



Hornsea Project Four: Environmental Statement (ES)

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Glossary

Term	Definition
Biodiversity Net Gain	An approach to development that leaves biodiversity in a better state than before. Where a development has an impact on biodiversity, developers are encouraged to provide an increase in appropriate natural habitat and ecological features over and above that being affected to ensure that the current loss of biodiversity through development will be halted and ecological networks can be restored.
Commitment	A term used interchangeably with mitigation and enhancement measures. The purpose of Commitments is to reduce and/or eliminate Likely Significant Effects (LSEs), in EIA terms. Primary (Design) or Tertiary (Inherent) are both embedded within the assessment at the relevant point in the EIA (e.g. at Scoping, Preliminary Environmental Information Report (PEIR) or ES). Secondary commitments are incorporated to reduce LSE to environmentally acceptable levels following initial assessment i.e. so that residual effects are acceptable.
Design Envelope	A description of the range of possible elements that make up the Hornsea Project Four design options under consideration, as set out in detail in the project description. This envelope is used to define Hornsea Project Four for Environmental Impact Assessment (EIA) purposes when the exact engineering parameters are not yet known. This is also often referred to as the "Rochdale Envelope" approach.
Development Consent Order (DCO)	An order made under the Planning Act 2008 granting development consent for one or more Nationally Significant Infrastructure Projects (NSIP).
Effect	Term used to express the consequence of an impact. The significance of an effect is determined by correlating the magnitude of the impact with the importance, or sensitivity, of the receptor or resource in accordance with defined significance criteria.
EIA Directive	European Union Directive 85/337/EEC, as amended by Directives 97/11/EC, 2003/35/EC and 2009/31/EC and then codified by Directive 2011/92/EU of 13 December 2011 (as amended in 2014 by Directive 2014/52/EU).
EIA Regulations	The Infrastructure Planning (Environmental Impact Assessment) Regulations 2017.
Energy Balancing Infrastructure (EBI)	The onshore substation includes energy balancing Infrastructure. These provide valuable services to the electrical grid, such as storing energy to meet periods of peak demand and improving overall reliability.
Environmental Impact Assessment (EIA)	A statutory process by which certain planned projects must be assessed before a formal decision to proceed can be made. It involves the collection and consideration of environmental information, which fulfils the assessment requirements of the EIA Directive and EIA Regulations, including the publication of an Environmental Statement (ES).
Environmental Statement (ES)	A document reporting the findings of the EIA and produced in accordance with the EIA Directive as transposed into UK law by the EIA Regulations.
Export cable corridor (ECC)	The specific corridor of seabed (seaward of Mean High Water Springs (MHWS)) and land (landward of MHWS) from the Hornsea Project Four array area to the Creyke Beck National Grid substation, within which the export cables will be located.

Term	Definition
Habitats Regulations Assessment (HRA)	A process which helps determine likely significant effects and (where appropriate) assesses adverse impacts on the integrity of European conservation sites and Ramsar sites. The process consists of up to four stages of assessment: screening, appropriate assessment, assessment of alternative solutions and assessment of imperative reasons of over-riding public interest (IROPI) and compensatory measures.
Hornsea Project Four Offshore Wind Farm	The term covers all elements of the project (i.e. both the offshore and onshore). Hornsea Four infrastructure will include offshore generating stations (wind turbines), electrical export cables to landfall, and connection to the electricity transmission network.. Hereafter referred to as Hornsea Four.
Kyoto Protocol	The Kyoto Protocol is an international agreement linked to the United Nations Framework Convention on Climate Change, which commits its parties to reducing greenhouse gas emissions by setting internationally binding emission reduction targets, implemented primarily through national measures but also via wider market-based mechanisms.
Landfall	The generic term applied to the entire landfall area between Mean Low Water Spring (MLWS) tide and the Transition Joint Bay (TJB) inclusive of all construction works, including the offshore and onshore ECC, intertidal working area and landfall compound. Where the offshore cables come ashore east of Fraisthorpe.
Onshore substation (OnSS)	Comprises a compound containing the electrical components for transforming the power supplied from Hornsea Project Four to 400 kV and to adjust the power quality and power factor, as required to meet the UK Grid Code for supply to the National Grid. If a HVDC system is used the OnSS will also house equipment to convert the power from HVDC to HVAC.
Order Limits	The onshore limits within which Hornsea Project Four (the 'authorised project') may be carried out.
Orsted Hornsea Project Four Ltd.	The Applicant for the proposed Hornsea Project Four Offshore Wind Farm Development Consent Order (DCO).

Acronyms

Acronym	Definition
AoNB	Area of Outstanding Natural Beauty
BEIS	Business, Energy and Industrial Strategy
BNG	Biodiversity Net Gain
CBD	Convention on Biological Diversity
CCC	Committee on Climate Change
cSACs	candidate Special Areas of Conservation
CfD	Contracts for Difference
COP	Conference of the Parties
DBEIS	Department for Business, Energy and Industrial Strategy
DCO	Development Consent Order
DECC	Department for Energy and Climate Change

Acronym	Definition
DML	Deemed Marine Licences
DPD	Development Plan Documents
EBI	Energy Balancing Infrastructure
EEA	European Economic Area
EIA	Environmental Impact Assessment
ES	Environmental Statement
EC	European Commission
EEEGR	East of England Energy Group
EQI	Environmental Quality Indicators
ERYBAP	East Riding Biodiversity Action Plan
ERYC	East Riding of Yorkshire Council
EU	European Union
ExA	Examining Authority
GHG	Greenhouse Gas
GES	Good Environmental Status
HRA	Habitats Regulations Assessment
HVAC	High Voltage Alternating Current
HVDC	High Voltage Direct Current
IEMA	Institute of Environmental Management and Assessment
IPCC	Intergovernmental Panel on Climate Change
LDF	Local Development Frameworks
LDS	Local Development Scheme
LEC	Low Level Energy Cost
LSE	Likely Significant Effect
MCAA	Marine and Coastal Access Act
MCZ	Marine Conservation Zone
MHWS	Mean High Water Springs
MLWS	Mean Low Water Springs
MMO	Marine Management Organisation
MPA	Marine Protected Areas
MPS	Marine Policy Statement
MSFD	Marine Strategy Framework Directive
NDC	Nationally Determined Contribution
NERC	Natural Environment and Rural Communities
NNR	National Nature Reserves
NPPF	National Planning Policy Framework
NPS	National Policy Statement
NSIP	Nationally Significant Infrastructure Project
O&M	Operation and Maintenance
OnSS	Onshore Substation
PEIR	Preliminary Environmental Information Report
PINS	Planning Inspectorate
PPS	Policy Planning Statements

Acronym	Definition
PPGN	Planning Policy Guidance Notes
PRoW	Public Rights of Way
pSPAs	potential Special Protection Areas
REZ	Renewable Energy Zone
RSPB	Royal Society for the Protection of Birds
RSS	Regional Spatial Strategy
SAC	Special Areas of Conservation
SCI	Site of Community Importance
SEA	Strategic Environmental Assessment
SEP	Strategic Economic Plan
SoS	Secretary of State
SMP	Shoreline Management Plan
SPA	Special Protection Areas
SPD	Supplementary Planning Documents
SSSI	Sites of Special Scientific Interest
TEU	Treaty on European Union
UN	United Nations
UNECE	United Nations Economic Commission for Europe
UNFCCC	United Nations Framework Convention on Climate Change
WFD	Water Framework Directive

Units

Unit	Definition
°C	Degree Celsius
MW	Megawatt
nm	nautical miles
GW	Gigawatt

2.1 Introduction

- 2.1.1.1 Orsted Hornsea Project Four Limited (the 'Applicant') is proposing to develop Hornsea Four Offshore Wind Farm (hereafter 'Hornsea Four'). Hornsea Four will be located approximately 69 km from the East Riding of Yorkshire in the Southern North Sea and will be the fourth project to be developed in the former Hornsea Zone. Hornsea Four will include both offshore and onshore infrastructure including an offshore generating station (wind farm), export cables to landfall and on to an onshore substation (OnSS) with energy balancing infrastructure (EBI), and connection to the electricity transmission network (see [Chapter 4: Project Description](#)).
- 2.1.1.2 This chapter of the Hornsea Four Environmental Statement (ES) presents the international, national, regional and local planning policy context which is of relevance to the development of offshore wind farms and their associated offshore and onshore infrastructure, with specific relevance to Hornsea Four. Specific identification of supporting planning, policy and underpinning documentation for Energy Balancing Infrastructure (EBI) is made in [Section 2.6](#). Policies specific to each Environmental Impact Assessment (EIA) topic are outlined in [Volume A3, Chapters 1 – 10](#).
- 2.1.1.3 Relevant planning policy is also set out in [Volume F1, Chapter 1: Planning Statement](#) and [Volume F2, Chapter 6: Statement of Need](#).

2.1.2 Requirement for Environmental Impact Assessment (EIA)

- 2.1.2.1 EIA provides a systematic tool for examining and assessing potentially significant impacts of a development on the physical, biological, and human environment. The EIA enables management and mitigation measures to be identified to ensure the development is sustainable and allows for opportunities for beneficial impact to be identified.
- 2.1.2.2 An EIA is required under the terms of 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 Nationally Significant Infrastructure Projects (NSIPs) by The Infrastructure Planning (Environmental Impact Assessment) Regulations 2017.
- 2.1.2.3 These Regulations set out the statutory process and minimum requirements for the provision of adequate environmental information to enable the EIA process to be considered acceptable under law. The EIA activities, including the supporting surveys and studies are reported in this ES.
- 2.1.2.4 In compliance with the EIA Directive, the Planning Act 2008 requires an EIA to be undertaken and provided in support of a Development Consent Order (DCO) for certain types of projects under the Planning Act 2008 (the 2008 Act) (see [Section 2.3.1](#)).
- 2.1.2.5 Offshore wind farms are listed in Annex II of the Directive, as "*installations for the harnessing of wind power for energy production (wind farms)*". The Planning Act 2008 as primary

legislation identifies offshore electricity generating stations as NSIPs in Part 3 section 15 of the Act. The Infrastructure Planning (Environmental Impact Assessment) Regulations 2017 implement the requirements of the EU EIA Directive 2014/52/EU.

2.1.2.6 Following the implementation of Directive 2014/52/EU, some key features of the EIA Regulations are:

- The requirement to provide an assessment of how human health, climate change and natural resources will be affected by the development;
- An enhanced screening and scoping process to ensure EIAs are focused on developments that are likely to cause significant effects and that the EIA is targeted on those potentially significant effects;
- Ensuring EIA quality by requiring that those who undertake the work have competent expertise to do so;
- Demonstration of the consideration of alternatives to the proposed development;
- The consideration of a scenario where the development is not implemented;
- Further consideration of how to avoid, prevent, reduce and/or off-set significant adverse effects where possible and develop monitoring strategies;
- Coordination between the EIA and Habitats Regulations Assessment (HRA); and
- Ensuring consideration of interrelationships between impacts.

2.1.2.7 The approach to the EIA has taken full regard to the EIA provisions set out above and is described more fully in [Chapter 5: Environmental Impact Assessment Methodology and Volume A4, Annex 1.1: How to read this ES](#). Additionally, the Applicant has progressed a proportionate approach to undertaking the EIA in light of both PINS Advice Note Six: Preparation and Submission of Application Documents (PINS, 2016), and industry guidance set out by the Institute of Environmental Management and Assessment (IEMA) in their document, "Delivering Proportionate EIA - A Collaborative Strategy for Enhancing UK Environmental Impact Assessment Practice" (IEMA, 2017). This responds directly to known issues within the UK planning regime of overly long and complex documentation and unfocussed assessments. Development of the proportional EIA approach has included production of key tools such as the Impacts Register ([Volume A4, Annex 5.1: Impacts Register](#)).

2.1.2.8 Good design is a key aspect of developing national infrastructure and the Applicant has developed a Design Vision Statement ([Volume A4, Annex 4.6: Design Vision Statement](#)) for the onshore elements of Hornsea Four. This document sets out a number of design principles which aim to help ensure a sense of place is maintained, that visual mitigation is adopted, and that ecological and amenity benefits are promoted. The Design Vision Statement incorporates recent guidance from the National Infrastructure Commission (NIC Design Group, 2020) as well as considering Overarching National Policy Statement for Energy (EN-1) which contains 'criteria for "good design" for energy infrastructure', and states how 'good design can help mitigate adverse impacts'.

2.1.2.9 In addition to adopting good design principles, and although not a statutory requirement for NSIPs, the Applicant has incorporated Biodiversity Net Gain (BNG) for the Onshore Substation (OnSS) such that upon completion of the works at this location, there is a net positive outcome for biodiversity. This approach is summarised in [Section 2.7](#) with the outline strategy in [Volume F2, Chapter 16: Outline Net Gain Strategy](#). On a wider basis the Applicant has also set out an outline enhancement strategy (see [Volume F2, Chapter 14: Outline Enhancement Strategy](#)) which details broader environmental enhancement that Hornsea Four seeks to deliver across a range of environmental aspects including social, economic, amenity value, natural capital and biodiversity.

2.2 Brexit, International Policy and Context

2.2.1 Brexit and Post-Brexit Bills

2.2.1.1 In 2017, the UK government triggered article 50 of the Treaty on European Union (TEU) with the UK formally withdrawing from the EU at 11:00 pm (GMT) on 31st January 2020. There is now a transition period until the end of 2020 while the UK and the EU negotiate additional arrangements.

2.2.1.2 The UK's approach to negotiations with the EU was been set out by government in February 2020 (HM Government, 2020). The document states that the UK is open to an agreement on energy which could cover trading over interconnectors, carbon pricing and climate change.

2.2.1.3 In January 2020 the government released an updated version of the Environment Bill (along with similar updates for the Agriculture Bill and Fisheries Bill), focussed in part on the environmental governance gap post-Brexit. The Environment Bill makes provisions for a range of matters, including (inter alia): provision about targets, plans and policies for improving the natural environment; creation of the Office for Environmental Protection; and a range of measures in relation to nature and biodiversity, water, air quality.

2.2.1.4 The UK legislation relating to Climate Change and Renewable Energy Policy is underpinned by a number of international (e.g. EU and United Nations (UN)) agreements which are outlined later in this chapter.

2.2.2 United Nations Framework Convention on Climate Change

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

- 2.2.2.2 The UK is a signatory to the Kyoto Protocol, an international agreement linked to the development and implementation of the UNFCCC. The protocol provides commitments for state parties to reduce GHG emissions coming into effect in 2005. The commitments of the Kyoto Protocol were transposed into UK law by the Climate Change Act 2008 (see [Section 2.3.2](#)).
- 2.2.2.3 A series of regular international meetings of the UNFCCC have taken place since 1997 resulting in several other commitments including the:
- Doha Amendment (2012); and
 - Paris Agreement (2015).
- 2.2.2.4 The Doha Amendment (2012) included a commitment by parties to reduce greenhouse gas emissions by at least 18% below 1990 levels in the eight-year period from 2013 to 2020. Under this second commitment period of the Kyoto Protocol the EU committed to reduce emissions by 20% on 1990 levels by 2020, with the option to increase this to 30%.
- 2.2.2.5 During the United Nations Climate Change Conference in Paris in 2015 (known as 'COP21') the following were key areas of agreement (UNFCCC, 2016a):
- Limit global temperature increase to below 2 °C, while pursuing efforts to limit the increase to 1.5 °C above the pre-industrial average temperature;
 - Parties aim to reach global peaking of greenhouse gas emissions as soon as possible in order to achieve the temperature goal;
 - Commitments by all Parties to prepare, communicate and maintain a Nationally Determined Contribution (NDC); and
 - In 2023 and every 5 years thereafter, a global stocktake will assess collective progress toward meeting the purpose of the Agreement.
- 2.2.2.6 The UK ratified the 2015 Paris Agreement during the 22nd Climate Change Conference of the Parties (COP22) in November 2016 (UNFCCC, 2016b). The UK is currently committed to the EU pledge to reduce emissions by at least 40% across all Member States by 2030.
- 2.2.2.7 During the United Nations Climate Change Conference talks in Bonn, Germany in 2017 (known as 'COP23'), finer details were discussed on how the Paris Agreement will work from 2020 onwards (UNFCCC, 2018). Key agreements included:
- Overseeing and accelerating the completion of the work programme under the Paris Agreement by its twenty-fourth session (December 2018); and
 - To convene a facilitative dialogue among Parties in 2018 to take stock of the collective efforts of the Parties (Talanoa dialogue).

2.2.2.8 As a result of the United Nations Climate Change Conference in Katowice, Poland (COP24), a rulebook which provides a set of guidelines for implementing the Paris Agreement was produced.

2.2.3 European Union Renewables Directive / Renewable Energy Directive

2.2.3.1 In 2007, the European Commission (EC) proposed an 'Energy Policy for Europe' (EC 2007) to address challenges with respect to the security of energy supplies and reducing GHG emissions particularly through energy efficiency and promoting renewable energy.

2.2.3.2 The Renewable Energy Directive (2009/28/EC) sets out a common framework for the promotion of the use of energy from renewable sources and requires that 20% of the energy consumed in the EU is produced from renewable sources by 2020. This policy later became part of the EU 2020 Energy Strategy. In 2019, the share of renewable energy was 19.7%, and it is expected that the 20% target for 2020 will have been met.

2.2.3.3 In October 2014, the 2030 Climate and Energy Framework was adopted by the European Council, and proposed new climate and energy targets for the EU up to 2030. These targets include:

- A 40% reduction in GHG emissions compared to a 1990 baseline;
- At least a 27% share of renewable energy consumption within the EU; and
- A 27% improvement in energy efficiency.

2.2.3.4 On November 30, 2016 (with amendments in February 2017), the EC published a proposal for a Directive on the Use of Energy from Renewable Sources (EC, 2017) with the aim of making the EU a global leader in renewable energy and to ensure that the target of the 2030 EU Climate and Energy Framework of a 27% share of renewable energy consumption in the EU by 2030 is met.

2.2.3.5 In December 2018, the revised Renewable Energy Directive (EU) 2018/2001 became binding on member states and established a number of key targets for member states. Along with sister Directives on Energy Efficiency it revised the EU 2030 Climate and Energy Framework to ensure the following:

- At least a 32% share of renewable energy consumption within the EU;
- A headline target of at least a 32.5% improvement in energy efficiency; and
- Member states of the EU to review their contribution to this target as part of their national energy and climate plans under Regulation (EU) 2018/1999 of the European Parliament and of the Council.

2.2.3.6 Both 2020 and 2030 frameworks underpin the environmental and energy policy objectives of the EU. If the most recent proposed energy target is not met at a Union level, the EC may take measures to ensure target is achieved under Regulation (EU) 2018/1999.

2.2.3.7 The UK has withdrawn as a Member State of the EU, but some uncertainties on the level of EU legislation that will be transposed into UK law remain. The UK's commitments to reducing GHG levels are included within the 2008 Climate Change Act, which is discussed in [Section 2.3.2](#).

2.2.4 International Environmental and Nature Conservation Legislation and Treaties

2.2.4.1 Relevant international Directives and frameworks implemented for the conservation of the EU environment is given in [Table 2.1](#).

Table 2.1: Relevant International Environmental and Nature Conservation Legislations and Treaties.

Legislation	Objective of Legislation
Marine Strategy Framework Directive (MSFD)	<p>The MSFD (Directive 2008/56/EC) aims to establish a framework within which Member States will take measures to maintain or achieve 'good environmental status' (GES) in the marine environment by 2020 and to protect the resource base upon which marine-related economic and social activities depend.</p> <p>The MSFD enshrines in a legislative framework the ecosystem approach to the management of human activities having an impact on the marine environment, integrating the concepts of environmental protection and sustainable use.</p>
Water Framework Directive (WFD)	<p>The WFD (2000/60/EEC) addresses the quality of groundwater and surface inland, estuarine (transitional) and coastal surface waters up to an offshore limit of one nautical mile (nm). Monitoring of the aquatic environment in relation to physical, chemical and biological parameters started in 2006 in the UK with a view to ensuring 'good ecological status' of all surface water bodies (Nõges et al., 2009). Within the Directive, chemical and biological Environmental Quality Indicators (EQI) are used, and a programme of measures is implemented, in order to improve surface waters that do not meet the required status.</p>
Habitats and Birds Directives	<p>EC Directive 92/43/EEC (the 'Habitats Directive') implements the Convention on the Conservation of European Wildlife and Natural Habitats (the Bern Convention) and The Convention on the Conservation of Migratory Species of Wild Animals (the Bonn Convention). The directive aims to conserve natural habitats of wild fauna and flora and is intended to protect biodiversity by requiring Member States to take measures to maintain or restore natural habitats and wild species, including protection for specific habitats listed in Annex I and species listed in Annex II of the Directive.</p> <p>The Habitats Directive provides robust protection for those habitats and species of European importance. A key element of this protection is the establishment, under Article 3 of the Directive, of a European-wide network of protected sites, known as Special Areas of Conservation (SAC).</p> <p>EC Directive 2009/147/EC (the 'Birds Directive') on the conservation of wild birds provides a framework for the conservation and management of wild birds in Europe. It sets broad objectives for a wide range of activities. The Directive also resulted in the establishment, under Article 4, of a network of Special Protection Areas (SPAs) for rare or vulnerable species listed in Annex I and for all regularly occurring migratory species. It also established a general scheme of protection for all wild birds (required by Article 5). The Directive requires national governments to establish SPAs and to have in place mechanisms to protect and manage these Areas. The SPA protection procedures originally set out in Article 4 of the Birds Directive have been replaced by the Article 6 provisions of the Habitats Directive.</p> <p>'Natura 2000' is an overarching name for the European network of protected sites that include SPA and SAC designated across the EU and following Brexit these are now included as part of the UK's "National Site Network". These important high-quality conservation sites are intended to significantly contribute to the conservation of habitats and species listed in the Birds and Habitats Directives.</p> <p>Annexes II and IV of the Habitats Directive lists all European Protected Species, of which include both marine and terrestrial animals and plants.</p>

Legislation	Objective of Legislation
The Convention on Wetlands of International Importance (Ramsar Convention)	The Ramsar Convention is the intergovernmental treaty that provides the framework for the conservation and wise use of wetlands and their resources. The Convention was adopted in Ramsar (Iran) in 1971 and ratified by the UK in 1976. The criteria for assessing a site for designation as a Ramsar Site include whether or not the wetland supports 20,000 water birds and/or supports 1% of the individuals in a population of one species or subspecies of water bird. UK Government policy affords the same protection to Ramsar sites as European designations such as SPAs and SACs. The UK has generally chosen to underpin the designation of its Ramsar sites through prior notification of these areas as Sites of Special Scientific Interest (SSSI).
OSPAR Convention	<p>International cooperation to protect the marine environment (including biodiversity) of the north east Atlantic is achieved through the Convention for the Protection of the Marine Environment of the North-East Atlantic (the 'OSPAR Convention').</p> <p>A key part of OSPAR's biodiversity strategy is to establish a network of Marine Protected Areas (MPAs). The UK has currently identified 283 OSPAR MPAs (many of which are Natura 2000 sites) that also meet the relevant OSPAR selection criteria (OSPAR, 2006).</p>
The Convention on Biological Diversity	<p>The Convention on Biological Diversity (CBD) is a legally binding treaty, which came into force in December 1993 designed as a practical tool for implementing the principles of Agenda 21 into reality. The Convention is currently ratified by over 190 parties (states) including the UK and has three main objectives:</p> <ul style="list-style-type: none"> • The conservation of biological diversity; • The sustainable use of the components of biological diversity; and • The fair and equitable sharing of the benefits arising out of the utilisation of genetic resources. <p>A number of major UN and EU initiatives are aimed at making a contribution towards meeting the objectives of the CBD. These include the Bern and Bonn conventions and the establishment of the Natura 2000 network across Europe.</p>
<p>Convention on Environmental Impact Assessment in a Transboundary Context</p> <p>–</p> <p>The Espoo Convention</p>	<p>The United Nations Economic Commission for Europe (UNECE) convention (the 'Espoo Convention') sets out the obligations of States to notify and consult each other on all major projects under consideration that have the potential to give rise to significant adverse environmental effect across international boundaries (transboundary effects).</p> <p>The Espoo Convention has been implemented in the UK for the purposes of NSIPs by the Infrastructure Planning (Environmental Impact Assessment) Regulations 2017. PINS Advice Note Twelve: Transboundary Impacts and Processes (PINS, 2018) sets out the procedures for transboundary notification and consultation associated with NSIP applications for a DCO under the Planning Act 2008 (as amended).</p> <p>All NSIP decisions in relation to EIA Development are subject to the procedural requirements set out in Regulation 32 of the EIA Regulations which places a statutory duty on the Secretary of State to notify and consult other European Economic Area (EEA States) where they are of the view that the development is likely to have significant effects on the environment of another EEA state.</p>

2.3 National Planning and Legislative Context

2.3.1 The Planning Act (2008)

2.3.1.1 The Planning Act 2008 is the primary legislation that established the legal framework for applying for, examining and determining applications for NSIPs. It sets out the consenting system for all NSIPs, including those in the energy sector. Part 2 of the Act specifies the provisions in relation to National Policy Statements (NPSs), which set the framework for decisions by the Secretary of State (SoS), further details are given in [Section 2.3.3](#).

2.3.1.2 Amendments have been made to the planning system that are applicable to the Planning Act 2008, through the Localism Act 2011. Under the Localism Act 2011, PINS became the executive agency responsible for the NSIP planning process. Any developer wishing to construct a project that is classified as an NSIP must apply for Development Consent. PINS must appoint an Examining Authority (ExA) to examine the application and make a recommendation to the relevant SoS, who will make the decision on whether to grant the DCO.

2.3.1.3 Section 31 of the Planning Act 2008 states that, as NSIPs, such projects require development consent in the form of a DCO. The 2008 Act sets out thresholds above which certain types of infrastructure development are nationally significant and require a DCO. For offshore energy developments in England the threshold is a generating capacity of over 100 MW. The proposed Hornsea Four project will have a generating capacity which in excess of 100 MW and is therefore classified as a NSIP.

2.3.1.4 As part of its application for a DCO, the Applicant is seeking other relevant permissions, consents and licences, including but not limited to:

- Powers to compulsorily acquire land or rights over land, either permanently or temporarily;
- Power to undertake marine works under Deemed Marine Licences (DMLs); and
- Powers to divert or stop up Public Rights of Way (PRoW).

2.3.1.5 As Hornsea Four is seeking to be consented under the Planning Act (2008) via a DCO application, the following is not required separately:

- Planning permission under the Town and Country Planning Act 1990;
- Consent under section 36 or 37 of the Electricity Act 1989;
- Listed Building and Conservation Area consent under the Planning (Listed Buildings and Conservation Areas) Act 1990; and
- Scheduled Monument consent under the Ancient Monuments and Archaeological Areas Act 1979.

2.3.2 Climate Change Act (2008)

- 2.3.2.1 The Climate Change Act 2008 places a duty on the UK government to ensure their net carbon account and GHG emission 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 that will run until 2032 to restrict the amount of emissions they legally emit within each five-year period. More recently, 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. This legal target will remain in place in the UK following and is not affected by its withdrawal from the EU, and more detail is provided in [Chapter 1: Introduction](#).
- 2.3.2.2 The Climate Change Act 2008 was enacted as part of the UK's responsibility and obligations as a signatory of the Kyoto Protocol 1997 (which did not become binding until 2005). The UK target covers the six main GHGs referenced in the Kyoto Protocol.
- 2.3.2.3 The Climate Change Act 2008 requires the Government to set 'Carbon Budgets' to provide a constraint of GHG emissions in a given time period. The Carbon Budgets are set by the Committee for Climate Change and provide a legally binding five year limit for GHG emissions in the UK. The six Carbon Budgets that have been placed into legislation will run up to 2037. The six Carbon Budgets that have been placed into legislation and will run up to 2037 and are identified in [Table 2.2](#).
- 2.3.2.4 The first Carbon Budget was met, and the UK is set to outperform on the second and third budgets. However, current projections suggest that the fourth carbon budget will not be met (Committee for Climate Change (CCC), 2018).
- 2.3.2.5 The sixth Carbon Budget was published by the CCC in December 2020, which set out the level of GHG emissions that the UK can release from 2033 to 2037 (CCC, 2020). It was the first carbon budget to set out the path to the net-zero carbon emissions target.

Table 2.2: The Six UK Carbon Budgets.

Budget	Carbon Budget Level (MtCO ₂ e)	Reduction Below 1990 Levels
1st Carbon Budget (2008 to 2012)	3,018	25%
2nd Carbon Budget (2013 to 2017)	2,782	31%
3rd Carbon Budget (2018 to 2022)	2,544	37% by 2020
4th Carbon Budget (2023 to 2027)	1,950	51% by 2025
5th Carbon Budget (2028 to 2032)	1,725	57% by 2030
6th Carbon Budget (2033 to 2037)	965	78% by 2035

2.3.3 National Policy Statement (NPS)

2.3.3.1 The Planning Act 2008 makes provision for NPSs ([Section 2.3.1](#)). NPSs are designed to set the policy framework for determination of NSIP applications. They integrate the UK Government's objectives for infrastructure capacity and development with its wider economic, environmental and social policy objectives, including climate change goals and targets, in order to deliver sustainable development.

2.3.3.2 NPSs are produced by the UK Government and set out national policy against which proposals for major infrastructure projects will be assessed. Planning decisions will be taken within the clear policy framework set out in the NPSs; thus the decision-making process is transparent. The ExA will have regard to NPSs in its examination of applications for development consent, and the relevant SoS must also have regard to them when making decisions. NPSs include the UK Government's objectives for the development of nationally significant infrastructure in a particular sector and state, 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.

2.3.3.3 Twelve NPSs have been published to date, relating to different types of infrastructure projects. There are six energy NPSs produced by the former Department of Energy and Climate Change (DECC), three of which are relevant to the Hornsea Four project ([Table 2.3](#)), specifically:

- The Overarching NPS for Energy (NPS EN-1) (DECC, 2011a);
- The NPS for Renewable Energy Infrastructure (NPS EN-3) (DECC, 2011b), which covers nationally significant renewable energy infrastructure (including offshore generating stations in excess of 100 MW); and
- The NPS for Electricity Networks Infrastructure (NPS EN-5) (DECC, 2011c), which covers the electrical infrastructure associated with an NSIP.

2.3.3.4 The position on the general need for offshore wind is addressed further in [Volume H2, Chapter 7: Statement of Need](#) and [Volume F1, Chapter 1: Planning Statement](#), which explores the relevant NPS policy in more detail and provides an update on progress towards targets since the NPS were published. Additionally, specific NPS policies relevant to each environmental topic are set out in each relevant ES chapter with information on how each item has been addressed and are not duplicated in [Table 2.3](#).

2.3.3.5 In addition, the UK Marine Policy Statement (MPS) (HM Government, 2011) (adopted by all UK devolved administrations in March 2011) provides the policy framework for the

preparation of marine plans and establishes how decisions affecting the marine area should be made in order to enable sustainable development.

2.3.3.6 The MPS makes a number of statements in relation to offshore wind, including:

- *"The UK is currently the leading country for offshore wind deployment and the potential sites identified for offshore renewables (including offshore wind, wave and tidal) show the huge exploitable renewable energy resource in UK waters which would keep the UK as a global leader in renewable energy production from these technologies. Increasing the generation of energy from low carbon sources will mitigate against climate change, lessen the UK's dependence on fossil fuels and improve energy security by increasing the diversity of electricity supply." (Paragraph 3.3.16); and*
- *"The UK has some of the best wind resources in the world and [that] 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. Harnessing and connecting offshore wind is currently more technologically challenging and more expensive than harnessing and connecting onshore wind. However, offshore wind has a larger potential, due to a stronger and more consistent wind source at sea leading to higher power outputs. As the most mature of the offshore renewable energy technologies, it 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. Expansion of the offshore wind supply is likely to require significant investment in new high-value manufacturing capability with potential to regenerate local and national economies and provide employment" (Paragraph 3.3.19).*

Table 2.3: Relevant National Policy Statements to the Hornsea Four project.

National Policy Statement	National Policy Statement
<p>Overarching National Policy Statement for Energy (EN-1)</p>	<p>Paragraph 3.7.1 of EN-1: much of the new electricity infrastructure that is needed will be located in places where there is no existing network infrastructure. It acknowledges that this is likely to be the case for many wind farms, or where there may be technical reasons why existing network infrastructure is not suitable for connecting the new generation infrastructure.</p>
	<p>Paragraph 3.7.10 of EN-1: in the light of the urgent need for new electricity transmission and distribution infrastructure, the Infrastructure Planning Commission (now the SoS) should consider that the need for any given proposed new connection has been demonstrated to represent an efficient and economical means of connecting new generation to the transmission or distribution network.</p>
<p>National Policy Statement for Renewable Energy Infrastructure (EN-3)</p>	<p>Paragraph 2.6.15 of EN-3: recognises the need for 25 GW of new offshore wind-derived generating capacity in the UK Renewable Energy Zone (REZ) and the territorial waters of England and Wales. It also refers to the Offshore Energy Strategic Environmental Assessment (SEA) which concluded that there are no overriding environmental considerations preventing the plans for 33 GW of offshore wind capacity, if mitigation measures are implemented.</p>
	<p>Paragraph 2.6.9 of EN-3. It also calls for flexibility in the application process for offshore wind NSIPs to allow for situations where full details of the project specification may be unknown at the time of submission (paragraph 2.6.43). EN-3 also highlights the use of the 'Rochdale Envelope' method in such circumstances, which allows for the maximum adverse case scenario (i.e. the worst case) to be assessed in the (ES) and a DCO granted on this basis (paragraph 2.6.43).</p>
	<p>Paragraph 2.6.44 explains the need for flexibility with regards to necessary micro-siting of elements of the proposed wind farm during its construction where requested at the application stage. This allows for unforeseen events such as the discovery of previously unknown marine archaeology that it would be preferable to leave in situ.</p>
	<p>NPS EN-3 identifies certain environmental topic-specific policy considerations. Where appropriate, these are outlined within the relevant ES chapters.</p>
<p>National Policy Statement for Electricity Networks Infrastructure (EN-5)</p>	<p>Paragraph 1.8.2 EN-5 explains that subsea cables and underground cables, as well as associated infrastructure may be subject to the Planning Act 2008. In England this infrastructure can constitute associated development for which consent is sought through a DCO along with the main NSIP infrastructure, such as a generating station.</p>
	<p>Paragraph 2.2.1 of EN-5 explains that, with regard to factors which influence site/route selection: The choices which energy companies make in selecting sites reflect their assessment of risk that following the principles in 4.1.1 of EN-1, consent may not be granted in any given case.</p>

2.3.4 National Planning Policy Framework

- 2.3.4.1 The National Planning Policy Framework (NPPF) was originally implemented in 2012 with the intent of making the planning system less complex and more accessible (Ministry of Housing, Communities and Local Government, 2019). The NPPF replaces the suite of Planning Policy Guidance Notes (PPGN) and Planning Policy Statements (PPS) which formerly provided national planning guidance to local planning authorities. A revised NPPF was published in February 2019 and updated in July 2021, setting out the UK Government’s planning policies for England and how these are expected to be applied.
- 2.3.4.2 The NPPF does not contain specific policies for NSIPs (for which particular considerations apply, determined in accordance with the decision-making framework set out in the Planning Act 2008 and relevant NPSs) but may be considered as a relevant matter.
- 2.3.4.3 The NPPF outlines a few core principles that cover protection and conservation of the natural and built environment, and the promotion of sustainable growth and development.
- 2.3.4.4 Principles relevant to the proposed Hornsea Four project are listed in [Table 2.4](#).

Table 2.4: National Planning Policy Framework Principles relevant to Hornsea Four.

Principle	NPPF Advice (with attendant paragraph number)
Promoting Sustainable Transport	Transport Statements and/or Transport Assessments should be used to support proposals for developments that will generate significant vehicle movements (paragraph 113).
Making Effective Use of Land	Planning decisions and policies should promote effective use of land while safeguarding and improving the environment. Such relevant policy includes taking opportunities to achieve net gains (i.e. improve public access to the countryside, or development that enable new habitat creations) (paragraph 119/120).
Achieving Well-Designed Places	Planning decisions should aim to ensure that developments: function well; are visually attractive as a result of good architecture, layout and appropriate and effective landscaping; and, are sympathetic to local character and history, while not preventing innovation or change (paragraph 130). Volume A4, Annex 4.6: Design Vision Statement sets out how the proposed onshore infrastructure integrates locally inspired design principles seeking to not only to integrate infrastructure into the landscape but also encourage ecological and amenity benefits.
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. Additionally, development should be directed away from areas of highest flood risk (present or future) (paragraph 152/159).
Conserving and Enhancing the Natural Environment	The planning system should contribute to and enhance the natural and local environment by protecting and enhancing valued landscapes, sites of biodiversity or

Principle	NPPF Advice (with attendant paragraph number)
	geological value and soils; recognising the intrinsic character and beauty of the countryside; and, minimising impacts on and providing net gains for biodiversity (paragraph 174).
Conserving and Enhancing the Historic Environment	In determining applications, local planning authorities should require an applicant to describe the significance of any heritage assets affected, including any contribution made by their setting. 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. Any harm to, or loss of, the significance of a designated heritage asset (from its alteration or destruction, or from development within its setting), should require clear and convincing justification (paragraph 194/199/200).

2.3.5 National Infrastructure Advice Notes

2.3.5.1 The EIA process has taken account of guidance provided by the Planning Inspectorate in the form of the non-statutory National Infrastructure Advice Notes. These notes are published to provide advice and information on a range of issues arising throughout the whole life of the application process. These have been acknowledged and considered by the Hornsea Four project.

2.4 UK and English Policy and Legislative Context

2.4.1.1 For information regarding planning legislation in the UK please see [Section 2.3](#).

2.4.1.2 The Renewable Energy Directive and associated targets (EN-1 and EN-3) have primarily been transposed into UK law through The Promotion of the Use of Energy from Renewable Sources Regulations 2011.

2.4.1.3 There are a number of overarching UK environmental targets/goals, which set the national framework for tackling climate change and renewable energy production. The most relevant of these is the legally binding target (implemented through the Climate Change Act 2008 and the 2019 Amendment) to reduce carbon and GHG by 100% by 2050, compared to a 1990 baseline ([Section 2.3.2](#)).

2.4.1.4 In 2011 the UK Government set a target to produce 15% of UK energy from renewable sources by 2020 (Department for Energy and Climate Change (DECC)¹, 2011f). This includes a sub-target of 30% of electricity from renewable sources. For offshore wind, the UK is world leading with approximately 10.4 GW operational at the time of writing (August 2021). In December 2019 the government set out a UK wide target for installed offshore wind of 40 GW by 2030.

2.4.1.5 The Overarching National Policy Statement for Energy (EN-1) suggests that technologies such as electricity storage could be used to compensate for intermittency of renewable

¹ DECC became part of Department for Business, Energy & Industrial Strategy (DBEIS) in 2016

generation. Therefore, this technology can decouple energy production from supply and can provide a contribution to meeting peak demand. [Section 2.6](#) discusses energy balancing further, in relation to the infrastructure proposed as part of Hornsea Four.

2.4.1.6 [Table 2.5](#) covers all of the relevant UK Marine Legislation, Climate Change and Renewable Energy Policies and UK Environmental and Conservation Legislation.

Table 2.5: UK Legislation.

UK Legislation	Summary
UK Marine Legislation	
Marine and Coastal Access Act 2009	<ul style="list-style-type: none"> • The Marine and Coastal Access Act (MCAA) 2009 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. • 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. • The MCAA included Section 149A to the Planning Act 2008 enabling a DCO applicant to apply for a DML as part of the DCO process. • The Act includes 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. • Through the MCAA, the UK Government introduced a marine planning system. The MPS adopted by all UK administrations in March 2011 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. • The East Inshore and Offshore Marine Plans encompass the Hornsea Four offshore project area. The Energy Policy ‘WIND2’ states “Proposals for Offshore Wind Farms inside Round 3 zones, including relevant supporting projects and infrastructure, should be supported” (HM Government, 2014).
UK Climate Change and Renewable Energy Policy	
The Climate Change Act (2008) and the 2050 Target Amendment Order (2019)	<ul style="list-style-type: none"> • The Climate Change Act sets the framework for the UK to transition to a low-carbon economy and exceeds the targets set out in the EU Renewables Directives. The initial target was to reduce GHG emissions by at least 80% of the 1990 levels by 2050. The 2050 Target Amendment Order commits the UK to going much further, reducing GHG emissions by 100% by 2050. • The Climate Change Act requires the government to set legally-binding ‘carbon budgets’ in order to reach the 2050 target. The UK’s fifth carbon budget was approved by the UK Government in July 2016. This provides a commitment to reducing emissions by 57% by 2030 and to work towards achieving the 2050 target, as detailed in the Climate Change Act (2008).

UK Legislation	Summary
	<ul style="list-style-type: none"> • In its Clean Growth Strategy, the Department for Business Energy Industrial Strategy (DBEIS) outlined the UK Government’s plans for investment in low carbon innovations, energy transmission and smart systems in order to supply the UK with secure, affordable clean power (DBEIS, 2017a). • The Clean Growth Strategy provides a strong commitment from the UK Government to achieving the UK’s climate change targets as detailed in the Climate Change Act (2008). Such pathways to promote renewable technologies for offshore wind include the following: <ul style="list-style-type: none"> ◦ Committed to fund £557million of Contracts for difference (CfD) support with an auction that took place in summer 2019; and ◦ Innovative fund of £177 million to further reduce the cost of renewables, focussed on improved offshore turbine blade technology and foundations. • The DBEIS issued the results of the CfD allocation round (AR3) (which commenced 1 May 2019) for less established technologies (such as offshore wind) on 11 October 2019. Another allocation round is expected to be held in 2021 and auctions expected every two years thereafter. The DBEIS is set to allocate 6 GW of capacity through 2023-2024 and 2024-2025. A consultation on proposed changes to the CfD scheme was published in May 2020 (DBEIS, 2020a) with key driving themes being ‘delivering net zero’ and ‘advancing the low carbon economy’ amongst others. • The above shows the UK Government’s ongoing support for offshore wind development. Furthermore, the Clean Growth strategy also commits to a Sector Deal for offshore wind aimed at encouraging the development and deployment of a further 10 GW of offshore wind development in UK waters in the 2020’s (DBEIS, 2017a) along with the Government’s commitment to installing 40 GW of offshore wind around the UK by 2030.
Energy Act (2004)	<ul style="list-style-type: none"> • The Energy Act 2004 includes provisions for the decommissioning of offshore installations (including offshore wind). Chapter 3 of the Act details these provisions which includes the requirement to prepare a decommissioning programme, the approval process of said programme, what happens in the event of failure to submit or rejection of a decommissioning programme, the review and revision process, how to carry out a decommissioning programme and the regulations concerning decommissioning programmes.
The UK Energy Act (2013)	<ul style="list-style-type: none"> • The Electricity Market Reform policy and Energy Act 2013 introduced the CfD auction framework with the aim of providing long term revenue stabilisation for new low carbon energy initiatives, replacing the previous Renewable Obligation system. The auction framework drives developers to deliver competitive projects at a low level Energy Cost (LEC), thereby reducing the subsidy required with the aim of ultimately lowering the cost to the consumer. • The Committee on Climate Change (CCC) has advised the UK Government that offshore wind should be limited to 13 GW by 2020, unless there is evidence of cost reduction (DECC, 2016). It should be noted that very large cost reductions have resulted

UK Legislation	Summary
	<p>as the offshore wind industry has matured as evidenced by the CfD process whereby the cost of offshore wind in the 2019 (third CfD) round dropped to approximately 30% lower than the second auction held in 2017, which in turn was approximately 50% lower than the original CfD auction round in 2015.</p>
<p>UK Environmental and Conservation Legislation</p>	
<p>The Conservation of Habitats and Species Regulations 2017 and Conservation of Offshore Marine Habitats and Species Regulations 2017</p>	<ul style="list-style-type: none"> • In England and Wales, the Habitats Directive and elements of the EU Wild Birds Directive (see Table 2.1) are implemented under (i) the Conservation of Habitats and Species Regulations 2017 (the 'Habitats Regulations') onshore and up to 12 nm offshore and (ii) the Conservation of Offshore Marine Habitats and Species Regulations 2017 between 12 and 200 nm offshore. • The Habitats Regulations require the assessment of any significant effects on qualifying features of internationally important nature conservation sites (Natura 2000 sites) that are likely to arise as a result of a proposed project. These internationally important sites include SACs, or candidate SACs (cSACs), SPAs or potential SPAs (pSPAs), Sites of Community Importance (SCIs) and Ramsar sites. These are often referred to as European Conservation Sites. This assessment is to be undertaken by the 'competent authority', which in the case of Hornsea Four is the SoS for BEIS. • Both the Habitats Regulations and the Offshore Marine Regulations state it is an offence to kill, injure, capture or disturb a European Protected Species (EPS). Where appropriate, licences can be obtained to allow persons to carry out activities that would otherwise be prohibited, without committing an offence. In England, licences for actions which may affect marine EPS are issued by the MMO beyond 12 nm and for action up to 12 nm licences can be obtained from Natural England. • In January 2020 the government released an updated version of the Environment Bill 2019-2021 in response to recommendations from the CCC (CCC 2019a, CCC 2019b). The Bill outlines proposals to strengthen the UK's standards of environmental protection post-Brexit with the establishment of a new public body – the Office for Environmental Protection which will also hold government and other public bodies to account on their environmental obligations, including on climate change. • Further details on the HRA process and assessment can be found in Volume B2, Chapter 2: Report to Inform Appropriate Assessment.
<p>Wildlife and Countryside Act 1981</p>	<ul style="list-style-type: none"> • The Wildlife and Countryside Act enables the designation of SSSIs to provide statutory protection of the best examples of flora, fauna, geological and physio-geological features. SSSI legislation applies to areas of the terrestrial and intertidal environment only and does not extend offshore. Improved provisions for the protection and management of SSSIs were also introduced by the Countryside and Rights of Way Act 2000. SSSIs are often designated for very specific areas, and the presence of several SSSIs in one region has, in many cases, formed the basis of SPA and SAC boundary classification. Natural England has overall responsibility for the management of the SSSI network in England.

UK Legislation	Summary
	<ul style="list-style-type: none"> The Wildlife and Countryside Act also enables Statutory Nature Conservation Bodies to declare sites which are considered to be of national importance as National Nature Reserves (NNRs). NNRs also provide additional statutory protection to the finest SSSIs in England and Wales. Natural England is the body responsible for the designation of NNRs in England under the legislation as described for SSSIs. All NNRs must be within a designated SSSI. Natural England manages the majority of English NNRs, with the remaining sites managed by other approved organisations such as the National Trust, the Forestry Commission, the Royal Society for the Protection of Birds (RSPB), local Wildlife Trusts, and Local Authorities. The Wildlife and Countryside Act defines a series of offences which are intended to provide protection to wild birds, including their eggs and nests, certain animal and plant species, and to prohibit the intentional introduction and spread of invasive non-native species.
Countryside and Rights of Way Act 2000	<ul style="list-style-type: none"> Under the Countryside and Rights of Way Act 2000, Natural England has the power to designate AONBs in England for areas that are outside national parks and that are considered to have significant landscape value. The Act amends the law relating to PRow including making provision for public access on foot to certain types of land. Amendments are made in relation to SSSIs to improve their management and protection, as well as to the Wildlife and Countryside Act 1981, to strengthen the legal protection for threatened species. Provision is also made for AONBs to improve their management.
The Protection of Badgers Act 1992	<ul style="list-style-type: none"> This Act makes it an offence to wilfully kill, injure or take, or attempt to kill, injure or take a badger; and to cruelly ill-treat a badger. The Act also makes it an offence to intentionally or recklessly damage, destroy or obstruct a badger sett, or to disturb a badger whilst in a set. A licence may be granted for the purpose of development which will interfere with a badger sett within an area specified in the licence.
Natural Environment and Rural Communities Act 2006 (NERC)	<ul style="list-style-type: none"> Section 41 of the Act requires the relevant SoS to compile a list of habitats and species of principal importance for the conservation of biodiversity in England. Decision makers of public bodies, in the execution of their duties, must have regard for the conservation of biodiversity in England, and the list is intended to guide them.
The Hedgerow Regulations 1997	<ul style="list-style-type: none"> These Regulations make it an offence to remove or destroy certain hedgerows without permission from the local planning authority, and the local planning authority is the enforcement body for such offences.
The Commons Act 2006	<ul style="list-style-type: none"> The Act aims to protect areas of common land, in a sustainable manner delivering benefits for farming, public access and biodiversity.

2.5 Regional and Local Context

2.5.1.1 Local authorities are required to prepare and maintain up to date Local Development Plans which set out their objectives for the use and land development within their jurisdiction, and general policies for implementation.

2.5.1.2 Prior to the Planning and Compulsory Purchase Act 2004, local planning policy was set out in a single document, the Local Plan. Local plans are now being replaced by Local Development Frameworks (LDFs) which comprise a suite of Development Plan Documents (DPD) including a Core Strategy DPD, Site Allocation DPD, Area Action Plans and a Proposals Map. For the majority of local planning authorities these documents are still in development but where drafts are available, these have been considered by the Applicant.

2.5.1.3 The onshore development area falls under the jurisdiction of East Riding of Yorkshire Council (ERYC). The local plans for ERYC have been considered in this ES. A number of neighbouring local authorities have been consulted since the Statement of Community Consultation (SoCC) and their comments have been considered and incorporated within this ES, these include:

- Hull City Council;
- Scarborough Borough Council;
- Ryedale District Council;
- North Yorkshire County;
- York City County;
- Selby District Council;
- Doncaster Metropolitan Brough Council; and
- North Lincolnshire Council.

2.5.1.4 Relevant Development Plans have been considered during the onshore site selection for Hornsea Four.

2.5.2 East Riding of Yorkshire Development Plan

2.5.2.1 The onshore elements of Hornsea Four lie within the administrative boundary of East Riding of Yorkshire Council. The Development Plan for East Riding of Yorkshire comprises:

- The Strategy document (adopted April 2016);
- The Allocations document (adopted July 2016); and
- Bridlington Town Centre Area Action Plan (adopted January 2013).

2.5.2.2 The Strategy document provides the overall strategic vision and objectives for the Local Plan, providing strategic policies to guide decisions up to 2029.

- 2.5.2.3 Policy S2 Addressing Climate Change states that the Local Plan and development decisions will support a reduction in GHG emissions and adaptation to the expected impacts of climate change.
- 2.5.2.4 Policy EC5 Supporting the Energy Sector will be considered in Local Impact Reports for nationally significant infrastructure projects. Policy EC5 states that proposals involving wind energy development will be determined in accordance with national planning policy and practice guidance.
- 2.5.2.5 The East Riding Local Plan Vision states that “The opportunities presented by the renewable and low carbon energy sector will have been embraced and maximised, creating employment opportunities, helping to reduce carbon emissions and increasing fuel security”.

2.5.3 Regional Marine Plans

2.5.3.1 The MCAA (2009) introduced a system of marine planning in England with the MPS as the framework ([Paragraph 2.3.3.4](#)). The MMO has developed the regional marine plans that form the system in English waters. Hornsea Four will be located in the following marine plan areas (see

2.5.3.2 [Figure 2.1](#)):

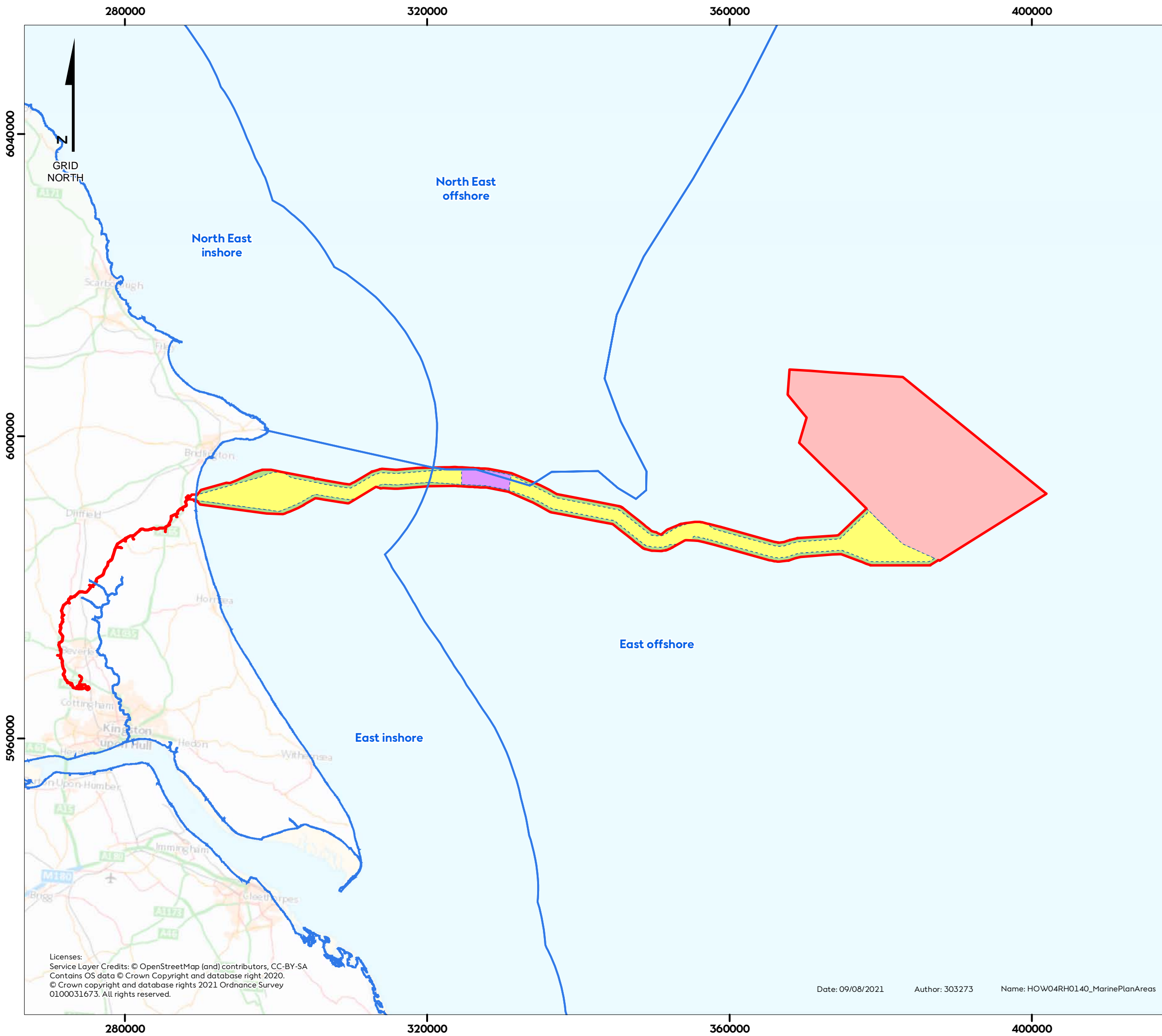
- East Offshore (Adopted): The whole of the array area, a large proportion of the offshore ECC, and a large part of the area identified for the HVAC booster station;
- East Inshore (Adopted): part of the offshore ECC area; and
- North East Offshore (Adopted): A very small proportion of the offshore ECC and HVAC booster station area.

2.5.3.3 The East Inshore and Offshore marine plans are published jointly (HM Government, 2014) and include a specific section on ‘Offshore Wind Renewable Energy Infrastructure’. The document notes that significant wind projects (notably those in Round 3) will be located in the plan areas due to the *“availability of wind resource and suitable water depth in the East Offshore Marine Plan Area.”*

2.5.3.4 Two specific wind related policies are set out, with the first (WIND 1) identifying that projects should not be authorised that are in or could affect sites held under a lease or an agreement for lease that has been granted by The Crown Estate for development of an offshore wind farm, unless certain conditions are met.

2.5.3.5 The second policy (WIND 2) sets out a policy, *“to be applied by public authorities to ensure that the large potential for Offshore Wind Farms in the East marine plan areas and the ambitions of government for renewable energy are realised”*, as set out below:

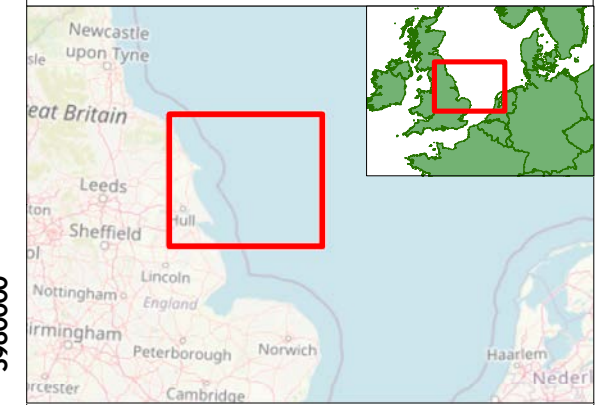
- WIND 2: Proposals for Offshore Wind Farms inside Round 3 zones, including relevant supporting projects and infrastructure, should be supported.



Hornsea Four

Figure 2.1
Offshore Order Limits for
Hornsea Four in the context of
Marine Plan Areas

- Order Limits
- Array Area
- Offshore Export Cable Corridor
- HVAC Booster Station Works Area
- Offshore Temporary Works Area
- Marine Plan Area



Coordinate system: ETRS 1989 UTM Zone 31N
Scale@A3: 1:485,000

0 5 10 15 20 25 Kilometres

0 5 10 15 Miles

REV	REMARK	DATE
	First Issue for DCO	09/08/2021

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2.6 Energy Balancing Infrastructure

2.6.1.1 Hornsea Four will include Energy Balancing Infrastructure (EBI) which will be located at the onshore substation. Such EBI infrastructure will help the energy grid to transition to a higher proportion of energy generation from renewable sources, contributing to a smarter and more flexible network. Recognising some of the challenges, The Overarching National Policy Statement for Energy (EN-1) talks about technologies such as electricity storage, that could be used to compensate for potential intermittency of renewable generation. Government recognise that these technologies will play an important role. Further detail is provided in [Volume A4, Annex 2.1 Statement of Need](#).

2.6.1.2 Further, the National Policy Statement for Electricity Networks (EN-5), in the context of the need for new electricity network infrastructure states, *“Lack of sufficiently robust electricity networks can cause, or contribute to, large scale interruptions”* and notes that, *“Existing transmission and distribution networks will have to evolve and adapt in various ways to handle increases in demand...It is important to note that new electricity network infrastructure projects, which will add to the reliability of the national energy supply, provide crucial national benefits, which are shared by all users of the systems.”*

2.6.1.3 A number of documents underpin the need for smarter, more flexible transmission systems able to cope with renewable energy generation, seek to remove barriers to them and plan for their inclusion in the network operation and these are summarised in [Table 2.6](#). There is a clear effort from government, Ofgem and National Grid to pave the way for such EBI.

Table 2.6: Energy Balancing Infrastructure – Relevant Documents.

Document	Summary
Future Energy Scenarios (National Grid, 2017a)	This yearly report by National Grid outlines an increasing pressure on the electrical distribution system and a requirement to increase energy storage systems to act as a solution.
System Needs and Product Strategy – UK Electricity Transmission (National Grid, 2017b)	Sets out National Grid’s system needs over a five year period to cope with the transition to a smart, flexible system able to deal with a move away from large thermal power generation. Includes an associated product strategy to simplify and evolve balancing services to address such needs.
Upgrading Our Energy System - Smart Systems and Flexibility Plan (Ofgem and Department for Business, Energy and Industrial Strategy (BEIS), 2017b)	The Plan set out 29 actions for the Government, Ofgem and Industry to take forward to support the transition to a smarter and more flexible system. The Plan is split into three main areas: removing barriers to smart technologies such as electricity storage; enabling smarter homes and businesses; and making markets work for flexibility. A Progress Update to the Plan (Ofgem and BEIS, 2018) which confirmed that additional consult on the planning treatment of storage would be undertaken in response to issues faced by storage under the current planning system.

Document	Summary
<p>Consultation on Proposals Regarding the Planning System for Electricity Storage (DBEIS, 2019)</p> <p>And</p> <p>The Government response to the follow up October 2019 consultation (DBEIS, 2020b)</p>	<p>This consultation states that energy storage is a key part of the Government’s Clean Growth and Industrial Strategies and will play an important role in helping to reduce emissions to net-zero by 2050. Based on evidence provided in early 2019 in response to an earlier consultation, DBEIS has put forward reforms to help remove barriers to electricity storage. Their preferred policy position is to carve out standalone electricity storage (except pumped hydro) from the NSIP regime in England and Wales (to remove the current 50 MW NSIP limit which is seen as a barrier to deployment of stand-alone storage projects above this size) However, it is noted that if implemented, this would not preclude electricity storage coming forward as part of an associated development to a project which is an NSIP in its own right, such as in Hornsea Four.</p>

2.7 Biodiversity Net Gain

- 2.7.1.1 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. The NPPF makes general provisions for the delivery of BNG to support this ambition. BNG is the result of a process applied to development so that overall, upon completion of the works, there is a net positive outcome for biodiversity.
- 2.7.1.2 Government has acknowledged that BNG has not been delivered effectively through the NPPF, and they have announced that it would extend BNG to NSIPs, and have published the amendments to the Environment Bill (which was initially introduced to the Parliament in October 2019 (see [Section 2.2.1](#))), that will bring this about. Essentially, the amendments insert a new schedule 14A, into the bill, which in turn amends sections 37, 103-105 and 232 of the Planning Act 2008 and inserts Schedule 2A.
- 2.7.1.3 However, NSIPs and marine development remains, at least in the near-term, beyond the scope of any proposed mandatory requirements until the Environment Bill is passed.
- 2.7.1.4 Hornsea Four is committed to reducing any net loss to biodiversity as a result of the development of the OnSS and [Volume F2, Chapter 16: Outline Net Gain Strategy](#) presents the proposed net gain opportunities at the OnSS. The production of an Outline Net Gain Strategy fulfils project commitment Co199 ([Volume A4, Annex 5.2: Commitment Register](#)) which requires a Net Gain Strategy to be developed in accordance with the Outline Net Gain Strategy.
- 2.7.1.5 Calculations on the baseline biodiversity metric are set out within the Outline Net Gain Strategy and agreements with the landowners to implement the proposed BNG opportunities at the OnSS will be sought prior to submission of the final Net Gain Strategy (which is secured by Requirement 6 of the draft DCO) ([Volume C1, Chapter 1 Draft Development Consent Order](#)).

2.8 Enhancement

- 2.8.1.1 A range of enhancement measures which provide positive environmental outcomes for local people and biodiversity have been identified by the Applicant and are set out within **Volume F2, Chapter 14: Outline Enhancement Strategy**. This document is intended to act as a guide and if Hornsea Four is granted development consent, a detailed Enhancement Plan will be prepared and agreed with ERYC prior to construction of the connection works, following the principles established in the outline enhancement strategy document. The provision and approval of the detailed enhancement strategy, along with the implementation of any measures approved is secured by Requirement 22 of the draft DCO (**Volume C1, Chapter 1: Draft Development Consent Order**).

2.9 References

Committee on Climate Change (2018). Independent Assessment of Clean Growth Strategy From Ambition to Action. January 2018.

Committee on Climate Change (2019a). Reducing UK emissions. 2019 Progress Report to Parliament. July 2019.

Committee on Climate Change (2019b). Progress in preparing for climate change. 2019 Report to Parliament. July 2019.

Committee on Climate Change (2020). The Sixth Carbon Budget, The UK's path to Net Zero. December 2020

Department for Business, Energy and Industrial Strategy (2017a) The Clean Growth Strategy Leading the way to a low carbon future. The Stationary Office, London.

Department for Business, Energy and Industrial Strategy (2017b) Upgrading Our Energy System - Smart Systems and Flexibility Plan. The Stationary Office, London.

Department for Business, Energy and Industrial Strategy (2019) Consultation on Proposals Regarding the Planning System for Electricity Storage. Victoria Street, London.

Department for Business, Energy and Industrial Strategy (2020a) Contracts for Difference for Low Carbon Electricity Generation - Consultation on proposed amendments to the scheme, Victoria Street, London.

Department for Business, Energy and Industrial Strategy (2020b) Proposals Regarding the Planning System for Electricity Storage - Government response to October 2019 follow up consultation. Victoria Street, London.

Department of Energy and Climate Change (2011a) Overarching National Policy Statement for Energy (EN-1). Presented to Parliament pursuant to Section 5(9) of the Planning Act 2008. The Stationary Office, London.

Department of Energy and Climate Change (2011b) National Policy Statement for Renewable Energy Infrastructure (EN-3). Presented to Parliament pursuant to Section 5(9) of the Planning Act 2008. The Stationary Office, London.

Department of Energy and Climate Change (2011c) National Policy Statement for Electricity Networks Infrastructure (EN-5). Presented to Parliament pursuant to Section 5(9) of the Planning Act 2008. The Stationary Office, London.

Department for Environment, Food and Rural Affairs (2014) East Inshore and East Offshore Marine Plans. Nobel House, London.

Directive 92/43/EEC of the European Parliament and of the Council of 21 May 1992 on the conservation of natural habitats and of wild fauna and flora OJ L 206, 22.7.1992, p. 7–50.

Directive 2000/60/EC of the European Parliament and of the Council of 23 October 2000 establishing a framework for Community action in the field of water policy OJ L 327, 22.12.2000, p. 1–73.

Directive 2008/56/EC of the European Parliament and of the Council of 17 June 2008 establishing a framework for community action in the field of marine environmental policy (Marine Strategy Framework Directive OJ L 164, 25.6.2008, p. 19–40.

Directive 2009/28/EC of the European Parliament and of the Council of 23 April 2009 on the promotion of the use of energy from renewable sources and amending and subsequently repealing Directives 2001/77/EC and 2003/30/EC OJ L 140, 5.6.2009, p. 16–62.

Directive 2009/147/EC of the European Parliament and of the Council of 30 November 2009 on the conservation of wild birds OJ L 20, 26.1.2010, p. 7–25.

East Riding of Yorkshire Council (2013) Bridlington Town Centre Area Action Plan 2012 – 2021. County Hall, East Riding of Yorkshire.

East Riding of Yorkshire Council (2016) Local Development Scheme 2019-2019. County Hall, East Riding of Yorkshire.

East Riding of Yorkshire Council (2018) Economic Strategy Action Plan (2018-2022). County Hall, East Riding of Yorkshire.

European Council and the European Parliament (2007) Communication from the commission to the European Council and the European Parliament - An Energy Policy for Europe, 2007.

Government Office for the East of England (2008) East of England Plan: The Revision to the Regional Spatial Strategy for the East of England. The Stationary Office, London.

HM Government (2011) UK Marine Policy Statement. London: The Stationery Office.

HM Government (2018) A Green Future: Our 25 Year Plan to Improve the Environment

HM Government (2020) The Future Relationship with the EU. The UK's Approach to Negotiation [CP211]

HM Government (2014) East Inshore and East Offshore Marine Plans, HM Government, London.

IMEA. (2017) Delivering Proportionate EIA, A Collaborative Strategy for Enhancing UK Environmental Impact Assessment Practice.

Ministry of Housing, Communities and Local Government (2019) National Planning Policy Framework. APS Group.

National Grid (2017a) Future Energy Scenarios. National Grid House, Warwick.

National Grid (2017b) System needs and Product strategy. National Grid House, Warwick.

National Infrastructure Commission Design Group (2020) climate people places value – Design Principles for National Infrastructure.

Nõges, Tiina. (2009) Relationships between morphometry, geographic location and water quality parameters of European lakes. *Hydrobiologica*, 633:33–43.

Ofgen and DBEIS, (2018) Upgrading Our Energy System – Smart Systems and Flexibility Plan: Progress Update, London.

OSPAR Commission, (2006) 2005 / 2006 Report on the Status of the OSPAR Network of Marine Protected Areas.

PINS (2016) Advice Note Six (version 7): Preparation and Submission of Application Documents, Bristol.

PINS (2018) Advice Note Twelve: Transboundary Impacts and Process. March 2018. Version 5.

UNFCCC (2016a) Report of the Conference of the Parties on its twenty-first session, held in Paris from 30 November to 13 December 2015 (FCCC/CP/2015/10).

UNFCCC (2016b) Proceedings of the 2016 twenty-second session of the Conference of the Parties (COP 22) and the twelfth session of the Conference of the Parties serving as the meeting of the Parties to the Kyoto Protocol (CMP 12) held in Marrakech, Morocco.

UNFCCC (2017) Proceedings of the 2017 twenty-third session of the Conference of the Parties (COP 23) held in Bonn, Germany.

UNFCCC (2018) Proceedings of the 2018 twenty fourth session of the Conference of the Parties (COP 24) held in Katowice, Poland.

Wind Europe (2019) Wind energy in Europe in 2018. Trends and statistics. Published February 2019. Belgium.