RWE Renewables UK Dogger Bank South (West) Limited

RWE Renewables UK Dogger Bank South (East) Limited

Dogger Bank South Offshore Wind Farms

Planning Statement

Volume 8

June 2024

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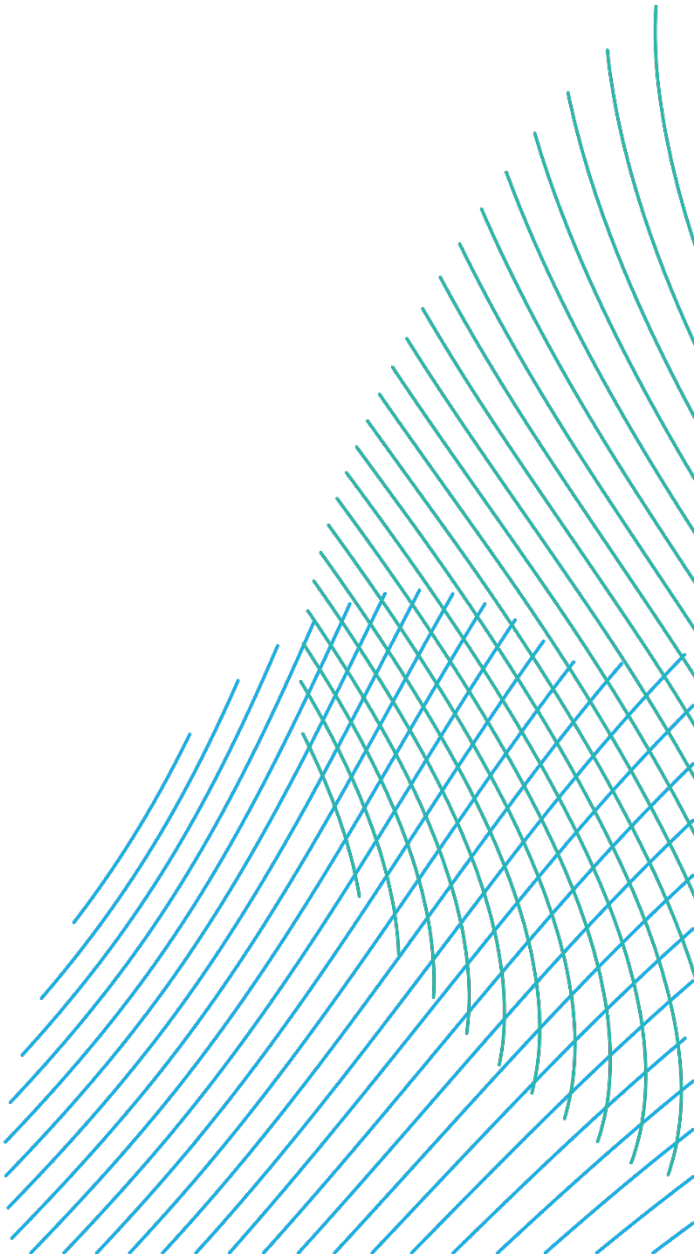

Unrestricted

Company:	**RWE Renewables UK Dogger Bank South (West) Limited and RWE Renewables UK Dogger Bank South (East) Limited**	Asset:	**Development**
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Glossary

Term	Definition
Array Areas	The DBS East and DBS West offshore Array Areas, where the wind turbines, offshore platforms and array cables would be located. The Array Areas do not include the Offshore Export Cable Corridor or the Inter-Platform Cable Corridor within which no wind turbines are proposed. Each area is referred to separately as an Array Area.
Array cables	Offshore cables which link the wind turbines to the Offshore Converter Platform(s).
Development Consent Order (DCO)	An order made under the Planning Act 2008 granting development consent for one or more Nationally Significant Infrastructure Project (NSIP).
Development Scenario	Description of how the DBS East and/or DBS West Projects would be constructed either in isolation, sequentially or concurrently.
Dogger Bank South (DBS) Offshore Wind Farms	The collective name for the two Projects, DBS East and DBS West.
Haul Road	The track along the Onshore Export Cable Corridor used by traffic to access different sections of the onshore export cable route for construction.
High Voltage Alternating Current (HVAC)	High voltage alternating current is the bulk transmission of electricity by alternating current (AC), whereby the flow of electric charge periodically reverses direction.
High Voltage Direct Current (HVDC)	High voltage direct current is the bulk transmission of electricity by direct current (DC), whereby the flow of electric charge is in one direction.
Horizontal Directional Drill (HDD)	HDD is a trenchless technique to bring the offshore cables ashore at the landfall. It can also be used for crossing obstacles such as roads, railways and watercourses onshore.

Term	Definition
Inter-Platform Cables	Buried offshore cables which link offshore platforms.
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 on the coastline at which the Offshore Export Cables are brought onshore, connecting to the onshore cables at the Transition Joint Bay (TJB) above mean high water.
Link Boxes	An underground metal box placed within a concrete pit where the metal sheaths between adjacent export cable sections are connected and earthed, installed with a ground level manhole to allow access to the link box for regular maintenance or fault-finding purposes.
Offshore Development Area	The Offshore Development Area for ES encompasses both the DBS East and West Array Areas, the Inter-Platform Cable Corridor, the Offshore Export Cable Corridor, plus the associated Construction Buffer Zones.
Offshore Export Cables	The cables which would bring electricity from the offshore platforms to the Transition Joint Bays (TJBs).
Offshore Export Cable Corridor	This is the area which will contain the offshore export cables (and potentially the ESP) between the Offshore Converter Platforms and Transition Joint Bays at the landfall.
Onshore Converter Stations	A compound containing electrical equipment required to transform HVDC and stabilise electricity generated by the Projects so that it can be connected to the electricity transmission network as HVAC. There will be one Onshore Converter Station for each Project.

Term	Definition
Onshore Development Area	The Onshore Development Area for ES is the boundary within which all onshore infrastructure required for the Projects would be located including Landfall Zone, Onshore Export Cable Corridor, accesses, Temporary Construction Compounds and Onshore Converter Stations.
Onshore Export Cables	Onshore Export Cables take the electric from the Transition Joint Bay to the Onshore Converter Stations.
Onshore Export Cable Corridor	This is the area which includes cable trenches, haul roads, spoil storage areas, and limits of deviation for micro-siting. For assessment purposes, the cable corridor does not include the Onshore Converter Stations, Transition Joint Bays or temporary access routes; but includes Temporary Construction Compounds (purely for the cable route).
Onshore Substation Zone	Parcel of land within the Onshore Development Area where the Onshore Converter Station infrastructure (including the haul roads, Temporary Construction Compounds and associated cable routeing) would be located.
Order Limits	The limits within which the Projects may be carried out.
Scour protection	Protective materials to avoid sediment erosion from the base of the wind turbine foundations and offshore substation platform foundations due to water flow.
Temporary Construction Compound	An area set aside to facilitate construction of the Projects. These will be located adjacent to the Onshore Export Cable Corridor and within the Onshore Substation Zone, with access to the highway.
The Applicants	The Applicants for the Projects are RWE Renewables UK Dogger Bank South (East) Limited and RWE Renewables UK Dogger Bank South (West) Limited. The Applicants are themselves jointly owned by the RWE Group of companies (51% stake) and Masdar (49% stake).

Term	Definition
Transition Joint Bay (TJB)	The Transition Joint Bay (TJB) is an underground structure at the landfall that houses the joints between the Offshore Export Cables and the Onshore Export Cables.

Acronyms

Term	Definition
AEZ	Archaeological Exclusion Zone
AfL	Agreement for Lease
ALARP	As Low As Reasonably Practicable
APFP Regulations	The Infrastructure Planning (Applications: Prescribed Forms and Procedure) Regulations 2009
BMV	Best and Most Versatile
BNG	Biodiversity Net Gain
CCC	UK Committee on Climate Change
CCRA	Climate Change Resilience Assessment
CfD	Contracts for Difference
CNP	Critical National Priority
CO_2	Carbon dioxide
CoCP	Code of Construction Practice
COMAH	Control of Major Accident Hazards Regulations 2015
COP	Conference of Parties
DBS	Dogger Bank South
DCO	Development Consent Order
Defra	Department for Environment, Food and Rural Affairs
DESNZ	Department for Energy Security and Net Zero
EIA	Environmental Impact Assessment

Term	Definition
EMS	Environmental Management System
EPP	Evidence Plan Process
ERCoP	Emergency Response Cooperation Plan
ES	Environmental Statement
ETG	Expert Topic Group
ExA	Examining Authority
FLCP	Fisheries Liaison and Co-existence Plan
GHG	Greenhouse Gas
GW	Gigawatt
HDD	Horizontal Directional Drill
HND	Holistic Network Design
HPMAs	Highly Protected Marine Areas
HRA	Habitats Regulations Assessment
HVAC	High Voltage Alternating Current
HVDC	High Voltage Direct Current
LAT	Lowest Astronomical Tide
LDF	Local Development Framework
LiDAR	Light Detection and Ranging
LoGS	Local Geological Site
LPA	Local Planning Authority
MCAA 2009	Marine and Coastal Access Act 2009

Term	Definition
MCZ	Marine Conservation Zone
MCZA	Marine Conservation Zone Assessment
MMO	Marine Management Organisation
MMMP	Marine Mammal Mitigation Protocol
MOD	Ministry of Defence
MPA	Marine Protected Areas
MPP	Marine Plan Policy
MPS	UK Marine Policy Statement
MW	Megawatt
NPS	National Policy Statement
NSIP	Nationally Significant Infrastructure Project
OSMP	Outline Soil Management Plan
PA 2008	Planning Act 2008
PEIR	Preliminary Environmental Information Report
PEMP	Project Environment Management Plan
PILs	People with an interest in the land
PROW	Public Rights of Way
RIAA	Report to Inform Appropriate Assessment
SAC	Special Area of Conservation
SNCB	Statutory Nature Conservation Bodies
SoCC	Statement of Community Consultation

Term	Definition
SoS	Secretary of State
SPA	Special Protection Area
TCC	Temporary Construction Compound
TJB	Transition Joint Bay
UK	United Kingdom
UNFCCC	United Nations Framework Convention on Climate Change
WSI	Written Scheme of Investigation

1 Introduction

1.1 Summary

1. This Planning Statement has been prepared as part of an Application for a Development Consent Order (DCO) to construct, operate, maintain, and decommission the proposed Dogger Bank South (DBS) East and DBS West Offshore Wind Farms (herein 'the Projects').

2. The DBS West and DBS East Array Areas are situated at a minimum of 100 kilometres (km) and 122km from shore respectively (see **Volume 7, Figure 5-1 (application ref: 7.5.1)**). Each array area covers approximately 350km^2 across the southern North Sea.

3. The proposed onshore construction works consist of Transition Joint Bays (TJBs) to connect the Offshore Export Cables together with the installed and buried Onshore Export Cables, from a landfall on the East Riding of Yorkshire coastline near Skipsea to (up to) two newly constructed Onshore Converter Stations before onward onshore cable routeing to a proposed new National Grid substation close to the existing Creyke Beck substation known as Birkhill Wood, to the south of Beverley. Hereafter this is referred to as the 'proposed Birkhill Wood National Grid Substation'.

4. The Projects would have a combined maximum number of 200 turbines and based on an estimated capacity, could generate 3 Gigawatts (GW) once fully operational. Resultingly, the Projects could be capable of generating enough electricity to meet the average annual domestic energy needs of around 3 million typical United Kingdom (UK) homes[1].

5. The UK Government recognises that electricity generation from renewable sources is an important element in the Government's development of a low-carbon economy. The need for electricity-generating Nationally Significant Infrastructure Projects (NSIPs), including offshore wind farms, is highlighted by the relevant National Policy Statements (NPSs). The Overarching NPS for Energy EN-1 (Department for Energy Security and Net Zero ((DESNZ), 2023a) recognises through section 3.3, paragraph 3.3.20, that:

[1] Calculation based on 2021 generation, and assuming average (mean) annual household consumption of 3,509 kWh, based on latest statistics from Department of Energy Security and Net Zero (Subnational Electricity and Gas Consumption Statistics Regional and Local Authority, Great Britain, 2021, Mean domestic electricity consumption (kWh per meter) by country/region, Great Britain, 2021

"Wind and solar are the lowest cost ways of generating electricity, helping reduce costs and providing a clean and secure source of electricity supply (as they are not reliant on fuel for generation). (The Government's) analysis shows that a secure, reliable, affordable, net zero consistent system in 2050 is likely to be composed predominantly of wind and solar."

6. The Overarching NPS for Energy EN-1 goes on to stress, through paragraph 4.2.4, that *"there is a critical national priority (CNP) for the provision of nationally significant low carbon infrastructure"*. Low carbon infrastructure includes, among other forms of electricity generation, offshore electricity generation that does not involve fossil fuel combustion.

7. Overall, the Projects are considered to be supported by planning policy and deliver much needed large-scale renewable energy-generating infrastructure in a sensitive way, whilst also delivering wider benefits. Further, detailed evidence of compliance with relevant national, marine, and local policy documents has been set out in **Volume 8, Policy Compliance Assessment Tables (application ref: 8.2)**.

1.2 The Applicants

8. The Applicants, RWE Renewables UK Dogger Bank South (West) Limited and RWE Renewables UK Dogger Bank South (East) Limited, are jointly owned by the RWE group of companies (51% stake) and Masdar (49% stake).

9. RWE is a leading partner in the delivery of the UK's Net Zero ambitions and energy security, as well as in contributing to the UK build-out target for offshore wind of 50GW by 2030. Following completion of the acquisition of the three Norfolk offshore wind projects, RWE is developing ten offshore wind projects in the UK & Ireland representing a combined potential installed capacity of over 10.5GW, with RWE's pro rata share amounting to around 7.5GW. RWE is also constructing the 1.4GW Sofia offshore wind project in the North Sea off the UK's east coast. RWE's unparalleled track record of more than 20 years in offshore wind has resulted in 19 offshore wind farms in operation, with a goal to triple its global offshore wind capacity from 3.3GW today to 10GW in 2030.

10. Abu Dhabi Future Energy Company (Masdar) is the UAE's clean energy champion and one of the fastest growing renewable energy companies in the world, advancing the development and deployment of renewable energy and green hydrogen technologies to address global sustainability challenges. Established in 2006, Masdar has developed and partnered in projects in over 40 countries, helping them to achieve their clean energy objectives and advance sustainable development. Masdar is jointly owned by Abu Dhabi National Oil Company (ADNOC), Mubadala Investment Company (Mubadala), and Abu Dhabi National Energy Company (TAQA), and under this ownership the company is targeting a renewable energy portfolio capacity of at least 100GW by 2030.

1.3 Purpose of this Planning Statement

11. This Planning Statement is one of a series of documents that accompanies the Application made to the Secretary of State (SoS) for a DCO which has been submitted in accordance with section 37 of the Planning Act 2008 (PA 2008) (UK Government, 2008a) and Regulations 5 and 6 of The Infrastructure Planning (Applications: Prescribed Forms and Procedure) Regulations 2009 (the 'APFP Regulations').

12. Whilst the APFP Regulations do not require a Planning Statement to support applications for Development Consent, the Applicants have provided a Planning Statement (under APFP Regulation 5 (2)(q)) to assist the Examining Authority (ExA) and the SoS in their assessment of the Projects by demonstrating how the Applicants have taken account of relevant national policy, Marine Plan Policy (MPP), and other important and relevant planning policy documents. This Statement's assessment is principally framed against the NPSs and the relevant MPPs as, in line with section 104 (2) of the PA 2008, these are the principal policy documents to which the SoS must have regard to in coming to a decision.

13. The Infrastructure Planning (Environmental Impact Assessment) Regulations 2017 ("the EIA Regulations 2017") require that the effects of a project(s) (likely to have a significant effect on the environment), are accounted for in the decision-making process for that project(s). Therefore, to allow for the effects of the Projects to be accounted for in the decision-making process, the Projects have been subject to formal Environmental Impact Assessment (EIA), the outcomes of which have been reported in the Environmental Statement (ES) that accompanies the DCO Application (**Volume 7, Chapters 1** to **30 (application ref: 7.1** to **7.30)**). The assessment conclusions of the ES have been used to inform this Planning Statement's assessment of the Projects' policy compliance.

14. The Projects are also subject to The Conservation of Habitats and Species Regulations 2017 and the Conservation of Offshore Marine Habitats and Species Regulations 2017. As such, the Applicants have undertaken a Habitats Regulations Assessment (HRA) (see **Volume 6, Report to Inform Appropriate Assessment Habitats Regulations Assessment (application ref: 6.1)**) to determine the Projects' potential effects on European Designated Sites and Species. Where the Report to Inform Appropriate Assessment (RIAA) has identified potentially adverse impacts on the integrity of designated sites, the Applicants have prepared **Volume 6, Habitats Regulations Derogation: Provision of Evidence (application ref: 6.2)** which outlines the evidence to support Stage 3 (Derogation) of the Habitats Regulations Assessment.

15. The outcomes of the EIA and Report to Inform Appropriate Assessment have informed the content of this Planning Statement, specifically in relation to assisting the determination of accordance of the Projects with the relevant NPSs, MPPs and other important and relevant policy documents. The Planning Statement pulls together the outcomes of the ES, **Volume 6, Report to Inform Appropriate Assessment Habitats Regulations Assessment (application ref: 6.1)** and **Volume 8**, **Stage 1 Marine Conservation Zone Assessment (application ref: 8.17)** through a single document in a concise and holistic manner.

16. This Planning Statement provides a synoptic assessment of the Projects' compliance with the key relevant policy(s) on a topic-by-topic bases. This Planning Statement should therefore be read alongside the Application's **Volume 8, Policy Compliance Assessment Tables (application ref: 8.2)** the purpose of which is to provide a comprehensive assessment of the Projects' policy compliance against each relevant policy as contained within the suite of relevant national, marine, and local planning policy documents. **Volume 8, Policy Compliance Assessment Tables (application ref: 8.2)** undertakes a detailed review of the relevant planning policy documents to the Projects in order to demonstrate detailed compliance, or otherwise, and to signpost, where appropriate, to where the relevant supporting information can be found in the Application.

1.4 Development Consent

17. The Projects are defined as NSIPs under sections 14(1)(a), 15(1) and 15(3) of the PA 2008 as they are for the construction of offshore generating stations in England each with capacities exceeding 100 Megawatts (MW). The PA 2008 requires a DCO to be obtained for the development of NSIPs and accordingly, as required by section 31 of the PA 2008, a DCO Application has been submitted in respect of the Projects.

18. The ExA, appointed by the SoS in accordance with the provisions of the PA 2008, will examine the Application and make a recommendation to the SoS who will then decide whether to grant a DCO.

19. DCO applications are determined in line with section 104 of the PA 2008 which provides that, subject to a number of exceptions, any application for an order granting development consent must be determined in accordance with any relevant NPS (being a NPS which has effect in relation to development of the description to which the Application relates).

20. Details of the consents and authorisations included in the DCO are explained in **Volume 3, Explanatory Memorandum (application ref: 3.2)** and **Volume 3 Draft Development Consent Order (application ref: 3.1)**.

21. **Volume 8, Other Consents and Licenses (application ref: 8.3)** explains those other consents and licenses that are or may be required under other legislation that will be sought separately from the DCO for the construction and operation of the Projects.

22. A detailed explanation of the legislative and policy context of the Projects has been set out in section 4 of this Planning Statement. A further detailed policy and legislative context review is contained within **Volume 7, Chapter 3 Policy and Legislative Context (application ref: 7.3)** which identifies all those policies and legislative considerations the Applicants consider to be both important and relevant to the SoS's decision.

1.5 Pre-Application Consultation

23. Under section 47 of the PA 2008, the Applicants have a duty to consult the local community and people living within the vicinity of the Projects who may be affected both directly and indirectly by the Projects. The Statement of Community Consultation (SoCC) was published 5th May 2023 in accordance with section 47 (6) of the PA 2008. Alongside this, the Applicants have a duty to consult prescribed bodies, local authorities, landowners and People with an interest in the land (PILs) under section 42 of the PA 2008.

24. The Applicants have undertaken extensive consultation throughout the development of the Projects. This is described in **Volume 5, Consultation Report (application ref: 5.1)**, and includes the stages listed below:

- Pre-Scoping early stakeholder engagement during 2021 and 2022;
- Environmental Impact Assessment Scoping November 2021 to July 2022;
- Introductory Public Consultation (non-statutory) during September and October 2022;

- Statutory consultation with local authorities regarding the content of the SoCC during February and March 2023;
- Statutory consultation (sections 42 and 47) with prescribed bodies, local authorities, Marine Management Organisation, landowners, PILs, and the local community during June and July 2023;
- It was identified that a small number of properties (109 in total) within the consultation zone had been omitted from the statutory consultation due to an issue with the Royal Mail letter distribution. Additionally, a total of 12 third party stakeholders with potential interests in the Projects had not received the initial invitation to respond to the statutory consultation. A supplementary statutory consultation (section 42) was undertaken with affected parties between August and September 2023. During this supplementary statutory consultation, anyone who visited the website and completed the online questions (regardless of whether they were contacted directly or note) was able to respond; and
- A subsequent targeted statutory consultation (section 42) following amendments to the Onshore Development Area after the initial statutory consultation during November and December 2023.

25. The Applicants have had regard to all feedback received in response to their consultations when developing the Projects. This is described, in full, in **Volume 5, Consultation Report (application ref: 5.1)**.

26. Engagement and consultation has taken place with East Riding of Yorkshire Council, North East Lincolnshire Council and Hull and East Yorkshire Local Enterprise Partnership in the development of **Volume 8, Outline Skills and Employment Strategy (application ref: 8.5)** for the Projects. The initial meeting with Hull and East Yorkshire Local Enterprise Partnership took place in September 2023 with ongoing engagement through the Humber Offshore Wind Cluster. Final consultation and alignment meetings took place in May 2024.

1.6 Structure of this Planning Statement

27. The Planning Statement is structured as follows:

- Section 2: Projects Location and Description
  - This section describes the existing uses and characteristic of the land relating to and falling within the Order Limits of the Projects Onshore and Offshore Development Areas. This section then summarises the Projects description (as set out in detail in **Volume 7, Chapter 5 Project Description (application ref: 7.5)**) by outlining

all the main onshore and offshore elements necessary to deliver the Projects and connect to the National Grid Transmission System. This section of the Planning Statement does not replace **Volume 7, Chapter 5 Project Description (application ref: 7.5)** which remains the main point of reference for the detailed Projects description.

- Section 3: The Need for and Benefits of the Projects
  - This section establishes the need for and benefits of the Projects in the context of the NPSs and local planning policy. This section of the Planning Statement does not replace **Volume 7, Chapter 2 Need for the Project (application ref: 7.2)**.
- Section 4: Planning Legislation and Policy Context
  - This section outlines the decision-making framework; the planning policy context for the Projects; and other legislation and policy considered by the Applicants to be both important and relevant to the SoS.
- Section 5: Assessment of the Projects Against Planning Policy
  - This section of Planning Statement demonstrates the Projects compliance with all policy requirements, as outlined within the NPSs, MPPs and any other planning policy documents which the Applicants consider will be both important and relevant to the SoS.
- Section 6: Planning Balance and Overall Conclusion
  - This section summarises the assessment of the Projects against planning policy and concludes that the Projects are supported by all planning policy requirements at the date of submission.

2 Projects Location and Description

2.1 Introduction

28. This section sets out a summary of the Projects to provide context.

2.2 Site Description

2.2.1 Offshore

29. The Projects are located in the Dogger Bank region of the southern North Sea (see **Volume 7, Figure 5-1 (application ref: 7.5.1)**). The Offshore Development Area includes the Projects' Array Areas as defined by The Crown Estate Agreements for Lease (AfL) areas plus a 1km temporary construction area buffer and the Offshore Export Cable Corridor with a 500m temporary construction area on both sides of the Offshore Export Cable Corridor (see **Volume 7, Figure 5-3 (application ref: 7.5.1)**).

30. The water depths within the Array Areas, at the time of site-specific surveys, ranged from 14.24m to 41.8m below the lowest astronomical tide (LAT). The seabed profile across the Array Areas indicates a rise from north-west to south-east up the western flank of Dogger Bank which then becomes broadly flat across the top of the bank before falling again on the southern flank (see Plate 5-1 of **Volume 7, Chapter 5 Project Description (application ref: 7.5)**).

31. The seabed along the Offshore Export Cable Corridor gently slopes from the proposed landfall location, where water depths are shallowest, to a maximum depth of 67.69m below the LAT which occurs 8km offshore. Water depths then shallow again to a minimum depth of 15m LAT as the Offshore Export Cable Corridor approaches the Array Areas (see Plate 5-2 of **Volume 7, Chapter 5 Project Description (application ref: 7.5)**).

32. The geology of the Array Areas is expected to comprise a sequence of Pleistocene sands and clays which have since been overlain by Holocene marine sands. The depth of these sands and clays is typically, and approximately, 100m with bedrock being underlain.

33. With regard to designations, the Array Areas of both Projects lie within the boundaries of the Dogger Bank Special Area of Conservation (SAC) and Southern North Sea SAC. The Offshore Export Cable Corridor also passes through the Dogger Bank SAC and Southern North Sea SAC.

34. The Offshore Export Cable Corridor routes within the Greater Wash Special Protection Area (SPA), approximately 700m north-west of the Holderness Offshore Marine Conservation Zone (MCZ) and 3km south-east of the Flamborough Head SAC as it approaches the coast. Whilst the temporary construction area of the Offshore Export Cable Corridor overlaps with the Holderness Inshore MCZ, the permanent cable corridor is located approximately 100m north of the MCZ.

2.2.2 Onshore

35. The Onshore Development Area has been subject to an iterative site selection process which has sought to avoid settlements and sensitive habitats whilst also taking into account other technical and environmental constraints. For further information on the Site Selection process, see **Volume 7, Chapter 4 Site Selection and Assessment of Alternatives (application ref: 7.4)**. By way of result, the Landfall Zone, Onshore Export Cable Corridor and the Onshore Substation Zone have been located across predominantly agricultural areas.

36. The Onshore Export Cable Corridor traverses an agricultural landscape which is generally flat in nature and is broken down by the makeup of regularly shaped and large fields. These fields are characteristically bounded by hedgerows and often contain interspersed trees and or irrigation channels.

37. Whilst the site selection process has sought to avoid settlements, there are a number of towns and villages in proximity to the Onshore Export Cable Corridor including Skipsea, Sigglesthorne, Catwick, Long Riston, Routh, Tickton, Walkington and Beverley (**Volume 7, Figure 5-3 (application ref: 7.5.1)**).

38. The Onshore Converter Stations would be located in proximity to the onshore grid connection points at the proposed Birkhill Wood National Grid Substation which lies approximately 2.5km south-east of the Onshore Substation Zone. The Onshore Converter Stations contain specialist electrical equipment to convert the power from high-voltage direct current (HVDC) to high-voltage alternating current (HVAC) for export along the Onward Cable Corridor to the proposed Birkhill Wood National Grid Substation so that the power generated by the Projects is compatible for export to Grid.

39. From the Onshore Substation Zone, the onward 400 kilovolts (kV) cable route to the proposed Birkhill Wood National Grid Substation crosses Beverley Road (A164) before splitting into a northern and southern cable route (as shown on **Volume 7, Figure 5-3 (application ref: 7.5.1)**). These cable routes would converge again at the proposed Birkhill Wood National Grid Substation.

2.3 Commitments Register

40. The Projects have adopted commitments (which are inclusive of, but not limited to: primary design principles inherent as part of the Projects, installation techniques, management plans and frameworks). These are outlined in **Volume 8, Commitments Register (application ref: 8.6)**.

2.4 Project Description

41. The key elements of the Projects have been captured within **Table 2-1**. A summary piece is provided below **Table 2-1** which outlines the interrelationships between the key elements of the Projects. For further information on the description of the Projects, see **Volume 7, Chapter 5 Project Description (application ref: 7.5)**.

Table 2-1 Key Elements of the Projects

Element Location	Element
Offshore	• Wind turbines and their associated foundations; • Platforms and their associated foundations; • Scour protection around foundations; and • Sub-sea cables comprising of: export cables; inter-platform cables; Array cables; external cable protection on sub-sea cables (as required); and Fibre optic communications cables.
Landfall	• Ducts for electrical cabling and fibre optic communications which would be installed using a trenchless technique such as Horizontal Directional Drill (HDD); and • Installation of Transition Joint Bays (TJBs) to facilitate the transfer of electricity from the Offshore Export Cables onto the Onshore Export Cables.
Onshore	• Ducts for electrical cabling along the Onshore Export Cable Corridor (using trenchless techniques, such as HDD, where required);

Element Location	Element
	• Onshore cables either installed within ducts or in direct lay; • Jointing Bays and link boxes; • Temporary Construction Compounds and vehicular accesses; • A combination of temporary and permanent bridges and culverts; • Onshore Converter Stations and onward cabling connections to the proposed Birkhill Wood National Grid Substation; and • Permanent operational Onshore Converter Stations and cable route accesses.

42. Depending on the Development Scenario, the DBS West and DBS East Array Areas could be connected to one another via Inter-Platform Cables, with a maximum of six electrical platforms combined between the Projects. The Offshore Export Cable Corridor enables the connection of the Array Areas to the landfall near Skipsea. The Offshore Export Cables would consist of up to four electrical cables and two fibre-optic communications cables within the Offshore Export Cable Corridor which runs from landfall to a distance of approximately 80km from shore where, at which point, the cable corridors serving each Project would diverge into two branches serving the individual Projects. Resultingly, two electrical cables and one fibre optic cable would be located within each branch.

43. The Onshore Export Cable Corridor would link the Landfall Zone with the newly constructed Onshore Converter Stations before onward onshore cable routeing to the proposed Birkhill Wood National Grid Substation.

44. An overview schematic of the key onshore and offshore Projects elements is provided in **Plate 2-1**.

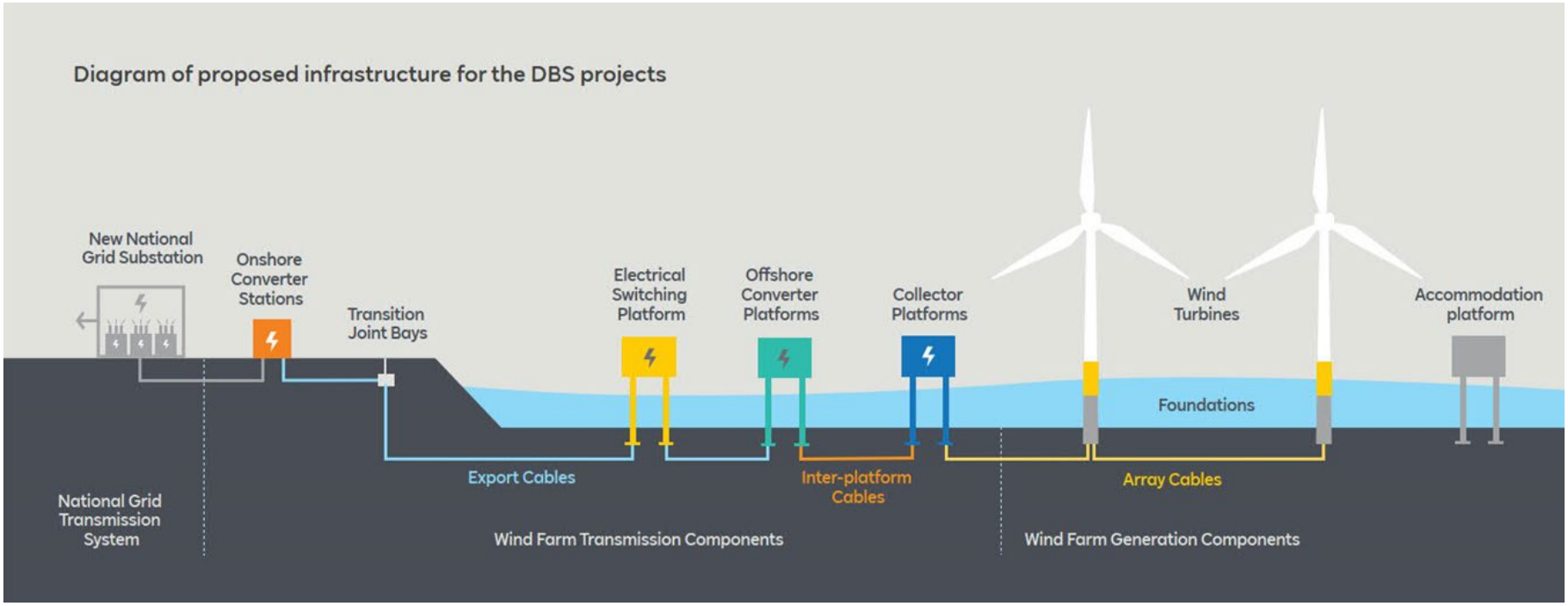

Plate 2-1 Projects Overview Schematic (N.B. not to scale)

2.5 Construction Programme

2.5.1 Development Scenarios

45. Whilst DBS East and DBS West are two separate Projects, they are the subject of a single DCO Application (with a combined EIA process and associated submissions). The assessments cover three potential Development Scenarios. These are the possibility that either DBS East or DBS West are developed 'In Isolation', as well as both DBS East and DBS West being developed, either 'Concurrently' or 'Sequentially'. Whilst less likely to be taken forward, an 'In Isolation' Scenario is included within the assessments (and mitigation proposed where appropriate) as these forms the worst-case scenario if only one Project were to be developed.

46. Details of the construction programme are indicative at this stage in order to provide a reasonable and realistic basis for undertaking the environmental assessments.

2.5.2 Offshore Construction

47. The maximum construction period for the completion of both Projects is seven years under the assumption that the Projects are built Sequentially. The construction programme is dependent on numerous factors including consent timeframes and funding mechanisms.

2.5.3 Onshore Construction

48. Pre-construction works would be required to take place after the grant of consent, notably within the Onshore Substation Zone and across the highway network, to facilitate the onshore construction work. Whilst the final construction programme will not be confirmed until the detailed design stage, the maximum construction period for the Onshore works is six years under the assumption that the Projects are built Sequentially.

2.6 Reinstatement

49. All land / habitats within the Onshore Development Area, following the completion of construction works, would be subject to temporary losses.

50. In each Development Scenario, the Projects are committed to reinstatement between the Jointing Bays within two years of the start of construction.

51. The Haul Road, Temporary Construction Compounds and TJB Temporary Construction Compound at the Landfall Zone and the Jointing Bays along the Onshore Export Cable Corridor would be reinstated within six years after the initial loss, for a Sequential scenario, and four years for an In Isolation or Concurrent scenario.

3 The Need for and Benefits of the Projects

3.1 Need

52. The NPSs, which came into force in January 2024, establish the policy need for new renewable energy generation. The key drivers underpinning the need for renewable energy within the UK, and why the Government believes there is an urgent need for new electricity NSIPs, are discussed throughout this section.

53. At a high level, the Projects would make a significant contribution in meeting UK policy commitments and legal decarbonisation targets for renewable energy and the wider policy objectives for future UK decarbonisation and energy security.

54. As discussed in **Volume 7, Chapter 2 Need for the Project (application ref: 7.2)**, the Projects would contribute towards:

- Achieving Net Zero by 2050 and reducing emissions;
- Increasing the security of energy supply;
- Lowering the cost and increasing the affordability of generated electricity; and
- Contributing to sustainable development and economic opportunities.

55. In line with the UK's legal decarbonisation targets for renewable energy, paragraph 3.3.58 of Overarching NPS for Energy EN-1 recognises the *"urgent need for new (and particularly low carbon) electricity NSIPs to be brought forward as soon as possible, given the crucial role of electricity as the UK decarbonises its economy"*.

56. Section 4.2 of NPS EN-1 makes clear that the *"Government has committed to fully decarbonising the power system by 2035, subject to security of supply, to underpin its 2050 net zero ambitions"*. In order to fully decarbonise the power system within such timeframes, the Government has concluded, through paragraph 4.2.4 of NPS EN-1, that *"there is a critical national priority (CNP) for the provision of nationally significant low carbon infrastructure"*.

57. Paragraph 3.3.63 of NPS EN-1 emphasises the importance of low carbon CNP NSIPs in that, *"subject to any legal requirements, the urgent need for CNP Infrastructure to achieving our energy objectives, together with the national security, economic, commercial, and net zero benefits, will in general outweigh any other residual impacts not capable of being addressed by application of the mitigation hierarchy. Government strongly supports the delivery of CNP Infrastructure, and it should be progressed as quickly as possible."*

58. The Projects constitute low carbon infrastructure as they make provision for offshore electricity generation that does not involve fossil fuel combustion. Resultingly, the Projects are recognised as a CNP infrastructure.

59. Alongside the recognised need to deploy nationally significant low carbon CNP infrastructure, NPS EN-1 also recognises that the UK's energy security and Net Zero ambitions will "*only*" be delivered if we can enable the development of new low carbon sources of energy at *"speed and scale"*.

60. Given the established need to deploy CNP infrastructure at such speed and scale, the starting point for assessing applications, such as the one made for these Projects, is to place substantial weight on the need for the development when assessing the Applications. Furthering this weighting and the overall significance of the needs case is the fact that section 3.1 of NPS EN-1 recognises that it will not be possible to develop the necessary amounts of new large-scale energy infrastructure without some significant residual adverse impacts, following the application of the mitigation hierarchy.

61. In being specific to the critical deployment needs of offshore wind developments, paragraph 5.5.4 of the Overarching NPS for Energy EN-1 explicitly recognises wind farms as being *"an integral part of our (The Government's) plan to achieve Net Zero, as well as delivering affordable clean energy to consumers"*. The paragraph goes on to state that:

    "The Government has an ambition to deliver up to 50GW of offshore wind by 2030 and the Committee on Climate Change's 6th Carbon Budget (CB6) views offshore wind as the backbone of electricity generation across all its scenarios".

62. The National Policy Statement for Renewable Energy Infrastructure (EN-3) reaffirms that it is the Governments expectation that offshore wind will play a *"significant role"* in meeting energy demand and providing for the decarbonisation of the energy system (paragraph 2.8.1).

63. At a local level, the East Riding of Yorkshire Council published its Climate Change Strategy in 2022 (East Riding of Yorkshire Council, 2022). The Strategy identifies the Humber region as *"a flagship region for wind power"* which *"will be key to achieving the Government's offshore wind power targets"*.

64. The East Riding of Yorkshire Local Plan 2012- 2029 Strategy Document (Adopted April 2016) expresses, through its executive summary, that *"we …* (East Riding of Yorkshire) *have fantastic businesses and workers, and a once-in-a-lifetime opportunity to transform the local economy into a leading centre for renewable energy"*.

65. Policy EC1 of the Strategy Document seeks to *"strengthen and encourage growth of the East Riding economy"* by developing key employment sectors which includes renewable energy.

66. For a more detailed assessment of the need case for the Projects, see **Volume 7, Chapter 2 Need for the Project (application ref: 7.2)**.

3.2 Benefits

67. In addition to making a significant contribution to meeting policy commitments and legal decarbonisation targets for securing renewable energy, the Projects will deliver other benefits. These benefits arise from the construction, operation and maintenance, and decommissioning of the Projects.

68. As outlined in **Volume 7, Chapter 28 Socio-Economics (application ref: 7.28)** of the ES, the development and construction of the Projects (in an In Isolation scenario) is estimated to support 1,190 jobs across the UK, including 760 jobs supported across the Humber Region. In a Concurrent scenario, it is estimated that the Projects would support 2,380 jobs across the UK, including 1,520 jobs supported across the Humber Region.

69. At the same time, the decommissioning of the Projects is anticipated to generate a similar number of jobs across both the UK and the Humber Region, across all Development Scenarios, as is anticipated during the development and construction phases of the Projects.

70. During the operational and maintenance phase, it is estimated that the Projects (in an In Isolation scenario) would support 580 jobs across the UK, including 400 in the Humber Region. In a Concurrent and Sequential scenario, it is estimated that the Projects would support 1,120 jobs across the UK, including 810 jobs supported across the Humber Region. This is under the assumption that all direct operations and maintenance employment would be directly employed by the Projects and based in the UK for the lifetime of the Projects.

71. Further to the creation of jobs, the Projects would result in significant expenditure in manufacturing, services, materials and equipment, as outlined in **Volume 7, Chapter 28 Socio-Economics (application ref: 7.28)**. If the Projects are built together, be it Sequentially or Concurrently, the Projects have an estimated overall construction cost of £7 billion (in current pricing).

72. The anticipated annual expenditure during the operation and maintenance of the Projects (in an In Isolation scenario) amounts to £88 million per annum £488 million Gross Value Added in the UK, including £200 million Gross Value Added in the Humber Region, is anticipated during the development and construction of the Projects (in an In Isolation Scenario).

73. In a Sequential or Concurrent scenario, the anticipated annual expenditure during the operation and maintenance of the Projects amounts to £177 million per annum. Both Development Scenarios would result in almost £1 billion of Gross Value Added to the UK, including £400 million Gross Value Added in the Humber Region during the development and construction of the Projects.

74. A detailed Skills and Employment Strategy will be prepared prior to the commencement of pre-construction activities and is secured by draft DCO Requirement 26. This Strategy will set out measures that the Projects will implement to advertise and promote employment and training opportunities associated with the construction and operation and maintenance of the Projects locally. **Volume 8, Outline Skills and Employment Strategy (application ref: 8.5)** provides an outline version of this strategy commitment following engagement with key local stakeholders.

75. The Greenhouse Gas assessment, as contained within **Volume 7, Chapter 30 Climate Change (application ref: 7.30)**, estimates that the Projects would avoid 91.8 million and 183.4 million tonnes of CO_2 emissions for the In Isolation and Sequential Scenarios respectively, resulting in significant beneficial effects across the Projects' whole life cycle and all Development Scenarios.

4 Planning Legislation and Policy Context

4.1 Introduction

76. This section outlines the legislative framework and the national, marine, and local planning policy context against which the Projects will be assessed and determined. A detailed policy and legislative context review is included as part of the DCO Application and can be found in **Volume 7, Chapter 3 Policy and Legislative Context (application ref: 7.3)**.

77. In developing the Projects and preparing the DCO application, the Applicants have reviewed and had regard to the following:

- International Obligations and National Climate Change legislation for energy;
- The NPSs relating to energy;
- The Infrastructure Planning (Decisions) Regulations 2010; and
- Other matters that the Applicants deem to be both important and relevant to the SoS's decision.

4.2 International Obligations on Climate Change and National Climate Change and Energy Legislation

78. **Volume 7, Chapter 3 Policy and Legislative Context (application ref: 7.3)** references international and national climate change legislation, and whilst this wider legislative context is not reproduced in full in this Planning Statement, key legislation is described below, and briefly outlined in **Table 4-1**.

79. The Conference of Parties (COP) is the supreme decision-making body of the United Nations Convention on Climate Change. COP reviews the implementation of the Convention and any other legal instruments that the COP adopts. COP also takes decisions necessary to promote the effective implementation of the Convention, including institutional and administrative arrangements. From November to December 2023, the 28th COP (COP28) was held in the United Arab Emirates to pursue efforts to limit global temperature increases.

80. For the first time, countries agreed on the need to *"transition away from fossil fuels in energy systems"*. The 'First global stocktake' (United Nations, December 2023) text calls for this to be done *"in a just, orderly and equitable manner"*. This is seen as an important recognition that richer countries, such as the UK, are expected to move away from coal, oil and gas more quickly. The text also calls for a global tripling of renewable energy capacity, which is likely to be predominantly made up of wind and solar, by 2030.

81. **Table 4-1** summarises some of the relevant and most recent policies and legislation that relate to the mitigation of climate change and the development of renewable energy, specifically discussing offshore wind developments such as the Projects.

Table 4-1 Summary of Relevant Policy and Legislation Relating to the Mitigation of Climate Change and the Development of Renewable Energy

Policy and Legislation	Summary of Requirements
United Nations Framework Convention on Climate Change (Paris climate agreement)	The United Nations Framework Convention on Climate Change (UNFCCC) met in Paris 2015 and set out an international agreement by all parties to limit global temperature increase to below 2°C, while pursuing efforts to limit the increase to 1.5°C.
The Climate Change Act 2008	The Climate Change Act 2008 (UK Government, 2008b) commits the UK to a net reduction in greenhouse gas emissions against the 1990 baseline by 2050, including a 34% reduction by 2022 and an 80% reduction by 2050. Following amendments made by the Climate Change Act 2008 (2050 Target Amendment) Order 2019, the 2008 Act commits the UK to a net reduction of at least 100% in GHG emissions against 1990 baseline by 2050.
The Energy Act 2013	The Energy Act 2013 makes provisions to incentivise investment in low carbon electricity generation, ensure security of supply, and help the UK meet its emissions reduction and renewables targets; it included the framework for Contracts for Difference (CfD) as well as introducing requirements to enable a statutory 2030 decarbonisation target range for the UKs electricity sector.

Policy and Legislation	Summary of Requirements
Clean Growth Strategy 2017	The Clean Growth Strategy (2017) promoted 'clean growth' as growing national income while cutting greenhouse gas emissions. It aimed to promote further growth of offshore wind by holding auctions of CfDs, working with the industry to develop a Sector Deal for offshore wind, and to provide further funding for innovation in offshore wind.
Second National Infrastructure Assessment 2023	The second National Infrastructure Assessment by the National Infrastructure Commission (NIC, 2023) stated that *"over the next 30 years the country will need a larger electricity system running mostly from renewable power sources like wind and solar".*
Net Zero Strategy: Build Back Greener 2021 (Presented to Parliament pursuant to section 14 of the Climate Change Act 2008)	The Net Zero Strategy is a long-term plan for a transition that will take place over the next three decades and sets out key targets and delivery pathway of reaching net zero emissions by 2050 and 40 GW of offshore wind by 2030.
Energy White Paper: Powering our Net Zero Future	The Energy White Paper sets out the Government's target of having 40GW of offshore wind operational by 2030, as part of the plan for the green industrial revolution. The 2020 white paper puts net zero and the effort to fight climate change at its core.
Sixth Carbon Budget	Published in 2020, the UK Committee on Climate Change (CCC) recommended that offshore wind should become the backbone of the whole UK energy system, growing from 40 GW of capacity in 2030 to 100 GW or more by 2050. The Seventh Carbon Budget is anticipated in early 2025.
British Energy Security Strategy	UK Government created the British Energy Security Strategy in 2022, where investing in offshore wind generation has been listed as one of the UK Government's '10 Point Plan', contributing to a carbon net zero by 2050.
Powering up Britain	Plans published in March 2023 setting out how the UK government will enhance Britain's energy security and deliver net zero commitments. Offshore wind is identified as a key aspect of the energy transition proposals set out in the strategy. The plans include a goal to develop up to 50GW of offshore wind by 2030.

4.3 Legislative Requirement for Development Consent

4.3.1 Planning Act 2008

82. It has been established, through section 1.4 of this Statement, that:

- The Projects are defined as NSIPs under the PA 2008;
- The Projects require an application to be made for development consent; and
- The Projects are to be determined in accordance with the relevant NPSs under section 104 of the PA 2008.

83. In addition to the above, under section 104 (2) of the PA 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 (MCAA 2009);
- any local impact report submitted;
- any matters prescribed in relation to development of the description to which the application relates; and
- any other matters which the SoS thinks are both important and relevant to the SoS's decision.

84. Section 104 (3) of PA 2008 notes that the SoS must decide the Application in accordance with any relevant National Policy Statement(s), except to the extent that one or more of subsections (4) to (8) of section 104 apply.

85. Subsections (4) to (8) of section 104 have been summarised as follows:

- (4) Where it would lead to the UK being in breach of any of its international obligations;
- (5) Would lead to the Secretary of State being in breach of any duty imposed by or under any enactment;
- (6) Would be unlawful;
- (7) The adverse impact of the proposed development would outweigh its benefits; or
- (8) Be contrary to regulations about how its decisions are to be taken.

86. In light of the Projects being determined in accordance with section 104 of the PA 2008, the Applicants consider that the following NPSs are relevant:

- Overarching National Policy Statement for Energy (EN-1) ((DESNZ), 2023a);

- National Policy Statement for Renewable Energy Infrastructure (EN-3) ((DESNZ), 2023b); and
- National Policy Statement for Electricity Networks Infrastructure (EN-5) ((DESNZ), 2023c).

87. In addition, the Applicants consider that the following marine policy documents and planning policy documents are both important and relevant to the SoS's decision and must therefore be regarded:

- The UK Marine Policy Statement (MPS) (HM Government, 2011);
- East Inshore and East Offshore Marine Plans (Defra, 2014);
- North East Inshore and Offshore Marine Plan (Defra, 2021);
- National Planning Policy Framework (DLUHC, 2023);
- The East Riding of Yorkshire Local Plan 2012- 2029 Strategy Document (Adopted April 2016) (East Riding of Yorkshire Council, 2016); and
- The East Riding Local Plan Update 2020 - 2039 Strategy Document (Proposed Submission Strategy Document Update – October 2022) (East Riding of Yorkshire Council, 2023).

88. Finally, the Applicants consider that the legislation as summarised in **Table 4-1** is both important and relevant to the SoS's decision and must also therefore be regarded.

4.4 Policy and Guidance

4.4.1 National Policy Statements

89. NPSs are produced by the UK Government and the Energy NPSs set out the Government's policy for the delivery of energy infrastructure and provide the legal framework for planning decisions for major infrastructure projects. As such, the Projects will be assessed and decided on by the ExA and SoS in the context of the policy set out within the NPSs.

90. The first suite of Energy NPSs were published in 2011 and had been in force for approximately 13 years. As is established through the PA 2008, the Government is responsible for undertaking a review of the NPS every five years. Revisions to the 2011 Energy NPSs were also required in response to the Energy White Paper published in December 2020 which confirmed the Government's intention to revise the NPSs to ensure they reflect the policies and broader strategic objectives of the White Paper and to ensure that policy supports the UK's energy security and Net Zero ambitions. Having been in force until only recently, the original 2011 Energy NPSs were revised for a first time and updated NPSs EN-1 to EN-5 were designated in January 2024 to replace their 2011 versions.

91. The urgent need for the deployment of renewable energy generation, as established by the NPSs, has been further underlined by the UK Government's policy commitments set out below. **Table 4-2** summarises the key requirements of NPS EN-1, EN-3 and EN-5.

Table 4-2 Relevant National Policy Statements to the Projects

National Policy Statement	Summary of Requirements
Overarching National Policy Statement for Energy (EN-1) DESNZ (2023a)	NPS EN-1 sets out the national policy for the delivery of energy infrastructure, including offshore renewable electricity generation. Part 3 of NPS EN-1 explains why the UK Government sees a need for significant amounts of new large scale energy infrastructure to meet its energy objectives and why the UK Government considers that the need for such infrastructure is urgent (paragraph 3.1.1). The Secretary of State is directed to assess all applications for development consent for the types of infrastructure covered by this NPS on the basis that the Government has demonstrated that there is a need for those types of infrastructure which is urgent. In addition, substantial weight should be given to this need when considering applications for development consent under the Planning Act 2008. Furthermore, the Secretary of State is not required to consider separately the specific contribution of any individual project to satisfying the need established in this NPS (paragraphs 3.2.6 - 3.2.8).
	With regards the role of offshore wind, the NPS notes that a secure, reliable, affordable, net zero consistent system in 2050 is likely to be composed predominantly of wind and solar (paragraph 3.3.20) with an ambition to deliver up to 50GW of offshore wind by 2030 (paragraph 3.3.21).

National Policy Statement	Summary of Requirements
	In decision making the Secretary of State is directed consider the impacts and benefits of all CNP Infrastructure applications on a case-by-case basis. Where residual non-HRA or non-MCZ impacts remain after the mitigation hierarchy has been applied, these residual impacts are unlikely to outweigh the urgent need for this type of infrastructure. The exception to this presumption of consent are residual impacts onshore and offshore which present an unacceptable risk to, or unacceptable interference with, human health and public safety, defence, irreplaceable habitats or unacceptable risk to the achievement of net zero (paragraphs 4.2.15 - 4.2.17).
National Policy Statement for Renewable Energy Infrastructure (EN-3) ((DESNZ), 2023b)	NPS EN-3, taken together with the Overarching NPS EN-1, provides the primary policy for decisions by the Secretary of State on applications they receive for nationally significant renewable energy infrastructure (paragraph 1.1.5). NPS EN-3 makes clear reference to the target of 50GW of new offshore wind capacity by 2030 (paragraph 2.8.1). Given the ambitions to deliver up to 50GW of offshore wind by 2030, there is a need to speed up and reduce delays in the consenting process (paragraph 2.8.7).
National Policy Statement for Electricity Networks Infrastructure (EN-5) ((DESNZ), 2023c)	NPS EN-5 taken together with the Overarching NPS EN-1, provides the primary policy for decisions taken by the Secretary of State on applications it receives for electricity networks infrastructure (paragraph 1.1.9). However, EN-5 mostly relates to the provision of overhead lines and as such, is of limited relevance as the Projects do not propose the construction and or operation of overhead lines. The above notwithstanding, this NPS will apply to other kinds of electricity infrastructure including offshore transmission of any type (defined at paragraph 2.12.4), underground cables at any voltage, associated infrastructure as referred to above and lower voltage overhead lines, where that infrastructure becomes subject to the PA 2008 Act in the following circumstances: • If it constitutes associated development for which consent is sought along with an NSIP such as an offshore wind generating station or relevant overhead line; or

National Policy Statement	Summary of Requirements
	• If the Secretary of State gives a direction under section 35 of the PA 2008 Act (for developments which, when completed, will be wholly in one or more of the areas specified in subsection 35(3)) that it should be treated as an NSIP and requires a development consent order (DCO) (paragraph 1.6.4). In considering factors which influence site selection and design, EN-5 advises that the Secretary of State should bear in mind that the initiating and terminating points – or development zone – of new electricity networks infrastructure is not substantially within the control of the applicant, with siting being determined by the location of new generating stations or other infrastructure requiring connection to the network, and/ or system capacity and resilience requirements determined by the Electricity System Operator. These twin constraints, coupled with the Government's legislative commitment to net zero by 2050, strategic commitment to new interconnectors with neighbouring North Sea countries and an ambition of up to 50GW of offshore wind generation by 2030, means that very significant amounts of new electricity networks infrastructure are required, including in areas with comparatively little build-out to date (paragraphs 2.2.1 - 2.2.3).

92. Whilst NPSs are the primary policy framework for the assessment and determination of NSIPs (together with marine policy documents in this instance, as have been considered below), other planning policy may be both important and relevant where it does not conflict with the NPSs. The extent to which other planning policy documents (being the National Planning Policy Framework (December 2023) and local adopted and emerging planning policy) are both important and relevant to decision making has been considered below the review of the marine policy documents.

4.4.2 UK Marine Policy

93. The MCAA 2009 provides the framework for a marine licensing system, which is administered by the Marine Management Organisation (MMO) for activities in English waters, a statutory consultee within the DCO application process. The relevant marine activities that require a licence include the construction and maritime works located in the sea or on the seabed, as well as the deposition of any substance or object in the sea or on/ under the seabed (such as the disposal of dredged material), as well as the operational maintenance activities associated with the Projects. Deemed marine licences for the Projects pursuant to the provisions of the MCAA 2009 are included within the **Volume 3, Draft Development Consent Order (application ref: 3.1)** through provisions in section 149A of PA 2008.

94. The MCAA 2009 also created a strategic marine planning system that seeks to promote the efficient, sustainable use and protection of the marine environment, guided by the Marine Policy Statement (MPS) and a series of Marine Plans. The relevant Marine Plans for the Projects include the East Inshore and East Offshore Marine Plans and the North East Inshore and Offshore Marine Plan.

95. The MCAA 2009 also enabled the designation of Marine Conservation Zones (MCZs) and Highly Protected Marine Areas (HPMAs). MCZs and HPMAs are types of Marine Protected Areas (MPAs) in England, Wales and UK offshore waters, which seek to protect a range of nationally important marine wildlife, habitats, geology and geomorphology. A MCZ assessment has been undertaken as part of the Application (see **Volume 8, Stage 1 Marine Conservation Zone Assessment (application ref: 8.17)**).

96. Marine Plans translate the MPS framework into detailed policy and guidance for particular areas, intended to inform and guide decisions on marine and costal development by conserving and enhancing the environment, manage competing demands on the marine area, reducing costs and increasing certainty for developers whilst also boosting economic and employment benefits.

97. The MPS provides the policy framework for the preparation of marine plans, and the basis for decisions affecting the marine areas. The MCAA requires that all public authorities taking decisions regarding the marine area should do so in accordance with the MPS, unless relevant considerations indicate otherwise. Once adopted, marine plans carry the same weight.

98. The MPS sets out (at paragraph 3.3.4) that when decision-makers are examining and determining applications for energy infrastructure (and marine plan authorities are developing Marine Plans) they should take into account, inter alia:

- The national level of need for energy infrastructure, as set out in the Overarching NPS for Energy (EN-1), which applies in England;
- The positive wider environmental, societal and economic benefits of low carbon electricity generation and carbon capture and storage as key technologies for reducing carbon dioxide emissions;
- That renewable energy resources can only be developed where the resource exists and where economically feasible; and
- The potential impact of inward investment in offshore wind, wave, tidal stream and tidal range energy related manufacturing and deployment activity; as well as the impact of associated employment opportunities on the regeneration of local and national economies. All of these activities support the objective of developing the UK's low carbon manufacturing capability.

99. The MPS accepts that renewable energy infrastructure can potentially have adverse effects on fish, mammals, and birds but at the same time recognises through paragraph 3.3.19 that *"the UK has some of the best wind resources in the world and offshore wind will play an important and growing part in meeting our renewable energy and carbon emission targets and improving energy security by 2020, and afterwards towards 2050"* and that offshore wind *"has the potential to have the biggest impact in the medium-term on security of energy supply and carbon emission reductions through its commercial scale output"*.

100. The Projects are in line with the vision and objectives of the MPS by virtue of their substantial contribution to renewable energy targets, thereby helping in the development of a low carbon economy and sustainable economic development. As demonstrated by the assessment contained in the ES, the potential likely significant effects of the Projects have been or will be avoided or reduced as far as possible whilst the benefits of the marine area will be retained, in line with the requirements of the MPS.

101. The relevant marine plan policies have therefore been taken into account when preparing the Application and are discussed within each offshore ES chapter where relevant. **Volume 8, Policy Compliance Assessment Tables (application ref: 8.2)** have, through Table 1-4 and Table 1-5, considered the East Inshore and Offshore Marine Plan and the North East Inshore and Offshore Marine Plan respectively.

4.4.3 National Planning Policy Framework

102. The NPPF was originally published in 2012, with the most recent update made in December 2023. The NPPF sets out the UK Government's planning policies for England and how these are expected to be applied.

103. The NPPF does not contain specific policies for NSIPs (for which particular considerations apply, and which are determined in accordance with the decision making framework set out in the PA 2008 and relevant NPSs) but may be considered as a relevant consideration.

104. The NPPF provides principles that cover protection and conservation of the natural and built environment and promotes sustainable growth and development. **Table 4-3** summarises the key principles and considerations of the NPPF in relation to the Projects.

Table 4-3 Summary of National Planning Policy Framework Considerations

Principle	Summary of NPPF Considerations
Achieving Sustainable Development	The purpose of the planning system is to contribute to the achievement of sustainable development, which should be achieved by three overarching objectives: a) **an economic objective** – to help build a strong, responsive and competitive economy, by ensuring that sufficient land of the right types is available in the right places and at the right time to support growth, innovation and improved productivity; and by identifying and coordinating the provision of infrastructure; b) **a social objective** – to support strong, vibrant and healthy communities, by ensuring that a sufficient number and range of homes can be provided to meet the needs of present and future generations; and by fostering well-designed, beautiful and safe places, with accessible services and open spaces that reflect current and future needs and support communities' health, social and cultural well-being; and c) **an environmental objective** – to protect and enhance our natural, built and historic environment; including making effective use of land, improving biodiversity, using natural resources prudently, minimising waste and pollution, and mitigating and adapting to climate change, including moving to a low carbon economy (paragraphs 7 - 9).
Meeting the Challenge of	The planning system should support the transition to a low carbon future in a changing climate, taking full account of flood risk and

Principle	Summary of NPPF Considerations
Climate Change, Flooding and Coastal Change	coastal change. It should help to shape places in ways that contribute to radical reductions in greenhouse gas emissions, minimise vulnerability and improve resilience; encourage the reuse of existing resources; and support renewable and low carbon energy and associated infrastructure. Additionally, development should be directed away from areas of highest flood risk (present or future) (paragraph 157). New development should be planned for in ways that: a) avoid increased vulnerability to the range of impacts arising from climate change. When new development is brought forward in areas which are vulnerable, care should be taken to ensure that risks can be managed through suitable adaptation measures, including through the planning of green infrastructure; and b) can help to reduce greenhouse gas emissions, such as through its location, orientation and design. Any local requirements for the sustainability of buildings should reflect the Government's policy for national technical standards (paragraph 159). To help increase the use and supply of renewable and low carbon energy and heat, plans should: • provide a positive strategy for energy from these sources, that maximises the potential for suitable development, and their future re-powering and life extension, while ensuring that adverse impacts are addressed appropriately (including cumulative landscape and visual impacts); • consider identifying suitable areas for renewable and low carbon energy sources, and supporting infrastructure, where this would help secure their development; and • identify opportunities for development to draw its energy supply from decentralised, renewable or low carbon energy supply systems and for co-locating potential heat customers and suppliers (paragraph 160).
Making Effective Use of Land	Planning policies and decisions should promote an effective use of land in meeting the need for homes and other uses, while safeguarding and improving the environment and ensuring safe and healthy living conditions (paragraph 123).
Achieving well-designed places	The creation of high quality, beautiful and sustainable buildings and places is fundamental to what the planning and development

Principle	Summary of NPPF Considerations
	process should achieve. Good design is a key aspect of sustainable development, creates better places in which to live and work and helps make development acceptable to communities. Being clear about design expectations, and how these will be tested, is essential for achieving this. So too is effective engagement between applicants, communities, local planning authorities and other interests throughout the process (paragraph 131).
Conserving and Enhancing the Natural Environment	Planning policies and decisions should contribute to and enhance the natural and local environment by: a) protecting and enhancing valued landscapes, sites of biodiversity or geological value and soils (in a manner commensurate with their statutory status or identified quality in the development plan); b) recognising the intrinsic character and beauty of the countryside, and the wider benefits from natural capital and ecosystem services – including the economic and other benefits of the best and most versatile (BMV) agricultural land, and of trees and woodland; c) maintaining the character of the undeveloped coast, while improving public access to it where appropriate; d) minimising impacts on and providing net gains for biodiversity, including by establishing coherent ecological networks that are more resilient to current and future pressures; e) preventing new and existing development from contributing to, being put at unacceptable risk from, or being adversely affected by, unacceptable levels of soil, air, water or noise pollution or land instability. Development should, wherever possible, help to improve local environmental conditions such as air and water quality, taking into account relevant information such as river basin management plans; and f) remediating and mitigating despoiled, degraded, derelict, contaminated and unstable land, where appropriate (paragraph 180).
Facilitating the sustainable use of minerals	Local planning authorities should not normally permit other development proposals in Mineral Safeguarding Areas if it might constrain potential future use for mineral working (paragraph 218).

4.4.4 Local Policy

105. Where it is deemed both important and relevant, existing and emerging local planning policy and guidance will carry some weight in the consideration of an application for Development Consent, according to the stage of preparation, the extent to which there are unresolved objections to relevant policies and the degree of consistency of the relevant policies to the NPPF 2023.

106. Local Planning Authorities (LPAs) are required to prepare and maintain an up-to-date Local Development Framework (LDF) and other documents which establish their objectives for the use and development of land within their jurisdiction, and general policies for implementation. Where a conflict might arise between the NPS and local policy, the NPS will supersede local policy.

107. The Projects fall under the jurisdiction of East Riding of Yorkshire Council, being the responsible LPA, in respect of the Onshore Development Area.

108. During the onshore site selection process, a review of the LPAs existing and emerging local planning policy was undertaken to avoid housing land allocations, where possible. This design principle had been included to avoid conflict with site specific planning allocations.

109. The LDF for East Riding of Yorkshire Council comprises of:

- The East Riding Local Plan 2012 – 2029 Strategy Document (Adopted April 2016);
- The East Riding Local Plan 2012 – 2029 Allocations Document (Adopted April 2016);
- The East Riding Local Plan 2012 – 2029 Policies Map (Adopted April 2016);
- The Bridlington Town Centre Area Action Plan 2012 – 2021 (Adopted January 2013); and
- Other documents such as: The East Riding of Yorkshire and Kingston upon Hull Joint Minerals Local Plan 2016 – 2033 (Adopted November 2019).

110. The East Riding Local Plan 2012 – 2029 Strategy Document (Adopted April 2016), The East Riding Local Plan 2012 – 2029 Allocations Document (Adopted April 2016), the East Riding of Yorkshire and Kingston upon Hull Joint Minerals Local Plan 2016 – 2033 (Adopted November 2019), The East Riding Local Plan Update 2020 - 2039 Strategy Document (Proposed Submission Strategy Document Update – October 2022) and the Hull Local Plan 2016 to 2032 (Adopted November 2017) have been considered through this Planning Statement by the Applicants.

4.4.5 The East Riding Local Plan 2012 – 2029 Strategy Document (Adopted April 2016)

111. The adopted Strategy Document consists of two main elements. Element 1 consists of 'The Spatial Strategy' which seeks to promote sustainable development and manage the scale and distribution of new development whilst element 2 establishes the 'Development Policies' which comprise the key local policy considerations for the Projects.

112. Where relevant, the Projects' compliance with the adopted and emerging policies has been considered through section 5 of this Planning Statement. A detailed review of the adopted and emerging Strategy Document has been undertaken and captured within **Volume 8, Policy Compliance Assessment Tables (application ref: 8.2)**.

113. **Table 4-4** below outlines the relevant policies and spatial strategies from the adopted East Riding Local Plan 2012 – 2029 Strategy Document.

Table 4-4 Relevant Policies and spatial strategies from the East Riding Local Plan 2012 – 2029 Strategy Document (Adopted April 2016)

Policy	Relevance to Projects
Spatial Strategy 1	Seeks to promote developments which contribute to reducing emissions which cause climate change and ensure that the local impact of climate change, including rising sea levels, increased rates of costal erosion and more frequent flooding events, are minimised, managed, and adapted to.
Spatial Strategy 2	This Strategy aims to promote sustainable developments which improve opportunities for all, with a particular focus on meeting the needs of disadvantaged communities and supporting regeneration.
Spatial Strategy 3	Seeks to enable residents to achieve a high quality of life, with good access to high quality jobs, whilst also protecting and enhancing East Riding's valued environmental assets.

Policy	Relevance to Projects
Spatial Strategy 4	Requires development proposals to realise opportunities for appropriate rural economic diversification.
Spatial Strategy 11	This Strategy seeks to grow, strengthen, modernise and diversify the local economy through supporting existing and emerging economic sectors and clusters.
Spatial Strategy 14	Seeks to support a wide portfolio of energy infrastructure through maximising the potential of renewable and low carbon energy generation whilst minimising adverse impacts, including any cumulative landscape and visual effects.
Spatial Strategy 15	This Strategy aims to protect East Riding's mineral resources from sterilisation.
Spatial Strategy 16	Seeks to ensure high quality design is achieved which minimises environmental impacts by incorporating biodiversity enhancement.
Spatial Strategy 17	Aims to recognise, protect, and enhance the international, national and local importance of the East Riding's natural environment and biodiversity, including nature designations of all levels, Priority Habitats and Species, high quality landscapes, such as the Yorkshire Wolds.
Spatial Strategy 19	Seeks to recognise, protect, and enhance the international, national and local importance of heritage assets.
S1: Presumption in favour of sustainable development	Seeks to take a positive approach to development, in line with the presumption in favour of sustainable development contained with the NPPF. The Local Planning Authority will work proactively to find solutions which mean that proposals can be approved wherever possible, and to secure development that improves the economic, social and environmental conditions in the East Riding of Yorkshire.
S2: Addressing climate change	The Policy states that the Local Plan and development decisions will support a reduction in greenhouse gas emissions and seek to adapt to the expected impacts of climate change.

Policy	Relevance to Projects
S4: Supporting development in Villages and the Countryside	This Policy recognises the need to support developments which help maintain the vibrancy of the Countryside where it: 1. Is of an appropriate scale to its location taking into account the need to support sustainable patterns of development; 2. Encourages the re-use of previously developed land where appropriate; and 3. Does not involve a significant loss of best and most versatile agricultural land. Land regarded as the Countryside will support employment uses, new and enhanced infrastructure and energy development and associated infrastructure where proposals respect the intrinsic character of the surroundings.
EC1: Supporting the growth and diversification of the East Riding economy	This Policy supports the strengthening and growth of the East Riding economy where proposals are of a suitable scale to their location. Proposals which contribute to the modernisation, diversification and development of the local economy and seek also to develop and strengthen employment sectors (such as the renewable energy sector) will be supported.
EC4: Enhancing sustainable transport	Seeks to ensure that new development is sustainable and acceptable in terms of transport and accessibility and encourages opportunities for access to sustainable modes of transport.
EC5: Supporting the energy sector	Proposals for the development of the energy sector will be supported by this Policy where any significant adverse impacts are addressed satisfactorily, and the residual harm is outweighed by the wider benefits of the proposal.
EC6: Protecting mineral resources	This Policy seeks to ensure development proposals within or adjacent to Mineral Safeguarding Areas would not adversely affect the viability of exploiting the underlying or adjacent deposits in the future.
ENV1: Integrating high quality design	All development proposals will contribute to safeguarding and respecting the diverse character and appearance of the area through design, layout, construction and use; and seek to reduce carbon emissions in making efficient use of natural resources, particularly land, energy and water.

Policy	Relevance to Projects
ENV2: Promoting a high quality landscape	Development proposals should be sensitively integrated into the existing landscape, demonstrate an understanding of the intrinsic qualities of the landscape setting and, where possible, seek to make the most of the opportunities to protect and enhance landscape characteristics and features. Proposals should also seek to protect and enhance the existing landscape character, as described in the East Riding Landscape Character Assessment.
ENV3: Valuing our heritage	The significance, views, setting, character, appearance, and context of heritage assets, both designated and non-designated, should be conserved, especially the key features that contribute to the East Riding's distinctive historic character. Developments that are likely to cause harm to the significance of a heritage asset will only be granted permission where the public benefits of the proposal outweigh the potential harm.
ENV4: Conserving and enhancing biodiversity and geodiversity	The Policy establishes that proposals that are likely to have a significant adverse effect on an International Site will be considered in the context of the statutory protection which is afforded to the site. Where such an effect exists, proposals will not normally be permitted, except where the benefits clearly outweigh the impacts.
ENV6: Managing environmental hazards	This Policy stipulates that environmental hazards such as flood risk, coastal change, groundwater pollution and other forms of pollution will be managed to ensure that development does not result in unacceptable consequences to its users, the wider community, and the environment.

5 Assessment of the Projects Against Planning Policy

5.1 Introduction

115. This section considers how the Projects respond to the policy requirements of the NPSs, the Marine Plans and, where appropriate, other important and relevant planning policy documents. This assessment places greatest emphasis on the applicable NPSs (being NPS EN-1, EN-3 and EN-5) as these constitute the primary policy context for the SoS's decision.

116. This section has been broken down into four sub sections which, in turn, provide an assessment of:

- the general NPS principles and policies;
- the technical offshore only studies;
- the technical onshore only studies; and
- the technical onshore/ offshore studies.

117. The Projects' **Volume 8, Policy Compliance Assessment Tables (application ref: 8.2)** provide a comprehensive assessment which should be read in conjunction with this section.

5.2 General principles of assessment

118. Paragraph 4.1.3 of NPS EN-1 states that *"given the level and urgency of the need for infrastructure projects of the types covered by the energy NPSs (…), the SoS will 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"*.

119. When weighing the adverse impacts against the benefits of energy NSIPs, paragraph 4.1.5 of NPS EN-1 states that the SoS should:

1. *"take into account its potential benefits including its contribution to meeting the need for energy infrastructure, job creation, reduction of geographical disparities, environmental enhancements, and any long-term or wider benefits"; and*
2. take into account *"its potential adverse impacts, including on the environment, and including any long-term and cumulative adverse impacts, as well as any measures to avoid, reduce, mitigate or compensate for any adverse impacts, following the mitigation hierarchy"*.

120. As a follow on to the above, paragraph 4.1.6 of NPS EN-1 brings to the attention of the SoS that environmental, social, and economic benefits and adverse impacts across national, regional and local levels should be taken into account.

121. Paragraph 4.1.12 of NPS EN-1 later confirms that the SoS may consider development plan documents both important and relevant to their decision-making. This notwithstanding, NPS EN-1 confirms that the NPSs constitute the primary policy documents and would take precedence in the event of a conflict between the NPSs and other matters, given the national significance of the infrastructure.

122. Sections 4.4.1 and 4.4.2 of this Statement establish the NPPF and local policy context for the Projects whilst Tables 1-6, 1-7 and 1-8 of **Volume 8, Policy Compliance Assessment Tables (application ref: 8.2)** provide a detailed assessment and appraisal of the relationship between the Projects, the NPPF, and local planning policy.

123. NPS EN-1 states, in paragraph 4.1.17, that the SoS should consider the guidance in the NPPF, the Planning Practice Guidance: Use of Planning conditions and any successor documents, where appropriate. Paragraph 55 of the NPPF makes clear that planning conditions should be kept to a minimum and only used where they satisfy the following six tests, as outlined in Planning Practice Guidance (Reference ID: 21a-003-20190723) (Ministry of Housing, Communities & Local Government, 2019):

- Necessary;
- Relevant to planning;
- Relevant to the development to be permitted;
- Enforceable;
- Precise; and
- Reasonable in all other respects.

124. Paragraph 4.1.19 of NPS EN-1 emphasises the importance of early engagement with stakeholders of the Projects. This process of early engagement with both public regulators, statutory bodies and those persons likely to have an interest in the Application, is detailed within **Volume 5, Consultation Report (application ref: 5.1)** and is also outlined through section 1.5 of this Statement.

125. In terms of the financial and technical feasibility of developments, paragraph 4.1.21 of NPS EN-1 requires applicants to have considered this. For the Projects, the Applicants confirm that they have considered both the commercial and financial matters through the submitted **Volume 4, Funding Statement (application ref: 4.4)**.

126. It is emphasised within NPS EN-1, through paragraph 4.7.5, that applicants have a responsibility to ensure good design is embedded within the development of projects. NPS EN-1 highlights that design principles should be established from the outset to guide the development from conception to operation.

127. The implementation of and compliance with the Projects' design principles has been of paramount importance to the Applicants. Section 5.2.5 of this Planning Statement focuses on how the Projects have considered good design and how they demonstrate compliance with the criteria for good design, as established through NPS EN-1. **Volume 8, Design and Access Statement (application ref: 8.8)** identifies how the Projects' design principles have influenced the design development of the Projects.

128. Part 4 of NPS EN-1 sets out the general principles that should be applied in assessing development consent applications across the range of energy technologies. Part 5 of NPS EN-1 sets out a policy on assessing specified generic impacts common across a range of these technologies. The policies discussed within NPS EN-3 are in addition to those on generic impacts of NPS EN-1, which are still relevant.

5.2.1 Marine Conservation Zones assessment

129. NPS EN-1 confirms, through paragraph 5.4.9, that "*Marine Conservation Zones" (MCZs), introduced under the Marine and Coastal Access Act 2009, are areas that have been designated for the purpose of conserving marine flora or fauna, marine habitats or types of marine habitat or features of geological or geomorphological interest*". The same paragraph goes on to recognise that the protected feature(s) and conservation objectives for MCZ are stated in the specific MCZ designation order and so can vary between MCZs.

130. Importantly, paragraph 5.4.9 states that *"if a proposal is likely to have significant impacts on an MCZ, an MCZ Assessment should be undertaken as per the requirements under section 126 of the Marine and Coastal Access Act 2009".*

131. The Applicants have submitted **Volume 8**, **Stage 1 Marine Conservation Zone Assessment (application ref: 8.17)** as the marine licensable activities sought have an approximate 1km^2 overlap between the Offshore Export Cable Corridor's Construction Buffer Zone and the Holderness Inshore MCZ; and so, the licensable activities have the potential to impact the MCZ as well as neighbouring MCZs.

132. The Marine Conservation Zones Assessment (MCZA) concludes a Stage 1 assessment as, based on the information assessed in the MCZA, it can be concluded that the conservation objective of maintaining the protected features of the MCZs in a favourable condition, or restoring them to a favourable condition, will not be hindered by the construction, operation and decommissioning phases of the Projects, or cumulatively with any other plan, project or activity.

133. Consequently, no further stages of MCZA are required and so no further assessment of MCZs has been undertaken within this Planning Statement.

5.2.2 HRA Derogation

134. Section 4.2 of NPS EN-1 establishes the critical national priority for the provision of nationally significant low carbon infrastructure, such as the Projects as qualifying examples.

135. Under this established need for low carbon infrastructure, applicants *"for CNP infrastructure must continue to show how their application meets the requirements in this NPS and the relevant technology specific NPS, applying the mitigation hierarchy, as well as any other legal and regulatory requirements"*.

136. Where, following the application of the mitigation hierarchy, it is shown that there are likely residual impacts relating to HRA sites, *"the Applicant must provide a derogation case, if required, in the normal way in compliance with the relevant legislation and guidance"*.

137. Under the HRA derogations for CNP infrastructure section of NPS EN-1, paragraph 4.2.19 acknowledges that *"where, following Appropriate Assessment, CNP Infrastructure has residual adverse impacts on the integrity of sites forming part of the UK national site network, either alone or in combination with other plans or projects, the Secretary of State will consider making a derogation under the Habitats Regulations."*

138. Under the consideration of paragraph 4.2.19, the SoS will consider the circumstances of the Projects from a position that energy security and decarbonising the power sector to combat climate change are capable of amounting to imperative reasons of overriding public interest for HRAs, and the benefit to the public is capable of outweighing the risk of environmental damage, for CNP Infrastructure.

139. Importantly, in the Projects case, paragraph 4.2.22 of NPS EN-1 states that where applicants have shown there to be no deliverable alternative solutions, and that there are imperative reasons of overriding public interest, *"compensatory measures must be secured by the SoS as the competent authority, to offset the adverse effects to site integrity as part of a derogation."*

140. The Applicants have provided details of the HRA process followed by the Projects through **Volume 6, Report to Inform Appropriate Assessment Habitats Regulations Assessment (application ref: 6.1)**. The Applicants confirm that the RIAA has been consulted upon during the pre-application stage and all HRA matters have been discussed with relevant stakeholders through the Evidence Plan Process (EPP).

141. The Applicants consider that the RIAA has appropriately assessed all likely potential effects of the Projects upon Special Areas of Conservation (SACs) and Special Protection Areas (SPAs) both alone and in combination with other plans and projects. The RIAA concludes that:

- For the kittiwake feature of the Flamborough and Filey Coast SPA, an adverse effect on site integrity cannot be ruled out due to in-combination collision risk;
- For the guillemot feature of the Flamborough and Filey Coast SPA, an adverse effect on site integrity cannot be ruled out due to in-combination displacement effects; and
- For the 'sandbanks slightly covered by seawater all the time' feature of the Dogger Bank SAC, that an adverse effect on site integrity cannot be ruled out for Projects together and in-combination long term habitat loss.

142. For all other sites and features assessed in the RIAA, the Applicants confirm that a conclusion of no adverse effect on site integrity is reached.

143. As the above adverse effects on site integrity cannot be ruled out, the Applicants invite the SoS to consider making a derogation under the Habitats Regulations.

144. The Applicants have submitted **Volume 6, Habitats Regulations Derogation: Provision of Evidence (application ref: 6.2)** which follows the following Steps in coming to the derogation case:

- Step 1 – which summarises the Projects need and objectives in order to allow the assessment (Step 3) to determine whether the alternative solution(s) achieve the same overall objective(s);
- Step 2 – identifies the risk of harm to the integrity of the relevant designated site, caused by the Projects, in order to allow the assessment (Step 5) to determine whether the alternative solution(s) is less damaging to the Habitats site;
- Step 3 – considers a long list of potential alternative solutions and screen these in terms of whether they meet the objectives of the Projects, to produce a short list of alternative solutions that meet the Projects objectives;
- Step 4 – considers whether any short-listed potential alternative solutions identified in Step 3 are feasible (financially, legally and technically); and
- Step 5 – considers whether any feasible alternative solutions identified in Step 4 would have a lesser effect on the integrity of the national site network.

145. Having satisfied Steps 1 and 2, Step 3 considers a long list of alternative solutions which include: a 'do nothing' scenario, alternative offshore wind farm locations, alternative scale, alternative design and method and alternative timing of the Projects. The feasibility of those alternative solutions detailed in Step 3 are considered further through Step 4.

146. Step 4 considers smaller and or alternative wind farm sites and the provision of increased air gaps and concludes that none of the alternative solutions are feasibly deliverable.

147. Step 5 (Assessment of Effects of Feasible Alternative Solutions) is not applicable as there are no feasible alternative solutions.

148. In line with paragraph 4.2.22 of NPS EN-1, the Applicants have demonstrated that there are no deliverable alternative solutions and that, through Step 1 of the Habitats Regulations Derogation: Provision of Evidence document, there are imperative reasons of overriding public interest in relation to the delivery of CNP for energy security and decarbonising the power sector to combat climate change.

149. Whilst the RIAA reaches the conclusion that there will not be adverse effects on Integrity in relation to razorbill, compensatory measures are proposed on a 'without prejudice' basis only. Compensatory measures proposed by the Applicants on a conceded and 'without prejudice' basis are set out in the following documents:

- **Volume 6, Appendix 1 - Project Level Kittiwake Compensation Plan (application ref: 6.2.1)**;
- **Volume 6, Appendix 2 - Guillemot [and Razorbill] Compensation Plan (application ref: 6.2.2)**; and
- **Volume 6, Appendix 3 - Project Level Dogger Bank Compensation Plan (application ref: 6.2.3)**.

150. The **Volume 3, Draft Development Consent Order (application ref: 3.1)** submitted together with the Application secures the compensatory measures, as detailed though paragraph 150 of this Planning Statement, via Schedule 18.

151. Resultingly, it is the Applicants' position that the compensatory measures, which must be secured by the SoS as the competent authority, have been secured via the proposed **Volume 3, Draft Development Consent Order (application ref: 3.1)** and that no other residual adverse effects on site integrity would arise from the Projects thereby meaning the Projects are in full compliance with the requirements of both NPS EN1 and NPS EN-3.

5.2.3 The Environmental Statement

152. Paragraphs 4.3.1 and 4.3.2 of NPS EN-1 discuss the requirement for project proposals to be accompanied by an Environmental Statement (ES) where they are subject to the Infrastructure Planning (Environmental Impact Assessment) Regulations 2017 (the EIA Regulations).

153. Paragraph 4.3.3 reaffirms the requirements of the EIA Regulations in that an Environmental Impact Assessment is required to assess 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"*.

154. In compliance with the EIA Regulations and the requirements of section 4.3 of NPS EN-1, an ES has been submitted alongside the DCO Application for the Projects. In accordance with NPS EN-1, the ES has been split to enable a clear understanding of the construction, operational, and decommissioning phases of the Projects.

155. For offshore wind projects, where technology continues to evolve quickly, NPS EN-3 paragraph 2.8.74 recognises that applicants are unlikely to know the precise details of turbines to be used on site prior to consent being granted. The Planning Inspectorate's Advice Note Nine (Planning Inspectorate, 2018) also recognises that, at the time of submitting an application, offshore wind developers may not know the precise nature and arrangement of infrastructure and associated infrastructure that make up the Projects.

156. In the case of the Projects, the Applicants confirm that the precise details of the: wind turbine type and capacity; construction and maintenance methodologies; and Development Scenarios are yet to be defined at this stage. The EIA for the Projects is based on a Project Design Envelope (or 'Rochdale Envelope') approach on a topic-by-topic basis. Resultingly, each chapter of the ES has assessed the 'realistic worst-case' scenario for each of the identified potential impacts. Therefore, the Projects are in compliance with paragraph 4.3.12 of NPS EN-1.

5.2.4 Alternatives and Site Selection

157. Paragraph 4.3.9 of NPS EN-1 states that *"the relevance or otherwise to the decision making process of the existence (or alleged existence) of alternatives to the proposed development is, in the first instance, a matter of law"*. Paragraph 4.3.9 goes on to state that *"this NPS does not contain any general requirement to consider alternatives or to establish whether the proposed project represents the best option from a policy perspective. Although there are specific requirements in relation to compulsory acquisition and habitats sites, the NPS does not change requirements in relation to compulsory acquisition and habitats sites"*.

158. Whilst not a requirement of the NPSs, Schedule 4 of the EIA Regulations 2017 requires a description of the reasonable alternatives, in terms of location, studied by the developer which are relevant to the proposed project and an indication of the main reasons for selection the chosen option, including a comparison of the environmental effects.

159. In the context of the clear and urgent need for renewable energy deployment at the scale and pace necessary, the following project alternatives have been considered for the Projects:

- Separate consent applications;
- Developing separate designs for each Project;
- Overhead lines along the Onshore Export Cable Corridor between landfall and the grid connection location; and

- Keeping HVAC technology and HVDC technology options for the electrical system in the Application project design.

160. In terms of site selection, paragraph 2.3.5 of NPS EN-3 sets out that *"it is for applicants to decide what applications to bring forward. In general, the government does not seek to direct applicants to particular sites for renewable energy infrastructure. In specific circumstances it may be appropriate to provide some direction or guidance, for example to areas of search or areas to avoid through Marine Plans, Strategic Environmental Assessments (SEAs) or The Crown Estate Leasing Rounds, in respect of marine renewable technology."*

161. In respecting the starting point established by paragraph 2.3.6 of NPS EN-3, the Applicants have utilised design principles and engineering assumptions in developing initial site selection long lists for the: Landfall, Onshore Substation Zones, Offshore Export Cable Corridor and Onshore Export Cable Corridor elements of the Projects. From these long lists, the aforementioned elements of the Projects have either been refined down to a single option or to a preferred option and have been assessed accordingly through the ES.

162. In relation to the Array Areas, the Crown Estate Leases for the DBS East and DBS West Projects require a minimum power density of 5MW/km^2. As the initial Array Area boundaries for each Project defined in the Applicants Agreement for Lease would have resulted in minimum power density of less than 5MW/km^2, it has been decided to refine the Array Area footprints in advance of the DCO Application.

163. The site selection and assessment of alternatives process undertaken by the Applicants has been captured within **Volume 7, Chapter 4 Site Selection and Assessment of Alternatives (application ref: 7.4)**.

164. In summary, consideration of alternatives has been carried out in line with the relevant regulatory requirements and, in the context of the clear and urgent needs case for the Projects, the site selection process has been undertaken in accordance with the NPSs and The Crown Estate's Agreement for Lease with the Applicants.

5.2.5 Good Design

165. Part 4.7 of NPS EN-1 and Part 2.3 of NPS EN-3 establish the criteria for 'Good Design' relating to Energy Infrastructure.

166. Paragraph 4.7.2 of NPS EN-1 states:

"Applying good design to energy projects should produce sustainable infrastructure sensitive to place, including impacts on heritage, efficient in the use of natural resources, including land-use, and energy used in their construction and operation, matched by an appearance that demonstrates good aesthetic as far as possible".

167. Paragraph 4.7.2 of NPS EN-1 recognises, however, that the very nature of energy infrastructure developments will often be limited to the extent by which they can contribute to the enhancement of the quality of an area.

168. Paragraphs 4.7.6 and 4.7.10 of NPS EN-1 also state that applicants may have a very limited choice in the physical appearance of some energy infrastructure. However, given the importance the PA 2008 places on good design and sustainability, the SoS needs to ensure that energy infrastructure development is as attractive, durable, and adaptable as possible.

169. As aforementioned, NPS EN-1 also details that design principles should be established from the outset of project(s) to guide their development.

170. The Applicants confirm that seven design principles have been developed to guide the design of the Landfall, Onshore Export Cable Corridor and Onshore Converter Stations and that the design of the onshore elements has responded to a variety of technical and environmental development criteria.

171. The Projects' design principles were identified early in the Projects' design evolution, are reflective of the structure of the headings from the National Infrastructure Commission's Design Principles for National Infrastructure (being Climate, People, Places and Value) and have sought to ensure good design has been embedded into the design of the Projects. These design principles, which are compliant with the policy requirements of Part 4.7 of NPS EN-1 and Part 2.3 of NPS EN-3, are established through section 4 of **Volume 8, Design and Access Statement (application ref: 8.8)**.

172. Paragraph 4.7.7 of NPS EN-1 specifically requires applicants to demonstrate how the design process was conducted and how the proposed design has evolved. The Applicants have detailed how the Projects' design evolved and how the Projects' design principles have been applied to the DCO Application to minimise impacts to the local environment, as far as practical, through section 4 of **Volume 8, Design and Access Statement (application ref: 8.8)**.

173. Paragraph 4.7.6 of NPS EN-1 goes on to state that applicants should seek to embed opportunities for nature inclusive design within the design process. The Applicants can confirm that the Projects' design principles have been supported by a wide range of technical documents which have secured the implementation of nature inclusive measures in order to assimilate the Projects Onshore elements into the area.

174. Notably, **Volume 8, Outline Landscape Management Plan (application ref: 8.11)** has been developed and secured by Requirement 17 of **Volume 3, Draft Development Consent Order (application ref: 3.1)**. The Outline Landscape Management Plan provides the framework to agree details relating to the soft landscaping proposals (planting and seeding) around the Onshore Converter Station(s) and the replacement of hedgerows and trees along the Onshore Export Cable Corridor. **Volume 8, Outline Ecological Management Plan (application ref: 8.10)** has also been prepared, submitted, and secured by Requirement 19 of **Volume 3, Draft Development Consent Order (application ref: 3.1)**. The Outline Ecological Management Plan is a single document that presents the ecology and nature conservation management and mitigation measures that will be undertaken prior to, during and post construction of the onshore elements of the Projects. The Plan also secures the long-term management measures required to enable the reinstatement and or enhancement of habitats.

175. The Applicants confirm also that a Project Design Champion would be appointed to the Projects. It would be their responsibility to ensure that the Onshore Development is designed and built to the highest practicable standard. The Design Champion would be the likely representative for engagement with the Projects' Design Review Panel. Both the Project Design Champion and the Project Design Review Panel will include person(s) who are not directly involved in the design development but with the authority to influence the Projects' design within the Applicants' organisation. Both the Champion and the Panel person(s) will be selected based on design experience, commitment to the aforementioned design principles and the seniority to hold the Projects team to account and challenge decisions where appropriate.

176. The Applicants therefore consider that through the early adoption of design principles, the imposition of outline management plans (as secured by requirements contained within **Volume 3, Draft Development Consent Order (application ref: 3.1)** and the commitment to appoint a Project Design Champion, the Projects are compliant with the 'good design' and nature inclusive criteria as detailed within NPS EN-1 and EN-3.

5.2.6 Holistic Network Design and Network Connection

177. Part 4.11 of NPS EN-1 and paragraphs 2.8.59 to 2.8.73 of NPS EN-3 principally consider 'Network Connection' as a technical consideration for both applicants to assess and the SoS to consider when making a decision.

178. Paragraph 4.11.1 of NPS EN-1 recognises that the grid connection point of a generating station to the electricity network is an important consideration for applicants. Whilst paragraph 2.8.61 of NPS EN-3 specifically recognises that:

"For many wind farm projects, including those from The Crown Estate Leasing Round 4 onwards, connection agreements will be limited to connection points proposed through strategic network design exercises such as those undertaken by the National Grid Electricity System Operator, including the Holistic Network Design for offshore-onshore transmission."

179. The Applicants have developed the Projects' transmission infrastructure as co-ordinated projects in accordance with the National Grid Electricity System Operator (ESO) evolving Holistic Network Design (HND), as updated in February 2024 (HND, 2024).

180. The HND originally recommended that both Projects were connected via a high voltage direct current (HVDC) connection. Following Statutory Consultation, high voltage alternating current (HVAC) technology (previously assessed in PEIR) was removed from the Projects' design envelope. As a result, only high voltage direct current (HVDC) technology has been taken forward.

181. The HND has also confirmed the Projects will have radial connections to the proposed Birkhill Wood National Grid Substation.

5.2.7 Pollution Control and Other Environmental Regulatory Regimes

182. Part 4.12 of NPS EN-1 considers the potential issues relating to discharges or emissions from a proposed project. Such issues which lead to either direct or indirect impacts on terrestrial, freshwater, marine, onshore, and offshore environments, or which include noise and vibration may be subject to separate regulation under the pollution control framework and or other consenting and licensing regimes, for example marine licences.

183. Part 4.12 of NPS EN-1 seeks to prohibit or limit, in a worst case, the release of polluting substances to the environment to their lowest practicable level through the use of measures. With this in mind, paragraph 4.12.8 suggests applicants submit applications for Environmental Permits (and or other necessary consents) at the same time as making an application to the SoS for development consent. It is the Applicants' position that Environmental Permits will be sought post-consent with the relevant bodies and that discussions between the Applicants and the Environment Agency are ongoing.

184. Paragraph 4.12.9 of NPS EN-1 states that the SoS should focus on whether the development itself is an acceptable use of the land as opposed to the control of the processes, emissions or discharges themselves. The SoS should assume that the Environmental Permits and or other necessary consents will be properly applied for and enforced by the relevant regulator.

185. The Applicants confirm that, as has been detailed within **Volume 8, Other Consents and Licenses (application ref: 8.3)**, the relevant permits under the Environmental Permitting (England and Wales) Regulations 2016 will be applied for post consent, with applications made to the relevant regulator(s). The Other Consents and Licenses document also provides further information on the other consents, licences or permits that may be required in connection with the construction, operation, maintenance or decommissioning of the Projects.

186. As part of this Application, the Applicants have submitted **Volume 8, Outline Project Environmental Management Plan (application ref: 8.21)** and **Volume 8, Outline Code of Construction Practice (application ref: 8.9)**.

187. The Outline Project Environmental Management Plan (PEMP) is the primary document for the offshore elements of the Projects' environmental management system (EMS). The Outline PEMP establishes a framework for the detailed PEMP(s) and includes measures which are proposed to manage the environmental risks associated with the construction of the offshore elements of the Projects. The production of detailed PEMP(s) has been secured under Deemed Marine Licence (DML) 1 & 2 (Condition 15), DML 3 & 4 (Condition 13) and DML 5 (Condition 11) as contained within **Volume 3, Draft Development Consent Order (application ref: 3.1)**.

188. The Outline Code of Construction Practice (CoCP) relates to the onshore elements of the Projects, landward of MLWS. The principles and controls contained within the Outline CoCP relate to the management of construction impacts to mitigate the potential environmental impacts of onshore construction of the Projects. Strategies comprise of legislative requirements, current standards, and best practice, in addition to those commitments identified as part of the Projects' **Commitments Register (Volume 8, application ref: 8.6)**. The production of a detailed CoCP has been secured by Requirement 19 of **Volume 3, Draft Development Consent Order (application ref: 3.1)**.

189. With the above in mind, it is the Applicants position that the Projects are in compliance with the requirements of Part 4.12 of NPS EN-1.

5.2.8 Safety

190. Part 4.13 of NPS EN-1 explains that the Health and Safety Executive (HSE) is responsible for enforcing a range of occupational health and safety legislation, some of which is relevant to the construction, operation and decommissioning of energy infrastructure. Paragraph 4.13.3 of NPS EN-1 confirms that some energy infrastructure will be subject to the Control of Major Accident Hazards Regulations 2015 ("COMAH").

191. The Applicants confirm that the Projects will not be subject to the COMAH Regulations and so no further assessment of the Projects against Part 4.13 of NPS EN-1 has been undertaken here.

5.2.9 Hazardous Substances

192. Paragraph 4.14.1, NPS EN-1 states that all establishments wishing to hold stocks of certain hazardous substances above a certain threshold require Hazardous Substances Consent.

193. The Projects are not expected to hold stocks of those hazardous substances which require the need for 'Hazardous Substance Consent'.

5.2.10 Common Law Nuisance and Statutory Nuisance

194. Part 4.15 (paragraph 4.15.5) of NPS EN-1 states that, at the application stage of an energy NSIP, it is important that possible sources of nuisance under section 79(1) of the Environmental Protection Act 1990 (EPA 1990), and how they may be mitigated or limited, are considered by the SoS so that appropriate requirements can be included in any subsequent order granting development consent.

195. The Applicants have prepared and submitted **Volume 8, Statutory Nuisance Statement (application ref: 8.4)** as is required under APFP Regulation 5(2)(f) and paragraph 4.15.5 of NPS EN-1.

196. The Statutory Nuisance Statement has been informed by and reports on the conclusions of **Volume 7, ES Chapters 1** to **30 (application ref: 7.1** to **7.30)**. Appropriate mitigation measures, both embedded and additional, have been identified to mitigate for the likely potential impacts arising from the Projects' construction, operation, and decommissioning. The Projects have adopted commitments (which are inclusive of, but not limited to: primary design principles inherent as part of the Projects, installation techniques, management plans and frameworks). These are outlined in **Volume 8, Commitments Register (application ref: 8.6)**.

197. The Statutory Nuisance Statement concludes the only statutory nuisance matters provided for in the EPA 1990 which could potentially be engaged are those relating to dust, artificial light, and noise and vibration. Following the implementation of the identified mitigation measures, the Environmental Statement concludes that there will not be any significant effects as a result of those matters (or, in the case of artificial lighting, solely as a result of such lighting). The Statutory Nuisance Statement therefore concludes it is not expected that the Projects would give rise to a statutory nuisance in relation to these matters.

198. **Volume 3, Draft Development Consent Order (application ref: 3.1)** contains provision in Article 7 that would provide a defence, subject to certain criteria, to proceedings in respect of statutory nuisance falling within sub-paragraphs: (d) dust, steam, smell or other effluvia; (fb) artificial light; (g) noise; and (ga) noise from a street of section 79(1) of the EPA 1990.

199. The Applicants therefore conclude that the Projects are in compliance with the requirements of Part 4.15 of NPS EN-1 in respect of Common Law and Statutory Nuisance.

5.2.11 Security Considerations

200. Paragraph 4.16.1 of NPS EN-1 establishes that national security considerations apply across all national infrastructure sectors.

201. Part 4.16 of NPS EN-1 stresses that it is the role of government policy to ensure that, wherever possible, proportional protective security measures are designed into the development of projects at an early stage.

202. It is made clear, through paragraph 4.16.7 of NPS EN-1, that applicants should only provide sufficient information as is necessary to enable the SoS to examine issues and come to a decision.

203. The Applicants confirm that, through the design of the Projects, any potential effects on Ministry of Defence (MOD) Danger and Exercise Areas have been fully considered.

204. The Applicants have made use of both security lighting and fencing in securing the Projects during their construction and operation. The Projects will make use of security lighting, as necessary, in relation to the construction of the Onshore Export Cable Corridor. Operational security lighting will also be provisioned for within the Onshore Converter Stations compound. Security fencing is also proposed to secure the operational Onshore Converter Stations. Further detailed security measures proposed as part of the Projects will come forward during the detailed design stage, post-consent. The Applicants consider that the Projects are in compliance with the requirement to design into the development protective security measures at an early stage. For further information on the security measures provisioned as part of the Projects, please see **Volume 8, Design and Access Statement (application ref: 8.8)**.

205. **Volume 7, Chapter 15 Aviation and Radar (application ref: 7.15)** confirms that the Array Areas and Offshore Export Cable Corridor lie beneath the Southern Managed Danger Area (MDA), one of four MDA complexes in UK airspace that provide segregated airspace for military training. DBS East Array Area lies beneath Danger Areas (DA) EG D323D, the DBS West Array Area lies beneath DAs EG D323B and C, while the Offshore Export Cable Corridor lies beneath DAs EG D323C, D and K.

206. With regard for long range high powered AD radars which provide the UK with airspace surveillance and security, **Volume 7, Chapter 15 Aviation and Radar (application ref: 7.15)** confirms that potential technical mitigation solutions for AD radar interference arising from the Projects is being sought and such solutions will be discussed and agreed with the MOD.

207. The Applicants will continue to consult with the Ministry of Defence, through examination and at a post-consent stage, to ensure that all possible mitigation measures are integrated into the Projects. Through this process, the Applicants consider that residual effects both for the Projects and cumulatively with other projects and plans will result in a likely effect that is no greater than 'not significant'.

208. Therefore, the Applicants confirm that the Projects are in compliance with the security consideration requirements as are set out in Part 4.16 of NPS EN-1 and NPS EN-3.

5.3 Technical Offshore Studies

5.3.1 Introduction

209. This section summarises the findings of the ES for the offshore specific technical studies. Each subsection below considers the Projects' compliance with the most pertinent policies and paragraphs from the NPSs and the relevant Marine Plans.

5.3.2 Marine Physical Environment

210. NPS EN-1 applies to any onshore infrastructure situated on the coast that my lead to, or is at risk from, flooding or coastal change, including provisions for climate change. NPS EN-1 makes it a requirement of applicants to propose appropriate mitigation measures to address adverse physical changes to the coast, as appropriate, in consultation with statutory consultees.

211. NPS EN-5 goes on to recognise that some electricity networks infrastructure is likely to be located near the coast and so it is for applicants to consider to what extent the proposed development is expected to be vulnerable to the effects of climate change and how it has been designed to be resilient against such effects.

212. NPS EN-3 relates specifically to the considerations of impacts for offshore renewable energy projects on marine life and coastal geomorphology. NPS EN-3 states that applicants are expected to consider effects upon the following receptors: water quality, waves and tides, scour effect, sediment transport, suspended solids, sandwaves and the water column. Applicants are encouraged to undertake geotechnical investigations as part of their assessment in order to enable the inclusion of appropriate mitigation measures and construction techniques.

213. Objective 6 of the East Inshore and East Offshore Marine Plans concludes that it is, among other objectives, the objective of the Marine Plans to maintain a healthy, resilient and adaptable marine ecosystem which is reliant on the stability of the marine physical environment.

214. **Volume 7, Chapter 8 Marine Physical Environment (application ref: 7.8)** provides a characterisation of the existing marine physical environment based on both existing and site-specific geotechnical survey data. The assessment establishes that the significance of effect on the identified receptors (being: Dimlington Cliff SSSI, Flamborough Head SSSI, Withow Gap Skipsea SSSI, Holderness Inshore MCZ, Holderness Offshore MCZ, Marine waters (offshore), Marine waters (inshore), Holderness Cliffs, Smithic Bank, Flamborough Front, Humber Estuary and Dogger Bank) following the implementation of embedded mitigation measures during construction, operation and decommissioning, across all Development Scenarios, results in likely residual effects which are no greater than **minor** adverse, not significant in EIA terms.

215. The Marine Physical Environment assessment also concludes that no significant cumulative effects (with other plans and projects) have been identified in relation to the marine physical environment.

216. As part of the EIA, the Applicants have provided Climate Change Resilience Assessment (CCRA) in **Volume 7, Chapter 30 Climate Change (application ref: 7.30)**. The assessment considers: several climate change variables (such as sea level rise, precipitation, costal erosion, and extreme weather events); the potential climate hazards which could arise (such as drought, storm events, storm surges and tidal flooding) and the possible receptors affected such as the coast. The CCRA concludes that all receptors have a low vulnerability to climate variables and their resulting hazards.

217. The Applicants also confirm that **Volume 8, Outline Project Environmental Management Plan (application ref: 8.21)** is included within this Application. The Outline PEMP is responsible for setting out the procedures and measures which are to be followed during the construction, operation and decommissioning of the Projects for pollution prevention.

218. With the above assessment outcomes of the **Volume 7, Chapter 8 Marine Physical Environment assessment (application ref: 7.8)** in mind, it is the Applicants position that the Projects are wholly compliant with the policy requirements of NPS EN-1, EN-3 and EN-5 and the East Inshore and East Offshore Marine Plans.

5.3.3 Benthic and Intertidal Ecology

219. NPS EN-3 paragraph 2.8.226 recognises that *"effects on intertidal/coastal habitat cannot be avoided entirely"*.

220. NPS EN-3 also requires applicants to utilise mitigation measures when undertaking landfall and cable construction and decommissioning activities such as to minimise the effects on intertidal/ costal habitats. Applicants are minded to consider the use of horizontal directional drilling techniques (HDD), together with a mitigation plan (should HDD fail), as this construction technique is recognised for successfully avoiding impacts on sensitive habitats and species. In any case, NPS EN-3 encourages applicants to design in methods for construction, maintenance, and decommissioning in such a way that minimises their effects on subtidal habitats whilst also considering other constraints.

221. NPS EN-3 states that an applicant's assessment of the effects on the subtidal environment should consider the loss of habitat due to foundation type(s), the potential for suspended sediment loads, impacts from electromagnetic fields (EMF) on fauna, impacts to protected sites and the impact to habitats due to the laying of infrastructure. NPS EN-3 also encourages applicants to work together to minimise the cumulative impact of projects upon intertidal/coastal zones.

222. The North East Inshore and Offshore Marine Plan, through Policy NE-CAB-1, and the East Inshore and Offshore Marine Plan, through Policy CAB1, state explicitly that it is preferential for proposals to bury as opposed to lay cables.

223. The Applicants' **Volume 7, Chapter 9 Benthic and Intertidal Ecology (application ref: 7.9)** assessment provides a characterisation of the existing environment based upon site-specific surveys and existing data sets. From this position of understanding, the assessment of significance considers the likely significant effects on benthic and intertidal ecology that may occur during the Projects' construction, operation and maintenance and decommissioning across all Development Scenarios.

224. The Applicants' assessment considers 'temporary physical disturbance' and 'increased suspended sediment concentration' impacts across construction, operation and maintenance and decommissioning of the Projects. The assessment also considers 'remobilisation of contaminated sediment', 'underwater noise and vibration' and 'permanent habitat loss' impacts across both the construction and decommissioning phases of the Projects. Lastly, the assessment considers 'interactions of EMF' and 'colonisation of introduced substrate, including invasive / non-native species' impacts during the operational phase of the Projects.

225. The Benthic and Intertidal Ecology assessment concludes that the aforementioned impacts result in residual effects on receptors that are no greater than **minor** adverse and therefore not significant in EIA terms. The assessment also concludes that no significant cumulative effects (with other plans and projects) have been identified in relation to benthic and intertidal ecology.

226. In accordance with the policy requirements of the Marine Plans, the Applicants can confirm that the Projects are committed to burying offshore export cables to 0.5m – 1.5m (depending on cable location) where practical, subject to a cable burial risk assessment.

227. With regard for the use of HDD, it is the Applicants' preference that a long trenchless (e.g. HDD) landfall is used, thereby reducing impacts to the intertidal zone. A short trenchless landfall has also been considered within the Design Envelope and has therefore been assessed as the worst-case scenario.

228. The Applicants assessment demonstrates that the Projects will avoid causing 'significant harm' to benthic and intertidal ecology and therefore comply with NPS EN-3, the North East Inshore and Offshore Marine Plan and the East Inshore and Offshore Marine Plan policies.

5.3.4 Fish and Shellfish Ecology

229. NPS EN-1 establishes that energy NSIP proposals will need to consider the movement of mobile and migratory species of fish and marine life which have the potential to interact with infrastructure. In some cases, the potential to affect mobile and migratory species may extend more widely across Europe and so it is for applicants to consider transboundary effects.

230. Policy FISH 2 of the East Inshore and Offshore Marine Plan and Policy NE-FISH-3 of the North East Inshore and Offshore Marine Plan broadly read the same in that development proposals should demonstrate that they will not have an adverse impact upon essential fish habitat, including spawning, nursery and feeding grounds, and migratory routes. Where adverse impacts are identified, applicants are required to follow the mitigation hierarchy. Policy NE-FISH-3 goes beyond Policy FISH 2 in that it offers categoric support to proposals which result in an enhancement of fish and shellfish habitat.

231. NPS EN-3 identifies several 'likely receptors' for which applicants should be cognisant of when undertaking their assessment. NPS EN-3 goes on to state that it is for applicants to consider the potential implications of underwater noise from construction and unexploded ordinance (UXO) and that the construction and decommissioning phases of a project are likely to be the most impactful to fish communities, migration routes, spawning activities and nursery areas of particular species.

232. NPS EN-3 also requires applicants to consider the potential impacts of EMF upon fish and shellfish habitats.

233. **Volume 7, Chapter 10 Fish and Shellfish Ecology (application ref: 7.10)** assessment has made use of a variety of data sources, as discussed and agreed with stakeholders through the scoping and EPP processes, in establishing an understanding of the existing environment.

234. In accordance with the requirements of NPS EN-3, the East Inshore and Offshore Marine Plan and the North East Inshore and Offshore Marine Plan, the assessment has considered: temporary habitat disturbances to fish and shellfish species and spawning and or nursery grounds; increases in local suspended sediment concentrations and sediment settlement; the release of sequestered contaminants following sediment disturbance; impacts on fish and shellfish species as a result of noise and vibration; effects on fish stocks of reduced fishing pressure within the Array Areas and increased fishing pressure outside of the Array Area; the potential permanent loss of habitat and or changes in habitat type as a result of changes in substrate composition; and EMF effects arising from the cabling.

235. The Fish and Shellfish Ecology assessment concludes that the aforementioned potential impacts result in residual effects to receptors which are no greater than **minor** adverse in significance and so not significant in EIA terms. The assessment also concludes that no significant cumulative effects (with other plans and projects) or transboundary effects have been identified in relation to fish and shellfish habitats.

236. In coming to the above conclusions, the assessment has incorporated a range of embedded mitigation measures into the design of the Projects. These measures include ensuring that no piling activity within the Offshore Export Cable Corridor occurs between the months of August and October[2]. This is to mitigate for disturbances to the Banks population of Atlantic herring due to impulsive underwater noise impacts, unless otherwise agreed with the relevant stakeholders. Embedded mitigation measures have been captured within **Volume 8, Outline Project Environmental Management Plan (application ref: 8.21)** and have been secured via **Volume 3, Draft Development Consent Order (application ref: 3.1)**.

237. It is therefore the Applicants position that the Projects will avoid causing 'significant harm' to Fish and Shellfish Ecology and so the Projects are in compliance with the policy requirements of NPS EN-3, the East Inshore and Offshore Marine Plan and the North East Inshore and Offshore Marine Plan.

5.3.5 Marine Mammals

238. NPS EN-1 establishes that it is for applicants of energy NSIP proposals to consider the movement of mobile and migratory marine mammals and their potential to interact with infrastructure. In some cases, the potential to affect marine mammals may extend more widely across Europe and so it is for applicants to consider transboundary effects also.

239. NPS EN-1 requires applicants to demonstrate how their project has taken advantage of opportunities to enhance biodiversity conservation interests which, in this instance, relate to marine mammals. NPS EN-3 reaffirms that applicants are to assess the potential of their project(s) to have net positive effects on marine ecology as well as negative effects.

240. NPS EN-3 makes clear that all marine mammals are protected under Part 3 of the Habitats Regulations and that the UK Government has obligations to protect the marine environment with a network of MPAs and HPMAs.

[2] The draft DCO contains provisions prohibiting piling within the Offshore Export Cable Corridor between August and March. The prohibition between August and October relates to mitigating impacts on herring, while the prohibition between October and March relates to mitigating impacts on marine mammals.

241. NPS EN-3 goes on to recognise that construction activities including piling and the clearing of UXO may reach noise levels which are high enough to cause disturbance, injury or even death to marine mammals. If such noise levels are likely to lead to an offence under Part 3 of the Habitats Regulations, then it is for the applicants to apply for a wildlife licence to allow the activity to take place.

242. However, before coming to the conclusion that a wildlife licence is required, NPS EN-3 states that where noise impacts cannot be avoided, other mitigation should be considered, for example, alternative methods of installation and noise abatement technology. Under this position, it is NPS EN-3's expectation that applicants are to undertake a review of up-to-date research and all mitigation options as presented as part of the application.

243. Policy NE-UWN-2 of the North East Inshore and Offshore Marine Plan states that proposals which result in the generation of noise must demonstrate that they have had regard for the mitigation hierarchy.

244. NPS EN-3 also requests that applicants develop Site Integrity Plans (SIP) to allow for the cumulative impacts of underwater noise to be reviewed closer to the construction date, when there is more certainty.

245. Finally, NPS EN-3 recognises that offshore wind farms can impact upon fish species and that there is an interrelationship between fish species and marine mammals, where those fish are prey species.

246. Harbour porpoises, bottlenose dolphins, common dolphins, white-beaked dolphins, minke whales, grey seals and harbour seals have been identified by **Volume 7, Chapter 11 Marine Mammals (application ref: 7.11)** as being most likely to be present at the Projects' offshore elements and so have been the focus of assessment. The potential impacts to these mammals, as receptors, has been considered within the assessment as to how they may interact with the Projects. The Applicants recognise that there is a substantial level of marine development being undertaken, and being planned, by other countries in the southern North Sea. As is acknowledged in the assessment, marine mammals are highly mobile and so it is recognised that there is the potential for transboundary effects, especially with regard to noise. The extent to which impacts may affect marine mammals from other designated sites has been assessed within **Volume 6, Report to Inform Appropriate Assessment Habitats Regulations Assessment (application ref: 6.1)**.

247. The Applicants assessment of the Projects is cognisant of the fact that, as is captured within NPS EN-3, projects have the potential to give rise to net positive effects as well as negative effects. Whilst this effect cannot be assessed as part of the ES, the Assessment has considered that beneficial effects could arise from the introduction of various man-made structures (such as foundations and scour protection) in soft sediment areas which may increase and change habitat availability thereby, and potentially, enabling species to establish and thrive in previously hostile environments. Therefore, the introduction of new hard substrate may lead to positive effects for the potential for habitat enhancement.

248. The Marine Mammals assessment concludes that for the above-mentioned mammal receptors, no construction, operation or cumulative impacts are to result in higher than a **minor** adverse residual effect which is greater than **minor** adverse, not significant in EIA terms. The potential impacts on marine mammals during decommissioning have not been assessed in detail at this stage. However, potential impacts are expected to be the same or less than those assessed for construction. Further assessment will be carried out to inform likely effects prior to commencement of decommissioning.

249. The Applicants assessment has considered:

- Permanent and temporary auditory injury from underwater noise during piling;
- Disturbance or behavioural effects from underwater noise during piling;
- Temporary Threshold Shift (TTS) and disturbance from underwater noise during other construction activities, including seabed preparations, cable installation and rock placement;
- TTS and disturbance from underwater noise; and
- The presence of vessels and barrier effects as a result of underwater noise during construction as potential impacts upon receptors.

250. The Applicants have made use of and have secured several embedded mitigation measures as part of the Application to ensure that no residual adverse effects pertaining to noisy activities (such as piling and UXO clearance) result in a significance of residual effect which is greater than **minor** adverse, not significant in EIA terms. These residual effects are subject to the imposition of **Volume 8, Outline Marine Mammal Mitigation Protocol (application ref: 8.25)** for piling activities and **Volume 8, In Principle Site Integrity Plan for the Southern North Sea Special Area of Conservation (application ref: 8.26)**.

251. The detailed Marine Mammal Mitigation Protocol (MMMP) will be developed in consultation with the relevant Statutory Nature Conservation Bodies (SNCBs) and the MMO and will include details of the embedded mitigation, for the soft-start and ramp-up, as well as details of the proposed mitigation zone and any additional mitigation measures required in order to minimise potential impacts of any physical injury to mammals, in this case. The production of a detailed MMMP is secured by the Deemed Marine Licence (DML) 1 & 2 (Condition 15), and DML 3 & 4 (Condition 13) of **Volume 3, Draft Development Consent Order (application ref: 3.1)**.

252. The In principle Site Integrity Plan (SIP) sets out the approach to deliver any project mitigation or management measures to reduce the potential for any significant disturbance of harbour porpoise in relation to the Southern North Sea SAC conservation objectives. The production of a detailed SIP has been secured by Condition 16 of Deemed Marine Licences (DML) 1 and 2, and Condition 14 of DML 3 and 4 of **Volume 3, Draft Development Consent Order (application ref: 3.1)**.

253. The Applicants therefore conclude that the Projects will avoid causing 'significant harm' to marine mammals and so the Projects are in compliance with the policy requirements of NPS EN-1 and EN-3 and the North East Inshore and Offshore Marine Plan.

5.3.6 Offshore Ornithology

254. NPS EN-3 sets out the key potential impacts which may arise from offshore wind farm proposals to birds. These potential impacts, as detailed through paragraph 2.8.136 of NPS EN-3, include the potential for projects to result in collisions with rotating blades; direct habitat losses; disturbance from construction activities and movements throughout the Projects lifetime; operational displacement; impacts on flight lines; impacts upon prey species and habitats and impacts on protected sites.

255. NPS EN-1 establishes that, as for marine mammals and fish and shellfish ecology, it is for applicants of energy NSIPs to consider the movement of mobile and migratory birds and their potential to interact with infrastructure. The potential for energy NSIPs to affect birds may extend more widely across Europe and so it is for applicants to consider transboundary effects also.

256. In undertaking ornithology assessments for offshore wind farm developments, NPS EN-3 requires applicants to consult at an early stage of pre-application on the assessment methodologies, baseline data collection, and potential avoidance, mitigation and compensation options which should be undertaken. EN-3 furthers this by requiring applicants to undertake a detailed assessment of offshore ornithology which takes account for the physical impacts, as above, of the project(s) for all phases of the lifespan of the development.

257. NPS EN-3 makes clear that applicants of offshore wind farms must undertake collision risk modelling, as well as displacement and population viability assessments for certain species of birds. In all events, applicants must seek advice from the relevant Statutory Nature Conservation Bodies (SNBCs).

258. With respect to the species identified for assessment in **Volume 7, Chapter 12 Offshore Ornithology (application ref: 7.12)** (being: fulmar, gannet, guillemot, razorbill, puffin, kittiwake, lesser black-backed gull, herring gull, great black-backed gull, little gull, common gull, arctic skua, great skua, red-throated diver and the great northern diver), the assessment methodology, baseline data collection methods, potential avoidance, mitigation and compensation options were consulted on with Natural England from an early pre-application stage.

259. In quantifying the Projects' potential to give rise to significant effects, collision risk modelling (CRM) in **Volume 7, Appendix 12-9 - Collision Risk Modelling Outputs (application ref: 7.12.12.9)** has been used to inform the assessment to estimate the risk to birds associated with the Projects' Array Areas. The Applicants have also undertaken population viability analysis (**Volume 7, Appendix 12-13 - Population Viability Analyses (application ref: 7.12.12.13)**) in accordance with the requirements of NPS EN-3.

260. The outcome of the Offshore Ornithology assessment concludes that no impact arising from the Projects' construction (e.g., additional vessel movements, cable installation and the presence of 50% of the wind turbines), operation (e.g., displacement from the Array Areas, collision risk with turbines and indirect effects mediated via fish prey species or benthic communities), and decommissioning (e.g., additional vessel movements, cable installation and the presence of 50% of the wind turbines) would lead to a residual effect on receptors that is greater than **minor** adverse and so not significant in EIA terms, across all Development Scenarios.

261. In accounting for the migratory nature of birds, the Applicants assessment of transboundary effects concludes that such effects are expected to be minimal and will therefore not require any additional mitigation.

262. The assessment also concludes that no significant cumulative effects (with other plans and projects) were identified in relation to ornithology except for cumulative effects of operational displacement for guillemot, and operational collision risks for kittiwake and great black-backed gulls which were assessed as resulting in residual **negligible** – **moderate** adverse effects which are significant in EIA terms. No additional mitigation is proposed for these negligible - moderate residual adverse effects as the contribution of the Projects to the cumulative totals are minimal.

263. Where there are potential significant effects on these species in relation to SPAs, details of compensation are provided for within **Volume 6, Appendix 1 – Project Level Kittiwake Compensation Plan (application Ref: 6.2.1)** and **Volume 6, Appendix 2 - Guillemot [and Razorbill] Compensation Plan (application Ref: 6.2.2)** which have been submitted together with the RIAA.

264. The Applicants acknowledge that some significant cumulative residual effects for offshore ornithology are anticipated. This notwithstanding, the Projects have evolved to minimise the significance of all such effects to offshore ornithology, wherever possible, using embedded mitigation measures. It is therefore the Applicants' position that the Projects are in compliance with the requirements of NPS EN-1 and NPS EN-3 since, as recognised via paragraph 3.1.2 NPS EN-1, it will not be possible to deliver such necessary amounts of renewable energy infrastructure without some significant residual adverse effects.

5.3.7 Commercial Fisheries

265. NPS EN-3 recognises that offshore wind farms can have both negative and positive impacts upon certain fish stocks, fishing activities and commercial fisheries. Whilst the footprint of an offshore wind farm may, to a degree and in a worst case, sterilise certain types of fishing activities, other fishing activities, such as potting, may be able to increase within operational wind farms.

266. NPS EN-3 acknowledges the diverse nature of the UK fishing industry and how this will therefore lead to varying levels of significance and impact to certain fleets. It is therefore an applicant's responsibility to consider both the direct and indirect impacts of potential displacement and the ability of fleets to relocate. Applicants are therefore minded to undertake early engagement with a cross section of the fishing industry and, in this Projects' case, the appropriate inshore fisheries groups. Additionally, and in some circumstances, NPS EN-3 considers that transboundary issues from other coastal states may also be a consideration for applicants.

267. Policies FISH 1 of the East Inshore and East Offshore Marine Plan and NE-FISH-2 of the North East Inshore and North East Offshore Marine Plan require applicants to undertake a sequential approach to developing projects where harm to commercial fisheries may arise. In the first instance, applicants are required to demonstrate how they have sought to avoid significant adverse impacts through not preventing fishing activities to occur on fishing grounds. Failing this, applicants are required to demonstrate how they have minimised adverse impacts where they arise. If adverse effects cannot be minimised, it is for applicants to demonstrate how they will be mitigated for. Lastly, should it not be possible for applicants to minimise or mitigate significant adverse impacts, an overriding case for the proposal should be made. Overarching the recognised potential for conflicts of uses is the narrative provided by Policy GOV2 of the East Inshore and East Offshore Marine Plan which states that *"opportunities for co-existence should be maximised wherever possible"*.

268. The Applicants recognise that the Projects' offshore location falls within an area that reflects the diversity of the fishing industry. Resultingly, the Applicants have undertaken an extensive consultation exercise via port visits, fisheries specific questionnaires, and meetings of the Projects' Commercial Fisheries Working Group (CFWG). Inshore, offshore and other costal state fishery stakeholders (such as, for example, but not limited to the Holderness Fishing Industry Group (HFIG), the Scottish White Fish Producers Association (SWFPA) and the Sør-Norges Trålerlag (Norwegian Fishermen's Association)) have been engaged prior to, and during the DBS offshore surveys.

269. The Applicants assessment has considered the loss or restricted access to fishing grounds; the displacement from the Array Area and Offshore Export Cable Corridor leading to gear conflict and increased pressure on adjacent fishing grounds; the temporary increase in steaming times; the potential loss or damage to fishing gear due to snagging; the supply chain opportunities for local fishing vessels; the potential impacts on commercially important fish and shellfish resources and navigational safety potential impacts arising from the Projects' construction and operation.

270. The key receptor groups for the Applicants assessment include demersal seines and trawls; dredge fishers; intertidal netters; otter trawls; pelagic trawls; inshore static gear; and offshore static gear.

271. The assessment concludes that, post implementation of embedded and additional mitigation measures, no potential construction, operation, or decommissioning impacts arising from the Projects will result in a residual effect which is greater than **minor** adverse and so not significant in EIA terms.

272. In compliance with NPS EN-3, the assessment also concludes that **minor** beneficial effects arising from the Projects' construction, operation and decommissioning due to supply chain opportunities for local fishing vessels will arise for demersal seine, dredge, otter trawl, pelagic trawl and offshore static gear receptors.

273. The cumulative effects assessment concludes that the following residual cumulative effects are significant in EIA terms:

- Impact 1: Loss or restricted access to fishing grounds – Offshore Export Cable Corridor upon dredge fishers during construction whose residual cumulative effect is **moderate** adverse;
- Impact 2: Displacement leading to gear conflict and increased pressure on adjacent fishing grounds – Offshore Export Cable Corridor upon dredge fishers during construction whose residual cumulative effect is **moderate** adverse;
- Impact 1: Loss or restricted access to fishing grounds – Offshore Export Cable Corridor upon dredge fishers during decommissioning whose residual cumulative effect is **moderate** adverse; and
- Impact 2: Displacement leading to gear conflict and increased pressure on adjacent fishing grounds – Offshore Export Cable Corridor upon dredge fishers during decommissioning whose residual cumulative effect is **moderate** adverse.

274. The cumulative effects assessment concludes that for all other potential impacts upon receptors, no residual cumulative effect will be greater than **minor** adverse and so not significant in EIA terms.

275. With regard for the potential transboundary effects of the Projects in relation to commercial fisheries, the assessment found that the displacement effects for fishing activity was to be minor and so the potential transboundary effect of the displacement of fishing vessels is considered not significant.

276. In accordance with the Marine Plan Policies and general requirements of the NPSs, the Applicants have sought to reduce those identified pre-mitigation significant effects to a position of no significance using both embedded and additional mitigation measures and have sought to encourage co-existence between plans, projects, and receptors.

277. For example, through the Projects' Design, the Applicants have reduced the combined Array Areas by approximately 30% from the design put forward at PEIR to reduce potential impacts as far as practicable. The Applicants have also submitted **Volume 8, Outline Fisheries Liaison and Co-existence Plan (application ref: 8.28)** which, as an additional mitigation measure, seeks to facilitate and promote positive relationships and working between the Projects and local commercial fishing interests and provides an outline of the approach to fisheries liaison during the construction, operational and decommissioning phases. Detailed Fisheries and Co-existence Plan(s) (FLCP), which will conform to the Outline FLCP, will developed and have been secured under Deemed Marine Licence (DML) 1 & 2 (Condition 15), DML 3 & 4 (Condition 13) and DML 5 (Condition 10).

278. Overall, it is recognised that some significant cumulative residual effects for commercial fisheries are likely to remain post implementation of embedded and additional mitigation measures. However, following the requirements of NPS EN1, NPS EN-3, the East Inshore and East Offshore Marine Plan and the North East Inshore and North East Offshore Marine Plan which require projects to avoid, minimise and then mitigate any significant adverse effects, it is the Applicants position that the mitigation hierarchy has been adhered to as far as practicable.

279. Additionally, it is the Applicants' firm stance (as written in Policy) that there is an overriding needs case for the Projects and so under NPS EN-1's categorisation of CNP infrastructure, these cumulative residual adverse impacts are outweighed by the needs case and so the Projects comply with the commercial fisheries policy requirements.

5.3.8 Shipping and Navigation

280. NPS EN-3 establishes that it is inevitable that offshore wind farms will result in impacts on navigation in and around the area of the site. However, to ensure the safe passage and navigation of shipping, applicants are required to reduce risks to navigational safety to as low as reasonably practicable (ALARP).

281. Applicants are minded to engage with interested parties in the pre-application phase to help identify mitigation measures in order to reduce navigational risks to ALARP.

282. NPS EN-3 recognises that the presence of offshore wind farms can have impacts on communication and shipborne and shore-based radar systems. NPS EN-3 goes on to state that applicants must therefore undertake a Navigational Risk Assessment (NRA) which is: in accordance with relevant government guidance; includes a Search and Rescue (SAR) Response Assessment; and an emergency response assessment.

283. Whilst NPS EN-1 does not contain specific references to shipping and navigation, it remains relevant due to its overarching guidance principles.

284. The Shipping and Navigation assessment (**Volume 7, Chapter 14 Shipping and Navigation (application ref: 7.14)**) considers 'potential vessel displacement and increased vessel to vessel collision risks between third-party vessels' and 'increased vessel to vessel collision risks between a third-party vessel and a Project vessel' impacts during both the construction and decommissioning phases of the Projects. This assessment concludes that the pre-additional mitigation effect, across all Development Scenarios, to all vessels and emergency responders (being the two key receptors of the assessment) is no greater than tolerable with mitigation and therefore not significant in EIA terms.

285. In addition to the potential impacts identified for construction and decommissioning, the operational assessment of potential impacts also considered potential impacts relating to the creation of vessel to structure allision risk, the reduction of under-keel clearance due to cable protection, anchor interactions with sub-sea cables and the reduction of emergency response capability (including SAR access). The operational assessment of potential impacts upon receptors concluded that no pre-additional mitigation effects are greater than tolerable with mitigation and are therefore not significant in EIA terms.

286. The cumulative effects assessment also concludes that no potential impact upon the receptors will lead to an effect which is greater than tolerable with mitigation and are, therefore, not significant in EIA terms. The assessment also concludes that no transboundary effects are likely to be significant.

287. In response to the early engagement requirements of NPS EN-3, the Applicants confirm that they have consulted with, and will continue to consult with, relevant stakeholders and interested parties to continue to identify mitigation measures to reduce navigational risks to ALARP.

288. As per the requirements of NPS EN-3, the Applicants can also confirm that a compliant assessment in **Volume 7, Appendix 14-2 - Navigational Risk Assessment (application ref: 7.14.14.2)** has been produced in line with MGN 654. The Applicants have ensured that the key shipping and navigation stakeholders, such as the MCA, have been consulted with throughout the NRA process.

289. With the above in mind, the Applicants assessment is compliant with the specific requirements of NPS EN-3 and the overarching policy test (as contained within NPS EN-1) which requires the Projects to avoid causing 'significant harm'.

5.3.9 Aviation and Radar

290. NPS EN-1 states that where a proposed development may affect the performance of civil or military aviation communication navigation, and surveillance infrastructure (CNS), meteorological radars and/or other defence assets an assessment of potential effects should be set out in the ES. NPS EN-1 goes on to state that an assessment of such effects should also, for example, consider the potential impacts upon flight patterns and aerodrome operational procedures.

291. NPS EN-1 requires applicants to consult with the MOD, Met Office, Civil Aviation Authority, NATS and any aerodrome which is likely to be affected during the preparation of the assessment for the Projects.

292. Policy DEF1 of the East Inshore and East Offshore Marine Plan and Policy NE-DEF-1 of the North East Inshore and Offshore Marine Plan make clear that proposals affecting MOD areas should only be authorised with agreement from MOD.

293. The assessment has considered three potential impacts across the construction, operation and decommissioning of the Projects. These are:

- Impact 1 - Impacts on Staxton Wold PSR due to high construction vessels / cranes and partially complete structures;
- Impact 2 - Creation of an aviation obstacle environment and

- Impact 3 - Increased air traffic in the area related to wind farm construction activities.

294. The key receptors which have been considered by the assessment in relation to the identified impacts include:

- The MOD;
- Low flying military;
- Helicopter traffic transiting to and from offshore oil and gas helidecks;
- Helicopters utilising Helicopter Main Routing Indicator 8; and
- Other offshore fixed-wing and helicopter operations (including Search and Rescue).

295. The assessment concludes that both the residual effects from the Projects and the residual cumulative effects (i.e., in combination with other plans and projects) are no greater than 'not significant' and so not significant in EIA terms.

296. In order to mitigate effects to a level which is 'not significant', a range of mitigation measures have been embedded into the Projects' design. These include the development of an Emergency Response Cooperation Plan(s) (ERCoP) to mitigate the effects on SAR operations, notification to aviation stakeholders of the location and height of all structures during construction of the wind farms, and an aviation obstacle lighting scheme agreed with the relevant authorities. The production of ERCoPs has been secured via Conditions 18 of DML 1 & 2, Conditions 16 of DML 3 & 4 and Condition 12 of DML 5 as contained within **Volume 3, Draft Development Consent Order (application ref: 3.1)**.

297. In response to NPS EN-1's requirement to consult, the Applicants can confirm that consultation with the relevant civil and military aviation stakeholders has been undertaken as captured within **Volume 7**, **Appendix 15-1 - Aviation and Radar Consultation Responses (application ref: 7.15.15.1)**.

298. The Applicants can also confirm that consultation is ongoing with aviation stakeholders to agree additional appropriate mitigations to safeguard offshore oil and gas helicopter operations. Additionally, potential technical mitigation solutions for AD radar interference are being sought and such solutions will be discussed and agreed with the MOD through examination and post-consent.

299. The Applicants therefore consider that the Projects are wholly compliant with the Aviation and Radar policy requirements of NPS EN-1, NPS EN-3, the East Inshore and Offshore Marine Plan and the North East Inshore and Offshore Marine Plan.

5.3.10 Infrastructure and Other Users

300. NPS EN-3 recognises that the scale and location of emerging and future offshore wind developments will occur in or close to areas where there is other existing and or emerging offshore infrastructure.

301. As such, where a potential offshore wind farm is proposed close to existing operational offshore infrastructure or has the potential to affect activities for which a licence has been issued by government, it is an applicant's responsibility to undertake an assessment of the potential effects of the proposal on permitted or existing infrastructure. NPS EN-3 requires such an assessment to be undertaken for all stages of a project's lifespan.

302. NPS EN-3 states also that applicants of energy NSIPS are to consult with interested parties whose infrastructure may be affected. Consultation ought to take place from the pre-application stage of the proposal to resolve as many issues as possible prior to submission.

303. Policy GOV2 of the East Inshore and East Offshore Marine Plan has the key aim of promoting compatibility and reducing conflicts in order to manage the use of space within the marine environment in an efficient and effective manner.

304. Policy NE-CO-1 of the North East Inshore and Offshore Marine Plan reaffirms the above position in that to realise sustainable social, environmental and economic benefits it is important to plan for and make efficient use of space. The Policy encourages proposals to be spatially planned, take account of existing activities, and promote co-existence.

305. **Volume 7, Chapter 16 Infrastructure and Other Users (application ref: 7.16)** has considered the potential for interactions between the Projects and potential nearby receptors which include: other nearby offshore wind farms, oil and gas infrastructure, carbon capture and storage sites, sub-sea cables and pipelines, and MOD activities.

306. With regard for the above receptors, the potential impacts assessed as arising from the Projects' construction, operation, and decommissioning are the potential for interference with other wind farms, interference with oil and gas and carbon capture storage operations (including decommissioning activities), physical impacts on electrical infrastructure, impacts on disposal sites and MOD activities.

307. The assessment concludes that both the residual effects from the Projects and the residual cumulative effects (i.e., in combination with other plans and projects) over the Projects' lifespans (being construction, operation and decommissioning) are no greater than **minor** adverse and so not significant in EIA terms.

308. The Applicants confirm that they have consulted with, and will continue to consult with, owners and operators of other offshore infrastructure both formally through statutory consultation and through wider discussions. Consultation has served to identify the potential issues and impacts, as identified within the assessment. The assessment concludes that embedded mitigation measures for the potential impacts identified lead to residual effects which are no greater than **minor** adverse and, therefore, not significant in EIA terms.

309. Resultingly, the Applicants position is that the Projects are wholly compliant with the requirements of NPS EN-3, the East Inshore and East Offshore Marine Plan, the North East Inshore and Offshore Marine Plan and the overarching policy test (as contained within NPS EN-1) which requires the Projects to avoid causing 'significant harm'.

5.3.11 Offshore Archaeology and Cultural Heritage

310. NPS EN-1 establishes that it is for applicants to undertake an assessment of any likely significant heritage impacts of a proposal, as part of the EIA process, and to describe these together with the application of the mitigation hierarchy. NPS EN-1 also requires applicants to describe the significance of heritage assets affected by proposals and to consider any contribution made by their setting.

311. NPS EN-3 recognises that offshore wind farms and transmission developments can affect the marine historic environment in two principal ways. These are: through direct effects arising from the physical siting of the infrastructure itself; and through indirect changes to the physical marine environment caused either by the infrastructure itself or its construction.

312. Policy SOC2 of the East Inshore and East Offshore Marine Plan seeks to ensure that existing marine and coastal heritage assets are protected from proposals that may have a detrimental impact upon them. The Policy requires that all heritage assets (whether formally designated or not), are considered in the decision-making process.

313. Similar to Policy SOC2 above, Policy NE-HER-1 of the North East Inshore and Offshore Marine Plan aims to conserve and enhance marine and coastal heritage assets by considering the potential for harm to their significance.

314. NPS EN-3 makes clear that desk-based assessments (DBAs) should be undertaken to assess the potential for likely significant effects to arise. Where available, geotechnical and or geophysical surveys should be considered as part of an assessment. NPS EN-3 states that it is an applicant's responsibility to conduct all necessary examination and assessment exercises, using a variety of techniques, to plan the development.

315. In all cases, NPS EN-3 encourages applicants to consult with Historic England and other stakeholders from an early pre-application stage.

316. Under NPS EN-5, applicants must also take into account Schedule 9 of the Electricity Act 1989 which requires applicants to have regard for the desirability of preserving historic or archaeological interests.

317. The Applicants confirm that, in line with the consultation requirements contained within NPS EN-3, early consultation with the relevant statutory consultees (e.g., Historic England) regarding offshore archaeology and cultural heritage has been undertaken, as evidenced within **Volume 7, Appendix 17-1 - Offshore Archaeology and Cultural Heritage Consultation Responses (application ref: 7.17.17.1)**.

318. **Volume 7, Chapter 22 Offshore Archaeology and Cultural Heritage assessment (application ref: 7.22)** provides a characterisation of the existing environment based upon site specific surveys and existing data sets. These have fed into the desk-based assessment of the existing environment. For the assessment, the Applicants undertook geophysical site-specific surveys which provided: sidescan sonar, magnetometer, multibeam echosounder, multibeam backscatter, sparker-sourced 2D ultra high resolution seismic and parametric sub-bottom profiler datasets. These geophysical datasets were considered suitable for archaeological interpretation and have served to inform the assessment of the existing environment.

319. Marine geotechnical site-specific surveys have also been undertaken and have also served to inform the understanding of the existing environment. The Applicants have also utilised other available data such as, but not limited to, the National Heritage List for England (NHLE) and the Humber Historic Environment Record (HER).

320. From an understanding of the existing environment, the assessment has identified several potential impacts spanning the construction, operation and decommissioning of the Projects. These impacts are the potential for direct impacts to known heritage assets, the potential for direct impacts to potential heritage assets, the potential for indirect impacts to heritage assets from changes to physical processes and the potential for impacts to the setting of heritage assets.

321. With consideration of the above potential impacts, the assessment identifies: known wrecks and debris of archaeological interest; in situ prehistoric, maritime or aviation sites below Mean High Water Springs; sub-surface archaeology and geoarchaeological / palaeoenvironmental deposits; isolated finds; and known and potential heritage assets to be the key receptors for the assessment.

322. The assessment concludes that, following the mitigation hierarchy and the use of mitigation measures (both embedded and additional), the identified potential impacts are anticipated to result in residual effects both for the Projects and cumulatively (with other plans and projects) that are no greater than **minor** adverse, not significant in EIA terms.

323. During site selection, the Projects included a design principle relating to the Offshore Export Cable Corridor which made it a requirement of the Projects to avoid historic wrecks, as far as practicable. Following the completion of the archaeological assessment of marine geophysical data, Archaeological Exclusion Zones (AEZs) have been recommended and so no development activities relating to the Projects will take place within these identified zones. **Volume 8, Outline Written Scheme of Investigation (Offshore) (application ref: 8.22)** secures the implementation, monitoring, and modification (as applicable) of a AEZs.

324. Where embedded mitigation measures have not been capable of reducing likely significant effects (post-embedded mitigation), the Projects have incorporated additional mitigation measures.

325. The key additional mitigation measures proposed are outlined within **Volume 8, Outline Written Scheme of Investigation (Offshore) (application ref: 8.22)** whose purpose is to set out the methods to mitigate the effects on all the known and potential archaeological receptors within the offshore Order Limits.

326. A detailed archaeological written scheme of investigation in relation to the offshore Order limits seaward of Mean High Water Springs is secured via the Deemed Marine Licence (DML) 1 & 2 (Condition 15), DML 3 (Condition 13), DML 4 (Condition 15) and DML 5 (Condition 10) as contained within **Volume 3, Draft Development Consent Order (application ref: 3.1)**.

327. In summary, the Applicants confirm that the assessment and its outcomes are wholly in compliance with the requirements of NPS EN-1, NPS EN-3, NPS EN-5, the East Inshore and Offshore Marine Plan and the North East Inshore and Offshore Marine Plan.

5.4 Technical Onshore Studies

328. This section summarises the findings of the ES for the onshore specific technical studies. Each subsection below considers the Projects' compliance with the most pertinent policies and paragraphs from the NPSs and, where both important and relevant, the NPPF and Local Plan (adopted and emerging).

5.4.1 Terrestrial Ecology and Ornithology

329. NPS EN-1 makes clear that where development is subject to EIA, applicants are to ensure that assessments clearly set 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, including irreplaceable habitats.

330. NPS EN-1 also requires applicants to demonstrate how a project has taken advantage of opportunities to conserve and enhance biodiversity and geological conservation interests. NPS EN-3 recognises that good design is a key mechanism through which projects can mitigate for potential impacts.

331. Policy ENV4 of the East Riding of Yorkshire Local Plan 2012 - 2029 Strategy Document also supports NPS EN-1 and NPS EN-3 by stating that proposals which are likely to have adverse effects (significant or otherwise) on International, National or Local Sites will be considered against the protection which is afforded to them and those wider benefits of a project which could otherwise and clearly outweigh the impact on the Site.

332. NPS EN-1 and the NPPF go on to recognise that avoidance, mitigation, compensation, and enhancement measures are integral parts and processes in developing proposals.

333. NPS EN-1, NPS EN-5 and the NPPF make clear that biodiversity net gain (BNG) is an essential component of environmental gain and that projects should seek to incorporate measurable ecological improvements to the natural environment.

334. NPS EN-3 makes it a requirement of applicants to develop an ecological monitoring programme to monitor impacts during the pre-construction, construction and operational phases to identify the actual impacts caused by the project and compare them to what was predicted in the EIA.

335. The Applicants note that the provisions of the Environment Act 2023 relating to BNG for applications under the Town and Country Planning Act have now come into force. However, provisions relating to DCO applications under the PA 2008 have not yet come into force and are not expected to until at least November 2025. At a national level, this delay reflects the need for the complexities of nationally significant infrastructure projects and their interaction with the BNG metric to be fully understood by Natural England and developers, acknowledging that they are not the same as blocks of land lost to housing developments.

336. The likely significant effects of the Projects on terrestrial ecology and ornithology have been considered within **Volume 7, Chapter 18 Terrestrial Ecology and Ornithology (application ref: 7.18)**. The assessment has considered the Projects' effects upon: statutorily designated and non-statutorily designated sites of ecological or geological (- the latter in **Volume 7, Chapter 19 Geology and Land Quality (application ref: 7.19)**) importance, death, injury, or disturbance to species inclusive of protected and notable species, temporary habitat loss and fragmentation, permanent habitat loss and habitat and species disturbance resulting from construction, operation, and decommissioning.

337. The Applicants' assessment **(Volume 7, Chapter 18 Terrestrial Ecology and Ornithology (application ref: 7.18))** concludes that, for construction, the following residual significant effects are anticipated:

- Impact 2: Construction disturbance to non-statutory designated sites (Bentley Moor Wood and Nitrogen deposition only) which is **moderate** adverse;
- Impact 3: Temporary habitat loss / fragmentation to all habitats (Bentley Moor Wood and Nitrogen deposition only) which is **moderate** adverse; and
- Impact 8: Death, injury or disturbance to breeding birds which is **moderate** adverse.

338. The detail and scope of the decommissioning works will be determined by the relevant legislation and guidance at the time of decommissioning and agreed with the regulator. As such, impacts during the decommissioning stage are assumed to be the same as those identified during the construction stage.

339. The Applicants' assessment concludes that no residual effects during operation will be greater than **minor** adverse and so not significant in EIA terms.

340. With regard for the potential for cumulative effects, the assessment identifies cumulative effects with Hornsea 4 Offshore Windfarm, the Jocks Lodge Development and Scotland England Green Link 2. No significant cumulative effects (with other plans or projects) were identified in relation to terrestrial ecology and ornithology except for breeding birds during the construction phase of the Projects and Hornsea 4 Offshore Windfarm, Birkhill Wood National Grid Substation, Scotland England Green Link 2, A164 and Jock's Lodge Improvement Scheme, which were assessed as **moderate** adverse.

341. The identified significant residual effects for construction, which for the purposes of the assessment have also been assumed for decommissioning, and cumulatively with other plans and projects, reflect a minority of terrestrial ecology and ornithology effects. Through the adoption of embedded and additional mitigation measures and good design principles, the Applicants have been able to reduce the majority of significant effects to a position where residual effects are not significant in EIA terms.

342. In order to mitigate for the identified pre-mitigation effects, the Applicants have developed and submitted **Volume 8, Outline Code of Construction Practice (application ref: 8.9)** and **Volume 8, Outline Ecological Management Plan (application ref: 8.10)**.

343. **Volume 8, Outline Ecological Management Plan (application ref: 8.10)** sets out an outline of the actions that are proposed to avoid or mitigate ecological impacts during the pre-construction, construction, and operation phases of the Projects. The production of a detailed Ecological Management Plan has been secured via Requirement 12 of **Volume 3, Draft Development Consent Order (application ref: 3.1)**.

344. The Outline CoCP contains the principles and controls which relate to the management of construction impacts to mitigate for the potential environmental impacts of onshore construction of the Projects. The production of a detailed CoCP has been secured via Requirement 19 of **Volume 3, Draft Development Consent Order (application ref: 3.1)**.

345. In turning to BNG, the Applicants confirm that a Biodiversity Net Gain Strategy will be provided prior to the commencement of construction, in accordance with **Volume 7, Appendix 18-10 - Biodiversity Net Gain Strategy (application ref: 7.18.18.10)**.

346. The final Biodiversity Net Gain Strategy will be informed by the detailed design of the Projects, including landscape proposals, construction methods and Projects timescale. Based upon these parameters, the final Biodiversity Net Gain Strategy will:

- Provide a finalised metric calculation to assess the on-site net change in biodiversity and the requirements to deliver a net gain;
- Detail the on-site and off-site measures to deliver a no net loss, or where possible a net gain; and
- Detail how compensation will be legally secured, managed and monitored for a minimum 30-year period.

347. The provision of a final biodiversity net gain strategy has been secured via Requirement 32 of **Volume 3, Draft Development Consent Order (application ref: 3.1)**.

348. In summary, the Applicants consider that all reasonable and practicable efforts have been made to mitigate the identified effects. Against NPS EN-1, the residual adverse effects must be weighed against the "*urgent need for CNP Infrastructure to achieving our energy objectives, together with the national security, economic, commercial, and net zero benefits*". The key policy test, in this instance, relates to the fact that CNP infrastructure *"will in general outweigh any other residual impacts not capable of being addressed by application of the mitigation hierarchy."*

349. The Applicants submit that having completed a detailed Terrestrial Ecology and Ornithology assessment which sets out the effects of the Projects and with the mitigation measures proposed as well as taking account of the importance attached to CNP infrastructure, the Projects demonstrably satisfy the overarching policy test as established within NPS EN-1.

5.4.2 Geology and Land Quality

350. NPS EN-1 requires that developments seek to avoid significant harm to geological conservation interests, including mitigation and the consideration of reasonable alternatives. A review of geologically designated sites, including Local Geological Site (LoGS), within the Onshore Development Area has been undertaken as part of the preparation of **Volume 7, Chapter 19 Geology and Land Quality** (**application ref: 7.19)**.

351. The assessment has identified that there is one LoGS (being Skipsea Drain) located within the Landfall Zone and Onshore Export Cable Corridor. The potential impacts to this feature and the mitigation measures embedded during the construction and operational phases are discussed. The assessment concludes that the effect to this receptor is no greater than **minor** adverse and so not significant in EIA terms.

352. As no internationally or nationally designated sites are located within the Onshore Development Area, the Applicants have not considered it necessary to submit a Geodiversity Management Plan.

353. NPS EN-1 requires that developments seek to minimise the impact on BMV agricultural land. The potential impacts associated with the potential loss of agricultural land and disruption to farming practices are discussed within **Volume 7, Chapter 21 Geology and Land Quality (application ref: 7.21)**. The Applicants have prepared and submitted an **Outline Soil Management Plan (OSMP)** as **Appendix A** to **Volume 8, Outline Code of Construction Practice (application ref: 8.9)** which is secured via Requirement 19 of **Volume 3, Draft Development Consent Order (application ref: 3.1)**. The OSMP forms part of the embedded mitigation measures for the Projects.

354. The Joint Minerals Local Plan 2016 – 2033 (Adopted November 2019) outlines the resources present within the East Riding of Yorkshire and Kingston upon Hull areas. The Joint Minerals Local Plan defers back to Policy EC6 of the East Riding of Yorkshire Local Plan 2012- 2029 Strategy Document where the Policy makes clear that non-mineral developments within or adjacent to Mineral Safeguarding Areas (which would adversely affect the viability of exploiting the underlying or adjacent deposit) will only be supported where, for example, the need for the development outweighs the need to safeguard the deposit.

355. The Applicants confirm that the site selection process **Volume 7, Chapter 4 Site Selection and Assessment of Alternatives (application ref: 7.4)** for the Onshore Export Cable Corridor has sought to minimise as far as practicable the sterilisation of safeguarded sand and gravel and chalk resources. Resultingly, the assessment in Chapter 19 has concluded that the residual effects upon the sterilisation of mineral resources is no greater than **minor** adverse and so not significant in EIA terms.

356. NPS EN-1 requires development proposals to have considered the risk posed by land contamination. Where contamination is present, applicants should consider opportunities for remediation, where possible.

357. The Applicants have reviewed potential sources of contamination associated with the current and historical land uses within the study area as has been outlined in through **Volume 7, Appendix 19-2 - Geo-Environmental Desk Study and Preliminary Risk Assessment Report (application ref: 7.19.19.2)**. Following completion of targeted ground investigations, if required, as part of a contaminated land and groundwater scheme (as has been secured by Requirement 29 of **Volume 3, Draft Development Consent Order (application ref: 3.1)**) a generic quantitative risk assessment will be undertaken to assess the potential risks to human health and controlled water receptors from the Projects. The assessment will also include recommendations for further works, including remediation, should they be deemed necessary.

358. The assessment has established that the receptors relating to Geology and Land Quality could be impacted due to direct disturbance and mobilisation of existing contamination, introduction of new sources of contamination and sterilisation of mineral resources during all phases of the Projects.

359. Through the mitigation measures provisioned in relation to geology and ground conditions, residual effects are anticipated to be no greater than **minor** adverse and so not significant in EIA terms. Therefore, the Applicants position is that the Projects are wholly in accordance with the requirements of NPS EN-1, and NPS EN-3, the East Riding of Yorkshire Local Plan 2012-2029 Strategy Document and the Joint Minerals Local Plan 2016 – 2033 as the Projects avoid significant harm to geological conservation interests, including through mitigation.

5.4.3 Flood Risk and Hydrology

360. NPS EN-1 states that applicants should undertake an assessment of the existing status and impacts of the proposed project on water quality, water resources and the physical characteristics of the water environment.

361. NPS EN-3 requires that an assessment should be undertaken and consider effects across the entire lifespan of a proposed wind farm.

362. NPS EN-5 requires applicants to set out to what extent the proposed development is expected to be vulnerable, and, as appropriate, how resilient it would be to flooding.

363. The NPPF sets out the UK Government planning policies for England and seeks to ensure that flood risk is considered at all stages of the planning and development process. Its policies aim to avoid inappropriate development in areas at highest risk of flooding, and to direct development away from these areas.

364. The baseline risk of flooding to the key onshore elements of the Projects have been explored for the Landfall Zone, Onshore Export Cable Corridor, Onshore Substation Zone and Onward Connection to the proposed Birkhill Wood National Grid Substation as well as the Temporary Construction Compounds.

365. The assessment in **Volume 7, Chapter 20 Flood Risk and Hydrology (application ref: 7.20)** undertaken for the Projects concludes that the only above ground infrastructure, during the operational phase, is the Onshore Converter Stations which are located in Flood Zone 1 (i.e., at low risk from either coastal or fluvial flooding), therefore it was not considered necessary to assess the credible maximum climate change scenario for flood risk further.

366. Details of the proposed surface water drainage design, including the approach to the adoption of the Sustainable Drainage System (SuDS) Hierarchy, during construction and operation has been set out within **Volume 8, Outline Drainage Strategy (application ref: 8.12)**. The production of detailed construction and operational drainage strategies has been secured via Requirement 16 of **Volume 3, Draft Development Consent Order (application ref: 3.1)**.

367. The assessment in **Volume 7, Chapter 20 Flood Risk and Hydrology (application ref: 7.20)** concludes that there are no significant effects predicted during the operational phase of the Projects in relation to a reduction in water quality. **Volume 7, Appendix 20-3 - Water Environment Regulations Compliance Assessment (application ref: 7.20.20.3)** has considered the potential effects of the Projects to ensure that the proposed activities would not cause or contribute to the deterioration of status or jeopardise any waterbodies from achieving Good status.

368. The results of **Volume 7, Chapter 20 Flood Risk and Hydrology (application ref: 7.20)**, supported by **Volume 7, Appendix 20-4 - Flood Risk Assessment (application ref: 7.20.20.4)** as well as **Volume 7, Appendix 20-3 - Water Environment Regulations Compliance Assessment (application ref: 7.20.20.3)** undertaken for the Projects found that there are likely to be no significant effects as a result of the development during the construction, operation and decommissioning stages, following implementation of the secured mitigation and commitments. Therefore, it can be considered that the Projects are supported by the NPS EN-1, NPS EN-3, NPS EN-5 and NPPF policies.

5.4.4 Land Use

369. NPS EN-1 states that the ES should identify existing and proposed land uses near the project and any effects of replacing an existing development or use of the site with the proposed project or preventing development or use on a neighbouring site from continuing.

370. NPS EN-1 also sets out how, although in the case of many energy infrastructure projects, there may be little that can be done to mitigate the direct effects of a project on the existing use of the proposed site, applicants should nevertheless seek to minimise these effects and the effects on existing or planned uses near the site by the application of good design principles, including the layout of the Projects.

371. **Volume 7, Chapter 21 Land Use (application ref: 7.21)** considers the impacts of the following receptors: green belt (but in recognising that the Projects are not within a designated area of Green Belt), mineral resources, BMV agricultural land and green infrastructure relating to Public Rights of Way (PRoW) and cycle routes.

372. Mitigation measures which respond to the identified impacts on the existing PRoW and cycle routes, during construction and operation, have been secured within the **Outline Public Rights of Way Management Plan** which has been included as **Appendix C** to **Volume 8, Outline Code of Construction Practice (application ref: 8.9)**.

373. The Applicants have sought to minimise the likely impacts to BMV agricultural land, where practicable. However, the predominant land cover between landfall and the Onshore Substation Zone is classed as BMV agricultural land. Resultingly, the Applicants' ability to avoid use of BMV agricultural land would be extremely limited.

374. An **Outline Soil Management Plan** has been provided for as **Appendix A** to **Volume 8, Outline Code of Construction Practice (application ref: 8.9)** and is secured by Requirement 19 of **Volume 3, Draft Development Consent Order (application ref: 3.1)**. The OSMP forms part of the embedded mitigation measures for the Projects as contained within the Land Use assessment The detailed SMP will be produced at the detailed design stage, post-consent.

375. Based on existing data, the existing environment for Land Use has established that there would be minor residual construction effects on land use receptors, as assessed. These impacts are driven mainly by changes in land use and soil handling and the disruption to PRoWs, paths, and cycle routes during construction. The construction impacts on land use and soil is more likely to be more significant on higher sensitivity land (such as BMV land) and land subject to agri-environmental schemes. The construction phase of the Projects has the potential to disrupt paths and national cycle routes, which are determined to have high sensitivity to change. However, many of the impacts are temporary and reversible once construction is complete.

376. During operation, the impacts on Land Use are limited. This is because the Onshore Export Cables would be buried. However, a single residual impact pertaining to the permanent loss of land for agriculture at the Onshore Converter Stations during operation has been identified as **major** adverse, which is significant in EIA terms.

377. In conclusion, the Projects are wholly in compliance with the policy requirements of NPS EN-1. Against the backdrop of the Projects constituting CNP infrastructure, for which there is a clear and urgent need, the single residual significant effect is demonstrably outweighed by the critical need for the Projects. Additionally, given the nature of the residual significant effect, it is the Applicants' position that the extent to which this effect could be mitigated for via the mitigation hierarchy is inherently limited.

5.4.5 Onshore Archaeology and Cultural Heritage

378. NPS EN-1 establishes that it is for applicants to undertake an assessment of any likely significant heritage impacts of a proposal, as part of the EIA process, and to describe these together with the application of the mitigation hierarchy.

379. NPS EN-1 also establishes that it is for applicants to describe the significance of heritage assets affected by proposals and that, as per the requirement of NPS EN-3, an applicant's assessment should be informed by information from Historic Environment Records (HERs) or the local authority.

380. Similarly, NPPF paragraph 200 requires applicants to describe the significance of any heritage assets affected by a proposal, including any contribution made by their setting, whilst also providing a level of detail which is proportionate to the assets' importance and no more than is sufficient to understand the proposal's potential impacts.

381. The NPPF makes clear that where a development proposal will lead to less than substantial harm to the significance of a designated heritage asset, such harm should be weighed against the public benefits of the proposal.

382. In relation to below ground assets, applicants are expected to undertake desk-based assessments and, where necessary, field evaluations. NPS EN-3 states that the extent of such investigative work should be proportionate to the sensitivity and extent of ground disturbances required.

383. NPS EN-1 requires applicants to carefully consider their proposals impacts on the historic environment. The NPPF makes clear that where a proposal will lead to less than substantial harm, such harm should be weighed against the public benefits of the proposal.

384. Under NPS EN-5, applicants must also take into account Schedule 9 of the Electricity Act 1989 which requires applicants to have regard for the desirability of preserving historic or archaeological interests.

385. Policy ENV3 of the East Riding of Yorkshire Local Plan 2012- 2029 Strategy Document requires the significance, views, setting, character, and appearance of heritage assets to be conserved in order to contribute towards East Riding's distinctive historic character.

386. **Volume 7, Chapter 22 Onshore Archaeology and Cultural Heritage assessment (application ref: 7.22)** considers the potential likely significant heritage impacts resulting from the construction, operation and decommissioning of the Projects and how these impacts have been mitigated for to reduce their significance of effect upon the identified receptors.

387. The Applicants' assessment of the existing environment has been informed by a wealth of data and information sources which includes site-specific surveys (such as but not limited to: a heritage walkover survey, an archaeological geophysical survey, targeted trial trenching works and a geoarchaeological desk-based assessment) and other available data sources (such as but not limited to: the National Heritage List for England (NHLE), the Humber HER, the CITiZAN dataset, the Historic England archive and Light Detection and Ranging (LiDAR) survey data).

388. A total of six potential construction impacts and two operational potential impacts have been identified through the assessment. The decommissioning impacts and effects are anticipated to be similar in nature to those of construction and so the assessment's construction effects outcomes reflect the Projects' decommissioning effects also.

389. The assessment concludes that the identified potential impacts of the Projects result in residual effects to the identified receptors that are no greater than **minor** adverse in significance and so not significant in EIA terms. The assessment also concludes that no significant cumulative effects (with other plans and projects) has been identified in relation to onshore archaeology and cultural heritage.

390. The Applicants, through mitigation measures, have been able to reduce the significance of all pre-mitigation significant effects to residual effects which are not significant.

391. Mitigation embedded into the Projects include mitigation by site selection to avoid direct physical impacts upon designated heritage assets; making use of sequential build efficiencies to minimise construction disturbances; mitigation by avoidance of possible areas of high archaeological significance within the Onshore Development Area and the production and submission of **Volume 8, Outline Onshore Written Scheme of Investigation (application ref: 8.14)**.

392. The Outline Onshore Written Scheme of Investigation (WSI) defines the strategy to undertake additional programmes of survey and evaluation post-consent and will include a range of likely mitigation options and responses to be utilised under various scenarios. The production of a detailed WSI has been secured via Requirement 18 of **Volume 3, Draft Development Consent Order (application ref: 3.1)**.

393. Based on the outcomes of the assessment and the sequential application of mitigation measures, the Applicants consider that the Projects are wholly compliant with the requirements of NPS EN1, NPS EN3, NPS EN-5, the NPPF and the Local Plan.

394. In recognising that the Projects will result in residual effects which are of a 'less than substantial' nature, the key policy test (as written into the NPPF), is that such harm is weighted against the public benefits. Given the clear and urgent need to deploy renewable energy at speed and scale, the Projects demonstrably give rise to substantial public benefits which outweigh the less than substantial harm identified.

5.4.6 Landscape and Visual Impact

395. EN-1 requires applicants to carry out a landscape and visual assessment and report it in the ES. EN-1 further states that 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.

396. EN-1 further states that 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. This 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.

397. The East Riding of Yorkshire Local Plan 2012-2029: Strategy Document (East Riding of Yorkshire Council, 2016) sets out in Policy ENV2 that "*Development proposals should be sensitively integrated into the existing landscape, demonstrate an understanding of the intrinsic qualities of the landscape setting and, where possible, seek to make the most of the opportunities to protect and enhance landscape characteristics and features.*"

398. **Volume 7, Chapter 23 Landscape and Visual Impact Assessment (application ref: 7.23)** has considered the character and sensitivity of landscapes to accommodate the Projects. For example, in duly considering the character and landscape sensitivity, the identification of representative viewpoints in informing the assessment of the Onshore Converter Stations had been selected and agreed with stakeholders such as East Riding of Yorkshire Council and Hull City Council.

399. The Applicants' assessment concludes the following significant residual effects:

- Construction Impact – Landscape Effects of Landfall Zone construction works on landfall sub area (**Volume 7, Figure 23-1 (application ref: 7.23.1)** and **Figure 23-3 (application ref: 7.23.1)**);
- Operational Impact 1: Landscape Effects of Onshore Converter Stations on the Onshore Substation Zone;
- Operational Impact 2: Landscape Effects of the Onshore Converter Stations on the Yorkshire Wolds Important Landscape Area (ILA) on Yorkshire Wolds ILA; and
- Operational Impact 3: Visual Effects of Onshore Converter Stations on Viewpoint 1: Butt Farm, Viewpoint 2: Coppleflat Lane, Bentley and Viewpoint 3: Beverley 20 near Broadgate.

400. The above significant residual effects reflect a minority of Landscape and Visual effects where the majority of Landscape and Visual residual effects are, through the use of mitigation measures, no greater than **minor** adverse, and so not significant in EIA terms.

401. The significant residual effect relating to the Construction Impact at the Landfall Zone will reduce to **negligible** for landscape effects and minor (not significant) for the visual receptors following the restoration of the landscape, maturation of reinstated landscape features (e.g., hedgerows) over time and the minimal permanent above ground infrastructure present (manhole covers for six link boxes).

402. Furthermore, embedded mitigation includes the **Volume 8, Outline Landscape Management Plan (application ref: 8.11)**, landscape screening, hedgerow reinstatement, the production of **Volume 8, Design and Access Statement (application ref: 8.8)**, minimised Projects' dimensions, and site selection.

403. These adverse effects must be weighed against NPS EN-1 which establishes that there is an *"urgent need for CNP Infrastructure to achieving our energy objectives, together with the national security, economic, commercial, and net zero benefits"*. CNP infrastructure *"will in general outweigh any other residual impacts not capable of being addressed by application of the mitigation hierarchy."*

404. The Applicants, through the use of mitigation measures (both embedded and additional), have been able to reduce the significance of the majority of pre-mitigation significant effects to **minor** adverse and resultingly not significant in EIA terms.

405. The Applicants submit that having completed a detailed Landscape and Visual Impact assessment which sets out the effects of the Projects and with the mitigation measures proposed as well as taking account of the importance attached to CNP infrastructure that the Projects therefore satisfies the tests set out in NPS EN-1 as well the East Riding of Yorkshire Local Plan relating to landscape and visual matters.

5.4.7 Traffic and Transport

406. NPS EN-1 states that the consideration and mitigation of transport impacts is an essential part of the Government's wider policy objectives for sustainable development, and that if a project is likely to have significant transport implications, the applicant's ES should include a Transport Assessment. The applicants should also prepare a travel plan including demand management and monitoring measures to mitigate transport impacts.

407. EN-1 also explains that a new energy NSIP may give rise to substantial impacts on the surrounding transport infrastructure, and the SoS should therefore ensure that the applicant has sought to mitigate these impacts, including during the construction phase of the development.

408. Both the East Riding Local Plan 2012 – 2029 Strategy Document – Adopted April 2016 and Hull Local Plan 2016 – 2032 – Adopted November 2017 (Hull City Council, 2017) have policies relating to sustainable transport and travel whilst also requiring that applications should contain transport appraisals where appropriate.

409. **Volume 7, Chapter 24 Traffic and Transport (application ref: 7.24)** focuses on construction phase effects. There is no requirement for operational traffic assessment as operational traffic numbers generated by the Projects are likely to be very low, with only weekly visits for 2 personnel to the Onshore Converter Stations and annual inspections of the onshore cable Jointing Bays required.

410. **Volume 8, Outline Construction Traffic Management Plan (application ref: 8.13)** is provided in support of the DCO Application. The Outline Construction Traffic Management Plan (OCTMP) includes outline travel plan measures, which would be developed further in consultation with the relevant highway authorities prior to the commencement of the Projects.

411. A number of road links were assessed as having potential **moderate** to **major** adverse effects for amenity, road safety and driver delay. Additional mitigation measures identified include discussions with relevant highways authorities to agree acceptable levels of Heavy Goods Vehicles, road safety interventions e.g., limiting peak daily traffic, restricting delivery times etc., extension of or new passing places, road / junction widening, and use of trenchless crossings.

412. **Volume 7, Chapter 24 Traffic and Transport (application ref: 7.24)** concluded that no residual moderate or major adverse effects would arise after mitigation i.e., the implementation of the Construction Traffic Management Plan and the additional mitigation measures described above, with all effects being of either **minor** adverse or **negligible** significance, and not significant in EIA terms. Therefore, it can be considered that the Projects comply with those relevant policies contained within NPS EN-1, the East Riding Local Plan Strategy Document, and the Hull Local Plan relating to traffic and transport.

5.4.8 Noise

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

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

415. The NPPF requires decisions to contribute to and enhance natural and local environments by preventing new development from contributing to, or being adversely affected by, unacceptable levels of noise pollution.

416. Policy ENV6 of the East Riding of Yorkshire Local Plan 2012 - 2029 Strategy Document requires environmental hazards, such as noise, to be managed so that developments do not result in unacceptable consequences to users, the wider community and the environment.

417. Policy 49 of the Hull Local Plan 2016 to 2032 (Hull City Council, 2017) also requires developments resulting in noisy activities to demonstrate that there would be an acceptable level of amenity for noise sensitive end users. The Policy also makes clear that developments generating noise should demonstrate that adverse impacts from noisy activities can be mitigated for to ensure acceptable impacts are not exceeded.

418. **Volume 7, Chapter 25 Noise (application ref: 7.25)** assesses the potential effects of the onshore elements of the Projects on the surrounding noise sensitive receptors. The assessment has been informed by consultation with East Riding of Yorkshire Council and Hull City Council.

419. The Applicants' assessment has considered six potential impacts which may arise across the Projects' construction, operation, and decommissioning. These identified impacts include the potential for construction noise at the landfall zone, construction noise along Onshore Export Cable Corridor at Temporary Construction Compounds (TCCs) (during daytime, evenings and weekends), construction noise along Onshore Export Cable Corridor for HDD (during night time), construction noise at Onshore Converter Station(s), construction road traffic noise, construction vibration and potential operational impacts of the Onshore Converter Station(s). For all impacts, across the assessment's identified receptors, no residual effect is greater than **minor** adverse and so not significant in EIA terms.

420. The Applicants have adopted embedded mitigation measures to ensure that no significant adverse effects arise across the Projects' lifespans. These include construction noise management measures which are detailed within **Volume 8, Outline Code of Construction Practice (application ref: 8.9)**. The Outline CoCP, as secured by Requirement 19 of **Volume 3, Draft Development Consent Order (application ref: 3.1)**, details site-specific best practicable means in response to construction noise. In addition, **Volume 7, Chapter 25 Noise (application ref: 7.25)** details additional mitigation measures that are required at 3 receptors to ensure that construction noise at HDD locations (during night time) are reduced to levels where they are not significant in EIA terms. This includes additional screening of works, and requirements around programming of works.

421. **Volume 8, Outline Code of Construction Practice (application ref: 8.9)** is submitted with the DCO Application. The OCTMP includes methods to manage peak construction traffic flows and so will also serve to reduce associated construction traffic noise and relative noise change.

422. Therefore, it is considered that the Projects achieve good design through the adoption of best practicable means which avoid causing significant amenity harm. It can therefore be concluded that the Projects are supported by the policy requirements of NPS EN-1, NPS EN-3, NPS EN-5, the NPPF and the Hull Local Plan as well as the East Riding of Yorkshire Local Plan noise policy requirements which have been assessed in detail through **Volume 8, Policy Compliance Assessment Tables (application ref: 8.2)**.

5.4.9 Air Quality

423. NPS EN-1 states that the ES should describe existing air quality concentrations and the relative change in air quality from existing levels; any significant air quality effects, mitigation action taken and any residual effects. In addition, the predicted absolute emissions, concentration change and absolute concentrations as a result of the proposed project, after mitigation should be considered and any potential eutrophication impacts.

424. NPS EN-3, states that the Secretary of State should generally give air quality and emissions considerations substantial weight, following the guidance set out in section 5.2 of EN-1. Applicants should include in the ES an assessment of the air emissions resulting from the proposed infrastructure and demonstrate compliance with the relevant regulations.

425. The NPPF in paragraphs 180 and 192 requires that planning policies and decisions contribute to and enhance the natural and local environment by preventing new development from contributing to the creation of unacceptable levels of pollution. Opportunities to improve air quality or mitigate impacts should be identified, such as through traffic and travel management, and green infrastructure provision and enhancement.

426. Policy EC5 of the East Riding of Yorkshire Local Plan 2012 - 2029 Strategy Document and Policy 18 of the Hull Local Plan 2016 to 2032 (Hull City Council, 2017) require that the effects of development on local amenity relating to air quality should be described and that developments for energy generation will be supported where any significant adverse impacts are addressed satisfactorily, and the residual harm is outweighed by the wider benefits of the proposal.

427. The Applicants' assessment of air quality in **Volume 7, Chapter 26 Air Quality (application ref: 7.26)** provides a characterisation of the existing environment for air quality based on existing data, and an assessment of the potential impacts of the construction of the Projects. Onshore operation and maintenance, and offshore air quality impacts have been agreed as not required. The assessment has been undertaken with reference to the assessment methodology agreed with East Riding of Yorkshire Council and Hull City Council.

428. The assessment provides a characterisation of the existing air quality conditions and an assessment of the onshore air quality impacts and potential for significant effects due to the construction and decommissioning phases of the Projects, including those associated with road traffic emissions.

429. Based upon the outcomes of the assessment, no additional mitigation is needed during construction as no significant residual effects have been identified.

430. The Applicants have through the iterative site selection process, as set out in **Volume 7, Chapter 4 Site Selection and Assessment of Alternatives (application ref: 7.4)**, taken account of and sought to avoid sensitive receptors such as residential buildings and designated sites for the Onshore Converter Stations and Onshore Export Cable Corridor. The Order Limits for the Projects were developed taking these factors into account.

431. **Volume 8, Outline Code of Construction Practice (application ref: 8.9)** sets out best practice air quality management measures, commitments and working standards proposed to be adopted and implemented throughout the construction process. The assessment outcomes have informed the selection of construction measures to minimise impacts.

432. The impact on designated ecological sites due to potential increases in traffic was also considered and compared to the appropriate Critical Loads and Levels. Whilst some impacts were predicted to be below the threshold of insignificance, the impacts of certain pollutants require specific ecological consideration to determine the significance of effect (which is addressed in **Volume 7, Chapter 18 Terrestrial Ecology and Ornithology Assessment (application ref: 7.18)**). These effects will be mitigated and controlled during construction by the measures included in **Volume 8, Outline Code of Construction Practice (application ref: 8.9)** relating to pollution control.

433. The detail and scope of the decommissioning works would be determined by the relevant legislation and guidance at the time of decommissioning and agreed with the regulator. A Decommissioning Plan would be provided prior to any decommissioning commencing onshore.

434. Based on the outcomes of the Air Quality assessments undertaken and taking account of the proposed mitigation measures, the Projects are therefore supported by NPS EN-1, NPS EN-3, the NPPF, the East Riding Local Plan Strategy Document and the Hull Local Plan.

5.5 Technical Onshore / Offshore Studies

435. This section briefly summarises the findings of the ES for the Wider Projects' Aspects. The full reports can be found in **Volume 7** of the ES as follows:

- **Chapter 27 Human Health (application ref: 7.27)**;
- **Chapter 28 Socio-Economics (application ref: 7.28)**;
- **Chapter 29 Tourism and Recreation (application ref: 7.29)**; and
- **Chapter 30 Climate Change (application ref: 7.30)**.

5.5.1 Human Health

436. NPS EN-1 highlights that energy infrastructure has the potential to impact on the health and well-being of the population and may also affect the composition and size 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.

437. NPS EN-1 notes that access to energy is clearly beneficial to society and to health as a whole, but that the construction of such infrastructure and the production, distribution and use of energy may have negative impacts on some people's health. Where a proposed development has an effect on humans, the ES should assess these effects for each element of the development, identifying any potential adverse health impacts, and identifying measures to avoid, reduce or compensate for these impacts as appropriate. Where the impacts of more than one development may affect people simultaneously, the applicant should consider the cumulative impact on health in the ES where appropriate.

438. NPS EN-5 states that overhead power lines produce Electric and Magnetic Fields and although putting cables underground eliminates the electric field, they still produce magnetic fields, which are highest directly above the cable.

439. SOC 1 of the East Inshore and East Offshore Marine Plan states that proposals that provide health and social well-being benefits including through maintaining, or enhancing, access to the coast and marine area should be supported.

440. For Human Health, potential impacts on population health from changes due to the Projects, have been assessed. The assessment in **Volume 7, Chapter 27 Human Health (application ref: 7.27)** has been informed by a review of relevant public health evidence sources as well as residual effect conclusions from other relevant offshore and onshore ES Chapters.

441. Two receptor groups have been identified for potential impacts being:

- General population, and
- Vulnerable group population.

442. Population health varies given factors such as personal choice, location, mobility and exposure whilst vulnerability relates to experiencing effects differently due to age, income level, health status, degree of social disadvantage or ability to access services or resources.

443. **Volume 8, Outline Project Environmental Management Plan (application ref: 8.21)** sets out all procedures and measures to be followed during construction, operation, maintenance and decommissioning phases for pollution prevention for offshore health receptors to avoid significant impacts on human health. In addition, **Volume 8, Outline Code of Construction Practice (application ref: 8.9)** and **Volume 8, Outline Code of Construction Practice (application ref: 8.9)** include embedded and specific mitigation measures to minimize for example noise, air quality and visual impacts for onshore health receptors.

444. The Human Health assessment concludes that the impact of wider societal infrastructure on the general population and vulnerable population group during the operation phase was assessed as **moderate** beneficial. This relates to the benefits provided by renewable energy generation to public health, including how it supports many aspects of life such as food safety, and heating. The Projects are therefore supported by NPS EN-1 and EN-5 and the East Inshore and East Offshore Marine Plan in relation to human health.

5.5.2 Socio-Economics

445. NPS EN-1 states that 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.

446. NPS EN-3 states that Offshore wind farms and offshore transmission would occupy an area of the sea or seabed. For offshore wind farms in particular it is inevitable that there would be an impact on navigation in and around the area of the site. This is relevant to both commercial and recreational users of the sea who may be affected by disruption or economic loss because of the proposed offshore wind farm and/or offshore transmission.

447. Policy S1 of the East Riding of Yorkshire Local Plan 2012 - 2029 Strategy Document makes clear that the Council will positively approach development proposals that reflect sustainable development. Proposals which improve the economic, social, and environmental conditions across the East Riding of Yorkshire will be supported by the Council.

448. Policy EC1 of the East Riding of Yorkshire Local Plan 2012 - 2029 Strategy Document states that employment developments will be supported where the proposal is of a scale that is suitable to its location. The Policy expressly supports the development and strengthening of key employment sectors such as the renewable energy sector.

449. **Volume 7, Chapter 28 Socio-Economics (application ref: 7.28)** has considered direct socio-economic effects associated with the Projects and any secondary socio-economic implications. It provides a characterisation of the existing socio-economic environment based on publicly available data and considers evidence on demography, the economy, and the social infrastructure of the Humber Region, compared against UK-level performance. Potential impacts and residual effects were then assessed.

450. The assessment concludes that expenditure, employment and change in demographics during the construction and operation phase and economic activity and population and social infrastructure during the decommissioning phase will be **negligible** beneficial to **minor** beneficial. However, when considering construction of both Projects Concurrently, the effect significance of expenditure on the Humber Region increases to **moderate** beneficial.

451. **Volume 8, Outline Skills and Employment Strategy (application ref: 8.5)**, which will be developed further with relevant stakeholders to ensure positive and meaningful commitments and activities in the Humber Region, will contribute to the development of a skilled, diverse workforce and strengthen the existing manufacturing base.

452. Assessment of the remaining potential impacts included disturbance to social infrastructure in the construction and operational phases and loss of and disruption to local infrastructure during the construction phase. These potential impacts were assessed as having a **negligible** adverse effect significance and as such no further mitigation is proposed.

453. The assessment in **Volume 7, Chapter 28 Socio-Economics (application ref: 7.28)** considers the impacts on shipping and navigation based on the analysis in **Volume 7, Chapter 14 Shipping and Navigation (application ref: 7.14).** The assessment concludes that no impact on economic activity is expected as a result of construction activity interacting with commercial fisheries, fishing and navigation. **Volume 7, Chapter 13 Commercial Fisheries (application ref: 7.13)**, did not find any significant effects as a result of operational activity interacting with commercial fisheries, shipping and navigation.

454. Based on this assessment and its outcomes, the Projects are therefore supported by NPS EN-1, NPS EN-3 and the Local Plan in relation to socio-economics as the Projects provide beneficial outcomes to the economy of the Humber Region whilst not adversely impacting on the social infrastructure of the region.

5.5.3 Tourism and Recreation

455. NPS EN-1 states that Applicants are encouraged to design the layout and appearance of the site to ensure continued recreational use of public rights of way where possible during construction, and in particular during operation of the Projects. It also requires applicants to consider all relevant socio-economic impacts, which may include assessment of effects (positive and negative) on tourism and other users of the area impacted.

456. NPS EN-3 states that as offshore wind farms and offshore transmission will occupy an area of the sea or seabed, it is inevitable that there will be an impact on navigation in and around the area of the site. This is relevant to both commercial and recreational users of the sea who may be affected by disruption because of the proposed offshore wind farm and/or offshore transmission.

457. Policy SOC 1 of the East Inshore and East Offshore Marine Plan states that proposals that provide health and social well-being benefits including through maintaining, or enhancing, access to the coast and marine area should be supported. Policy TR 1 requires that proposals for development should demonstrate that during construction and operation, in order of preference, a) they will not adversely impact tourism and recreation activities and b) how, if there are adverse impacts on tourism and recreation activities, they will minimise them.

458. The assessment in **Volume 7, Chapter 29 Tourism and Recreation (application ref: 7.29)** for the onshore area as well as in **Volume 7, Chapter 14 Shipping and Navigation (application ref: 7.14)** for the offshore area undertaken for the Projects provides a characterisation of the existing environment for tourism and recreation based on existing data, and an assessment of potential impacts. The assessment draws on the outcomes from other relevant offshore and onshore ES Chapters.

459. For the onshore elements of the Projects a **moderate** adverse residual effect relating to landscape and visual impacts of the Onshore Converter Stations on a tourism asset (Butt Farm Caravan and Camping) has been identified. This effect will however reduce with distance, falling below the threshold of significance at no more than 1km from the Onshore Converter Stations' footprint. In addition, with the consideration of the additional mitigation measures within **Volume 8, Outline Landscape Management Plan (application ref: 8.11)** the significance of effect is reduced to **minor** adverse and **moderate** adverse for construction and operation, respectively.

460. All other onshore effects were assessed as **negligible** to **minor** adverse and not significant in EIA terms including the potential for impacts on PRoW, National Trails, and other rights of access to land which are important recreational facilities has been assessed. There will be no permanent closures of any recreational routes. However, there would be one minor permanent diversion where a PRoW crosses the permanent access for the Onshore Substation Zone, to allow for a change in level. Any disturbance would be temporary and reinstated as soon as reasonably practical.

461. The Shipping and Navigation assessment **(Volume 7, Chapter 14 Shipping and Navigation (application ref: 7.14))** concludes that no residual significant effects, which are greater than **minor** adverse and so not significant in EIA terms, are expected on offshore recreational activities. For potential impacts on access to recreational features, the greatest potential effects are likely to arise during construction and mitigation proposed includes, for example, adoption of trenchless crossing techniques at landfall to allow continued beach access and implementation of **Appendix C, Outline Public Rights of Way Management Plan** of **Volume 8, Outline Code of Construction Practice (application ref: 8.9)** to reduce potential impacts.

462. The Tourism and Recreation assessment concludes that there will be a residual **minor** adverse and **moderate** adverse impacts for construction and operation on Butt Farm Caravan and Camping site after the implementation of additional mitigation proposed in **Volume 8, Outline Landscape Management Plan (application ref: 8.11)** However, the NPS (EN-1) acknowledges in the Introduction section of the policy that it will not be possible to develop the necessary amounts of new large-scale energy infrastructure to meet the government's energy objectives without some significant residual adverse impacts.

463. The Applicants submit that when weighing the overall benefits of the Projects against the adverse impact on an individual tourism asset, as well as the taking into account the acknowledgement in NPS EN-1, that adverse impacts cannot be ruled out, the Projects are therefore compliant with NPS EN-1, NPS EN-3 and Policy SOC 1 of the East Inshore and East Offshore Marine Plan in relation to tourism and recreation.

5.5.4 Climate Change

464. The international agreements relevant for climate change and renewable energy are detailed in **Volume 7, Chapter 3 Policy and Legislative Context (application ref: 7.3)**. This highlights the United Nations Framework Convention on Climate Change (UNFCCC), the implementation of measures under the UNFCCC such as the Kyoto Protocol, the Paris Agreement and the UK's climate goals.

465. NPS EN-1 acknowledges that, to ensure that there is sufficient electricity to meet demand, new electricity infrastructure will have to be built to replace output from retiring plants and to ensure we can meet increased demand. Wind and solar are the lowest cost ways of generating electricity, helping reduce costs and providing a clean and secure source of electricity supply (as they are not reliant on fuel for generation). As part of delivering this, UK government announced in the British Energy Security Strategy an ambition to deliver up to 50GW of offshore wind by 2030.

466. EN-1 further states that as new energy infrastructure will typically need to remain operational over many decades, in the face of a changing climate, that applications for renewable energy projects should set out how the proposal will take account of the projected impacts of climate change. Applicants should also demonstrate that proposals have a high level of climate resilience built-in from the outset and how proposals can be adapted over their predicted lifetimes to remain resilient to a credible maximum climate change scenario, using government guidance and industry standard benchmarks such as the Climate Change Allowances for Flood Risk Assessments, Climate Impacts Tool, and British Standards for climate change adaptation, in accordance with the EIA Regulations.

467. It is also required that applicants, as far as possible, should assess the GHG emissions of all stages of the development and take all reasonable steps to reduce the GHG emissions of the construction and decommissioning stage of the development.

468. NPS EN-3 sets out generic considerations that applicants and the Secretary of State should take into account to help ensure that renewable energy infrastructure is safe and resilient to climate change, and that necessary action can be taken to ensure the operation of the infrastructure over its estimated lifetime. Specifically for offshore wind farms, it is acknowledged that although they will not be affected by flooding, applicants should demonstrate that any necessary land-side infrastructure (such as cabling and onshore substations) will be appropriately resilient to climate-change induced weather phenomena.

469. The NPPF advises that the planning system should support the transition to a low carbon future by taking a proactive approach to mitigating and adapting to climate change, taking into account the long-term implications for flood risk, coastal change, water supply, biodiversity and landscapes, and the risk of overheating from rising temperatures.

470. The East Riding Local Plan Strategy Document (East Riding of Yorkshire Council, 2016) through Policy S2 states that the Local Plan and development decisions will support a reduction in greenhouse gas emissions and adaptation to the expected impacts of climate change.

471. The design for the Projects considers vulnerability and resilience to climate change under a realistic worst case design parameter. The Climate Change Resilience Assessment (CCRA) in **Volume 7, Chapter 30 Climate Change (application ref: 7.30)** determined that the vulnerability rating of the Projects to identified climate hazards would be low across their lifetimes, and that any effect of climate change on the Projects would be not significant. Furthermore, no detrimental impacts on climate change adaptation measures were identified.

472. Resilience to climate change has been taken into account in the design of the Projects. Examples of this are:

- the use of trenchless construction methods to avoid compromising existing sea defences and potential impacts as a result of climate change on the Landfall Zone;
- the reduction of GHG emissions associated with the offshore foundation structures, which will be optimised with the aim of minimising steel mass; and
- the adoption of recent advances in technology where possible on the Projects, such as the use of recycled materials in wind turbines.

473. The Applicants' assessment in **Volume 7, Chapter 30 Climate Change (application ref: 7.30)** includes Greenhouse Gas (GHG) assessment and the CCRA. The assessment considers: several climate change variables (such as sea level rise, precipitation, and extreme weather events); the potential climate hazards which could arise (such as drought, storm events, storm surges and tidal flooding) and the possible receptors affected such as the coast. The CCRA concludes that all receptors, including the Landfall Zone, have a low vulnerability to climate variables and their resulting hazards.

474. Whilst the Projects will produce some greenhouse gas emissions, mainly during the construction phase, overall, it is assessed as having significant **beneficial** effects on greenhouse gas emissions in operation, with an avoidance of 91.8 million and 183.4 million tonnes of CO_2 over the lifetime of one or both Projects taken forward respectively. All other effects were deemed not significant to **minor** adverse. Therefore, no additional mitigation measures were proposed.

475. **Volume 8, Outline Code of Construction Practice (application ref: 8.9)** sets out that during construction the Principal Contractor(s) will be required to have strategies in place that reduce resource consumption and associated GHG emissions over the life cycle of the Projects. Further details will be added to the detailed CoCP(s) on the management of carbon and resource efficiency during construction. This will conform to the measures as set out in the Climate Change Chapter of the ES.

476. As the Projects will have significant benefits in relation to climate change and a reduction in greenhouse gas emissions over its lifetime, it is considered to be fully supported by the requirements as set out in NPS-1, NPS-3, the NPPF and the Local Plan.

6 Planning Balance

6.1 Introduction

477. This section demonstrates the urgent need for the Projects in the context of national policy. This section also concludes the wider benefits of the Projects and how these are considered against any adverse impacts that have been identified.

6.2 National Policy Statements

478. As has been acknowledged previously within this Statement, the NPSs provide the primary basis from which the SoS is to make a decision.

479. The recently adopted NPSs seek to support the Government's policies and legislative obligations to Net Zero by bringing forward renewable energy NSIPs as soon as possible.

480. The NPSs make expressly clear that there is an urgent need for the deployment of nationally significant energy infrastructure which is of a critical national priority (CNP) status, such as the Projects. Additionally, with the Government's ambition to deliver up to 50GW of offshore wind by 2030, there is a recognised need to speed up the consenting process.

481. The CNP policy means that, subject to any legal requirements, the urgent need for offshore wind to achieving the Government's energy objectives, together with the national security, economic, commercial, and Net Zero benefits, will in general outweigh any other residual impacts not capable of being addressed by application of the mitigation hierarchy.

482. Part 3 of NPS EN-1 establishes the overarching principle need for the deployment of new energy NSIPs. The policy makes it clear that without significant amounts of new large-scale energy infrastructure, the Government's energy and climate change objectives and obligations will not be met.

483. With the ability to deliver up to 3 GW of renewable energy to Grid as well as the avoidance of 91.8 million and 183.4 million tonnes of CO_2 over the lifetime of one or both Projects taken forward respectively, substantial weight should therefore be given to the contribution of the Projects in satisfying this recognised urgent need. Additionally, via the Projects' connections to the proposed Birkhill Wood National Grid Substation, the Projects will be connected to the Grid at a transmission level thereby improving the resiliency of the UK's electricity system from a supply and operational perspective.

484. **Volume 7, Chapter 2 Need for the Project (application ref: 7.2)**, and section 3 of this Planning Statement, explain the UK's commitment to decarbonisation. Chapter 2 should therefore be read alongside this Planning Statement as it outlines how the urgent need for offshore wind farms is established beyond the policy requirements of the NPSs.

485. Under the Climate Change Act 2008, decarbonisation is a legal requirement of the UK and is more widely of global significance. With wind generation being an essential and proven technology, the Government's analysis, as contained within NPS EN-1, states that *"a secure, reliable, affordable, net zero consistent system in 2050 is likely to be composed predominantly of wind and solar".*

486. Under the policy considerations of the NPSs, the Projects will: represent a significant constituent part of the future generation mix; demonstrably deliver upon the offshore wind deployment targets and will make an important contribution to the achievement of Net Zero and a fully decarbonised UK.

6.3 Overall Planning Assessment

487. Section 104(3) of the PA 2008 confirms that the SoS should decide applications in accordance with relevant NPSs (except to the extent that one or more of the matters set out in sections 104(4) to (8) of the PA 2008 applies). The key test for the Projects is whether, on balance, the Projects are supported by the relevant NPSs.

488. Section 5 of this Planning Statement provides an assessment of the technical ES topics that have been submitted in support of the Projects, covering both onshore and offshore elements.

489. The summary of each technical study demonstrates that, with mitigation measures in place having followed the mitigation hierarchy, the Projects are wholly compliant with and are widely supported by all relevant planning policies. The assessment of the Projects concludes that there are no planning policies which directly weigh against the Projects and the grounds for consent.

490. The Projects' assessment concludes that there are only a small number of significant residual adverse effects, in relation to the Commercial Fisheries (Offshore), Offshore Ornithology (Offshore), Terrestrial Ecology and Ornithology (Onshore), Landscape and Visual Impact (Onshore) and Tourism and Recreation (Onshore/ Offshore) assessments.

491. Whilst some significant residual adverse effects remain post-implementation of both embedded and additional mitigation measures, the planning policy assessment reaffirms that the Projects are wholly compliant with and widely supported by the relevant policy tests as set out in the NPSs for each environmental topic. This position has been reached by the Applicants as, subject to any legal requirements, the urgent need for CNP infrastructure will in general outweigh any other residual impacts not capable of being addressed by application of the mitigation hierarchy.

492. With the above in mind, the SoS is required to consider the identified residual adverse effects against the identified significant beneficial effects.

493. The socio-economic assessment concludes that, under all Development Scenarios, the Projects are anticipated to support significant growth in both renewable-based jobs and expenditure across the Humber Region. The particular importance of the anticipated jobs created by the Projects is furthered by the fact that the Humber Region, as recognised by the Government, is designated as a Centre for Offshore Renewable Engineering. With this in mind and if consented, the Projects will represent a significant step forward in the advancement of the offshore wind sector within the Humber Region thereby helping to realise the goal of making the Region a world leader in the development of renewable energy technologies.

494. Furthermore, it is the Applicants' intention to work closely with key local stakeholders such as to ensure that as many of the benefits of the Projects are experienced within the Humber Region and by its people. The Projects will make a significant contribution to the furthering of a skilled, diverse, and resilient Humber workforce. In commitment to this, the Applicants point to **Volume 8, Outline Skills and Employment Strategy (application ref: 8.5)** which will be developed into a detailed Skills and Employment Strategy. This Strategy will include meaningful commitments and activities which will serve to develop both the economic and social fabric of the Humber Region and the UK to a lesser extent.

495. In recognising the societal benefits of the Projects, the Human Health assessment concludes that wider societal infrastructure within the Humber Region will experience a **moderate** beneficial significant effect during the operational phase of the Projects. This beneficial effect is considered to be especially important as it reflects an opportunity for generational benefits to be realised.

496. Lastly, the Climate Change assessment concludes two significant beneficial effects over the Projects' lifetime in relation to the avoidance of greenhouse gas emissions to the global atmosphere. This identified beneficial effect presents the UK with a golden opportunity to take significant and meaningful action against the threats posed by climate change which affect us both collectively as a society and individually as people. The Climate Change assessment also highlights the undisputed benefit of the Projects which is that they would support the UK in continuing to lead the way in global decarbonisation whilst also delivering on our own Next Zero obligations.

497. Therefore, the Applicants consider that there is an established and clear presumption in favour of granting consent for the Projects. In part, this presumption arises from NPS EN-1 which makes clear that the delivery of the Projects is a critical national priority. Furthermore, the Applicants consider that the benefits of the Projects outweigh any of the above-mentioned adverse effects. Overall, the Applicants consider that there are no adverse impacts that cannot be mitigated or that outweigh the benefits associated with the Projects.

6.4 Conclusion

498. This Planning Statement has been prepared to assist the SoS with the determination of the DCO Application made for the Projects.

499. The purpose of this Planning Statement has been to: give an overview of the Projects location and description, the need for and benefits of the Projects, the detailed planning and legislative policy context against which this Application should be decided and an assessment of the Projects' compliance with the policy requirements of the NPSs, the Marine Plans and any other planning policy documents which may be important and relevant to the SoS's decision.

500. The Projects will support and make a significant contribution to the UK in its transition to a low carbon economy, helping to meet legislated 2050 Net Zero targets.

501. Overall, an increase in the amount of energy generated by offshore wind will categorically contribute to a position of better energy security for the UK, lower costs for consumers and a resilient and modern network which will be required to meet the demands of tomorrow whilst keeping the lights on today.

502. With the energy sector being a key contributor to the overall greenhouse gas emissions of the UK, the Projects will make a substantial contribution to the delivery of a direct and urgent solution to polluting generating stations, such as natural gas.

503. There is significant policy support for offshore wind farms as is written into the NPSs and the Marine Plans. The NPSs provide the basis against which the Application should be assessed against. NPS EN-1 sets out that given the level and urgency of need for energy infrastructure, the decision maker should start with a presumption in favour of granting consent to applications for energy NSIPs, unless more specific polices set out in relevant NPSs clearly indicate that consent should be refused, or the residual adverse impacts will outweigh the benefits. As there are no policies relating to the Projects which clearly indicate that consent should not be granted, the Applicants submit that the presumption is that consent for the Projects should be granted.

504. When taking into account the assessments as presented within the ES and this Planning Statement, it is not considered that there are any adverse residual impacts that cannot be mitigated for or that would outweigh the presumption in favour of the development and the identified benefits of the Projects. As such, where offshore wind farms come forward and reflect good design principles and an exhaustive use of the mitigation hierarchy, as is the case for the Projects, they should be consented without delay.

References

DESNZ (2023a). Overarching National Policy Statement for Energy (EN-1). Available at: < https://assets.publishing.service.gov.uk/media/65bbfbdc709fe1000f637052/overarching-nps-for-energy-en1.pdf > Accessed 04/04/2024.

DESNZ (2023b). National Policy Statement for Renewable Energy Infrastructure (EN-3). Available at: < https://assets.publishing.service.gov.uk/media/655dc352d03a8d001207fe37/nps-renewable-energy-infrastructure-en3.pdf > Accessed 04/04/2024.

DESNZ (2023c). National Policy Statement for Electricity Networks (EN-5). Available at: < https://assets.publishing.service.gov.uk/media/65a78a5496a5ec000d731abb/nps-electricity-networks-infrastructure-en5.pdf > Accessed 04/04/2024.

DLUHC (2023). National Planning Policy Framework (December 2023). Available at: < https://assets.publishing.service.gov.uk/media/65a11af7e8f5ec000f1f8c46/NPPF_December_2023.pdf > Accessed 10/04/2024.

East Riding of Yorkshire Council (2016). The East Riding of Yorkshire Local Plan 2012-2029 Strategy Document (Adopted April 2016). Available at: < https://downloads.eastriding.org.uk/corporate/pages/east-riding-local-plan/Strategy%20Document%20-%20Adopted%20April%202016%20lo.pdf > Accessed 10/05/2024.

East Riding of Yorkshire Council (2022). Climate Change Strategy 2022-2030. Available at: < https://downloads.eastriding.org.uk/corporate/pages/climate-change-what-we-do/Climate%20Change%20Strategy%202022-2030.pdf > Accessed 09/04/2024.

East Riding of Yorkshire Council (2023). The East Riding Local Plan Update 2020 - 2039 Strategy Document (Proposed Submission Strategy Document Update – October 2022). Available at: < https://downloads.eastriding.org.uk/corporate/planning/planning-policy-and-the-local-plan/local-plan-update-submission-and-examination/documents-submitted-for-examination/S-LP01%20Strategy%20Document%20Update.pdf > Accessed 10/05/2024.

HM Government (2011). UK Marine Policy Statement. London: The Stationery Office. Available at: < https://assets.publishing.service.gov.uk/media/5a795700ed915d042206795b/pb3654-marine-policy-statement-110316.pdf > Accessed 04/04/2024.

HND (2024). Impact Assessment – South Cluster Outcome Summary. Available at: < https://www.nationalgrideso.com/document/302691/download > Accessed 22/05/2024.

Hull City Council (2017). Hull Local Plan 2016 to 2032 (adopted November 2017). Available at < https://www.hull.gov.uk/downloads/file/101/Hull_Local_Plan_2016_to_2032.pdf > Accessed 23/05/2024.

Ministry of Housing, Communities & Local Government (2019). Guidance Use of planning conditions. Available at < https://www.gov.uk/guidance/use-of-planning-conditions > Accessed 13/05/2024.

National Infrastructure Commission (NIC) (2013). Second National Infrastructure Assessment. Available at: < https://nic.org.uk/studies-reports/national-infrastructure-assessment/second-nia/ > Accessed 10/05/2024.

Planning Inspectorate (2018). Advice Note Nine: Rochdale Envelope. Available at: < https://www.gov.uk/government/publications/nationally-significant-infrastructure-projects-advice-note-nine-rochdale-envelope > Accessed 05/04/2024.

UK Government (2008a). Planning Act 2008. Available at: < https://www.legislation.gov.uk/ukpga/2008/29/contents > Accessed 04/04/2024.

UK Government (2008b). Climate Change Act 2008. Available at: < https://www.legislation.gov.uk/ukpga/2008/27/contents > Accessed 10/05/2024.

UK Government (2009) Marine and Coastal Access Act 2009. Available at: < https://www.legislation.gov.uk/ukpga/2009/23/contents > Accessed 10/05/2024.

UK Government (2017) The Infrastructure Planning (Environmental Impact Assessment) Regulations 2017 (SI 2017/527). Available at: < https://www.legislation.gov.uk/uksi/2017/572/contents/made > Accessed 04/04/2024.

UK Government (2024). The Town and Country Planning Act 1990. Available at: < https://www.legislation.gov.uk/ukpga/1990/8/contents > Accessed 13/05/2024.

United Nations (2023). First Global stocktake (Outcome of the first global stocktake). Reference: FCCC/PA/CMA/2023/L.17. Available at: < https://unfccc.int/sites/default/files/resource/cma2023_L17_adv.pdf > Accessed 10/05/2024.

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