on port facilities);
- Physical impacts on subsea cables (potential damage to cables, repairs/reburial);
- Impacts on disposal/dredging sites (disruption due to vessel movements);
- Impacts on dredging; and
- Impacts on MoD activities.

5.12.10 Mitigation has been incorporated into the project design, including stakeholder engagement with owners and operators of infrastructure (other wind farm developers, dredging companies and cable operators) to put commercial and technical agreements in place ahead of construction. Information for all phases of North Falls will be given via Notices to Mariners and Kingfisher Bulletins alongside other appropriate media. Crossing and proximity agreements will be agreed post-consent with relevant asset owners, consultation with Trinity House will determine appropriate lighting and marking, with consideration of existing oil and gas assets, and alignment of WTGs to provide obstruction free Search and Rescue access.

5.12.11 Table 18.16 of Chapter 18: Infrastructure and Other Users of the Environmental Statement provides a summary of the potential environmental effects of the Project. With the implementation of mitigation measures, North Falls is predicted to have no greater than minor adverse (not significant in EIA terms) effects on the infrastructure and other users during all its phases.

5.12.12 There is potential for cumulative effects to occur with a number of other offshore wind farms and other projects however, when considering proposed mitigation measures, it is not anticipated that cumulative effects are likely to be significant in EIA terms.

5.12.13 Accordingly, it has been demonstrated that North Falls accords with requirements of NPS EN-1 and NPS EN-3 and South East Inshore Marine Plan Policies SE-INF-1 and SE-CO-1.

5.12.14 The presumption in favour of consent as an energy NSIP and CNP is unaffected by the limited potential effects on Infrastructure and other users.

5.13 Onshore Ground Conditions and Contamination

Summary of Key Topic Policy Considerations

National Policy Statements

5.13.1 NPS EN-1 requires that developments aim to avoid significant harm to geological conservation interests including through mitigation and consideration of reasonable alternatives (5.4.42). NPS EN-1 also sets out that where the development is subject to EIA, the applicant should ensure that the ES clearly presents any effects on internationally, nationally, and locally designated sites (paragraph 5.4.17).

5.13.2 NPS EN-1 also requires applicants to safeguard any mineral resource within the proposed site as far as possible taking into account long-term potential of the land after any decommissioning has taken place.

5.13.3 Paragraph 5.11.23 of NPS EN-1 acknowledges that for most energy infrastructure there may be little that can be done to mitigate the direct effects of the project on the existing use of the proposed site but requires that applicants should seek to minimise effects by the application of good design principles, including the layout of the project and protection of soils during construction.

5.13.4 Paragraph 2.10.34 of NPS EN-3 encourages applicants to develop and implement a Soil Resources and Management Plan which could help to use and manage soils sustainably and minimise adverse impacts on soil health and potential land contamination. This should be in line with the ambition set out in the Environmental Improvement Plan to bring at least 40% of England's agricultural soils into sustainable management by 2028 and increase this up to 60% by 2030.

Other Relevant Policy

5.13.5 Essex County Council Essex Minerals Local Plan (2014) Policy S8 seeks to safeguard mineral resources of national and local importance from surface development that would sterilise a significant economic resource or prejudice the effective working of a permitted mineral reserve.

5.13.6 Tendring District Local Plan Section 2 policy SPL3 sustainable design sets out that new development should be compatible with surrounding uses and

minimise any adverse environmental impacts. It also inter alia requires that development have regard to the Essex Mineral Local Plan.

5.13.7 Tendring District Local Plan Policy SP4 states that Sites designated for their international, European, and national importance to nature conservation will be protected from development likely to have an adverse effect on their integrity. Where new development would harm biodiversity or geodiversity, planning permission will only be granted in exceptional circumstances, where the benefits of the development demonstrably outweigh the harm caused and where adequate mitigation or, as a last resort, compensation measures are included, to ensure a net gain, in biodiversity.

5.13.8 NPPF Paragraph 180 requires planning policies and decisions to contribute to and enhance the natural and local environment by: a) protecting and enhancing valued landscapes, sites of biodiversity or geological value and soils (in a manner commensurate with their statutory status or identified quality in the development plan).

5.13.9 NPPF paragraph 190 sets out that where a site is affected by contamination or land stability issues responsibility for securing safe development rests with the developer and/or landowner.

5.13.10 NPPF paragraph 215 acknowledge that it is essential that there is a sufficient supply of minerals to provide the infrastructure, buildings, and goods that the country needs. Best use needs to be made of them to secure their long-term conservation.

Summary of Compliance

5.13.11 This topic is assessed in ES Chapter 19: Ground conditions and contamination (Document Reference: 3.1.21).

5.13.12 In accordance with the relevant requirements for assessment set out in NPS EN-1 and NPS EN-3 the ground conditions and contamination assessment was based on a desk-based site characterisation study which consisted of a review of existing data sources such as the British Geological Survey, Groundsure environmental sensitivity data, and historic, radon and unexploded ordnance mapping.

5.13.13 The study area for ground conditions and contamination includes a 250m buffer around the onshore project area. The study area is extended to 1km for assessing the presence of Control of Major Accident Hazard sites and groundwater abstraction wells and Source Protection Zones. This is due to the higher risk posed by Control of Major Accident Hazard sites and the sensitivity of groundwater abstraction wells.

5.13.14 The geology within the study area for ground conditions and contamination consists of made ground (associated with historical quarrying activities), superficial deposits (including alluvium, head deposits, cover sand and Kesgrave Catchment Subgroup), and bedrock of the Thames Group. There

are a number of geological designations within the study area, including Secondary A Aquifers, a Secondary B Aquifer, a Principal Aquifer and an Unproductive Strata. The area of the onshore cable route to the north of Tendring Green up to and including the onshore substation works area is located within a SPZ 3. There are no potable groundwater abstractions within the onshore project area, however 23 domestic and one commercial potable abstraction wells are located within 1km.

5.13.15 The study area crosses three Main Rivers: Holland Brook, Kirby Brook, Tendring Brook, as well as unnamed watercourses and ditches that are located either wholly or partially within the study area.

5.13.16 There are a number of Mineral Safeguarding Areas, and a Mineral Consultation Area within the onshore project area. There are no direct overlaps between the study area and any sensitive land use designated sites inclusive of Local Geological Sites.

5.13.17 Potential impacts assessed for the construction and decommissioning phases include:

- Exposure of the workforce, landowners, land users and neighbouring land users to contaminated soils and groundwater and associated health impacts;
- Direct impacts on groundwater quality and groundwater resources;
- Impacts on surface water quality and the ecological habitats they support from contamination;
- Sterilisation of future mineral resources; and
- Impacts upon agricultural land and the built environment from contamination.

5.13.18 Mitigation includes implementation of pre-construction targeted ground investigations, which have been undertaken in areas containing potential sources of contamination, and the implementation of a Code of Construction Practice (CoCP) (Document Reference: 7.13) which will be adhered to throughout the construction period. 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. Piling risk assessments will also be undertaken where relevant.

5.13.19 Plans detailing good site waste, soil and materials management will also be prepared and will be required to be adhered to during construction.

5.13.20 Where practicable, trenchless crossing techniques have been agreed to minimise the potential for contamination from excavation works associated

with cable crossings across Main Rivers. Cable routes have been routed in order to avoid interaction with groundwater supplies where practicable. Hydrogeological risk assessments will be undertaken at each trenchless crossing location meeting the requirements of the Environment Agency's approach to ground water protection.

5.13.21 Table 19.23 of ES Chapter 19 provides a summary of the potential environmental effects of the Project. With the above mitigation in place, North Falls is predicted to have no greater than minor adverse (not significant in EIA terms) effects on ground conditions during all its phases.

5.13.22 It is not anticipated that cumulative effects are likely to be significant in EIA terms, with Five Estuaries Offshore Wind Farm or any other project when considering the proposed mitigation measures.

5.13.23 Accordingly, it has been demonstrated that North Falls accords with requirements of NPS EN-1 and NPS EN-3 with regards to onshore ground conditions and contamination.

5.13.24 The presumption in favour of consent as an energy NSIP and CNP is unaffected.

5.14 Air Quality

Summary Of Key Topic Policy Considerations

National Policy Statements

5.14.1 NPS EN-1 states that the ES should describe any significant air emissions, their mitigation and any residual effects distinguishing between the project stages and taking account of any significant emissions from any road traffic generated by the project; and the predicted absolute emission levels of the proposed project, after mitigation methods have been applied (Paragraph 5.2.9 and 10).

5.14.2 Paragraph 5.2.13 sets out that the Secretary of State should consider whether mitigation measures are needed for operational and construction emissions above that which may form part of the application having regards to the Air Quality Strategy for England.

Other Relevant Policy

5.14.3 Tendring District Local Plan Section 1 Policy SP1 sets out a presumption in favour of sustainable development. Taking a positive approach that reflects the presumption on favour of sustainable development contained in the NPPF.

5.14.4 Tendring District Local Plan Section 2 Policy SPL3 sustainable design part c: impacts and compatibility' states that "new development (including changes of use) should be compatible with surrounding uses and minimise any adverse environmental impacts. The following criteria must be met: […] the

development, including any additional road traffic arising, will not have unacceptable levels of pollution on: air."

5.14.5 NPPF Paragraph 180 states policies and decisions should contribute to and enhance the natural and local environment by e) preventing new and existing development from contributing to, being put at unacceptable risk from, or being adversely affected by, unacceptable levels of soil, air, water or noise pollution or land instability. Development should wherever possible, help to improve the local environmental conditions such as air and water quality. Paragraph 192 requires polices and decisions to sustain and contribute towards compliance with relevant limit values or national objectives for pollutants. Opportunities to improve air quality or mitigate impacts should be identified, such as through traffic and travel management, and green infrastructure provision and enhancement.

Summary of Compliance

5.14.6 This topic is assessed in ES Volume 1 Chapter 20: Air Quality (Document Reference: 3.1.22).

5.14.7 In accordance with the relevant requirements for assessment set out in NPS EN-1 and NPS EN-3 the assessment draws on existing monitoring data and air quality management reports such as Tendring District Council Air Quality Annual Status Reports and Defra local air quality management data.

5.14.8 The study area for onshore air quality is defined as follows:

- Construction phase dust and fine particulate matter emissions:
  - Human receptors within 250 m of the onshore project area and within 50m of routes used by construction vehicles (for track out up to 500m from the onshore project area) and
  - Ecological receptors within 200m of the onshore project area for construction related dust and within 50m of routes used by construction vehicles (for trackout up to 500m from the onshore project area)
- Construction phase non-road mobile machinery (NRMM) emissions:
  - Human and ecological receptors within 200m of the onshore project area boundary.
- Construction phase road traffic emissions:

- Human and ecological receptors within 200m of routes which will experience traffic flows in exceedance of the relevant air quality screening criteria.

5.14.9 The study area for onshore air quality does not pass through, nor is it adjacent to, any statutory designated Air Quality Management Areas (AQMAs). The Tendring District Council monitoring network was amended in 2022 and 2020; therefore, results were obtained from the 2023, 2021 and 2019 ASR show the annual mean nitrogen dioxide (NO2) objective of 40µg m-3 has not been exceeded across the five-year period. The monitoring records indicate a declining trend in annual mean concentrations of NO2 since 2017.

5.14.10 Potential impacts assessed for the construction and decommissioning phases include:

- Construction dust and fine particulate matter;
- NRMM emissions; and
- Construction phase road vehicle exhaust emissions.

5.14.11 5Operational impacts on air quality have been scoped out given the cable will be underground and the onshore substation will not produce emissions that would generate levels of dust and particulate matter sufficient to result in significant effects. An exception to this is emission generated during the reinstatement of the haul road connecting Bentley Road to Ardleigh Road to service Abnormal Indivisible Load movements to the onshore substation in the unlikely event of transformer failure during the Project's lifetime.

5.14.12 North Falls will implement best practice dust mitigation measures, and follow mitigation measures specific to NRMM, which will be outlined in the CoCP (Document Reference: 7.13). Additionally, air quality considerations have been included in the site selection process (ES Chapter 4 Site Selection and Assessment of Alternatives, Document Reference: 3.1.6) for the onshore substation and associated infrastructure and using the shortest cable route length where practicable.

5.14.13 Table 20.56 of Chapter 20: Air Quality of the Environmental Statement provides a summary of the potential environmental 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.

5.14.14 There is potential for cumulative effects to occur with Five Estuaries Offshore Wind Farm or any other project. However, when considering proposed mitigation measures, it is not anticipated that cumulative effects are likely to be significant in EIA terms.

5.14.15 Accordingly, it has been demonstrated that North Falls accords with requirements of NPS EN-1 and local policy with regards to onshore air quality.

5.14.16 The presumption in favour of consent as an energy NSIP and CNP is unaffected.

5.15 Water Resources and Flood Risk

Summary of Key Policy Considerations

National Policy Statements

5.15.1 NPS EN-1 requires that applicants for new energy infrastructure must take into account potential impacts of climate change using the latest UK Climate Projections available at the time, in order to ensure that appropriate mitigation or adaptation measures have been identified for the estimated lifetime of the new infrastructure.

5.15.2 NPS EN-1 requires that applications for energy projects of 1 hectare or greater should be accompanied by a flood risk assessment (FRA). An FRA may also be required where there maybe flooding issues other than from rivers and the sea. The FRA should identify and assess the risks of all forms of flooding to and from the project and demonstrate how these flood risks will be managed, taking climate change into account. The minimum requirements for what should be included in an FRA are also outlined at paragraph 5.7.5 of NPS EN-1.

Other Relevant Policy

5.15.3 Tendring District Local Plan Part 2 policy PPL 1 Development and Flood Risk sets out that all development proposals should include appropriate measures to respond to the risk of flooding on and/or offsite.

5.15.4 Tendring District Local Plan Part 2 policy PPL5 Water and Conservation and Drainage Sewerage states that development must made adequate provision for drainage, sewerage, and should include Sustainable Drainage Systems as a means of reducing flood risk and improving water quality.

5.15.5 NNPF Paragraph 167 states all plans should apply a sequential, risk-based approach to the location of development taking into account all sources of flood risk and the current and future impacts of climate change- as to avoid, where possible, flood risk to people and property.

Summary of Compliance

5.15.6 This topic is assessed in ES Volume 1 Chapter 21: Water Resources and Flood Risk (Document Reference: 3.1.23).

5.15.7 In accordance with the relevant requirements for assessment set out in NPS EN-1 and NPS EN-3 the assessment was based on a review of existing data sources such as the BGS and Environment Agency flood risk data, as well as

the findings of a site-specific geomorphological baseline survey conducted in August 2022.

5.15.8 The study area for water resources and flood risk includes river water body catchments based on surface hydrological catchments with an area greater than 5km2. Receptors are those river water bodies that are crossed, or their catchments are crossed, by the onshore project area, as well as those that are hydrologically connected downstream. The study area for potential impacts to groundwater is limited to those groundwater bodies that lie directly beneath the onshore project area.

5.15.9 The onshore infrastructure associated with North Falls lies within the Colne Essex operational catchment (Holland Brook and Tenpenny Brook) and the Stour operational catchment (Wrabness Brook and Coastal catchment associated with Hamford Water). Water quality across the onshore project area is generally poor.

5.15.10 Two potable water mains cross the onshore project area and sewage mains are located in the landfall area of the onshore project area.

5.15.11 The majority of the onshore project area is in the lower risk Flood Zone 1, although there are three areas within the onshore project area at higher risk of flooding (Flood Zones 2 and 3):

- Upper reaches of Holland Brook, immediately west of Abbott's Hall;
- Tendring Brook, near Tendring Green; and
- Kirby Brook and the lower course of Holland Brook at Holland Haven Marshes.

5.15.12 High risk surface water flow paths occur in the same areas as river and sea flooding, with minor flow paths associated with hillslope hollows and small areas on low to medium surface water flood risk north of Normans Farm. The most extensive area of surface water flood risk is around Holland Haven Marshes. Floodplain areas of Kirby Brook and Holland Haven Marshes are at risk of reservoir flooding under a dry-day scenario.

5.15.13 Most of the onshore project area is underlain by unproductive strata, but there are areas of low groundwater vulnerability near Thorpe-le-Soken and medium-low vulnerability north of the A120. North of Tendring the onshore project area lies within Zone III (total catchment) of a source protection zone (SPZ). Superficial deposits of glacial sands and gravels, river terrace deposits and Diamicton till overlay bedrock in this area. The onshore project area is underlain by a single WFD groundwater body (Essex Gravels) currently assessed as poor due to diffuse pollution as a result of poor livestock and nutrient management. Ongoing initiatives are in place to reduce existing and potential new pressures on groundwater to achieve compliance with the WER and would suggest that groundwater quality and quantity is likely to improve in the future.

5.15.14 Potential impacts assessed for the construction and decommissioning phases include:

- Direct disturbance of surface water bodies;
- Increased sediment supply;
- Supply of contaminants to surface and groundwater; and
- Changes to surface and groundwater flows and flood risk.

5.15.15 For the operation and maintenance phase, potential impacts assessed include:

- Supply of contaminants to surface and groundwater; and
- Changes to surface and groundwater flows and flood risk.

5.15.16 A range of mitigation measures is proposed and have been secured in the CoCP (Document Reference: 7.13). During the construction phase, these measures include ground investigations and a hydrogeological risk assessment, a HDD Method Statement and Contingency Plan (Document Reference:: 7.15), crossing all Main Rivers and most ordinary watercourses using trenchless techniques, use of bailey bridges to traverse Main Rivers, applying best practice measures at trenched crossings and appointing a land drainage consultant to develop pre-and post-construction drainage plans designed to comply with the water quality design criteria outlined in the CIRIA SuDS manual. Outline soil management measures have been detailed in the outline CoCP.

5.15.17 With the implementation of mitigation measures, North Falls is predicted to have no greater than negligible or minor adverse (not significant in EIA terms) effects on water resources and flood risk during all its phases.

5.15.18 There is potential for cumulative effects to occur with a number of other offshore wind farms and/or projects. However, when considering proposed mitigation measures, it is not anticipated that cumulative effects are likely to be significant in EIA terms.

5.15.19 Accordingly, it has been demonstrated that North Falls accords with requirements of NPS EN-1 and local policy with regards to onshore air quality.

5.15.20 The presumption in favour of consent as an energy NSIP and CNP is unaffected.

5.16 Land Use and Agriculture

Summary Of Key Topic Policy Considerations

National Policy Statements

5.16.1 NPS EN1 paragraph 5.11.8 requires the applicant to identify existing and proposed land uses near the project, any effects of replacing an existing development or use of the site with the proposed project or preventing a development or use on a neighbouring site from continuing. Applicants should also assess any effects of precluding a new development or use proposed in the development plan.

5.16.2 NPS EN-1 Applicants should seek to minimise impacts on the best and most versatile agricultural land (defined as land in grades 1, 2 and 3a of the Agricultural Land Classification) and preferably use land in areas of poorer quality (paragraph 5.11.12). Paragraph 5.11.34 requires the Secretary of State to ensure that applicants do not site their scheme on the best and most versatile agricultural land without justification. Where it is required the Secretary of State should take in to account the economic and other benefits of that land.

5.16.3 NPS EN-1 paragraphs 5.11.20 and 21 reiterates that the general policies controlling development in the countryside apply with equal force in Green Belts but there is, in addition, a general presumption against inappropriate development within them. Such development should not be approved except in very special circumstances.

5.16.4 NPS EN-3 contains relevant policy in relation to the assessment of transmission infrastructure for renewable energy installations, however, there is no information specific to land use and agriculture.

5.16.5 NPS EN-5 paragraph 2.8.9 sets out that the Secretary of state should only grant development consent for underground or subsea sections of a proposed line over an overhead line alternative if they are satisfied the benefits accruing outweigh any extra economic, social, or environmental impacts.

Other Relevant Policy

5.16.6 Paragraph 7.3.1 of the Tendring District Local Plan section 2 supports policy PP3 The Rural landscape states ‘In order to promote sustainable development, in considering where to select sites for new development in this Local Plan, the Council has taken particular care to assess the value of the landscape and, where practical, allocate sites with the lowest sensitivity, thereby helping to protect valued landscapes and the best and most versatile agricultural land’.

5.16.7 Paragraph 180 of the NPPF outline that planning polices and decisions should contribute to and enhance the natural and local environment by b) recognising

the intrinsic character and beauty of the countryside, and the wider benefits from natural capital and ecosystem services – including the economic and other benefits of the best and most versatile agricultural land.

Summary Of Compliance

5.16.8 This topic is assessed in ES Volume 1 Chapter 22: Land Use and Agriculture (Document Reference: 3.1.24).

5.16.9 In accordance with NPS EN-1 and NPS EN-3 the assessment was based on a desk-based review of available data and information sources such as agri-environment schemes and soil survey data. Additional data was gathered as part of an Extended Phase 1 Habitat Survey (undertaken in September and October 2021, March 2022 and August 2023) which was used to establish the existing baseline conditions and to inform the land use and agriculture impact assessment.

5.16.10 Where works are to take place within BMV, or where BMV has potential to be lost as part of the Project, this has only been considered in situations where no reasonable alternative could be identified when balancing other project engineering and design feasibility, planning and environmental constraints.

5.16.11 The onshore project area primarily comprises land of Agricultural Land Classification (ALC) Grade 3 but ranges from Grade 1 to Grade 4 and includes some areas of urban land. The landfall at Great Holland crosses ALC Grade 4 land and the onshore substation works area comprises ALC Grade 1 land. In total 47.35% of the Onshore Project Area comprises of Grade 1 and Grade 2 BMV land.

5.16.12 During construction, the temporary loss of agricultural land Grades 1-3a (BMV land) results in a moderate adverse significance of effect. Cumulatively, impacts to agricultural land are likely to be moderate adverse. These effects are temporary and fully reversible once construction is complete. Mitigation measures to reduce the potential impacts on land use and agriculture have been secured as part of the outline CoCP (Document Reference: 7.13), which includes outline soil management measures. In addition to the matters outlined in respect of site selection, these measures include the appointment of a land drainage consultant to develop pre- and post-construction drainage plans, protective provisions and/or side agreements agreed for the affected utilities as part of the DCO application process and an Agricultural Liaison Officer (ALO) to work with landowners/occupiers to reduce impacts on agricultural productivity where practicable.

5.16.13 Following construction, the affected agricultural land will be reinstated to pre-construction condition and where this is not possible the Project will seek to reach private agreements with relevant landowners/occupiers. Where land is still not reinstated to its former condition, the Project will have a statutory obligation to pay compensation to landowners under the Compensation Code.

5.16.14 During operation, the majority of impacts to land use and agriculture are limited. This is because the onshore cable route is buried. However, the permanent loss of ALC Grade 1 (BMV) agricultural land during operation at the onshore substation and loss of ALC Grade 2 agricultural land at the Bentley Road improvement works results in an effect of up to major adverse significance. Cumulatively, impacts to agricultural land are also likely to be major adverse, should land be determined to be Grade 3a or above. Private agreements would be sought with the relevant landowners/occupiers regarding any permanent loss of land incurred. The Project's operational footprint has been minimised as far as possible to reduce the degree of effect predicted.

5.16.15 There is potential for cumulative effects to occur with Five Estuaries Offshore Wind Farm's onshore connection. However, when considering proposed mitigation measures, it is not anticipated that cumulative effects are likely to be significant in EIA terms, with the exception of potential cumulative effects associated with a permanent change to land use for agricultural land, which were considered to be significant during operation. The cumulative effect on temporary and permanent loss of agricultural land is expected to be no greater than assessed for North Falls alone. Ongoing coordination and collaboration with Five Estuaries Offshore Wind Farm will aim to minimise the temporary and permanent loss of agricultural land across the onshore project area.

5.16.16 It is pertinent to highlight that NPS, NPPF and local policy do not establish a moratorium on the development of BMV land for non-agricultural uses, but rather seek appropriate justification for its loss.

5.16.17 A detailed site selection process was undertaken for each element of the Project's onshore infrastructure (see ES Chapter 4 Site Selection and Assessment of Alternatives, Document Reference: 3.1.6) which included consideration of interactions with BMV. In this it is noted that the majority of Essex is agricultural land, of which a large proportion comprises BMV land (299,028.39ha of agricultural land in Essex is BMV, Defra, 2017), increasing likelihood of interaction between the onshore project area and BMV land.

5.16.18 The technical requirements for the onshore substation included the necessity to site it in proximity to the proposed EACN. All viable sites in close enough proximity to the EACN were situated on BMV, and as such to select a viable site BMV could not be avoided. Nevertheless, during the design process the Applicant has sought to minimise the scale of the Project's permanent infrastructure to seek to ensure the permanent loss of BMV has been kept to a minimum. In total, it is estimated that the Project will result in the permanent loss of agricultural land from the Project equates to 0.002% of the regional agricultural resource.

5.16.19 Importantly, in relation to CNP Infrastructure, paragraph 3.3.63 of NPS EN1 confirms that the urgent need for CNP Infrastructure to achieve energy objectives and national security, economic, commercial, and net zero benefits,

will generally outweigh any other residual impacts not capable of being addressed by application of the mitigation hierarchy.

5.16.20 As demonstrated, technical requirements (proximity to the proposed EACN) and overall provision of BMV land in Essex limited the ability of the Applicant to identify appropriate non-BMV land. Mindful of the relative limited land take required, against overall agricultural land and BMV provision in Essex, and the scale of the Project as a whole, it is considered that appropriate justification has been demonstrated. In line with NPS EN-1 paragraph 4.6.3 the Secretary of State should give appropriate weight to the benefits of the Project when considering the planning balance.

5.16.21 Accordingly, it has been demonstrated that North Falls accords with requirements of NPS EN-1, NPS EN-3 and NPS EN-5 and local policy with regards to land use and agriculture.

5.16.22 The presumption in favour of consent as an energy NSIP and CNP is unaffected.

5.17 Onshore Ecology and Nature Conservation

Summary Of Key Topic Policy Considerations

National Policy Statements

5.17.1 Section 4.6 of NPS EN-1 states that, as a general principle, development should aim to avoid significant harm to biodiversity and geological conservation interests, including through mitigation and consideration of reasonable alternatives.

5.17.2 Biodiversity net gain is an essential component of environmental net gain. Paragraph 4.6.2 of NPS EN-1 sets out that projects in England should consider and seek to incorporate improvements in natural capital, ecosystem services and the benefits they deliver when planning how to deliver biodiversity net gain which currently only applies to terrestrial and intertidal components of projects (paragraph 4.6.3).

5.17.3 Paragraph 4.6.6 sets out that Energy NSIP proposals, whether onshore or offshore should seek opportunities to contribute and enhance the natural environment by providing next gains for biodiversity and the wider environment where possible.

5.17.4 NPS EN-1 states that “GI can also enable developments to provide positive environmental, social, health and economic benefits. Green infrastructure includes green space such as parks and woodlands but also other environmental features such as street trees, hedgerows and green walls and roofs. Well designed and managed green infrastructure provides multiple benefits at a range of scales. It can contribute to biodiversity recovery, sequester carbon, absorb surface water, cleanse pollutants, absorb noise and

reduce high temperatures. The Green Infrastructure Framework – Principles and Standards for England can be used to consider green infrastructure in development and plan for good quality and targeted creation or improvement" (EN-1, Section 5.11.7)

5.17.5 In addition to also maintaining current forms of GI, "where green infrastructure is affected, the Secretary of State should consider imposing requirements to ensure the functionality and connectivity of the green infrastructure network is maintained in the vicinity of the development and that any necessary works are undertaken, where possible, to mitigate any adverse impact" (EN-1, Section 5.11.24)

5.17.6 NPS EN-3 requires proposals for renewable energy infrastructure to demonstrate good design in respect of landscape and visual amenity, and in the design of the project to mitigate impacts such as noise and effects on ecology (paragraph 2.4.2).

5.17.7 NPS EN-5 sets out in 2.7 that applicant will need to consider whether the proposed line will cause such problems at any point along its length and take this into consideration in the preparation of the Environmental Impact Assessment (EIA) and ES (see Section 4.2 of NPS EN-1). Consideration should be given to feeding and hunting grounds, migration corridors and breeding grounds.

Other Relevant Policy

5.17.8 Tendring District Local Plan Section 1 policy SP7 Place Shaping Principles states that all new development must meet high standards of urban and architectural design. Development frameworks, masterplans, design codes, and other design guidance documents will be prepared in consultation with stakeholders where they are needed to support this objective. Where applicable, development should incorporate biodiversity creation and enhancement measures. This ties in with strategic objective 'Ensuring High Quality Outcomes' of the Local Plan Section 1 which requires development to secure high standards of urban design and green infrastructure which creates attractive and sustainable places.

5.17.9 Tendring District Local Plan Section 2 policy PPL4 Biodiversity and Geodiversity states that as a minimum there should be no significant impacts upon any protected species. Sites designated for their local importance to nature conservation will be protected from development likely to have an adverse impact on such sites or features. Proposals for new development should be supported by an appropriate ecological assessment. Where new development would harm biodiversity or geodiversity, planning permission will only be granted in exceptional circumstances where the benefits outweigh the harm.

5.17.10 The Essex Green Infrastructure strategy aims to enhance the urban and rural environment, through creating connected multi- functional GI that delivers

multiple benefits to people and wildlife. It meets the Council's aspirations to improve GI and green spaces in our towns, cities and villages.

5.17.11 NPPF paragraph 180 states that policies and decisions should contribute to and enhance the natural and local environment by a) protecting and enhancing valued landscapes, sites of biodiversity or geological value and soils.

Summary of Compliance

5.17.12 This topic is assessed in ES Volume 1 Chapter 23: Onshore Ecology Document Reference: 3.1.25).

5.17.13 The assessment was informed by results of the site characterisation surveys undertaken between September 2021 and August 2023. Surveys to date comprise of a Extended Phase 1 Habitat Survey, species specific surveys (including bat, reptile, hazel dormouse, water vole and otter), great crested newt eDNA surveys and national vegetation classification surveys. A desk-based study was also undertaken to inform the assessment, including a data search with the Essex Field Club (the local biological records centre) in November 2021.

5.17.14 The study areas for each onshore ecology receptor are defined below:

- Statutory designated sites – within and up to 5km of the onshore project area;
- Non-statutory designated sites – within and up to 2km of the onshore project area;
- UK Habitats of Principal Importance and protected and notable species (excluding great crested newts) – within and up to 50m of the onshore project area; and
- Great crested newts – within and up to 250m of the onshore project area.

5.17.15 Holland Haven Marshes (SSSI) is located within the onshore project area and Simon's Wood (LWS) is located directly adjacent to the onshore project area. There are a number of designated sites close to the study area, including LWSs, SACs, Ramsar sites, LNRs and SSSIs.

5.17.16 The onshore project area is dominated by arable fields interspersed with field margin drains, rivers and areas of scattered and dense scrub. Field boundaries are typically hedgerows (species-poor intact and/or defunct) and dominated by hawthorn *Craetagus monogyna* and/or *blackthorn Prunus spinosa*. Also present are the small areas of habitat which are considered to be of a higher ecological value including semi-improved grassland, marshy grassland, woodland (broadleaved and mixed semi-natural and plantation) and woodland/scrub successional habitats.

5.17.17 Species such as common pipistrelle *Pipistrellus pipistrellus*, hazel dormice *Muscardinus avellanarius* and common nesting birds are associated with

hedgerows within the onshore project area. Trees and woodland are also valuable to badgers *Meles meles*, bats and hazel dormice for nesting and foraging resources. Other terrestrial habitats such as grassland support notable species including reptiles and, in particular within Holland Haven Marshes SSSI, terrestrial invertebrates. Water vole *Arvicola amphibius*, otter *Lutra lutra*, great crested newts *Triturus cristatus* and, notably within Holland Haven Marshes SSSI, aquatic invertebrates are associated with waterbodies within the onshore project area.

5.17.18 Potential impacts assessed for the construction and decommissioning phases include:

- Impacts on Holland Haven Marshes SSSI and Local Nature Reserve;
- Impacts on statutory and non-statutory designated sites (excluding Holland Haven Marshes SSSI / LNR);
- Permanent and temporary habitat loss. Relevant habitats include saltmarsh; coastal floodplain; grazing marshes; woodland habitats; good quality semi-improved grassland; hedgerows; and rivers, ponds and reedbeds;
- Loss or damage to arable field margins;
- Permanent or temporary impacts on badgers/bats/water voles and otters/great crested newts/reptiles/hazel dormice/fish; and
- Spread of invasive non-native species.

5.17.19 For the operation and maintenance phase, potential impacts assessed include:

- Temporary disturbance to habitats and species during maintenance activities;
- Disturbance of species from onshore substation operational light and noise;
- Habitat improvements arising from biodiversity enhancements; and
- Impacts on migratory Nathusius' pipistrelle.

5.17.20 Mitigation by site selection has been carried out for the avoidance of statutory and non-statutory designated sites, ancient woodlands, UK Habitats of Principal Importance, and habitats potentially suitable for supporting legally protected and notable species, as far as practicable. Mitigation by construction method selection includes a commitment to the use of trenchless techniques (e.g. horizontal directional drilling) where practicable and reducing the onshore cable route working width to 30m at hedgerow crossings where open cut trenching is proposed. As well as preparing an Ecological Management Plan (EMP) in line with best practice measures, which will be implemented during the construction phase, an Outline Horizontal Directional Drilling Method Statement and Contingency Plan (Document Reference: 7.15) and Outline Landscape and Ecological Management Strategy (OLEMS) (Document

Reference: 7.14) are submitted as part of the Application to minimise the risk of effects upon interest features of the Holland Haven Marshes SSSI during horizontal directional drilling works.

5.17.21 All habitats subject to temporary disturbance during construction will be reinstated following completion of construction, with habitat creation being carried out as compensation. Also, whilst North Falls is not subject to mandatory BNG, NFOW are exploring opportunities to deliver BNG for the onshore elements of the Project this s set out in accompanying document BNG Strategy (Document Reference: 7.2). Measures to achieve this include the reinstatement, restoration and enhancement of habitats that are lost during construction, as well as proposals for habitat creation at the North Falls onshore substation. The accompanying Green Infrastructure Plan (Document Reference: 3.3.39) outlines how North Falls adheres to local and national policy requirements for Green Infrastructure including adherence to the Essex Green Infrastructure Strategy.

5.17.22 Table 20.56 of Chapter 23: Onshore Ecology of the Environmental Statement provides a summary of the potential environmental effects of the Project. With the implementation of mitigation measures North Falls is predicted to have no greater than minor adverse (not significant in EIA terms) effects on ecological receptors during all its phases, with the exception of permanent and temporary loss of hedgerows and permanent or temporary impacts on bats during construction. While it is noted that short term moderate adverse effects (significant in EIA terms) are identified for each potential impact during the construction phase, long term moderate beneficial (significant in EIA terms) effects are identified, due to the effect of biodiversity enhancement during operation.

5.17.23 There is potential for cumulative effects to occur with Five Estuaries Offshore Wind Farm. During construction, it is anticipated that cumulative effects with Five Estuaries Offshore Wind Farm’s onshore connection on hedgerows and commuting/foraging bats may have a significant effect (in EIA terms) based on worst-case scenarios. It is not anticipated that cumulative effects with Norwich to Tilbury during construction or cumulative effects with Norwich to Tilbury or Five Estuaries during operation will be significant.

5.17.24 Accordingly, it has been demonstrated that North Falls accords with requirements of NPS EN-1, NPS EN-3 and NPS EN-5, and the objectives of local and national policy with regards to onshore ecology.

5.17.25 The presumption in favour of consent as an energy NSIP and CNP is unaffected.

5.18 Onshore Ornithology

Summary Of Key Policy Considerations

National Policy Statements

5.18.1 Paragraph 4.1.6 of NPS EN-1 states that, in reaching a decision, the Secretary of State should have regard to "*environmental, social and economic benefits and adverse impacts, at national, regional and local levels"*. It also requires at Paragraph 5.4.19 that applicants *"… should show how the project has taken advantage of opportunities to conserve and enhance biodiversity and geological conservation interests."* It also requires that *"…the design process should embed opportunities for nature inclusive design. Energy infrastructure projects have the potential to deliver significant benefits and enhancements beyond Biodiversity Net Gain, which result in wider environmental gains.'"* (paragraph 5.4.21)

5.18.2 NPS EN-3 states that "Proposals for renewable energy infrastructure should demonstrate good design in respect of landscape and visual amenity, and in the design of the project to mitigate impacts such as noise and effects on ecology." (paragraph 2.4.2) and highlights that "There may be some instances where it would be more harmful to the ecology of the site to remove elements of the development, such as the access tracks or underground cabling, than to retain them." (paragraph 2.7.15).

5.18.3 NPS EN-5 sets out that applicants should consider whether the proposed onshore corridor will cause problems along its length in particular with regards to feeding and hunting grounds, migration corridors and breeding grounds. (paragraphs 2.7.2 and 2.7.3).

Other Relevant Policy

5.18.4 Tendring District Local Plan section 2 policy PPL 4 Biodiversity and Geodiversity states sites designated for their international, European, and national importance to nature conservation will be protected from development likely to have an adverse effect on their integrity. As a minimum, there should be no significant impacts upon any protected species, and schemes should consider the preservation, restoration, or re-creation of priority habitats.

5.18.5 NPPF paragraph 187 specifies the following should be given the same protection as habitats sites:

- Potential Special Protection Areas and possible Special Areas of Conservation;
- Listed or proposed Ramsar sites;
- Sites identified, or required, as compensatory measures for adverse effects on habitats sites, potential Special Protection Areas, possible Special Areas of Conservation, and listed proposed Ramsar sites.

Summary of Compliance

5.18.6 This topic is assessed in ES Volume 1 Chapter 24: Onshore Ornithology (Document Reference: 3.1.26).

5.18.7 Several site-specific surveys have been undertaken to inform the assessment for onshore ornithology and were completed between September 2020 and March 2023. These surveys comprised: non-breeding season walkover surveys within the landfall area; non-breeding season walkover surveys within the onshore cable route and onshore substation works area; breeding bird surveys within the landfall area; breeding bird surveys covering the onshore cable route and onshore substations works area; and autumn post-breeding and passage walkovers within the landfall area. Results of the surveys between September 2020 and March 2023 have been included in the assessment of the ES.

5.18.8 The study area for onshore ornithology includes a 400m buffer around the onshore project area. The study area for each onshore ornithology receptor is defined below:

- Statutory designated sites - within and up to 10km of the onshore ornithology study area;
- Breeding and non-breeding birds – within and up to 400m of the onshore project area; and
- Cumulative assessment - within 10km of the onshore project area.

5.18.9 There are a number of designated sites within, and close to, the onshore project area, including SSSIs, LNRs, SPAs, Ramsar sites and National Nature Reserves (NNRs).

5.18.10 A total of 102 species were recorded during the breeding bird surveys in 2021, and 127 species recorded in 2022. Breeding attempts were confirmed for a number of Schedule 1 species, Birds of Conservation Concern (BoCC) Amber-listed and BoCC Red-listed species.

5.18.11 A total of 142 species (including 61 target species) were recorded during the non-breeding bird surveys in 2021-2022. This was an increase from 113 species recorded in the 2020-2021 non-breeding season.

5.18.12 The impact assessment considered the potential impacts on Important Ornithological Features. Potential impacts assessed for the construction and decommissioning phases include:

- Habitat loss;
- Construction disturbance; and
- Indirect impacts due to habitat alteration (including smothering or contamination, including bentonite breakout associated with HDD works).

5.18.13 For the operation and maintenance phase, potential impacts assessed include:

- Disturbance due to operation and maintenance activities; and
- Onshore substation operational noise and light disturbance.

5.18.14 Mitigation measures to reduce the potential impacts on identified bird species have been secured as part of an EMP and Outline Horizontal Directional Drill Method Statement and Contingency Plan. They include best practice measures for minimising impacts on notable habitats, species and watercourse disturbance, habitat reinstatement measures and sensitive construction methods such as trenchless techniques. Additionally, considerations in relation to onshore ornithology were included within the site selection process (see North Falls ES Chapter 4 Site Selection and Assessment of Alternatives, Volume I). These considerations include: avoidance of statutory and non-statutory designated sites for conservation and associated buffer zones; avoidance of ancient woodland and associated buffer zones; avoidance of habitats and species of principal importance in England; and avoidance of habitat suitable for supporting legally protected and notable species as far as practicable.

5.18.15 Table 24.23 of Chapter 23: Onshore Ornithology of the Environmental Statement provides a summary of the potential environmental effects of the Project. With the implementation of mitigation measures, North Falls is predicted to have no greater than negligible or minor adverse (not significant in EIA terms) effects on onshore ornithological receptors during all its phases. One exception is corn bunting, where up to moderate adverse (significant in EIA terms) effects are predicted due to the habitat loss and construction disturbance at the onshore substation.

5.18.16 There is potential for cumulative effects to occur with a number of other offshore wind farms and/or projects in the study area. However, when considering proposed mitigation measures, it is not anticipated that cumulative effects are likely to be significant in EIA terms.

5.18.17 Accordingly, it has been demonstrated that North Falls accords with requirements of NPS EN-1, NPS EN-3 and NPS EN-5, local and national policy with regards to onshore ornithology.

5.18.18 The presumption in favour of consent as an energy NSIP and CNP is unaffected.

5.19 Onshore Archaeology and Cultural Heritage

Summary of Key Policy Considerations

National Policy Statements

5.19.1 NPS EN-1 states that, as part of the ES, the applicant should provide a description of the significance of the heritage assets affected by the proposed development and the contribution of their setting to that significance. NPS EN-1 also states that applicants should ensure that the extent of the impact of the proposed development on the significance of any heritage assets affected can be adequately understood from the application and supporting documents (paragraphs 5.9.9 to 5.9.12).

5.19.2 In considering the impact on the historic environment as set out in Section 5.9 of NPS EN-1 sets out that any harmful impact on the significance of a designated heritage asset should be weighed against the public benefit of development, recognising that the greater the harm to the significance of the heritage asset the greater the justification will be needed for any loss. It further states that the Secretary of State should take into account the positive role that large-scale renewable projects play in the mitigation of climate change, the delivery of energy security and urgency of meeting net zero target.

5.19.3 Regarding onshore heritage assets NPS EN-3 directs applicants to consider affects in accordance with the requirements set out in NPS-1 (paragraph 2.8.177).

5.19.4 NPS EN-5 directs (at paragraph 2.2.10) applicants to consider 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 infrastructure, to "*have regard to the desirability 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… sites, buildings or objects*."

Other Relevant Policy

5.19.5 Objective 7 Historic Environment of Section 2 of the Tendring District Local Plan is "to conserve and enhance Tendring District's historic environment, including: heritage; respecting historic buildings and their settings; heritage assets; landscapes; links; and views". Policy SPL3 gives the requirements for Sustainable Design and states with particular relation to heritage that "the design and layout of the development maintains or enhances important existing site features of landscape, ecological, heritage or amenity value".

5.19.6 NPPF (2023) Section 16: 'Conserving and enhancing the historic environment' of the NPPF, which directs local authorities to set out at paragraph 196 "*a positive strategy for the conservation and enjoyment of the historic environment, including heritage assets most at risk through neglect, decay or*

other threats". Local planning authorities should recognise that heritage assets are "*an irreplaceable resource and should be conserved in a manner appropriate to their significance, so that they can be enjoyed for their contribution to the quality of life of existing and future generations*" (para. 195) (DLUHC, 2023).

Summary of Compliance

5.19.7 This topic is assessed in ES Volume 1 Chapter 25: Onshore Archaeology and Cultural Heritage (Document Reference: 3.1.27).

5.19.8 Site specific data was collected by a historic environment walkover survey, geoarchaeological desk-based assessment (including geoarcheological desk-based assessment), archaeological geophysical survey, and archaeological evaluation trenching at the onshore substation works area. Other data sources were used to inform the assessment, such as the National Heritage List for England (NHLE) and the Essex Historic Environment Record (EHER). Any further information concerning conservation areas was sourced from the Essex County Council, with any relevant regional, local, and period archaeological information found from cartographic sources, aerial photographic data, archaeological studies, and journals.

5.19.9 The two study areas for onshore archaeology and cultural heritage are defined as:

- Designated heritage assets study area - within 1km of the onshore project area and 5km of the onshore substation works area; and
- Non-designated heritage assets study area - within 500m of the onshore project area.

5.19.10 There are 449 designated heritage assets within the designated heritage assets study area, comprising:

- Seven Scheduled Monuments
- Two Registered Parks and Gardens;
- 432 Listed Buildings; and
- Eight Conservation Areas.

5.19.11 At present, one designated heritage asset is partly located within the onshore project area: Great Holland Conservation Area. Operation and maintenance access routes to service the landfall located within the onshore project area currently extend into the southern half of the Frinton Conservation Area.

5.19.12 There are 240 non-designated heritage assets within the non-designated heritage assets study area based on the ES onshore project area, of which 52 fall within the onshore project area. Non-designated heritage assets potentially subject to direct physical impacts are confined to the onshore project area and may include potential subsurface archaeological remains and above ground

heritage assets (e.g. earthworks or structures). Non-designated heritage assets which may be subject to indirect physical or non-physical impacts (associated with a change in setting) as a result of North Falls may be either within or beyond the parameters of the onshore project area.

5.19.13 The archaeological evaluation trenching at the onshore substation works area has identified a number of features that have been attributed to as early as the Later Prehistoric period based on artefactual evidence, with one intense period of Post-Medieval activity. The geoarchaeological evaluation generally identified deposits of low importance but a gulley identified in the geoarchaeological evaluation may be of medium importance at the onshore substation works area. Table 25.23 of Chapter 25: Onshore Archaeology and Cultural Heritage of the Environmental Statement provides a summary of the potential environmental effects of the Project. Potential impacts assessed for the construction and decommissioning phases include:

- Direct physical impact on (permanent change to) designated heritage assets;
- Direct physical impact on (permanent change to) non-designated heritage assets (including buried archaeological remains, historic earthworks and structures);
- Indirect physical impact on (permanent change to) designated and non-designated heritage assets; and
- Temporary change to the setting of heritage assets (both designated and non-designated) which could affect their heritage significance.

5.19.14 For the operation and maintenance phase, potential impacts assessed include permanent change to the setting of designated heritage assets (both designated and non-designated) which could affect their heritage significance.

5.19.15 Mitigation has been proposed with further route refinement and micro-siting to help ensure that areas of high archaeological potential are avoided where possible. In addition the onshore substation has been designed to reduce the overall height and massing of associated structures and other elements as far as practicable. North Falls have also submitted a project-specific Outline Written Scheme of Investigation (WSI) which defines the need to undertake additional surveys and evaluation to inform the archaeological mitigation requirements. Further onshore project area refinement following an extensive site selection process has taken place to further reduce the identified effects.

5.19.16 With the implementation of these mitigation measures, North Falls is predicted to have no greater than minor adverse residual (not significant in EIA terms) effects upon onshore archaeology and cultural heritage receptors during all its phases.

5.19.17 There is potential for cumulative effects to occur with between North Falls and other projects within the study area, including Five Estuaries Offshore Wind

Farm. However, when considering proposed mitigation measures, it is not anticipated that cumulative effects are likely to be significant in EIA terms.

5.19.18 Accordingly, it has been demonstrated that North Falls accords with requirements of NPS EN-1, NPS EN-3 and NPS EN-5 and other relevant policy considerations with regards to onshore archaeology and cultural heritage. Designated assets have been avoided by the Project and through appropriate mitigation measures to record and preserve non-designated assets in situ impacts will be reduced and are less than significant in EIA terms.

5.19.19 The presumption in favour of consent as an energy NSIP and CNP is unaffected.

5.20 Noise and Vibration

Summary of Key Policy Considerations

National Policy Statements

5.20.1 Section 5.12 of NPS EN-1 states that applicants should provide a noise assessment that is proportionate to the likely noise impact of the development. It requires the project to demonstrate good design through selection of the quietest cost-effective plant available; containment of noise within buildings wherever possible; optimisation of plant layout to minimise noise emissions; and, where possible, the use of landscaping, bunds or noise barriers to reduce noise transmission.

5.20.2 NPS EN-3 notes the potential effect of offshore wind farm noise associated with land-based activities and traffic. NPS EN-5 highlights the potential for noise to be generated by electricity transmission infrastructure such as substations (paragraphs 2.9.37 and 2.9.38).

Other Relevant Policy

5.20.3 Tendring District Council section 1 Policy SP7 states all new development must meet high standards of urban and architectural design. Development frameworks, masterplans, design codes, and other design guidance documents will be prepared in consultation with stakeholders where they are needed to support this objective. Development should protect the amenity of existing and future residents and users regarding noise and vibration.

5.20.4 Tendring District Council section 2 Policy SPL 3 Sustainable Design – Part C: states new development should be compatible with surrounding uses and minimise any adverse environmental impacts. Development will not have unacceptable levels of pollution on air, land, water, amenity, health or safety through noise and vibration.

5.20.5 NPPF paragraph 180 requires planning polices and decisions to contribute and enhance the natural and local environment by e) preventing new and existing

development from contributing to, being put at unacceptable risk from, or being adversely affected by, unacceptable noise pollution.

Summary of Compliance

5.20.6 This topic is assessed in ES Volume 1 Chapter 26: Noise and Vibration (Document Reference: 3.1.28).

5.20.7 The assessment of effects has been carried out in accordance with the relevant requirements for assessment set out in NPS EN-1 and NPS EN-3. The study area for noise and vibration has been defined on the basis of the nearest noise and vibration sensitive receptors (NVSRs) to the onshore project area including the landfall, onshore cable route onshore substation works area and the nearshore works. The study area also includes road traffic links with the potential to be affected by North Falls during the construction phase.

5.20.8 To inform the impact assessment for noise and vibration during the construction and operational phase, a baseline noise survey was conducted in June 2022 in the vicinity of the landfall search area and at the onshore substation works area. Measurement locations were identified and agreed with Tendring District Council and Essex County Council in advance. To inform the study, calculations were made based on the attenuation of noise from various activities including:

- Construction noise associated with cable duct installation (open cut trenching and trenchless techniques) and cable laying;
- Construction noise at the onshore substation;
- Noise from off-site construction traffic;
- Noise from the operational onshore substation; and
- Construction vibration.

5.20.9 Five NVSR locations at the landfall have been identified, 38 along the onshore cable route, seven with the potential to be impacted by construction traffic, three with the potential to be impacted by Bentley Road improvement works, and 10 at the onshore substation.

5.20.10 No significant sources of vibration have been identified in the vicinity of the onshore project area; hence, baseline vibration levels are assumed to be negligible.

5.20.11 Potential impacts assessed for the construction and decommissioning phases include:

- Noise of landfall and nearshore works;
- Noise of onshore cable route works;
- Noise of onshore substation works;
- Noise from road improvements to Bentley Road and the A120

- Noise from off-site construction traffic; and
- Construction vibration.

5.20.12 For the operation and maintenance phase, only onshore substation noise was assessed to generate potential impacts.

5.20.13 Mitigation has been proposed to reduce residual impacts through mitigating by site selection, which has given consideration to the nearby residential properties and other sensitive receptors, with distances to them maximised and the location of the substation being refined to avoid any conflict. Mitigation measures during the construction phase will be detailed in the CoCP (Document Reference: 7.13), including restrictions on using construction plant within 8m of structures at risk from vibration, temporary screening, speed restrictions, selection of quieter working methods or equipment where practicable, phasing of works to avoid sensitive times, ensuring normal working hours for the project between 0700 and 1900 hours Monday to Friday and between 1300 and 1900 hours on a Saturday. During detailed design post-consent, consideration will also be given to micrositing (strategic selection of locations) noisy activities as far from residual properties as practicable within the design envelope. Mitigation measures for the operational phase include enclosure of certain equipment related to the onshore substation and use of vibration isolation mounts. Cumulative operational noise limits with the Five Estuaries and Norwich to Tilbury projects, to ensure the combined noise of all three projects' onshore substations does not exceed certain levels, have also been proposed and committed to within the DCO.

5.20.14 With the implementation of mitigation measures, North Falls is predicted to have no greater than minor adverse (not significant in EIA terms) effects on noise and vibration receptors during all its phases.

5.20.15 Cumulative effects with other projects in the study area were assessed and found to be not significant without the need for additional mitigation, except for construction road traffic noise which are potentially significant. Hence, additional monitoring and mitigation measures have been proposed, including traffic management measures. Residual effects with these additional measures in place are considered no greater than minor adverse i.e., not significant in EIA terms.

5.20.16 Accordingly, it has been demonstrated that North Falls accords with requirements of NPS EN-1, NPS EN-3 and NPS EN-5 and other relevant policy considerations with regards to noise and vibration.

5.20.17 The presumption in favour of consent as an energy NSIP and CNP is unaffected.

5.21 Traffic and Transport

Summary of Key Policy Considerations

National Policy Statements

5.21.1 NPS -EN1 Paragraph 5.14.5 requires a transport appraisal if a project is likely to have significant transport implications. It also requires (paragraph 5.14.6) that applicants engage with National highways and Local Highways Authorities to inform the DCO application.

5.21.2 NPS EN-1 paragraph 5.14.8 requires applicants to consider any possible disruption to services and infrastructure such as road, rail and airports.

5.21.3 Paragraph 5.14.21 of NPS EN-1 also confirms that the Secretary of State should only consider refusing development on traffic and transport grounds if there would be an unacceptable impact on highway safety, residual impacts would be severe, or no consideration has been given to the provision of adequate active public or shared transport access.

Other Relevant Policy

5.21.4 Tendring District council Local Plan part 2 Policy CP1: Sustainable Transport and Accessibility requires new development to be sustainable in terms of transport and accessibility. It also requires provision of a Transport Statement where significant transport implications are anticipated.

5.21.5 Essex Transport Strategy Policy 8 promoting sustainable travel choices sets out that the County Council will encourage the use of more sustainable forms of travel by (inter alia) requiring effective travel planning for proposed developments.

5.21.6 Essex Transport Strategy Policy 10 Road Safety sets out that the County Council will work to reduce the incidence and severity of road traffic collisions on roads in Essex by (inter alia) ensuring Road Safety Audits are undertaken of all proposed designs for new highways schemes or proposals to alter existing public highway.

5.21.7 Ardleigh Neighbourhood Plan Policy EP Natural, Built and Historic Environment criterion ‘c’ seeks to minimise urban intrusion including as a result of noise pollution or increased vehicular traffic into currently tranquil rural areas.

Summary of Compliance

5.21.8 This topic is assessed in ES Volume 1 Chapter 27: Traffic and Transport (Document Reference:: 3.1.29).

5.21.9 The assessment of effects has been carried out in accordance with the relevant requirements for assessment set out in NPS EN-1 and NPS EN-3.

The Traffic and Transport Study Area (TTSA) has been established by determining the most probable routes for traffic, for both the transportation of materials and employees, in consultation with stakeholders. The TTSA is divided into 46 separate highway sections known as links, which are sections of road with similar characteristics and traffic flows. In total, the TTSA comprises approximately 92km of highway network.

5.21.10 A review of existing data such as traffic flows and collision data, as well as site-specific Automatic Traffic Count surveys was undertaken at 27 locations within the TTSA over a period of seven representative days in 2022. Traffic demand was forecast by generating traffic volumes from an understanding of material quantities and employee numbers required for the construction of North Falls and converting those metrics into vehicle trips.

5.21.11 The local highway network includes the A133 and A137, with the A120 and the A12 forming part of the Strategic Road Network. The A120 provides the main link between Colchester and the A12 to the northwest and the port of Harwich to the east. The Essex County Council Local Transport Plan identifies the County Routes network which provides the main arteries for the flow of commerce, goods and people, that carry high volumes of traffic through and around the county.

5.21.12 A desktop exercise augmented by site visits has been undertaken to identify the sensitive receptors in the TTSA and assign a sensitivity to all 46 link-based sensitive receptors. Detailed vehicle, cyclist and pedestrian counts are presented within the North Falls ES Chapter 27 Traffic and Transport (Volume I). The baseline environment also includes pedestrian, cycle and bus routes within the local area.

5.21.13 No significant effects are anticipated during the operational and maintenance phase. Potential impacts assessed for the construction and decommissioning phases include:

- Severance of communities by major traffic arteries;
- Impacts to pedestrian and cyclist amenity;
- Highway safety;
- Driver delay during construction (road closures); and
- Impacts due to delivery of abnormal loads.

5.21.14 Mitigation measures include delivery time restrictions on heavy goods vehicle (HGV) movements, the construction of temporary haul roads along the onshore cable route, use of trenchless crossing techniques where practicable, the creation of vehicle crossovers and controls on vehicle routing. In particular, it has been agreed with Essex County Council to restrict HGV movements through Thorpe-le-Soken to outside of school start and finish times. Furthermore, to avoid vehicle access via unsuitable routes, vehicles will be routed around certain sensitive roads (such as Little Clacton Road and Great Holland), and instead be routed via the temporary haul road, where

practicable, and along other designated routes. To facilitate the safe and efficient movement of construction traffic, a series of highway improvements will take place, including road widening and a temporary speed limit along Bentley Road, which have been agreed with Essex County Council and National Highways. These measures will reduce the impacts of HGV traffic on sensitive communities and avoid narrow roads.

5.21.15 Full details of the strategy for traffic and transport management during the construction phase have been outlined in the Outline CTMP (Document Reference: 7.16), which has been submitted alongside the DCO application. The Outline CTMP contains details of measures to control, monitor and enforce HGV movements and provides details of the mechanisms for managing design of accesses and offsite highway works.

5.21.16 With the implementation of mitigation measures, North Falls is predicted to have no greater than minor adverse effects (not significant in EIA terms) on traffic and transport during all its phases.

5.21.17 An assessment of the potential for cumulative effects with other schemes has been undertaken, notable schemes considered included, Five Estuaries Offshore Wind Farm and the National Grid Norwich to Tilbury project. With the application of additional mitigation measures (as appropriate) the residual cumulative effects upon all receptors was assessed to be not significant in EIA terms. Additional mitigation includes a commitment to limit heavy goods vehicle numbers, enhanced maintenance measures and enhanced driver inductions.

5.21.18 Accordingly, no significant effects are likely to occur with respect to traffic and transport during construction, operation and decommissioning of the Project and so it has been demonstrated that North Falls accords with requirements of NPS EN-1, and other relevant local and national policy considerations with regards to traffic and transport.

5.21.19 The presumption in favour of consent as an energy NSIP and CNP is unaffected.

5.22 Human Health

Summary of Key Policy Considerations

National Policy Statements

5.22.1 NPS EN-1 sets out at paragraph 4.3.1 that energy infrastructure has the potential to impact on the health and well-being (“health”) of the population. Access to energy is clearly beneficial to society and to our health as a whole. However, the construction of energy infrastructure and the production, distribution and use of energy may have negative impacts on some people’s health.

5.22.2 NPS EN-1 paragraph 4.2.4 requires applicants to consider potential effects, including benefits, setting out information on the likely significant social and economic effects of the development and show how any significant negative effects would be avoided, reduced, or mitigated. This information could include matters such as employment, equality, biodiversity net gain, community cohesion, health, and well-being.

5.22.3 Opportunities should be taken to mitigate indirect impacts, by promoting local improvements to encourage health and wellbeing, this includes potential impacts on vulnerable groups within society, i.e. those groups which may be differentially impacted by a development compared to wider society as a whole. (NPS EN-1 Paragraph 4.3.6)

5.22.4 Generally, those aspects of energy infrastructure which are most likely to have a significantly detrimental impact on health are subject to separate regulation (for example for air pollution) which will constitute effective mitigation of them, so that it is unlikely that health concerns will either by themselves constitute a reason to refuse consent or require specific mitigation under the Planning Act 2008.

5.22.5 NPS EN-3 contains relevant policy in relation to the assessment of transmission infrastructure for renewable energy installations, however there is no information specific to human health.

5.22.6 NPS EN-5 paragraph 2.9.46 to 2.9.50 consider impacts of EMFs. All overhead power lines produce EMFs. These tend to be highest directly under a line, and decrease to the sides at increasing distance. Although putting cables underground eliminates the electric field, they still produce magnetic fields, which are highest directly above the cable. EMFs can have both direct and indirect effects on human health.

Other Relevant Policy

5.22.7 UK MPS states that properly planned developments in the marine area can provide both environmental and social benefits, whilst also driving economic development, providing opportunities for investment, and generating export and tax revenues. This includes the ‘obvious’ social and economic benefits from such an increase in network capacity, most notably the facilitation of offshore renewable energy.

5.22.8 At paragraph 148, NPPF explains that the planning system should support the transition to a low carbon future, and states that the planning system should shape places in ways that contribute to radical reductions in greenhouse gas emissions, minimise vulnerability and provide resilience to the impacts of climate change, whilst also supporting the delivery of renewable and low carbon energy and associated infrastructure.

5.22.9 Paragraph 92 states: “Planning policies and decisions should aim to achieve healthy, inclusive and safe places ….” Paragraph 100 states that “Planning

policies and decisions should protect and enhance public rights of way and access…."

5.22.10 Tendring District Local Plan 2013-2033 and Beyond: Section 1 Policy SP6 'Infrastructure & Connectivity' states that: "C. Social Infrastructure The local planning authorities will work with relevant providers and developers to facilitate the delivery of a wide range of social infrastructure required for healthy, active and inclusive communities, minimising negative health and social impacts, both in avoidance and mitigation, as far as is practicable […] Health and Wellbeing […] Require new development to maximise its positive contribution in creating healthy communities and minimise its negative health impacts, both in avoidance and mitigation, as far as is practicable."

Summary of Compliance

5.22.11 This topic is assessed in ES Volume 1 Chapter 28: Human Health (Document Reference: 3.1.30).

5.22.12 The human health assessment is based on a desk-top study of available resources. The assessment has also drawn on information presented in other chapters of the North Falls ES (Volume 3.1), including Chapter 19 Ground Conditions and Contamination, Chapter 20 Onshore Air Quality, Chapter 21 Water Resources and Flood Risk, Chapter 26 Noise and Vibration, Chapter 27 Traffic and Transport, Chapter 31 Socio-economics, Chapter 32 Tourism and Recreation and Chapter 33 Climate Change.

5.22.13 Potential effects are assessed at site-specific (the onshore project area), local (Tendring District), regional (Essex County), national (England) and international levels where appropriate.

5.22.14 Eleven different population groups for the assessment of human health effects have been identified within the study area, including geographic and vulnerable population groups:

- The population near landfall between Clacton-on-Sea and Frinton-on-Sea (site-specific);
- The population along the onshore cable route) (site-specific);
- The population near the onshore substation works area (site-specific);
- The population of Tendring District (local);
- The population of Essex County (regional);
- The population of England and neighbouring countries (national and international);
- Children and young people;
- Older people (particularly those suffering with dementia);

- People with heightened sensitivity e.g. spending more time in affected dwellings (e.g. due to low economic activity, home working, shift work, retirement, or ill health) and/or neurological conditions;
- People living in deprivation (including those experiencing income and/or access/geographic vulnerability); and
- People with existing poor health (physical and mental health).

5.22.15 Potential impacts assessed for the construction and decommissioning phases include:

- Noise effects;
- Air quality effects;
- Ground and/or water contamination effects;
- Physical activity effects;
- Employment effects; and
- Journey times and/or reduced access effects.

5.22.16 For the operation and maintenance phase, potential impacts assessed include:

- Noise effects;
- EMF effects; and
- Wider societal benefits.

5.22.17 Mitigation measures proposed include work undertaken during the site selection process to avoid impacts on human health through appropriate siting of Project components (see Chapter 4 Site Selection and Assessment of Alternatives, Document Reference: 3.1.6), the use of trenchless crossing techniques to minimise disruption to the public and transport users, commitments to providing appropriate Occupational Health and Hygiene services for the workforce, providing road diversions where necessary with appropriate signage, cable design to minimise EMF and implementation of an Outline CTMP (Document Reference: 7.16), as well as ensuring the level of dust and NRMM emissions experienced would be within the IAQM guidance and Defra technical guidance, undertaken in accordance with the relevant British Standards identified in ES Chapter 20 Air Quality (Document Reference: 3.1.22).

5.22.18 With the implementation of mitigation measures, North Falls is predicted to have no greater than minor adverse (not significant in EIA terms) effects on human health during all its phases. Moderate beneficial (significant in EIA terms) effects were identified for employment during the construction and operation and maintenance phase, and moderate wider societal benefits during operation.

5.22.19 There is potential for cumulative effects to occur with Five Estuaries Offshore Wind Farm and other projects in the study area. The CEA concluded that there are no likely significant adverse health effects (in EIA terms) and some likely significant beneficial effects on employment when North Falls is considered cumulatively with these projects.

5.22.20 Accordingly, no significant effects are likely to occur with respect to human health and so it has been demonstrated that North Falls accords with requirements of NPS EN-1, NPS EN-3 and NPS EN-5 and other relevant policy considerations.

5.22.21 The presumption in favour of consent as an energy NSIP and CNP is unaffected.

5.23 Offshore Seascape, landscape and Visual Impact

Summary of Key Topic Policy Considerations

National Policy Statements

5.23.1 NPS EN-1 sets out that Landscape effects arise not only from the sensitivity of the landscape but also the nature and magnitude of impact proposed by the development, whose specific siting and design make the assessment a case-by-case judgement. Virtually all nationally significant energy infrastructure projects will have adverse effects on the landscape, but there may also be beneficial landscape character impacts arising from mitigation. Projects need to be designed carefully, taking account of the potential impact on the landscape. Having regard to siting, operational and other relevant constraints the aim should be to minimise harm to the landscape, providing reasonable mitigation where possible and appropriate. (paragraphs 5.10.4 to 5.10.6)

5.23.2 NPS EN-3 reiterates that 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 design of project to mitigate impacts such as noise and ecology (paragraph 2.5.2)

5.23.3 NPS EN-3 also requires applicants to assess impact on seascape in addition to landscape and visual impacts. Seascape is an additional issue for consideration given that it is an important environmental, cultural, and economic asset (paragraphs 2.8.204 and 2.8.205)

Other Relevant Policy

5.23.4 The MPS notes: ‘In considering the impact of an activity or development on seascape, the marine plan authority should take into account existing character and quality, how highly it is valued and its capacity to accommodate change specific to any development. Landscape Character Assessment methodology may be an aid to this process’ (Paragraph 2.6.5.3).

5.23.5 East Marine Plan objective 5 is to “conserve heritage assets, nationally protected landscapes and ensure that decisions consider the seascape of the local area”.

5.23.6 East Marine Plan Policy SOC3 sets out that proposals that may affect the terrestrial or marine character of an area should demonstrate a) that they will not adversely impact the terrestrial and marine character of an area, and b) if there are adverse impacts how these will be minimised.

5.23.7 South East Inshore Marine Plan Policy SE-SCP-1 requires that proposals ensure they are compatible with their surroundings and should not have a significant adverse impact on the character and visual resource of the seascape and landscape of the area. The location, scale and design of proposals should take account of the character, quality and distinctiveness of the seascape and landscape.

Summary of Compliance

5.23.8 This topic is assessed in ES Chapter 29 Seascape, Landscape and Visual Impact (Document Reference: 3.1.31).

5.23.9 Site-specific data was collected by a site characterisation survey and visits to viewpoints between November 2021 and July 2022. The study area covers a 60km radius around offshore array areas. A total of 17 viewpoints were selected across the study area, to comprise a selection of locations that represent the experience of different visual receptors. Both the study area and viewpoint locations were agreed with statutory consultees. Desk based data sources on seascape and landscape character were also used to inform the assessment.

5.23.10 To aid the assessment, a zone of theoretical visibility was established, to evaluate the theoretical extent to which the development would be visible. Theoretical visibility of the offshore project infrastructure is widespread offshore and along the coastal edge within the study area. Inland, visibility is more fragmented and is likely to be much reduced due to a combination of vegetation and presence of buildings.

5.23.11 Potential key visual receptors include: residents, including views from isolated coastal properties and settlements; road users, including tourists; those engaged in recreational activities, e.g. walkers using coastal paths, cyclists and recreational users of the coastline; and people at their place of work, including agricultural workers.

5.23.12 The impact assessment is based on a worst-case scenario of the largest turbines (40 WTGs up to 397m above MHWS) as this will result in longer distance visibility.

5.23.13 Potential impacts assessed for the construction and decommissioning phases include:

- Effects on seascape character arising from the presence and movement of vessels and equipment;
- Effects on seascape character arising from the presence of partially constructed turbines and platforms;
- Effects on landscape character arising from the presence and movement of vessels and equipment, and partly constructed turbines in the offshore area;
- Effects on landscape character arising from vessel activity at landfall;
- Effects on landscape character arising from the presence of partially constructed turbines and platforms in offshore views; and
- Visual impacts arising from the presence and movement of vessels and equipment, and partly constructed turbines.

5.23.14 For the operation and maintenance phase, potential impacts assessed include:

- Effects on marine character areas (East Anglian Shipping Waters and Suffolk Coastal Waters);
- Effects on onshore landscape character areas and types (coastal dunes and shingle ridges; coastal levels; and saltmarsh and inter-tidal flats);
- Effects on landscape designations (Suffolk Coast and Heaths Area of Outstanding Natural Beauty (AONB));
- Effects on viewpoints, both during night and daytime, in visibility conditions between very poor and excellent; and
- Effects on routes (Suffolk Coastal Path).

5.23.15 Mitigation measures include the reduction of the size of the array area, reduction of the maximum tip height of the wind turbines and reduction of the number of turbines from 72 to 57 of the smallest turbines or 40 to 34 of the largest turbines to reduce the impact to seascape, landscape and visual effects.

5.23.16 North Falls is predicted to have major (significant in EIA terms) effects on marine character areas, and moderate (also significant in EIA terms) effects on landscape character areas and views at Sizewell Beach, cliffs above Thorpeness, Aldeburgh, Orford Ness, Shingle Street and Pulhamite Cliffs (Bawdsey Manor), as well as sections of the Suffolk Coast Path and Suffolk Coast and Heaths AONB with visibility of North Falls during operation influencing the seascape and landscape character.

5.23.17 There is potential for cumulative effects to occur with Five Estuaries Offshore Wind Farm and other projects during all project phases. Total cumulative effects are predicted to be significant (major) for effects on marine character areas, and there is potential for significant effects (moderate) for landscape and on certain viewpoints. Mindful of the scale and nature of windfarms

measures have been implemented as far as is practicable to minimise cumulative impacts, no further additional mitigation is proposed.

5.23.18 Mindful of the potential significant effects it is important to reiterate that NPS EN-1 acknowledges that it is likely inevitable that energy infrastructure of this scale will have landscape impact. Paragraph 3.3.63 of NPS EN1 confirms that the urgent need for CNP Infrastructure to achieve energy objectives and national security, economic, commercial, and net zero benefits, will generally outweigh any other residual impacts not capable of being addressed by application of the mitigation hierarchy.

5.23.19 The Project has sought to minimise potential impacts as far as is practicable, including by removing the northern array previously outlined in the PEIR, reducing the array area by almost half and thereby increasing the distance from the array area to the nearest land – from 22km to approximately 40km at its closest point. It is also reiterated that the anticipated harm is limited to a 10km radius of the array area. The Project will assist in the achievement of national energy objectives and deliver socio-economic and environmental benefits in accordance with NPS EN-1 requirements. the Applicant In line with NPS EN-1 paragraph 4.6.3 the Secretary of State should give appropriate weight to the benefits of the Project when considering the planning balance.

5.23.20 The presumption in favour of consent as an energy NSIP and CNP is therefore considered to be unaffected.

5.24 Onshore Landscape and Visual Impacts

Summary of Key Policy Considerations

National Policy Statements

5.24.1 NPS EN-1 requires a landscape and visual assessment to be undertaken as a means of assessing landscape impacts (paragraph 5.10.17). This should include effects on landscape components and character during construction and operation (paragraph 5.10.20).

5.24.2 Adverse landscape and visual effects may be minimised through appropriate siting of infrastructure within its development site and wider setting. The careful consideration of colours and materials will support the delivery of a well-designed scheme, as will sympathetic landscaping and management of its immediate surroundings (paragraph 5.10.27).

5.24.3 Paragraph 5.10.37 sets out that the Secretary of State should consider whether the project has been designed carefully, taking account of environmental effects on the landscape and siting, operational and other relevant constraints, to minimise harm to the landscape, including by appropriate mitigation.

5.24.4 NPS EN-3 reiterates that 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 design of project to mitigate impacts such as noise and ecology (paragraph 2.5.2).

5.24.5 NPS EN-5 New substations, sealing end compounds (including terminal towers), and other above-ground installations that serve as connection, switching, and voltage transformation points on the electricity network may also give rise to adverse landscape and visual impacts. Cumulative adverse landscape, seascape and visual impacts may arise where new overhead lines are required along with other related developments such as substations, wind farms, and/or other new sources of generation (paragraph 2.9.9 and 2.9.10).

Other Relevant Policy

5.24.6 Tendring District Local Plan section 1 policy SP 7 Place Shaping Principles requires all new development to meet to meet the high standards of urban and architectural design. Development frameworks, masterplans, design codes, and other design guidance documents will be prepared in consultation with stakeholders where they are needed to support this objective. All new development should protect the amenity of existing and future residents regarding loss of light, overbearing and overlooking.

5.24.7 Tendring District Local Plan section 2 policy HP 4 Safeguarded Open Space states that development resulting in the loss of the whole or part of areas designated as Safeguarded Open Space will not be permitted unless the development of the site would not result in the loss of an area important to visual amenity.

5.24.8 NPPF paragraph 160 seeks to help increase the use and supply of renewable and low carbon energy and heat. It states that plans should provide a positive strategy for energy from these sources, that maximises the potential for suitable development, and their future re-powering and life extension, while ensuring that adverse impacts are addressed appropriately (including cumulative landscape and visual impacts).

Summary of Compliance

5.24.9 This topic is assessed in ES Chapter 30 Onshore Landscape and Visual Impact (Document Reference: 3.1.32).

5.24.10 The assessment of effects has been carried out in accordance with the relevant requirements for assessment set out in NPS EN-1, NPS EN-3 and NPS EN-5.

5.24.11 Site-specific data was collected by a site characterisation survey and visits to viewpoints between November 2021 and October 2023. The study area has been defined as a 500m radius around the onshore project area plus, a wider 2km radius around the North Falls onshore substation. A total of eight

viewpoints were selected across the study area, to comprise a selection of locations that represent the experience of different visual receptors. Both the study area and viewpoint locations were agreed with statutory consultees. Desk based data sources on landscape character were also used to inform the assessment.

5.24.12 To aid the assessment, a zone of theoretical visibility was established, to evaluate the theoretical extent to which an indicative location for the onshore substation (within the onshore substation zone) may be visible across the study area. Theoretical visibility is predicted within a 1km radius of the indicative onshore substation location, with a more intermittent pattern beyond 1km. The landscape around the substation zone is generally fairly flat. As such, areas of woodland and hedgerows will influence the level of actual visibility.

5.24.13 Potential key visual receptors include residents, including views from farms, properties, small hamlets and settlements; those engaged in recreational activities, such as walkers using public rights of way, horse riders, cyclists, and users of the coastal edge near the proposed landfall; road users; and people at their place of work (including agricultural workers).

5.24.14 The impact assessment is based on an 18m high structure (lightning rods) within the onshore substation works area.

5.24.15 Potential impacts assessed for the construction, operation and maintenance, and decommissioning phases include:

- Effects on landscape fabric;
- Effects on landscape character; and
- Effects on views.

5.24.16 Mitigation measures to reduce the potential impacts on landscape include an extensive site selection process to appropriately select sites for Project components that could minimise landscape impacts (see ES Chapter 4 Site Selection and Assessment of Alternatives, Document Reference: 3.1.6), choice of appropriate construction methods (e.g. trenchless crossings), habitat reinstatement (to be secured via the Environmental Management Plan) and mitigation by design. Additional landscape mitigation and biodiversity enhancement principles, which include new hedgerow and woodland planting, are described in the Design Vision (Document Reference: 2.3).

5.24.17 Table 30.28 of ES Chapter 30: Landscape and Visual Impact provides a summary of the potential environmental effects of the Project. North Falls is predicted to have a moderate adverse (significant in EIA terms) effect on the landscape fabric and visual amenity of the onshore substation works area during its construction and operational phases. 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 contained within 1km of the proposed substation. No significant effects (in EIA terms) were identified for designated landscapes, including National Landscape designations.

5.24.18 The ES includes further detail of the proposed landscape mitigation and detailed assessment of year 15 effects. These are supported by visualisations which show maturing landscape mitigation at year 15. Whilst maturing and planting will help to reduce certain landscape and visual impacts, however it is likely that some localised landscape and visual effects at viewpoint 3 (an adjacent residential property) will remain significant.

5.24.19 Three developments were scoped into the CEA for further assessment due to their scale and potential for overlapping effects with that of North Falls, namely: Norwich to Tilbury Five Estuaries Offshore Wind Farm and a planning application for a small scale energy development at Land adjacent to Lawford Grid Substation Ardleigh Road Little Bromley Essex (Little Bromley BESS). The total cumulative effects on the landscape character of all projects combined was deemed significant for a localised area to the west of Bromley during construction and operation of the onshore substations and cable route. Additionally, it was not possible to rule out significant cumulative effects on Public Rights of Way near Lilley's Farm, Little Bromley Road, Norman's Farm, and the bridleway at Barn Lane as a result of the construction and operational effects of the onshore substation works area across the projects. Joint landscape mitigation proposals with Five Estuaries Offshore Wind Farm are in development to help soften and screen views of the onshore substation works area and integrate them into the landscape.

5.24.20 It is important to reiterate that NPS EN-1 acknowledges that it is inevitable that energy infrastructure of this scale will have landscape impact. Paragraph 3.3.63 of NPS EN1 confirms that the urgent need for CNP Infrastructure to achieve energy objectives and national security, economic, commercial, and net zero benefits, will generally outweigh any other residual impacts not capable of being addressed by application of the mitigation hierarchy.

5.24.21 Whilst significant impacts have been identified these are localised, and will reduce over time as the landscape planting proposed for the Project matures. No areas designated for their landscape quality are unduly affected by the Project. The Project will assist in the achievement of national energy objectives and deliver socio-economic and environmental benefits in accordance with NPS EN-1 requirements. The Applicant therefore contends that the significant benefits of the Project can adequately outweigh the limited scope of onshore landscape visual impacts.

5.24.22 The presumption in favour of consent as an energy NSIP and CNP is therefore considered to be unaffected.

5.25 Socio-Economics

Summary of Key Policy Considerations

National Policy Statements

5.25.1 NPS EN-1 sets out that where a project is likely to have socio-economic impacts at local or regional levels the applicant should undertake an assessment of these impacts (paragraph 5.13.2). The assessment should consider all socio-economic impacts including job creation, training opportunities and the contribution of low carbon industries at the local, regional and national level (Paragraph 5.13.4).

5.25.2 Socio-economic impacts may be linked to other impacts, for example visual impacts as well as tourism and local businesses. Applicants are encouraged, where possible, to demonstrate that local suppliers have been considered in any supply chain (paragraph 5.13.6).

5.25.3 Paragraph 5.13.11 sets out that the Secretary of State should consider any relevant positive provisions which the applicant has made or is proposing to mitigate impacts and any legacy benefits that may arise.

5.25.4 NPS EN-3 contains relevant policy in relation to the transmission of infrastructure for renewable energy installations, however there is no information specifically relevant to socio-economics.

5.25.5 NPS EN-5 contains relevant policy in relation to providing a fit for purpose and robust electricity network, however there is no information specifically relevant to socio-economics.

Other Relevant Policy

5.25.6 MPS states that properly planned developments in the marine area could provide environmental and social benefits as well as drive economic development, provide opportunities for investment and generate export and tax revenues. There are obvious social and economic benefits from such an increase in network capacity, most notably the facilitation of offshore renewable energy.

5.25.7 Tendring Local Plan section 1 The local plan acknowledged opportunities for Tendring to develop its strengths in offshore wind and in care & assisted living, with employment in the district forecasted to grow by 490 jobs annually.

5.25.8 Tendring District Local Plan section 2 Objective 2 Employment/Commercial aims to create the conditions for economic growth and employment opportunities across a range of economic sectors including established business sectors and those sectors projected to grow in the future such as renewable energy and care and assisted living.

5.25.9 NPPF states that one of the overarching objectives of the planning system is to contribute to the achievement of sustainable development. This includes backing the transition to a low carbon future by supporting the transition to renewable and low carbon energy (and associated infrastructure). It identifies three objectives to the attainment of sustainable development; economic, social, and environmental.

Summary of Compliance

5.25.10 This topic is assessed in ES Chapter 31: Socio-Economics (Document Reference: 3.1.33). The assessment of effects has been carried out in accordance with the relevant requirements for assessment set out in NPS EN-1.

5.25.11 The baseline environment was characterised by review of desk-based resources, including datasets from the Office of National Statistics, Department for Education, Ministry of Housing, Communities & Local Government, UK Property Data and the Land Registry, Essex County Council, the NHS and the Department of Health & Social Care.

5.25.12 The study area includes both Essex and Suffolk County Council and assesses impacts at local level (250m of onshore project area) for mineral resources, and at national (UK) level for economic receptors.

5.25.13 Receptors considered in the assessment include the economy, health infrastructure, social and community infrastructure, imports and exports, volume and value of fishing catch and mineral resources.

5.25.14 Potential impacts assessed for the construction, operation and maintenance, and decommissioning phases include:

- Direct / indirect economic benefit:
  - Supply chain onshore and offshore (economic value);
  - Employment onshore and offshore;
- Potential adverse effects on socio-economic receptors:
  - Pressure on local onshore infrastructure and services (housing and health);
  - Onshore disturbance (noise, air, visual, and traffic) to social and community infrastructure facilities;
  - Wider economic effects from disruption to shipping and navigation;
  - Wider economic effects from disruption to fishing; and
  - Wider economic effects related to minerals.

5.25.15 The economic benefits predicted for the project include increases in 'gross value added' (GVA) (the value of goods and services of the local and national economy) and job-creation. It is estimated that the Project's annual GVA contribution to the UK economy would be around £4.9 to £41.9 million during construction and £17.9 to £19.6 million during operation.

5.25.16 The total contribution to UK employment (direct and indirect jobs) is estimated to range from £50 to £730 million in terms of full-time equivalent jobs per annum during the onshore and offshore construction phase. A further £110 to £200 million in terms of full-time equivalent jobs per annum has been calculated during the operational phase (onshore and offshore).

5.25.17 Offshore employment retained within Essex and Suffolk is estimated to support an average of between 80 and 90 full-time employment jobs per year throughout the operational phase.

5.25.18 For the adverse effects identified above, mitigation measures include: good industry practice dust management; reduction of construction phase noise and vibration and operational substation noise and vibration; delivery time restrictions; strategy for access and a vehicle routing strategy; use of trenchless crossings; mitigation for crossing private access tracks; and mitigation by construction method and design to reduce landscape and visual impacts. These measures are secured in the Outline Code of Construction Practice (Document Reference: 7.13) and Outline Construction Traffic Management Plan (Document Reference: 7.16) and Outline Landscape and Ecological Management Strategy (Document Reference: 7.14), submitted with the DCO Application.

5.25.19 Additionally, mitigation was considered during onshore site selection, with the aim of avoiding residential titles, mature and ancient woodland, scheduled monuments and listed buildings, internationally and nationally designated areas, landscape designations, important tourism destinations and recreational assets. It also considered how to minimise the number of crossings of utilities, roads, and rail lines, where possible. Site selection for the offshore cable route considered feedback from key stakeholders to select a route minimising impact on designated sites, shipping, and navigation.

5.25.20 Table 31.60 of Chapter 31: Socio-Economics. of the Environmental Statement provides a summary of the potential environmental effects of the Project. North Falls is predicted to result in minor beneficial effects on employment and the supply chain during its construction and operation. With the implementation of mitigation measures, North Falls is predicted to have no greater than minor adverse (not significant in EIA terms) effects on other socio-economic receptors during all its phases.

5.25.21 There is potential for cumulative effects to occur with Five Estuaries Offshore Wind Farm and other projects. For cumulative effects on employment and direct economic benefit, the cumulative effect is anticipated to be major

beneficial during construction, and moderate beneficial during the operation and maintenance phase, which are considered to be significant in EIA terms.

5.25.22 5For potential adverse cumulative effects, when taking into account mitigation measures effects have been assessed as not significant (in EIA terms) for cumulative effects during all project phases.

5.25.23 Accordingly, no significant adverse effects are likely to occur and so it has been demonstrated that North Falls accords with requirements of NPS EN-1, and other relevant policy with respect to socio-economic considerations.

5.25.24 The presumption in favour of consent as an energy NSIP and CNP is unaffected.

5.26 Tourism and Recreation

Summary of Key Policy Considerations

National Policy Statements

5.26.1 NPS EN-1 at paragraph 5.6.11 requires ES to include an assessment of the effects on the coast, tidal rivers and estuaries. In particular, applicants should assess… the effects of the proposed project on maintaining coastal recreation sites and features.

5.26.2 Public Rights of way, National Trails, and other rights of access to land are important recreational facilities for example for walkers, cyclists and horse riders. The Secretary of State should expect applicants to take appropriate mitigation measures to address adverse effects on coastal access, National Trails, other rights of way and open access land and, where appropriate, to consider what opportunities there may be to improve or create new access. In considering revisions to an existing right of way, consideration should be given to the use, character, attractiveness, and convenience of the right of way (NPS EN-1 paragraph 5.11.30).

5.26.3 In considering the impact on maintaining coastal recreation sites and features, the Secretary of State should expect applicants to have taken advantage of opportunities to maintain and enhance access to the coast (EN-1 5.11.35).

5.26.4 This assessment should consider all relevant socio-economic impacts, which may include: the provision of additional local services and improvements to local infrastructure, including the provision of educational and visitor facilities; effects (positive and negative) on tourism and other users of the area impacted; and the impact of a changing influx of workers during the different construction, operation, and decommissioning phases of the energy infrastructure (NPS EN-1 paragraph 3.13.4).

5.26.5 NPS EN-3 sets out (paragraphs 2.8.332-333) that The Secretary of State should be satisfied that the scheme has been designed to minimise the effects

on recreational craft and that appropriate mitigation measures, such as buffer areas, are built into applications to allow for recreational use outside of commercial shipping routes.

5.26.6 In view of the level of need for energy infrastructure, where an adverse effect on the users of recreational craft has been identified, and where no reasonable mitigation is feasible, the Secretary of State should weigh the harm caused with the benefits of the scheme.

Other Relevant Policy

5.26.7 South East Inshore marine Plan Policy SE-TE-1 supports growth in tourism and recreation industry through sustainable development at appropriate locations. It also seeks to minimise development that could have significant adverse impacts on tourism and recreation activities.

5.26.8 Tendring District Local Plan section 2 Policy PP 8 Tourism aims to attract tourists to the Tendring District and support economic growth in tourism, the Council will generally support proposals that would help to improve the tourism appeal of the District to visitors.

Summary of Compliance

5.26.9 This topic is assessed in ES Chapter 32: Tourism and Recreation (Document Reference: 3.1.34)

5.26.10 The assessment of effects has been carried out in accordance with the relevant requirements for assessment set out in NPS EN-1.

5.26.11 The baseline environment was characterised by a review of desk-based resources. Sources dated between 2016 and 2023 were used to provide information on tourism assets and activities in both Essex and Suffolk, and Tendring Districts.

5.26.12 For marine and coastal tourism and recreation, the study area is based on the SLVIA study area, and includes the East Suffolk coast and offshore waters and Essex coast and offshore waters. For onshore tourism and recreation, the study area comprises the onshore project area, including the area around landfall between Clacton-on-Sea and Frinton-on-Sea, through to the onshore substation works area near Little Bromley (north west of the A120).

5.26.13 Receptors considered in the assessment include: visitors engaging in marine tourism and recreational activities; visitors to coastal tourist destinations; visitors using coastal PRoW; sailing, yachting and other recreational crafts; recreational fishing; water sports; Frinton Golf Club; beach huts and Frinton Beach; Holland Haven Country Park; Greensward Park; The Rock Hotel; designated bathing waters; visitors to nature reserves; recreational sports users; visitors using the local road network; and accommodation providers and users.

5.26.14 Potential impacts assessed for the construction and decommissioning phases include:

- Impact on users' enjoyment of recreational and tourist assets due to the construction of onshore infrastructure;
- Impact on enjoyment of marine and coastal recreational and tourism assets due to the construction of offshore infrastructure;
- Reductions in tourist accommodation availability due to a non-resident workforce; and
- Impact on the volume and value of tourism due to construction.

5.26.15 For the operation and maintenance phase, potential impacts assessed include:

- Impact of operational activity of onshore infrastructure on the enjoyment of tourism and recreational assets;
- Impact of operational activity of offshore infrastructure on the enjoyment of tourism and recreational assets;
- Reductions in tourist accommodation availability due to a non-resident workforce; and
- Impact on the volume and value of tourism during operations

5.26.16 Mitigation proposed includes an appropriate site selection process for offshore and onshore sites to minimise impacts on the natural surroundings, any nationally or internationally designated areas, ancient monuments or listed buildings, and tourist destinations (including camping or caravan sites). This comprehensive site selection also aimed to minimise the number of crossings across roads and rail lines, to minimise impacts associated with locals' access to services and road usage. The offshore cable corridor was selected in consultation with key stakeholders in order to select a route which minimised impacts on a range of receptors such as designated sites, shipping and navigation.

5.26.17 Other mitigation measures proposed include:

- Using trenchless crossing techniques such as horizontal directional drilling when installing cables to help avoid any physical disturbance or prolonged access restrictions;
- Use of a rolling construction programme;
- Use of perimeter fencing and safety zones around working areas;
- Leaving PRoW crossings open and/or providing diverted routes for the purpose of traffic control and other safety measures detailed in the Outline Public Rights of Way Management Plan;
- Circulating public notices advising of project activities;

- Implementation of relevant management plans, included an Outline CoCP (Document Reference: 7.13) covering construction dust, noise, vibration, and other forms of pollution, an Outline CTMP (Document Reference: 7.15), an Outline Landscape and Ecological Management Strategy (Document Reference: 7.14); and
- Commitment to using underground cable systems onshore rather than overhead lines.

5.26.18 Table 32.31 of Chapter 32: Tourism and Recreation of the Environmental Statement provides a summary of the potential significant environmental effects of the Project on tourism and recreation. With the implementation of mitigation measures, North Falls is predicted to be negligible or minor adverse (not significant in EIA terms) effects on tourism and recreation during all its phases.

5.26.19 There is potential for cumulative effects to occur with Fiver Estuaries Offshore Wind Warm and other projects, however, when considering proposed mitigation measures, potential cumulative effects have been assessed as not significant (in EIA terms).

5.26.20 Accordingly, no significant effects are likely to occur with respect to tourism and recreation and so it has been demonstrated that North Falls accords with requirements of NPS EN-1, NPS EN3 and other relevant policy considerations.

5.26.21 The presumption in favour of consent as an energy NSIP and CNP is unaffected.

5.27 Climate Change

Summary of Key Topic Policy Considerations

National Policy Statements

5.27.1 NPS EN-1 highlights that new energy infrastructure will typically need to remain operational over many decades, in the face of a changing climate. Consequently, applicants must consider the direct (e.g. site flooding, limited water availability, storms, heatwave and wildfire threats to infrastructure and operations) and indirect (e.g. access roads or other critical dependencies impacted by flooding, storms, heatwaves or wildfires) impacts of climate change when planning the location, design, build, operation and, where appropriate, decommissioning of new energy infrastructure. Applicants should assess the impacts on and from their proposed energy project across a range of climate change scenarios, in line with appropriate expert advice and guidance available at the time (paragraphs 4.10.8 to 4.10.13).

5.27.2 All proposals for energy infrastructure projects should include a GHG assessment (paragraph 5.34)

5.27.3 NPS EN-3 reiterates the requirements set out in NPS EN-1 and adds that whilst offshore wind farms will not be affected by flooding, applicants should demonstrate that any necessary land-side infrastructure (such as cabling and onshore substations) will be appropriately resilient to climate-change induced weather phenomena. Similarly, applicants should particularly set out how the proposal would be resilient to storms.

Other Relevant Policy

5.27.4 South East Inshore Marine Plan Policy SE-CC-2 requires proposals to demonstrate for the lifetime of the project that they are resilient to the impacts of climate change. Policy SE-CC-3 sets out that proposals that are likely to have significant adverse impacts on coastal change, or on climate change adaptation measures, should only be supported if they can demonstrate that they will avoid, minimise or mitigate adverse impacts so that they are no longer significant.

5.27.5 NPPF advises (paragraph 157) that the planning system should support the transition to a low-carbon future. Requiring new development to avoid increased vulnerability to the range of impacts arising from climate change. When a new development is brought forward in areas which are vulnerable, care should be taken to ensure that risks can be managed through suitable adaptation measures, including through the planning of green infrastructure; and to help to reduce greenhouse gas emissions, such as through its location, orientation and design.

Summary of Compliance

5.27.6 This topic is assessed in ES Chapter 33: Climate Change (Document Reference: 3.1.35).

5.27.7 The assessment of effects has been carried out in accordance with the relevant requirements for assessment set out in NPS EN-1. The climate change assessment was informed by desk-based resources. The potential impact assessed for this topic covers GHG emissions during each of the project phases, including material extraction and manufacturing, transport and installation, operations and maintenance and end of life and decommissioning.

5.27.8 Note in the ES chapter as well as the GHG The GHG assessment determines the change in GHG emissions as a result of North Falls, while acknowledging the replacement of electricity from fossil fuel sources with renewable offshore wind. The study area for the assessment therefore includes the UK wide electricity grid.

5.27.9 The assessment has highlighted that the main emission sources of project GHGs were associated with embodied emissions from within materials (both onshore and offshore), and the release from marine vessels during works/transit, road traffic vehicles, NRMM during construction and the use of helicopters.

5.27.10 The assessment assumes that if North Falls is not constructed, the energy produced would instead be gained from natural gas, as this is the most common form of new plant in terms of fossil fuel combustion. North Falls is estimated to emit 2.65 million tonnes CO2e during the construction phase of the Project and the total of greenhouse gas emissions saved as a result of the Project are approximately 46.8 million tonnes CO2e over the 30-year operational phase.

5.27.11 The GHG payback period – i.e. the period until the project accounts for the emissions it generates during construction through the clean energy it provides during operation – for the project is 2.5 years from the time it becomes fully operational.

5.27.12 Mitigation has been incorporated into the design of the project to reduce, eliminate, and/or compensate for emissions, in line with the Institute of Environmental Management and Assessment (IEMA) GHG Management Hierarchy (IEMA, 2020). In accordance with the Applicant's technical requirements and specifications which are built upon best practice engineering codes and standards in the offshore wind sector, the Project will be designed to be resilient to hazards arising from current extreme weather events and climatic conditions, and have adaptive capacity to future climate change impacts where appropriate. Offshore structures are resilient to flooding and water ingress, and have been designed to withstand severe storm conditions, including potential changes in conditions as a result of future climate change. The onshore elements infrastructure are also inherently robust to future has been designed to take account of the effects of climatic changes such as flooding and heatwaves.

5.27.13 Table 33.35 of ES Chapter 33 Climate Change of the Environmental Statement provides a summary of the potential significant environmental effects of the Project on climate change. With the implementation of mitigation measures, North Falls is predicted to have a significant beneficial effect (significant in EIA terms) in relation to climate change targets.

5.27.14 The assessment of the impacts of GHGs is inherently cumulative, and therefore no specific cumulative assessment is required.

5.27.15 Accordingly, no significant effects are likely to occur with respect to climate change and so it has been demonstrated that North Falls accords with requirements of NPS EN-1, NPS EN3 and other relevant policy considerations.

5.27.16 The presumption in favour of consent as an energy NSIP and CNP is unaffected.

5.28 Major Accidents and Disasters

Summary of Key Topic Policy Considerations

National Policy Statements

5.28.1 NPS EN-1 requires applicants to consult the Health and Safety Executive (HSE) on matters relating to safety (Paragraph 4.13.5).

Other Relevant Policy

5.28.2 UK MPS identifies at Paragraph 3.4.6 that environmental impacts can be through accidental pollution from ships in the course of navigation or lawful operations, pollution caused by unlawful operational discharges by ships, such as oil, waste or sewage, or physical damage caused by groundings or collisions. Other pressures on the environment from shipping and ports relate to noise, airborne emissions and the introduction and spread of non-indigenous species (transported on the hulls of ships or in ballast water).

5.28.3 NPPF at paragraph 45 requires LPAs to consult appropriate bodies when considering application of or siting of or changes to major hazard sites, installations of pipelines or for development around them.

5.28.4 East Marine Plans Policy EC02 sets out that the risk of release of hazardous substances as a secondary effect due to any increased collision risk should be taken into account in proposals that require an authorisation.

Summary of Compliance

5.28.5 This topic is assessed in ES Chapter 34: Major Accidents and Disasters (Document Reference: 3.1.36).

5.28.6 The onshore and offshore project areas are not within the consultation zones of any major accident hazard sites or major accident hazard pipelines as highlighted by the Health and Safety Executive.

5.28.7 The screening and assessment of major accidents and disasters is split into 4 stages:

5.28.8 Stage 1 and 2: describes and identifies the likely significant effects deriving from the vulnerability of the Project to major accidents and disasters.

5.28.9 Stage 3: definition of the likely significant effects that may occur from the hazards and classification of the likelihood that the events may occur. Mitigation measures for each hazard are considered.

5.28.10 Stage 4: mitigation measures are evaluated to ensure that risks from the hazards are sufficient to reduce the risks to ‘As Low As Reasonably Possible’ (ALARP).

5.28.11 The potential receptors relevant to the major accidents and disasters screening and assessment are:

- Population and human health;
- Designated sites (international, national and other);
- Scarce habitats;
- Widespread habitats;
- Particular species; and
- The marine environment.
- Hazards considered for assessment are:
  - Major Accidents;
  - Major fires.
- Project Specific Hazards:
  - Exposed cables leading to vessel snagging;
  - Vessel interactions (e.g. collision21, allision22);
  - Aviation collision;
  - Accidental spills of hazardous material;
  - Disturbance of unexploded ordnance; and
  - Workplace accidents.

5.28.12 Mitigation measures are embedded into the construction, operation and maintenance and decommissioning phases of the Project. Alongside use of industry safety standards, the Project will act to reduce the impacts on the relevant receptors identified during Stage 3. With a commitment to the highest health and safety standards in design and working practices enacted, none of the anticipated construction works or operational procedures are expected to pose an appreciable risk from major accidents or disasters.

5.28.13 Accordingly, no significant effects are likely to occur with respect to Major Accidents and disasters and so it has been demonstrated that North Falls accords with requirements of NPS EN-1, and other relevant policy considerations.

Summary Of Residual Effects

5.28.14 For all offshore topics, the assessments in the North Falls ES predict that, following mitigation (imbedded or additional), the Project alone will not result in any significant effects in EIA terms.

5.28.15 For the majority of onshore topics, the assessments in the North Falls ES predict that, following mitigation (imbedded or additional), the Project will not

result in any significant effects in EIA terms. However, significant adverse effects have been identified in relation to:

- Land use and agriculture, with permanent loss of agricultural land during operation;
- Onshore ecology, with permanent and temporary loss of hedgerows and permanent or temporary impacts on bats during construction; and
- Onshore ornithology, with a moderate adverse effect on corn bunting due to habitat loss and construction disturbance at the onshore substation.

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

- SLVIA, with widespread visibility of North Falls during operation, influencing the seascape and landscape character; and
- LVIA with respect to effect on the landscape fabric and visual amenity of the onshore substation zone during the construction and operational phase of North Falls.

5.28.17 Significant beneficial effects were also identified for a number of topics, including:

- Offshore and intertidal archaeology and cultural heritage, with potential opportunities for beneficial effects by regional mapping of accessible data and provision of this data publicly, post-consent.
- Onshore ecology, with significant beneficial effects of biodiversity enhancement during operation; and moderate beneficial long term (three to seven years) effects following application of mitigation measures for hedgerows, bats, and hazel dormice.
- Human health, with significant beneficial effects identified for employment during the construction and operation and maintenance phase, and moderate wider societal benefits during operation.
- Climate change, with significant beneficial effect in relation to climate change targets.

5.28.18 Significant cumulative effects were identified for:

- Benthic and intertidal ecology, with cumulative effects associated with temporary physical disturbance, increased suspended sediment concentrations, loss of habitat and colonisation of introduced substrate.
- Offshore ornithology, with cumulative effects associated with collision risk for a number of bird species (great black-backed gull, kittiwake, and the lesser black-backed gull).
- Land use and agriculture, with cumulative effects associated with a permanent change of agricultural land during operation.

- Human health, with some likely significant cumulative beneficial effects with regard to employment and wider societal benefits.
- SLVIA, with total cumulative effects predicted to be significant (major) for effects on marine character areas, and with potential for significant effects (moderate) on landscape and views.
- LVIA, with respect to the total operational cumulative landscape and visual effects, which was deemed significant for a localised area to the west of Bromley. It was not possible to rule out significant cumulative effects on PRoW near Lilley's Farm, Little Bromley Road, Norman's Farm, and the bridleway at Barn Lane.
- Socio-economics, with significant beneficial cumulative effects on employment and direct economic benefit during construction (major beneficial), and during the operation and maintenance phase (moderate beneficial).

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

5.28.20 It is however important to highlight that whilst there are some residual adverse effects, these are limited relative to the scale and nature of the Project. A not insubstantial feat which reflects and demonstrates the concerted effort made by the Applicant to minimise impacts to accord with the mitigation hierarchy and to comply with national and local policy requirements.

5.28.21 The planning balance is discussed in detail in the following section, but it is highlighted that the NPS establish an urgent need for new renewable energy generation to achieve energy security and dramatically reduce carbon emissions (NPS EN-1 paragraph 3.3.61).

5.28.22 The NPS establish that when determining applications for offshore wind this should be done on the basis that the Government has demonstrated that there is a need for this type of infrastructure and subsequently substantial weight should be given to the contribution these projects would make towards satisfying this need (NPS EN-1 paragraph 3.2.6). NPS EN-1 paragraphs 4.2.18 – 4.2.22 confirm that the starting point is that energy security and decarbonising the power section to combat climate change are capable of amounting to imperative reasons of overriding public interest (IROPI) with the benefit to the public being capable of outweighing the risk of environmental damage.

5.28.23 Where residual harm has been identified in the ES it is considered that this can be adequately outweighed by the overriding need for CNP Infrastructure.

6 PLANNING ASSESSMENT

6.1 Need for Renewable Energy Generation

6.1.1 A detailed discussion of the need for North Falls is set out in ES Vol I Chapter 2: Need for The Project and is summarised in this section.

6.1.2 Key drivers underpinning the need for renewable energy within the UK, and why the Government believes there is an urgent need for new electricity NSIPs include:

- The acknowledged need to reduce greenhouse gas emissions, in an effort to halt the 2oC tipping point in global temperature rises (IPCC, 2023);
- Increasing energy generation from low carbon sources to replace high carbon energy sources to meet legal commitments for carbon emissions to be below 1990 levels (net zero) by 2050 and expedited target for the UK energy sector to be net zero by 2035 (Net Zero Strategy);
- The need for energy security, including:
    - The need to secure safe, affordable, reliable domestic energy for the UK market that minimises need to access volatile international energy markets;
    - The need to replace existing ageing energy generation infrastructure;
    - The need to meet significant forecast electricity demand whilst meeting climate change commitments; and
- The need to maximise social and economic opportunities for the UK from energy infrastructure investment, as noted in the Clean Growth Strategy (Department for Business, Energy & Industrial Strategy (BEIS), 2017) and the UK offshore wind sector deal (Renewable UK, 2018) which aims to create 27,000 skilled jobs across the UK (up from 11,000) mainly in coastal areas by 2030.

6.1.3 In short, there are urgent and compelling global and domestic imperatives behind the need to reduce reliance on fossil fuels and support drastic increases in renewable energy output; including legislative requirements and current significant social, economic and environmental challenges.

6.2 Need for New Nationally Significant Infrastructure Projects

6.2.1 The NPS establish the policy need for new renewable energy generation. NPS EN-1 establishes an indisputable and urgent policy need for all types of energy infrastructure to achieve energy security and dramatically reduce carbon emissions (paragraph 3.3.61).

6.2.2 The NPS establish that when determining applications for offshore wind this should be done on the basis that the Government has demonstrated that there is a need for this type of infrastructure and subsequently substantial weight should be given to the contribution these projects would make towards satisfying this need (NPS EN-1 paragraph 3.2.6). However, NPS EN-1 (paragraph 3.2.8) also confirms that when determining applications for national infrastructure, the Secretary of State is not required to consider separately the specific contribution of any individual project to satisfying the need established in the NPS.

6.2.3 Whilst there is a general presumption in favour of consenting NSIPs based on the Government's assessment of the need for electricity generating capacity as set out in paragraphs 3.3.57 – 3.3.63 of the NPS EN-1, they also include a strengthened presumption specifically in relation to critical national priority (CNP) infrastructure.

6.2.4 Paragraphs 3.3.62 and 4.2.4 of NPS EN-1 confirms that the Government *"has concluded that there is a critical national priority (CNP) for the provision of nationally significant low carbon infrastructure."* Paragraph 4.2.5 of NPS EN-1 goes on to confirm that offshore wind constitutes low carbon CNP infrastructure.

6.2.5 This position is reiterated in Part 3 of NPS EN-3 which also confirms that the Government has concluded that there is a critical national priority for the provision of nationally significant new offshore wind development and supporting onshore and offshore network infrastructure.

6.2.6 The strengthened presumption in favour of CNP infrastructure include that even "where non-HRA or non-MCZ impacts remain after the mitigation hierarchy has been applied, these residual impacts are unlikely to outweigh the urgent need for this type of infrastructure" (NPS EN-1 paragraph 4.2.15). The paragraph then goes on to confirm that "…in all but the most exceptional circumstances, it is unlikely that consent will be refused on the basis of these residual impacts." Paragraph 4.6.16 then confirms that the starting point for decision making is that CNP infrastructure is to be treated as if it has met any tests which are set out within the NPSs, or any other planning policy, which requires a clear outweighing of harm, exceptionality, or very special circumstances.

6.2.7 Similarly, in terms of any HRA or MCZ residual impacts, NPS EN-1 paragraphs 4.2.18 – 4.2.22 confirm that the starting point is that energy security and decarbonising the power section to combat climate change are capable of amounting to imperative reasons of overriding public interest (IROPI) with the benefit to the public being capable of outweighing the risk of environmental damage and NPS EN-1 imposes no limit on the number of CNP infrastructure projects that can be consented (Paragraph 4.2.21).

6.2.8 NPS EN-1 Paragraphs 4.2.10 – 4.2.12 confirm that Applicants must show how their application meets the requirements of the NPSs applying the mitigation

hierarchy, as well as any other legal and regulatory requirements and demonstrate that all residual impacts are those that cannot be avoided, reduced, or mitigated, setting out how any mitigation or compensation measures will be monitored, and reporting agreed to ensure success.

6.2.9 NPS EN-1 paragraph 4.1.7 sets out the exceptions to this presumption of consent. Whilst the paragraph reiterates that the need case will outweigh the residual effects in all but the most exceptional cases, it also states that those exceptions include residual impacts onshore and offshore which present an unacceptable risk to, or unacceptable interference with, human health and public safety, defence, irreplaceable habitats or unacceptable risk to the achievement of net zero and to unacceptable interference offshore to navigation, or onshore to flood and coastal erosion risk.

6.2.10 As an offshore wind generation project, in accordance with NPS EN-1 North Falls is low carbon CNP infrastructure for which there is an overriding presumption in favour of consenting. Section 6 of this Statement provides a summary of how the Project accords with the various NPS requirements alongside other policy considerations. Further details of the Project's accordance with NPS is set out within each ES Chapter including embedded mitigation measures and additional mitigation where required.

6.2.11 None of the exceptions listed at NPS EN-1 paragraph 4.1.17 apply to North Falls. As set out in the accompanying ES technical Chapters (summarised in preceding section) by applying the mitigation hierarchy, potential effects identified throughout the application preparation process have been accordingly addressed so that there are no significant residual effects that should affect the presumption in favour of granting consent.

6.3 Offshore Wind Support

6.3.1 The need for renewable energy including offshore wind is supported by numerous UK Government strategies which outline that low carbon energy is needed to support wider decarbonisation and met UK net zero targets. These Government strategies include:

- Clean Growth Strategy (2017) sets out proposals for the decarbonisation of all sectors of the UK economy. It recognises that the UK needs a range of energy generation infrastructure to ensure a reliable and affordable energy supply for consumers as well as to meet national and international commitments to tackle climate change.
- Offshore Wind Sector Deal (2019) was adopted by the UK Government and the offshore wind sector to build on the UK's global leadership in offshore wind, maximising the advantages for UK industry from the global shift to clean growth. It sets out an aim to create 27,000 skilled jobs across the UK (up from 11,000) mainly in coastal areas by 2030.

- Ten Point Plan for a Green Industrial Revolution (2020) outlines a green economic response to coronavirus and includes a focus on advancing offshore wind.
- Powering our Net Zero Future- building on the Ten Point Plan (2020) this energy white paper outlines how the UK will decarbonise its energy system, promote green jobs and reach net zero emissions by 2050.
- Net Zero Strategy: Build Back Greener (2021) builds on the Ten Point Plan and sets out an approach to meet the UK Carbon Budgets and net zero by 2050.It includes the target to have a low carbon electricity supply by 2035, bringing forward the government's commitment to decarbonise the power system by 15 years.
- British Energy Security Strategy (BESS, 2022) builds on the Net Zero Strategy to outline the acceleration of UK power for greater energy independence and long-term security in light of rising global energy prices. It also aims to increase the pace of offshore wind deployment by 25%.
- Powering Up Britain (2023) set out how the Department for Energy Security and Net Zero aims to improve the UK's energy security, maximise economic opportunities of the net zero transition and reach net zero by 2050. This includes the aims of doubling Britain's electricity generation capacity by the late 2030s and fully decarbonising the power sector by 2035. The plans also outline investment in key industries including offshore wind.
- Offshore Wind Net Zero Investment Roadmap (2023) outlines the investment needed for offshore wind, summarises government policy and funding and provides investors with suitable information to support investment decisions.

6.3.2 The offshore wind industry presents an opportunity to utilise and develop the UK's maritime engineering skills as other industries decline to secure UK employment opportunities. The importance of maximising opportunities for the involvement of local businesses and communities in offshore wind has been highlighted as a key success factor for the sector in the UK.

6.3.3 As detailed in Chapter 31: Socio-economics (Document Reference: 3.1.33) details that expenditure on the Project has the potential to stimulate beneficial economic impacts by creating jobs and increasing output directly through employment opportunities related to the construction and operation of the Project and indirect through the supply chain.

6.3.4 The Applicant is committed to improving skills and employment opportunities. An Outline Skills and Employment Plan (Document reference 7.18) has been submitted as part of the DCO application which sets out opportunities for engagement to enable local workers and training providers to prepare for anticipated employment opportunities associated with the Project.

6.3.5 The UK Government's Energy White Paper 'Powering our Net Zero Future' 2021, the Net Zero Strategy: Build Back Greener (2021) and the British Energy Security Strategy (2022) set a target provision of 50GW offshore wind by 2030; representing a fourfold increase on present installed capacity.

6.3.6 North Falls would make a substantial contribution to the achievement of the UKs decarbonisation targets, which in turn contributes towards global commitments to mitigate climate change.

6.3.7 By generating renewable electricity in the UK, North Falls would also help to reduce the UK's reliance on imported energy and improve UK energy security. In addition to meeting national and international targets, North Falls would contribute to the economy by providing jobs during all phases of the Project's lifetime.

6.3.8 As such North Falls would assist in the achievement of the above listed strategies.

6.4 Local Policy Support

6.4.1 In addition to the National policy, goals and targets for renewable energy, local policy support is also a driver for renewable energy development. The relevant local development plans are the Tendring District Local Plan 2013-3033 and the County strategy document Everyone's Essex Plan 2021-2025.

6.4.2 The Tendring District Local Plan recognises the commitment to tackling the causes and effects of global climate change through the need to deliver renewable energy and places to deliver renewable energy on all forms of development:

- *"The Council will consider all renewable energy scheme with regard to the scale, impact, and energy generation. The policy also requires development proposals to demonstrate how renewable energy solutions have been incorporated in existing and new buildings, facilitating the retro-fitting of renewable energy installations."*

6.4.3 Essex County Councils 'Everyone's Essex Plan 2021-2025, also prioritises meeting net zero targets and the county is committed support the delivery of schemes that meet this objective:

- *"We will work across the council and the county to hit our net zero targets, by ensuring that the council significantly reduces its carbon footprint, whilst also supporting an acceleration in the progress towards sustainable housing and energy, and active and alternative forms of travel across the county."*

6.4.4 Tendring Local Plan Part 2 identifies that the district's coastal area places economic, social environmental considerations at the forefront of climate change and therefore there will be a need to "place adaptation and mitigation against climate change at the centre of sustainable development (page 21).

6.4.5 In 2019, the Council declared a climate emergency, committing it to the preparation of an action plan with the aim of making its own activities carbon neutral by 2030 and encouraging communities and developers to reduce carbon emissions and tackling climate change. Policy SPL3 Sustainable Design requires all new development to incorporate climate change adaptation measures and technology from the outset including renewable and low carbon energy production where appropriate and Policy PPL10 requires new development to consider the potential for a range of renewable energy solutions to be incorporated.

6.4.6 Through the production of clean renewable energy and supporting employment opportunities and skills training, North Falls will help support Essex County Council and Tendring District Council's climate change and economic growth objectives.

6.4.7 Some adverse environmental impacts are anticipated, as is to be expected with projects of such scale (acknowledged by NPS EN-1), but with appropriate mitigation measures, in accordance with the mitigation hierarchy, these have been minimised as far as practicable. Overall, the Project accords with wider general environmental and development control policies of the local plan, as set out in Tables 5.2 and 5.3.

6.4.8 In respect to consideration of the draft Ardleigh Neighbourhood Plan, whilst it is acknowledged that part of the Onshore Project Area falls within the draft Ardleigh Neighbourhood Plan area, the land in this area is to be brought forward separately by National Grid to accommodate the EACN substation. This will form part of the National Grid-led 'Norwich to Tilbury works DCO'; see section 2.11 of this Statement and ES Chapter 5 Figure 5.2, Document Reference: 3.2.3).

6.4.9 The North Falls Project will connect to the EACN and so the land parcel is included within the Onshore Project Area to ensure design flexibility, given details of the EACN (at time of Application submission) are not yet finalised.

6.4.10 At the time of submission of the Application the Ardleigh Neighbourhood was not 'made'. It is 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. An assessment of compliance would be covered within the National Grid DCO application.

6.4.11 In this it is reiterated that as NSIPs the NPSs remain the principal policy test for determination of both North Falls and the National Grid-led DCO Applications. Mindful of this it is highlighted that proportionately, the extent of land within the Neighbourhood Plan boundary is minimal when considered against the scale of the Project as a whole. The application of the Neighbourhood Plan Policies (once made) would need to be balanced against wider national objectives and requirements for CNPs such as North Falls.

6.5 Overall Planning Balance

6.5.1 This Statement has set out the background to and the context of North Falls as well as the legal and policy framework it should be assessed against. It includes a description of the need for the Project and the outcome of the environmental assessments including both beneficial and adverse effects.

6.5.2 Section 104(3) of the PA 2008 states that the SoS must decide applications in accordance with relevant NPS (except to the extent that one or more of the matter set out in sections 104(4) to (8) of the PA2208 applies). The key test to be applied in the decision-making process is therefore whether, on balance, the Project is in accordance with the relevant NPSs.

6.5.3 North Fall's compliance with relevant policy, primarily NPS EN-1, NPS EN-3, and NPS EN-5 has been demonstrated throughout section 6 of this Planning statement in relation to each specific topic. Full details on the Project's compliance with the NPSs and other relevant policy is set out in the individual chapters of the Environmental Statement and other relevant supporting application documents (for instance see Marine Plan Assessment (Document Reference: 7.5).

6.5.4 Part 3 of NPS EN-1 outlines the urgent need for all types of energy infrastructure to achieve energy security and dramatically reduce GHG emissions.

6.5.5 Paragraph 3.3.62 of NPS EN-1 confirms that the Government has concluded that there is a critical national priority (CNP) for the provision of nationally significant low carbon infrastructure such as the Project.

6.5.6 In making decisions, NPS EN-1 paragraph 4.1.3 confirms that the decision maker should start with a presumption in favour of granting consent to applications for energy projects unless more specific polices set out in relevant NPSs clearly indicate that consent should be refused or the adverse impacts will outweigh the benefits, with paragraph 4.1.5 setting out that when weighing its adverse impacts against its benefits, the decision maker should take into benefits including:

- Contribution to meeting the need for energy infrastructure;
- Job creation;
- Environmental enhancements.

6.5.7 As detailed within this Statement and supporting ES, North Falls provides against each of these considerations.

6.5.8 Importantly, in relation to CNP Infrastructure, paragraph 3.3.63 of NPS EN1 confirms that the urgent need for CNP Infrastructure will generally outweigh any other residual impacts not capable of being addressed by application of the mitigation hierarchy.

6.5.9 The need for North Falls is clearly supported by NPS EN-1, in addition to the wider governmental and international obligations and objectives relating to low carbon electricity generation, climate change and the economy.

6.5.10 Section 6 of this Planning Statement confirms that the construction, operational and decommission phases of North Falls alone will not result in any residual significant adverse effects in relation to the majority of assessed areas. Where residual significant adverse effects have been identified these are of no more than moderate adverse and localised.

6.5.11 Accordingly, there are no significant adverse effects that cannot be mitigated or that outweigh the benefits associated with North Falls, the urgent need and strong support and presumption in favour of the Project as CNP infrastructure.

6.5.12 Furthermore, through the production of clean renewable energy and supporting employment opportunities and skills training, North Falls will help support Essex County Council and Tendring District Council's climate change and economic growth objectives and the project is in broad compliance with individual local planning policies with regards to heritage, landscape, ecology and socio-economic considerations. Where there are areas of conflict the benefits of the scheme, namely the overriding urgent need for renewable energy can outweigh the limited effects.

6.5.13 Therefore, North Falls clearly accords with UK Government policy contained within NPS EN-1, NPS EN-3 and NPS EN-5. Furthermore, throughout Section 6 of this Planning Statement it has been demonstrated that the Project also complies with the objectives and policies of the East Marine Plans, South East Inshore Marine Plan, NPPF, Tendring District Council Local Plan and Essex County Council's directives in ensuring there are no significant residual environmental impacts arising that cannot be outweighed by the benefits.

6.5.14 Therefore, under the terms of S104 PA2008, consent for North Falls should be granted.

NORTH FALLS

Offshore Wind Farm

HARNESSING THE POWER OF NORTH SEA WIND

North Falls Offshore Wind Farm Limited

A joint venture company owned equally by SSE Renewables and RWE.

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