



Sheringham Shoal and Dudgeon Offshore Wind Farm Extension Projects

Planning Statement

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Glossary of Acronyms

BDC	Broadland District Council
ADBA	Archaeological Desk Based Assessment
ALO	Agricultural Liaison Officer
AONB	Area of Outstanding National Beauty
BEIS	Department for Business, Energy and Industrial Strategy
BNG	Biodiversity Net Gain
BRAG	Black, Red, Amber, Green
BS	British Standard
BSI	British Standards Institution
CAA	Civil Aviation Authority
CCC	Climate Change Committee
Cefas	Centre for Environment, Fisheries and Aquaculture Science
CIA	Cumulative Impact Assessment
CRCE	Centre for Radiation, Chemical and Environmental Hazards
CROW	Countryside and Rights of Way Act 2000
CSCB	Cromer Shoal Chalk Beds
CSIMP	Cable Specification, Installation and Monitoring Plan
CSSR	Climate Science Special Report
CTMP	Construction Traffic Management Plan
DCO	Development Consent Order
DECC	Department for Energy and Climate Change
DEFRA	Department for the Environment and Rural Affairs
DEP	Dudgeon Offshore Wind Farm Extension Project
DMRB	Design Manual for Roads and Bridges
DOW	Dudgeon Offshore Wind Farm
EC	European Commission
EEC	European Economic Community
EIA	Environmental Impact Assessment
EIEOMP	East Inshore and East Offshore Marine Plans
EMF	Electro-Magnetic Field
EPP	Evidence Plan Process
EPS	European Protected Species

EPUK	Environmental Protection United Kingdom
EQS	Environmental Quality Standards
ES	Environmental Statement
ETG	Expert Topic Group
EU	European Union
FTE	Full Time Equivalent
GCN	Great Crested Newt
GHG	Green House Gas
GIS	Geographical Information System
GLVIA	Guidelines for Landscape and Visual Impact Assessment
GVA	Gross Added Value
GW	Giga Watt
HDD	Horizontal Directional Drilling
HGV	Heavy Goods Vehicle
HPA	Health Protection Agency's
HRA	Habitats Regulations Assessment
HVAC	High-Voltage Alternating Current
HVDC	High-Voltage Direct Current
IEMA	Institute of Environmental Management and Assessment
IPC	Infrastructure Planning Commission
IROPI	Imperative Reasons of Overriding Public Interest
ISO	International Standards Organisation
JNCC	Joint Nature Conservation Committee
km	Kilometre
LAT	Lowest Astronomical Tide
LEC	Low-level Energy Cost
LNR	Local Nature Reserve
LPA	Local Planning Authority
LVIA	Landscape and Visual Impact Assessment
MCAA	Marine and Coastal Access Act
MCZ	Marine Conservation Zone
MMO	Marine Mammals Organisation
MMP	Marine Management Plan



MOD	Ministry of Defence
MPS	Marine Policy Statement
MW	Megawatts
NATS	National Air Traffic Services
NCC	Norfolk County Council
NH	National Highways
NNDC	North Norfolk District Council
NNR	National Nature Reserve
NorCC	Norwich City Council
NP	National Park
NPPF	National Planning Policy Framework
NPS	National Policy Statement
NRA	Navigational Risk Assessment
NSIP	Nationally Significant Infrastructure Project
OS	Ordnance Survey
OWF	Offshore Wind Farm
PEIR	Preliminary Environmental Information Report
PEMP	Project Environmental Management Plan
PPG	Planning Practice Guidance
PPV	Peak Particle Velocity
PRA	Preliminary Risk Assessment
RBO	Renewable Obligation System
RIAA	Report to Inform Appropriate Assessment
RSPB	Royal Society for the Protection of Birds
RYA	Royal Yachting Association
SAC	Special Area of Conservation
SEP	Sheringham Offshore Wind Farm Extension Project
SMP	Soils Management Plan
SNC	South Norfolk Council
SNS	Southern North Sea
SoS	Secretary of State
SOW	Sheringham Offshore Windfarm
SPA	Special Protected Area



SPZ	Source Protection Zone
SSSI	Site of Special Scientific Interest
SVIA	Seascape and Visual Impact Assessment
TCE	The Crown Estate
TEU	Treaty of the European Union
UK	United Kingdom
UKBAP	UK Biodiversity Action Plan
UN	United Nations
UNFCC	United Nations Framework Convention on Climate Change
UXO	Unexploded Ordnance
WCA	Wildlife and Countryside Act
WFD	Water Framework Directive
WSI	Written Scheme of Investigation
WTG	Wind Turbine Generator



Glossary of Terms

Order Limits	The area subject to the application for development consent, including all permanent and temporary works for SEP and DEP.
Dudgeon Offshore Wind Farm Extension Project (DEP)	The Dudgeon Offshore Wind Farm Extension onshore and offshore sites including all onshore and offshore infrastructure.
DEP offshore site	The Dudgeon Offshore Wind Farm Extension consisting of the DEP wind farm site, interlink cable corridors and offshore export cable corridor (up to mean high water springs).
DEP onshore site	The Dudgeon Offshore Wind Farm Extension onshore area consisting of the DEP onshore substation site, onshore cable corridor, construction compounds, temporary working areas and onshore landfall area.
DEP North array area	The wind farm site area of the DEP offshore site located to the north of the existing Dudgeon Offshore Wind Farm
DEP South array area	The wind farm site area of the DEP offshore site located to the south of the existing Dudgeon Offshore Wind Farm
DEP wind farm site	The offshore area of DEP within which wind turbines, infield cables and offshore substation platform/s will be located and the adjacent Offshore Temporary Works Area. This is also the collective term for the DEP North and South array areas.
European site	Sites designated for nature conservation under the Habitats Directive and Birds Directive. This includes candidate Special Areas of Conservation, Sites of Community Importance, Special Areas of Conservation and Special Protection Areas, and is defined in regulation 8 of the Conservation of Habitats and Species Regulations 2017.
Evidence Plan Process (EPP)	A voluntary consultation process with specialist stakeholders to agree the approach, and information to support, the EIA and HRA for certain topics.
Expert Topic Group (ETG)	A forum for targeted engagement with regulators and interested stakeholders through the EPP.
Grid option	Mechanism by which SEP and DEP will connect to the existing electricity network. This may either be an integrated grid option providing transmission

	infrastructure which serves both of the wind farms, or a separated grid option, which allows SEP and DEP to transmit electricity entirely separately.
Horizontal directional drilling (HDD) zones	The areas within the onshore cable route which would house HDD entry or exit points.
Infield cables	Cables which link the wind turbine generators to the offshore substation platform(s).
Interlink cables	<p>Cables linking two separate project areas. This can be cables linking:</p> <ol style="list-style-type: none"> 1) DEP South array area and DEP North array area 2) DEP South array area and SEP 3) DEP North array area and SEP <p>1 is relevant if DEP is constructed in isolation or first in a phased development.</p> <p>2 and 3 are relevant where both SEP and DEP are built.</p>
Interlink cable corridor	This is the area which will contain the interlink cables between offshore substation platform/s and the adjacent Offshore Temporary Works Area.
Integrated Grid Option	Transmission infrastructure which serves both extension projects.
Jointing bays	Underground structures constructed at regular intervals along the onshore cable route to join sections of cable and facilitate installation of the cables into the buried ducts.
Landfall	The point at the coastline at which the offshore export cables are brought onshore, connecting to the onshore cables at the transition joint bay above mean high water
Offshore cable corridors	This is the area which will contain the offshore export cables or interlink cables, including the adjacent Offshore Temporary Works Area.
Offshore export cable corridor	This is the area which will contain the offshore export cables between offshore substation platform/s and landfall, including the adjacent Offshore Temporary Works Area.
Offshore export cables	The cables which would bring electricity from the offshore substation platform(s) to the landfall. 220 – 230kV.



Offshore scoping area	An area presented at Scoping stage that encompassed all planned offshore infrastructure, including landfall options at both Weybourne and Bacton, allowing sufficient room for receptor identification and environmental surveys. This has been refined following further site selection and consultation for the PEIR and ES.
Offshore substation platform (OSP)	A fixed structure located within the wind farm site/s, containing electrical equipment to aggregate the power from the wind turbine generators and convert it into a more suitable form for export to shore.
Offshore Temporary Works Area	An Offshore Temporary Works Area within the offshore Order Limits in which vessels are permitted to carry out activities during construction, operation and decommissioning encompassing a 200m buffer around the wind farm sites and a 750m buffer around the offshore cable corridors. No permanent infrastructure would be installed within the Offshore Temporary Works Area.
Onshore cable corridor	The area between the landfall and the onshore substation sites, within which the onshore cable circuits will be installed along with other temporary works for construction.
Onshore export cables	The cables which would bring electricity from the landfall to the onshore substation. 220 – 230kV.
Onshore Substation	Compound containing electrical equipment to enable connection to the National Grid.
PEIR boundary	The area subject to survey and preliminary impact assessment to inform the PEIR.
Separated Grid Option	Transmission infrastructure which allows each project to transmit electricity entirely separately.
Sheringham Shoal Offshore Wind Farm Extension Project (SEP)	The Sheringham Shoal Offshore Wind Farm Extension onshore and offshore sites including all onshore and offshore infrastructure.
SEP offshore site	Sheringham Shoal Offshore Wind Farm Extension consisting of the SEP wind farm site and offshore export cable corridor (up to mean high water springs).
SEP onshore site	The Sheringham Shoal Wind Farm Extension onshore area consisting of the SEP onshore substation site, onshore cable corridor, construction compounds, temporary working areas and onshore landfall area.



SEP wind farm site	The offshore area of SEP within which wind turbines, infield cables and offshore substation platform/s will be located and the adjacent Offshore Temporary Works Area.
Study area	Area where potential impacts from the project could occur, as defined for each individual Environmental Impact Assessment (EIA) topic.
The Applicant	Equinor New Energy Limited



PLANNING STATEMENT

1 Introduction

1. Equinor New Energy Limited (the Applicant) is currently developing the proposed Sheringham Shoal Offshore Wind Farm Extension Project (hereafter SEP) and Dudgeon Offshore Wind Farm Extension Project (hereafter DEP).
2. This Planning Statement has been produced on behalf of the Applicant and is submitted as part of the Development Consent Order (DCO) Application for both SEP and DEP. It is submitted 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). This is one of a series of documents which accompany the application in order to assist the Secretary of State to determine the application.
3. The APFP Regulations do not require a Planning Statement to support applications for Development Consent; however, in order to assist the Secretary of State to determine the application, it is considered helpful to bring all the principal matters together into one statement in order to consider them in the context of relevant policy
4. The Planning Statement is structured as follows:
 - **Section 1:** This section provides an overview of SEP and DEP, background and context for development, and consenting strategy for the Project.
 - **Section 2:** This section provides details of the overarching vision and objectives of SEP and DEP.
 - **Section 3:** This section summarises the project description, as set out in the Environmental Statement (ES) **Chapter 4 Project Description** (document reference 6.1.4), detailing the main onshore and offshore project components necessary to SEP and DEP.
 - **Section 4:** This section outlines the need for SEP and DEP, in relation to the need to reduce greenhouse gas emissions, increase energy security, maximise economic opportunities and produce affordable energy. The section also outlines the Project's contribution to meeting climate change targets.
 - **Section 5:** This section confirms the legislation and policy context for SEP and DEP, which is considered to be relevant to the determination of the application, as set out in ES **Chapter 2 Policy and Legislative Context** (document reference 6.1.2).
 - **Section 6:** Outlines how SEP and DEP accords with National Policy Statements.
 - **Section 7:** This section provides an overview of the mitigation for SEP and DEP.
 - **Section 8:** Brings together considerations and provides overall conclusions.
5. The Planning Statement should be read in conjunction with the following documents which accompany the DCO application:
 - **Guide to the Application** (document reference 1.3);

- **ES Chapter 2 Policy and Legislative Context** (document reference 6.1.2);
- **ES Chapter 4 Project Description** (document reference 6.1.4);
- **Design and Access Statement (Onshore)** (document reference 9.3);
- **Design Statement (Offshore)** (document reference 9.26);
- **Project Vision** (document reference 9.27); and
- **Scenarios Statement** (document reference 9.28).

1.1 Background and Context for Development

6. The existing Sheringham Shoal and Dudgeon Offshore Wind Farms are owned by different partners, with the Applicant being the only partner with ownership in both projects. In 2018, The Crown Estate (TCE) invited developers to bid for extensions to operational offshore wind farms.
7. The Applicant applied, on behalf of the partners in the operational Dudgeon and Sheringham Shoal Offshore Wind Farms, for an Agreement for Lease (AfL) for the extension of these two wind farms. An acceptance letter from TCE was received in September 2019 and AfLs were signed in April 2020 for DEP and August 2020 for SEP.
8. The Sheringham Shoal and Dudgeon Offshore Wind Farm Extension Project will double generation capacity by 2030 to make a meaningful contribution to UK and global decarbonisation and renewable energy goals. To build on Equinor’s record of investment in Norfolk the Project will be a Pathfinder in coordinated offshore development, the design of which will enhance the environment and create lasting value for local people and communities in Norfolk.

2 Project Vision and Objectives

9. The **Project Vision** (document reference 9.27) sets out the overall strategy toward developing SEP and DEP, with the ambition to deliver both projects with an integrated transmission system at the core of the strategy. The Project Vision sets out the Project Objectives and Design Objectives which are fundamental to the overall framework within which the Applicant has sought to develop the projects.
10. It is the project vision that:

“The Sheringham Shoal and Dudgeon Offshore Wind Farm Extension Project will double the generation capacity of the existing assets by 2030, making a meaningful contribution to the UK’s offshore wind and decarbonisation targets.

As a result of our long-term presence in Norfolk, Equinor has identified the need to take a coordinated approach to the development of the two projects, to minimise impacts on local communities and to maximise benefits for the area. As a result of this coordinated planning, the Project has proposed utilising a shared transmission asset through Norfolk, and has been selected as a Pathfinder project in coordinated offshore transmission development under the UK Government’s Offshore Transmission Network Review. The design of the shared transmission asset will enhance the environment and create lasting value for local people and communities in Norfolk”.



11. **Section 4** below sets out the need case for SEP and DEP. It describes the key benefits of the project as:
 - Climate benefits – delivering renewable energy in response to climate change;
 - Employment, skills and investment value benefits; and
 - Environmental, biodiversity and place benefits.
12. The coordinated approach to developing SEP and DEP has resulted in additional benefits; a single planning process and DCO application is intended to provide consistency in the approach to the assessment, consultation and examination, as well as increased transparency for a potential compulsory acquisition process and a lower overall burden on all stakeholders engaging in the process, compared to two parallel applications.
13. Further detail is provided in the **Project Vision** (document reference 9.27) and the **Scenarios Statement** (document reference 9.28).

Table 2-1 Project Objectives

ID	Objective	Basis for the Objective
1	<p>Decarbonisation: To generate low carbon electricity from an offshore wind farm by 2030 in support of the UK target to generate 50 GW of offshore wind power by 2030 and associated carbon reduction targets</p>	<p>The UK Government has committed to reducing its greenhouse gas emissions by at least 100% of 1990 levels (net zero) by 2050. This commitment is made through the Climate Change Act 2008 (2050 Target Amendment) Order 2019 which was brought into force in June 2019 in response to recommendations by the UK independent Climate Change Committee (CCC, 2019a). The CCC states that 75 GW of offshore wind could be required to reach net zero by 2050 (CCC, 2019b). Legislation has committed the UK to achieving Net Zero emissions by 2050.</p> <p>Part 3 of NPS EN-1 (DECC 2011) states (3.3.15) <i>“In order to secure energy supplies that enable us to meet our obligations for 2050, there is an urgent need for new (and particularly low carbon) energy NSIPs to be brought forward as soon as possible, and certainly in the next 10 to 15 years, given the crucial role of electricity as the UK decarbonises its energy sector”</i>.</p> <p>The British Energy Security Strategy (HM Government, 2022) commits the UK to an ambition to deliver “50 GW by 2030”. Paragraph 3.3.21 of draft NPS EN-1 (BEIS, 2021b) already committed the UK to “an ambitious target to have 40 GW of offshore wind capacity (including 1 GW floating wind) by 2030” as a key component in delivering energy security and net zero by 2050. This is likely to be amended in the final NPS to align with the British Energy Security Strategy (HM Government, 2022).</p> <p>SEP and DEP will contribute to meeting UK Government objectives of delivering sustainable development to enable decarbonisation.</p>
2.	<p>Security of supply: To export electricity to the UK National Grid to support UK commitments for offshore wind generation and security of supply</p>	<p>Part 2 of NPS EN-1 notes that <i>“it is critical that the UK continues to have secure and reliable supplies of electricity as we make the transition to a low carbon economy”</i> and acknowledges the need for a diverse mix of technologies to ensure security of supply.</p> <p>This is reiterated in Part 2 of the draft NPS EN-1 which states <i>“Given the vital role of energy to economic prosperity and social well-being, it is important that our supply of energy remains secure, reliable and affordable.”</i></p>



		<p>This is reinforced by the British Energy Security Strategy (HM Government, 2022), one of whose key purposes is to improve security from diverse sources of energy, with offshore wind playing a leading role.</p> <p>Paragraph 3.4.3 of NPS EN-1 states “<i>offshore wind is expected to provide the largest single contribution towards the 2020 renewable energy generation targets</i>”.</p>
<p>3.</p>	<p>Optimisation: To coordinate and optimise generation and export capacity within the constraints of available sites and onshore transmission infrastructure whilst delivering project skills, employment and investment benefits in the Norfolk area.</p>	<p>The 2017 Extension projects, which include SEP and DEP, were identified by TCE to provide an intermediate process between Rounds 3 and 4 to help achieve the urgent need for renewable energy and recognising that extensions to existing offshore wind farms are a proven way of efficiently developing more offshore generating capacity (The Crown Estate, undated).</p> <p>The Government’s Offshore Transmission network Review begun in August 2020, under which SEP and DEP are a Pathfinder Project, had the objective “<i>To ensure that the transmission connections for offshore wind generation are delivered in the most appropriate way, considering the increased ambition for offshore wind to achieve net zero. This will be done with a view to finding the appropriate balance between environmental, social and economic costs</i>”.</p> <p>Workstreams include the need to: “<i>identify and implement changes to the existing regime to facilitate coordination in the short-medium term assess the feasibility and costs/benefits of centrally delivered, enabling infrastructure to facilitate the connection of increased levels of offshore wind by 2030 explore early opportunities for coordination through pathfinder projects, considering regulatory flexibility to allow developers to test innovative approaches focus primarily on projects expected to connect to the onshore network after 2025</i></p> <p><i>The long-term workstream will seek to:</i></p> <p><i>conduct a holistic review of the current offshore transmission regime and design and implement a new enduring regime that enables and incentivises coordination while seeking to minimise environmental, social, and economic costs</i></p> <p><i>consider the role of multi-purpose hybrid interconnectors in meeting net zero through combining offshore wind connections with links to neighbouring markets and how the enduring offshore transmission regime can support the delivery of such projects</i></p> <p><i>focus on projects expected to connect to the onshore network after 2030”</i></p>

		<p>These Review workstreams find support in the Energy White Paper “Powering our Net Zero Future” of December 2020, one policy of which is <i>“To minimise the impact on local communities, we will implement a more efficient approach to connecting offshore generation to the mainland grid”</i>.</p> <p>Under East Inshore and East Offshore Marine Plans (EIEOMP - DEFRA 2014) Objective 2 is: <i>“To support activities that create employment at all skill levels, taking account of the spatial and other requirements of activities in the East marine plan areas”</i>, whilst EIEOMP Policy EC2 is that <i>“Proposals that provide additional employment benefits should be supported, particularly where these benefits have the potential to meet employment needs in localities close to the marine plan areas”</i>.</p> <p>NPS EN-1 policy is that the SoS should take into account (4.1.3) <i>“potential benefits including its contribution to meeting the need for energy infrastructure, job creation and any long-term or wider benefits”</i> which may be (4.1.4) <i>“at national, regional and local levels”</i> and that (5.12.8) <i>“The [SoS] should consider any relevant positive provisions the developer has made or is proposing to make to mitigate impacts (for example through planning obligations) and any legacy benefits that may arise as well as any options for phasing development in relation to the socio-economic impacts”</i>.</p>
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2.1 Consenting requirement for SEP and DEP

14. The Planning Act 2008 sets out thresholds above which development is considered to constitute a Nationally Significant Infrastructure Project (NSIP) and would require development consent. For offshore energy developments in England the threshold is a generating capacity of over 100 MW. SEP and DEP will each have a generating capacity which exceeds 100 MW and are therefore classified as NSIPs.
15. The SEP and DEP application for development consent is therefore being made in accordance with the legal framework established by the Planning Act 2008, i.e. complying with application requirements set out in the Planning Act, the APFP Regulations and other relevant regulations, examination via an appointed Examining Authority, and determination by the Secretary of State (SoS), who will make a decision whether to grant the DCO.
16. Further information on the Planning Act 2008 can be found in ES **Chapter 2 Policy and Legislative Context** (document reference 6.1.2).

2.2 Consenting strategy for SEP and DEP

17. A number of potential consenting strategies have been considered for SEP and DEP, with the most appropriate approach being identified as a single application for development consent, addressing both wind farm extensions and associated transmission infrastructure. Applying a single planning process and DCO application will provide consistency in the approach to assessment, consultation and examination and increased transparency for a potential compulsory acquisition process. A **Scenarios Statement** (document reference 9.28) is also provided as part of the DCO application, which provides further information on the project development scenarios for SEP and DEP.
18. An Environmental Impact Assessment (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 (the EIA Directive).
19. Whilst EU Directives no longer form part of legislation in the UK, the EIA Directive was transposed into UK law for NSIPs through The Infrastructure Planning (Environmental Impact Assessment) Regulations 2017 (the EIA Regulations), which remain in force and set out the requirements for EIA. An EIA must be undertaken in support of applications for development consent of NSIPs.
20. The overall objective of the EIA process is to identify potentially significant adverse impacts resulting from a project, allowing them to be avoided or minimised where possible, as well as identifying any potential beneficial impacts.
21. In 2019 the Government introduced regulations to ensure that, following the withdrawal of the UK from the EU, legislation concerning the environment continues to operate effectively. These include the Environment (Amendment, etc.) (EU Exit) Regulations 2019 and the Conservation of Habitats and Species (Amendment) (EU Exit) Regulations 2019.



22. The ES identifies the potential significant environmental impacts of SEP and DEP and is submitted to support the SEP and DEP application for development consent. The assessment methodology that has been applied to the development of the ES is explained in further detail in the ES **Chapter 4 EIA Methodology** (document number 6.1.4).
23. Whilst SEP and DEP are the subject of a single DCO application (with a combined EIA process and associated submissions), each Project is assessed individually so that mitigation is specific to each (where appropriate). As such, the assessments cover the possibility that one or the other (but not both) projects are developed, as well as both SEP and DEP being developed, either concurrently or sequentially. The EIA considers the appropriate realistic worst-case scenario associated with the different potential construction approaches and presents the results accordingly.

2.2.1 DCO Application Documents and Structure

24. A full list of the DCO application documents associated with these projects is listed in the **Guide to the Application** (document reference 1.3).
25. The **Draft DCO** (document reference 3.1) includes provisions which remove the need to obtain certain additional authorisations and consents by disapplying certain legislation (in accordance with Schedule 2 of the Infrastructure Planning (Interested Parties and Miscellaneous Prescribed Provisions) Regulations 2015). This has been explained in the **Explanatory Memorandum** (document reference 3.2). The **Draft DCO** also incorporates four deemed Marine Licences (at Schedules 10 – 13). Other offshore and onshore consents and licences that may be required for SEP and DEP under different legislation, or in addition to the consent granted by the DCO, is set out in **Appendix 9.1.1** (document reference 9.1.1).

3 Project Description Summary

3.1 Project Location

26. This section describes the Project Location in its offshore and onshore locations.

3.1.1 Offshore

27. SEP and DEP are in the Greater Wash region of the southern North Sea (see ES Chapter 4 Project Description (document reference 6.1.4)).
28. At approximately 15.8 km (9.8 miles) to the nearest point on the North Norfolk shoreline, SEP is closer to the coast than DEP. DEP is about 26.5 km (16.5 miles) from the English shoreline, doubling the distance of SEP. When drawn straight from the nearest point, SEP and DEP are approximately 300 km from the coastline of Western Frisian Islands, Netherlands.
29. There are three proposed array areas: SEP offshore site, DEP North array area and DEP South array area. In total, the array areas would cover 211.75 km². Although all three array areas are distinct and non-contiguous, they all adjoin existing operational wind farms.

30. DEP North array area and DEP South array area adjoin northwest and southeast of the existing Dudgeon Offshore Windfarm, respectively. Between SEP and DEP, a shipping lane runs from northwest to southeast.
31. SEP offshore site is along the northern boundary of the existing Sheringham Shoal Offshore Windfarm.
32. Across the project area, the water depths range from 14 m to 36 m below Lowest Astronomical Tide (LAT). The deepest part of the project area is at DEP North at 36 m below LAT.
33. The sea bed gradient across both wind farm sites is generally relatively flat (i.e. less than 1°), although steeper gradients are associated with areas of sand waves, particularly in the northwest of the DEP North and DEP South array areas.
34. There are two Offshore Cable Corridors between SEP and DEP. DEP North array and DEP South array areas will each have a dedicated Offshore Cable Corridor connecting to SEP. The Offshore Cable Corridor will exit SEP in the southeast quadrant and approach the landfall at Weybourne, North Norfolk, in a south-westerly direction.
35. Before making landfall, 11 km of the Offshore Cable Corridor will be inside the Cromer Shoal Chalk Beds MCZ.
36. Water depths along the interlink cable corridors are between 10m and 35m. Similar to the array areas, the sea bed along the offshore cable corridors is relatively flat. However, there are sand waves at the northern end of the SEP and DEP North array area, in the corridor and between DEP South and DEP North array areas, on the south-west side of DOW.
37. Water depths along the export cable corridor are between 25 m and 27 m in the area closest to the SEP wind farm site, shallowing to about 16 m near the eastern tip of the Sheringham Shoal sand bank and then decreasing progressively to 0 m at the coast. The 5 m contour is typically 200-300 m from the coast.
38. The predominant surface sediment types across the offshore sites are medium and coarse sands and gravels, and outcropping chalk in the landward 500 m of the export cable corridor.

3.1.2 Onshore

39. The offshore export cables make landfall at Weybourne beach, to the west of Weybourne cliffs. A transition joint bay would be installed below ground inland from the coast to connect the offshore and onshore cables. From here, the onshore cable corridor travels 60 km from the landfall. It terminates at the proposed onshore substation south of Norwich Main Substation. The width of the onshore cable corridor is between 60 and 100 m. A wider corridor of 100 m enables trenchless crossings at locations such as main rivers and woodland.
40. The onshore cable corridor generally travel in the southerly direction for the first 35 km and then south-easterly and around Greater Norwich's built-up area for the last 15 km.
41. The onshore cable corridor crosses the following features:

- In the first 4km from the landfall, the buried cable traverses the Norfolk Coast Area of Outstanding Natural Beauty (AONB).
 - The cabling will cross the following Main Rivers: The River Glaven, River Bure, Swannington Beck, River Wensum (upstream of Norwich), River Tudd, River Yare, River Tiffey and Intwood Stream.
 - Finally, the cabling will cross A Roads and a Railway line: Sheringham Road (A149), the North Norfolk Railway line between Holt and Sheringham, Cromer Road (A148), the A47 between Hockering and Easton, and the A11 near Ketteringham.
42. The existing land uses in and around the onshore cable corridor are predominately agricultural and rural, with pockets of woodland and small settlements. At the landfall and the proposed onshore substation, the nearest settlements are Weybourne and Swardeston. In addition, the onshore cable corridor is near to a small number of settlements including Little Barningham and Attlebridge.
43. A detailed assessment of the potential impacts on the AONB is provided in **Impacts on the Qualities of Natural Beauty of Norfolk Coast Area of Outstanding Natural Beauty** (document reference 9.25).
44. The onshore cable corridor terminates at a proposed onshore substation south of the existing Norwich Main Substation. The proposed substation is in a rural area. It would be constructed on arable fields surrounded by woodland belts, hedgerows and trees. The Norwich to Ipswich railway line and A140 road are east of the proposed substation.
45. The onshore site selection process has sought to avoid settlements, sensitive habitats and other technical and environmental constraints where possible (see ES **Chapter 3 Site Selection and Assessment of Alternatives** (document reference 6.1.3)). Where sensitive features were unavoidable, for example crossing large rivers, railway lines and traffic sensitive roads these would be undertaken using trenchless crossing techniques.
46. A main construction compound would be located approximately halfway along the cable corridor close to Attlebridge. This would be the location for offices, welfare and storage to facilitate the onshore construction works. Additional works compounds would be located at the landfall and Onshore Substation, as well as a small number of secondary compounds along the cable corridor.

3.2 Development Scenarios

47. The Applicant is seeking to coordinate the development of SEP and DEP as far as possible. The preferred option is a development scenario with an integrated transmission system, providing transmission infrastructure which serves both of the wind farms, where both Projects are built concurrently. However, given the different commercial ownerships of each Project, alternative development scenarios such as a separated grid option (i.e. transmission infrastructure which allows each Project to transmit electricity entirely separately) will allow SEP and DEP to be constructed in a phased approach.



48. Reasons for the requirement to retain separate and phased (sequential) development scenarios alongside more coordinated approaches are further described in the **Scenarios Statement** (document reference 9.28).

3.2.1 Construction Scenarios

49. In the event that both SEP and DEP are built, the following principles set out the framework for how SEP and DEP may be constructed:

- SEP and DEP may be constructed at the same time, or at different times;
- If built at the same time both SEP and DEP could be constructed in four years;
- If built at different times, either Project could be built first;
- If built at different times, each Project would require a four year period of construction;
- If built at different times, the offset between the start of construction of the first Project, and the start of construction of the second Project may vary from two to four years;
- Taking the above into account, the total maximum period during which construction could take place is eight years for both Projects; and
- The earliest construction start date is 2025.

3.2.2 Operation Scenarios

50. Operation scenarios are described in detail in ES **Chapter 4 Project Description** (document reference 6.1.4). The assessment considers the following three scenarios:

- Only SEP in operation;
- Only DEP in operation; and
- The two Projects operating at the same time, with a gap of two to four years between each project commencing operation.

51. The operational lifetime of each project is expected to be 40 years.

3.2.3 Offshore Infrastructure

52. It is expected that SEP and DEP could together have an export capacity of approximately 786 MW in total and have the combined potential to generate renewable power for up to 785,000 United Kingdom (UK) homes from up to 23 wind turbines at SEP and up to 30 wind turbines at DEP.

53. SEP and DEP would comprise the following main offshore components:

- Wind turbines and their associated foundations;
- Offshore substation platform/s (OSP/s) and associated foundation/s; and
- Subsea cables and cable protection – offshore export cables, infield cables and interlink cables.



54. Electricity would flow from the wind turbines via infield (array) cables to offshore substation platform(s). There will be up to two offshore substations with one in SEP and one in DEP, located to optimise the length of the offshore cables. Interlink cables will link the separate project areas. At the offshore substation/s, the generated power will be transformed to a higher alternating current (AC) voltage. The power will be exported through two export cables, in two separate trenches, to a landfall east of Weybourne on the north Norfolk coast. At the landfall the offshore export cables will meet and be joined up with the onshore export cables in a transition joint bay.

3.2.4 Onshore Infrastructure

55. The onshore export cables would then travel approximately 60 km inland to a high voltage alternating current (HVAC) onshore substation near to the existing Norwich Main substation. The onshore substation would be constructed to accommodate the connection of both SEP and DEP to the transmission grid.

56. The main onshore components of SEP and DEP include:

- Landfall including transition joint bay;
- Up to two ducts installed under the beach at the landfall by Horizontal Directional Drilling (HDD));
- Onshore cable corridor, including:
 - Onshore export cables laid within open cut trenches or installed in ducts, and associated infrastructure including joint bays and link boxes;
 - Temporary construction access roads and haul roads;
 - Construction compounds; and
 - Trenchless crossings at sensitive features and habitats (e.g. A roads, main rivers and sites designated for nature conservation).
- Onshore substation, including:
 - Substation operational access road; and
 - Associated earthworks, surface water attenuation and/or landscaping.

3.3 Site selection

57. The siting, design and refinement of SEP and DEP has taken account of environmental, physical, technical, commercial and social considerations and opportunities as well as engineering requirements. This was with the aim of identifying sites that would be environmentally acceptable, deliverable and able to achieve consent, whilst also enabling, in the long term, the benefits of the lowest energy cost to be passed onto the consumer. A multi-disciplinary design team was formed to undertake the site selection process, which included a team of specialists comprising engineers, planners, land advisors, legal advisors and EIA/topic consultants, whose expertise was drawn upon throughout.

58. The site selection process for SEP and DEP has been an iterative one involving the consideration of technical and environmental constraints, and stakeholder and community feedback. For the offshore elements this has involved an initial zone selection undertaken by TCE and further detailed site-specific studies conducted by the Applicant. These processes involved consultation with a range of stakeholders and the collation of existing and site-specific data in order to refine broad search areas into the current boundaries for the offshore development area.
59. Each part of the site selection and refinement process has been consulted on, and feedback from these consultations has been a key part in defining the Order Limits. Details of the consultation process are provided in the **Consultation Report** (document reference 5.1).
60. Full details of the on and offshore site selection process is provided in ES **Chapter 3 Site Selection and Assessment of Alternatives** (document reference 6.1.3).

3.3.1 Identification of the Offshore Wind Farm Locations

61. The location of SEP and DEP turbine array locations were identified through multiple stages of site selection refinement.
62. Key TCE criteria that influenced the site selection process included that wind farm extensions must share a boundary with the existing (parent) wind farm; and that other than the existing wind farm, the proposed extension/s must not encroach within a radius of 5 km of any other wind farm (unless the tenant of any such wind farm had confirmed its agreement otherwise).
63. The Applicant developed and applied the overarching site selection criteria outlined below:
- No nearer than 5 km from the proposed Race Bank OWF extension;
 - Avoid areas that are not feasible in terms of geology and bathymetry;
 - Minimise cable and pipeline crossings;
 - Distance to shore (no closer inshore than the existing Sheringham Shoal OWF to limit potential landscape impacts);
 - Water depths greater than 10 m;
 - Avoiding existing shipping lanes and areas of high shipping density;
 - Maximise the benefits of the prevailing wind direction;
 - Minimise wake effects on operational wind farms;
 - Avoid wind farm area in marine nature conservation designations;
 - Minimise the disruption to existing infrastructure and other marine users;
 - Shortest and most direct route for the export cables to reduce environmental impacts, transmission losses and costs by minimising footprint for both the offshore and onshore cable routes;
 - Routeing options need to be able to connect to viable landfall locations; and
 - Avoidance of key sensitive features where possible and where not possible, to minimise and mitigate impacts as appropriate.

3.3.1.1 DEP Areas of Interest Selection

64. At the AfL stage, applications were made for two distinct wind farm sites for DEP. The AfL areas comprise DEP North, an extension to the northwest and DEP South, an extension to the southeast.
65. The key physical constraints in the selection of the DEP North and DEP South site boundaries were the locations of:
- A gas pipeline (PL27) running between the Viking gas field in the east and the Theddlethorpe Gas Terminal on the Lincolnshire coast to the west, and diverts to avoid the Perenco-operated Waveney gas platform and its 500m safety zone.
 - Esmond to Bacton gas pipeline running between the Esmond gas field in the north and the Bacton Gas Terminal to the south on the Norfolk coast.
 - A shipping lane between the existing Dudgeon and Sheringham Shoal OWFs as indicated by AIS Automatic Identification System (AIS) data from 2016 and 2017 (further details in Chapter 15 Shipping and Navigation).
 - A planned oil and gas development by Independent Oil and Gas Plc.
 - A shallow area (part of Cromer Knoll sandbank) to the north west of the existing Dudgeon OWF.
 - A shipping lane between the existing Dudgeon and Sheringham Shoal OWFs.

3.3.1.2 SEP Areas of Interest Selection

66. The key physical constraints in the selection of the SEP site boundaries were the locations of:
- Race Bank OWF extension 5km from SEP.
 - Zones of Visual Influence (ZVIs) of the existing Sheringham Shoal OWF from seaside town of Sheringham.
 - The route of the existing Dudgeon OWF export cables.
 - A shipping lane between the existing Dudgeon and Sheringham Shoal OWFs.

3.3.2 Identification of Landfall and Offshore Export Cable Corridor Locations

67. Based on the location of the SEP and DEP AfLs, and the location of the grid connection point at Norwich Main Substation, an initial search area for the landfall was established, covering the North Norfolk coastline from The Wash to Happisburgh.
68. The process for identifying options for the landfall and offshore cable corridor location began with a comprehensive desk-study analysis of coastline and offshore area. The evaluation included the following elements:
- Environmental sensitivities and designations;
 - Length of the export cable corridor (offshore & onshore);
 - Crossing of offshore utilities and cables; and
 - Technical design and feasibility of the landfall location.



69. The potential export cable route through The Wash and North Norfolk Coast SAC was excluded from the landfall search area in light of existing pressures on the SAC resulting in unfavourable condition status. Several other options were considered for landfall, including Weybourne, Bacton and Happisburgh.
70. Two offshore export cable corridor options linking the SEP wind farm site to shore were considered in further detail, one to Weybourne and one to Bacton. At each location two landfall options were identified:
- Bacton;
 - East of Bacton Gas Terminals; and
 - West of Bacton Gas Terminals.
 - Weybourne;
 - Weybourne West – near to the existing Sheringham Shoal and Dudgeon OWF landfalls; and
 - Weybourne East – between Sheringham and Weybourne.
71. Following further assessment Weybourne was preferred over Bacton based on:
- Technical (i.e. engineering and design) advantages;
 - Considerably flatter topography (8 m cliffs at Weybourne compared to 32 m high cliffs at Bacton);
 - The total area impacted is minimised as a result of the shorter export cable route;
 - Good access using existing roads and tracks (Bacton would require a new access road);
 - It avoids the SSSI and any interaction with National Nature Reserves (NNR) along the Norfolk coast (e.g. Mundesley Cliffs SSSI and Paston Great Barn NNR);
 - It avoids the Annex I habitats of The Wash and North Norfolk Coast SAC which are in unfavourable condition (both Weybourne and Bacton landfall options avoid the SAC);
 - The ability of using a long HDD technique at the landfall to completely avoid the subtidal outcropping chalk MCZ feature.
 - Avoids the Bacton Sandscaping Scheme area, so there will be no interference with that scheme or potential cumulative impacts;
 - Located close to the existing Dudgeon and Sheringham Shoal HDD landfalls for which considerable experience, data and lessons learnt are available resulting in a high level of confidence in the engineering feasibility of landfall and HDD works at this location; and
 - Private land along the beach for duct preparation (as was used during the construction of the Dudgeon OWF).

72. Weybourne East was excluded from further assessment on the basis of potential engineering constraints. As a result, and in conjunction with the landfall considerations set out above, the offshore export cable corridor to Weybourne (with landfall at Weybourne West) was selected.

3.3.3 Identification of the Onshore Cable Corridor Location

73. The location of the onshore cable corridor was identified through multiple stages of site selection refinement, from a broad 1 km wide cable search area, to a 200 m wide corridor to inform the Preliminary Environmental Information Report (PEIR), and finally to the Order Limits which are based on a 60 m wide cable corridor (increasing to 100 m at trenchless crossings).
74. Engineering feasibility work has informed the preferred 60 m wide cable corridor, considering cable tolerances, land accessibility, transport routes, and crossing requirements. This process also accounted for updated data including updated ecological datasets, archaeology geophysical survey, traffic count data, and landscape walkovers. In addition, individual landowner requests were reviewed and accommodated where practicable.
75. Multidisciplinary workshops were then held bringing together engineering, land, community engagement, and environmental specialists. These workshops sought to identify preferred options in light of all identified environmental constraints and stakeholder and community feedback.
76. The width of the onshore cable route accommodates all the project development scenarios under consideration, and includes contingency for micro-siting during construction should additional constraints be identified at a later stage in the development of SEP and DEP.

3.3.4 Identification of the Onshore Substation Location

77. An onshore substation is required that accommodates both SEP and DEP. The following sections provide a summary of the onshore substation site selection exercise, a detailed description is set out in ES **Appendix 4.1 Onshore Substation Site Selection Report** (document reference 6.3.4.1)
78. The site selection process was underpinned by a series of design assumptions and site selection principles which are used as a transparent framework for making site selection decisions at each stage of the site selection process.
79. Design assumptions:
- Construction compound footprint – up to 1 ha;
 - Operational compound footprint – up to 6 ha;
 - Building height – up to 15 m;
 - External equipment height – up to 15 m; and
 - Lightning masts – up to 30 m.

80. Following the grid connection offer at Norwich Main an exercise was undertaken to identify areas with the greatest potential to accommodate the proposed permanent above ground infrastructure, taking into account the design assumptions combined with environmental constraints mapping based on publicly accessible environmental datasets, including environmental receptors and in some instances associated buffers.
81. The guiding principles for locating the onshore substation were to identify an economic and efficient connection (i.e. as close as possible to the connection point) whilst taking into account environmental constraints and available space.
82. A 3 km buffer around the grid connection offer at Norwich Main was initially identified. Within this 3 km buffer the following constraints were mapped:
- Residential properties + 250m buffer;
 - Special Protection Areas (SPA);
 - Special Area of Conservations (SAC);
 - Ramsar sites;
 - AONB;
 - Sites of Special Scientific Interests (SSSI);
 - Local Nature Reserves (LNR);
 - National Nature Reserves (NNR);
 - County Wildlife Sites (CWS);
 - Registered Parks and Gardens;
 - Ancient Woodland;
 - RSBP reserves;
 - National Trust land;
 - Common land;
 - Public Rights or Way;
 - Main Rivers;
 - Flood Zones 2 & 3;
 - Scheduled Monuments;
 - Conservation Areas;
 - Listed buildings;
 - Historic Environment Records;
 - Historic landfill sites;
 - Source Protection Zones (SPZ);
 - Existing National Grid infrastructure inc. overhead lines; and
 - Other proposed NSIPs (Hornsea Project Three).



83. A 250 m buffer was applied to residential properties to give a visual understanding of areas of where the better opportunities might be for the potential positioning of the onshore substation, i.e. areas with the greatest distance of separation to properties. **Figure 1** in ES **Appendix 4.1 Onshore Substation Site Selection Report** (document reference 6.3.4.1) shows the 3km buffer surrounding the existing Norwich Main substation with these constraints mapped.
84. Those areas with the least constraints and in effect the greatest potential to avoid impacts were identified as potential substation zones for further consideration. Nine zones in total were identified within the 3 km buffer
85. A comparative assessment of these nine zones was then undertaken of which five were identified as having the greatest opportunity to accommodate the proposed infrastructure. Within these five zones a long list of 17 sites were identified that could accommodate the required substation footprint (6.0 ha).
86. A BRAG assessment was undertaken for the 17 substation options using defined BRAG criteria to identify the risks and opportunities associated with each field option. Higher risk options were given a red rating, whilst those with medium risks were coded amber and those with the least risk are assigned green. Black options were those which were not feasible from an engineering or environmental perspective. The aim was to ascertain which options carry the least risk with respect to the assessment criteria applied and based upon professional judgement.
87. Five of the 17 locations were identified as having the fewest risks primarily based on the distance of separation between them and the nearest residential properties (typically in excess of 400 m) and other visual receptors, and the relatively short distance for onward cabling for the 400 kV cable connection to Norwich Main. These five locations were consulted upon during public consultation from 9th July to 20th August 2020.
88. Further engineering work and stakeholder engagement was undertaken in autumn 2020 to identify preferred locations to potentially accommodate the proposed infrastructure within the five fields taken forward. This further reduced the short list of potential sites based on insufficient space and taking into consideration the theoretical visibility from the nearest residential areas. On this basis two substation site options were identified and were assessed within the PEIR.
89. Based on the detailed topic assessments presented within the PEIR and feedback from local communities as part of the associated consultation a preferred location of the onshore substation was identified. The main benefits of the preferred site include:
- Avoids a potential linear settlement of high heritage significance;
 - Takes advantage of a natural low point within the landscape reducing its relative visibility from views across the Tas Valley;
 - Positioned closer to the area most influenced by existing infrastructure including the Norwich Main Substation, pylons and overhead wires, railway lines, the A140 and A47;
 - Fewer residential receptors potentially affected by operational noise prior to mitigation being applied; and

- Slight preference from community feedback.
90. As part of the site selection process undertaken leading up to the submission of the PEIR in April 2021 it was noted that both substation site options were located in Flood Zone 1 and therefore were appropriately located in terms of the guidance set out in the National Planning Policy Framework (NPPF) with regard to the application of the Sequential Test.
91. In July 2021 the NPPF was updated with changes that required all sources of flooding to be taken into account when applying the Sequential test and not just Flood Zones 2 and 3. Following this policy change further consideration was given to additional sources of flooding and it was noted that both of the two substation site option had the potential to be partially affected by, or interact with, areas subject to surface water flood risk. Whilst this risk would previously have been mitigated during detailed design, in order to comply with the updated policy change the Applicant revised the footprint of the preferred substation site option to minimise interaction with areas identified within the 1 in 100 year risk of surface water flooding based on the available national dataset. The preferred substation footprint is 6.0 ha and is reshaped to avoid the corner that would have otherwise overlapped with the area of surface water flood risk.

3.4 Evolution of the design

92. Throughout the pre-application stages consultation feedback (formal and informal) environmental and technical surveys, and technical assessment and modelling have been ongoing, including:
- Community and landowner feedback;
 - Ecological survey findings;
 - Results from the priority programme of archaeological geophysical survey;
 - Flood risk assessment modelling;
 - Substation drainage proposals;
 - Landscaping design proposals; and
 - Project design parameters and programme refinements.
93. This information has helped to refine the project design further (for details see ES **Chapter 3 Site Selection and Assessment of Alternatives** (document reference 6.1.3)). Information on the evolution of the design is also set out within the **Design and Access Statement (Onshore)** (document reference 9.3) and the **Offshore Design Statement** (reference 9.26), in particular:
- **30m air gap (between the lower blade and Highest Astronomical Tide (HAT))**. This is greater than the standard 22 m air gap required to reduce the potential collision risk for offshore ornithology receptors and is intended to provide further reduction of potential collision risk;
 - **Underground cables**: onshore cables will be buried to reduce the need for permanent above ground infrastructure, thus avoiding the visual intrusion of new pylons and overhead cables during the operational phase;

- **Use of long HDD at landfall:** to avoid direct impacts to the beach and coastal path;
- **Avoid sensitive features:** cable routing has been designed to avoid sensitive features including settlements, landscape and habitat features (including designated nature conservation sites), and designated landscapes;
- **Trenchless crossings:** trenchless crossing will be utilised to minimise disturbance to above ground features where it is not possible to avoid them;
- **Reduced working widths:** reduced work widths will be adopted to minimise disturbance to above ground sensitive features where trenchless crossings are not used;
- **Refined substation footprint to avoid interaction with surface water flood risk:** the final substation footprint has been designed to accommodate either an east-west or a north-south orientation, to avoid interaction with a localised area at risk of surface water flooding;
- **Landscape restoration:** where landscape features have been removed, they will be restored wherever possible; and
- **Ecological enhancement:** onshore design proposals to deliver a biodiversity net gain. Compensation and enhancements which will achieve net gains for biodiversity will include reinstating habitats such as trees, hedgerows and grasslands where these are impacted during construction, There will also be extensive ecological enhancement of the substation site, with the enhancement package consisting of creating areas of woodland, scrub, scattered trees, grassland and wildflowers at what is currently an arable site.

4 Project Need and Benefits

94. This section considers key National Policy Statement (NPS) policy on need and the different aspects of that need, including the urgency of the need for renewable electricity generation in particular and demonstrates how SEP and DEP meets this need. The Overarching National Policy Statement for Energy (DECC 2011) establishes policy on the need for renewable electricity generation, and is the policy in accordance with which the SoS must decide applications for development consent (under Section 104 of the Planning Act 2008). Policy in this area is further informed by the emerging draft Overarching NPS for Energy and related draft NPSs (BEIS 2021), which are considered to be important and relevant for the purpose of decision-making (in accordance with Section 104(2)(d) of the Planning Act 2008).
95. This includes the need for the development of SEP and DEP in meeting global, EU and UK policy commitments for renewable energy and wider policy objectives for UK energy security, decarbonisation and economic growth.
96. The key aspects of need for nationally significant electricity infrastructure, including offshore wind power projects, established by NPS policy and considered in NPS EN-1 are:
- Meeting energy security and carbon reduction objectives ([section 4.1](#))

- The need to replace closing electricity generating capacity ([section 4.2](#))
- The need for more electricity capacity to support an increased supply from renewables ([section 4.3](#))
- Future increases in electricity demand ([section 4.4](#))
- The urgency of the need for new (especially low carbon) electricity capacity ([section 4.5](#))
- Alternatives to new large scale electricity generation capacity (including Reducing demand, More intelligent use of electricity, Interconnection of electricity systems and Conclusions on alternatives to new large electricity generation) ([section 4.6](#))
- The role of renewable electricity generation including the urgency of need for new renewable electricity generation ([section 4.7](#))
- The need to maximise economic opportunities to which NPS policy considers an increase in renewable electricity generation to be essential ([section 4.8](#))
- The need to produce affordable energy ([section 4.9](#))

97. In addition to NPS policy the UK Government has demonstrated its ongoing support for offshore wind development.

98. 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:

- Committed to fund a total of £200 million of Contracts for Difference (CfD) funding for offshore wind in the fourth Allocation round (AR4) in 2022; and
- Innovative fund of £75 million for emerging technologies, such as remote island wind, tidal stream and floating offshore wind.

99. The fourth CfD Allocation Round (AR4), held in 2022 awarded contracts to 11 GW of new renewable capacity, of which 7 GW was to offshore wind energy

100. CfD contracts have been awarded to around 27 GW of new renewable electricity capacity, including 20 GW of offshore wind. As of April 2022, 11 GW of that capacity is operational (TCE, 2022).

4.1 Meeting Energy Security and Carbon Reduction Objectives

4.1.1 Carbon and Greenhouse Gas Emissions Reduction

101. Overarching NPS for Energy (EN-1) (DECC, 2011a) paragraph 3.1.1 states that “*The UK needs all the types of energy infrastructure covered by this NPS in order to achieve energy security at the same time as **dramatically reducing greenhouse gas emissions***” (emphasis added).

102. Paragraph 3.1.4 of EN-1 states that the Secretary of State should “*give substantial weight to the contribution which projects would make towards satisfying this need*” and paragraph 3.2.3 that the amount of weight given “*should be proportionate to the anticipated extent of a project’s actual contribution to satisfying the need for a particular type of infrastructure.*”
103. NPS EN-1 projected the minimum total need for new generation capacity by 2025 to be 59 GW (based on derated figures for renewable/intermittent sources of energy such as wind), and that “*around 33 GW of the new capacity by 2025 would need to come from renewable sources*” (paragraph 3.3.22). Further higher targets for offshore wind generation have been set since the Energy NPSs were designated, including in the British Energy Security Strategy (HM Government, 2022) considered in detail below.
104. NPS EN-1 also sets out national policy for energy infrastructure that the industry should “*bring forward many new low carbon developments (renewables, nuclear and fossil fuel generation with CCS) within the next 10 to 15 years to meet the twin challenge of energy security and climate change as we move towards 2050*” (paragraph 3.3.5).
105. Similar policy is set out in draft NPS EN-1 (BEIS, 2021) paragraph 2.3.2 of which states (emphasis added):
- “Our objectives for the energy system are to ensure our supply of energy always remains secure, reliable, affordable, and consistent with meeting our target to cut GHG emissions to net zero by 2050, including through delivery of our carbon budgets and NDC [nationally determined contributions]. This will require a step change in the decarbonisation of our energy system”*
106. and paragraph 2.3.4 calls for a similarly dramatic switch to low carbon and renewable energy to displace carbon emissions:
- “The sources of energy we use will also need to change. Today, our energy system is dominated by fossil fuels. Although representing a record low, fossil fuels still accounted for just over 79 per cent of energy supply in 2019. We will need to dramatically increase the volume of energy supplied from low carbon sources and reduce the amount provided by fossil fuels”.*
107. All NPS policy is given additional strength by a range of UK international obligations (which must not be breached in any DCO decision as set out in Section 104 of the Planning Act 2008), statutes and policy commitments, some of which have been made since the NPSs were designated. These are considered below.
108. In 2015, the UK Government further committed to pursue efforts to limit the global temperature increase from climate change to within 2°C of the pre-industrial average temperature, with an aspiration for an improved limit of 1.5°C at the 21st Conference of the Parties to the United Nations Framework Convention on Climate Change (COP21) in Paris (the Paris Agreement). In line with the Kyoto Protocol, signatory states including the UK, have developed national targets for energy generation from renewable sources. The Climate Change Act, passed in 2008, committed the UK to reducing greenhouse gas emissions by at least 80% by 2050 when compared to 1990 levels. This target was amended by the Climate Change Act 2008 (2050 Target Amendment) Order 2019 to a reduction of net emissions by 100% by 2050 relative to 1990 levels to make the UK a ‘net-zero’ emitter.



109. Offshore wind, as a source of renewable energy, offers the UK a wide range of benefits from an economic growth, energy security and decarbonisation perspective. SEP and DEP have the potential to make a significant contribution to renewable energy supply and will consequently contribute to meeting UK Government objectives of delivering sustainable development to enable decarbonisation, ensuring the energy supply is secure, low-carbon and providing benefits to consumers.
110. The 2022 UK Climate Change Risk Assessment recognised six key climate change risks for the UK, as identified by the Adaptation Sub-Committee (HM Government, 2022). The priority risks that the UK faces associated with climate change were identified as being:
- Risks to the viability and diversity of terrestrial and freshwater habitats and species;
 - Risks to soil health from increased flooding and drought;
 - Risks to natural carbon stores and sequestration leading to increased emissions;
 - Risks to crops, livestock and commercial trees;
 - Risks to supply of the foods, goods and vital services;
 - Risks to people and the economy from climate-related failure of the power system;
 - Risk to human health, wellbeing and productivity from increased exposure to heat; and
 - Multiple risks to the UK from climate change impacts overseas.
111. Vulnerability and exposure to climate change are increasing across a range of priority areas including terrestrial and freshwater habitats; development in flood risk areas; risks to health from heat and cold; and risks to health from changes in air quality. (Climate Change Committee (CCC), 2019b).
112. The global average surface temperature over the decade between 2011-2020 was 1.09°C warmer than the pre-industrial period (considered to be 1850-1900) (Intergovernmental Panel on Climate Change (IPCC), 2021).
113. The 2021 Intergovernmental Panel on Climate Change (IPCC) Science Report presents different emissions scenarios, all of which predict that by 2040, global temperatures are expected to reach 1.5°C above 1850-1900 levels (IPCC, 2021).
114. The 2021 Progress Report (CCC, 2021) predicts that by 2050, annual temperatures in the UK are expected to increase between 1 and 3°C above the 1981 - 2000 baseline, depending on the pathway of global emissions.
115. Further predictions, based on a 'business-as-usual' greenhouse gas concentration scenario, suggest global air temperatures could rise up to 5°C above pre-industrial levels by 2100 (Climate Science Special Report (CSSR), 2017).

116. The commitments made by the Paris Agreement to limit global temperature increase were ratified by the UK foreign secretary in November 2016 and implemented through the fifth UK Carbon Budget. This commits the UK to a 57% reduction in carbon emissions by 2032, compared to emission levels in 1990 (BEIS, 2020). Most recently, in line with the recommendation of the Climate Change Committee (CCC) and the sixth Carbon Budget, the UK Government has announced that it will set the world's most ambitious climate change target into law to reduce emissions by 78% by 2035 compared to 1990 levels (BEIS, 2021).
117. However, the world is not currently on track to meet the long-term temperature goal set out in the Paris Agreement, consistent with a low emissions pathway (CCC, 2019b). In 2019, total UK greenhouse gas emissions were provisionally 45.2% lower than in 1990 and 3.6% lower than 2018 (BEIS, 2020). This is mainly as a result of changes in the fuel mix used for electricity generation, away from coal and towards renewables.
118. In 2020, total UK greenhouse gas emissions were provisionally 48.8% lower than in 1990 and 8.9% lower than 2019 (BEIS, 2021b). This is likely to be in part as a result of changes in the fuel mix used for electricity generation; however, in 2020, the coronavirus (COVID-19) pandemic and the resulting restrictions had a significant impact on greenhouse gas emissions in the UK over this period.
119. The Queen's Speech on 11 May 2021 (HM Government, 2021) confirmed that Government will continue to take steps to meet the world-leading target of net zero greenhouse gas emissions by 2050, and continues to lead the way in tackling global climate change, hosting the United Nations 26th Climate Change Conference COP26 Summit in 2021. COP26 led to the signing of the Glasgow Climate Pact, which sets out a series of decisions and resolutions on coordinated international action to tackle climate change. During COP26, the finalised Paris Rulebook was also agreed.
120. The CCC has also recommended that the UK Government should support 1-2 GW of new offshore wind per year in the 2020s (CCC, 2015). More recently, the CCC report on recommendations for achieving net zero states that 75 GW of offshore wind could be required to reach net zero by 2050 (CCC, 2019b).
121. There have been further recent notable developments in Government Policy and legislation including:
- The Government's Ten Point Plan for a Green Industrial Revolution (HM Government, 2020a), which sets out the approach the Government will take to support green jobs and accelerate the path to net zero. Point one of the plan sets out how the Government will advance offshore wind as a critical source of renewable energy. By 2030 the aim is to produce 40 GW of offshore wind.
 - Energy White Paper: Powering Our Net Zero Future (HM Government, 2020b), sets out how the UK will reach targets for net zero emissions by 2050. The paper builds on the Ten Point Plan to set energy related measures, including a shift to low carbon and renewable energy.

122. The Net Zero Strategy: Build Back Greener (HM Government, 2021b), further builds on the approach presented in the Ten Point Plan. The policy paper sets out policies and proposals to deliver commitments on carbon budgets, Nationally Determined Contribution (NDC) and ambition for a decarbonised economy by 2050. The policy paper is pursuant to Section 14 of the Climate Change Act 2008. The Net Zero Strategy was successfully legally challenged in July 2022 mainly on the ground that it *“lacked any quantitative assessment of the contributions expected to be made by individual policies to reductions in GHG emissions, and also because the report did not reveal that the quantitative analysis put before the Minister left a shortfall against the reductions required by CB6, or how that shortfall was expected to be met”* (Royal Courts of Justice 2022). The court therefore ordered the SoS to provide a further report to Parliament by April 2023 to address these omissions but the Strategy as a whole has not been quashed and remains in place as the report on proposals and policies for meeting carbon budgets as required under the Climate Change Act.
123. The recent British Energy Security Strategy (HM Government, 2022) sets an even more ambitious target of 50 GW of offshore wind by 2030. This Strategy represents the latest Government target for offshore wind.
124. At the end of 2021 the failure to so far meet the need established in NPS EN-1 for 59 GW of new installed generation capacity, as part of 113 GW of total generation capacity, by 2025 (installed capacity in fact fell from 85 GW in 2009 by 8 GW to 77 GW in 2021¹) has meant greater reliance on gas and other fossil fuels with commensurate failures to “dramatically” reduce emissions from energy generation required by NPS EN-1 (paragraph 3.3.22). Nor is the assumed addition of 33 GW of renewable energy generating capacity by 2025 on track to be delivered: by 2021 only an additional 18 GW had been installed. Therefore the policy requirement in NPS EN-1 to increase generation capacity in general and from renewables and low carbon sources in particular in order to reduce carbon emissions, far from having been achieved, is more emphatically necessary now than it was at the time of designation of the NPSs. SEP and DEP would be under construction in 2025 and operational within four years (if both projects are built concurrently). Once operational SEP and DEP would each contribute to these emissions reductions targets with an installed capacity of 4% of the current shortfall based on the 40 GW target, and 2.5% of the current shortfall of the 50 GW target to support meeting the UK’s net zero ambitions by 2030.
125. A summary of the progress towards the installed generation capacity defined in EN-1 is set out in [Table 5-1](#) below.

¹ NPS EN1 (DECC 2011) refers to “85GW now” based on the drafting of the NPS in 2010 and a total of 84,831MW of de-rated capacity recorded for 2009. This is shown to have reduced to 76,579MW in 2021, a total capacity reduction of 8,252MW (Table 5.7 BEIS 2022). Similarly Renewables capacity (de-rated) has increased from 5,116MW in 2009 to 23,293MW in 2021 (Table 6.2 BEIS 2022), a total renewables capacity increase of 18,177MW.



Table 4-1: UK Generation Capacity: Progress to Date toward NPS EN-1 2025 Minimum Need

	Policy Paragraph	Baseline Capacity in 2009	Minimum Need for Capacity by 2025	Addition needed	Total Capacity in 2021	Capacity increase or decrease to date	Shortfall from 2025 Minimum Need
Total UK Generating Capacity	3.3.22 & 3.3.23	85 GW	113 GW	59 GW (inc for closures)	77 GW	↓	36 GW
UK Generating Capacity from Renewables	3.3.22	6 GW	39 GW	33 GW	18 GW	↑	15 GW

- 126. SEP and DEP have a design life of approximately 40 years and have the potential to continue to provide an installed capacity of at least 786 MW of clean, renewable energy.
- 127. This development would contribute between 1,868 GWh/per annum (SEP alone as the smallest of the two Projects) and 4,345 GWh/per annum (SEP and DEP) of renewable energy each year. This would reduce greenhouse gas emissions by approximately 700,000 to 1,500,000 tonnes CO₂ per year and thereby playing an important role in reaching net zero greenhouse gas emissions by 2050. Further details of greenhouse gas emissions are set out in **Appendix 4.2** of ES **Chapter 4 Project Description** (document reference 6.1.4.2).
- 128. SEP and DEP will therefore make a significant contribution to the UK’s contribution to global efforts to reduce emissions and the effects of climate change. As referred to above The Climate Change Act 2008 (as amended by the 2050 Target Amendment Order 2019) set a UK target for at least a 100% reduction of greenhouse gas emissions (compared to 1990 levels) by 2050. This ambitious ‘net zero’ target will only be met by the crucial contribution from the offshore wind industry.

4.1.2 The Need for Energy Security

- 129. NPS EN-1 policy in paragraph 2.2.20 is that *“It is critical that the UK continues to have secure and reliable supplies of electricity”* and (paragraph 3.4.2) that: *“Renewables have potential to improve security of supply by reducing reliance on the use of coal, oil and gas supplies to keep the lights on and power our businesses”*. Draft NPS EN-1 also emphasises the need for security of supply, paragraph 2.4.6 of which states that *“Given the vital role of energy to economic prosperity and social well-being, it is important that our supply of energy remains secure, reliable and affordable”*.



130. Energy security is about ensuring secure, reliable, uninterrupted supplies to consumers, and having a system that can effectively and efficiently respond and adapt to changes and shocks. It is made up of three characteristics: flexibility, adequacy and resilience (BEIS, 2017).
131. Key issues associated with energy security in the UK are:
- The decline in fossil fuel reserves and the assumption in the British Energy Security Strategy, that gas consumption will have reduced by 40% by 2030 (HM Government, 2022);
 - The required ongoing closure and decommissioning of existing ageing fossil fuel and nuclear energy generating infrastructure;
 - Limits placed on CO₂ emissions from Capacity Market Plants burning fossil fuels to below 550gCO₂/kWh from 2020 (as explained in paragraph 2.4.10 of draft NPS EN-1); and
 - The need for replacement sources.
132. On 7 April 2022 the UK published its British Energy Security Strategy. The key aim of the strategy is for the UK to achieve long-term independence from foreign energy sources and decarbonise the nation's power supply. The strategy echoes the communication released on 8 March 2022 by the European Commission in relation to the Joint European Action for more affordable, secure and sustainable energy. The British Energy Security Strategy (HM Government, 2022) reinforces the Government's commitment to decarbonisation, with an ambitious new UK wide target for installed offshore wind capacity increased to 50 GW by 2030.
133. The UK has been a net importer of electricity since 2010. Overall net energy imports reduced in 2019, accounting for 35.2% of the total energy used in the UK. Total energy production decreased 0.2% in 2019, driven by reduced output from gas and nuclear (BEIS, 2020c). With declining fossil fuel reserves and ageing nuclear power infrastructure, there remains a need for new energy sources. There was a significant reduction in energy demand in 2020 as a result of the Covid19 pandemic. However, this is not felt to be representative of the year on year trend to that point or future projects and recently released records for 2021 show demand recovering significantly from April that year when restrictions began to be lifted, as stated in BEIS 2022:
- “Energy consumption in 2021 remained low, up 4.6 per cent on 2020 but down 8.9 per cent on 2019. Consumption was low at the start of the year and increased from April onwards as restrictions eased. Energy requirements for industrial use and services (e.g., shops, restaurants, offices) were up and returning to near pre-pandemic levels. Domestic demand remained higher than usual as people continued to spend more time at home”.*

134. Reliance on global markets for imported energy leaves the UK vulnerable to spikes in world energy market prices, political pressure, potentially physical supply disruptions and the knock-on effects of supply challenges in other countries. For example, a significant proportion of France’s nuclear plants have been closed during 2022 due to planned maintenance, damage to facilities and very hot weather, and so the UK has been using more gas in power stations to supply France via 3 GW of electricity interconnectors, so while interconnectors can help improve the UK’s energy security, they can also place additional demand burden when other countries need them for their own security.
135. In addition, the British Energy Security Strategy (HM Government 2022) involves an *“approach to reduce global reliance on Russian fossil fuels whilst pivoting towards clean, affordable energy”* in the light of the invasion of Ukraine and concerns around reliance in Europe on Russian fuel imports, the constraining of which has led to significant global price rises for consumers. The strategy has been rapidly deployed with House of Commons Library research finding in August 2022 (House of Commons 2022) that:
- “In 2021 imports from Russia made up 4% of gas used in the UK, 9% of oil and 27% of coal. In 2021, imports of gas, oil and coal from Russian to the UK were worth a combined £4.5 billion. According to Eurostat, in 2020, imports from Russia made up 39% of the gas used in the EU, 23% of oil imports and 46% of coal imports.*
- In June 2022, the fourth full month since the invasion, according to UK trade statistics, the UK Imported no oil, gas or coal from Russia. This was the third month in a row with no Russian gas imports, but the first month (since 2000 when this data is available back to) with no gas, oil or coal imports from Russia”*
136. In a global market, this further reduction in supply from Russia continues the upward pressure on prices for energy in the UK and Europe even when the UK’s supplies are more diversified.
137. The UK Government recognises the importance to businesses and households of access to an affordable, secure and sustainable supply of energy:
- “Where applicable, national objectives with regard to reducing energy import dependency from third countries, for the purpose of increasing the resilience of regional and national energy systems”* (BEIS, 2019b).
138. Overall, the reduction in UK generating capacity from 85 GW recorded at the time of designation of NPS EN-1 to 75.8 GW today, lends even greater weight to the policy support for the deployment of more new renewable generation capacity to establish security of supply for the UK and for UK households.

4.2 The Need to Replace Closing Electricity Generating Capacity

139. NPS EN-1 policy on the need to replace closing electricity generating capacity is that (paragraph 3.3.9) *“any reduction in generation capacity from current levels will need to be replaced in order to ensure security of supply is maintained”*.

140. Many of the UK's older fossil fuel and nuclear plants have either reached the end of their operational life span, are no longer economical to run, and/or do not meet legal air quality limits. The Clean Growth Strategy (BEIS, 2017) states that the UK Government will continue to invest in electrification of transport, heating and industry. Electricity demand in the UK is likely to rise during the 2020s as a greater proportion of the heat and transportation systems electrify.
141. When EN-1 was published, total generation capacity in the UK was around 85 GW, whilst the average demand across a year was only around half of this (43 GW). By 2021 total generation capacity had decreased to 75.8 GW, which itself was a 2.7 per cent decrease on the 77.9 GW capacity in 2019. As above total UK generating capacity stood at 77 GW in 2021 (BEIS 2022). The UK Energy Security Strategy (DECC, 2012a) estimated that around a fifth of the energy capacity available in 2011 would close by 2020. In reality the closure of fossil fuel and nuclear generating capacity has outstripped the increased deployment of renewable and gas generation capacity (gas fired generating capacity in the UK increased from 31 GW in 2009 to 35 GW in 2021 (BEIS 2022)). Closure of fossil fuel generator and nuclear plants, most notably coal and nuclear, is expected to intensify, with further predicted losses of 19 to 22 GW (by 2025), over and above the 22 GW anticipated by the NPS in 2011; expected to represent a total loss from these sources of 41 to 44 GW by 2025 (BEIS, 2018). A number of these closures have already taken place with coal fired generation capacity declining from 24 GW in 2009 (the baseline year for NPS EN-1) to 5 GW in 2021 (a 79% reduction) and nuclear capacity falling from 11 GW to 8 GW over the same period (a 27% reduction). Dual fuel and oil generating capacity also both declined over the same period by 92 and 80 per cent respectively but from comparatively modest levels of 5-6 GW capacity in 2009 in both cases.
142. NPS EN-1 sets out that the projected additional electricity generating infrastructure to ensure adequate supplies from renewable sources to help address the closure of electricity generating capacity is 33 GW by 2025 (paragraph 3.3.22). The electricity generated by renewables has increased and in 2021 reached a capacity of 22.4 GW (derated to reflect intermittency), accounting for 39.6% of UK electricity generated in 2021 and now outstripping generation from fossil fuels (Table 6.2 BEIS, 2022 – down slightly from 43.1% in 2020 due to changes in wind conditions).
143. However, while there have been increases in renewable capacity, in particular offshore wind, these have been offset by the closure of two large coal power stations and the nuclear power stations Dungeness B and Hinkley Point B.
144. Proposals in the British Energy Security Strategy (HM Government 2022) for 24 GW of new nuclear capacity by 2050 would deliver 25% of projected electricity demand, compared with the sector's 15% contribution in 2022. However, only one new nuclear station is currently under construction and so any future proposals will not offset the shorter term closures within the timescale established by NPS EN-1 policy (paragraph 3.3.22) i.e. by 2025. The same Strategy also assumes more utilisation of North Sea oil and gas reserves but as a means to reduce reliance on imported sources – the Strategy still assumes a reduction in gas consumption of 40% by 2030.



145. The targets set in the Strategy (HM Government 2022) for onshore wind and do not include any changes to current planning policy that would indicate any significant uplift in capacity from this sector was likely. The Strategy sets an expectation of a fivefold increase in solar deployment by 2035, from 14 GW in 2022, therefore potentially contributing around 38 GW by 2030 (or at the rate of 5.4 GW per year, 10.8 GW by 2025). This will replace some of the recent and pending closures but the significantly lower capacity factor of solar relative to gas, coal or nuclear, means it will not be sufficient to replace the predicted losses.
146. It is clear from the reduced capacity of the UK to generate electricity compared with 2011 that lost capacity has not been replaced meaning the need to replace this and therefore the import of designated NPS policy that “*any reduction in generation capacity from current levels will need to be replaced*” (paragraph 3.3.9) are greater and more pressing than at the time of designation. The British Energy Security Strategy (HM Government, 2022) has set a target of 50 GW of offshore wind capacity by 2030, of which SEP and DEP would contribute 2.5% of the current shortfall.

4.3 The Need for More Electricity Capacity to Support an Increased Supply from Renewables

147. This aspect of NPS policy on Need addresses the variability of electricity supply delivered by wind energy and concludes (paragraph 3.3.12 of NPS EN-1): “*It is therefore likely that increasing reliance on renewables will mean that we need more total electricity capacity than we have now, with a larger proportion being built only or mainly to perform back-up functions*”.
148. Draft NPS EN1 (2021) also addresses this area and lists a range of non-wind energy generation that will be needed for this reason. The British Energy Security Strategy (HM Government 2022) also lists the anticipated contributions from the range of renewable sources (see also Section 4.2 above).
149. SEP and DEP will add to total UK generating capacity thereby addressing the need not just to replace closing generation capacity (as above) but once that capacity has been replaced, to also contribute to the additional back up levels of capacity that are required by this NPS policy.

4.4 Future Increases in Electricity Demand

150. NPS EN-1 policy (paragraph 3.3.14) on meeting future increases in demand is that “*Depending on the choice of how electricity is supplied, the total capacity of electricity generation (measured in GW) may need to more than double to be robust to all weather conditions. In some outer most circumstances, for example if there was very strong electrification of energy demand and a high level of dependence on intermittent electricity generation, then the capacity of electricity generation could need to triple. The Government therefore anticipates a substantial amount of new generation will be needed*”. The NPS noted at the time there was “*85 GW of generating capacity in the UK despite the fact that “the average demand across a year is only for around half of this”* (EN-1 3.3.2).

151. Whilst BEIS 2021 noted a decline in demand for electricity in 2021 (*“Electricity demand reached a record low in 2020 of 330.0 TWh”*) this has been attributed to the reduction in economic activity due to the global pandemic and as noted above recent figures have now confirmed a significant increase in demand from April 2021 onward as pandemic restrictions began to be lifted. Draft NPS EN1 (BEIS 2021) updated assumptions on electricity demand basing its analysis on the sixth carbon budget, within which assumptions show a doubling of electricity demand in the period to 2050: *“Our analysis suggests that even with major improvements in overall energy efficiency, and increased flexibility in the energy system, demand for electricity is likely to increase significantly over the coming years and could more than double by 2050 as large parts of transport, heating and industry decarbonise by switching from fossil fuels to low carbon electricity. The Impact Assessment for CB6 shows an illustrative range of 465-515TWh in 2035 and 610-800TWh in 2050”* (paragraph 3.3.3).
152. The Government's commitment to reducing reliance on gas and oil for heating and transport respectively will significantly increase demand for electricity to at least 400TWh by 2050 in all National Grid Future Energy Scenarios presented in its 2021 report (National Grid 2021).
153. Current levels of demand alongside large plant closures mean that the peak demand for electricity during the winter 2020/21 was equivalent to 75.5 per cent of UK major power producers' generation capacity. In 2011 peak demand amounted to only 69.8% of total capacity, a figure 3.2 percentage points higher than in 2019 (page 37 and Table 5.3 of BEIS 2021).
154. The shrinking gap between peak demand and UK major power producers' generation capacity year on year, against a backdrop of rising demand and when considered against the aspiration in established NPS policy that the margin should be around twice the size it is now, presents a stark indication of the continuing importance of designated NPS policy *“that a substantial amount of new generation will be needed”* to address increases in electricity demand.
155. SEP and DEP would address the worsening ratio of total UK generating capacity to demand since the NPS was designated and contribute to achieving the policy objective of providing sufficient capacity to meet increasing demand.

4.5 The Urgency of the Need for Low Carbon Electricity Capacity

156. NPS EN-1 establishes as a matter of policy the urgency of the need for new (and particularly low carbon) electricity generating capacity, stating at paragraph 3.3.15 (emphasis added): *“In order to secure energy supplies that enable us to meet our obligations for 2050, there is an urgent need for new (and particularly low carbon) energy NSIPs to be brought forward as soon as possible, and certainly in the next 10 to 15 years, given the crucial role of electricity as the UK decarbonises its energy sector”*.

157. Assessments in NPS EN-1 noted that the Updated Energy and Emissions Projections of the time assumed that electricity demand in 2025 would be approximately the same as it was at the time of publication in 2011 (paragraph 3.3.20. Electricity demand in 2011 was 374 TWh as compared to 334TWh in 2021 (Table 5.2 BEIS 2022). This is likely to be due to a pandemic related depressing effect, as above. However, NPS EN-1 also assumes that demand will be higher by 2025 once allowance is made for take up of electric vehicles (paragraph 3.3.14). Given electric vehicle take up is now accelerating (the Government envisages 300,000 public charge points being installed by 2030 to cope with increases such as the 77 per cent increase in registrations in the north of England in 2021 compared to 2020 (Department for Transport 2022)), the post-pandemic recovery in demand for electricity from April 2021 and the proposals set out in the sixth carbon budget (ibid), the assumption that demand will be at least as high, if not higher than it was at the time of designation of NPS EN-1 remains valid (see also section 4.4).
158. Resulting NPS policy, taking account of the need for excess or headroom capacity to account for the variability of renewable sources of generation, is that 113 GW of total generation will be needed by 2025 of which 59 GW would be new build, a breakdown of which is given (EN-1 paragraph 3.3.22) as being made up of: *“around 33 GW of the new capacity by 2025 would need to come from renewable sources to meet renewable energy commitments as set out in Section 3.4; it would be for industry to determine the exact mix of the remaining 26 GW of required new electricity capacity, acting within the strategic framework set by the Government; of these figures of 33 GW and 26 GW respectively, around 2 GW of renewables and 8 GW of non-renewable technologies are already under construction. This leaves a balance of 18 GW to come from new non-renewable capacity; and the Government would like a significant proportion of this balance to be filled by new low carbon generation and believes that, in principle, new nuclear power should be free to contribute as much as possible towards meeting the need for around 18 GW of new non-renewable capacity by 2025”*.
159. Draft NPS EN1 (2021) similarly sets out the range of generation options and concludes “All the generating technologies mentioned above are urgently needed to meet the Government’s energy objectives”.
160. As set out above current generation capacity in the UK stands at only 76.6 GW in 2021 (BEIS 2022), supported by additional wind energy installations recently coming on stream, but remaining significantly behind the minimum need for 113 GW supply capacity target established in NPS EN1.
161. In relation to the subsidiary need in NPS EN-1 for 33 GW of new capacity in 2025 to come from renewables, with total UK renewable generation capacity standing at only 23.2 GW, this remains to be met. In addition the assumptions and minimum need set out in NPS EN-1 need to be considered in the context of the increased Government ambition in the Net Zero Strategy and British Energy Security Strategy, as above, which seek an increase in many sources of new electricity generation, including 50 GW of offshore wind by 2030. These stretching targets only add to the urgency of securing new low carbon supply.



162. The shortfall in meeting established NPS and newer related targets mean that NPS policy on the urgency of need for new low carbon generation remains urgent and that the contribution of SEP and DEP towards meeting this minimum need is of even greater importance than when NPS EN-1 was designated.

4.6 Alternatives to New Large Scale Electricity Generation Capacity

163. NPS EN-1 policy is that alternative measures alone will not enable the UK to meet its energy and climate change objectives. The part each measure can play is considered in the following policy areas set out in the document.

4.6.1 Reducing Demand

164. Reductions in demand for electricity from large scale generation are predicated in NPS EN-1 policy (paragraphs 3.3.27 to 29) on micro-generation (including with support from the now discontinued feed in tariffs), the phasing out of incandescent lightbulbs, minimum energy efficiency standards for new goods, increased energy efficiency advice and financial support in the public sector and other incentives such as the introduction of smart meters.
165. Smart meters are now widely in use, a feed in tariff scheme was established and supported a range of micro generation installations but has subsequently been discontinued, incandescent light bulbs have now been phased out and schemes have been provided to public authorities to make their buildings more energy efficient. From this recent history it is clear that these initiatives have continued more or less as envisioned in the NPS.
166. However, Government measures to reduce energy demand in new homes to zero through building regulations have been delayed from 2016 to current proposals for the Future Homes Standard to enter into force around 2025, though the proposed reduction levels will not be consulted on until 2023.
167. Government measures to improve the energy performance of existing homes have not delivered reductions that would have been anticipated in 2011. Analysis by Carbon Brief (Evans, 2022) shows that household energy bills would have been £13bn lower in 2020 had energy efficiency and low carbon schemes not been scaled back. Together, these suggest that future energy demand is likely to have been assumed to be lower in NPS EN-1 than the reality in 2022. Draft NPS EN1 (2021) similarly maintains reductions in demand as a key element of Government policy but, as with the above initiatives of recent past, this is insufficient to meet increased demand for electricity from transport and heating.
168. Importantly, while energy demand reductions are being achieved, the demand for electricity will increase with the large scale electrification assumed by National Grid in their scenarios and the British Energy Security Strategy. Increasing the supplies of wind and other electricity generating renewables will therefore be crucial to reducing overall energy demand.
169. Demand reduction measures have therefore continued to be taken but have not altered the need for generation capacity set out in NPS EN-1.



4.6.2 More Intelligent Use of Electricity

170. Shifting the pattern of energy demand and usage over time through battery and pumped storage is considered as part of the Government’s strategy in this policy section (paragraphs 3.3.30 and 31 of NPS EN-1). Pumped storage capacity was the only commercial scale storage solution available at the time of publication of NPS EN1 when 3 GW existed. A further 2.4 GW has now been granted consent but will take a number of years to come on stream (IHA 2021) such that this will not appreciably contribute to meeting the minimum need for additional energy generation capacity to be established by 2025 as defined in NPS EN1 policy.
171. Battery storage has grown to 1.6 GW in the UK by April 2022 (RUK 2022) with a further 10 GW consented. However, given that battery storage capacity is subject to derating down to as little as 20% of maximum output, battery storage cannot alone make an appreciable difference, of the scale required by NPS EN-1 (paragraph 3.3.22), to total UK capacity by 2025 which can be made by offshore wind energy generation, such as the SEP and DEP projects. Importantly, batteries are designed to provide very short term capacity, often to ensure system frequency is maintained or balance supply and demand minute-by-minute or hour-by-hour, rather than longer-term supply over days and weeks.
172. The British Energy Security Strategy (HM Government 2022) seeks to increase hydrogen production up to 10 GW by 2030, with at least half of this from electrolytic hydrogen (rather than for example gas). The Strategy has ambitions to use hydrogen to replace natural gas in transport and longer term storage. Beyond this, there are no clear targets for energy supply capacity and so it is not possible to confirm whether or not it will have an effect on energy demand.
173. More intelligent use of energy, through storage, has therefore developed in the proportions envisaged in NPS EN-1 and has not in any way obviated the need for additional large scale generation in NPS EN-1 (paragraph 3.3.22).

4.6.3 Interconnection of Electricity Systems

174. NPS EN-1 policy envisages the development of interconnectors “*which could increase capacity to over 10 GW by around 2020*” (paragraph 3.3.33). In reality “*As of March 2022, the UK has seven international interconnectors with a total capacity of 7,440 MW*” (BEIS 2022a) thus the increase to 10 GW envisaged by 2020 has yet to be achieved. Applications for new interconnectors to Belgium and to Norway have been recently notified to the Planning Inspectorate but timescales are not confirmed. NPS EN-1 policy therefore remains that (3.3.33) “*Increased investment in interconnection is therefore unlikely to reduce the need for new infrastructure in the UK to a great extent*” and the 33 GW minimum additional generation capacity from renewables under NPS EN-1 policy (paragraph 3.3.22) therefore remains unchanged.



175. Storage and international interconnection are considered together in the new draft NPS EN-1 which recognises the role that smart charging of electric vehicles can play in smoothing out peaks in demand, but notes that such techniques cannot reduce the total amount of electricity consumed. The new draft therefore supports the fundamental approach in NPS EN-1, stating in draft NPS EN-1 paragraph 3.3.18 that *“neither of these technologies, as with demand side response, are sufficient to meet the anticipated increase in total demand, and so cannot fully replace the need for new generating capacity”*.

4.6.4 Conclusions on Alternatives to New Large Electricity Generation

176. Paragraph 3.3.34 of NPS EN-1, concluding on alternatives to large scale generation states: *“The Government believes that although all of the above measures should and will be actively pursued, their effect on the need for new large scale energy infrastructure will be limited, particularly given the likely increase in need for electricity for domestic and industrial heating and transport as the UK moves to meet its 2050 targets”*. Given the current state and levels of alternative generation set out above and the even more limited impact alternatives have had than was envisaged in 2011, the conclusion in this NPS EN-1 policy on the need for large scale generation (paragraph 3.3.22) is afforded even greater emphasis and weight and the need for SEP and DEP as proposed large scale generation therefore remains essential. The role of and urgency of need for new renewable electricity generation.
177. NPS EN-1 policy (paragraph 3.4.1) is that *“the UK has committed to sourcing 15% of its total energy (across the sectors of transport, electricity and heat) from renewable sources by 2020”* as established in the UK Government’s 2009 “Renewable Energy Strategy”.
178. In terms of national targets for renewable energy, the UK Government transposed the European Union Renewable Energy Directive into UK law, primarily through The Promotion of The Use of Energy from Renewable Sources Regulations 2011 and the Renewable Transport Fuel Obligations (Amendment) Order 2011, which set targets to deliver on the Renewable Energy Directive by sourcing 15% of all energy and 10% of transport fuels from renewables by 2020. Whilst the Directive is no longer a part of UK legislation, the regulations remain in force.
179. In April 2022 the Government’s British Energy Security Strategy (HM Government, 2022) established further support for renewables generation. Amongst a suite of policy changes promised to facilitate faster delivery of renewable energy the Strategy includes the ambitions to deliver by 2030:
- a fivefold increase in solar electricity generation to 70 GW by 2035 including ground-mounted and rooftop (from 14.7 GW of installed solar capacity at present;
 - 50 GW of offshore wind electricity generation (from 12.7 GW installed offshore wind today); and
 - 10 GW low carbon hydrogen production capacity by 2030 (NB. This is not a target for electricity generation but production of hydrogen for use in multiple sources).



180. Whilst a good deal of progress has been made in renewable electricity generation, progress of total renewable energy has been slower. Renewable electricity generation capacity has grown fivefold since 2010, driven by the deployment of wind, solar and biomass. As part of this the UK had 11 GW of operational offshore wind electricity generation by the end of 2021, up from just over 1 GW in 2010. As stated in BEIS 2021: *“Renewable generation, as a percentage of generation, continued to grow and reached a record 43.1% in 2020, outpacing for the first-time annual fossil fuel generation. Over the last ten years, renewable generation has increased from 6.9 per cent to the current record high. Wind generation is a critical element of renewable’s performance, reaching a record high 24.2% up from 2.7% in 2010”* (as noted above this decreased to 39.6 per cent in 2021 due to wind conditions – BEIS 2022).
181. In contrast total renewables accounted for 13.6 per cent of total energy consumption in 2020, some way short of the 15% target (but up from 11.7 percent in 2019) (BEIS 2022). Minimum need for the delivery of renewable energy set out in NPS policy have therefore not yet been met and, in the words of NPS policy EN-1 paragraph 3.5.4 *“To hit this target, and to largely decarbonise the power sector by 2030, it is necessary to bring forward new renewable electricity generating projects as soon as possible. The need for new renewable electricity generation projects is therefore urgent”*.
182. SEP and DEP will have an expected export capacity representing 4% of the current shortfall from the target to achieve 40 GW offshore wind generation capacity by 2030 set out in the Queen’s Speech 2019 (HM Government 2019b) and 2.5% of the shortfall from the target to achieve 50 GW of offshore wind generation capacity as set out in the British Energy Security Strategy (HM Government 2022). This will therefore contribute to meeting the urgent need for renewable electricity generation.

4.7 The Need to Maximise Economic Opportunities

183. NPS EN-1 policy on economic opportunities is that (paragraph 2.2.1) *“energy is vital to economic prosperity and social well-being and so it is important to ensure that the UK has secure and affordable energy”* and that (paragraph 3.3.11) *“An increase in renewable electricity is essential to enable the UK to meet its commitments It will also help improve our energy security by reducing our dependence on imported fossil fuels, decrease greenhouse gas emissions **and provide economic opportunities**”* (emphasis added). On economic impacts and benefits paragraph 5.12.8 requires the SoS to take into account measures to mitigate socio-economic impacts and legacy benefits of SEP and DEP.
184. The need to maximise economic opportunities is given greater emphasis by a range of subsequent Government and related policies which are considered important and relevant to the decision on SEP and DEP and are considered below.

185. The UK Clean Growth Strategy (HM Government, 2017a) recognises that actions and investments will be needed to meet the Paris Agreement commitments and that the shift to clean growth will be at the forefront of policy and economic decisions made by Governments and businesses in the coming decades. This creates enormous potential economic opportunity – an estimated \$13.5 trillion of public and private investment in the global energy sector alone will be required between 2015 and 2030, if the signatories to the Paris Agreement are to meet their national targets (BEIS, 2017).
186. In 2017, ORE Catapult undertook analysis of the UK offshore wind supply chain and estimated the current and future potential UK content of offshore wind projects (as a proportion of the overall UK energy production) as: 32% in 2017; 50% by 2020; and 65% by 2030. For context it was 43.1% in 2022 (BEIS, 2021c) so the projected figures remain valid. In the UK, the gross value added (GVA) to the UK per GW installed, assuming 32% UK content, has been estimated as £1.8bn and is projected to increase to £2.9bn by 2030 – if 65% UK content can be achieved (assuming that 19 GW installed capacity is reached) (ORE Catapult, 2017a). It is estimated that the total (domestic and export) market for UK-provided offshore wind could exceed £10.5bn by 2050 and reach £4.9bn annually by 2030 and £8.9bn by 2050 (under a high scenario) (ORE Catapult, 2018).
187. According to RenewableUK’s Offshore Wind Industry Investment in the UK report (RenewableUK, 2017), 48% of the total expenditure associated with UK offshore wind farms was spent in the UK in 2015. The UK content of expenditure during the development stage and operation of offshore wind projects was 73% and 75% respectively in 2015, whereas during manufacturing and construction the UK content was 29% (RenewableUK, 2017).
188. The UK is positioned to continue growth in the offshore wind sector by maximising domestic energy resources and utilising the vast offshore wind resource which the UK holds. The UK also has a strong supply chain that continues to expand to support the growth in offshore wind.
189. The Energy White Paper: Powering Our Net Zero Future (HM Government, 2020) focusses on making the transition to clean energy by 2050 and what this will mean for consumers of energy in homes and places of work. A key aim for offshore renewables within the White Paper states:
- “We will invest in the growth of the UK’s offshore wind manufacturing infrastructure to create jobs and opportunity in the UK supply chain. We will use our Offshore Wind Sector Deal with the renewables sector to ensure that domestic deployment creates jobs and raises skills levels across the country, and to support overseas trade and investment opportunities for UK-based companies. We will require developers who are awarded a CfD, to honour their supply chain plans.”*
190. The energy sector in the UK plays a central role in the economy and renewable energy can play a major part in boosting the economy and providing new jobs and skills.



191. The offshore wind industry in the UK provides important 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 wind energy sector in the UK (The Crown Estate, 2014). Low carbon businesses and their supply chain have created over 430,000 skilled jobs in the UK with 7,200 jobs directly in offshore wind (BEIS, 2020b):

“Offshore wind has become a key part of the UK economy, creating much needed jobs not only in coastal communities like Hull, Grimsby and Great Yarmouth, but also across the country in the ever-expanding supply chain. A huge number of British companies are heavily involved in building the UK’s world-leading offshore wind sector.” (RenewableUK, 2017).

192. The UK Government’s Ten Point Plan for a Green Industrial Revolution (November 2020), also sets out the approach the Government will take to support green jobs and accelerate the path to net zero. Steps have already been taken to realise this ambition through industry investment into the Offshore Wind Growth Partnership of up to £250m to support better, high-paying jobs right across the UK (BEIS, 2019b).
193. The Offshore Wind Sector Deal builds on the UK’s global leadership in offshore wind, maximising the advantages for UK industry from the global shift to clean growth (BEIS, 2020b). The Government’s higher target for 40 GW by 2030 as announced in the 2019 Queen’s Speech (HM Government, 2019b) demonstrates the Government’s recognition of the need to accelerate progress towards net zero emissions. The UK Government Ten Point Plan supports the industry’s target to achieve 60% UK content by 2030. The offshore wind commitments will enable the offshore wind sector to support up to 30,000 direct jobs and 30,000 indirect jobs in ports, factories and the supply chains by 2030.
194. Most recently, in a letter to Prime Minister Boris Johnson, the CCC stressed that after the COVID-19 crisis actions towards net-zero emissions and to limit the damages from climate change will help rebuild the UK with a stronger economy and increased resilience (CCC, 2020). The CCC has advised UK Government that reducing greenhouse gas emissions and adapting to climate change should be integral to any recovery package.
195. SEP and DEP will provide not only investment, but will also support the development of the supply chain, a skilled workforce and provide employment. Details of the anticipated expenditure from the construction and operation of SEP and DEP (direct and indirect) are provided in [Section 4.9](#) and [Chapter 27 Socio-Economics and Tourism](#) (document reference 6.1.27).

4.8 The Need to Produce Affordable Energy

196. NPS EN-1 policy on affordability recognises the importance of affordable energy to the consumer. Paragraph 2.2.1 states that *“energy is vital to economic prosperity and social well-being and so it is important to ensure that the UK has secure and affordable energy”*.
197. The need for affordable energy for households and industry is also a key theme draft NPS EN-1 published in 2021 (BEIS 2021a). As stated in draft paragraph 2.3.2:



“Our objectives for the energy system are to ensure our supply of energy always remains secure, reliable, affordable, and consistent with meeting our target to cut GHG emissions to net zero by 2050, including through delivery of our carbon budgets and NDC. This will require a step change in the decarbonisation of our energy system”.

198. And in draft paragraph 2.3.5:

“We need to transform the energy system, tackling emissions while continuing to ensure secure and reliable supply, and affordable bills for households and businesses. This includes increasing our supply of clean energy from renewables, nuclear and hydrogen manufactured using low carbon processes...”

199. Similarly the Introduction of the British Energy Security Strategy (HM Government 2022) begins: *“Energy is the lifeblood of the global economy. From heating our homes to powering our factories, everything we do depends on a **reliable flow of affordable energy**”*, it adds that *“the long-term solution is to **address our underlying vulnerability to international oil and gas prices by reducing our dependence on imported oil and gas**”* (emphasis added).

200. In addition, in order to help meet the targets described in the sections above, renewable energy needs to be affordable. The UK has a world leading offshore wind sector and is well placed to benefit from further investment in renewables innovation to accelerate cost reduction. The Government, in partnership with the Research Councils and Innovate UK, expects to invest around £177 million to further reduce the cost of renewables, including innovation in offshore wind turbine blade technology and foundations.

201. Through offshore wind developer-led innovation there has been a significant reduction in the levelized cost of energy in recent years. The Clean Growth Strategy (BEIS, 2017) indicates that the costs of offshore wind have decreased significantly (50% fall since 2015) which will help to reduce energy costs to the end user. UK offshore wind industry achieved a ‘strike price’ (the minimum price developers will be paid for electricity) as low as £39.65/MWh in the Government’s latest CfD auction in 2019. That price is 30% lower than the lowest strike price seen in the second CfD auction in 2017. More recently the results of the UK Government’s Contracts for Difference Allocation Round 4 is strike prices for offshore wind generation as low as £37.35 per MWh in 2012 prices for 2026/27 (BEIS 2022b).

202. The Clean Growth Strategy (BEIS, 2017) gives a strong commitment from Government to achieving the UK’s already agreed climate change goals. Additionally, the UK Offshore Wind Sector Deal (BEIS, 2019a) reinforces the aims of the UK for clean growth. The UK has a world leading offshore wind sector and is well placed to benefit from further investment in renewables innovation to accelerate cost reduction.

203. Developers are continuing to drive these cost reductions through technology development and new work processes. The development of SEP and DEP will contribute to this process. In addition, synergies with the existing Sheringham Shoal and Dudgeon offshore wind farms, particularly once all projects are operational. SEP and DEP will contribute to driving technology and development costs down.

4.9 Benefits Realised from Development of SEP and DEP

204. One of the general principles established in NPS EN-1 policy (paragraphs 4.1.3 and 4) is that:

“In considering any proposed development, and in particular when weighing its adverse impacts against its benefits, the [SoS] should take into account:

- its potential benefits including its contribution to meeting the need for energy infrastructure, job creation and any long-term or wider benefits; and
- its potential adverse impacts, including any long-term and cumulative adverse impacts, as well as any measures to avoid, reduce or compensate for any adverse impacts.
- In this context, the [SoS] should take into account environmental, social and economic benefits and adverse impacts, at national, regional and local levels. These may be identified in this NPS, the relevant technology-specific NPS, in the application or elsewhere (including in local impact reports)”.

205. SEP and DEP will support the need to decarbonise our electricity system, deliver reliable and sustainable low-cost energy, prevent harm to the environment and create lasting value for local communities.

206. The project vision and its objectives are set out in the **Project Vision** (document reference 9.28). The overarching design objectives for SEP and DEP are collectively grouped as Safety, Climate, People, Value and Place. The design objectives under these headings have informed the development design and siting to ensure the project will fit sensitively into the local context, mitigating and providing enhancement benefits to communities and the environment where possible whilst meeting the Project Objectives requirements of energy production to help meet growing demand for low carbon energy.

207. Benefits of the Project include both embedded benefits and mitigation benefits and are considered below under the relevant design objective groups namely, Climate, Value and Place.

4.9.1 Climate Benefits

208. The benefits to Climate are described in Section 4.1 above.

4.9.2 Employment, Skills and Investment Value Benefits

209. SEP and DEP will double the generation capacity of the existing assets and could produce an export capacity of approximately 786 MW which is equivalent to powering over 785,000 UK homes per annum. To put this figure in perspective the 2021 census data identifies that there are 27.8 million households in the UK and 2.6 million households in the East of England. For East Anglia (Norfolk, Suffolk and Cambridgeshire) the total number of households is smaller at approximately 1 million. Based on the 2021 census data, the number of homes SEP and DEP would be equivalent to approximately:

- **3%** of the reported number of UK households;
- **30%** of the reported number of households in the East of England; or



- **85%** of the households in East Anglia

210. SEP and DEP will also provide a valuable contribution to UK and local employment. During the construction of SEP and DEP it is evidenced in ES **Chapter 27 Socio-Economics and Tourism** (document reference 6.1.27) that up to 1,730 full-time equivalent (FTE) jobs could be created. During the operation phase it is expected that SEP and DEP could employ up to 230 full-time equivalent (FTE) jobs, assuming that all direct O&M employment would be directly employed by SEP and DEP and based in the UK for the lifetime of SEP and DEP. SEP and DEP will also contribute to development of the supply chain and skilled workforce and the associated economic benefits. The indirect effects from employment and expenditure such as from the workforce will contribute to the local economy. There will also be significant expenditure in manufacturing, services, materials and equipment (see ES **Chapter 27 Socio-Economics and Tourism** (document reference 6.1.27)). Together, the two offshore wind farms have an estimated overall construction cost of £2.14 billion (in current pricing). Operation and Maintenance amounts to around £13.5 million per annum for the proposed SEP and £18.5 million per annum for the proposed DEP, totalling around £32.1 million per annum across both offshore wind farms. In total, the GVA of SEP and DEP over their operational lifetime (40 years) is expected to be £800 million making a significant contribution on the national level and £450 million GVA locally at the East Anglia level.
211. SEP and DEP will also contribute to raising skills for local people in the area of the Project empowering them to improve jobs and career options.
212. Skills and employment benefits will be delivered through the Skills and Employment Plan developed in consultation with local authorities, which is secured by a Requirement in the **Draft DCO** (document reference 3.1). This plan specifically sets out an approach to identifying opportunities to maximise local skills development, training and jobs.

4.9.3 Environmental, Biodiversity and Place Benefits

213. The Applicant has committed to deliver a biodiversity net gain by introducing new areas of planting, including woodland, tree belts, scrub and scrubby grassland, which will provide landscape and ecological enhancements, for further details refer to **Outline Biodiversity Net Gain Strategy** (document reference 9.19.2). Planting will be appropriate to the local landscape character and is intended to improve the green infrastructure network, helping to screen and filter views of the onshore substation from surrounding landscape and visual receptors, and integrate it into its landscape context, but also providing a significant ecological enhancement compared to the existing arable land.
214. Existing hedgerows that are being crossed by the onshore Order Limits will be enhanced by planting gaps with new native hedgerows species and hedgerow trees that would provide further screening and filtering of views, enhance landscape character and provide enhanced habitats and habitat connectivity for wildlife.

- 215. New grassland planting will comprise a varied, tussocky grassland with wildflowers and a low density of scattered shrubs throughout the area. This botanically and structurally varied habitat will support a range of invertebrate species including moths, butterflies, beetles, spiders, bees and damselflies, amongst others. The habitat is also expected to support terrestrial mammals possibly including hedgehogs, voles, badgers and brown hare, breeding and foraging birds, foraging bats, reptiles and terrestrial activity by amphibians.
- 216. The Applicant’s commitment to sensitive design is also set out within the **Design and Access Statement** (document reference 9.3).

4.9.4 Benefits of SEP and DEP Conclusion

- 217. Overall SEP and DEP would make a significant contribution to the achievement of the UK’s national renewable energy targets, and to the UK’s contribution to global efforts to reduce the effects of climate change and would represent a substantial contribution to UK 2030 energy targets by meeting 2.5% of the UK’s current shortfall of offshore wind electricity supply deployment target for 2030 but providing energy equivalent to 785,000 UK households (representing 3% of all UK households).
- 218. Furthermore, SEP and DEP would represent a significant investment into the UK and local economy during construction and for the 40 year operational life.

5 Legislation, Policy and Guidance

- 219. The principle legislation and policy of relevance to the proposal development is set out below.

5.1 Legislation

5.1.1 The Planning Act 2008 (as amended)

- 220. PA2008 is the primary legislation that established the legal framework for applying for, examining, and determining applications for defined categories of NSIPs.
- 221. NSIPs are usually large-scale developments such as new ports, airports, major road and rail schemes or power generating stations. The Planning Act 2008 sets out thresholds above which certain types of infrastructure development are considered nationally significant and require a DCO. For offshore generating station developments in waters in or adjacent to England/within the UK Renewable Energy Zone, the NSIP threshold is a generating capacity of over 100 MW.
- 222. The proposal development, two offshore generation stations, each over 100 MW, each meet the definition of an NSIP set out in section 14(1)(a) and section 15(3) of the Planning Act 2008 and therefore requires development consent under section 31 of the Act.
- 223. Section 104 of the Planning Act 2008 makes clear that such projects must be determined following any relevant NPS, unless certain specified exceptions apply:

“104. Decisions in cases where national policy statement has effect

....



The [Secretary of State] must decide the application in accordance with any relevant national policy statement, except to the extent that one or more of subsections (4) to (8) applies.

...

(4) This subsection applies if the [Secretary of State] 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 [Secretary of State is] satisfied that deciding the application in accordance with any relevant national policy statement would lead to the [Secretary of State being in breach of any duty imposed on the Secretary of State] by or under any enactment.

(6) This subsection applies if the [Secretary of State] 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 [Secretary of State] is satisfied that the adverse impact of the proposed development would outweigh its benefits.

(8) This subsection applies if the [Secretary of State] is satisfied that any condition prescribed for deciding an application otherwise than in accordance with a national policy statement is met.

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.”.

- 224. Section 104 of the Planning Act 2008 also makes it clear that in doing so the Secretary of State must take into account any relevant NPS, the appropriate Marine Policy Statement (MPS - HM Government 2011a), any Local Impact Report, any matters prescribed concerning the development, and any matters the Secretary of State considers important and relevant.
- 225. Therefore, subject to the exceptions in Section 104 above and as stated in paragraph 4.1.2 of NPS EN-1 the SoS “*should start with a presumption in favour of granting consent to applications for energy NSIPs. That presumption applies unless any more specific and relevant policies set out in the relevant NPSs clearly indicate that consent should be refused*”. In short the presumption is in favour of applications that accord with any relevant NPSs and the key test is to assess, on the balance of probabilities, whether the application is in accordance with the relevant NPSs and should therefore be consented, unless certain specified exceptions (set out above) apply. This may include considering whether the policies set out in the NPSs for delivery of renewable energy are outweighed by any adverse impacts that have been identified.



5.1.2 The Infrastructure Planning (Environmental Impact Assessment) Regulations 2017

226. An Environmental Impact Assessment (EIA) is a tool for examining and assessing the potential impacts of a proposal development on the physical, biological and human environment. The EIA process measures the baseline conditions, identifies the potential impacts, and management and mitigation measures to minimise the impacts. The EIA process facilitates the improvement of a project's environmental design.
227. The European Union (EU) EIA Directive 85/337/EEC required an EIA to assess the effects of certain public and private projects on the environment. The EIA Directive was subsequently amended in 2011/92/EU and 2014/52/EU. The Infrastructure Planning (Environmental Impact Assessment) Regulations 2017 (the EIA Regulations 2017) transposed the EU Directive into UK legislation.
228. The UK left the EU, 85/337/EEC no longer has legal effect in the UK. However, the Directive formed the basis for the EIA Regulations 2017 which remain in force and relevant to the application as set out below.
229. SEP and DEP falls within Schedule 2, paragraph 3(i) of the EIA Regulations 2017, "*installations for the harnessing of wind power for energy production (wind farms)*". The location, scale and nature of the Proposed Development may have the potential to give rise to significant effects on the environment and meets the definition of an EIA development. The DCO application must be accompanied by an ES prepared in accordance with the EIA Regulations.

5.1.3 The Infrastructure Planning (Decisions) Regulations 2010

230. These regulations place duties and prescribe a list of matters the Secretary of State must regard when deciding on applications for nationally significant infrastructure projects. These matters are:
- Regulation 3 – Listed buildings, conservation areas and scheduled monuments. The decision maker must have regard to the desirability of preserving the listed building or its setting/conservation area/scheduled ancient monument (Regulation 3), this legal test, therefore, differs from the “special regard” test contained in the Planning (Listed Buildings and Conservation Areas) Act 1991 (policy considerations in relation to listed buildings are considered further in the relevant national policy statements);
 - Regulation 6 – Hazardous substances;
 - Regulation 7 – Biological diversity – must have regard to the United Nations Environmental Programme Convention on Biological Diversity of 1992(a).

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

- 231. The Act made it the duty of the Secretary of State to ensure that the net UK carbon account for all six Kyoto greenhouse gases for the year 2050 is at least 80% lower than the 1990 baseline. The Act aimed to enable the United Kingdom to become a low-carbon economy. It gave Ministers powers to introduce the measures necessary to achieve a range of greenhouse gas reduction targets.
- 232. Adopted on 11 December 1997 and entered into force on 16 February 2005, The Kyoto Protocol is an international agreement linked to the United Nations Framework Convention on Climate Change. Signed parties were committed to internationally binding emission reduction targets.
- 233. The detailed rules for implementing the Protocol were adopted at COP 7 in Marrakesh, Morocco, in 2001, and are referred to as the “Marrakesh Accords”. Its first commitment period started in 2008 and ended in 2012. In Doha, Qatar, on 8 December 2012, the “Doha Amendment to the Kyoto Protocol” was adopted.
- 234. The Climate Change Act 2008 (2050 Target Amendment) Order 2019 had the effect that the minimum percentage by which the net UK carbon account for the year 2050 must be lower than the 1990 baseline, is increased from 80% to 100%.

5.1.5 The National Parks and Access to the Countryside Act 1949 and The Countryside and Rights of Way Act 2000

- 235. The National Parks and Access to the Countryside Act 1949 provided the framework for establishing National Parks and Areas of Outstanding Natural Beauty (AONBs). It also established authority to declare National Nature Reserves, to notify “*areas of special scientific interest*” and, for local authorities, to establish Local Nature Reserves.
- 236. The Countryside and Rights of Way Act 2000 (CROW 2000) brought in new measures to further protect AONBs, with new duties for the boards set up to look after them. These included meeting the demands of recreation without compromising the original reasons for the designation, and safeguarding rural industries and local communities.
- 237. The CROW 2000 also clarified the role of local authorities, including the preparation of management plans to set out how they will manage the AONB asset. There was also a new duty for all public bodies to have regard for the purposes of AONBs. CROW 2000 also brought in improved provisions for the protection and management of SSSIs and conferred a duty on any relevant authority, including the Secretary of State, in this DCO application's context. Section 85 states:

“In exercising or performing any functions in relation to, or so as to affect, land in an Area of Outstanding Natural Beauty, a relevant authority shall have regard to the purpose of conserving and enhancing the natural beauty of the Area of Outstanding Natural Beauty”.



5.1.6 The Wildlife and Countryside Act 1981 (as amended) and the Natural Environment and Rural Communities Act 2006

238. The Wildlife and Countryside Act 1981 (WCA 1981) protects animals, plants, and certain habitats in the UK. The WCA 1981 provides for the notification and confirmation of Sites of Special Scientific Interest (SSSIs).

239. The Natural Environment and Rural Communities Act made provision for bodies concerned with the natural environment and rural communities, in connection with wildlife sites, SSSIs, National Parks and the Broads. It includes a duty that every public body must, in exercising its functions, have regard so far as is consistent with the proper exercising of those functions, to the purpose of biodiversity. In complying with this duty, Ministers of the Crown, Government departments and the Welsh Government must have regard to the United Nations Environment Programme Convention on Biological Diversity of 1992.

5.1.7 Marine and Coastal Access Act 2009

240. The Marine and Coastal Access Act (MCAA 2009) established the spatial planning system for improving and protecting the marine and coastal environment.

241. The objectives of the marine planning system are set out in Marine Policy Statement. Under section 104(2)(aa) of the Planning Act 2008 the SoS must have regard to *"the appropriate marine policy documents (if any), determined in accordance with section 59 of the Marine and Coastal Access Act 2009;"*.

242. This Act enabled the Marine Management Organisation (MMO) with the authority to delivery sustainable marine management, monitoring and enforcing the terms in a Deemed Marine License (DMLs)

243. The Act also enabled the designation of Marine Conservation Zone (MCZ) and Exclusive Economic Zone (EEZ) for the United Kingdom. Furthermore, the Act also provide the framework for managing and enforcing the rules for marine fisheries at national and local level.

5.1.8 Marine Strategy Regulations 2010

244. The Marine Strategy Regulations transposed the European Marine Strategy Framework Directive (MSFD) (Directive 2008/56/EC) into UK law. This legislation required the production of a "Marine Strategy" for all UK waters.

245. The objectives of the UK Marine Strategy reflect the UK's vision for "clean, healthy, safe, productive and biologically diverse oceans and seas", reflecting the primary aim of achieving 'good environmental status' by 2020 (HM Government 2011a).

5.1.9 Air Quality Standards Regulations 2010

246. Council Directive 2008/50/EC on ambient air quality required the SoS to ensure the legal limits of pollutants are not exceeded. These pollutants include sulphur dioxide (SO₂), nitrogen dioxide (NO₂), oxides of nitrogen (NO_x), particulate matter (PM₁₀ and PM_{2.5}), lead, benzene, carbon monoxide and ozone.

5.1.10 Ramsar Convention

247. The Convention on Wetlands, signed in Ramsar, Iran in 1971, is an intergovernmental treaty providing the basis for conserving and using wetlands wisely. Ramsar sites are wetlands of international importance. They contribute to the protection of habitat and help to achieve sustainable development.

5.1.11 The Water Framework Directive

248. The Water Framework Directive (WFD) aimed to protect the waterbody. The Environment Agency has the duty to assess a proposed development's qualitative and quantitative impacts on any waterbody.

5.1.12 Environmental Permitting (England and Wales) Regulations 2016

249. The Environmental Permitting (England and Wales) Regulations 2016 (as amended) implemented the EU Directive 2008/1/EC concerning Integrated Pollution Prevention and Control. They defined activities that require the operator to obtain an Environmental Permit from the Environment Agency and transposed the requirements of the Directive into UK legislation. The activities include such as waste operations, mining, waste discharge, ground water and other operations.

5.1.13 The Birds Directive

250. This Birds Directive (2009/147/EC) obligates the EU members to conserve natural habitats, wild fauna and flora and to identify and classify Special Protection Areas (SPA).

5.1.14 The Bern Convention and the Convention of Biological Diversity

251. Under the Bern Convention and the Convention of Biological Diversity, the UK obliges to protect natural habitats and associated fauna and flora. The Habitats Directive stipulated these obligations by requiring the identification and designation of Special Areas of Conservation (SAC).

5.1.15 The Conservation of Habitats and Species Regulations 2017

252. The Conservation of Habitats and Species Regulations 2017 (the Habitats Regulations) transposed the land and marine aspects of the Habitats Directive (92/43/EEC) and certain elements of the Birds Directive (2009/147/EC) into domestic law. This law covers onshore and offshore environments 12 nautical miles from the coast. The regulations have three primary objectives: creating a national site network comprising protected sites (European Sites or European Marine Sites) designated under the Nature Directive and a duty of competent authorities to manage the site network and to achieve network objectives.

253. Finally, the regulations established a process through which Appropriate Assessment of relevant projects may be necessary, if there is a likely significant effect on a European site for the conservation of nature by that project.

254. Under the Habitats Regulations decisions on plans or projects are taken by the SoS as competent authority. Under the Regulations a project may be consented for reasons of overriding public importance, notwithstanding a negative Appropriate Assessment of its effect on a European Site. Decisions made under the Habitats Regulations are taken separately from consideration of whether Development Consent should be granted as set out in the Planning Act 2008.

5.1.16 The Conservation of Offshore Marine Habitats and Species Regulations 2017

255. These regulations (the Offshore Habitats Regulations) apply to the UK's offshore marine area, which covers waters beyond 12nm, within British Fishery Limits and the seabed within the UK Continental Shelf Designated Area.

256. The Offshore Habitats Regulations are relevant to SEP and DEP and similarly to the Habitats Regulations, require an Appropriate Assessment to be carried out in respect of a plan or project which, either alone or in combination with other plans or projects, is likely to have a significant effect on a European site and is not directly connected with or necessary for the management of the site. If an Appropriate Assessment is required, the SoS must consider whether the plan or project will adversely affect the integrity of the site. Under the Offshore Habitats Regulations decisions on plans or projects are taken by the SoS as competent authority. Under the Offshore Habitats Regulations a project may be consented for imperative reasons overriding public interest, notwithstanding a negative Appropriate Assessment of its effect on a European Site. Decisions made under the Offshore Habitats Regulations are taken separately from consideration of whether Development Consent should be granted as set out in the Planning Act 2008. The **Report to Inform Appropriate Assessment** (document reference 5.4), the **Habitats Regulations Derogation: Provision of Evidence** (document reference 5.5) and **Marine and Coastal Access Act (MCAA) Derogation: Provision of Evidence** (document reference 5.7) which accompany this application, provide evidence to inform the SoS's decisions as competent authority under the Offshore Habitats Regulations.

257. Any decision on consent under the Habitats Regulations/Offshore Habitats Regulations will then inform and is likely to be considered important and relevant to the decision on development consent for SEP and DEP under the Planning Act 2008.

5.1.17 Transboundary Effects

258. Regulation 32 of the Infrastructure Planning (Environmental Impact Assessment) Regulations 2017 (EIA Regulations) transposes Article 7 of EU Directive 85/337/EEC (as amended) into UK Law as it applies to the PA2008 regime. If the decision maker is of the view that a proposed development is likely to have significant effects on the environment in another European Economic Area (EEA) State, that state must be consulted about the application.



5.1.18 United Nations Environment Programme Convention on Biological Diversity 1992

259. The Convention on Biological Diversity was given statutory effect by Regulation 7 of the Infrastructure Planning (Decisions) Regulations 2010. The SoS must take the objectives of the UNEP Convention on Biological Diversity must be taken into account when considering the likely impacts of the Proposed Development, appropriate objectives and mechanisms for mitigation and compensation.

5.1.19 The Marine Environment (Amendment) (EU Exit) Regulations 2018

260. These regulations ensure that UK and EU legislation relating to the marine environment, in particular maritime strategy, continue to be operable after the UK left the EU.

5.1.20 The European Union (Withdrawal) Bill (leading to the European Union (Withdrawal Agreement) Act 2020)

261. The UK formally withdrew from the European Union (EU) on 31 January 2020 (Exit Day) and the transitional period ended on 31 December 2020. E. The UK is no longer a member of the European Union (EU). However, the UK through The European Union (Withdrawal) Act 2018 (EUWA2018) has converted EU law into UK law and preserves laws made in the UK which implements EU obligations. 3.6.2. The SoS will be aware that retained EU law as defined in the EUWA2018 continues to apply.

262. The European Union (Withdrawal) Bill is a legal instrument that incorporated EU legislation into domestic law. All relevant legislation above therefore remains in force and relevant to the proposal development.

5.1.21 Community Infrastructure Levy Regulations 2010

263. The Community Infrastructure Levy Regulations 2010 are not generally relevant to the examination of the application for the proposal development. However, this is with the exception of CIL Regulation 122, which states:

“Limitation on use of planning obligations

1. This regulation applies where a relevant determination is made which results in planning permission being granted for development.

2. Subject to paragraph (2A), a planning obligation may only constitute a reason for granting planning permission for the development if the obligation is—

a. necessary to make the development acceptable in planning terms;

b. directly related to the development; and

c. fairly and reasonably related in scale and kind to the development.

2(A) Paragraph 2 does not apply in relation to a planning obligation which requires a sum to be paid to a local planning authority in respect of the cost of monitoring (including reporting under these Regulations) in relation to the delivery of planning obligations in the authority's area, provided:

a. the sum to be paid fairly and reasonably relates in scale and kind to the development;



b. *the sum to be paid to the authority does not exceed the authority's estimate of its cost of monitoring the development over the lifetime of the planning obligations which relate to that development.*

3. *In this regulation—*

“planning obligation” means a planning obligation under section 106 of TCPA 1990 and includes a proposed planning obligation; and

“relevant determination” means a determination made on or after 6 April 2010—

a. *under section 70, 76A or 77 of TCPA 1990 of an application for planning permission; or*

b. *Under section 79 of TCPA 1990 of an appeal.”*

264. It is important to note that section 70 of the Town and Country Planning Act 1990 was amended to the effect that the making of a Development Consent Order is a relevant determination for the purpose of Regulation 122 above. Therefore, the tests (a) to (c) above which have existed in guidance for some time are now given statutory effect in relation to any S106 Planning Obligation associated with the proposal development.

5.1.22 The UK Energy Act 2013

265. The Electricity Market Reform policy and Energy Act 2013 introduced the CfD (Contract for Difference) auction framework. CfD replaces the Renewable Obligation System (RBO). CfD intends to stabilise long-term revenue for new low-carbon energy projects. The ultimate goals are to deliver renewable generation projects at a Low-level Energy Cost (LEC) and reduce the subsidy required, benefiting consumers.

266. There have been substantial cost reductions as the offshore wind industry matures. In 2021, the cost of the fourth CfD round was approximately 30 % lower than the second auction in 2017. The cost of the second CfD auction was 50% lower than the original CfD auction in 2015.

5.1.23 The Use of Energy from Renewable Sources Regulations 2011

267. The UK Government transposed the Renewable Energy Directive into UK law, primarily through ‘The Promotion of The Use of Energy from Renewable Sources Regulations 2011’, Regulation 3 of which states: *“It is the duty of the Secretary of State to ensure that the renewables share in 2020 is at least 15%”,* in which renewables share is defined as *“the share of energy from renewable sources in the United Kingdom as calculated in accordance with Article 5 of the Directive”*. The ‘Renewable Transport Fuel Obligations (Amendment) Order 2011, requires the SoS to ensure 10% of transport fuels are from renewables by 2020. Whilst the Directive no longer a part of UK legislation these regulations remain in force.



5.1.24 Other Development Consent Orders

268. Development Consent Orders made under PA2008 constitute relevant legislation where the project shares any interface with them.
269. The Orders below have been made in relation to projects in the vicinity of the proposed development onshore and offshore:
- Sizewell C Nuclear Power Station Order 2022
 - East Anglia ONE North Offshore Windfarm Order 2022
 - East Anglia TWO Offshore Windfarm Order 2022
 - Norfolk Vanguard Limited Order 2022
 - Norfolk Boreas Limited Order 2021
 - National Grid Ventures Continental Link multi-purpose interconnector Order 2021
 - Hornsea Project Three Offshore Wind Farm Order 2020
 - Hornsea Two Offshore Wind Farm Order 2016
 - The East Anglia ONE Offshore Wind Farm Order 2014 (including the Corrections and Amendments Order 2016)
 - The East Anglia THREE Offshore Wind Farm Order 2017 (including the Correction Order 2018 and Amendment Order of 2019)
 - Burbo Bank Extension Offshore Wind Farm Order 2014 (as amended)
 - Triton Knoll Offshore Wind Farm Order 2013
 - The Galloper Wind Farm Order 2013
270. The following NSIPs are in the pre-application stage:
- Outer Dowsing Offshore Wind farm
 - East Anglia Green Energy Enablement (GREEN).

5.2 Policy and Guidance

271. Section 104(2) of the Planning Act 2008 sets out the following factors, that the SoS must have regard to in decision-making on DCO applications:
- Relevant NPS;
 - The appropriate MPS;
 - Impacts identified by the local planning authorities (which may form part of Local Impact Reports);
 - Relevant matters prescribed in relation to the development, and
 - Other matters, listed in this section, which are likely to be considered “*important and relevant*” to the examination of the application.



272. These factors have all been taken into account in the development of the Application for SEP and DEP. This has included consideration of a range of policy documents including Local Plans from relevant planning authorities. Commentary on how the above factors have been considered in the Application is included below.
273. **Section 7** of this Planning Statement provides evidence of how SEP and DEP accords with the relevant NPSs. SEP and DEP also accords with other relevant legislation and this has been set out in the relevant ES chapters where necessary/appropriate.

5.2.1 National Policy Statements (NPSs)

274. As set out in S104(3) the application must be decided by the Secretary of State in accordance with any relevant NPS, unless certain specified exceptions apply, as set out in the Legal and Planning Policy Context section of this statement.
275. PA2008 establishes a presumption in favour of development which accords with the relevant NPSs unless certain exceptions specified in S104 apply. The primary test therefore is to assess whether, on the balance of probabilities, the Application is in accordance with the relevant NPSs and other requirements of PA2008, including, where there is any adverse impact, whether this would outweigh the benefits of the proposed development.
276. Designated NPSs which are relevant to the determination of the proposal development are as follows:
- Overarching NPS for Energy (July 2011) (EN-1);
 - NPS for Renewable Energy Infrastructure (July 2011) (EN-3); and
 - NPS for Electricity Networks Infrastructure (July 2011) (EN-5).

5.2.2 Planning Act 2008: Guidance on the process for reviewing existing National Policy Statements

277. The Department for Business Energy and Industrial Strategy (BEIS) consulted on the draft versions of The NPS EN-1, EN-3 and EN-5 between September and November 2021. The public consultation sought opinions on whether the revised NPSs provide a suitable framework for decision-making for nationally significant energy infrastructure. BEIS is now reviewing the responses and will announce the outcome of the public feedback in 2023 (House of Commons BEIS Committee, 2022). The guidance and policies in the draft versions of the NPS EN-1, EN-3 and EN-5 offer the direction of travel. **Section 7** consists of a review of the current NPSs and, where relevant, any updates within the draft NPSs in the context of the ES.
278. Section 6 of PA2008 sets out the process for reviewing a National Policy Statement. The transition between NPSs is set out as follows: *"Where a review is undertaken and a decision is made not to suspend the existing National Policy Statement (in whole or in part), it will continue to have effect for the purposes of the Planning Act. Any emerging draft National Policy Statements are potentially capable of being important and relevant considerations in the decision-making process, but the extent to which they are relevant is a matter for the relevant Secretary of State to consider with regard to the specific circumstances of each Development Consent Order application."*

5.2.3 Overarching National Policy Statement for Energy EN-1

- 279. NPS EN-1 sets out national policy for the energy related nationally significant infrastructure projects. It has effect, in combination with the relevant technology-specific NPS, on the decisions by the Secretary of State on applications for energy developments that fall within the scope of the NPSs. For such applications this NPS, when combined with the relevant technology-specific energy NPS, provides the primary basis for decision.
- 280. EN-1 sets out the need for energy NSIPs, noting that the UK requires a mix of energy infrastructure types to achieve security of supply, reduce greenhouse gas emissions and meet legally binding targets. The continued development of offshore wind energy projects is therefore vital to ensure the UK can meet its targets.
- 281. Part 4 of NPS EN-1 states that: "Given the level and urgency of need for infrastructure of the types covered by the energy NPSs set out in Part 3 of this NPS, the [decision maker] should start with a presumption in favour of granting consent to applications for energy NSIPs. That presumption applies unless any more specific and relevant policies set out in the relevant NPSs clearly indicate that consent should be refused."
- 282. The document makes clear that decisions should be taken on the basis that the urgent need for energy infrastructure has already been established, and in determining applications, the decision-maker should give substantial weight to the contribution that a development project would make towards satisfying this need. The need for the proposal development is considered against these NPS policies in the Need and the Case for the Development section of this Planning Statement.
- 283. EN-1 sets out assessment principles and, in relation to a range of generic impacts, assessment requirements associated with nationally significant energy infrastructure that need to be followed in the preparation of applications, covering topics such as the Historic Environment, Land Use and Traffic and Transport.
- 284. EN-1 also sets out policy in relation to the Secretary of State's decision making and policies for mitigation in relation to the same range of topic areas. A topic specific assessment of accordance with NPS EN1 policy is therefore included in accordance with National Policy Statements section of this Planning Statement.
- 285. EN-1 sets out policy on development consent obligations and on DCO requirements, as they apply to Circular 11/955 (set out in full below) and as they apply to the NPPF.
- 286. EN-1 makes clear that in the event of a conflict between an energy NSIP and policies set out in the Local Development Framework(s), the NPS takes precedence in the decision-making process.

5.2.4 National Policy Statement for Renewable Energy Infrastructure EN-3

- 287. In conjunction with EN-1, EN-3 provides the primary basis for deciding on renewable energy infrastructure applications, including offshore wind generating stations exceeding 100MW.



288. 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). The SEA concluded that no overriding environmental considerations prevent the plans for 33 GW offshore wind capacity if mitigation measures are implemented.
289. EN-3 recognises the use of the 'Rochdale Envelope' method in such circumstances, which allows for the maximum adverse case scenario (i.e. worst case) to be assessed in the ES and a DCO granted on this basis (Paragraph 2.6.43). It also calls for flexibility in the application process for offshore wind farms when full details of the project specification may be unknown at the time of submission
290. EN-3 explains the need for flexibility concerning necessary micro siting elements of the proposed wind farm during construction at the application stage. Flexibility allows for unforeseen events such as discovering previously unknown marine archaeology that would affect elements' final locations.
291. Policy on need, assessment and decision making is set out in the same structure and on the same approach as set out in the EN-1 above. A topic specific assessment of accordance with EN-3 policy is therefore included in the Accordance with National Policy Statements section of this Development Consent and Planning Statement.

5.2.5 National Policy Statement for Electricity Networks Infrastructure EN-5

292. In conjunction with EN-1, EN-5 provides the principal guidance for decision-making on nationally significant electricity network infrastructure. This includes onshore and offshore electricity network infrastructure.
293. EN-5 states that “when considering impacts for electricity networks infrastructure, all of the generic impacts covered in EN-1 are likely to be relevant, even if they only apply during one phase of the development such as construction or only apply to one part of the development such as a substation.” However, the NPS also sets out additional technology-specific considerations on the following generic impacts considered in EN-1:
- Biodiversity and geological conservation;
 - Landscape and visual; and
 - Noise and vibration.
294. Policy on need, assessment and decision making is set out in the same structure and on the same approach as set out in EN-1 above. A topic specific assessment of accordance with NPS EN-5 policy is therefore included in the Accordance with National Policy Statements section of this Development Consent and Planning Statement.

5.2.6 Draft National Policy Statements 2021

295. Whilst the 2011 NPSs remain those with which decisions must accord, as required by S104 Planning Act 2008, draft policy may also be accorded weight by a decision maker if they are considered important and relevant to the decision. The weight that is given to draft emerging policy may depend on the stage it has reached with regard to consultation and adoption. Draft NPS policy may therefore be considered important relevant to the decision on the application. In September 2021 the Department for Business Energy and Industrial Strategy published a suite of draft revised NPSs. Public consultation has been held on the draft NPSs but the statements are yet to be considered in Parliament where they will be subject to scrutiny by members of both houses is not yet completed. Those most relevant to the proposed development are as follows:

- Draft Overarching NPS for Energy (EN-1) (Sept 2021);
- Draft NPS for Renewable Energy Infrastructure (EN-3) (Sept 2021), and
- Draft NPS for Electricity Networks Infrastructure (EN-5) (Sept 2021).

296. The draft NPSs reiterate the urgent need for electricity generating NSIPs, arising from the same range of factors and reasons considered in the 2011 NPSs. The drafts set out the same areas of assessment principles, updating these where necessary, for example providing further policy on the potential for derogation under the Habitats Regulations. One new proposed policy is an expectation that in regions with multiple offshore windfarms a more coordinated approach to their connection infrastructure will be adopted to reduce both costs and cumulative impacts.

5.2.7 National Planning Policy Framework (NPPF)

297. The revised National Planning Policy Framework, published on 20 July 2021, sets out Government's planning policies for England and how these are expected to be applied for making Development Plans and deciding applications for planning permission under the Town and Country Planning Act 1990 (as amended).

298. The purpose of the NPPF is to make the planning system less complex and more accessible. The revised NPPF replaces the previous versions of the NPPF published in June 2019, February 2019 and March 2012.

299. In the Introduction Section 1, Paragraph 5 of the NPPF clearly states:

“The Framework does not contain specific policies for nationally significant infrastructure projects. These are determined in accordance with the decision making framework in PA2008 (as amended) and relevant national policy statements for major infrastructure, as well as any other matters that are relevant (which may include the National Planning Policy Framework)”.

300. Consistent with the PA20008 (Section 104) it is for the examining authority and ultimately the SoS to decide whether NPPF policies are important and relevant to the decision.

301. The NPPF sets out a series of principles for protecting and conserving the natural and the built environment and for promoting sustainable development. The fundamental principles relevant to the proposal development:

- Meeting the challenge of climate change, flooding and coastal change;
- Conserving and enhancing the natural environment;
- Conserving and enhancing the historic environment;
- Promoting sustainable transport; and
- Making effective use of land.

302. The NPPF sets out Government planning policy on the delivery of sustainable development through the planning process, and identifies a series of core principles covering the protection and conservation of the natural, built and historic environment, and the promotion of sustainable growth and development which may be important and relevant to the proposed development.

303. One of the core principles underpinning the NPPF, relates to supporting the transition to a low carbon future in a changing climate by encouraging the use of renewable resources, for example by the development of renewable energy.

304. In Section 14 ‘Meeting the challenge of climate change, flooding and coastal change’, paragraph 155 states:

“To help increase the use and supply of renewable and low carbon energy and heat, plans should:

a) provide a positive strategy for energy from these sources, that maximises the potential for suitable development, while ensuring that adverse impacts are addressed satisfactorily (including cumulative landscape and visual impacts);

b) consider identifying suitable areas for renewable and low carbon energy sources, and supporting infrastructure, where this would help secure their development; and

c) identify opportunities for development to draw its energy supply from decentralised, renewable or low carbon energy supply systems and for colocating potential heat customers and suppliers”

305. The key principles of relevance to the SEP and DEP are listed in **Table 5-1** below

Table 5-1: National Planning Policy Framework Principles relevant to SEP and DEP

Principle	NPPF Advice (with respective paragraph number)
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 113).
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 119).
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 130).



Principle	NPPF Advice (with respective paragraph number)
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 152).
Conserving and Enhancing the Natural Environment	Planning policies and decisions should contribute to and enhance the natural and local environment by: 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); 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; maintaining the character of the undeveloped coast, while improving public access to it where appropriate; minimising impacts on and providing net gains for biodiversity, including by establishing coherent ecological networks that are more resilient to current and future pressures; 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 remediating and mitigating despoiled, degraded, derelict, contaminated and unstable land, where appropriate (paragraph 174).
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. Where a development proposal will lead to less than substantial harm to the significance of a designated heritage asset, this harm should be weighed against the public benefits of the proposal including, where appropriate, securing its optimum viable use (paragraph 199-202).

306. The NPPF also sets out policy on the use of conditions of planning permissions. Paragraph 56 states that (emphasis added) *“Planning conditions should be kept to a minimum and only imposed where they are **necessary, relevant to planning and to the development to be permitted, enforceable, precise and reasonable** in all other respects. Agreeing conditions early is beneficial to all parties involved in the process and can speed up decision making. Conditions that are required to be discharged before development commences should be avoided, unless there is a clear justification”*. This policy, including what are known as the six tests for conditions, is considered important and relevant in relation to the drafting of requirements of Development Consent Orders.

5.2.8 National Planning Policy Guidance

307. The National Planning Policy Guidance (NPPG) was published on 6 March 2014 but is subject to regular updates. It is intended to support and be read alongside the NPPF. The NPPG aimed to cancel and replace all previous Planning Policy Guidance notes and the guidance contained within Planning Policy Statements and Departmental Circulars. However, some of these remain in force.



308. NPPG covers topics such as consideration of flood risk and preparation of Flood Risk Assessments, and considerable detail on the Town and Country Planning Act system which is not directly relevant to this application.

309. In addition to NPPGs, a policy hierarchy exists at the national, regional and local level that is relevant to the onshore and offshore elements of the application. Such policy is considered potentially 'important' and 'relevant' to the decision-making process (EN-1, pp.44).

5.2.9 Circular 11/95: The Use of Conditions in Planning Permissions – Annexe

310. Amongst the planning guidance not replaced by the NPPG above is Appendix A: Suggested Models of Acceptable Conditions for Use in Appropriate Circumstances to Circular 11/95: Use of Conditions in planning permissions. Appendix A requires that conditions meet the tests for conditions (see NPPG above) and establishes a number of model conditions and is therefore considered important and relevant in relation to the drafting of requirements of Development Consent Orders.

5.2.10 Marine Policy

5.2.10.1 The Marine Policy Statement

311. The UK Marine Policy Statement (MPS) was drawn up pursuant to the Marine Strategy Regulations 2010 and the MCAA, which set out the provisions for any future MPS and introduced a marine planning system. The MPS adopted by all UK administrations (UK Government, Scottish Government, Welsh Assembly Government and Northern Ireland Executive) 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 ensure the sustainable development of the UK marine area. When deciding DCO applications the SoS is obliged to have regard to the MPS under Section 104(2)(aa) of the Planning Act 2008 and Section 59 of the MCAA.

312. 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).
- The MPS also sets out detailed policy considerations in relation to a range of impacts on the marine environment which comprise:
 - Marine ecology and biodiversity
 - Air quality
 - Noise
 - Ecological and chemical water quality and resources
 - Seascape
 - Historic environment
 - Climate change adaptation and mitigation, and
 - Coastal change and flooding.

313. Whilst policy in relation to such considerations was subsequently set out in more detail in National Policy Statements, the requirement to take the MPS into account in determining a DCO application nonetheless remains.

5.2.10.2 Marine Plans and The East Inshore and East Offshore Marine Plans (EIEOMP)

314. Marine Plans form the other main element of the marine planning system established under the MCAA referred to above. In deciding DCO applications the SoS is also obliged to have regard to any Marine Plan which has effect for the area of the application, by Section 104(2)(aa) of the Planning Act 2008 and Section 59 of the MCAA.

315. The East Inshore and East Offshore Marine Plans (EIEOMP) encompass and therefore have effect for the SEP and DEP offshore project area.



316. The EIEOMP state (paragraph 4) that *“The marine plans do not establish new requirements, but apply or clarify the intent of national policy in the East Inshore and Offshore areas, taking into account the specific characteristics of the plan areas”*. The approach (stated in paragraph 16) is one that *“avoids replication of policies and ensures new plan policies and supporting information focus on issues where they can add value”*. The EIEOMP make clear that policies are in significant part derived from terrestrial development plan documents. Marine Plan policies should be taken into account when considering any development in the plan area.

317. The EIEOMP make specific reference to the development of offshore wind in its vision in 2034:

“the East marine plan areas are providing a significant contribution, particularly through offshore wind, to the energy generated in the United Kingdom and to targets on climate change”.

318. In addition to the above the, the EIEOMP lists 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.

319. The objectives of the EIEOMP and relevant policies established under them are listed below and have been considered by the Applicant:

- **Objective 1** states: “To promote the sustainable development of economically productive activities, taking account of spatial requirements of other activities of importance to the East marine plan areas.”

Policy EC1 states: “Proposals that provide economic productivity benefits which are additional to Gross Value Added currently generated by existing activities should be supported.”

- **Objective 2 states:** “To support activities that create employment at all skill levels, taking account of the spatial and other requirements of activities in the East marine plan areas”

Policy EC2 in support of Objective 2 states: “Proposals that provide additional employment benefits should be supported, particularly where these benefits have the potential to meet employment needs in localities close to the marine plan areas.”

- **Objective 3** states: “To realise sustainably the potential of renewable energy, particularly offshore wind farms, which is likely to be the most significant transformational economic activity over the next 20 years in the East marine plan areas, helping to achieve the United Kingdom’s energy security and carbon reduction objectives”

Policy EC3 in support of Objective 3 states: *“Proposals that will help the East marine plan areas to contribute to offshore wind energy generation should be supported.”*



- **Objective 4** states: “To reduce deprivation and support vibrant, sustainable communities through improving health and social well-being.”
- **Objective 5** states: “To conserve heritage assets, nationally protected landscapes and ensure that decisions consider the seascape of the local area.”

Policy SOC2 states: *“Proposals that may affect heritage assets should demonstrate, in order of preference:*

- a) *that they will not compromise or harm elements which contribute to the significance of the heritage asset*
- b) *how, if there is compromise or harm to a heritage asset, this will be minimised*
- c) *how, where compromise or harm to a heritage asset cannot be minimised it will be mitigated against or*
- d) *the public benefits for proceeding with the proposal if it is not possible to minimise or mitigate compromise or harm to the heritage asset.*

Policy SOC3 states: “Proposals that may affect the terrestrial and marine character of an area should demonstrate, in order of preference:

- a) *that they will not adversely impact the terrestrial and marine character of an area*
- b) *how, if there are adverse impacts on the terrestrial and marine character of an area, they will minimise them*
- c) *how, where these adverse impacts on the terrestrial and marine character of an area cannot be minimised they will be mitigated against*
- d) *the case for proceeding with the proposal if it is not possible to minimise or mitigate the adverse impacts.”*

- **Objective 6** states: “To have a healthy, resilient and adaptable marine ecosystem in the East marine plan areas.”

Policy ECO1 states: *“Cumulative impacts affecting the ecosystem of the East marine plans and adjacent areas (marine, terrestrial) should be addressed in decision-making and plan implementation.”*

Policy ECO2 states: *“The risk of release of hazardous substances as a secondary effect due to any increased collision risk should be taken account of in proposals that require an authorisation.”*

- **Objective 7** states: *“To protect, conserve and, where appropriate, recover biodiversity that is in or dependent upon the East marine plan areas.”*

Policy BIO1 states: *“Appropriate weight should be attached to biodiversity, reflecting the need to protect biodiversity as a whole, taking account of the best available evidence including on habitats and species that are protected or of conservation concern in the East marine plans and adjacent areas (marine, terrestrial)”*



Policy BIO2 states: *“Where appropriate, proposals for development should incorporate features that enhance biodiversity and geological interests.”*

- **Objective 8** states: *“To support the objectives of Marine Protected Areas (and other designated sites around the coast that overlap, or are adjacent to the East marine plan areas), individually and as part of an ecologically coherent network.”*
- **Objective 9** states: *“To facilitate action on climate change adaptation and mitigation in the East marine plan areas.”*

Policy CC1 states: “Proposals should take account of:

- a) how they may be impacted upon by, and respond to, climate change over their lifetime and
 - b) how they may impact upon any climate change adaptation measures elsewhere during their lifetime
 - c) Where detrimental impacts on climate change adaptation measures are identified, evidence should be provided as to how the proposal will reduce such impacts.”
- Policy CC2 states: *“Proposals for development should minimise emissions of greenhouse gases as far as is appropriate. Mitigation measures will also be encouraged where emissions remain following minimising steps. Consideration should also be given to emissions from other activities or users affected by the proposal”*
 - **Objective 10** To ensure integration with other plans, and in the regulation and management of key activities and issues, in the East marine plans, and adjacent areas

Policy GOV1 states: *“Appropriate provision should be made for infrastructure on land which supports activities in the marine area and vice versa.”*

Policy WIND2, in support of Objective 1 states: *“Proposals for Offshore Wind Farms inside Round 3 zones, including relevant supporting projects and infrastructure, should be supported.”*

Policy CAB1 states: *“Preference should be given to proposals for cable installation where the method of installation is burial. Where burial is not achievable, decisions should take account of protection measures for the cable that may be proposed by the applicant.”*

Policy TR1 states: *“Proposals for development should demonstrate that during construction and operation, in order of preference: a) they will not adversely impact tourism and recreation activities b) how, if there are adverse impacts on tourism and recreation activities, they will minimise them c) how, if the adverse impacts cannot be minimised, they will be mitigated d) the case for proceeding with the proposal if it is not possible to minimise or mitigate the adverse impacts”*



- 320. Remaining policies under Objective 10, focussing on successful integration, seek to protect areas designated for or with potential for use by a range of different marine activities from fishing and leisure boating to designated dredging areas. Since the site selection for SEP and DEP has ensured areas designated for other marine uses are avoided as much as possible these remaining policies are not significantly engaged.
- 321. Where necessary and appropriate topic chapters consider relevant EIEOMP policies further.
- 322. Public authorities, including the MMO, must consider the adopted marine plan for all authorisations. Paragraph (1) of the MMO External Decision Making and Implementation Mapping of Marine Plans (MMO1155) 1.2 (1) states: “a public authority must take any authorisation or enforcement decision in accordance with the appropriate marine policy documents unless relevant considerations indicate otherwise” and the definition of authorisation under MCAA 2009, section 58 (6) is: "any approval, confirmation, consent, licence, permission or other authorisation (however described), whether special or general”

5.2.10.2.1 *Regional Marine Policy*

- 323. There are no extant regional spatial strategies, or regional planning documents extant in England applying to SEP and DEP. Therefore, the East Inshore and East Offshore Marine Plans could be considered the only regional marine plans relevant to the proposal development.

5.3 **The Development Plan and Local Policy**

- 324. The planning system should be plan-led. According to the NPPF, local authorities should prepare up-to-date plans. They should provide a framework for people to shape their environments. Local Plans should promote sustainable development and address social and environmental priorities along with economic and housing needs for the local area. Local Plan policies should follow the principles in the NPPFs and regional plans where available.
- 325. A local Plan typically comprises a suite of documents, including a Local Plan, Site Allocation, Development Plan Document, Proposal Map, and Neighbourhood Plan.
- 326. NPS EN-1 (para 4.1.5) states that policies contained in the Development Plan documents, other Local Development Framework documents and emerging documents are important and relevant in decision making. The NPS will prevail when there is a conflict between the NPS and the Local Plan.
- 327. The Planning Inspectorate examines the Local Plan and considers the soundness of the plan and compliance with legal requirements. An adopted Local Plan constitutes the development plan when assessing and deciding on planning applications.
- 328. The proposal development is within the boundary of Norfolk County Council, North Norfolk District Council, Broadland District Council and South Norfolk District Council. The current local plans in force are:



- Norfolk County Council Core Strategy and Minerals and Waste Development Management Policies Development Plan 2010 – 2026 (Adopted September 2011);
- North Norfolk District Council Core Strategy incorporating Development Management Policies 2008 - 2021 (Adopted September 2008, amendments adopted 2012); and
- Joint Core Strategy (Adopted March 2011, amendments adopted January 2014) developed in partnership for Greater Norwich Area including Broadland District, Norwich City and South Norfolk Councils.

329. Details of the policies within these plans that are relevant to SEP and DEP are set out within **ES Chapter 2 Policy and Legislative Context** (document reference 6.1.3).

5.4 Other Policy

330. In addition to the Development Plan and Government planning policy and guidance, a number of other policies and policy documents are considered to be important and relevant to the examination of the proposal development.

331. The following policy documents are important and relevant in particular to the need for the development.

332. The Review of Electricity Market Arrangements (REMA) July 2022

333. On 18 July 2022, the Government launched a comprehensive review of the electricity pricing mechanism. REMA seeks a range of opinions to tackle high energy costs, increase energy security and move to a cleaner energy system. Traditionally, gas prices influence wholesale electricity prices. However, the Government believes cheaper produced renewable sources should have a more substantial role in determining electricity prices.

5.4.1 BEIS Offshore Transmission Networks Review July 2022

334. Through the Offshore Transmission Network Review, the Government seeks a coordinated offshore network to minimise impacts on the community and environment. The OTNR aims to reduce the cost of constructing and accelerating the delivery of offshore wind farms. On 7 July 2022, BEIS selected the proposal development, SEP and DEP as a Pathfinder to demonstrate offshore coordination (further detail is set out in the **Scenarios Statement** (document reference 9.28)).

5.4.2 Energy Security Bill

335. This Bill builds on the commitments in the Prime Minister's Ten Point Plan and the British Energy Security Strategy. This Bill will help to guide £100 billion of private sector investment to build and diversify our Energy System, including offshore wind farms.

5.4.2.1 British Energy Security Strategy April 2022

- 336. The British Energy Security Strategy (HM Government, 2022) accelerates energy independence. For example, the policy increases the Government's target offshore wind farm generation capacity from 40 to 50 GW by 2030. The Strategy is also considering fast-track wind farm application by reducing the consenting time from four years to one year.
- 337. United Nations Framework Convention on Climate Change (UNFCCC) Conference of the Parties 26 (COP26) in Glasgow
- 338. Came into force in March 1994, the United Nations Framework Convention on Climate Change (UNFCCC) is an intergovernmental environmental treaty. It sets out non-binding greenhouse gas (GHG) emission reduction limits.
- 339. In November 2016, the UK ratified the 2015 Paris Agreement during the 22nd Climate Change Conference of the Parties (COP22). All EU members are committed to reducing emissions by at least 40% across all Member States by 2030 relative to 1990 levels. The GHG emission target for the UK is set out in The Climate Change Act 2008

5.4.3 Energy White Paper: Powering our Net Zero Future, December 2020

- 340. Published in December 2020, the Government's Energy White Paper sets out how the UK will reach targets for net zero emissions by 2050. The paper builds on the Ten Point Plan to set energy-related measures and, in regard to offshore wind, states: "By 2030 we plan to quadruple our offshore wind capacity so as to generate more than all our homes use today, backing new innovations to make the most of this proven technology and investing to bring jobs and growth to our ports and coastal regions".

5.4.4 National Infrastructure Strategy

- 341. The National Infrastructure Strategy sets out plans to transform UK infrastructure in order to level up the country, strengthen the Union and achieve net zero emissions by 2050. The strategy elaborates on the Prime Minister's Ten Point Plan for delivering net zero emission by 2030. It recognises that low-cost renewables will be the bulk of generation by 2050.

5.4.5 The Ten Point Plan for a Green Industrial Revolution

- 342. Prime Minister Boris Johnson set ten policy points to promote green jobs and accelerate towards Net Zero. Under Point 1 Advancing Wind Farm, the document states, "By 2030 we plan to quadruple our offshore wind capacity so as to generate more than all our homes use today, backing new innovations to make the most of this proven technology and investing to bring jobs and growth to our ports and coastal regions."
- 343. BEIS Energy National Policy Statements review on the scope of Appraisal of Sustainability and approach to Habitats Regulation Assessment 2021



344. On 23 April 2021, BEIS published a series of reports on the Appraisal of Sustainability and approach to the Habitats Regulations Assessment for consultation in advance of the Government's planned review of National Policy Statements for energy infrastructure.

5.4.6 National Infrastructure Assessment

345. In July 2018, the National Infrastructure Commission published a comprehensive assessment of the UK's infrastructure needs over the next 30 years. It made a series of recommendation on energy infrastructure. In 2030, renewable energy generation should meet at least half of UK electricity needs.

6 Accordance with National Planning Policy Statements

346. The following sections (**Section 6.1 to 6.24**) assess the overall accordance of SEP and DEP against the NPSs and wider policy framework, where relevant.
347. Part 5 of EN-1 provides policy on generic impacts likely to apply to energy projects. Part 2 of EN-3 and EN-5 provide topic specific policy on the potential impacts of offshore windfarms and onshore electricity infrastructure.
348. Collectively, these documents set out the extent of assessment expected of NSIP applicants and the primary basis on which the examination of and decision on the application will be made.
349. It is noted that EN-1, EN-3 and EN-5 are in the process of being revised. A draft version of each NPS was published for consultation in September 2021 (Department for Business Energy and Industrial Strategy (BEIS), (2021a), BEIS, (2021b) and BEIS (2021c) respectively).
350. Where relevant, a review of these draft versions has been undertaken in the context of each ES chapter and summarised in **Section 6.1 to 1.1**. Minor wording changes within the draft version which do not materially influence the NPS (EN-1, EN-3, EN-5) requirements have not been reflected.



6.1 Good Design, Alternatives and Adaptation

351. **Table** details the accordance of the SEP and DEP with NPS policy and compliance with local policies relating to good design, alternatives and adaptation.

Table 6-1: Good Design, Alternative and Adaptation Policy Compliance

Policy	Summary	Compliance
NPS for Energy (EN-1)		
Section 4.5.1	“Applying ‘good design’ to energy projects should produce sustainable infrastructure sensitive to place, efficient in the use of natural resources and energy used in their construction and operation, matched by an appearance that demonstrates good aesthetic as far as possible”	A Design and Access Statement (onshore) (document reference 9.3) and an Offshore Design Statement (document reference 9.26) have been submitted with the DCO application which demonstrate how SEP and DEP fulfil the requirement for good design. They also explain the design evolution to date and the considerations that will inform the detailed design post-consent.
Section 4.5.2	“Good design is also a means by which many policy objectives in the NPS can be met, for example the impact sections show how good design, in terms of siting and use of appropriate technologies can help mitigate adverse impacts such as noise”	

6.2 Marine Geology, Oceanography and Physical Processes

352. Compliance with policies relating to marine geology, oceanography and physical processes are presented in **Table** . Full details of the assessment and potential impacts on the marine physical environment that have been used to inform this topic specific policy compliance assessment can be found in ES **Chapter 6 Marine Geology, Oceanography and Physical Processes** (document reference 6.1.6).
353. The Applicant considers that SEP and DEP accords with policies set out in **Table** below.

Table 6-2: Marine Geology, Oceanography and Physical Processes Policy Compliance

Policy	Summary	Compliance
EN-1		
Section 5.5, paragraph 5.5.6	'where relevant, applicants should undertake coastal geomorphological and sediment transfer modelling to predict and understand impacts and help identify relevant mitigating or compensatory measures'	The approach adopted in this ES for all impacts apart from waves is conceptual and evidence-based using data from the existing Sheringham Shoal Offshore Wind Farm (SOW) and Dudgeon Offshore Wind Farm (DOW) post-construction monitoring as a suitable analogue (see Section 6.6.3 of Chapter 6 Marine Geology, Oceanography and Physical Processes (document reference 6.1.6)). This was agreed in general terms through the Method Statement and Seabed Expert Topic Group (ETG). Numerical modelling of waves has now been completed for potential operational impacts due to the presence of the foundation structures (Appendix 6.2 (document reference 6.3.6.2)).
Section 5.5, paragraph 5.5.7	'the ES should include an assessment of the effects on the coast. In particular, applicants should assess: The impact of the proposed project on coastal processes and geomorphology, including by taking account of potential impacts from climate change. If the development will have an impact on coastal processes the applicant must demonstrate how the impacts will be managed to minimise adverse impacts on other parts of the coast;	The assessment of potential construction and operation and maintenance impacts are described in Section 6.6 and Section 6.7 of the chapter, respectively. SEP and DEP will not affect the Shoreline Management Plan and allowance has been made for predicted erosion rates during the design of SEP and DEP (further detail is provided in Chapter 3 Site Selection and Assessment of Alternatives). Embedded mitigation to minimise potential impacts at the coast from cable installation and operation are described in Section 6.3.3 and include for example minimising the requirement for cable protection measures and thus effects on sediment transport. Use of external cable protection would be minimised in all cases and in the nearshore is only included for potential use at the HDD exit point.

Policy	Summary	Compliance
	<p>The implications of the proposed project on strategies for managing the coast as set out in Shoreline Management Plans (SMPs) and any relevant Marine Plans (Objective 10 of the East Inshore and East Offshore Marine Plans is “To ensure integration with other plans, and in the regulation and management of key activities and issues, in the East Marine Plans, and adjacent areas” this therefore refers back to the objectives of the SMPs)... and capital programmes for maintaining flood and coastal defences;</p> <p>The effects of the proposed project on marine ecology, biodiversity and protected sites;</p> <p>The effects of the proposed project on maintaining coastal recreation sites and features; and</p> <p>The vulnerability of the proposed development to coastal change, taking account of climate change, during the Project’s operational life and any decommissioning period’.</p>	<p>In addition, HDD will be used to install the cables at the landfall, exiting approximately 1,000m offshore. Cables will be buried at sufficient depth to have no effect on coastal erosion. Erosion would continue as a natural phenomenon driven by waves and subaerial processes, which would not be affected by SEP and DEP. Natural coastal erosion throughout the lifetime of the project has been considered within the project design by ensuring appropriate set back distances from the coast for the onshore HDD entry point.</p> <p>Effects on marine ecology biodiversity and protected sites are assessed in Chapter 8 Benthic Ecology, Chapter 9 Fish and Shellfish Ecology, Chapter 10 Marine Mammal Ecology, Chapter 11 Offshore Ornithology.</p> <p>Effects on recreation are assessed in Chapter 19 Land Use, Agriculture and Recreation.</p> <p>As described above, SEP and DEP have been designed so that they are not vulnerable to coastal change or climate change.</p>
<p>Section 5.5, paragraph 5.5.9</p>	<p>‘the applicant should be particularly careful to identify any effects of physical changes on the integrity and special features of Marine Conservation Zones, candidate marine Special Areas of Conservation (SACs), coastal SACs and candidate coastal SACs, coastal Special Protection Areas (SPAs) and potential SCIs and Sites of Special Scientific Interest (SSSI)’²</p>	<p>The potential receptors to morphological change are Cromer Shoal Chalk Beds MCZ, the East Anglian coast and sandbanks. The potential to affect their integrity is assessed with respect to changes in sea bed level caused by foundation and cable installation (Section 6.6.4.1 – Section 6.6.4.8) and interruption to bedload sediment transport by cable protection (Section 6.6.5.5 and Section 6.6.5.6).</p>
<p>EN-3</p>		

² Note that this has been amended in BEIS (2021a) to: *The applicant should be particularly careful to identify any effects of physical changes on the integrity and special features of Marine Protected Areas (MPAs). These could include MCZs, candidate marine Special Areas of Conservation (SACs), coastal SACs and candidate coastal SACs, coastal Special Protection Areas (SPAs) and potential coastal SPAs, Ramsar sites, Sites of Community Importance (SCIs) and potential SCIs and SSSIs*



Policy	Summary	Compliance
Section 2.6, paragraph 2.6.193 and 2.6.194	<p>‘The assessment should include predictions of physical effect that will result from the construction and operation of the required infrastructure and include effects such as the scouring that may result from the proposed development’</p>	<p>Each of the impacts in Section 6.6.5.1 – Section 6.6.5.3 of Chapter 6 Marine Geology, Oceanography and Physical Processes (document reference 6.1.6) cover the potential magnitude and significance of the physical (waves, tides and sediments) effects upon the baseline conditions resulting from the construction and operation of SEP and DEP. Scour resulting from the proposed development is not assessed because scour protection will be used wherever scour will occur, reducing sediment release to negligible quantities.</p>
Section 2.6, paragraph 2.6.113	<p>‘where necessary, assessment of the effects on the subtidal environment should include:</p> <p>Loss of habitat due to foundation type including associated sea bed preparation, predicted scour, scour protection and altered sedimentary processes;</p> <p>Environmental appraisal of inter-array and cable routes and installation methods;</p> <p>Habitat disturbance from construction vessels extendible legs and anchors;</p> <p>Increased suspended sediment loads during construction; and</p> <p>Predicted rates at which the subtidal zone might recover from temporary effects’.</p>	<p>See above for scour.</p> <p>The quantification and potential impact of sea bed loss due to the footprints of SEP and DEP infrastructure is covered in Section 6.6.5.4 of Chapter 6 Marine Geology, Oceanography and Physical Processes (document reference 6.1.6). A worst-case scenario of all foundations having scour protection is considered to provide a conservative assessment.</p> <p>The worst-case scenario cable-laying techniques are jetting, ploughing or cutting and are considered in all the cable construction assessments.</p> <p>The disturbance to the subtidal sea bed caused by indentations due to installation vessels is assessed in Section 6.6.4.10.</p> <p>The potential increase in suspended sediment concentrations and change in sea bed level is assessed in Section 6.6.4.1 – Section 6.6.4.8.</p> <p>The recoverability of receptors is assessed for all the relevant impacts, particularly those related to changes in sea bed level due to export cable installation (Section 6.6.4.6) and morphological and sediment transport effects due to cable protection measures for export cables (Section 6.6.5.6).</p>
Section 2.6, paragraph 2.6.81	<p>‘an assessment of the effects of installing cable across the intertidal zone should include information, where relevant, about:</p> <p>Any alternative landfall sites that have been considered by the applicant during the design phase and an explanation of the final choice;</p> <p>Any alternative cable installation methods that have been considered by the applicant during the design phase and an explanation of the final choice;</p> <p>Potential loss of habitat;</p>	<p>HDD will be used to install the export cables at the landfall, with the HDD exit point located approximately 1,000m offshore. Therefore, there will be no direct impacts on the intertidal zone.</p> <p>Landfall Site Selection and Assessment of Alternatives are provided in Chapter 3 Site Selection and Assessment of Alternatives (document reference 6.1.3)</p> <p>A range of cable installation methods are required, and these are detailed in Chapter 4 Project Description (document reference 6.1.4). The worst-case scenario for marine geology, oceanography and physical processes is provided in Section 6.3.2 of Chapter 6 Marine Geology, Oceanography and Physical Processes (document reference 6.1.6).</p>

Policy	Summary	Compliance
	<p>Disturbance during cable installation and removal (decommissioning);</p> <p>Increased suspended sediment loads in the intertidal zone during installation; and</p> <p>Predicted rates at which the intertidal zone might recover from temporary effects’.</p>	<p>Assessment of the potential disturbance and increased suspended sediment concentrations in the nearshore (including the intertidal zone) due to cable installation is provided in Section 6.6.5.6 of the chapter.</p> <p>The recoverability of the coastal receptor (East Anglian coast) is assessed for morphological and sediment transport effects due to cable protection measures at the coast (Section 6.6.5.6).</p>
Draft EN-1 (BEIS, 2021)		
Section 5.6, paragraph 5.6.7	<p>The ES should include an assessment of the effects on the coast. In particular, applicants should assess:</p> <p>How coastal change could affect flood risk management infrastructure, drainage and flood risk.</p>	<p>As described above, SEP and DEP have been designed so that the Projects are not vulnerable to coastal change or climate change.</p> <p>Potential flood risk impacts are considered in Chapter 18 Water Resources and Flood Risk (document reference 6.1.18).</p>
Draft EN-3 (BEIS, 2021)		
Section 2.30, Paragraph 2.30.2	<p>Assessment of the effects on the subtidal environment should include:</p> <p>Environmental appraisal of inter-array and export cable routes and installation/maintenance methods, including predicted loss of habitat due to predicted scour and scour protection;</p> <p>Impacts on protected sites (e.g. HRA sites and MCZs); and</p> <p>Potential impacts from EMF on benthic fauna.</p>	<p>An assessment of the potential impacts of the installation and maintenance of cable infrastructure (including consideration of the potential impact of cable protection measures) is undertaken for the relevant construction and operation impacts in Section 6.6.4 and 6.6.5 of Chapter 6 Marine Geology, Oceanography and Physical Processes (document reference 6.1.6) respectively.</p> <p>The Cromer Shoal Chalk Beds MCZ has been included as a receptor within this chapter and so potential impacts on protected sites has been considered. Also, refer to the Stage 1 CSCB MCZ Assessment (document reference 5.6).</p> <p>The topic of EMF is not relevant to marine geology, oceanography and physical processes. However, this is considered in Chapter 9 Fish and Shellfish Ecology (document reference 6.1.9).</p>
Section 2.21, Paragraph 2.27.3	<p>An assessment of the effects of installing cable across the intertidal zone should follow The Crown Estate’s cable route protocol and include information, where relevant, about:</p> <p>Disturbance during cable installation, maintenance/repairs and removal (decommissioning);</p>	<p>HDD will be used to install the export cables at the landfall, with the HDD exit point located approximately 1,000m offshore. Therefore, there will be no direct impacts on the intertidal zone.</p> <p>Assessment of the potential disturbance and increased suspended sediment concentrations in the nearshore (including the intertidal zone) due to cable installation is provided in Section 6.6.5.6 of Chapter 6 Marine Geology, Oceanography and Physical Processes (document reference 6.1.6). Potential disturbance impacts from cable repair and maintenance are provided in Section 6.6.5.7 and decommissioning in Section 6.6.6.</p>



Policy	Summary	Compliance
	<p>Increased suspended sediment loads in the intertidal zone during installation and maintenance/repairs; and</p> <p>Protected sites (e.g. HRA sites, MCZs and SSSIs).</p>	<p>The recoverability of the coastal receptor (East Anglian coast) is assessed for morphological and sediment transport effects due to cable protection measures at the coast (Section 6.6.5.6 of Chapter 6 Marine Geology, Oceanography and Physical Processes (document reference 6.1.6)).</p> <p>The Cromer Shoal Chalk Beds MCZ has been included as a receptor within this chapter and so potential impacts on protected sites has been considered. Also, refer to the Stage 1 CSCB MCZ Assessment (document reference 5.6).</p>

6.3 Marine Water and Sediment Quality

354. Compliance with policies relating to marine water and sediment quality are presented in **Table** . Full details of the assessment and potential impacts on the marine physical environment that have been used to inform this topic specific policy compliance assessment can be found in ES **Chapter 7 Marine Water and Sediment Quality** (document reference 6.1.7).
355. The Applicant considers that SEP and DEP accords with policies set out in **Table** below.

Table 6-3: Marine Water and Sediment Quality Policy Compliance

Policy	Summary	Compliance
EN-1		
Paragraph 5.15.1	Infrastructure development can have adverse effects on the water environment, including transitional waters and coastal waters. During the construction, operation and decommissioning phases, discharges would occur. There may also be an increased risk of spills and leaks of pollutants to the water environment. These effects could lead to adverse impacts on health or on protected species and habitats and could, in particular, result in surface waters, ground waters of protected areas failing to meet environmental objectives established under the Water Framework Directive.	<p>Potential impacts on water quality are assessed in Section 7.6 of Chapter 7 Marine Water and Sediment Quality (document reference 6.1.7) and in the WFD Compliance Assessment found in Appendix 18.1 (document reference 6.3.18.1).</p> <p>Impacts on habitats and species are assessed in Chapter 8 Benthic Ecology (document reference 6.1.8) and Chapter 9 Fish and Shellfish Ecology (document reference 6.1.9).</p>
Paragraph 5.15.2	Where the project is likely to have adverse effects on the water environment, the application should undertake an assessment of the existing status of, and impacts of the proposed project, on water quality, water resources and physical characteristics of the water environment as part of the Environmental Statement or equivalent.	The existing baseline and the baseline for relevant WFD marine bodies is presented in Section 7.5 of Chapter 7 Marine Water and Sediment Quality (document reference 6.1.7).
EN-3		
Paragraph 2.6.189	The construction, operation and decommissioning of offshore energy infrastructure can affect marine water quality through the disturbance of sea bed sediments or the release of contaminants with subsequent indirect effects on habitats, biodiversity and fish stocks.	Potential impacts during construction, operation and maintenance are assessed in Section 7.6 of Chapter 7 Marine Water and Sediment Quality (document reference 6.1.7). Contaminant analysis of samples collected from the sea bed indicate very low levels of contaminants within the offshore sites.

Policy	Summary	Compliance
		Potential impacts on commercial fisheries receptors are assessed in Chapter 12 Commercial Fisheries (document reference 6.1.12). Potential impacts on habitats and biodiversity are assessed in Chapter 8 Benthic Ecology (document reference 6.1.8) and Chapter 9 Fish and Shellfish Ecology (document reference 6.1.9).
Paragraph 2.6.191	The Environment Agency regulates emissions to land, air and water out to 3 nautical miles (nm). Where any element of the wind farm or any associated development included in the application to the Infrastructure Planning Commission (IPC) (now the Planning Inspectorate) is located within 3nm of the coast, the Environment Agency should be consulted at the pre-application stage on the assessment methodology for impacts on the physical environment.	Consultation with the Environment Agency has been undertaken throughout the EIA process for SEP and DEP. In addition, consultation has been undertaken through the Evidence Plan Process (EPP) and ETG meetings which agreed assessment methodologies.
Paragraph 2.6.192	Beyond 3nm, the Marine Management Organisation (MMO) is the regulator. The applicant should consult the MMO and Centre for Environment, Fisheries and Aquaculture Science (Cefas) on the assessment methodology for impacts on the physical environment at the pre-application stage.	Consultation with the MMO and Cefas has been undertaken throughout the EIA process for SEP and DEP. In addition, consultation has been undertaken through the Evidence Plan Process (EPP) and ETG meetings which agreed assessment methodologies.
Draft EN-1 (BEIS, 2021)		
Paragraph 5.16.1	Infrastructure development can have adverse effects on the water environment, including groundwater, inland surface water, transitional waters and coastal waters. During the construction, operation and decommissioning phases, it can lead to increased demand for water, involve discharges to water and cause adverse ecological effects resulting from physical modifications to the water environment. There may also be an increased risk of spills and leaks of pollutants to the water environment.	Potential impacts on water quality are assessed in Section 7.6 of Chapter 7 Marine Water and Sediment Quality and in the WFD Compliance Assessment found in Appendix 18.1 (document reference 6.3.18.1). Impacts to habitats and species are assessed in Chapter 8 Benthic Ecology (document reference 6.1.8) and Chapter 9 Fish and Shellfish Ecology (document reference 6.1.9).
Paragraph 5.16.2	Where the project is likely to have effects on the water environment, the applicant should undertake an assessment of the existing status of, and impacts of the proposed project on,	Baseline information is provided in Section 7.5 and impacts on the marine environment are provided in Section 7.6 of Chapter 7 Marine Water and Sediment Quality (document reference 6.1.7).

Policy	Summary	Compliance
	<p>water quality, water resources and physical characteristics of the water environment as part of the ES or equivalent.</p>	
<p>Paragraph 5.16.5</p>	<p>The ES should in particular describe the existing quality of waters affected by the proposed project and the impacts of the proposed project on water quality, noting any relevant existing discharges, proposed new discharges and proposed changes to discharges</p>	<p>Baseline information is provided in Section 7.5 and impacts on the marine environment are provided in Section 7.6 of Chapter 7 Marine Water and Sediment Quality (document reference 6.1.7).</p>
<p>Paragraph 5.16.12</p>	<p>The risk of impacts on the water environment can be reduced through careful design to facilitate adherence to good pollution control practice.</p>	<p>An Outline PEMP (document reference 9.10) has been submitted with the DCO application which details best practice and embedded mitigation measures that will ensure good pollution control practice.</p>
<p>Draft EN-3 (BEIS, 2021)</p>		
<p>Paragraph 2.25.1</p>	<p>The construction, operation and decommissioning of offshore energy infrastructure (including the preparation and installation of the cable route) can affect the following elements of the physical offshore environment, which can have knock on impacts on:</p> <p>water quality – disturbance of the sea bed sediments or release of contaminants can result in direct or indirect effects on habitats and biodiversity, as well as on fish stocks thus affecting the fishing industry. The release of sediment during construction, operation and decommissioning can cause indirect effects on marine ecology and biodiversity.</p>	<p>Baseline information is provided in Section 7.5 and impacts on the marine environment are provided in Section 7.6 of Chapter 7 Marine Water and Sediment Quality (document reference 6.1.7).</p> <p>Potential impacts on commercial fisheries receptors are assessed in Chapter 12 Commercial Fisheries (document reference 6.1.12). Impacts on marine ecology and biodiversity are assessed in Chapter 8 Benthic Ecology (document reference 6.1.8) and Chapter 9 Fish and Shellfish Ecology (document reference 6.1.9).</p>

6.4 Benthic Ecology

356. Compliance with policies relating to benthic and intertidal ecology are presented in **Table** . Full details of the assessment and potential impacts on the marine ecology that have been used to inform this topic specific policy compliance assessment can be found in ES **Chapter 8 Benthic Ecology** (document reference 6.1.8).

357. The Applicant considers that SEP and DEP accords with policies set out in **Table** below.

Table 6-4: Benthic and Intertidal Ecology Policy Compliance

Policy	Summary	Compliance
EN-3		
Paragraph 2.6.83	Applicants are expected to have regard to guidance issued in respect of Food and Environment Protection Agency (FEPA) (now Marine Licence) requirements.	Other relevant guidance, including Marine Licensing, are outlined in Section 8.4.1.2 of Chapter 8 Benthic Ecology (document reference 6.1.8).
Paragraph 2.6.113	Where necessary, assessment of the effects on the subtidal environment should include: loss of habitat due to foundation type including associated seabed preparation, predicted scour, scour protection and altered sedimentary processes; environmental appraisal of inter-array and cable routes and installation methods; habitat disturbance from construction vessels' extendible legs and anchors; increased suspended sediment loads during construction; and predicted rates at which the subtidal zone might recover from temporary effects.	An assessment of effects on the subtidal environment is set out in Section 8.6 of Chapter 8 Benthic Ecology (document reference 6.1.8), this includes: Temporary loss of habitat / disturbance from sea bed preparation for wind turbine foundations, installation of offshore cables and disturbance from construction vessels are assessed in Section 8.6.2.1 . Potential impacts from increases in suspended sediment are assessed in Section 8.6.2.2 . The resilience or ability of a receptor to recover has been considered when defining the sensitivity of receptor in the impact assessment Section 8.6 (also see impact assessment methodology in Section 8.4.3).
Paragraph 2.6.119	Construction and decommissioning methods should be designed appropriately to minimise effects on subtidal habitats, taking into account other constraints. Mitigation	Mitigation measures are set out in Section 8.3.2 of Chapter 8 Benthic Ecology (document reference 6.1.8).

Policy	Summary	Compliance
	<p>measures which the IPC should expect the applicants to have considered may include:</p> <p>surveying and micrositing of the export cable route to avoid adverse effects on sensitive habitat and biogenic reefs;</p> <p>burying cables at a sufficient depth, taking into account other constraints, to allow the seabed to recover to its natural state; and</p> <p>the use of anti-fouling paint might be minimised on subtidal surfaces, to encourage species colonisation on the structures.</p>	<p>Pre-construction surveys will be undertaken to identify any potential Annex I or UKBAP priority habitats and the results discussed with the MMO and Natural England.</p> <p>The Applicant will make reasonable endeavours to bury offshore cables, minimising the requirement for external cable protection measures and thus minimising habitat loss impacts on benthic ecology receptors.</p> <p>The minimum amount of pre-sweeping (sand wave levelling) that is required to assist with the cable installation process will be undertaken and only in relation to the interlink cables and wind farm sites.</p>
<p>Paragraph 2.30.2</p>	<p>Assessment of the effects on the subtidal environment should include:</p> <p>environmental appraisal of inter-array and export cable routes and installation/maintenance methods, including predicted loss of habitat due to predicted scour and scour protection</p> <p>habitat disturbance from construction and maintenance/repair vessels' extendible legs and anchors</p> <p>increased suspended sediment loads during construction and from maintenance/repairs</p> <p>potential impacts from EMF on benthic fauna</p> <p>impacts on protected sites (e.g. HRA sites and MCZs)</p>	<p>An assessment of effects on the subtidal environment is set out in Section 8.6 of Chapter 8 Benthic Ecology (document reference 6.1.8) which includes an assessment of potential impacts during maintenance activities.</p> <p>EMF impacts on benthic invertebrates was scoped out of the assessment (see Table 8-1 of Chapter 8 Benthic Ecology (document reference 6.1.8)).</p> <p>The CSCB MCZ is included as a sensitive receptor within the chapter and therefore potential impacts on protected sites have been considered.</p>
<p>Paragraph 20.30.3</p>	<p>Construction, maintenance and decommissioning methods should be designed appropriately to minimise effects on subtidal habitats, taking into account other constraints. Review of up-to-date research should be undertaken and all potential mitigation options presented. Mitigation measures which the Secretary of State should expect the applicants to have considered may include:</p>	<p>Mitigation measures are set out in Section 8.3.3 of Chapter 8 Benthic Ecology (document reference 6.1.8).</p> <p>Pre-construction surveys will be undertaken to identify any potential Annex I or UKBAP priority habitats and the results discussed with the MMO and Natural England.</p>



Policy	Summary	Compliance
	surveying and micrositing or re-routing of the export and inter-array cables to avoid adverse effects on sensitive habitats, biogenic reefs or protected species	The Applicant will make reasonable endeavours to bury offshore cables, minimising the requirement for external cable protection measures and thus minimising habitat loss impacts on benthic ecology receptors.
Paragraph 2.30.4	Where cumulative impacts on subtidal habitats are predicted as a result of multiple cable routes, applicants for various schemes are encouraged to work together to ensure that the number of cables crossing the subtidal zone is minimised and installation/ decommissioning phases are coordinated to ensure that disturbance is reasonably minimised	<p>Potential cumulative impacts are assessed in Section 8.7 of Chapter 8 Benthic Ecology (document reference 6.1.8).</p> <p>The site selection process described in Chapter 3 Site Selection and Assessment of Alternatives (document reference 8.1.3) sought to minimise the number of cable crossings. There are no cable crossings within the MCZ.</p>

6.5 Fish and Shellfish Ecology

358. Compliance with policies relating to fish and shellfish ecology are presented in **Table** . Full details of the assessment and potential impacts on the marine ecology that have been used to inform this topic specific policy compliance assessment can be found in ES **Chapter 9 Benthic and Intertidal Ecology** (document reference 6.1.9).

359. The Applicant considers that SEP and DEP accords with policies set out in **Table** below.

Table 6-5: Fish and Shellfish Ecology Policy Compliance

Policy	Summary	Compliance
EN-3		
Paragraph 2.6.73	There is the potential for the construction and decommissioning phases, including activities occurring both above and below the sea bed, to interact with sea bed sediments and therefore have the potential to impact fish communities, migration routes, spawning activities and nursery areas of particular species. In addition, there are potential noise impacts, which could affect fish during construction and decommissioning and to a lesser extent during operation.	Potential impacts during construction, operation and decommissioning have been assessed in Section 9.6 of Chapter 9 Fish and Shellfish Ecology (document reference 6.3.9). Consideration of potential impacts on fish communities, migration routes, spawning activities and nursery areas are considered for relevant species. In addition, Sections 9.6.1.4, 9.6.1.5 and 9.6.1.6 of the chapter assess potential impacts from underwater noise generated by piling, other construction activities and UXO respectively. Operational underwater noise impacts are also assessed (Section 9.6.2.7)
Paragraph 2.6.74	The applicant should identify fish species that are the most likely receptors of impacts with respect to: spawning grounds nursery grounds feeding grounds over-wintering areas for crustaceans migration routes	Fish species which may be likely receptors of impact are identified in Section 9.5.5 of Chapter 9 Fish and Shellfish Ecology (document reference 6.3.9). Key species identified, and the rationale for their inclusion within the assessment, are provided in Table 9-16 of the chapter. Detailed information about the ecology of these species and the use that they may make of the study area is provided in Appendix 9.1 (document reference 6.2.9.1).
Paragraph 2.6.75	Where it is proposed that mitigation measures of the type set out in paragraph below are applied to offshore export cables to reduce electromagnetic fields (EMF) the residual effects of EMF on sensitive species from cable infrastructure during operation are not likely to be significant. Once installed, operational EMF impacts are	Section 9.6.2.8 of Chapter 9 Fish and Shellfish Ecology (document reference 6.3.9), identifies and assesses potential impacts on fish and shellfish receptors due to EMF during operation. The use of armoured cables and cable burial as mitigation is discussed in Section 9.3.3 of the chapter.

Policy	Summary	Compliance
Paragraph 2.6.76	<p>unlikely to be of sufficient range or strength to create a barrier to fish movement.</p> <p>EMF during operation may be mitigated by use of armoured cable for inter-array and export cables that should be buried at a sufficient depth. Some research has shown that where cables are buried at depths greater than 1.5m below the sea bed impacts are likely to be negligible. However, sufficient depth to mitigate impacts will depend on the geology of the sea bed.</p>	<p>Typical burial depth for SEP and DEP cables, excluding in areas of sand waves, is expected to be between 0.5m to 1.5m (or up to 1m for the export cables), although in challenging ground conditions the required depth of burial may not be achieved. In this event, the installation of external cable protection would be considered.</p> <p>The residual impacts of EMF on fish and shellfish ecology receptors is assessed as minor adverse Section 9.6 of Chapter 9 Fish and Shellfish Ecology (document reference 6.3.9).</p> <p>Further detail on the anticipated cable burial depths within the Cromer Shoal Chalk Beds MCZ is provided within the Outline Cable Specification, Installation and Monitoring Plan (CSIMP) (document reference 9.7) which will be updated at the pre-construction stage to include detailed design information and cable burial depths for all offshore cables.</p>
Paragraph 2.6.77	<p>During construction, 24 hour working practices may be employed so that the overall construction programme and the potential for impacts to fish communities is reduced in overall time.</p>	<p>Mitigation measures embedded in the project design are outlined in Section 9.3.3 of Chapter 9 Fish and Shellfish Ecology (document reference 6.3.9). During construction, overnight working practices would be employed offshore so that construction activities could be 24 hours, thus reducing the overall period for potential impacts to fish communities in proximity to the wind farm areas.</p>
Paragraph 2.6.122	<p>The construction and operation of offshore windfarms can have both positive and negative effects on fish and shellfish stocks.</p>	<p>Sections 9.6.1 and 9.6.2 of Chapter 9 Fish and Shellfish Ecology (document reference 6.3.9). assess the potential effects (both adverse and beneficial) of the construction and operation phases of SEP and DEP.</p>
Paragraph 2.6.63	<p>Effects of offshore windfarms can include temporary disturbance during the construction phase (including underwater noise) and ongoing disturbance during the operational phase and direct loss of habitat. Adverse effects can be on spawning, overwintering, nursery and feeding grounds and migratory pathways in the marine area. However, the presence of wind turbines can also have positive benefits to ecology and biodiversity.</p>	<p>Temporary habitat loss / disturbance during construction and operation is assessed in Section 9.6.1.1 and 9.6.2.1 respectively.</p> <p>Permanent habitat loss and long term habitat loss are assessed in Section 9.6.2.2 and 9.6.2.3 respectively.</p> <p>The particular sensitivities of species' spawning, overwintering, nursery and feeding grounds together with migratory pathways are considered as appropriate within the assessments.</p>

Policy	Summary	Compliance
Paragraph 2.6.64	Assessment of offshore ecology and biodiversity should be undertaken by the applicant for all stages of the lifespan of the proposed offshore windfarm and in accordance with the appropriate policy for offshore windfarm EIAs	Sections 9.6.1, 9.6.2 and 9.6.3 of Chapter 9 Fish and Shellfish Ecology (document reference 6.3.9) assess the potential impacts of SEP and DEP during construction, operation and decommissioning on various fish and shellfish receptors.
Paragraph 2.6.65	Consultation on the assessment methodologies should be undertaken at early stages with the statutory consultees as appropriate.	Section 9.2 of Chapter 9 Fish and Shellfish Ecology (document reference 6.3.9). details consultation which has been undertaken with regard to fish and shellfish ecology, including responses to the Scoping Report and feedback provided through the ETG meetings which agreed assessment methodologies.
Paragraph 2.6.66	Any relevant data that has been collected as part of post-construction ecological monitoring from existing, operational offshore windfarm should be referred to where appropriate.	Data sources used to inform the assessment are described in Section 9.4.2 of Chapter 9 Fish and Shellfish Ecology (document reference 6.3.9).. Such data has been referred to as appropriate within the impact assessment in Sections 9.6.1 and 9.6.2 .
Paragraph 2.6.67	The assessment should include the potential for the scheme to have both positive and negative impacts on marine ecology and biodiversity.	Chapter 9 Fish and Shellfish Ecology (document reference 6.3.9). assess the potential effects (both adverse and beneficial) of the construction and operation phases of SEP and DEP on the fish and shellfish ecology receptors scoped into the assessment. Decommissioning impacts are assessed in Section 9.6.3 .
Paragraph 2.6.71	Ecological monitoring is likely to be appropriate during the construction and operational phases to identify the actual impact so that, where appropriate, adverse effects can then be mitigated and to enable further useful information to be published relevant to future projects.	Monitoring requirements are addressed in Section 9.11 of Chapter 9 Fish and Shellfish Ecology (document reference 6.3.9). In addition, the Offshore In-Principle Monitoring Plan (IPMP) (document reference 9.5) further describes the proposed monitoring requirements for fish and shellfish ecology.
Draft EN-3		
Paragraph 2.26.1	There are potential impacts associated with energy emissions into the environment (e.g. noise or EMF)), as well as potential interaction with sea bed sediments.	Potential impacts associated with noise, EMF and interaction with sea bed sediments have been assessed in Section 9.6 of Chapter 9 Fish and Shellfish Ecology (document reference 6.3.9).
Paragraph 2.26.2	The applicant should identify fish species that are the most likely receptors of impacts with respect to: protected areas (e.g. HRA sites and MCZs)	Designated Sites and Protected Species are identified in Section 9.5.4 of Chapter 9 Fish and Shellfish Ecology (document reference 6.3.9). No SACs or MCZs designated with fish species as qualifying features have been

Policy	Summary	Compliance
		screened in following HRA screening (document reference 5.4.2) or MCZ screening (document reference 5.6.1).
Paragraph 2.26.2	The assessment should also identify potential implications of underwater noise from construction and unexploded ordnance (both sound pressure and particle motion) and EMF on sensitive fish species.	Potential impacts associated with noise (piling, other construction and UXO and where relevant including consideration of sound pressure and particle motion detection) and EMF have been assessed in Section 9.6 of Chapter 9 Fish and Shellfish Ecology .

6.6 Marine Mammal Ecology

360. Compliance with policies relating to marine mammal ecology are presented in **Table** . Full details of the assessment and potential impacts on the marine ecology that have been used to inform this topic specific policy compliance assessment can be found in **ES Chapter 10 Marine Mammal Ecology** (document reference 6.1.10).

361. The Applicant considers that SEP and DEP accords with policies set out in **Table** below.

Table 6-6: Marine Mammal Ecology Policy Compliance

Policy	Summary	Compliance
EN-3		
<p>Paragraphs 2.6.90-2.6.91 of the NPS EN-3 (July 2011). See updated wording in draft EN-3 paragraph 2.28.1 and 2.28.2 (BEIS, 2021) below.</p>	<p>There are specific considerations from piling noise which apply to offshore wind energy infrastructure proposals with regard to marine mammals, including cetaceans and seals, which have statutory protection.</p> <p>Offshore piling may reach noise levels which are high enough to cause injury, or even death, to marine mammals. If piling associated with an offshore windfarm is likely to lead to the commission of an offence (which would include deliberately disturbing, killing or capturing a European Protected Species), an application may have to be made for a wildlife licence to allow the activity to take place.</p>	<p>Section 10.3.3 of Chapter 10 Marine Mammal Ecology (document reference 6.1.10) provides an overview of the worst-case scenario for possible piling works.</p> <p>Sections 10.6.1.1 and 10.6.1.2 of the chapter provide an assessment of pile driving (including noise modelling results).</p> <p>As outlined in Section 10.4.1.5, if required, a wildlife licence application will be submitted post-consent.</p>
<p>Paragraph 2.6.92 of the NPS EN-3 (July 2011). See updated wording in draft EN-3 paragraph 2.28.3 (BEIS, 2021) below.</p>	<p>Where necessary, assessment of the effects on marine mammals should include details of:</p> <ul style="list-style-type: none"> Likely feeding areas; Known birthing areas / haul out sites; Nursery grounds; Known migration or commuting routes; Duration of the potentially disturbing activity including cumulative / in-combination effects with other plans or projects; 	<p>Section 10.5 and Appendix 10.1 of Chapter 10 Marine Mammal Ecology (document reference 6.3.10.1) provide a description of the existing environment.</p> <p>Section 10.6 details the assessment of impacts during construction, including pile driving.</p> <p>Section 10.6.2 provides the assessment of operational noise.</p>

Policy	Summary	Compliance
	<p>Baseline noise levels;</p> <p>Predicted noise levels in relation to mortality, Permanent Threshold Shift (PTS) and Temporary Threshold Shift (TTS); and</p> <p>Soft-start noise levels according to proposed hammer and pile design; and operational noise.</p>	<p>Cumulative impacts are assessed in Section 10.7 and impacts on protected sites are assessed in the Report to Inform Appropriate Assessment RIAA (document reference 5.4).</p>
<p>Paragraph 2.6.93 of the NPS EN-3 (July 2011). See updated wording in draft EN-3 paragraph 2.28.1 and 2.28.5 (BEIS, 2021) below.</p>	<p>The applicant should discuss any proposed piling activities with the relevant body. Where assessment shows that noise from offshore piling may reach noise levels likely to lead to an offence [as described above], the applicant should look at possible alternatives or appropriate mitigation before applying for a licence.</p>	<p>Section 10.6.1 of Chapter 10 Marine Mammal Ecology (document reference 6.1.10) details the assessment of impacts during construction, including pile driving and mitigation measures.</p> <p>SEP and DEP have discussed proposed piling activities through the Evidence Plan Process (EPP) as outlined in Section 10.2 of the chapter.</p>
<p>Paragraphs 2.6.94 to 2.6.96 of the NPS EN-3 (July 2011). See updated wording in draft EN-3 paragraph 2.28.9 and 2.28.10 (BEIS, 2021) below.</p>	<p>The IPC (Infrastructure Planning Commission) [now the Planning Inspectorate and the Secretary of State (SoS)] should be satisfied 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 IPC [now SoS] may refuse the application.</p> <p>The conservation status of marine European Protected Species and seals are of relevance to the IPC [now SoS]. IPC [now SoS] should take into account the views of the relevant statutory advisors.</p> <p>Fixed submerged structures such as foundations are likely to pose little collision risk for marine mammals and the IPC [now SoS] is not likely to have to refuse to grant consent for a development on the grounds that offshore</p>	<p>Chapter 4 Project Description (document reference 6.1.4) describes the foundation options under consideration for SEP and DEP. Section 10.3.3 of Chapter 10 Marine Mammal Ecology (document reference 6.1.10) describes the worst-case scenario for marine mammals.</p>

Policy	Summary	Compliance
	windfarm foundations pose a collision risk to marine mammals.	
Paragraphs 2.6.97 to 2.6.99 of the NPS EN-3 (July 2011). See updated wording in draft EN-3 paragraph 2.28.6 and 2.28.7 (BEIS, 2021) below.	Monitoring of the surrounding area before and during the piling procedure can be undertaken. During construction, 24-hour working practices may be employed so that the overall construction programme and the potential for impacts to marine mammal communities are reduced in time. Soft start procedures during pile driving may be implemented. This enables marine mammals in the area disturbed by the sound levels to move away from the piling before significant adverse impacts are caused.	An Offshore IPMP (document reference 9.5) and Draft Marine Mammal Mitigation Protocol (MMMP) (document reference 9.4) have been submitted with the DCO application. These plans will be developed in consultation with the relevant SNCBs and approved by the MMO post-consent and will identify any necessary monitoring requirements.
Paragraph 2.6.95 of the NPS EN-3 (July 2011).	The conservation status of marine European Protected Species and seals are of relevance to the IPC [now SoS].	The conservation status of relevant marine mammal species is included in Section 10.4.1.6 of Chapter 10 Marine Mammal Ecology (document reference 6.1.10).
Paragraph 2.6.97 of the NPS EN-3 (July 2011).	Monitoring of the surrounding area before and during the piling procedure can be undertaken.	A Draft MMMP (document reference 9.4) has been submitted with the DCO application which details the marine mammal monitoring requirements during piling.
Paragraph 2.6.98 of the NPS EN-3 (July 2011).	During construction, 24-hour working practices may be employed so that the overall construction programme and the potential for impacts to marine mammal communities is reduced in time.	Details on the construction programme are provided in Section 10.3.3.2 of Chapter 10 Marine Mammal Ecology (document reference 6.1.10).
Draft EN-3 (BEIS, 2021)		
Draft EN-3 paragraph 2.28.1 (BEIS, 2021).	Construction activities, including installing wind turbine foundations by pile driving, geophysical surveys, and clearing the site and cable route of unexploded ordnance (UXOs) may reach noise levels which are high enough to cause disturbance, injury, or even death to marine mammals. All marine mammals are protected under Part 3 of the Habitats Regulations. In addition, whales, dolphins and porpoises (collectively known as	Section 10.6 of Chapter 10 Marine Mammal Ecology (document reference 6.1.10) provides an assessment of the underwater noise levels and maximum impact ranges that could cause injury or disturbance to marine mammals from UXO clearance, piling and other noise sources. A summary of the mitigation measures to reduce the potential impacts of underwater noise is provided in Section 10.3.4 .

Policy	Summary	Compliance
	cetaceans) are legally protected species. Therefore, if construction and associated noise levels are likely to lead to an offence under Part 3 of the Habitats Regulations (which would include deliberately disturbing, injuring or killing), an application will have to be made for a wildlife licence ³ to allow the activity to take place.	As outlined in Section 10.4.1.5 , if required, a wildlife licence application will be submitted post-consent.
Draft EN-3 paragraph 2.28.2 (BEIS, 2021)	The development of offshore wind farms can also impact fish species, which can have indirect impacts on marine mammals if those fish are prey species. There is also the risk of collision with construction and maintenance vessels.	Section 10.6 of Chapter 10 Marine Mammal Ecology (document reference 6.1.10) provides an assessment of the potential impacts from any indirect effects as a result of impacts on prey species and the risk of collision with construction and maintenance vessels.
Draft EN-3 paragraph 2.28.3 (BEIS, 2021).	<p><u>Applicant's assessment</u></p> Where necessary, assessment of the effects on marine mammals should include details of: <ul style="list-style-type: none"> likely feeding areas and impacts on prey species and prey habitat; known birthing areas / haul out sites for breeding and pupping; migration routes; protected areas (e.g. SACs); baseline noise levels; predicted construction and soft start noise levels in relation to mortality, Permanent Threshold Shift (PTS) and Temporary Threshold Shift (TTS) and disturbance; operational noise; duration and spatial extent of the impacting activities including cumulative / in-combination effects with other plans or projects; collision risk; and 	<p>Section 10.5 and Appendix 10.1 of Chapter 10 Marine Mammal Ecology (document reference 6.1.10) provide a description of the existing environment, including likely feeding areas and prey, seal haul-out sites, migration routes and protected areas.</p> <p>Section 10.6 details the assessment of impacts for PTS, TTS and disturbance from underwater noise, including during construction from pile driving and soft-start noise levels.</p> <p>Section 10.6.2 provides the assessment of operational noise.</p> <p>Section 10.7 provides the cumulative impact assessment (CIA).</p> <p>Section 10.6 details the assessment of collision risk and barrier risk.</p>

³ <https://www.gov.uk/guidance/understand-marine-wildlife-licences-and-report-an-incident>

Policy	Summary	Compliance
	barrier risk.	
Draft EN-3 paragraph 2.28.4 (BEIS, 2021).	The scope, effort and methods required for marine mammal surveys should be discussed with the relevant statutory nature conservation body.	The requirements of the marine mammal surveys were discussed with the relevant SNCBs as part of the EPP, as outlined in Section 10.2 of Chapter 10 Marine Mammal Ecology (document reference 6.1.10).
Draft EN-3 paragraph 2.28.5 (BEIS, 2021)	The applicant should discuss any proposed noisy activities with the relevant body and must reference the JNCC underwater noise guidance (JNCC <i>et al.</i> , 2020) in relation to noisy activities (alone and in-combination with other plans or projects) within HRA sites. Where assessment shows that noise from construction and UXO clearance may reach noise levels likely to lead to noise thresholds being exceeded (as detailed in the JNCC guidance) or an offence as described in paragraph 2.28.1 above, the applicant should look at possible alternatives or appropriate mitigation (detailed below).	The Applicant has discussed noisy activities through the EPP as outlined in Section 10.2 of Chapter 10 Marine Mammal Ecology (document reference 6.1.10). Reference has been made to the JNCC underwater noise guidance (JNCC <i>et al.</i> , 2020) in relation to noisy activities (alone and in-combination with other plans or projects) for the assessment of effects on the SNS SAC in the RIAA (document reference 5.4).
Draft EN-3 paragraph 2.28.6 (BEIS, 2021)	<u>Mitigation</u> Monitoring of the surrounding area before and during the piling procedure can be undertaken by various methods including marine mammal observers and passive acoustic monitoring. Active displacement of marine mammals outside potential injury zones can be undertaken using equipment such as acoustic deterrent devices.	The proposed mitigation is outlined in Section 10.3.4 of Chapter 10 Marine Mammal Ecology (document reference 6.1.10) and the proposed monitoring is outlined in Section 10.1 .
Draft EN-3 paragraph 2.28.7 (BEIS, 2021)	Soft start procedures during pile driving may be implemented. This enables marine mammals in the area disturbed by the sound levels to move away from the piling before physical or auditory injury is caused.	Soft-start procedures are included in the embedded mitigation as outlined in Section 10.3.4.1 of Chapter 10 Marine Mammal Ecology (document reference 6.1.10).
Draft EN-3 paragraph 2.28.8 (BEIS, 2021)	Where noise impacts cannot be reduced to acceptable levels, other mitigation should be considered, including spatial/temporal restrictions on noisy activities, alternative foundation types, alternative installation	Mitigation to reduce the impacts from underwater noise are provided in the Draft MMMP (document reference 9.4) and In Principle SIP for the SNS SAC (document reference 9.6). As outlined in Section 10.3.4.2 of Chapter 10 Marine Mammal Ecology (document reference 6.1.10), these documents



Policy	Summary	Compliance
	<p>methods and noise abatement technology. Review of up-to-date research should be undertaken and all potential mitigation options presented.</p>	<p>and the mitigation measures required will be developed in the pre-construction period and will be based upon best available information and methodologies at that time, in consultation with the relevant SNCBs and MMO.</p>
<p>Draft EN-3 paragraph 2.28.9 (BEIS, 2021)</p>	<p><u>Secretary of State decision making</u> The Secretary of State should be satisfied 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 to reasonably minimise significant impacts 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.</p>	<p>As outlined in Section 10.3.4 of Chapter 10 Marine Mammal Ecology (document reference 6.1.10), selection of the types of foundations, construction methods and mitigation measures are designed to reasonably minimise significant impacts on marine mammals.</p>
<p>Draft EN-3 paragraph 2.28.10 (BEIS, 2021)</p>	<p>The conservation status of cetaceans and seals are of relevance and the Secretary of State should be satisfied that cumulative and in-combination impacts on marine mammals have been considered.</p>	<p>The conservation status of relevant marine mammal species is included in Section 10.4.1.6 of Chapter 10 Marine Mammal Ecology (document reference 6.1.10). The cumulative impacts and in-combination effects on marine mammals have been assessed in Section 10.7 and in the RIAA (document reference 5.4), respectively.</p>

6.7 Offshore Ornithology

362. Compliance with policies relating to offshore ornithology are presented in **Table** . Full details of the assessment and potential impacts on the marine ecology that have been used to inform this topic specific policy compliance assessment can be found in ES **Chapter 11 Offshore Ornithology** (document reference 6.1.11).

363. The Applicant considers that SEP and DEP accords with policies set out in **Table** below.

Table 6-7: Offshore Ornithology Policy Compliance

Policy	Summary	Compliance
EN-1		
Section 5.3.3	Clearly set out any effects on internationally, nationally and locally designated sites of ecological conservation importance, on protected species and on habitats and other species identified as being of principal importance for the conservation of biodiversity	Section 11.6 of Chapter 11 Offshore Ornithology (document reference 6.1.11) assesses potential impacts on the sites and species scoped in to the assessment.
Section 5.3.4	Show how the proposed project has taken advantage of opportunities to conserve and enhance biodiversity conservation interests.	Section 11.6 of Chapter 11 Offshore Ornithology (document reference 6.1.11), where relevant, details potential opportunities to conserve and enhance biodiversity conservation interests. Also see Appendix 1 Compensatory Measures Overview of the HRA Derogation: Provision of Evidence (document reference 5.6).
Section 5.3.18	Include appropriate mitigation measures as an integral part of the proposed development	Section 11.3.3 of Chapter 11 Offshore Ornithology (document reference 6.1.11) details the mitigation measures embedded into the design of SEP and DEP.
EN-3		
Section 2.6.64	Assessment of offshore ecology and biodiversity should be undertaken by the applicant for all stages of the lifespan of the proposed OWF and in accordance with the appropriate policy for OWF EIAs.	Section 11.6 of Chapter 11 Offshore Ornithology (document reference 6.1.11) assesses potential impacts during the construction, operation and maintenance and decommissioning phases.

Policy	Summary	Compliance
Section 2.6.66	Any relevant data that has been collected as part of post-construction ecological monitoring from existing, operational OWF should be referred to where appropriate	Evidence from operational OWFs is referred to throughout the assessment in Chapter 11 Offshore Ornithology (document reference 6.1.11)
Section 2.6.67	The assessment should include the potential of the scheme to have both positive and negative effects on marine ecology and biodiversity	This is discussed throughout the assessment in Chapter 11 Offshore Ornithology (document reference 6.1.11)
Section 2.6.102	The scope, effort and methods required for ornithological surveys should have been discussed with the relevant statutory advisor	Natural England were appraised of the survey programme prior to the commencement of the Evidence Plan Process
Section 2.6.103	Relevant data from operational OWFs should be referred to in the applicant's assessment	Evidence from operational OWFs is referred to throughout the assessment in Chapter 11 Offshore Ornithology (document reference 6.1.11)
Section 2.6.104	It may be appropriate for assessment to consider collision risk modelling for certain species of birds	Section 11.6 of Chapter 11 Offshore Ornithology (document reference 6.1.11)
Draft EN-3 (BEIS, 2021)		
Section 2.29.2	Currently, cumulative impact assessments for ornithology are based on the consented Rochdale Envelope parameters of projects, rather than the 'as-built' parameters, which may pose a lower risk to birds. The Secretary of State will therefore require any consents to include provisions to define the final 'as built' parameters (which may not then be exceeded) so that these parameters can be used in future cumulative impact assessments. In parallel we will look to explore opportunities to reassess ornithological impact assessment of historic consents to reflect their 'as built' parameters. Any ornithological 'headroom' between the effects defined in the 'as built' parameters and Rochdale Envelope parameters can then be released. We will also consider the potential applicability of these principles to other consent parameters.	Provisions to define and confirm the 'as built' parameters so that these can be used in CIAs for future developments are included in the Draft DCO (document reference 3.1) and described in the Explanatory Memorandum (document reference 3.2). The CIA for Sandwich tern (Section 11.7.3.2.5 of Chapter 11 Offshore Ornithology (document reference 6.1.11)) has assessed a range of designs for the operational and consented projects included in the CIA in an attempt to address the unrealistic nature of CIA assessments based purely on consented designs.

Policy	Summary	Compliance
Section 2.29.2	Displacement and population viability assessments must be undertaken for certain species of birds	Displacement assessments and PVA for the relevant species have been undertaken and are provided in Section 11.6 and 11.7 of Chapter 11 Offshore Ornithology (document reference 6.1.11) and the RIAA (document reference 5.4).
Section 2.29.6	Turbine parameters should also be developed to reduce collision risk where the assessment shows there is a significant risk of collision (e.g., altering rotor height).	The project designs of SEP and DEP assessed in the PEIR had an air gap of 26m HAT. This was set at a value greater than the minimum of 22m to reduce the potential collision risk for offshore ornithology receptors. Between PEIR and the production of the ES, air gap has been further increased to 30m, providing further reduction of potential collision risk for offshore ornithology receptors.

6.8 Commercial Fisheries

364. Compliance with policies relating to commercial fisheries are presented in **Table** . Full details of the assessment and potential impacts on the marine ecology that have been used to inform this topic specific policy compliance assessment can be found in ES **Chapter 12 Commercial Fisheries** (document reference 6.1.12).
365. The Applicant considers that SEP and DEP accords with policies set out in **Table** below.

Table 6-8: Commercial Fisheries Policy Compliance

Policy	Summary	Compliance
EN-3		
Paragraph 2.6.122	The construction and operation of offshore windfarms can have both positive and negative effects on fish and shellfish stocks.	A detailed assessment of the impacts to fish and shellfish stocks is provided in Chapter 9 Fish and Shellfish Ecology (document reference 6.1.9).
Paragraph 2.6.123	Whilst the footprint of the offshore windfarm and any associated infrastructure may be a hindrance to certain types of commercial fishing activity such as trawling and longlining, other fishing activities may be able to take place within operational windfarms without unduly disrupting or compromising navigational safety. Consequently, the establishment of a windfarm can increase the potential for some fishing activities, such as potting, where this would not compromise any safety zone in place. The Planning Inspectorate should consider adverse or beneficial impacts on different types of commercial fishing on a case by case basis.	Impacts to commercial fishing grounds are assessed in Section 12.6 of Chapter 12 Commercial Fisheries (document reference 6.1.12).
Paragraph 2.6.124	In some circumstances, transboundary issues may be a consideration as fishermen from other countries may fish in waters within which offshore windfarms are sited.	Assessment of potential transboundary impacts in relation to non-UK fishing fleet is provided in Section 12.8 of Chapter 12 Commercial Fisheries (document reference 6.1.12). Potential impacts incurred by non-UK registered vessels operating within UK waters, including Belgian, Danish, Dutch and French commercial fishing fleets, has been assessed across all impact categories.

Policy	Summary	Compliance
Paragraph 2.6.127	Early consultation should be undertaken with statutory advisors and with representatives of the fishing industry which could include discussion of impact assessment methodologies. Where any part of a proposal involves a grid connection to shore, appropriate inshore fisheries groups should also be consulted.	Consultation has been undertaken with national bodies and local fisheries representatives and is summarised in Section 12.2 of Chapter 12 Commercial Fisheries (document reference 6.1.12). Consultation with key stakeholders will continue throughout the development process.
Paragraph 2.6.128	Where a number of offshore windfarms have been proposed within an identified zone, it may be beneficial to undertake such consultation at a zonal, rather than a site specific, level.	Cumulative impacts with other offshore wind farm developments have been assessed in Section 12.7.3 of Chapter 12 Commercial Fisheries (document reference 6.1.12).
Paragraph 2.6.129	The assessment by the applicant should include surveys of the effects on fish stocks of commercial interest and any potential reduction in such stocks, as well as any likely constraints on fishing activity within the project boundaries. Robust baseline data should have been collected and studies conducted as part of the assessment.	A detailed assessment of the impacts of the project on fish and shellfish receptors is provided in Chapter 9 Fish and Shellfish Ecology (document reference 6.1.12). Constraints/ impacts on fishing activities are assessed within Section 12.6 of Chapter 12 Commercial Fisheries (document reference 6.1.12).
Paragraph 2.6.130	Where there is a possibility that safety zones will be sought around offshore infrastructure, potential effects should be included in the assessment on commercial fishing.	The impact of safety zones on commercial fishing is considered in Section 12.6 of Chapter 12 Commercial Fisheries (document reference 6.1.12).
Paragraph 2.6.135	Mitigation should be designed to enhance where reasonably possible any potential medium and long-term positive benefits to the fishing industry, commercial fish stocks and the marine environment.	Mitigation measures proposed are described in Section 12.6 of Chapter 12 Commercial Fisheries . A detailed assessment of the impacts of the project on fish and shellfish receptors is provided in Chapter 9 Fish and Shellfish Ecology .
Draft EN-3 (BEIS, 2021)		
Paragraph 2.31.4	Where an offshore wind farm could affect a species of fish that is of commercial interest, but is also of ecological value, the Secretary of State should refer to Section 2.26 of this NPS with regard to the latter. The applicant should also speak to Department for Environment, Food and Rural Affairs (DEFRA) and representatives of the fishing industry to explore possible coordination of activities.	Commercial fisheries consultation is summarised in of Chapter 12 Commercial Fisheries (document reference 6.1.12) which includes consultation with local fishermen and commercial fisheries representatives. Ecological value is considered in Chapter 9 Fish and Shellfish Ecology (document reference 6.1.9) Consultation relating to fish ecology is contained within Section 9.2 of Chapter 9 Fish and Shellfish Ecology (document

Policy	Summary	Compliance
		reference 6.1.9). Consultation with key stakeholders will continue throughout the development process.
Paragraph 2.31.10	Any mitigation proposals should result from the applicant having detailed consultation with relevant representatives of the fishing industry, the MMO and the relevant DEFRA policy team.	Mitigation measures proposed are described in Section 12.6 of ES Chapter 12 Commercial Fisheries (document reference 6.1.12). Consultation undertaken to date is summarised in of ES Chapter 12 Commercial Fisheries (document reference 6.1.12) which includes consultation with local fishers and commercial fisheries representatives.

6.9 Shipping and Navigation

366. Compliance with policies relating to shipping and navigation are presented in **Table** . Full details of the assessment and potential impacts on the marine environment that have been used to inform this topic specific policy compliance assessment can be found in ES **Chapter 13 Shipping and Navigation** (document reference 6.1.13).

367. The Applicant considers that SEP and DEP accords with policies set out in **Table** below.

Table 6-9: Shipping and Navigation Policy Compliance

Policy	Summary	Compliance
EN-3		
Section 2.6, paragraph 2.6.35	There may be constraints imposed on the siting or design of offshore wind farms because of restrictions resulting from the presence of other offshore infrastructure and activities.	Chapter 3 Site Selection and Alternatives (document reference 6.1.3) provides the rationale for the location of the wind farm areas, infield cables and proposed offshore export cable corridor, which includes consideration of constraints associated with shipping activities.
Section 2.6, paragraph 2.6.153	Applicants should establish stakeholder engagement with interested parties in the navigation sector early in the development phase of the proposed offshore wind farm and this should continue throughout the life of the development including during the construction, operation and decommissioning phases. Such engagement should be taken to ensure that solutions are sought that allow offshore wind farms and navigation uses of the sea to successfully co-exist.	Consultation with stakeholders including national and local stakeholders and regular operators has been undertaken by The Applicant, consultation responses received to date are shown in Table 13-1 of Chapter 13 Shipping and Navigation (document reference 6.1.13). Consultation will continue throughout the life of the development and in line with the relevant guidance.
Section 2.6, paragraph 2.6.154	Assessment should be underpinned by consultation with the MMO, Maritime and Coastguard Agency (MCA), the relevant General Lighthouse Authority, the relevant industry bodies (both national and local) and any representatives of recreational users of the sea, such as the Royal Yachting Association (RYA), who may be affected.	Consultation with stakeholders including national and local stakeholders and regular operators has been undertaken by The Applicant, consultation responses received to date are shown in Table 13-1 of Chapter 13 Shipping and Navigation (document reference 6.1.13). Consultation will continue throughout the life of the development and in line with the relevant guidance.
Section 2.6, paragraph 2.6.155	Information on internationally recognised sea lanes is publicly available and this should be considered by	There are no IMO routeing measures in proximity to the wind farm sites or the offshore export cable corridor. The nearest is approximately 30nm north west of

Policy	Summary	Compliance
	applicants prior to undertaking assessments. The assessment should include reference to any relevant, publicly available data available on the Maritime Database.	the wind farm sites. Main routes are identified in Section 13.5 and Appendix 13.1 of Chapter 13 Shipping and Navigation (document reference 6.1.13).
Section 2.6, paragraph 2.6.156 and 157	Applicants should undertake a Navigational Risk Assessment (NRA) in accordance with relevant Government guidance prepared in consultation with the MCA and the other navigation stakeholders. The navigation risk assessment will for example necessitate: A survey of vessels in the vicinity of the proposed wind farm; A full NRA of the likely impact of the wind farm on navigation in the immediate area of the wind farm in accordance with the relevant marine guidance; and Cumulative and in-combination risks associated with the development and other developments (including other wind farms) in the same area of sea.	An NRA has been undertaken and is found in Appendix 13.1 of Chapter 13 Shipping and Navigation (document reference 6.1.13). The NRA was undertaken with consideration of all relevant guidance (primarily MGN 654) and has been developed in consultation with the MCA and other relevant stakeholders.
Section 2.6, paragraph 2.6.158 and 159	Where there is a possibility that safety zones will be sought around offshore infrastructure, potential effects should be included in the assessment on navigation and shipping. Where the precise extents of potential safety zones are unknown, a realistic worst case scenario should be assessed. Applicants should consult the MCA and refer to the Government guidance on safety zones.	Safety zones are expected to be applied for and are detailed in Chapter 4 Project Description (document reference 6.1.4) and included as embedded mitigation within the NRA (Appendix 13.1) and Section 13.3 of Chapter 13 Shipping and Navigation .
Section 2.6, paragraph 2.6.160	The potential effect on recreational craft, such as yachts, should be considered in any assessment.	Assessment of recreational craft has been informed by consultation with the RYA and relevant data (including the RYA Coastal Atlas of recreational boating and survey data) and is located within Section 13.6 of Chapter 13 Shipping and Navigation (document reference 6.1.13), and in Chapter 16 Petroleum Industry and Other Marine Users .
Section 2.6, paragraph 2.6.174	Mitigation measures will include site configuration, lighting and marking of projects to take account of any requirements of the General Lighthouse Authority and also	Embedded mitigation measures, which includes lighting and marking, agreement of layout and monitoring requirements, are listed within Section

Policy	Summary	Compliance
	the provision of an acceptable Active Safety Management System.	13.3.3 of Chapter 13 Shipping and Navigation (document reference 6.1.13). Additional mitigation measures are detailed within Section 13.6 .
NPS for Ports		
Section 3.1.4	Shipping will continue to provide the only effective way to move the vast majority of freight in and out of the UK, and the provision of sufficient sea port capacity will remain an essential element in ensuring sustainable growth in the UK economy.	Nearby ports are identified in Section 13.5 of Chapter 13 Shipping and Navigation (document reference 6.1.13). Section 13.6 assesses associated vessel movements.
Section 3.4.10	Demand for port capacity to service manufacture, operation and maintenance of offshore windfarms will be substantial, especially in the short term in support of the 'Round 3' offshore developments. To some extent, capacity provided for by container terminal consents may help to contribute, on an interim basis, to meeting this demand. Because of the Government's renewables targets and in light of the policies set out in the Renewable Energy NPS (EN-3), there is a strong public interest in enabling ports to service these developments.	The exact locations of the construction operation and maintenance ports are currently unknown. Nearby ports are identified in Section 13.5 of Chapter 13 Shipping and Navigation (document reference 6.1.13). Section 13.6 assesses associated vessel movements. Chapter 27 Socioeconomics and Tourism (document reference 6.1.27) identifies potential ports considered for construction, operation and maintenance of the Project.

6.10 Offshore Archaeology and Cultural Heritage

368. Compliance with policies relating to offshore archaeology and cultural heritage are presented in **Table** . Full details of the assessment and potential impacts on the marine physical environment that have been used to inform this topic specific policy compliance assessment can be found in ES **Chapter 14 Offshore Archaeology and Cultural Heritage** (document reference 6.1.14).

369. The Applicant considers that SEP and DEP accords with policies set out in **Table** below.

Table 6-10: Offshore Archaeology and Cultural Heritage Policy Compliance

Policy	Summary	Compliance
EN-1		
Paragraph 5.8.8	“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. ⁴ The level of detail should be proportionate to the importance of the heritage assets and no more than is sufficient to understand the potential impact of the proposal on the significance of the heritage asset.”	The significance of the archaeological receptors considered in Chapter 14 Offshore Archaeology and Cultural Heritage (document reference 6.1.14), and the contribution of setting to that significance, have been detailed in Sections 14.5.1.2, 14.5.2.2 and 14.5.3.2 of the chapter. Issues relating to the setting of onshore heritage assets have been considered as part of Chapter 21 Onshore Archaeological and Cultural Heritage (document reference 6.1.21).
Paragraph 5.8.9	“Where a development site includes, or the available evidence suggests it has the potential to include, heritage assets with an archaeological interest, the applicant should carry out appropriate desk-based assessment and, where such desk-based research is insufficient to properly assess the interest, a field evaluation. Where proposed development will affect the setting of a heritage asset, representative visualisations may be necessary to explain the impact.”	Section 14.5 of Chapter 14 Offshore Archaeology and Cultural Heritage (document reference 6.1.14) provides a full characterisation of the baseline environment

⁴ Note minor change to this text in BEIS (2021a): ~~...and the contribution of their setting to that significance~~ including any contribution made by their setting.

Policy	Summary	Compliance
Paragraph 5.8.10	“The applicant 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.”	Section 14.6 of Chapter 14 Offshore Archaeology and Cultural Heritage (document reference 6.1.14) provides an account of the potential impacts of SEP and/or DEP upon heritage assets and their significance.
EN-3		
Paragraph 2.6.140	“Consultation with the relevant statutory consultees (including English Heritage) should be undertaken by the applicants at an early stage of the development.”	Consultation has been undertaken with relevant statutory consultees, as outlined in Section 14.2 of Chapter 14 Offshore Archaeology and Cultural Heritage (document reference 6.1.14). Consultation will be ongoing throughout the development process.
Paragraph 2.6.141	“Assessment should be undertaken as set out in section 5.8 of EN-1. Desk based studies should take into account geotechnical or geophysical surveys that have been undertaken to aid the windfarm design.”	The assessment has been undertaken in accordance with section 5.8 of EN-1, as detailed above. Geophysical and geotechnical studies have underpinned the assessment (Section 14.5 and Appendix 14.1, Appendix 14.2 and Appendix 14.3 of Chapter 14 Offshore Archaeology and Cultural Heritage (document reference 6.1.14)).
Paragraph 2.6.142	“The assessment should also include the identification of any beneficial effects on the historic marine environment, for example through improved access or the contribution to new knowledge that arises from investigation.”	Any beneficial effects to the offshore archaeology and cultural heritage resource resulting from SEP and DEP have been identified and incorporated as part of Section 14.5 of Chapter 14 Offshore Archaeology and Cultural Heritage (document reference 6.1.14).
Paragraph 2.6.143	“Where elements of an application (whether offshore or onshore) interact with features of historic maritime significance that are located onshore, the effects should be assessed in accordance with the policy at section 5.8 of EN-1.”	Potential impacts of SEP and DEP upon onshore heritage assets have been considered in Chapter 21 Onshore Archaeology and Cultural Heritage (document reference 6.1.21).
EN-5		
Paragraph 2.2.6	...developers will be influenced by 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,	Potential impacts upon sites and objects of archaeological interest offshore are set out in Section 14.6 of Chapter 14 Offshore Archaeology and Cultural Heritage (document reference 6.1.14), along with a proposed approach to mitigation which is further detailed in the Outline WSI (Offshore) (document reference: 9.11).

Policy	Summary	Compliance
	<p>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.”</p>	
Draft EN-1 (BEIS, 2021)		
Paragraph 5.9.14	<p>The applicant is encouraged, where opportunities exist, to prepare proposals which can make a positive contribution to the historic environment, and to consider how their scheme takes account of the significance of heritage assets affected. This can include, where possible:</p> <ul style="list-style-type: none"> enhancing, through a range of measures such as sensitive design, the significance of heritage assets or setting affected considering measures that address those heritage assets which are at risk or which may become at risk, as a result of the scheme considering how visual or noise impacts can affect heritage assets, and whether there may be opportunities to enhance access to, or interpretation, understanding and appreciation of, the heritage assets affected by the scheme 	<p>Where potential opportunities arise for enhancement, these are described within Chapter 21 Onshore Archaeology and Cultural Heritage (document reference 6.1.21) and Appendix 22.1 of Chapter 14 Offshore Archaeology and Cultural Heritage (document reference 6.1.14).</p>
Draft EN-3 (BEIS, 2021)		
Paragraph 2.32.4	<p>Consultation with the relevant statutory consultees on the potential impacts on the marine historic environment should be undertaken by applicants at an early stage of development, taking into account any applicable guidance (e.g., offshore renewables protocol for archaeological discoveries⁵.</p>	<p>Consultation has been undertaken with relevant statutory consultees, as outlined in Section 14.2 of Chapter 14 Offshore Archaeology and Cultural Heritage (document reference 6.1.14). Consultation will be on going throughout the development process.</p> <p>In demonstrating adherence to industry good practice, the chapter has been compiled in accordance with relevant standards and guidance as listed in Section 14.4.1.2.3 of Chapter 14 Offshore Archaeology and Cultural Heritage (document reference 6.1.14).</p>

⁵ [REDACTED]

Policy	Summary	Compliance
Paragraph 2.32.5	<p>Assessment of potential impacts upon the historic environment should be considered as part of the Environmental Impact Assessment process undertaken to inform any application for consent. Desk based studies to characterise the features of the historic environment that may be affected by a proposed development and assess any likely significant effects should be undertaken by competent archaeological experts. These studies should take into account any geotechnical or geophysical surveys that have been undertaken to aid the wind farm design.</p>	<p>The assessment has been undertaken as part of the EIA process, as detailed above.</p> <p>Geophysical and geotechnical studies have underpinned the assessment in Section 14.5 and Appendix 14.1, Appendix 14.2 and Appendix 14.3 of Chapter 14 Offshore Archaeology and Cultural Heritage (document reference 6.1.14)</p> <p>The chapter has been prepared by competent experts (and members of Chartered Institute for Archaeologists (CIfA)) in marine archaeology from Royal HaskoningDHV (with support from Wessex Archaeology – see Appendix 14.1, Appendix 14.2 and Appendix 14.3) in consultation with Historic England (Section 14.2) and in accordance with legislation, policy and industry standards and guidance documents relevant to the marine archaeological and cultural heritage (historic) environment.</p>

6.11 Aviation and Radar

370. Compliance with policies relating to aviation and radar are presented in **Table** . Full details of the assessment and potential impacts on the aviation that have been used to inform this topic specific policy compliance assessment can be found in ES **Chapter 15 Aviation and Radar** (document reference 6.1.15).

371. The Applicant considers that SEP and DEP accords with policies set out in **Table** below.

Table 6-11: Aviation and Radar Policy Compliance

Policy	Summary	Compliance
EN-1		
Paragraph 5.4.10	If the proposed development could have an effect on civil and military aviation (and/or other defence assets) an assessment of potential effects should be set out in the ES.	Construction, operation and decommissioning phases of the Projects have been assessed within the impact assessment at Section 15.6 of Chapter 15 Aviation and Radar (document reference 6.1.15).
Paragraph 5.4.11	Consultation with the MOD, the CAA and NATS and any aerodrome - licensed or otherwise – likely to be affected by the proposed development should be completed.	Consultation undertaken to date, including with the CAA, MOD, NATS and Norwich Airport is provided in Table 15-1 of Chapter 15 Aviation and Radar (document reference 6.1.15). Consultation with key stakeholders will continue throughout the development process.
Paragraph 5.4.12	Any assessment of aviation or other defence interests should include potential impacts of the project upon the operation of Communication, Navigation or Surveillance (CNS) infrastructure, flight patterns (both civil and military), other defence assets and aerodrome operational procedures. It should also assess the cumulative effects of the project with other relevant projects in relation to aviation and defence.	Section 15.6 of Chapter 15 Aviation and Radar (document reference 6.1.15), assesses impacts to low flying aircraft, transmitters, civil and military radar systems and flight patterns, helicopter main routes and surveillance minimum altitude. Cumulative impacts in relation to other relevant projects are assessed within Section 15.7 of Chapter 15 Aviation and Radar (document reference 6.1.15).
Draft EN-3 (BEIS, 2021)		
Paragraph 2.22.28	The applicant will also need to assess impacts on civil and military radar and other aviation and defence interests (Section 5.5 of EN-1).	Impacts to civil and military radar and aviation are assessed in Section 15.6.2.2 of Chapter 15 Aviation and Radar .

6.12 Petroleum Industry and Other Marine Users

372. Compliance with policies relating to petroleum industry and other marine users are presented in **Table** . Full details of the assessment and potential impacts on the marine environment that have been used to inform this topic specific policy compliance assessment can be found in ES **Chapter 16 Petroleum Industry and Other Marine Users** (document reference 6.1.16).

373. The Applicant considers that SEP and DEP accords with policies set out in **Table** below.

Table 6-12: Petroleum Industry and Other Marine Users Policy Compliance

Policy	Summary	Compliance
EN-3		
Section 2.6, paragraph 2.6.35	There may be constraints imposed on the siting or design of offshore wind farms because of restrictions resulting from the presence of other offshore infrastructure and activities.	Chapter 3 Site Selection and Alternatives (document reference 16.1.3) provides the rationale for the location of the wind farm areas, array cables and proposed offshore export cable corridor, which includes consideration of constraints associated with other offshore infrastructure. The proximity of other offshore infrastructure, and any impacts to access have been assessed in Chapter 16 Petroleum Industry and Other Marine Users (document reference 6.1.16) and Appendix 16.1 Vessel Access Study (document reference 6.1.16.1).and Appendix 16.2 Helicopter Access Study (document reference 6.1.16.2).
Section 2.6, paragraph 2.6.179	Where a potential offshore wind farm is proposed close to existing operational offshore infrastructure, or has the potential to affect activities for which a license has been issued by Government, the applicant should undertake an assessment of the potential effect of the proposed development on such existing or permitted infrastructure or activities. The assessment should be undertaken for all stages of the lifespan of the proposed wind farm in accordance with the appropriate policy for offshore wind farm EIAs.	The proximity of other offshore infrastructure, and any impacts to access have been assessed for the duration of the Project's lifespan in Chapter 16 Petroleum Industry and Other Marine Users (document reference 6.1.16) and Appendix 16.1 Vessel Access Study (document reference 6.1.16.1).and Appendix 16.2 Helicopter Access Study (document reference 6.1.16.2).
Section 2.6, paragraph 2.6.180	Applicants should engage with interested parties in the potentially affected offshore sectors early in the development phase of the proposed offshore wind farm, with an aim to	Consultation with asset owners, operators of offshore infrastructure and other interested parties has been and continues to be undertaken by the applicant. Consultation responses received to date are shown in Table 16-1 of Chapter 16 Petroleum Industry and Other Marine Users (document reference 6.1.16)

Policy	Summary	Compliance
	<p>resolve as many issues as possible prior to the submission of an application.</p>	<p>and has informed the mitigation measures proposed in Section 16.6 of Chapter 16 Petroleum Industry and Other Marine Users.</p>
<p>Section 2.6, paragraph 2.6.181</p>	<p>Such stakeholder engagement should continue throughout the life of the proposed development including construction, operation and decommissioning phases where necessary. As many of these offshore industries are regulated by Government, the relevant Secretary of State should also be a consultee where necessary. Such engagement should be taken to ensure that solutions are sought that allow offshore wind farms and other uses of the sea to successfully co-exist.</p>	<p>Consultation with the secretary of state has been undertaken as part of the scoping phase. The scoping opinion from the Secretary of State in relation to the petroleum industry and other marine users is shown in Table 16-1 of Chapter 16 Petroleum Industry and Other Marine Users (document reference 6.1.16). Consultation with key stakeholders and interested parties will continue throughout the life of the development.</p>

6.13 Onshore Ground Conditions and Contamination

374. Compliance with policies relating to onshore ground conditions and contamination are presented in **Table** . Full details of the assessment and potential impacts that have been used to inform this topic specific policy compliance assessment can be found in **ES Chapter 17 Onshore Ground Conditions and Contamination** (document reference 6.1.17).
375. The Applicant considers that SEP and DEP accords with policies set out in **Table** below.

Table 6-13: Onshore Ground Conditions and Contamination Policy Compliance

Policy	Summary	Compliance
EN-1		
Paragraph 5.3.3	Where the development is subject to EIA [Environmental Impact Assessment] the applicant should ensure that the ES [Environmental Statement] clearly sets out any effects on internationally, nationally and locally designated sites of ecological or geological conservation importance, on protected species and on habitats and other species identified as being of principal importance for the conservation of biodiversity. The applicant should provide environmental information proportionate to the infrastructure where EIA is not required to help the IPC consider thoroughly the potential effects of a proposed project.	Sites designated for geological conservation importance in proximity to SEP and DEP are listed in ES Chapter 17 Onshore Ground Conditions and Contamination (document reference 6.1.17). There are no direct overlaps between the onshore works and any sites designated for geological conservation importance. As such, no impacts to designated geological sites are anticipated as a result of SEP and DEP. Impacts on sites designated for ecological importance are discussed in Section 5.16 .
Paragraph 5.3.4	The applicant should show how the project has taken advantage of opportunities to conserve and enhance biodiversity and geological conservation interests.	
Paragraph 5.3.6	In having regard to the aim of the Government's biodiversity strategy the IPC should take account of the context of the challenge of climate change: failure to address this challenge will result in significant adverse impacts to biodiversity. The policy set out in the following sections recognises the need to protect the most important biodiversity and geological conservation interests. The benefits to nationally significant low carbon energy infrastructure development may include benefits may	

Policy	Summary	Compliance
	<p>outweigh harm to these interests. The IPC may take account of any such net benefit in cases where it can be demonstrated</p>	
<p>Paragraph 5.3.7</p>	<p>[The] development should aim to avoid significant harm to biodiversity and geological conservation interests, including through mitigation and consideration of reasonable alternatives; where significant harm cannot be avoided, then appropriate compensation measures should be sought</p>	
<p>Paragraph 5.3.8</p>	<p>In taking decisions, the IPC should ensure that appropriate weight is attached to designated sites of international, national and local importance; protected species; habitats and other species of principal importance for the conservation of biodiversity; and to biodiversity and geological interests within the wider environment.</p>	
<p>Paragraph 5.10.9</p>	<p>Applicants should safeguard any mineral resources on the proposed site as far as possible, taking into account the long-term potential of the land use after any future decommissioning has taken place.</p>	<p>There are several Mineral Safeguarding Areas (sands, gravels, clays and shale) within the DCO order limits totalling approximately 2.3km². The installation of buried cables within these areas would prevent extraction of these resources. During detailed design the Applicant will consult with the Mineral Planning Authority regarding the practicality and viability of extraction of any mineral resource present within the works footprint. If it was determined that extraction of the resource was reasonably practical, it may be extracted prior to the commencement of construction works and therefore reduces the area that may be potentially sterilised. Further details on Mineral Safeguarding Areas are discussed in ES Chapter 17 Onshore Ground Conditions and Contamination (document reference 6.1.17).</p>
<p>Draft EN-1 (BEIS 2021a)</p>		
<p>Paragraph 5.11.8</p>	<p>For developments on previously developed land, applicants should ensure that they have considered the risk posed by land contamination, and where contamination is present,</p>	<p>Risks posed by potential land contamination have been identified and assessed as part of a Preliminary Risk Assessment (PRA) (Appendix</p>

Policy	Summary	Compliance
	<p>applicants should consider opportunities for remediation where possible. Applicants are encouraged to develop and implement a Soil Management Plan which could help minimise potential land contamination</p>	<p>17.1 of ES Chapter 17 Onshore Ground Conditions and Contamination - document number 6.3.17.1).</p> <p>The PRA identified that the majority of land within the Order Limits has an agricultural use where unacceptable risks from contamination are not anticipated. It also identified localised areas with potential historic contaminative uses.</p> <p>Where areas of potential contamination cannot be avoided, targeted pre-construction ground investigations would be undertaken in order to further characterise the site conditions, identify unacceptable risks and determine whether remediation is required. If areas of potential concern are identified, then a remediation strategy would be developed and agreed with the relevant bodies prior to the commencement of remedial works and construction activity. The ground investigation, risk assessment and remediation would follow guidance provided within the 2021 Environment Agency Land Contamination Risk Management Framework.</p> <p>The Applicant has also committed to develop a Soil Management Plan which is detailed within the outline Code of Construction Practice.</p>
<p>NPPF Requirement</p>		
<p>NPPF15-174</p>	<p>Planning policies and decisions should contribute to and enhance the natural local environment by:</p> <ul style="list-style-type: none"> 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); 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 	<p>Sites designated for geological conservation importance in proximity to SEP and DEP are listed in ES Chapter 17 Onshore Ground Conditions and Contamination (document reference 6.1.17). There are no direct overlaps between the onshore works and any sites designated for geological conservation importance. As such, no impacts to designated geological sites are anticipated as a result of SEP and DEP.</p> <p>The Applicant has also committed to develop a Soil Management Plan which is detailed within the outline Code of Construction Practice.</p>

Policy	Summary	Compliance
	<p>remediating and mitigating despoiled, degraded, derelict, contaminated and unstable land, where appropriate.</p>	
	<p>Planning policies and decisions should ensure that: a site is suitable for its proposed use taking account of ground conditions and any risks arising from land instability and contamination. This includes risks arising from natural hazards or former activities such as mining, and any proposals for mitigation including land remediation (as well as potential impacts on the natural environment arising from that remediation); after remediation, as a minimum, land should not be capable of being determined as contaminated land under Part IIA of the Environmental Protection Act 1990; and adequate site investigation information, prepared by a competent person, is available to inform these assessments.</p>	<p>Risks posed by potential land contamination have been identified and assessed as part of a Preliminary Risk Assessment (PRA) (Appendix 17.1 of ES Chapter 17 Onshore Ground Conditions and Contamination - document number 6.3.17.1).</p> <p>The PRA identified that the majority of land within the Order Limits has an agricultural use where unacceptable risks from contamination are not anticipated. It also identified localised areas with potential historic contaminative uses.</p> <p>Where areas of potential contamination cannot be avoided, targeted pre-construction ground investigations would be undertaken in order to further characterise the site conditions, identify unacceptable risks and determine whether remediation is required. If areas of potential concern are identified, then a remediation strategy would be developed and agreed with the relevant bodies prior to the commencement of remedial works and construction activity. The ground investigation, risk assessment and remediation would follow guidance provided within the 2021 Environment Agency Land Contamination Risk Management Framework.</p>
NPFF15-184 and NPPF15-185	<p>Where a site is affected by contamination or land stability issues, responsibility for securing a safe development rests with the developer and / or landowner.</p> <p>Planning policies and decisions should also ensure that new development is appropriate for its location taking into account the likely effects (including cumulative effects) of pollution on health, living conditions and the natural environment, as well as the potential sensitivity of the site or the wider area to impacts that could arise from the development.</p>	
NPPF15-188	<p>The focus of planning policies and decisions should be whether proposed development is an acceptable use of land, rather than the control of processes or emissions (where these are subject to separate pollution control regimes). Planning decisions should assume that these regimes will operate effectively. Equally, where a planning</p>	

Policy	Summary	Compliance
	<p>decision has been made on a particular development, the planning issues should not be revisited through the permitting regimes operated by pollution control authorities.</p>	
<p>NPPF17-209 and NPPF17-210</p>	<p>It is essential that there is a sufficient supply of minerals to provide the infrastructure, buildings, energy and goods that the country needs. Since minerals are a finite natural resource, and can only be worked where they are found, best use needs to be made of them to secure their long-term conservation.</p> <p>Planning policies should:</p> <ul style="list-style-type: none"> safeguard mineral resources by defining Mineral Safeguarding Areas and Mineral Consultation Areas; and adopt appropriate policies so that known locations of specific minerals resources of local and national importance are not sterilised by non-mineral development where this should be avoided (whilst not creating a presumption that the resources defined will be worked); set out policies to encourage the prior extraction of minerals, where practical and environmentally feasible, if it is necessary for non-mineral development to take place. 	<p>There are several Mineral Safeguarding Areas (sands, gravels, clays and shale) within the Order Limits totalling approximately 2.3km².</p> <p>The installation of buried cables within these areas would prevent extraction of these resources.</p> <p>During detailed design the Applicant will consult with the Mineral Planning Authority regarding the practicality and viability of extraction of any mineral resource present within the works footprint. If it was determined that extraction of the resource was reasonably practical, it may be extracted prior to the commencement of construction works and therefore reduces the area that may be potentially sterilised.</p> <p>Further details on Mineral Safeguarding Areas are discussed in Chapter 17 Onshore Ground Conditions and Contamination (document reference 6.1.17).</p>

6.14 Water Resources and Flood Risk

376. Compliance with policies relating to water resources and flood risk are presented in **Table .** Full details of the assessment and potential impacts on the marine environment that have been used to inform this topic specific policy compliance assessment can be found in **ES Chapter 18 Water Resources and Flood Risk** (document reference 6.1.18).

377. The Applicant considers that SEP and DEP accords with policies set out in **Table** below.

Table 6-14: Water Resources and Flood Risk Policy Compliance

Policy	Summary	Compliance
EN-1		
Paragraph 5.3	Where the development is subject to EIA the applicant should ensure that the ES clearly sets out any effects on internationally, nationally and locally designated sites of ecological or geological conservation importance, on protected species and on habitats and other species identified as being of principal importance for the conservation of biodiversity. The applicant should provide environmental information proportionate to the infrastructure where EIA is not required to help the IPC consider thoroughly the potential effects of a proposed project.'	Potential impacts on river channels, which provide physical habitats of importance for ecology, protected species and the conservation of biodiversity, are considered and set out clearly in ES Chapter 18 Water Resources and Flood Risk (document reference 6.1.18).
Paragraph 5.3	Where a proposed development on land within or outside a Site of Special Scientific Interest (SSSI) is likely to have an adverse effect on a SSSI (either individually or in combination with other developments), development consent should not normally be granted. Where an adverse effect, after mitigation, on the site's notified special interest features is likely, an exception should only be made where the benefits (including need) of the development at this site clearly outweigh both the impacts that it is likely to have on the features of the site that make it of special scientific interest and any broader impacts on the national network of SSSIs.	SEP and DEP only have the potential to affect a single watercourse designated as a SSSI - the River Wensum. Potential impacts to the River Wensum SSSI are considered in n ES Chapter 18 Water Resources and Flood Risk (document reference 6.1.18).
Paragraph 5.7	Applications for energy projects of 1 hectare or greater in Flood Zone 1 in England or Zone A in Wales and all proposals for energy projects located in Flood Zones 2 and 3 in England or	The potential impacts on flood risk are considered in Chapter 18 Water Resources and Flood Risk (document reference 6.1.18). and within the Flood

Policy	Summary	Compliance
	<p>Zones B and C in Wales should be accompanied by a flood risk assessment (FRA). An FRA will also be required where an energy project less than 1 hectare may be subject to sources of flooding other than rivers and the sea (for example surface water), or where the EA, Internal Drainage Board or other body have indicated that there may be drainage problems. This 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.</p>	<p>Risk Assessment (document reference 6.3.18.2), submitted as part of the application.</p>
<p>Paragraph 5.15</p>	<p>Where the project is likely to have effects on the water environment, the applicant should undertake an assessment of the existing status of, and impacts of the proposed project on, water quality, water resources and physical characteristics of the water environment as part of the ES or equivalent.</p> <p>The ES should in particular describe:</p> <ul style="list-style-type: none"> the existing quality of waters affected by the proposed project and the impacts of the proposed project on water quality, noting any relevant existing discharges, proposed new discharges and proposed changes to discharges; existing water resources affected by the proposed project and the impacts of the proposed project on water resources, noting any relevant existing abstraction rates, proposed new abstraction rates and proposed changes to abstraction rates (including any impact on or use of mains supplies and reference to Catchment Abstraction Management Strategies); existing physical characteristics of the water environment (including quantity and dynamics of flow) affected by the proposed project and any impact of physical modifications to these characteristics; and any impacts of the proposed project on water bodies or protected areas under the Water Framework Directive and source protection zones (SPZs) around potable groundwater abstractions. 	<p>The potential impacts on water quality, the physical characteristics of surface watercourses and the quality and quantity of groundwater are considered in Chapter 18 Water Resources and Flood Risk Section. Potential impacts on Water Framework Directive compliance are considered separately in the Water Framework Directive Compliance Assessment (document reference 6.3.18.1) submitted as part of the application.</p>

6.15 Land Use, Agriculture and Recreation

378. Compliance with policies relating to land use, agriculture and recreation are presented in **Table** . Full details of the assessment and potential impacts that have been used to inform this topic specific policy compliance assessment can be found in **ES Chapter 19 Land Use, Agricultural and Recreation** (document reference 6.1.19).

379. The Applicant considers that SEP and DEP accords with policies set out in **Table** below.

Table 6-15: Land Use, Agriculture and Recreation Policy Compliance

Policy	Summary	Compliance
EN-1		
Paragraph 5.5.7	Applicants should include an assessment of the effects of the project on maintaining coastal recreation sites and features.	The Applicant has committed to trenchless crossing techniques (HDD) which would avoid the closure of both the coastal footpath and the coastal recreation site. Further details and assessment are discussed in Chapter 19 Land Use, Agricultural and Recreation (document reference 6.1.19)
Paragraph 5.10.5	The ES should identify existing and proposed land uses (as defined in the Town and Country Planning Act 1990) near the project and assess 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. It also states that applicant should also assess any effects of precluding a new development or use proposed in the development plan.	The Order Limits are located within a predominantly agricultural setting. Current land uses within and in proximity to the Order limits are presented in ES Chapter 19 Land Use, Agricultural and Recreation (document reference 6.1.19). New developments or proposed projects are assessed for potential cumulative impact in Chapter 19 Land Use, Agricultural and Recreation (document reference 6.1.19).
Paragraph 5.10.6	Applicants will need to consult the local community on their proposals to build on open space, sports or recreational buildings and land.	As part of the consultation process SEP and DEP have consulted with statutory and non-statutory stakeholders, local communities, and the public. Within the current Order Limits, there is no plan to build on any open space, sports or recreational buildings and land.
Paragraph 5.10.7	The LPA should identify any concerns it has about the impacts of the application on land use, having regard to the development plan and relevant applications and including, where relevant, whether it agrees with any independent assessment that the land is surplus to requirements.	As part of the consultation process SEP and DEP have consulted with the relevant local authorities. SEP and DEP have been reviewed against the Development Plan and other relevant planning applications

Policy	Summary	Compliance
		<p>Chapter 19 Land Use, Agricultural and Recreation (document reference 6.1.19) assesses the land take associated with the onshore elements of SEP and DEP.</p>
<p>Paragraph 5.10.8</p>	<p>The Applicant should minimise impacts on the best and most versatile agricultural land (defined as land in grades 1, 2 and 3a of the Agricultural Land Classification).</p>	<p>SEP and DEP has sought to minimise land take and avoid wherever possible the likelihood of sterile land parcels resulting from construction activity within the study area. This has involved aligning the study area with field boundaries and utilising existing vehicle access tracks where possible.</p> <p>During construction the working easement will be kept to a minimum and access to severed land for farm vehicles would be maintained using agreed crossing points with landowners and occupiers. Furthermore, an ALO will be appointed to assist with the appropriate planning and timings of works to minimise disruption to agricultural activities.</p>
<p>Paragraph 5.10.9</p>	<p>The Applicant should safeguard any mineral resources on the proposed site.</p>	<p>Assessment of safeguarding of mineral resources is discussed in Chapter 19 Onshore Ground Conditions and Contamination.</p> <p>There are several Mineral Safeguarding Areas (sands, gravels, clays and shale) within the DCO order limits totalling approximately 2.3km².</p> <p>The installation of buried cables within these areas would prevent extraction of these resources.</p> <p>During detailed design the Applicant will consult with the Mineral Planning Authority regarding the practicality and viability of extraction of any mineral resource present within the works footprint. If it was determined that extraction of the resource was reasonably practical, it may be extracted prior to the commencement of construction works and therefore reduces the area that may be potentially sterilised.</p>
<p>Paragraph 5.10.15</p>	<p>Applicants should not site their schemes on the best and most versatile agricultural land without justification. It should give little weight to the loss of poorer quality agricultural land (in grades 3b, 4 and 5).</p>	<p>The location of permanent above ground infrastructure (the substation) avoids the most versatile agricultural land.</p>
<p>EN-3</p>		

Policy	Summary	Compliance
Paragraph 5.11.8	Applicants should identify any effects and seek to minimise impacts on soil quality taking into account any mitigation measures proposed.	A Soil Management Plan (SMP) will be developed and will set out procedures for the appropriate handling of soils during the works. This is set out within the Outline Code of Construction Practice (document reference 9.17).
Paragraph 5.11.8	Applicants are encouraged to develop and implement a Soil Management Plan	
Paragraph 5.11.10	Applicants should determine whether their proposal, or any part of it, is within an established Green Belt and if it is, whether their proposal may be inappropriate development within the meaning of Green Belt policy	The Order limits do not fall within any established Green Belt.
Paragraph 5.11.23	Applicants should take appropriate mitigation measures to address adverse effects on coastal access, National Trails, other rights of way and open access land	Disruption to any recreational routes would be managed to ensure continued safe access for members of the public, and all efforts would be made to minimise any closure durations. The exact management method would be agreed in advance with the relevant local authority for that stage of the works. The DCO Order Limits avoid open access land. Details of the mitigation measure are described in ES Chapter 19 Land Use, Agricultural and Recreation (document reference 6.1.19)
EN-5		
Paragraph 2.11.14	The Secretary of State should consider: the developer's commitment, as set out in their ES, to mitigate the potential detrimental effects of undergrounding works on any relevant agricultural land and soils, particularly regarding Best and Most Versatile land. Such a commitment must guarantee appropriate handling of soil, backfilling, and return of the land to the baseline Agricultural Land Classification (ALC), thus ensuring no loss or degradation of agricultural land. Such a commitment should be based on soil and ALC surveys in line with the 1988	SEP and DEP has sought to minimise land take and avoid wherever possible the likelihood of sterile land parcels resulting from construction activity within the study area. This has involved aligning the study area with field boundaries and utilising existing vehicle access tracks where possible. A Soil Management Plan (SMP) will be developed and will set out procedures for the appropriate handling of soils during the works.

Policy	Summary	Compliance
	<p>ALC criteria and due consideration of the Defra Construction Code.</p>	<p>An ALO will be appointed to assist with the appropriate planning and timings of works to minimise disruption to agricultural activities.</p> <p>The Applicants commitment to mitigate the potential detrimental effects of undergrounding works on any relevant agricultural land and soils is described in Chapter 19 Land Use, Agricultural and Recreation (document reference 6.1.19)</p>

6.16 Onshore Ecology and Ornithology

380. Compliance with policies relating to onshore ecology and ornithology are presented in **Table** . Full details of the assessment and potential impacts that have been used to inform this topic specific policy compliance assessment can be found in ES **Chapter 20 Onshore Ecology and Ornithology** (document reference 6.1.20).

381. The Applicant considers that SEP and DEP accords with policies set out in **Table** below.

Table 6-16: Onshore Ecology and Ornithology Policy Compliance

Policy	Summary	Compliance
EN-1		
Paragraph 5.3.3	Where the development is subject to EIA the applicant should ensure that the ES clearly sets out any effects on internationally, nationally and locally designated sites of ecological or geological conservation importance, on protected species and on habitats and other species identified as being of principal importance for the conservation of biodiversity. The applicant should provide environmental information proportionate to the infrastructure where EIA is not required to help the Infrastructure Planning Commission (IPC) consider thoroughly the potential effects of a proposed project.	Potential impacts on internationally, national and locally designated sites of ecological conservation importance, on protected species and on habitats and other species identified as being of principal importance for the conservation of biodiversity are considered in Chapter 20 Onshore Ecology and Ornithology (document reference 6.1.20).
Paragraph 5.3.4	The applicant should show how the project has taken advantage of opportunities to conserve and enhance biodiversity and geological conservation interests.	Opportunities to conserve and enhance biodiversity and geological conservation interests are outlined in in Chapter 20 Onshore Ecology and Ornithology (document reference 6.1.20).
Paragraph 5.3.5 – Paragraph 5.3.8	The Government’s biodiversity strategy is set out in Working with the grain of nature’99. Its aim is to ensure: ●a halting, and if possible a reversal, of declines in priority habitats and	Site selection decisions and embedded mitigation measures have sought to minimise impacts to features of biodiversity and geological interest.

Policy	Summary	Compliance
	<p>species, with wild species and habitats as part of healthy, functioning ecosystems; and</p> <ul style="list-style-type: none"> the general acceptance of biodiversity's essential role in enhancing the quality of life, with its conservation becoming a natural consideration in all relevant public, private and non-governmental decisions and policies. As a general principle, and subject to the specific policies below, development should aim to avoid significant harm to biodiversity and geological conservation interests, including through mitigation and consideration of reasonable alternatives (as set out in section 4.4 above); where significant harm cannot be avoided, then appropriate compensation measures should be sought. <p>In taking decisions, the IPC should ensure that appropriate weight is attached to designated sites of international, national and local importance; protected species; habitats and other species of principal importance for the conservation of biodiversity; and to biodiversity and geological interests within the wider environment.</p>	<p>Embedded mitigation measures and where applicable, further mitigation measures are outlined in Chapter 20 Onshore Ecology and Ornithology (document reference 6.1.20).</p>
Paragraph 5.3.9	<p>For the purposes of considering development proposals affecting them, as a matter of policy the Government wishes pSPAs to be considered in the same way as if they had already been classified. Listed Ramsar sites should, also as a matter of policy, receive the same protection.</p>	<p>All designated sites, including any pSPAs and Ramsar sites are presented in Chapter 20 Onshore Ecology and Ornithology (document reference 6.1.20). Site selection decisions have sought to minimise impacts to interest features within designated sites.</p>
Paragraph 5.3.10	<p>Many SSSIs are also designated as sites of international importance and will be protected accordingly. Those that are not, or those</p>	<p>SSSIs are presented Chapter 20 Onshore Ecology and Ornithology (document reference 6.1.20).</p>

Policy	Summary	Compliance
	<p>features of SSSIs not covered by an international designation, should be given a high degree of protection.</p>	<p>Site selection decisions have sought to minimise impacts to interest features within designated sites.</p>
<p>Paragraph 5.3.11</p>	<p>Where a proposed development on land within or outside a SSSI is likely to have an adverse effect on a SSSI (either individually or in combination with other developments), development consent should not normally be granted. Where an adverse effect, after mitigation, on the site's notified special interest features is likely, an exception should only be made where the benefits (including need) of the development at this site clearly outweigh both the impacts that it is likely to have on the features of the site that make it of special scientific interest and any broader impacts on the national network of SSSIs.</p>	<p>SEP and DEP only have the potential to affect a single watercourse designated as a SSSI - the River Wensum. Potential impacts to the River Wensum SSSI are considered in Chapter 20 Onshore Ecology and Ornithology (document reference 6.1.20). The Applicant has committed to cross this designated water body using trenchless techniques to minimise the potential for any impacts.</p>
<p>Paragraph 5.3.13</p>	<p>Sites of regional and local biodiversity and geological interest, which include Regionally Important Geological Sites, Local Nature Reserves and Local Sites, have a fundamental role to play in meeting overall national biodiversity targets; contributing to the quality of life and the well-being of the community; and in supporting research and education. The IPC should give due consideration to such regional or local designations. However, given the need for new infrastructure, these designations should not be used in themselves to refuse development consent.</p>	<p>Site selection decisions have sought to minimise impacts to interest features within designated sites.</p>
<p>Paragraph 5.3.14</p>	<p>Ancient woodland is a valuable biodiversity resource both for its diversity of species and for its longevity as woodland. Once lost it cannot be recreated.</p>	<p>Ancient woodland is present within the DCO Order limits and information relating to this is presented in Chapter 20 Onshore Ecology and Ornithology (document reference 6.1.20). The onshore cable corridor has avoided ancient woodland in the majority of cases; however, two sections of ancient woodland are crossed and these are specifically Colton Wood and Smeeth</p>

Policy	Summary	Compliance
	<p>The IPC should not grant development consent for any development that would result in its loss or deterioration unless the benefits (including need) of the development, in that location outweigh the loss of the woodland habitat.</p> <p>Aged or ‘veteran’ trees found outside ancient woodland are also particularly valuable for biodiversity and their loss should be avoided.</p> <p>Where such trees would be affected by development proposals the applicant should set out proposals for their conservation or, where their loss is unavoidable, the reasons why.</p>	<p>Wood both. Trenchless crossing techniques would be adopted in to mitigate the potential impacts to these ancient woodland sites.</p>
<p>Paragraph 5.3.15</p>	<p>The IPC will aim to maximise opportunities to build in beneficial biodiversity features when considering proposals as part of good design.</p>	<p>Biodiversity Net Gain (BNG) has been considered separately as a stand-alone evaluation of the overall biodiversity impact of SEP and DEP, using the defined BNG metric and incorporating BNG specific compensation and enhancement measures. The Applicant is committed to achieving a net gain in biodiversity as measured using the BNG metric. Refer to Appendix 20.6 initial Biodiversity Net Gain Assessment (document reference 6.3.20.6).</p>
<p>Paragraph 5.3.16 – 5.3.17</p>	<p>The IPC shall have regard to the protection of legally protected species and habitats and species of principal importance for nature conservation.</p> <p>The IPC should refuse consent where harm to the habitats or species and their habitats would result, unless the benefits (including need) of the development outweigh that harm. In this context, the IPC should give substantial weight to any such harm to the detriment of biodiversity features of national or regional importance which it considers may result from a proposed development.</p>	<p>Information on protected species and habitats and the outcome of the assessment process and any mitigations, where relevant, is provided in Chapter 20 Onshore Ecology and Ornithology (document reference 6.1.20).</p>
<p>Paragraph 5.3.18</p>	<p>The applicant should include appropriate mitigation measures as an integral part of the proposed development and demonstrate that:</p>	<p>Embedded mitigation measures and mitigation measures associated with potential impacts are presented in Chapter 20 Onshore Ecology and Ornithology (document reference 6.1.20).</p>



Policy	Summary	Compliance
	<p>During construction, they will seek to ensure that activities will be confined to the minimum areas required for the works;</p> <p>During construction and operation best practice will be followed to ensure that risk of disturbance or damage to species or habitats is minimised, including as a consequence of transport access arrangements;</p> <p>Habitats will, where practicable, be restored after construction works have finished; and</p> <p>Opportunities will be taken to enhance existing habitats and, where practicable, to create new habitats of value within the site landscaping proposals.</p>	<p>The Applicant is committed to achieving a net gain in biodiversity as measured using the BNG metric, through opportunities to enhance existing habitats and create new habitats of value where practicable. Refer to Appendix initial Biodiversity Net Gain Assessment (document reference 6.3.20.6).</p>
Paragraph 5.3.20	<p>The IPC will need to take account of what mitigation measures may have been agreed between the applicant and whether Natural England has granted or refused or intends to grant or refuse, any relevant licences, including protected species mitigation licences.</p>	<p>The potential requirement for mitigation licensing for badgers, bats and great crested newts is presented in ES Chapter 20 Onshore Ecology and Ornithology (document reference 6.1.20) and has been informed from the findings of the baseline ecology surveys undertaken to date. Draft mitigation licences have been prepared and have been submitted to Natural England to obtain a Letter of No Impediment (LoNI) for badgers and bats. A GCN District Level Licence (DLL) has been submitted to Natural England and stage 1 payment has been made for GCN mitigation (see Appendix 1, Annex 3 of this Planning Statement (document reference 9.1.1)).</p>
EN-3		
Paragraph 2.4.2	<p>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.</p>	<p>Project design has avoided sensitive features where possible. Embedded mitigation measures and further mitigation measures are set out in Chapter 20 Onshore Ecology and Ornithology (document reference 6.1.20).</p>
Paragraph 2.6.71	<p>Ecological monitoring is likely to be appropriate during the construction and operational phases to identify the actual impact so that, where appropriate, adverse effects can then be mitigated and to enable further useful</p>	<p>Ecological monitoring has been recommended as appropriate during the construction phase. These monitoring requirements are set out in Chapter 20 Onshore Ecology and Ornithology (document reference 6.1.20).</p>

Policy	Summary	Compliance
	information to be published relevant to future projects.	
Paragraph 2.6.15	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.	No final decision has yet been made regarding the final decommissioning policy for the onshore project infrastructure including landfall, onshore cable corridor and onshore substation. The detail and scope of the decommissioning works would be determined by the relevant legislation and guidance at the time of decommissioning and would be agreed with the regulator. It is anticipated that for the purposes of a worst-case scenario, the impacts would be no greater than those identified for the construction phase.
Draft EN-1 (BEIS 2021a)		
Paragraph 5.4.4	As set out in Section 4.6, the design process should embed opportunities for nature inclusive design. The applicant is encouraged to consider how their proposal can contribute towards Biodiversity Net Gain in line with the ambition set out in the 25 Year Environment Plan. Energy infrastructure projects have the potential to deliver significant benefits and enhancements beyond Biodiversity Net Gain, which result in wider environmental gains. The scope of potential gains will be dependent on the type, scale, and location of each project.	Biodiversity Net Gain (BNG) has been considered separately as a stand-alone evaluation of the overall biodiversity impact of SEP and DEP, using the defined BNG metric and incorporating BNG specific compensation and enhancement measures. The Applicant is committed to achieving a net gain in biodiversity as measured using the BNG metric. Refer to Appendix 20.6 initial Biodiversity Net Gain Assessment (document reference 6.3.20.6).
Paragraph 5.4.18	In particular, the applicant should demonstrate that...the timing of construction has been planned to avoid or limit disturbance to birds during the breeding season.	A suite of breeding bird surveys has been undertaken and the findings of which have been used to inform the potential direct and indirect impacts. Where required, appropriate mitigation measures that would be adopted to avoid or limit disturbance to breeding birds. Details are presented in ES Chapter 20 Onshore Ecology and Ornithology (document reference 6.1.20).

6.17 Onshore Archaeology and Cultural Heritage

382. Compliance with policies relating to onshore archaeology and cultural heritage are presented in **Table** . Full details of the assessment and potential impacts that have been used to inform this topic specific policy compliance assessment can be found in **ES Chapter 21 Onshore Archaeology and Cultural Heritage** (document reference 6.1.21).

383. The Applicant considers that SEP and DEP accords with policies set out in **Table** below.

Table 6-17: Onshore Archaeology and Cultural Heritage Policy Compliance

Policy	Summary	Compliance
EN-1		
Paragraph 5.8.8	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. The level of detail should be proportionate to the importance of the heritage assets and no more than is sufficient to understand the potential impact of the proposal on the significance of the heritage asset.	The significance and value of the heritage assets considered have been detailed in Section 21.5 of Chapter 21 Onshore Archaeology and Cultural Heritage (document reference 6.1.21). A setting assessment has been undertaken for the onshore substation (ES Appendix 21.4 (document reference 6.3.21.4)) and offshore infrastructure (ES Appendix 21.5 (document reference 6.3.21.5)), the results of which have informed Section 21.5 of ES Chapter 21 Onshore Archaeology and Cultural Heritage (document reference 6.1.21)
Paragraph 5.8.9	Where a development site includes, or the available evidence suggests it has the potential to include, heritage assets with an archaeological interest, the applicant should carry out appropriate desk-based assessment and, where such desk-based research is insufficient to properly assess the interest, a field evaluation. Where proposed development will affect the setting of a heritage asset, representative visualisations may be necessary to explain the impact.	ES Chapter 21 Onshore Archaeology and Cultural Heritage (document reference 6.1.21) has been informed by an Archaeological Desk Based Assessment (ADBA) (ES Appendix 21.1 (document reference 6.3.21.1)), an Aerial Photographic, LiDAR and Map Regression Analysis (ES Appendix 21.2 (document reference 6.3.21.2) and ES Appendix 21.3 (document reference 6.3.21.3)), a Setting Assessment for the onshore substation (ES Appendix 21.4 (document reference 6.3.21.4)) and offshore infrastructure (ES Appendix 21.5 (document reference 6.3.21.5)), a Priority Archaeological Geophysical Surveys (ES Appendix 21.6 (document reference 6.3.21.6) and ES Appendix 21.7 (document reference 6.3.21.7)) and an Archaeological and Geoarchaeological Monitoring Assessment (ES Appendix 21.8 (document reference 6.3.21.8)).
Paragraph 5.8.10	The applicant 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.	
EN-3		

Policy	Summary	Compliance
Paragraph 2.6.140	Consultation with the relevant statutory consultees should be undertaken by the applicants at an early stage of the development.	Consultation has been undertaken with relevant statutory consultees, as outlined in Section 21.2 of ES Chapter 21 Onshore Archaeology and Cultural Heritage (document reference 6.1.21). Consultation would be on going throughout the development process.
Paragraph 2.6.141	Assessment should be undertaken as set out in Section 5.8 of EN-1. Desk-based studies should take into account any geotechnical or geophysical surveys that have been undertaken to aid the windfarm design.	The assessment has been undertaken in accordance with section 5.8 of EN-1, as detailed above.
EN-5		
Paragraph 2.2.6	Developers will be influenced by 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.”	Potential impacts upon sites and objects of archaeological interest onshore are set out in Section 21.6 of ES Chapter 21 Onshore Archaeology and Cultural Heritage (document reference 6.1.21) along with a proposed approach to mitigation which is further detailed in the Outline WSI (Onshore) (document reference: 9.24).
Draft EN-1 (BEIS, 2021a)		
Paragraph 5.9.14	<p>The applicant is encouraged, where opportunities exist, to prepare proposals which can make a positive contribution to the historic environment, and to consider how their scheme takes account of the significance of heritage assets affected. This can include, where possible:</p> <ul style="list-style-type: none"> enhancing, through a range of measures such a sensitive design, the significance of heritage assets or setting affected considering measures that address those heritage assets which are at risk or which may become at risk, as a result of the scheme considering how visual or noise impacts can affect heritage assets, and whether there may be opportunities to enhance access to, or interpretation, understanding and appreciation of, the heritage assets affected by the scheme 	Where potential opportunities arise for enhancement these are described within Section 21.6.2.1.3 of ES Chapter 21 Onshore Archaeology and Cultural Heritage (document reference 6.1.21).



6.18 Air Quality

384. Compliance with policies relating to air quality are presented in **Table** . Full details of the assessment and potential impacts that have been used to inform this topic specific policy compliance assessment can be found in ES **Chapter 22 Air Quality** (document reference 6.1.22).

385. The Applicant considers that SEP and DEP accords with policies set out in **Table** below.

Table 6-18: Air Quality Policy Compliance

Policy	Summary	Compliance
EN-1		
Paragraph 5.2.2	Any ES on air emissions will include an assessment of Carbon Dioxide (CO ₂) emissions, but the policies set out in Section 2 [of EN-1], including the EU ETS, apply to these emissions. The IPC (now Planning Inspectorate) does not, therefore need to assess individual applications in terms of carbon emissions against carbon budgets.	Not applicable to this assessment
Paragraph 5.2.7	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; The predicted absolute emission levels of the proposed project, after mitigation methods have been applied; Existing air quality levels and the relative change in air quality from existing levels; and Any potential eutrophication impacts.	ES Chapter 22 Air Quality (document reference 6.1.22) has been written to meet the requirements of the Paragraph 5.2.7 of EN-1.
Paragraph 4.1.5	Other matters that the IPC may consider important and relevant to its decision-making may include Development Plan Documents or other documents in the Local Development Framework. In the event of a conflict between these or any other documents and an NPS, the NPS prevails for the purposes of IPC decision making given the national significance of the infrastructure.	ES Chapter 22 Air Quality (document reference 6.1.22) has considered other documents in the Local Development Framework.

6.19 Noise and Vibration

386. Compliance with policies relating to noise and vibration are presented in **Table** . Full details of the assessment and potential impacts that have been used to inform this topic specific policy compliance assessment can be found in **ES Chapter 23 Noise and Vibration** (document reference 6.1.23).

387. The Applicant considers that SEP and DEP accords with policies set out in **Table** below.

Table 6-19: Noise and Vibration Policy Compliance

Policy	Summary	Compliance
EN-1		
Paragraph 5.11.4	<p>Where noise impacts are likely to arise, the applicant should include:</p> <ul style="list-style-type: none"> • A description of the noise generating aspects of the development proposal leading to noise impacts including the identification of any distinctive tonal, impulsive or low frequency characteristics of the noise; • Identification of noise sensitive premises and noise sensitive areas that may be affected; • The characteristics of the existing noise environment; • A prediction of how the noise environment will change with the proposed development; • In the shorter term such as during the construction period; • In the longer term during the operating life of the infrastructure; • At particular times of the day, evening and night as appropriate; • An assessment of the effect of predicted changes in the noise environment on any noise sensitive premises and noise sensitive areas; and • Measures to be employed in mitigating noise. • The nature and extent of the noise assessment should be proportionate to the likely noise impact. 	<p>The assessment methodology for assessing potential noise and vibration impacts, has been in accordance with the NPS policy and is detailed within ES Chapter 23 Noise and Vibration (document reference 6.1.23).</p> <p>Details on the existing noise environment including the identification of NSRs has been established.</p> <p>Changes in noise levels as a result of SEP and DEP have been assessed, and any potential impacts presented, with potential mitigation measures are identified, where applicable.</p>

Policy	Summary	Compliance
Paragraph 5.11.5	The noise impact of ancillary activities associated with the development, such as increased road and rail traffic movements, or other forms of transportation, should also be considered.	Any changes in noise levels as a result of SEP and DEP from ancillary works, for example vehicle movements, have been assessed and any potential impacts and potential mitigation measures have been identified within ES Chapter 23 Noise and Vibration (document reference 6.1.23).
Paragraph 5.11.6	Operational noise, with respect to human receptors, should be assessed using the principles of the relevant British Standards and other guidance. Further information on assessment of particular noise sources may be contained in the technology-specific NPSs. In particular, for renewables (EN-3) and electricity networks (EN-5) there are assessment guidance for specific features of those technologies. For the prediction, assessment and management of construction noise, reference should be made to any relevant British Standards and other guidance which also give examples of mitigation strategies.	Any changes in noise levels as a result of SEP and DEP during operation have been assessed, and any potential impacts and potential mitigation measures have been identified. Noise assessment described within EN-3 and EN-5 relates to the offshore environment. The current relevant British Standards (BS) have been used within this assessment detailed within ES Chapter 23 Noise and Vibration (document reference 6.1.23).
Paragraph 5.11.7	The applicant should consult EA and NE, or the Countryside Council for Wales (CCW), as necessary and in particular with regard to assessment of noise on protected species or other wildlife. The results of any noise surveys and predictions may inform the ecological assessment. The seasonality of potentially affected species in nearby sites may also need to be taken into account.	Noise impacts on terrestrial protected species is considered within Chapter 20 Onshore Ecology and Ornithology .
EN-5		
Paragraph 2.9.8 – Paragraph 2.9.9	While standard methods of assessment and interpretation using the principles of the relevant British Standards are satisfactory for dry weather conditions, they are not appropriate for assessing noise during rain. This is when overhead line noise mostly occurs, and when the background noise itself will vary according to the intensity of the rain. Therefore, an alternative noise assessment method to deal with rain-induced noise is needed, such as the one developed by National Grid as described in report TR (T) 94,199319. This follows recommendations broadly outlined in ISO 1996 (BS 7445:1991) and in that respect, is consistent with BS 4142:1997. The IPC [now the Planning Inspectorate and the	SEP and DEP does not include any requirement for additional overhead lines. As such, further operational assessment of rain-induced noise is not considered necessary.

Policy	Summary	Compliance
	Secretary of State] is likely to be able to regard it as acceptable for the applicant to use this or another methodology that appropriately addresses these particular issues.	

6.20 Traffic and Transport

388. Compliance with policies relating to traffic and transport are presented in **Table** . Full details of the assessment and potential impacts that have been used to inform this topic specific policy compliance assessment can be found in ES **Chapter 24 Traffic and Transport** (document reference 6.1.24).

389. The Applicant considers that SEP and DEP accords with policies set out in **Table** below.

Table 6-20: Traffic and Transport Policy Compliance

Policy	Summary	Compliance
EN-1		
Paragraph 5.13.3	If a project is likely to have significant transport implications, the applicant's ES should include a Transport Assessment, using the New Approach To Appraisal / Transport Analysis Guidance methodology stipulated in Department for Transport (DfT) guidance, or any successor to such methodology.	ES Chapter 24 Traffic and Transport (document reference 6.1.24) and the Transport Assessment (document reference 6.3.24.1) have been produced in accordance with current transport guidance and agreed with Norfolk Country Council (NCC) as the Highways Authority and National Highways (NH).
Paragraph 5.13.4	Where appropriate, the applicant should prepare a Travel Plan including demand management measures to mitigate transport impacts. The applicant should also provide details of proposed measures to improve access by public transport, walking and cycling, to reduce the need for car parking associated with the proposal and to mitigate transport impacts.	ES Chapter 24 Traffic and Transport (document reference 6.1.24) contains an assessment of the potential impacts on the transport network associated with SEP and DEP and further outlines the mitigation measures for construction, such as demand management measures and heavy goods vehicle (HGV) controls. An outline Construction Traffic Management Plan (OCTMP) has been submitted with the DCO application (document reference 9.16). The OCTMP includes outline travel plan measures, which will be developed further in consultation with NCC and NH prior to the commencement of the authorised project.
Draft EN-1 (BEIS, 2021a)		
Paragraph 5.14.4	The assessment should also consider any possible disruption to services and infrastructure (such as road, rail and airports).	ES Chapter 24 Traffic and Transport (document reference 6.1.24) contains an assessment of the potential impacts on the transport network associated with SEP and DEP and further outlines the mitigation measures for construction, such as demand management measures and heavy goods vehicle (HGV) controls. No impacts upon other transport services or infrastructure are anticipated.

6.21 Seascape and Visual Impact Assessment

390. Compliance with policies relating to seascape and visual impact assessment are presented in **Table** . Full details of the assessment and potential impacts that have been used to inform this topic specific policy compliance assessment can be found in ES **Chapter 25 Seascape and Visual Impact Assessment** (document reference 6.1.25).

391. The Applicant considers that SEP and DEP accords with policies set out in **Table** below.

Table 6-21: Seascape and Visual Impact Assessment Policy Compliance

Policy	Summary	Compliance
EN-1		
Paragraph 5.9.5	The applicant should carry out a landscape and visual assessment and makes reference to the following documents: Guidelines for Landscape and Visual Impact Assessment, Second Edition (Landscape Institute and IEMA, 2002); and Landscape Character Assessment – Guidance for England and Scotland (Land Use Consultants, 2002).	The Guidelines for Landscape and Visual Impact Assessment, Second Edition' (GLVIA) (Landscape Institute and IEMA, 2002) has been superseded by 'The Guidelines for Landscape and Visual Impact Assessment, Third Edition' (Landscape Institute and IEMA, 2013) (GLVIA3). 'Landscape Character Assessment – Guidance for England and Scotland' (Land Use Consultants, 2002) has been superseded by 'An Approach to Landscape Character Assessment' (Natural England, 2014). The SVIA has been prepared following the updated versions of these documents and other recognised guidelines.
Paragraph 5.9.5	The landscape and visual assessment should include reference to any landscape character assessment and associated studies as a means of assessing landscape impacts relevant to the proposed project. The applicant's assessment should also take account of any relevant policies based on these assessments in local development documents in England.	Published landscape character assessments, and other associated studies within the extent of the study areas of SEP and DEP are reviewed and considered as part of the baseline study. Those that merit detailed consideration in the assessment of effects have been taken forward within ES Chapter 25 Seascape and Visual Impact Assessment (document reference 6.1.25).
Paragraph 5.9.6	The applicant's assessment should include the effects during construction of the project and the effects of the completed development and	The greatest effects arising as a result of SEP and/or DEP would be experienced during the operational phases, as both the construction and decommissioning phases would be temporary in nature, of shorter duration, and would not give rise to effects over and above those of the operational phases. Detailed assessment of the operational phases of SEP and DEP on landscape character is set out in ES Chapter 25 Seascape and Visual Impact Assessment

Policy	Summary	Compliance
	its operation on landscape components and landscape character.	(document reference 6.1.25). A summary of construction and decommissioning phase effects on landscape character is also included.
Paragraph 5.9.7	The assessment should include the visibility and conspicuousness of the project during construction and of the presence and operation of the project and potential impacts on views and visual amenity.	<p>The greatest effects arising as a result of SEP and/or DEP would be experienced during the operational phases, as both the construction and decommissioning phases would be temporary in nature, of shorter duration, and would not give rise to effects over and above those of the operational phases.</p> <p>Detailed assessment of the operational phases of SEP and DEP on visual receptors is set out in ES Chapter 25 Seascape and Visual Impact Assessment (document reference 6.1.25). A summary of construction and decommissioning phase effects on visual receptors is also included</p>
Paragraph 5.9.8	Landscape effects depend on the existing character of the local landscape, its current quality, how highly it is valued and its capacity to accommodate change. All of these factors need to be considered in judging the impact of a project on landscape. Virtually all nationally significant energy infrastructure projects will have effects on the landscape. 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.	<p>The quality, value and capacity of the seascape and landscape to accommodate change are considerations of the SVIA within ES Chapter 25 Seascape and Visual Impact Assessment (document reference 6.1.25).</p> <p>Consideration of seascape, landscape and visual matters informed the selection of the SEP and DEP AfLs. It was decided to not to include the SEP AfL between the southern edge of the existing Sheringham Shoal wind farm and the Norfolk coast due to the proximity of sensitive land-based receptors.</p>
Paragraph 5.9.12 and Paragraph 5.9.13	The duty to have regard to the purposes of nationally designated areas also applies when considering applications for projects outside the boundaries of these areas which may have impacts within them. The aim should be to avoid compromising the purposes of designation and such projects should be designed sensitively given the various siting, operational, and other relevant constraints. ...	<p>The potential for SEP and DEP to affect nationally designated landscapes and areas has been considered ES Chapter 25 Seascape and Visual Impact Assessment (document reference 6.1.25).</p> <p>A separate assessment of the effects of SEP and/or DEP on the Special Qualities of the Norfolk Coast AONB is presented in Impacts on the Qualities of Natural Beauty of Norfolk Coast Area of Outstanding Natural Beauty (document reference 9.25).</p>

Policy	Summary	Compliance
	<p>The fact that a proposed project will be visible from within a designated area should not in itself be a reason for refusing consent.</p>	
<p>Paragraph 5.9.14</p>	<p>Outside nationally designated areas, there are local landscapes that may be highly valued locally and protected by local designation. Where a local development document in England has policies based on landscape character assessment, these should be paid particular attention. However, local landscape designations should not be used in themselves to refuse consent, as this may unduly restrict acceptable development.</p>	<p>The value of the local landscape is considered as part of the baseline study and is informed by local landscape policies based on landscape character assessments. Effects on landscape character are assessed in ES Chapter 25 Seascape and Visual Impact Assessment (document reference 6.1.25).</p>
<p>Paragraph 5.9.17</p>	<p>The IPC [now the Planning Inspectorate and 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 reasonable mitigation.</p>	<p>Consideration of seascape, landscape and visual matters informed the selection of the SEP and DEP AfLs. It was decided to not to include the SEP AfL between the southern edge of the existing Sheringham Shoal wind farm and the Norfolk coast due to the proximity of sensitive land-based receptors. Full details are provided in in ES Chapter 25 Seascape and Visual Impact Assessment (document reference 6.1.25).</p>
<p>Paragraph 5.9.21</p>	<p>Reducing the scale of a project can help to mitigate the visual and landscape effects of a proposed project. However, reducing the scale or otherwise amending the design of a proposed energy infrastructure project may result in a significant operational constraint and reduction in function – for example, the electricity generation output. There may, however, be exceptional circumstances, where mitigation could have a very significant benefit and warrant a small reduction in function. In these circumstances, the IPC may decide that the benefits of the</p>	

Policy	Summary	Compliance
	mitigation to reduce the landscape and/or visual effects outweigh the marginal loss of function.	
Paragraph 5.9.22	Within a defined site, adverse landscape and visual effects may be minimised through appropriate siting of infrastructure within that site, design including colours and materials, and landscaping schemes, depending on the size and type of the proposed project. Materials and designs of buildings should always be given careful consideration.	
Paragraph 5.9.5	The applicant should carry out a landscape and visual assessment and makes reference to the following documents: Guidelines for Landscape and Visual Impact Assessment, Second Edition (Landscape Institute and IEMA, 2002); and Landscape Character Assessment – Guidance for England and Scotland (Land Use Consultants, 2002).	The Guidelines for Landscape and Visual Impact Assessment, Second Edition’ (GLVIA) (Landscape Institute and IEMA, 2002) has been superseded by ‘The Guidelines for Landscape and Visual Impact Assessment, Third Edition’ (Landscape Institute and IEMA, 2013) (GLVIA3). Landscape Character Assessment – Guidance for England and Scotland’ (Land Use Consultants, 2002) has been superseded by ‘An Approach to Landscape Character Assessment’ (Natural England, 2014). The SVIA has been prepared following the updated versions of these documents and other recognised guidelines.
EN-3		
Paragraph 2.4.2	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.	As set out in Section 25.3.3 consideration of seascape, landscape and visual matters informed the selection of the SEP and DEP AfLs. It was decided to not to include the SEP AfL between the southern edge of the existing Sheringham Shoal wind farm and the Norfolk coast due to the proximity of sensitive land-based receptors. Full details are provided in in ES Chapter 25 Seascape and Visual Impact Assessment (document reference 6.1.25).
Paragraphs 2.6.198 to 2.6.206	Generic landscape and visual impacts are covered in Section 5.9 of EN-1. In addition, there are specific considerations which apply to offshore wind energy infrastructure proposals as set out below.	ES Chapter 25 Seascape and Visual Impact Assessment assesses the impacts of SEP and/or DEP on seascape, landscape and visual resources. It provides an overview of the existing environment for the proposed offshore wind farm sites, by defining the existing seascape, landscape and visual baseline environments; assessing their sensitivity to change; describing the key seascape, landscape and visual related aspects; describing the nature of the anticipated

Policy	Summary	Compliance
	<p>Seascape is an additional issue for consideration. Seascape is a discrete area within which there is shared inter-visibility between land and sea. In some circumstances it may be necessary to carry out a seascape and visual impact assessment (SVIA) in accordance with the relevant offshore wind farm EIA policy.</p> <p>The seascape is an important resource and an economic asset. Coastal landscapes are often recognised through statutory landscape designations.</p> <p>Where a proposed offshore wind farm will be visible from the shore, an SVIA should be undertaken which is proportionate to the scale of the potential impacts. Impact on seascape should be addressed in addition to the landscape and visual effects discussed in EN-1.</p> <p>Where necessary, assessment of the seascape should include an assessment of three principal considerations on the likely effect of offshore wind farms on the coast:</p> <ul style="list-style-type: none"> limit of visual perception from the coast; individual characteristics of the coast which affect its capacity to absorb a development; and how people perceive and interact with the seascape. <p>As part of the SVIA, photomontages are likely to be required. Viewpoints to be used for the SVIA should be selected in consultation with</p>	<p>change upon the seascape, landscape and visual environments; assessing the magnitude and significance of the changes.</p> <p>SEP and DEP would be visible from the shore and this SVIA considers effects on coastal receptors, including the Norfolk Coast AONB and the North Norfolk Heritage Coast, in accordance with this NPS requirement.</p> <p>Illustrative wireframes and photomontages of the proposed wind farm extensions during operation have been produced from each representative viewpoint agreed with consultees, showing the existing view (baseline panoramic photograph), a wireframe showing existing wind farms and SEP and DEP, and a photomontage showing existing wind farms and SEP and DEP (Volume 2, Chapter 25 Seascape and Visual Impact Assessment Figures). The wireframes and photomontages represent realistic worst-case scenarios in terms of seascape, landscape and visual impacts.</p> <p>The assessment methodology is set out in Section 25.4 and Appendix 25.1 (document reference 6.3.25.1).</p> <p>Cumulative effects are considered in this chapter. Existing and consented wind farms form part of the existing baseline.</p>

Policy	Summary	Compliance
	<p>the statutory consultees at the EIA Scoping stage.</p> <p>Magnitude of change to both the identified seascape receptors (such as seascape units and designated landscapes) and visual receptors (such as viewpoints) should be assessed in accordance with the standard methodology for SVIA.</p> <p>Where appropriate, cumulative SVIA should be undertaken in accordance with the policy on cumulative assessment outlined in Section 4.2 of EN-1.”</p>	

6.22 Landscape and Visual Impact Assessment

392. Compliance with policies relating to landscape and visual impact assessment are presented in **Table** . Full details of the assessment and potential impacts that have been used to inform this topic specific policy compliance assessment can be found in ES **Chapter 26 Landscape and Visual Impact Assessment** (document reference 6.1.26).

393. The Applicant considers that SEP and DEP accords with policies set out in **Table** below.

Table 6-22: Landscape and Visual Impact Assessment Policy Compliance

Policy	Summary	Compliance
EN-1		
Paragraph 4.2.8	Where some details are still to be defined the ES should set out, to the best of the applicant’s knowledge, what the maximum extent of the proposed development may be in terms of site and plant specifications, and assess, on that basis, the effects which the project could have to ensure that the impacts of the project as it may be constructed have been properly assessed.	Section 26.3.2, of Chapter 26 Landscape and Visual Impact Assessment Defines the realistic worst-case scenario that has been assessed within this LVIA.
Paragraph 4.5.2	Good design is also a means by which many policy objectives in the NPS can be met, for example the impact sections show how good design, in terms of siting and use of appropriate technologies can help mitigate adverse impacts such as noise.	A Design and Access Statement (onshore) (document reference 9.3) has been submitted with the DCO application which demonstrates how SEP and DEP fulfils the requirement for good design. It also explains the design evolution to date and the considerations that will inform the detailed design post-consent.
Paragraph 4.5.3	In the light of the above, and given the importance which the Planning Act 2008 places on good design and sustainability, the IPC [now the Planning Inspectorate and the Secretary of State] needs to be satisfied that energy infrastructure developments are sustainable and, having regard to regulatory and other constraints, are as attractive, durable and adaptable (including taking account of natural hazards such as flooding) as they can be. In so doing, the IPC should satisfy itself that the applicant has taken into account both functionality (including fitness for purpose and sustainability) and aesthetics (including its	

	<p>contribution to the quality of the area in which it would be located) as far as possible. Whilst the applicant may not have any or very limited choice in the physical appearance of some energy infrastructure, there may be opportunities for the applicant to demonstrate good design in terms of siting relative to existing landscape character, landform and vegetation. Furthermore, the design and sensitive use of materials in any associated development such as electricity substations will assist in ensuring that such development contributes to the quality of the area.</p>	
<p>Paragraph 4.5.4</p>	<p>For the IPC [now the Planning Inspectorate and the Secretary of State] to consider the proposal for a project, applicants should be able to demonstrate in their application documents how the design process was conducted and how the proposed design evolved. Where a number of different designs were considered, applicants should set out the reasons why the favoured choice has been selected. In considering applications the IPC should take into account the ultimate purpose of the infrastructure and bear in mind the operational, safety and security requirements which the design has to satisfy.</p>	
<p>Paragraph 5.9.5</p>	<p>Paragraph 5.9.5 of EN-1 advises that the applicant should carry out a landscape and visual assessment and makes reference to the following documents: Guidelines for Landscape and Visual Impact Assessment, Second Edition (Landscape Institute and IEMA, 2002); and Landscape Character Assessment – Guidance for England and Scotland (Land Use Consultants, 2002).</p>	<p>This LVIA has been prepared following the updated versions of these documents and other recognised guidelines: ‘The Guidelines for Landscape and Visual Impact Assessment, Second Edition’ (GLVIA) (Landscape Institute and IEMA, 2002) has been superseded by ‘The Guidelines for Landscape and Visual Impact Assessment, Third Edition’ (Landscape Institute and IEMA, 2013) (GLVIA3). ‘Landscape Character Assessment – Guidance for England and Scotland’ (Land Use Consultants, 2002) has been superseded by ‘An Approach to Landscape Character Assessment’ (Natural England, 2014).</p>
<p>Paragraph 5.9.5</p>	<p>“The landscape and visual assessment should include reference to any landscape character assessment and associated studies as a means of assessing landscape</p>	<p>Published landscape character assessments, and other associated studies, and relevant policies based on these assessments within the extent of the study areas, of onshore cable corridor and onshore substation, are reviewed</p>



	<p>impacts relevant to the proposed project. The applicant's assessment should also take account of any relevant policies based on these assessments in local development documents in England"</p>	<p>and considered as part of the baseline study contained within Section 26.4.6.1. of Chapter 26 Landscape and Visual Impact Assessment</p> <p>Those that merit detailed consideration in the assessment of effects have been taken forward to Section 26.6 of Chapter 26 Landscape and Visual Impact Assessment.</p>
Paragraph 5.9.6	<p>"The applicant's assessment should include the effects during construction of the project and the effects of the completed development and its operation on landscape components and landscape character."</p>	<p>Effects on landscape character and visual amenity and conspicuousness of the project are assessed in Section 26.6 of Chapter 26 Landscape and Visual Impact Assessment:</p> <p>.</p>
Paragraph 5.9.7	<p>"The assessment should include the visibility and conspicuousness of the project during construction and of the presence and operation of the project and potential impacts on views and visual amenity."</p>	
Paragraph 5.9.8	<p>"Landscape effects depend on the existing character of the local landscape, its current quality, how highly it is valued and its capacity to accommodate change. All of these factors need to be considered in judging the impact of a project on landscape. Virtually all nationally significant energy infrastructure projects will have effects on the landscape. 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 avoid harm to the landscape, providing reasonable mitigation where possible and appropriate."</p>	<p>The quality, value and capacity of the landscape to accommodate change are considerations of this LVIA, and have informed the proposals for mitigation in Section 26.3.3 of Chapter 26 Landscape and Visual Impact Assessment and the assessment of landscape impacts in Section 26.6.</p> <p>The approach to Good Design is presented in the Design and Access Statement (onshore) (document reference 9.3)</p>
Paragraph 5.9.14	<p>"Outside nationally designated areas, there are local landscapes that may be highly valued locally and protected by local designation. Where a local development document in England has policies based on landscape character assessment, these should be paid particular attention. However, local landscape designations should not be used in themselves to refuse consent, as this may unduly restrict acceptable development."</p>	<p>The value of the local landscape is considered as part of the baseline study contained within Section 26.4.6.1 of Chapter 26 Landscape and Visual Impact Assessment and is informed by local landscape designations identified in local development plans documents.</p> <p>Effects on landscape character are assessed in detail in Section 26.6.</p>

<p>Paragraph 5.9.17</p>	<p>“The IPC [now the Planning Inspectorate and 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 avoid harm to the landscape, including by reasonable mitigation.”</p>	<p>The approach to Good Design is presented in the Design and Access Statement (onshore) (document reference 9.3). Chapter 3 Site Selection and Alternatives of the ES sets out the iterative process that has influenced the design of SEP and/or DEP. Design and mitigation for the onshore substation and cable corridor are described in in Section 36.3.3 of Chapter 26 Landscape and Visual Impact Assessment.</p>
<p>Paragraph 5.9.22</p>	<p>“Within a defined site, adverse landscape and visual effects may be avoided through appropriate siting of infrastructure within that site, design including colours and materials, and landscaping schemes, depending on the size and type of the proposed project. Materials and designs of buildings should always be given careful consideration.”</p>	<p>The approach to Good Design is presented in the Design and Access Statement (onshore) (document reference 9.3). Chapter 3 Site Selection and Alternatives of the ES sets out the iterative process that has influenced the design of SEP and/or DEP. Design and mitigation for the onshore substation and cable corridor are described in in Section 26.3.3 of Chapter 26 Landscape and Visual Impact Assessment.</p>
<p>EN-3</p>		
<p>Paragraph 2.4.2</p>	<p>“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.”</p>	<p>The approach to Good Design is presented in the Design and Access Statement (onshore) (document reference 9.3). The Outline Landscape Management Plan (document refence 9.18) presents the key landscape principles and proposals to minimise impacts and provide screening. It describes how the SEP and/or DEP projects would include tree, hedge and shrub loss, and how new or replacement planting would be implemented and maintained.</p>
<p>Paragraph 2.5.33</p>	<p>“In sites with nationally recognised designations (Sites of Special Scientific Interest, National Nature Reserves, National Parks, the Broads, Areas of Outstanding Natural Beauty and Registered Parks and Gardens), consent for renewable energy projects should only be granted where it can be demonstrated that the objectives of designation of the area will not be compromised by the development, and any significant adverse effects on the qualities for which the area has been designated are clearly outweighed by the environmental, social and economic benefits.”</p>	<p>The potential for SEP and/or DEP to affect nationally designated landscapes has been considered in Section 26.4.6.1 and Section 26.6 of Chapter 26 Landscape and Visual Impact Assessment, including assessment on the Special Qualities of the Norfolk Coast AONB and on the North Norfolk Heritage Coast, where they relate to landscape and visual matters. An assessment of the effects of the Projects on all of the Special Qualities of the Norfolk Coast AONB are presented in’ An Assessment of the Impacts on the Qualities of Natural Beauty of the Norfolk Coast Area of Outstanding Natural Beauty (document 9.25).</p>
<p>EN-5</p>		

<p>Paragraph 2.2.6</p>	<p>“As well as having duties under section 9 of the Electricity Act 1989, (in relation to developing and maintaining an economical and efficient network), developers will be influenced by 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 preserving natural beauty, of conserving flora, fauna and geological or physiographical features of special interest and of protecting sites, buildings and objects of architectural, historic or archaeological interest; and ... do what [they] reasonably can to mitigate any effect which the proposals would have on the natural beauty of the countryside or on any such flora, fauna, features, sites, buildings or objects.”</p>	<p>A Design and Access Statement (onshore) (document reference 9.3) has been submitted with the DCO application which demonstrates how SEP and DEP fulfils the requirement for good design. It also explains the design evolution to date and the considerations that will inform the detailed design post-consent. In particular how SEP and/or DEP have been designed to preserve natural beauty of the countryside and preserve features of special interest as reasonably possible.</p>
<p>Paragraph 2.6.1</p>	<p>“...when considering impacts for electricity networks infrastructure, all of the generic impacts covered in NPS EN-1 are likely to be relevant, even if they only apply during one phase of the development (such as construction) or only apply to one part of the development (such as a substation).”</p>	<p>The potential for the onshore components of SEP and/or DEP to affect landscape and visual receptors has been considered in Section 26.6 of Chapter 26 Landscape and Visual Impact Assessment.</p>
<p>Paragraph 2.8.2</p>	<p>“...New substations, sealing end compounds and other above ground installations that form connection, switching and voltage transformation points on the electricity networks can also give rise to landscape and visual impacts. Cumulative landscape and visual impacts can arise where new overhead lines are required along with other related developments such as substations, wind farms and/or other new sources of power generation.”</p>	<p>The potential for the onshore components of SEP and/or DEP to affect landscape and visual receptors, and cumulative effects with other projects have been considered in Section 26.6 of Chapter 26 Landscape and Visual Impact Assessment,</p>
<p>Draft EN-1 (BEIS, 2021a)</p>		
<p>Paragraph 5.10.10</p>	<p><i>“Applicants should consider how landscapes can be enhanced using landscape management plans, as this will help to enhance environmental assets where they contribute to landscape and townscape quality.”</i></p>	<p>A Design and Access Statement (onshore) (document reference 9.3) has been submitted with the DCO application which demonstrates how SEP and DEP fulfils the requirement for good design. It also explains the design evolution to date and the considerations that will inform the detailed design post-consent.</p>

		<p>The Outline Landscape Management Plan (document refence 9.18) presents the key landscape principles and proposals to minimise impacts and provide screening. It describes how the SEP and/or DEP projects would include tree, hedge and shrub loss, and how new or replacement planting would be implemented and maintained.</p>
<p>Draft EN-3 (BEIS, 2021b)</p>		
<p>Paragraph 2.22.21 <i>(Originally Paragraph 2.5.33)</i></p>	<p>“In sites with nationally recognised designations (SSSIs, National Nature Reserves, National Parks, the Broads, Areas of Outstanding Natural Beauty, Registered Parks and Gardens, and Marine Conservation Zones), consent for renewable energy projects should only be granted where the relevant tests in Sections 5.4 and 5.10 of EN-1 are met and any significant adverse effects on the qualities for which the area has been designated are clearly outweighed by the environmental, social and economic benefits. The Secretary of State should have regard to the aims and goals of the Government’s 25 Year Environment Plan and other existing and future measures and targets in England, including under the new strategy for nature.”</p>	<p>The assessment set out within Chapter 26 Landscape and Visual Impact Assessment, alongside other documents supporting the DCO application, addresses the tests set out in Section 5.4 and 5.10 of EN-1 identifying all significant adverse effects on nationally recognised designations.</p>

6.23 Socio-Economics and Tourism

394. Compliance with policies relating to socio-economics and tourism are presented in **Table** . Full details of the assessment and potential impacts that have been used to inform this topic specific policy compliance assessment can be found in ES **Chapter 27 Socio-Economics and Tourism** (document reference 6.1.27).

395. The Applicant considers that SEP and DEP accords with policies set out in **Table** below.

Table 6-23: Socio-Economics and Tourism Policy Compliance

Policy	Summary	Compliance
EN-1		
Paragraph 5.12.2	Where the project is likely to have socio-economic impacts at local or regional levels, the applicant should undertake and include in their application an assessment of these impacts as part of the ES.	In accordance with the NPS, the socio-economic impacts of SEP and DEP that have been scoped into the assessment have been assessed for both East Anglia and the UK study areas, and are set out in ES Chapter 27 Socio-Economics (document reference 6.1.27)
Paragraph 5.12.3	<p>The assessment should consider all relevant socio-economic impacts which may include the creation of jobs and training opportunities.</p> <p>The assessment should consider all relevant socio-economic impacts, including the provision of additional local services and improvements to local infrastructure including the provision of educational and visitor facilities.</p> <p>The assessment should consider the effects on tourism.</p> <p>The assessment should consider the impact of changing influx of workers during the different construction, operation and decommissioning phases of the energy infrastructure.</p> <p>The assessment should consider cumulative effects.</p>	<p>In accordance with the NPS, the following has been assessed and set out in ES Chapter 27 Socio-Economics (document reference 6.1.27):</p> <p>The effects SEP and DEP activity on employment are explored and assessed for construction, operational and maintenance, and on decommissioning related jobs.</p> <p>The effects of the additional demand for local services and improvements to local infrastructure.</p> <p>The effects on the tourism economy of both onshore and offshore infrastructure.</p> <p>The effects of changing influx of workers.</p> <p>Cumulative effects of SEP and DEP.</p>
Paragraph 5.12.4	Applicants should describe the existing socio-economic conditions in the areas surrounding the proposed development and should also refer to how the development's socio-economic impacts correlate with local planning policies.	The existing socio-economic conditions and the local policy context has been considered for the assessment of socio-economics within set out in ES Chapter 27 Socio-Economics (document reference 6.1.27) and Appendix 27.2 Socio-Economics and Tourism Technical Baseline (document reference 6.1.27.2).

Policy	Summary	Compliance
Paragraph 5.12.5	The inter-relationships of socio-economic impacts with other impacts should also be considered.	In accordance with the NPS,, the inter-relationships between socio-economics and other aspects of the assessment (including landscape and visuals, transport and traffic, noise, recreation and land use) are considered in ES Chapter 27 Socio-Economics (document reference 6.1.27)

6.24 Health

- 396. Compliance with policies relating to health are presented in **Table 6-24**. Full details of the assessment and potential impacts that have been used to inform this topic specific policy compliance assessment can be found in ES **Chapter 28 Health** (document reference 6.1.28).
- 397. The Applicant considers that SEP and DEP accords with policies set out in **Table 6-24** below.

Table 6-24: Health Policy Compliance

Policy	Summary	Compliance
EN-1		
Paragraph 1.7.2	The energy NPSs are likely to contribute positively towards improving the vitality and competitiveness of the UK energy market by providing greater clarity for developers which should improve the UK's security of supply and, less directly, have positive effects for health and well-being in the medium to longer term through helping to secure affordable supplies of energy and minimising fuel poverty; positive medium and long term effects are also likely for equalities.	Wider societal benefits have been assessed in Section 28.6.3.3 of Chapter 28 Health (document reference 6.1.28).
Paragraph 4.2.2	To consider the potential effects, including benefits, of a proposal for a project, the IPC will find it helpful if the applicant sets out information on the likely significant social and economic effects of the development, and shows how any likely significant negative effects would be avoided or mitigated. This information could include matters such as employment, equality, community cohesion and well-being.	Employment is considered within this chapter, as well as Chapter 27 Socio-Economics and Tourism . document reference 6.1.27). Well-being is underpins the assessment throughout Chapter 28 Health (document reference 6.1.28).
Paragraph 4.10.1	Issues relating to discharges or emissions from a proposed project which affect air quality, water quality, land quality and the marine environment, or which include noise and vibration may be subject to separate regulation	Potential discharges and emissions are considered in er 28 Health (document reference 6.1.28), as well as Chapter 7 Marine Water and Sediment Quality, Chapter 17 Onshore Ground Conditions and



	under the pollution control framework or other consenting and licensing regimes.	Contamination, Chapter 18 Water Resources and Flood Risk, Chapter 22 Air Quality and Chapter 23 Noise and Vibration.
Paragraph 4.10.2	The planning system controls the development and use of land in the public interest. It plays a key role in protecting and improving the natural environment, public health and safety, and amenity, for example by attaching conditions to allow developments which would otherwise not be environmentally acceptable to proceed and preventing harmful development which cannot be made acceptable even through conditions.	The effects to human health are considered in Section 28.6 of Chapter 28 Health (document reference 6.1.28).
Paragraphs 4.13.1 and 4.13.2	<p>Energy production 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 production, distribution and use of energy may have negative impacts on some people’s health.</p> <p>Where the proposed project has an effect on human beings, the ES should assess these effects for each element of the project, identifying any adverse health impacts, and identifying measures to avoid, reduce or compensate for these impacts as appropriate. The impacts of more than one development may affect people simultaneously, so the applicant and the IPC should consider the cumulative impact on health.</p>	The effects to human health are considered in Sections 28.6 and 28.7 of Chapter 28 Health (document reference 6.1.28). The wider societal benefits of SEP and DEP are discussed in Section 28.6.3.3 of Chapter 28 Health .
Paragraph 4.13.3	The direct impacts on health may include increased traffic, air or water pollution, dust, odour, hazardous waste and substances, noise, exposure to radiation, and increases in pests.	Direct impacts to health are considered in Chapter 17 Onshore Ground Conditions and Contamination, Chapter 18 Water Resources and Flood Risk, Chapter 22 Air Quality, Chapter 23 Noise and Vibration, Chapter 24 Traffic and Transport and the Waste Assessment (Appendix 17.2) and Chapter 28 Health (document reference 6.1.28) summarises the results from these assessments and explains the public health implications.



<p>Paragraph 4.13.4 and 4.13.5</p>	<p>New energy infrastructure may also affect the composition, size and proximity of the local population, and in doing so have indirect health impacts, for example if it in some way affects access to key public services, transport or the use of open space for recreation and physical activity.</p> <p>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 air pollution) which will constitute effective mitigation of them, so that it is unlikely that health concerns will either constitute a reason to refused consents or require specific mitigation under the Planning Act 2008. However, the IPC will want to take account of health concerns when setting requirements relating to a range of impacts such as noise.</p>	<p>These type of human health effects are considered in Section 28.6 of Chapter 28 Health (document reference 6.1.28), and Chapter 19 Land Use, Agriculture and Recreation and Chapter 24 Traffic and Transport.</p>
<p>Paragraph 5.10.2</p>	<p>The Government's policy is to ensure there is adequate provision of high quality open space (including green infrastructure) and sports and recreation facilities to meet the needs of local communities. Open spaces, sports and recreational facilities all help to underpin people's quality of life and have a vital role to play in promoting healthy living.</p>	<p>Within the Order Limits, there is no plan to build on any open space, sports or recreational buildings and land. Effects on local communities are considered in Chapter 28 Health (document reference 6.1.28) in relation to physical activity and mental health, as well as in Chapter 19 Land Use, Agriculture and Recreation and Chapter 27 Socio-Economics and Tourism.</p>
<p>Paragraph 5.11.6</p>	<p>Operational noise, with respect to human receptors, should be assessed using the principles of the relevant British Standards and other guidance.</p>	<p>Operational health effects are considered in Section 28.6.3 of Chapter 28 Health (document reference 6.1.28) and Chapter 23 Noise and Vibration.</p>
<p>Paragraph 5.14.1</p>	<p>Government policy on hazardous and non-hazardous waste is intended to protect human health and the environment by producing less waste and by using it as a resource wherever possible. Where this is not possible, waste management regulation ensures that waste is</p>	<p>Potential health effects are considered in Chapter 28 Health (document reference 6.1.28) and Chapter 17 Onshore Ground Conditions and Contamination.</p>



	disposed of in a way that is least damaging to the environment and to human health.	
Paragraph 5.15.1	During the construction, operation and decommissioning phases, developments can lead to increased demand for water, involve discharges to water and cause adverse ecological effects resulting from physical modifications to the water environment. There may also be an increased risk of spills and leaks of pollutants to the water environment. These effects could lead to adverse impacts on health.	Potential health effects are considered in Chapter 28 Health (document reference 6.1.28) and Chapter 18 Water Resources and Flood Risk .
EN-3		
Paragraphs 2.10.2 to 2.10.8	<p>All overhead power lines produce EMFs, and 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 (see para 2.10.12). EMFs can have both direct and indirect effects on human health. The direct effects occur in terms of impacts on the central nervous system resulting in its normal functioning being affected. Indirect effects occur through electric charges building up on the surface of the body producing a microshock on contact with a grounded object, or vice versa, which, depending on the field strength and other exposure factors, can range from barely perceptible to being an annoyance or even painful</p> <p>To prevent these known effects, the International Commission on Non-Ionizing Radiation Protection (ICNIRP) developed health protection guidelines in 1998 for both public and occupational exposure... The reference levels are such that compliance with them will ensure that the basic restrictions are not reached or</p>	An assessment of potential EMF effects is presented in Appendix 28.1 EMF Assessment and Chapter 28 Health (document reference 6.1.28)



	<p>exceeded. However, exceeding the reference levels does not necessarily mean that the basic restrictions will not be met; this would be a trigger for further investigation into the specific circumstances. For protecting against indirect effects, the ICNIRP 1998 guidelines give an electric field reference of 5kV m^{-1} for the general public, and keeping electric fields below this level would reduce the occurrence of adverse indirect effects for most individuals to acceptable levels. When this level is exceeded, there is a suite of measures that may be called upon in particular situations, including provision of information, earthing and screening, alongside limiting the field. In some situations there may be no reasonable way of eliminating indirect effects.</p> <p>The Health Protection Agency's (HPA) Centre for Radiation, Chemical and Environmental Hazards (CRCE) provides advice on standards of protection for exposure to non-ionizing radiation, including the ELF EMFs arising from the transmission and use of electricity. In March 2004, the National Radiological Protection Board (NRPB) (now part of HPA CRCE), published advice on limiting public exposure to electromagnetic fields. The advice recommended the adoption in the UK of the EMF exposure guidelines published by ICNIRP in 1998. These guidelines also form the basis of a 1999 EU Recommendation on public exposure and a Directive on occupational exposure. Resulting from these recommendations, Government policy is that exposure of the public should comply with the ICNIRP (1998) guidelines in terms of the EU Recommendation. The electricity industry has agreed to follow this policy. Applications should show evidence of this compliance as specified in 2.10.9 below.</p>	
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	<p>The balance of scientific evidence over several decades of research has not proven a causal link between EMFs and cancer or any other disease. The HPA CRCE keeps under review emerging scientific research and/or studies that may link EMF exposure with various health problems and provides advice to the Department of Health on the possible need for introducing further precautionary measures.</p> <p>The Department of Health’s Medicines and Healthcare Products Regulatory Agency (MHRA) does not consider that transmission line EMFs constitute a significant hazard to the operation of pacemakers.</p> <p>There is little evidence that exposure of crops, farm animals or natural ecosystems to transmission line EMFs has any agriculturally significant consequences.</p>	
Draft NPS for Energy (EN-1)		
Paragraph 4.2.1	<p>All proposals for projects that are subject to the Infrastructure Planning (Environmental Impact Assessment) Regulations 2017 (the EIA Regulations) must be accompanied by an Environmental Statement (ES) describing the aspects of the environment likely to be significantly affected by the project. The Regulations specifically refer to effects on population, human health, biodiversity, land, soil, water, air, climate, the landscape, material assets and cultural heritage, and the interaction between them. The Regulations require an assessment of the likely significant effects of the proposed project on the environment, covering the direct effects and any indirect, secondary, cumulative, transboundary, short, medium, and long-term, permanent and temporary, positive and negative effects at all stages of the project, and also of the measures envisaged for avoiding or mitigating significant adverse effects.</p>	<p>Chapter 28 Health (document reference 6.1.28) provides the health assessment for SEP and DEP.</p>



<p>Paragraph 4.3.5</p>	<p>Opportunities should also 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 within society which may be differentially impacted by a development compared to wider society as a whole.</p>	<p>The site selection process for SEP and DEP had the approach of mitigation by design (i.e. embedded mitigation). This means that during the course of the design development of the Order Limits for SEP and DEP key constraints were avoided where possible included populated areas and residential properties. This is detailed further in Chapter 3 Site Selection and Assessment of Alternatives (document reference 6.1.3).</p>
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7 Mitigating the Development

398. The Requirements in the draft DCO control how the development would be carried out, for example through the various management plans to be approved and implemented, timings and time limits and securing the mitigation listed in the **Schedule of Mitigation Roadmap** (document reference 6.5). Requirements and how they should be drafted is covered in NPS EN-1.
399. The draft DCO Requirements are considered below.

7.1 Development Consent Order Requirements and Planning Policy

400. Paragraph 4.1.7 of NPS EN-1, the NPPF and the Government's national planning practice guidance establish the need for conditions of any planning permissions to meet the following requirements:

“Necessary, relevant to planning and to the development to be permitted, enforceable, precise and reasonable in all other respects”

401. Under the Planning Act 2008, conditions of development consents take the form of Requirements within the DCO. Requirements set out in Part 1 of Schedule 2 of the **Draft DCO** (document reference 3.1) meet the requirements set out in Paragraph 4.1.7 of Overarching Energy NPS EN-1.
402. The tests and how they have been met in the preparation of the draft DCO requirements are considered below.

7.1.1 Necessary

403. All requirements as drafted in the application draft DCO are necessary because they give effect to the need to secure mitigation measures or to meet other regulatory or policy requirements.
404. Draft Requirement 1 specifies the time limit for commencing the authorised development as seven years from the date on which the Order comes into force. A time limit of seven years follows the approach taken in Teesside A and B and Hornsea 3 and is considered appropriate and necessary for SEP and DEP given the combined nature and scale of the two projects and the need to secure separate Contracts for Difference awards prior to the commencement of construction of either project.
405. Draft Requirements 2 to 7 and 10, specifying the detailed offshore and onshore design parameters, are necessary to ensure the development will remain within the parameters of the project as assessed in the environmental impact assessment set out in the ES.
406. Draft Requirement 8, requiring submission of an offshore decommissioning programme in compliance with any notice served upon the undertaker by the Secretary of State pursuant to section 105(2) of the Energy Act 2004 is necessary to ensure that the scope of activities falls is agreed prior to commencement.

- 407. Draft Requirement 9, requiring confirmation of which of the four construction scenarios will be followed during construction, and setting out the onshore phases of construction, to be approved by the relevant planning authority prior to commencement, is necessary to confirm the basis on which the development is to be carried out and on which the mitigation and management plans are to have effect.
- 408. Draft Requirements 11 to 28, requiring the submission of management plans, construction hours, schemes and other matters, are necessary to give effect to mitigation, which itself is necessary by virtue of the EIA Regulations 2017, and to give effect to other legislative requirements.
- 409. Draft Requirement 29, requiring submission of an onshore decommissioning plan within six months of the permanent cessation of commercial operation is necessary to comply with statutory requirements.
- 410. Draft Requirement 30 on notification of first power is necessary for public monitoring and management of UK generation capacity.
- 411. Draft Requirement 31, setting out the process for amendments to approved details is necessary to ensure that a clear process exists to amend agreed details.

7.1.2 Relevant to Planning

- 412. All draft Requirements reflect and secure relevant planning policy, guidance or legislative provisions applicable under PA2008 and are therefore all relevant to planning.

7.1.3 Relevant to the Development to be Permitted

- 413. All the SEP and DEP draft DCO Requirements directly secure the delivery of elements and aspects of SEP and DEP and are therefore relevant to it.

7.1.4 Enforceable

- 414. Draft Requirements within the draft DCO are enforceable as they set temporal and dimension parameters, in addition these also set out compliance conditions which are enforceable.
- 415. Draft Requirements requiring the submission of management plans, schemes and other matters include implementation clauses and are therefore enforceable.

7.1.5 Precise

- 416. All application draft Requirements are precisely worded and specify the exact nature of the submission to be made and/or the precise limits with which compliance is required.

7.1.6 Reasonable

- 417. All application draft Requirements are considered as acceptable in terms of being reasonable, since they, or similar requirements, have been made as part of other Orders.



8 Balance of Considerations and Overall Conclusions

418. This Planning Statement has outlined the proposals for the development of SEP and DEP, as set out in the DCO application, provided background and context of the development, set out the need for SEP and DEP with reference to the aspects of need established by NPS policy, and outlined the legal and policy context within which the Application will be examined and decided, including how the Application complies with the relevant policy set out in the Energy NPSs.
419. Section 104 of the Planning Act 2008 makes clear that the SoS “*must decide the application in accordance with any relevant national policy statement, except to the extent that one or more of the subsections*” of specified exceptions apply. Therefore, subject to the exceptions in Section 104 above and as stated in paragraph 4.1.2 of NPS EN-1 the SoS “*should start with a presumption in favour of granting consent to applications for energy NSIPs. That presumption applies unless any more specific and relevant policies set out in the relevant NPSs clearly indicate that consent should be refused*”. In short, the presumption is in favour of applications that accord with any relevant NPSs and the key test is to assess, on the balance of probabilities, whether the application is in accordance with the relevant NPSs and should therefore be consented, unless certain specified exceptions (set out above) apply.
420. SEP and DEP and its Project Objective 1 “**Decarbonisation: To generate low carbon electricity from an offshore wind farm by 2030 in support of the UK target to generate 50 GW of offshore wind power by 2030 and associated carbon reduction targets**”:
- directly address the “**urgent need for new (and particularly low carbon) energy NSIPs** to be brought forward as soon as possible, and certainly in the next 10 to 15 years, given the crucial role of electricity as the UK decarbonises its energy sector” (paragraph 3.3.15 NPS EN-1),
 - meet the UK need for “the types of energy infrastructure covered by ... NPS [EN-1] in order to achieve energy security at the same time as **dramatically reducing greenhouse gas emissions**” (paragraph 3.1.1)
 - displace from fossil fuel generating stations and **reduce greenhouse gas emissions by approximately 700,000 to 1,500,000 tonnes CO₂** per year, contributing to meeting national and international targets on carbon dioxide (CO₂) reduction in line with the requirements of the Climate Change Act 2008 (2050 Target Amendment) Order 2019.
421. SEP and DEP and its Project Objective 2 “**Security of supply: To export electricity to the UK National Grid to support UK commitments for offshore wind generation and security of supply**”:
- will provide approximately **2.5% of the UK’s current shortfall in meeting the 50 GW target** for offshore wind electricity generation by 2030 set out in the British Energy Security Strategy (HM Government 2022), equivalent to powering over 785,000 UK homes per annum (equivalent to 3% of all UK homes);

- address the importance *“that our **supply of energy remains secure, reliable and affordable**”* set out in NPS EN-1, which considers that *“offshore wind is expected to provide the largest single contribution towards the 2020 renewable energy generation targets”* (paragraphs 2.1.2 and 3.4.3);
 - contribute to the NPS EN-1 *“**minimum need of 59 GW of new electricity capacity by 2025**”*, of which 33 GW is needed from renewable energy, in the context of the overall dwindling of UK generation capacity and renewable generation capacity reaching only 12 additional GW of capacity since 2011 (paragraph 3.3.22 and 3.3.23); and
 - contribute to The Promotion of the Use of Energy from Renewable Sources Regulations 2011 and NPS EN-1 (paragraph 3.4.5) **requirement for the UK to meet a target of 15 per cent of total energy consumption being from renewables**, in the context of 12.3 per cent of total energy consumption being from renewables in 2022 (BEIS 2022 Table 6.5b).
422. SEP and DEP as an Offshore Transmission Network Review Pathfinder Project and its Project Objective 3 *“**Optimisation**: To coordinate and optimise generation and export capacity within the constraints of available sites and onshore transmission infrastructure whilst delivering project skills, employment and investment benefits in the Norfolk area”*:
- advance, as a coordinated application across two wind farms sites, policy in the Energy White Paper: Powering Our Net Zero and Offshore Transmission Network Review to *“implement changes to the existing regime to facilitate coordination in the short-medium term”* (BEIS 2020b);
 - provide power for over **785,000 UK homes** equivalent to 85% of the number of homes in East Anglia;
 - create up to **1,730 and 230 full-time equivalent jobs** during the construction and operational phases respectively;
 - yield an estimated overall construction value of £2.14 billion (in current pricing) and operational and maintenance value of around £32.1 million and £800 million Gross Value Added, including **£450 million GVA** to East Anglia;
 - maximise local skills and employment opportunities through the **Skills and Employment Plan** being developed in consultation with local authorities secured by a Requirement in the **Draft DCO** (document reference 3.1), and
 - deliver **Biodiversity Net Gain** benefits including additional planting, native species and ecological enhancement as well as contributing to the mitigation of climate change and thus the effects it is having on future biodiversity in the UK.
423. In line with policy in NPS EN-1 *that “the Examining Authority and Secretary of State should take into account its potential benefits including its contribution to meeting the need for energy infrastructure, job creation and any long term or wider benefits”* (paragraph 4.1.3).

424. Overall SEP and DEP would make a significant contribution to the achievement of the UK's national renewable energy targets, and to the UK's contribution to global efforts to reduce the effects of climate change and would represent a substantial contribution to UK 2030 energy targets by providing approximately 2.5% of the UK's current shortfall in meeting the 50 GW target for offshore wind electricity generation by 2030. Furthermore, SEP and DEP would have a direct positive benefit by providing approximately 786MW of renewable energy, equivalent to securing energy supply for approximately 785,000 UK households (representing 3% of all UK households).
425. For all the above reasons the Examining Authority can conclude (under section 104 of the Planning Act 2008) that SEP and DEP would be in accordance with relevant NPSs and legislation, would bring significant benefits under a range of national, international and local policy considerations, and:
- would not lead to the UK being in breach of any of its international obligations (subsection 4);
 - would not lead to the SoS being in breach of any duty imposed on the SoS by or under any enactment (subsection 5);
 - would not be unlawful by virtue of any enactment (subsection 6);
 - can be satisfied that the benefits of the proposed development outweigh any adverse impacts (subsection 7);
 - that there is no condition prescribed for deciding the application otherwise than in accordance with the relevant NPSs (subsection 8);
426. and that under the terms of S104 the Planning Act 2008 SEP and DEP should therefore be consented.

References

<p>Broadland District Council (2015) Development Management DPD. [Online] Available https://www.broadland.gov.uk/downloads/download/161/development_management_dpd. Accessed 21/09/2020.</p>
<p>Climate Change Committee (2018a). An independent assessment of the UK's Clean Growth Strategy. [Online] Available at: [REDACTED]. Accessed 21/05/2019.</p>
<p>Climate Change Committee (2019a). Meeting Carbon Budgets – Implications of Brexit for UK climate policy. [Online] Available at: [REDACTED]. Accessed 22/05/20</p>
<p>Climate Change Committee (2019b). Net Zero – The UK's contribution to stopping global warming. [Online] Available at: [REDACTED]. Accessed 10/09/2020.</p>
<p>Climate Change Committee (2019c). Progress in preparing for climate change 2019 Report to Parliament. [Online] Available at: [REDACTED]. Accessed 22/05/20.</p>
<p>Climate Change Committee (2020). Building a resilient recovery from the COVID-19 crisis. [Online] Available at: [REDACTED]. Accessed 22/05/20.</p>
<p>Climate Science Special Report (2017). Climate Science Special Report. [Online] Available at: [REDACTED]. Accessed 10/09/2020.</p>
<p>Department for Business, Energy and Industrial Strategy (2017). The Clean Growth Strategy Leading the way to a low carbon future. [Online] Available at: https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/700496/clean-growth-strategy-correction-april-2018.pdf. Accessed 14/09/2020.</p>
<p>Department for Business, Energy and Industrial Strategy (2018). House of Lords European Union Energy and Environment Sub-Committee Brexit: energy security inquiry Government Response. [Online] Available at: [REDACTED]. Accessed 03/09/2020.</p>
<p>Department for Business, Energy and Industrial Strategy (2019a). Offshore Wind Sector Deal Policy Paper. [Online] Available at: https://www.gov.uk/government/publications/offshore-wind-sector-deal/offshore-wind-sector-deal. Accessed 22/05/2020.</p>

<p>Department for Business, Energy and Industrial Strategy (2019b). The UK's Draft Integrated National Energy and Climate Plan. [Online] Available at: https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/774235/national_energy_and_climate_plan.pdf. Accessed 03/09/2020</p>
<p>Department for Business, Energy and Industrial Strategy (2020) Contracts for Difference for Low Carbon Electricity Generation - Consultation on proposed amendments to the scheme, Victoria Street, London.</p>
<p>Department for Business, Energy and Industrial Strategy (2020a). 2019 UK greenhouse gas emissions, provisional figures. [Online] Available at: https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/875485/2019_UK_greenhouse_gas_emissions_provisional_figures_statistical_release.pdf. Accessed 21/05/2020.</p>
<p>Department for Business, Energy and Industrial Strategy (2020b). Updated energy and emissions projections 2019. [Online] Available at: https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/931323/updated-energy-and-emissions-projections-2019.pdf Accessed 06/01/21.</p>
<p>Department for Business, Energy and Industrial Strategy (2020c). Digest of UK Energy Statistics 2019.</p>
<p>Department for Business, Energy and Industrial Strategy (2021) Digest of UK Energy Statistics 2020.</p>
<p>Department for Business, Energy and Industrial Strategy (2021a). Press release dated 20th April 2021: UK enshrines new target in law to slash emissions by 78% by 2035. [Online] Available at: https://www.gov.uk/government/news/uk-enshrines-new-target-in-law-to-slash-emissions-by-78-by-2035. Accessed 21/04/2021.</p>
<p>Department for Business, Energy and Industrial Strategy (2021b) Draft Overarching Energy National Policy Statement https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/1015233/en-1-draft-for-consultation.pdf</p>
<p>Department for Business, Energy and Industrial Strategy (2021c). 2020 UK greenhouse gas emissions, provisional figures. [Online] Available at: https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/972583/2020_Provisional_emissions_statistics_report.pdf. Accessed 11/08/21.</p>
<p>Department for Business, Energy and Industrial Strategy (2022). Digest of UK Energy Statistics 2021.</p>
<p>Department for Business, Energy and Industrial Strategy (2022a) Special article – Energy Trends collection Electricity interconnectors in the UK since 201030 June 2022 Deaney, Adam https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/1086528/Electricity_interconnectors_in_the_UK_since_2010.pdf</p>



<p>Department for Business, Energy and Industrial Strategy (2022b) Contracts for Difference Allocation Round 4 results 07/07/2022 https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/1088875/contracts-for-difference-allocation-round-4-results.pdf</p>
<p>Department for Energy and Climate Change (2010) Energy and Emissions Projections https://webarchive.nationalarchives.gov.uk/uk/GWa/20121217154827/http://www.decc.gov.uk/en/content/cms/about/ec_social_res/analytic_projs/en_emis_projs/en_emis_projs.aspx# Accessed 15/08/22. Accessed 15/08/22</p>
<p>Department for Energy and Climate Change (2016) Single departmental plan 2015 to 2020. [Online] Available at: https://www.gov.uk/government/publications/decc-single-departmental-plan-2015-to-2020/single-departmental-plan-2015-to-2020</p>
<p>Department for Environment, Food and Rural Affairs (Defra) (2010). UK Marine Policy Statement: Habitats Regulations Assessment. Defra Publications.</p>
<p>Department for Transport (2022) Quick off the spark: electric vehicle sales continue to soar in green revolution Sales of electric vehicles reach an all-time high while UK boasts one of the most extensive networks of rapid chargers in Europe. Press Release Published 24 May 2022 https://www.gov.uk/government/news/quick-off-the-spark-electric-vehicle-sales-continue-to-soar-in-green-revolution. Accessed 15/08/22</p>
<p>Department of Energy and Climate Change (2011). Overarching National Policy Statement for Energy (EN-1). July 2011.</p>
<p>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.</p>
<p>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.</p>
<p>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.</p>
<p>Department of Energy and Climate Change (2012a). Energy Security Strategy. [Online] Available at: https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/65643/7101-energy-security-strategy.pdf. Accessed 09/09/2020.</p>
<p>Department of Energy and Climate Change (2014). Climate Change Explained. [Online] Available at: https://www.gov.uk/guidance/climate-change-explained. Accessed 21/05/20.</p>
<p>Dr Simon Evans (2022) Analysis: Why UK energy bills are soaring to record highs? Carbon Brief</p>



<p>European Council and the European Parliament (2008) 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). [Online] Available at: [REDACTED]. Accessed 23/09/2020.</p>
<p>European Council and the European Parliament (2018) Directive (EU) 2018/2001 of the European Parliament and of the Council of 11 December 2018 on the promotion of the use of energy from renewable sources. [Online] Available at: [REDACTED]. Accessed 25/09/2020. Accessed 15/08/22</p>
<p>HM Government (1981) Wildlife and Countryside Act. [Online] Available at: https://www.legislation.gov.uk/ukpga/1981/69/contents. Accessed 21/09/2020.</p>
<p>HM Government (1992) Protection of Badgers Act. [Online] Available at: https://www.legislation.gov.uk/ukpga/1992/51/contents. Accessed 24/09/2020.</p>
<p>HM Government (1997) Hedgerows Regulations (SI 1997/1160). [Online] Available at: https://www.legislation.gov.uk/uksi/1997/1160/contents/made. Accessed 24/09/2020.</p>
<p>HM Government (2000) Countryside and Rights of Way Act. [Online] Available at: https://www.legislation.gov.uk/ukpga/2000/37/contents. Accessed 22/09/2020.</p>
<p>HM Government (2006) Natural Environment and Rural Communities Act. Available at: https://www.legislation.gov.uk/ukpga/2006/16/contents. Accessed 24/09/2020.</p>
<p>HM Government (2008) The Planning Act (United Kingdom) (SI2008/29). [Online] Available at https://www.legislation.gov.uk/ukpga/2008/29/contents. Accessed: 25/09/2020.</p>
<p>HM Government (2008a) Climate Change Act (SI 2008/27). [Online] Available at https://www.legislation.gov.uk/ukpga/2008/27/contents. Accessed 25/09/2020.</p>
<p>HM Government (2009) The Marine and Coastal Access Act. [Online] Available at: https://www.legislation.gov.uk/ukpga/2009/23/contents. Accessed 25/09/2020.</p>
<p>HM Government (2011a) UK Marine Policy Statement. London: The Stationery Office. [Online] Available at: https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/69322/pb3654-marine-policy-statement-110316.pdf. Accessed 22/09/2020.</p>
<p>HM Government (2011b) The Promotion of the Use of Energy from Renewable Sources Regulations 2011 (SI 2011/243). [Online] Available at: https://www.legislation.gov.uk/uksi/2011/243/contents/made. Accessed 24/09/2020.</p>
<p>HM Government (2014) East Inshore and East Offshore Marine Plans, HM Government, London. [Online] Available at: https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/312496/east-plan.pdf. Accessed 22/09/2020.</p>

<p>HM Government (2017) The Infrastructure Planning (Environmental Impact Assessment) Regulations 2017 (SI 2017/527). [Online] Available at: legislation.gov.uk/uksi/2017/527/contents/made. Accessed: 25/09/2020.</p>
<p>HM Government (2017a). The Clean Growth Strategy. [Online] Available at: https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/700496/clean-growth-strategy-correction-april-2018.pdf. Accessed 22/05/20.</p>
<p>HM Government (2017b). The Conservation of Habitats and Species Regulations 2017 (SI 2017/1012). [Online] Available at: https://www.legislation.gov.uk/uksi/2017/1012/introduction/made (Accessed 23/09/2020)</p>
<p>HM Government (2017c). Green Paper: Building our Industrial Strategy. [Online] Available at: https://beisgovuk.citizenspace.com/strategy/industrial-strategy/supporting_documents/buildingourindustrialstrategygreenpaper.pdf. Accessed 05/08/2019.</p>
<p>HM Government (2017d). The Conservation of Offshore Marine Habitats and Species Regulations 2017 (SI 2017/1013). Available at: https://www.legislation.gov.uk/uksi/2017/1013/contents/made. Accessed 25/09/2020.</p>
<p>HM Government (2017e). UK Climate Change Risk Assessment 2017. [Online] Available at: https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/584281/uk-climate-change-risk-assess-2017.pdf. Accessed 09/09/2020.</p>
<p>HM Government (2018) A Green Future: Our 25 Year Plan to Improve the Environment. [Online] Available at: https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/693158/25-year-environment-plan.pdf. Accessed 22/09/2020.</p>
<p>HM Government (2019) Marine Strategy Part One: UK updated assessment and Good Environmental Status. [Online] Available at: https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/841246/marine-strategy-part1-october19.pdf. Accessed 24/09/2020.</p>
<p>HM Government (2019a). Industrial Strategy Offshore Wind Sector Deal. [Online] Available at: https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/790950/BEIS_Offshore_Wind_Single_Pages_web_optimised.pdf. Accessed 10/09/2020.</p>
<p>HM Government (2019b). The Queen's Speech 2019. [Online] Available at: https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/853886/Queen_s_Speech_December_2019_-_background_briefing_notes.pdf. Accessed 21/05/20.</p>
<p>HM Government (2020) The Future Relationship with the EU. The UK's Approach to Negotiation (CP211). [Online] Available at:</p>



<p>https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/868874/The_Future_Relationship_with_the_EU.pdf. Accessed 25/09/2020.</p>
<p>HM Government (2020a) Ten Point Plan for a Green Industrial Revolution</p>
<p>HM Government (2020b) Energy White Paper: Powering Our Net Zero Future</p>
<p>HM Government (2021). The Queen’s Speech 2021. [Online] Available at: https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/986770/Queen_s_Speech_2021_-_Background_Briefing_Notes..pdf. Accessed 11/08/21.</p>
<p>HM Government (2021b) The Net Zero Strategy: Build Back Greener</p>
<p>HM Government (2022) British Energy Security Strategy.</p>
<p>HM Government Ministry of Housing, Communities and Local Government (2021) National Planning Policy Framework. [Online] Available at: https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/1005759/NPPF_July_2021.pdf. Accessed 11/08/21.</p>
<p>House of Commons Business, Energy and Industrial Strategy Committee (2022) Revised (Draft) National Policy Statement for Energy Ninth Report of Session 2021–22.</p>
<p>House of Commons Library (2022) Research Briefing Imports of energy from Russia Published Friday, 12 August, 2022 [REDACTED]. Accessed 15/08/22</p>
<p>International Hydropower Association (2021) The UK has the opportunity to lead the way on building clean energy storage. Article published 11/11/21 [REDACTED] [REDACTED] Accessed 15/08/22</p>
<p>Marine Climate Change Impacts Partnership (2018). Climate Change and Marine Conservation. Supporting Management in a Changing Environment. Sandeels and their availability as seabird prey. [Online] Available at: [REDACTED] Accessed 10/09/2020. Accessed 15/08/22</p>
<p>National Grid (2021) Future Energy Scenarios Summary 2021 [REDACTED]</p>
<p>Norfolk County Council (2011a) Norfolk’s Transport Plan for 2026. [Online] Available at: https://www.norfolk.gov.uk/what-we-do-and-how-we-work/policy-performance-and-partnerships/policies-and-strategies/roads-and-travel-policies/local-transport-plan Accessed 21/09/2020.</p>
<p>Norfolk County Council (2011b) Core Strategy and Minerals and Waste Development Management Policies DPD (the ‘Core Strategy’) 2011-2026. [Online] Available at:</p>

<p>[REDACTED] Accessed 15/08/22</p>
<p>RenewableUK (2017). Offshore Wind Industry Investment in the UK. Report on Offshore Wind UK Content. [Online] Available from: [REDACTED] Accessed 07/09/2020.</p>
<p>Royal Courts of Justice (2022) EWHC 1841 (Admin) Summary 18 July 2022 [REDACTED]. Accessed 15/08/22.</p>
<p>South Norfolk District Council (2015) South Norfolk Local Plan, Development Management Policies Document. [Online] Available at: https://www.south-norfolk.gov.uk/sites/default/files/Development_Management_Policies_Document_0.pdf. Accessed 21/09/220.</p>
<p>The Crown Estate (2014). UK Offshore Wind Supply Chain. [Online] Available at [REDACTED] Accessed 21/05/2019.</p>
<p>The Crown Estate (2022) Offshore Wind Report 2022.</p>
<p>The Planning Inspectorate (2017a). Advice Note Three: EIA consultation and notification. [Online] Available at: https://infrastructure.planninginspectorate.gov.uk/wp-content/uploads/2013/07/advice_note_3_v5.pdf. Accessed 24/09/2020.</p>
<p>The Planning Inspectorate (2017c). Advice Note Ten: Habitat Regulations Assessment relevant to nationally significant infrastructure projects. [Online] Available at: https://infrastructure.planninginspectorate.gov.uk/wp-content/uploads/2017/12/Advice-note-7.pdf. Accessed 24/09/2020.</p>
<p>The Planning Inspectorate (2017d). Advice Note Eighteen: The Water Framework Directive. [Online] Available at: https://infrastructure.planninginspectorate.gov.uk/wp-content/uploads/2017/06/advice_note_18.pdf. Accessed 26/10/2020.</p>
<p>The Planning Inspectorate (2018). Advice Note Nine: Using the Rochdale Envelope. [Online] Available at: https://infrastructure.planninginspectorate.gov.uk/wp-content/uploads/2013/05/Advice-note-9.-Rochdale-envelope-web.pdf. Accessed 24/09/2020.</p>
<p>The Planning Inspectorate (2019) Cumulative effects assessment relevant to nationally significant infrastructure projects. [Online] Available at: https://infrastructure.planninginspectorate.gov.uk/wp-content/uploads/2015/12/Advice-note-17V4.pdf. Accessed 24/09/2020.</p>
<p>The Planning Inspectorate (2020a). Advice Note Seven: Environmental Impact Assessment, Preliminary Environmental Information, Screening and Scoping. [Online] Available at:</p>

<https://infrastructure.planninginspectorate.gov.uk/wp-content/uploads/2017/12/Advice-note-7.pdf>. Accessed 24/09/2020.

The Planning Inspectorate (2020b). Advice Note Twelve: Transboundary Impacts and Process. [Online] Available at:
<https://infrastructure.planninginspectorate.gov.uk/legislation-and-advice/advice-notes/advice-note-twelve-transboundary-impacts-and-process/>. Accessed 11/08/2020.

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.