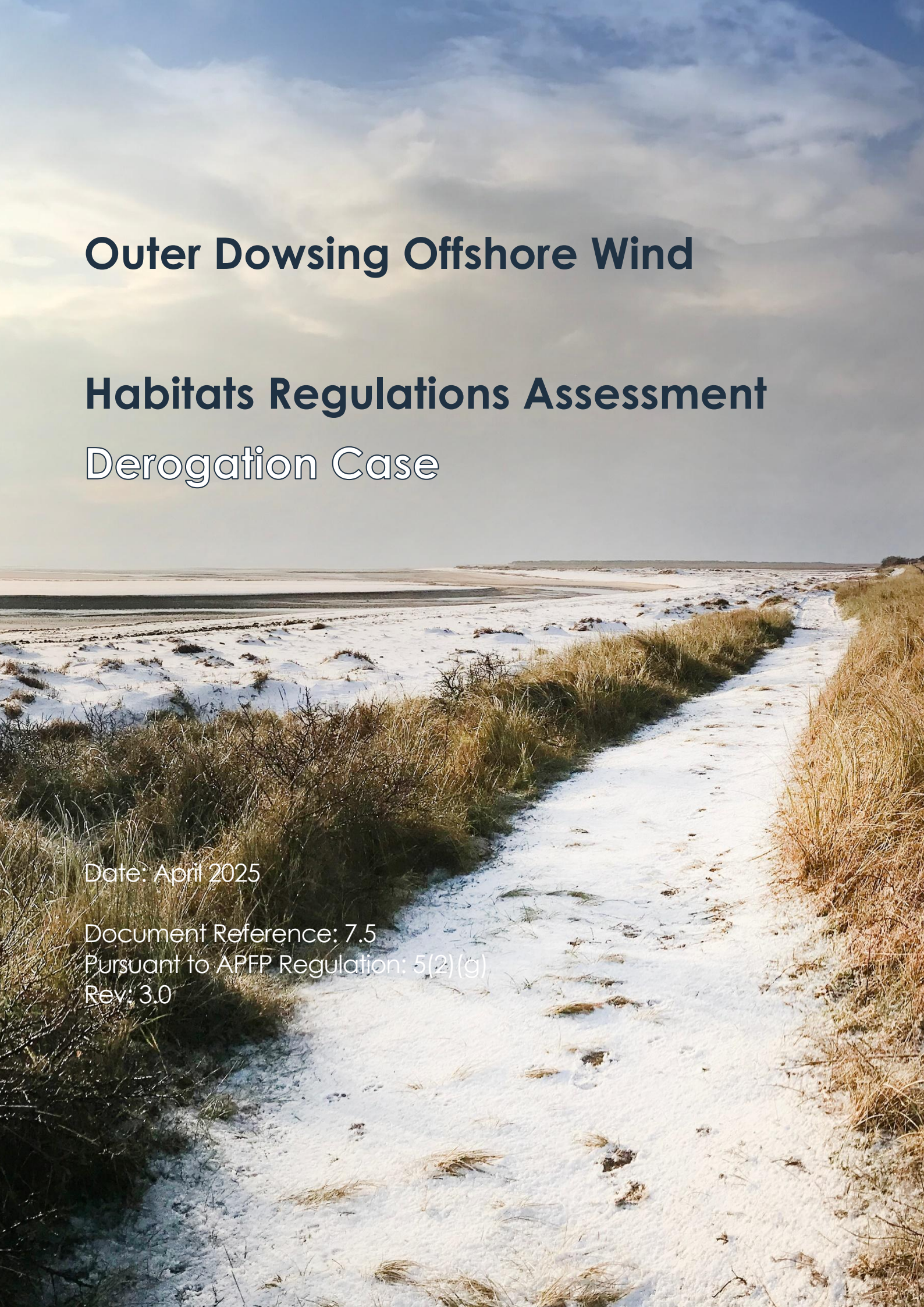
Outer Dowsing Offshore Wind

Habitats Regulations Assessment

Derogation Case



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Acronyms & Definitions

Abbreviations / Acronyms

Abbreviation / Acronym	Description
AEoI	Adverse Effects on Integrity
DEFRA	Department for Environment Food & Rural Affairs
EC	European Commission
FFC	Flamborough and Filey Coast
GT R4 Limited	GT R4 or GT R4 Limited, the incorporated joint venture development Co.
HRA	Habitats Regulations Assessment
IDRBNR	Inner Dowsing, Race Bank, and North Ridge
IROPI	Imperative Reasons of Overriding Public Interest
NGSS	National Grid Substation
ODOW	Outer Dowsing Offshore Wind, trading name of GT R4 Limited
OFTO	Offshore Transmission Owner
ORBA	Offshore Restricted Build Area
RIAA	Report to Inform Appropriate Assessment
SNCB	Statutory Nature Conservation Body
SAC	Special Area of Conservation
SPA	Special Protected Area
TCE	The Crown Estate
WTG	Wind Turbine Generator. All the components of a wind turbine, including the tower, nacelle, and rotor.

Terminology

Term	Definition
Array area	The area offshore within which the generating station (including wind turbine generators (WTG) and inter array cables), offshore accommodation platforms, offshore transformer substations and associated cabling will be positioned, including the ORBA.
The Applicant	GTR4 Limited (a joint venture between Corio Generation (and its affiliates), TotalEnergies and Gulf Energy Development), trading as Outer Dowsing Offshore Wind
Derogation	Stage 3 of the Habitats Regulations Assessments which, as specified below, is triggered once it is determined that you cannot avoid adversely affecting the integrity of a designated site. Involves assessing if alternative solutions are available to achieve the same goals as the project, if there are IROPI, and if compensatory measures will be required.
Development Consent Order (DCO)	An order made under the Planning Act 2008 granting development consent for a Nationally Significant Infrastructure Project (NSIP) from the Secretary of State for Department for Energy Security and Net Zero (DESNZ).

Term	Definition
Effect	Term used to express the consequence of an impact. The significance of an effect is determined by correlating the magnitude of an impact with the sensitivity of a receptor, in accordance with defined significance criteria.
Environmental Impact Assessment (EIA)	A statutory process by which certain planned projects must be assessed before a formal decision to proceed can be made. It involves the collection and consideration of environmental information, which fulfils the assessment requirements of the Environmental Impact Assessment (EIA) Regulations, including the publication of an Environmental Statement (ES).
Environmental Statement (ES)	The suite of documents that detail the processes and results of the Environmental Impact Assessment (EIA).
European Site	An SPA or SAC
Habitats Regulations Assessment (HRA)	Habitats Regulations Assessment. A process which helps determine likely significant effects and (where appropriate) assesses adverse impacts on the integrity of European conservation sites and Ramsar sites. The process consists of up to four stages of assessment: screening, appropriate assessment, assessment of alternative solutions and assessment of imperative reasons of over-riding public interest (IROPI) and compensatory measures.
Habitats Regulations	Collectively, the Conservation of Habitats and Species Regulations 2017 and the Conservation of Offshore Marine Habitats and Species Regulations 2017
Maximum Design Scenario (MDS)	The maximum design parameters of the combined project assets that result in the greatest potential for change in relation to each impact assessed.
National Policy Statement (NPS)	A document setting out national policy against which proposals for Nationally Significant Infrastructure Projects (NSIPs) will be assessed and decided upon.
Offshore Export Cable Corridor (ECC)	The Offshore Export Cable Corridor (Offshore ECC) is the area within the Project Boundary within which the export cable running from the array to landfall will be situated.
ORBA	The area within the array area, where no wind turbine generator, offshore transformer substation or offshore accommodation platform shall be erected.
The Project	Outer Dowsing Offshore Wind including proposed onshore and offshore infrastructure

Executive Summary

1. This document sets out the Applicant's derogation case under Stage 3 of the Habitats Regulations Assessment (HRA).
2. In summary, the below sections establish that there is a clear need for the Project, there is an absence of alternative solutions capable of achieving the Project's objectives and there are Imperative Reasons of Overriding Public Interest (IROPI) in the Project being delivered. As a result, the Secretary of State can be confident that the steps required to meet the HRA Derogation process have been undertaken and the tests met.
3. **Section 1 and 2** introduces the Project, its interaction with certain European sites, and the legislation and policy which provide both the derogation requirements which inform this derogation case and the policy drivers which the Project is a response to. These include the fact that there is an urgent need for low carbon generation and there is a target of reaching 43 - 50GW of offshore wind capacity by 2030.
4. **Section 3** provides the assessment of alternatives.
5. First, the need for the Project and its objectives, which encapsulate this need, are set out.
6. Second, the potential for harm on European Sites is explained. As made clear, for all but one of the features of European Sites, the Applicant's position is that there is no risk of Adverse Effects on Integrity and the Applicant is providing a "without prejudice" derogation case. The consideration of possible adverse effects discussed in this section, and in the sections of other documents signposted, present a range of effects, noting (i) the Applicant's position based on assessments carried out through to (ii) the Applicant's current understanding of the upper end of impact which may be suggested by SNCBs.
7. Next, the Applicant considers potential alternatives to the Project which would be feasible and meet the Project's objectives. The Applicant has analysed a range of possible alternatives to consider whether they are feasible alternatives which meet its objectives and could reduce the potential harm on relevant European Sites. The conclusion drawn is that none provide alternatives with lesser effect on European Sites which are feasible and which meet the Project's objectives. They therefore do not provide alternatives as defined by relevant legislation and guidance.

8. **Section 4** considers whether there are Imperative Reasons of Overriding Public Interest (IROPI) for developing the Project notwithstanding the risk of the AEoI considered. This section concludes that the urgent need for development of offshore wind creates imperative reasons for developing the Project. Delivery of offshore wind via the Project would help deliver on policies aiming to protect fundamental values for citizens' life, fundamental policies for the State and the Society and activities of an economic or social nature fulfilling specific obligations of public service. These Imperative reasons are "long term" because of the Project's expected approximately 35 year lifespan and they override the possible potential harms which they require to be balanced against: should the Project have the adverse effects considered, its positives – including its contribution towards decarbonisation and tackling climate change – outweigh the potential harms it could cause.
9. **Section 5** then provides reference to the range of compensation measures put forward by the Applicant which may be used should the Secretary of State find that one or more AEoI considered in this derogation case cannot be ruled out.
10. **Overall**, there are no feasible alternatives to the Project which meet its objectives and there are Imperative Reasons of Overriding Public Interest for its development, fulfilling the steps required before the Secretary of State may give consent to the Project notwithstanding any negative assessment of the implications for a European Site. The Applicant's documents provided in Section 5 set out how adequate compensation measures to be secured and implemented by the Project can protect the overall coherence of the national site network.

1 Introduction

1.1 Project Background

11. The Applicant is GTR4 Limited (a joint venture between Corio Generation, TotalEnergies and Gulf Energy Development), trading as Outer Dowsing Offshore Wind (ODOW). The Project is being developed by Corio Generation (and its affiliates), TotalEnergies and Gulf Energy Development. The Applicant was awarded rights to develop the Project as part of The Crown Estate's recent seabed leasing round. That leasing round was subject to a Plan-Level Habitats Regulations Assessment (HRA).
12. The Project is a proposed offshore windfarm located approximately 54km off the coast of Lincolnshire, England, at its closest point comprising of an offshore generating station and currently covering an area of seabed of 436km^2, refined from 500km^2 with export cables making landfall to the south of Anderby Creek. The array area includes an Offshore Restricted Build Area ("**ORBA**"), an aera within the array area, where no wind turbine generator, offshore transformer substation or offshore accommodation platform shall be erected, as shown in Appendix A, Figure 1.0 of PD1-082.[1]
13. The array will include a maximum of 100 turbines with a maximum blade tip height above LAT of 403 metres generating an anticipated installed capacity of 1.5GW. The project includes offshore and onshore transmission infrastructure including on and offshore substations and export cables and will connect to the National Grid network via a National Grid Substation (NGSS) at the NGSS Connection Area.[2] As further detailed in the Project's Environmental Statement (ES) Chapter 4 Site Selection and Alternatives (document reference 6.1.4), the precise location of the NGSS is not yet defined but National Grid has indicated that the area identified by the Project in its Preliminary Environmental Information Report (PEIR) as "Weston Marsh South" is considered an indicative search area for the NGSS (now referred to as the Connection Area).
14. Chapter 3 Project Description of the ES (document reference 6.1.3) provides a detailed description of the Proposed Development summarised above, including the design envelope approach taken and should be referred to for further detail.[3]

[1] Details of the ORBA are contained in 1.1 of REP2-065 and further discussed in PD1-081 – PD1-090

[2] The NGSS will be built, owned, and operated by National Grid Electricity Transmission (NGET) and will be subject to its own consenting process.

[3] The Applicant notes that, in line with the discussion of the issues at Issue Specific Hearing 2 the ES will be updated at Deadline 5 and once updated will include, among other things, details of the ORBA (summarised by the Applicant in REP3-041 20.4.3 The Applicant's Written Summary of oral case put at Issue Specific Hearing 2 on Offshore matters, 4th Dec).

1.2 Purpose of this document

15. The European Commission (EC)'s guidance on the assessment of plans and projects significantly affecting European Sites (EC, 2021b), identifies a staged process for the assessment of such plans and projects, referred to as the Habitats Regulations Assessment (HRA) and which is required in domestic law under the Habitats Regulations. This document provides evidence to support Stage 3 of that process: derogation. [4] Where the decision maker decides to grant consent following a derogation, they must secure that any necessary compensatory measures are taken to ensure the coherence of the National Site Network is maintained. The documents setting out how the Applicant will meet any compensation requirements deemed necessary are referred to in Section 5 but provided in separate documents.

1.2.1 European Sites, Features, and Risks considered

16. This derogation case relates to the following features, designated sites and potential risks of Adverse Effects on Integrity (AEoI):

- the potential collision risk to the kittiwake feature of the Flamborough and Filey Coast (FFC) Special Protected Area (SPA);
- the potential displacement risk to the razorbill feature of the FFC SPA (on a without prejudice basis);
- the potential displacement risk to the guillemot feature of the FFC SPA (on a without prejudice basis);
- the potential displacement and collision risks to the assemblage feature of the FFC SPA (on a without prejudice basis);
- the potential displacement risk to the guillemot feature of the Farne Islands SPA (on a without prejudice basis);
- the potential risk to the sandbank feature of the Inner Dowsing, Race Bank, and North Ridge (IDRBNR) Special Area of Conservation (SAC) (on a without prejudice basis); and
- The potential risk to the biogenic reef feature of the IDRBNR SAC (on a without prejudice basis).

17. This document is informed by the Report to Inform Appropriate Assessment (RIAA) (document reference 7.1) which concludes that there is a potential collision AEoI in relation to the kittiwake feature of the FFC SPA during the Project's operation and maintenance phase when considered in-combination with other developments and which should be referred to for further detail of the conclusions of the Appropriate Assessment beyond that which is provided in this document. In light of these conclusions, the Applicant is providing a derogation case.

[4] See PINS, Nationally Significant Infrastructure Projects: Advice on Habitats Regulations Assessments: Nationally Significant Infrastructure Projects: Advice on Habitats Regulations Assessments - GOV.UK

1.2.1.1 Nature of derogation case

18. The Applicant's position, as set out in the RIAA (document reference 7.1), is that there will be no AEoI on the designated sites and features listed above other than a potential risk of AEoI in relation to the kittiwake feature of the FFC SPA in-combination with other plans, projects and activities. As such, a full derogation case is being promoted for the kittiwake feature of the FFC SPA. Natural England has in recent offshore wind Development Consent Order (DCO) examinations for projects in the Southern North Sea (Hornsea Project Three, Norfolk Boreas, Norfolk Vanguard, East Anglia ONE North, East Anglia TWO and Hornsea Project Four) stated that in its opinion an AEoI could not be ruled out for kittiwake at FFC SPA when considered in-combination with other projects, even when the project alone impacts are low. The Secretary of State decisions in relation to these applications confirmed their view that, at the time of each decision, an adverse effect could not be ruled out, in combination, for this feature. In addition, it is noted that The Crown Estate (TCE) concluded AEoI in-combination to the FFC SPA for kittiwake for the Round Four Plan-Level HRA (which included the Project). However, this conclusion was drawn without the benefit of any project-specific data on bird numbers and distribution. On the basis of the plan-level HRA analysis, TCE identified the requirement for derogation and associated compensatory measures for kittiwake (TCE, 2022a).
19. The derogation case in relation to all other sites and features is made "without prejudice" to the Secretary of State's final decision on the impacts of the Project which will be subject to consideration at Examination.[5] As set out below this "without prejudice" case is being presented in recognition of recent consent decisions and views on possible impact expressed by some consultees and in order to provide the Secretary of State with information they may need as early as possible. The approach to derogation taken in this document is the same regardless of whether the derogation case is being provided "without prejudice" or not.
20. The Applicant is providing the derogation case in relation to the razorbill and guillemot features on the basis that although the RIAA (document reference 7.1) has concluded that there is no potential for an AEoI alone or in-combination, Natural England has stated that it may not be able to rule out the potential for AEoI for these two species and, taking into account the conclusions within the Habitats Regulations Assessment as part of the Hornsea Project Four consent decision (specifically for guillemot), it was considered that there remains the possibility that the Secretary of State may conclude that the potential for an AEoI on one or both of these species cannot be excluded for the Project in-combination.

[5] NPS EN-3, paragraph 2.8.260

21. The derogation case in relation to the sandbank feature of the IDRBNR is provided on the basis of the conclusions drawn by the Secretary of State on previous offshore wind farm developments (such as Hornsea Three and the Norfolk Vanguard and Boreas projects) with regard to the potential for an AEoI not being able to be ruled out to SACs with the same feature (sandbanks covered by seawater at all times) arising from the deployment of cable protection. While the Applicant is confident that a conclusion of no AEoI can be reached for the Project, in acknowledgement of the previous decisions and taking account of the advice provided by Natural England Das to the risk of an AEoI for this site and the relevant features, a "without prejudice" derogation case is provided.
22. The derogation case in relation to biogenic reef is provided on the basis that the Applicant received confirmation from Natural England on application that until they have reviewed the additional updated project specific evidence on the characterisation of *S. spinulosa* reef across the offshore ECC, they are unable to advise whether compensation for impacts to Annex I Reef will also be required.
23. The advice received by the Applicant at application stage was supplemented by Natural England's comments at Deadline 4 (Appendix C4 to the Natural England Deadline 4 Submission [REP4-134]), summarised in the following paragraph:

> *"Natural England advises the Applicant undertakes and submits into examination an assessment of supporting habitats and processes for potential Annex I S. spinulosa reef, to demonstrate that the recovery of this feature will not be hindered by the installation of the export cable and/or the lasting placement of cable protection. This will provide the Secretary of State comfort an adverse effect on integrity to IDRBNR SAC Annex I reef features and habitats/processes in which it relies upon will be avoided."*

24. The Applicant has conducted an assessment of the supporting habitat for *S. spinulosa* reef within the offshore ECC, which intersects with the IDNRRB SAC. The findings are detailed in the *S. spinulosa* Reef Supporting Habitat Technical Note (document reference 22.11; V3 submitted at Deadline 6).
25. The Applicant has endeavoured to map out supporting habitat in accordance with the guidance supplied and has agreed to mitigate impacts using removable cable protection within the areas identified. It should be noted that the conservation objectives of the SAC do not require that habitats with the potential to support designated habitats receive the same level of protection as the designated habitats themselves. Whilst the conservation objective focuses on maintaining and restoring the supporting processes necessary for qualifying habitats, it is not reasonable to interpret this as a requirement to protect all habitats within the SAC that could develop into Annex I reef at some undefined time as if they were reef features themselves, nor has Natural England provided a justification for such an approach.

26. The Applicant considers that the further analysis and further commitment to removable cable protection in defined areas of supporting habitat bolsters the existing conclusions of the assessment that there is no AEoI. The Applicant has updated the RIAA with this detail at Deadline 6 (document reference 7.1).
27. In a Discretionary Advice Service (DAS) response received by the Applicant on 25 March 2025 Natural England have welcomed the commitment to use only removable cable protection but highlight that

    'any removability shouldn't be to the wider detriment of the Annex I features, which would be the case currently in relation to rock protection' and highlighted the decision by the Secretary of State for Norfolk Boreas, where 'even with the commitment to using removable cable protection and committing to removing said protection at the time of decommissioning, the impacts over the lifetime of the project, while the protection is in situ, were considered by the SoS to hinder the conservation objectives and have an adverse effect on integrity'.

    Therefore, Natural England maintains that further consideration of the implications are required by the Project.
28. Therefore, as a pre-cautionary measure, a "without prejudice" derogation case in respect of the Annex I Biogenic Reef feature of the IDRBNR is included with the Project application.

1.2.2 Document structure and supporting information

29. This document sets out the following information:

- the legislation and policy context (Section 2) including in relation to HRA;
- the Applicant's position on alternative solutions (Section 3); and
- the Applicant's position in relation to Imperative Reasons of Overriding Public Interest (IROPI) (Section 4);
- the individual compensation measures developed for each site and feature by reference to the suite of compensation documents also accompanying the Application (Section 5).

30. In these sections, the following case will be made. On the basis of the legislation and policy presented, there is a clear need for the Project which - when taking into account its objectives – cannot be fulfilled by the possible alternatives identified and considered. When the need for and benefits of the Project are considered against the range of potential effects on the relevant European Sites (ranging from that which the Applicant considers could result to that which could feasibly be advanced by SNCBs), there are IROPI in favour of developing it.
31. Key documents supporting the Applicant's Derogation Case are as below and are referred to at various points throughout:

- Report to Inform Appropriate Assessment (RIAA) (document reference 7.1);
- Planning Statement (document reference 9.1);
- ES Chapter 2 Need, Policy and Legislative Context (document reference 6.1.2);
- ES Chapter 3 Project Description (Project Description) (document reference 6.1.3) ; and

- ES Chapter 4 Site Selection and Consideration of Alternatives (document reference 6.1.4) (Site Selection).

2 Legislation and policy context

2.1 Habitats Regulations

2.1.1 Background: Habitats and Birds Directives

32. The UK Habitats Regulations transposed into UK law the requirements of the Habitats Directive which, along with the Birds Directive (both defined below) provide the historic legislative backdrop to the UK Habitats Regulations and are discussed here to provide context.
33. Across the territory of the EU, Council Directive 92/43/EEC on the conservation of natural habitats and of wild fauna and flora (the Habitats Directive) protects habitats and species of European nature conservation importance. Together with Council Directive 2009/147/EC on the conservation of wild birds (the Birds Directive), the Habitats Directive established a network of internationally important sites, designated for their ecological status.
34. Special Areas of Conservation (SACs) under the Habitats Directive promote the protection of flora, fauna and habitats. SACs are identified and designated based on the presence of the natural habitat types listed in Annex I and populations of the species listed in Annex II of the Habitats Directive.
35. Special Protection Areas (SPAs) promote the conservation and management of certain rare, vulnerable and migratory birds and are classified pursuant to the Birds Directive.
36. SPAs and SACs combine to create a Europe-wide 'Natura 2000' network of designated sites, which are referred to as “European sites”.
37. Under the Habitats Directive the following provisions applied which are now provided for in the Habitats Regulations set out below. Article 6(3) of the Habitats Directive sets out the approval procedure associated with a plan or project for which there is a Likely Significant Effect (LSE) on European Sites. Such plans or projects are subject to Appropriate Assessment (AA) . Article 6(4) of the Habitats Directive provides the ‘HRA derogation’ procedure, required where an AEoI of a European Site cannot be ruled out as a result of a plan or project, either alone or in combination with other plans and projects. To provide context, the text of the Directives is set out in Table 2-2 after the Habitats Regulations are set out (Table 2-1).

2.1.2 UK legislation: Habitats Regulations

38. The Habitats Directive and the Birds Directive provide the foundation for the UK Habitats Regulations, although they no longer form part of UK legislation following the UK’s departure from the EU and domestic legislation which has followed.[6] These Directives were transposed into UK legislation through a series of Regulations.

[6] See for instance, the European Union (Withdrawal) Act 2018 and Retained EU Law (Revocation and Reform) Act 2023 (the 2023 Act). Note that while some “retained EU law” (now referred to as assimilated law) was revoked under Schedule 1 of the 2023 Act, the Habitats Regulations remain in place at the time of writing.

39. In England and Wales, terrestrial areas and territorial waters out to 12 nautical miles (nm) are covered under The Conservation of Habitats and Species Regulations 2017 and waters beyond 12nm, to the extent of the British Fishery Limits and UK Continental Shelf Designated Area, are covered under The Conservation of Offshore Marine Habitats and Species Regulations 2017 (collectively, the Habitats Regulations). The Habitats Regulations incorporate SPAs and SACs into the definition of European Sites.
40. Regulation 63 of the Habitats Regulations and Regulation 28 of the Conservation of Offshore Marine Habitats and Species Regulations 2017 provide the requirement for AA and align with Article 6(3) of the Habitats Directive.
41. Regulations 64 and 68 of the Habitats Regulations and Regulations 29 and 36 of the Conservation of Offshore Marine Habitats and Species Regulations 2017 provide the derogation procedure.

Table 2-1 Habitat Regulations

Habitats Regulations
The Conservation of Habitats and Species Regulations 2017 Regulation 63

"(1) A competent authority, before deciding to undertake, or give any consent, permission or other authorisation for, a plan or project which—

(a) is likely to have a significant effect on a European site or a European offshore marine site (either alone or in combination with other plans or projects), and

(b) is not directly connected with or necessary to the management of that site,

must make an appropriate assessment of the implications of the plan or project for that site in view of that site's conservation objectives.

(2) A person applying for any such consent, permission or other authorisation must provide such information as the competent authority may reasonably require for the purposes of the assessment or to enable it to determine whether an appropriate assessment is required.

(3) The competent authority must for the purposes of the assessment consult the appropriate nature conservation body and have regard to any representations made by that body within such reasonable time as the authority specifies.

(4) It must also, if it considers it appropriate, take the opinion of the general public, and if it does so, it must take such steps for that purpose as it considers appropriate.

(5) In the light of the conclusions of the assessment, and subject to regulation 64, the competent authority may agree to the plan or project only after having ascertained that it will not adversely affect the integrity of the European site or the European offshore marine site (as the case may be).

(6) In considering whether a plan or project will adversely affect the integrity of the site, the competent authority must have regard to the manner in which it is proposed to be carried out or to any conditions or restrictions subject to which it proposes that the consent, permission or other authorisation should be given

[…]

(8) Where a plan or project requires an appropriate assessment both under this regulation and under the Offshore Marine Conservation Regulations, the assessment required by this regulation need not identify those effects of the plan or project that are specifically attributable to that part of it that is to be carried out in the United Kingdom, provided that an assessment made for the purpose of this regulation and the Offshore Marine Conservation Regulations assesses the effects of the plan or project as a whole."

The Conservation of Offshore Marine Habitats and Species Regulations 2017 Regulation 28

"(1) Before deciding to undertake, or give any consent, permission or other authorisation for, a relevant plan or project, a competent authority must make an appropriate assessment of the implications of the plan or project for the site in view of that site's conservation objectives.

(2) In paragraph (1), a "relevant plan or project" is a plan or project which—

(a) is to be carried out on or in any part of the waters or on or in any part of the seabed or subsoil comprising the offshore marine area, or on or in relation to an offshore marine installation;

(b) is likely to have a significant effect on a European offshore marine site or a European site (either alone or in combination with other plans or projects); and

(c) is not directly connected with or necessary to the management of the site.

(3) A person applying to a competent authority for any consent, permission or other authorisation for a plan or project in the offshore marine area must provide such information as the competent authority may reasonably require—

(a) to enable it to determine whether an assessment under paragraph (1) is required; or

(b) for the purposes of an assessment under paragraph (1).

(4) The competent authority must for the purposes of the assessment—

(a) where it relates to a European offshore marine site, consult the Joint Committee;

(b) where it relates to a European site in England, consult Natural England;

[…]

(f) if it considers it appropriate, take the opinion of the general public and if it does so, take such steps for that purpose as it considers appropriate.

(5) In the light of the conclusions of the assessment, and subject to regulation 29, the competent authority may agree to the plan or project only if it has ascertained that it will not adversely affect the integrity of the European offshore marine site or European site (as the case may be).

(6) In considering whether a plan or project will adversely affect the integrity of a site, the competent authority must have regard to the manner in which it is proposed to be carried out and to any conditions or restrictions subject to which the competent authority proposes that the consent, permission or other authorisation should be given"

The Conservation of Habitats and Species Regulations 2017 Regulation 64

"(1) If the competent authority is satisfied that, there being no alternative solutions, the plan or project must be carried out for imperative reasons of overriding public interest (which, subject to

paragraph (2), may be of a social or economic nature), it may agree to the plan or project notwithstanding a negative assessment of the implications for the European site or the European offshore marine site (as the case may be).

(2) Where the site concerned hosts a priority natural habitat type or a priority species, the reasons referred to in paragraph (1) must be either—

(a) reasons relating to human health, public safety or beneficial consequences of primary importance to the environment; or

(b) any other reasons which the competent authority, having due regard to the opinion of the appropriate authority, considers to be imperative reasons of overriding public interest.

(3) Where a competent authority other than the Secretary of State or the Welsh Ministers desires to obtain the opinion of the appropriate authority as to whether reasons are to be considered imperative reasons of overriding public interest, it may submit a written request to the appropriate authority—

(a) identifying the matter on which an opinion is sought; and

(b) accompanied by any documents or information which may be required.

(4) In giving its opinion as to whether the reasons are imperative reasons of overriding public interest, the appropriate authority must have regard to the national interest, and provide its opinion to the competent authority.

(4A) Before giving its opinion as to whether the reasons are imperative reasons of overriding public interest, the appropriate authority must consult the following, and have regard to their opinion—

(a) the Joint Nature Conservation Committee;

(b) where the appropriate authority is the Secretary of State, the devolved administrations;

(c) where the appropriate authority is the Welsh Ministers, the Secretary of State, and the other devolved administrations; and

(d) any other person the appropriate authority considers appropriate.

(5) Where a competent authority other than the Secretary of State or the Welsh Ministers proposes to agree to a plan or project under this regulation notwithstanding a negative assessment of the implications for the site concerned—

(a) it must notify the appropriate authority; and

(b) it must not agree to the plan or project before the end of the period of 21 days beginning with the day notified by the appropriate authority as that on which its notification was received, unless the appropriate authority notifies it that it may do so.

(6) Without prejudice to any other power, the appropriate authority may give directions to the competent authority in any such case prohibiting it from agreeing to the plan or project, either indefinitely or during such period as may be specified in the direction."

The Conservation of Habitats and Species Regulations 2017 Regulation 68

"Where in accordance with regulation 64—

(a) a plan or project is agreed to, notwithstanding a negative assessment of the implications for a European site or a European offshore marine site, or

(b) a decision, or a consent, permission or other authorisation, is affirmed on review, notwithstanding such an assessment,

the appropriate authority must secure that any necessary compensatory measures are taken to ensure that the overall coherence of Natura 2000 is protected."

The Conservation of Offshore Marine Habitats and Species Regulations 2017 Regulation 29

"(1) If it is satisfied that, there being no alternative solutions, the plan or project referred to in regulation 28(1) must be carried out for imperative reasons of overriding public interest (which, subject to paragraph (2), may be of a social or economic nature), the competent authority may agree to the plan or project notwithstanding a negative assessment of the implications for the site.

(2) Where the site concerned hosts a priority natural habitat type or a priority species, the reasons referred to in paragraph (1) must be either—

(a) reasons relating to human health, public safety or beneficial consequences of primary importance to the environment; or

(b) any other imperative reasons of overriding public interest.

(3) A competent authority other than the relevant administration may not agree to a plan or project under paragraph (1) for any reason referred to in paragraph (2)(b) unless it has had due regard to the opinion of the relevant administration in satisfying itself that there are such reasons.

(4) Where a competent authority other than the relevant administration desires to obtain the opinion of the relevant administration as to whether reasons are to be considered imperative reasons of overriding public interest, it must submit a request to the relevant administration —

(a) identifying the matter on which an opinion is sought; and

(b) accompanied by any documents or information that may be required.

(5) In giving its opinion as to whether the reasons are imperative reasons of overriding public interest, the relevant administration must have regard to the national interest, and provide its opinion to the competent authority.

(6) Before giving its opinion as to whether the reasons are imperative reasons of overriding public interest, the relevant administration must consult the following, and have regard to their opinion—

(a) the Joint Nature Conservation Committee;

(b) where the relevant administration is the Secretary of State, the devolved administrations;

(c) where the relevant administration is a devolved administration, the Secretary of State and the other devolved administrations; and

(d) any other person the relevant administration considers appropriate.

(7) In this regulation, "the relevant administration" means—

Habitats Regulations
(a) in relation to a plan or project relating to an activity other than one specified in regulation 55(16)— *(i) where the plan or project is to be carried out in the Scottish offshore region, the Scottish Ministers; and* *(ii) where the plan or project is to be carried out in the Welsh offshore region, the Welsh Ministers; and* *(b) in relation to a plan or project relating to an activity specified in regulation 55(16), or in any case not falling within sub-paragraph (a)(i) or (ii), the Secretary of State."*

The Conservation of Offshore Marine Habitats and Species Regulations 2017 Regulation 36
"(1) This regulation applies where, notwithstanding a negative assessment of the implications for a European offshore marine site or European site— *(a) a plan or project is agreed to in accordance with regulation 29; or* *(b)a decision, or a consent, permission or other authorisation, is affirmed on review in accordance with regulations 29 and 34(3).* *(2) The appropriate authority must secure that any necessary compensatory measures are taken to ensure that the overall coherence of Natura 2000 is protected."*

Table 2-2: Habitats Directive Articles 6(3) and 6(4)

Habitats Directive Articles 6(3) and 6(4)	
Articles 6(3)	*"Any plan or project not directly connected with or necessary to the management of the site but likely to have a significant effect thereon, either individually or in combination with other plans or projects, shall be subject to appropriate assessment of its implications for the site in view of the site's conservation objectives. In the light of the conclusions of the assessment of the implications for the site and subject to the provisions of paragraph 4, the competent national authorities shall agree to the plan or project only after having ascertained that it will not adversely affect the integrity of the site concerned and, if appropriate, after having obtained the opinion of the general public."*
Articles 6(4)	*If, in spite of a negative assessment of the implications for the site and in the absence of alternative solutions, a plan or project must nevertheless be carried out for imperative reasons of overriding public interest, including those of a social or economic nature, the Member State shall take all compensatory measures necessary to ensure that the overall coherence of Natura 2000 is protected. It shall inform the Commission of the compensatory measures adopted. Where the site concerned hosts a priority natural habitat type and/or a priority species, the only considerations which may be raised are those relating to human health or public safety, to beneficial consequences of primary importance for the environment or, further to an opinion from the Commission to other imperative reasons of overriding public interest."*

42. The Applicant has prepared the Application based upon the legislation in place at the time of the DCO application submission. It is noted that the UK Government's Energy Act 2023 contains provisions under which Regulations may be made in the future to modify parts of the Habitats Regulations. In version 2 of this derogation case, submitted at Deadline 4 of the Examination of the Project, the Applicant has reviewed applicable post-submission legislation and policy and updated where appropriate.

2.2 Policy

2.2.1 National Policy Statements

43. The National Policy Statements (NPSs) are statements produced by the Department for Energy Security and Net Zero (DESNZ) which sets out UK Government policy on National Significant Infrastructure Projects (NSIPs) and which the Secretary of State requires to take into account when deciding applications for NSIP DCOs.[7] The NPSs relevant for the Project are:

- NPS for Overarching Energy (EN-1) (DESNZ, 2023a);
- NPS for Renewable Energy (EN-3) (DESNZ, 2023b); and
- NPS for Electricity Networks Infrastructure (EN-5) (DESNZ, 2023g).

44. The NPSs provide further information on the HRA process, including in relation to the derogation process as set out in Table 2-3, including:

- **Alternatives Solutions** NPS EN-1 sets out how the application should detail, and how the Secretary of State should consider, alternatives to the Project;
- **Appropriate Assessment** NPS EN-1 and EN-3 outline the requirements for Applicants to provide evidence to support an HRA derogation case at application stage, where a Statutory Nature Conservation Body (SNCB) has advised that it may not be possible to rule out an adverse effect on site integrity; and
- **Critical National Priority** NPS EN-1 and EN-3 set out how the "Critical National Priority" (CNP) status of low carbon infrastructure affects the HRA derogation case process.

Table 2-3 Relevant Policies of the NPS EN-1 and EN-3

Policy	Requirements
NPS EN-1	
NPS EN-1: CNP Infrastructure	
NPS EN-1 paragraph 4.2.4	*"Government has … concluded that there is a critical national priority (CNP) for the provision of nationally significant low carbon infrastructure."*
NPS EN-1 paragraph 4.2.5	*"…Low carbon infrastructure for the purposes of this policy means: for electricity generation, all onshore and offshore generation that does not involve fossil fuel combustion…"*
NPS EN-1 paragraph 4.2.7	*"The CNP policy does not create an additional or cumulative need case or weighting to that which is already outlined for each type of energy*

[7] The Secretary of State is required to do so under section 104(2)(a) of the Planning Act 2008 unless certain exceptions set out in section 104 apply.

Policy	Requirements
	infrastructure. The policy applies following the normal consideration of the need case, the impacts of the project, and the application of the mitigation hierarchy. As such, it is relevant during Secretary of State decision making and specifically in reference to any residual impacts that have been identified. It should therefore also be given consideration by the Examining Authority when it is making its recommendation to the Secretary of State."
NPS EN-1 paragraph 4.2.9	*"During decision making, the CNP policy also explains the Secretary of State's approach to HRA derogations and MCZ assessments. Specifically, the policy explains how the alternative solutions and IROPI tests are considered by the Secretary of State. Further detail is provided in paragraphs 4.2.18 to 4.2.22, and Figure 3."*
NPS EN-1 paragraph 4.2.10	*"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."*
NPS EN-1 paragraph 4.2.11	*"Applicants must apply the mitigation hierarchy and demonstrate that it has been applied. They should also seek the advice of the appropriate SNCB or other relevant statutory body when undertaking this process. Applicants should demonstrate that all residual impacts are those that cannot be avoided, reduced or mitigated."*
NPS EN-1 paragraph 4.2.12	*"Applicants should set out how residual impacts will be compensated for as far as possible. Applicants should also set out how any mitigation or compensation measures will be monitored and reporting agreed to ensure success and that action is taken. Changes to measures may be needed e.g. adaptive management. The cumulative impacts of multiple developments with residual impacts should also be considered."*
NPS EN-1 paragraph 4.2.13	*"Where residual impacts relate to HRA or MCZ sites then the Applicant must provide a derogation case, if required, in the normal way in compliance with the relevant legislation and guidance."*
NPS EN-1 paragraph 4.2.18	*"Any HRA or MCZ residual impacts will continue to be considered under the framework set out in the Habitats Regulations and the Marine and Coastal Access Act 2009 respectively."*
NPS EN-1 paragraph 4.2.19	*"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."*
NPS EN-1 paragraph 4.2.21	*"For both* [HRA and MCZ] *derogations, the Secretary of State will consider the particular circumstances of any plan or project, but starting from the position that energy security and decarbonising the power sector to combat climate change:* • *requires a significant number of deliverable locations for CNP Infrastructure and for each location to maximise its capacity. This NPS imposes no limit on the number of CNP infrastructure projects that may be consented. Therefore, the fact that there are other potential*

Policy	Requirements
	plans or projects deliverable in different locations to meet the need for CNP Infrastructure is unlikely to be treated as an alternative solution. Further, the existence of another way of developing the proposed plan or project which results in a significantly lower generation capacity is unlikely to meet the objectives and therefore be treated as an alternative solution; and • *are capable of amounting to imperative reasons of overriding public interest (IROPI) for HRAs, and, for MCZ assessments, the benefit to the public is capable of outweighing the risk of environmental damage, for CNP Infrastructure."*
NPS EN-1 paragraph 4.2.22	*"For HRAs, where an applicant has shown there are no deliverable alternative solutions, and that there are IROPI, compensatory measures must be secured by the Secretary of State as the competent authority, to offset the adverse effects to site integrity as part of a derogation. For MCZs, where an applicant has shown there are no other means of proceeding which would create a substantially lower risk, and the benefit to the public outweighs the risk of damage to the environment, the Secretary of State must be satisfied that measures of equivalent environmental benefit will be undertaken."*
NPS EN-1: Consideration of alternatives	
NPS EN-1 paragraph 4.3.17	*"Where there is a policy or legal requirement to consider alternatives, the applicant should describe the alternatives considered in compliance with these requirements."*
NPS EN-1 paragraph 4.3.22	*"Given the level and urgency of need for new energy infrastructure, the Secretary of State should, subject to any relevant legal requirements (e.g. under the Habitats Regulations) which indicate otherwise, be guided by the following principles when deciding what weight should be given to alternatives:* • *the consideration of alternatives in order to comply with policy requirements should be carried out in a proportionate manner; and* • *only alternatives that can meet the objectives of the proposed development need to be considered."*
NPS EN-1 paragraph 4.3.23	*"The Secretary of State should be guided in considering alternative proposals by whether there is a realistic prospect of the alternative delivering the same infrastructure capacity (including energy security, climate change, and other environmental benefits) in the same timescale as the proposed development."*
NPS EN-1 paragraph 4.3.24	*"The Secretary of State should not refuse an application for development on one site simply because fewer adverse impacts would result from developing similar infrastructure on another suitable site, and it should have regard as appropriate to the possibility that all suitable sites for energy infrastructure of the type proposed may be needed for future proposals."*
NPS EN-1 paragraph 4.3.25	*"Alternatives not among the main alternatives studied by the applicant (as reflected in the ES) should only be considered to the extent that the Secretary of State thinks they are both important and relevant to the decision."*

Policy	Requirements
NPS EN-1 paragraph 4.3.26	*"As the Secretary of State must assess an application in accordance with the relevant NPS (subject to the exceptions set out in section 104 of the Planning Act 2008), if the Secretary of State concludes that a decision to grant consent to a hypothetical alternative proposal would not be in accordance with the policies set out in the relevant NPS, the existence of that alternative is unlikely to be important and relevant to the Secretary of State's decision."*
NPS EN-1 paragraph 4.3.27	*"Alternative proposals which mean the necessary development could not proceed, for example because the alternative proposals are not commercially viable or alternative proposals for sites would not be physically suitable, can be excluded on the grounds that they are not important and relevant to the Secretary of State's decision."*
NPS EN-1 paragraph 4.3.28	*"Alternative proposals which are vague or immature can be excluded on the grounds that they are not important and relevant to the Secretary of State's decision."*
NPS EN-1: Applicant Assessment – Habitats Regulations	
NPS EN-1, paragraph 5.4.25	*"The applicant should seek the advice of the appropriate SNCB and provide the Secretary of State with such information as the Secretary of State may reasonably require, to determine whether an Appropriate Assessment (AA) is required. Applicants can request and agree 'Evidence Plans' with SNCBs, which is a way to record upfront the information the applicant needs to supply with its application, so that the HRA can be efficiently carried out. If an AA is required, the applicant must provide the Secretary of State with such information as may reasonably be required to enable the Secretary of State to conduct the AA. This should include information on any mitigation measures that are proposed to minimise or avoid likely significant effects."*
NPS EN-1, paragraph 5.4.26	*"If, during the pre-application stage, the SNCB indicate that the proposed development is likely to adversely impact the integrity of habitat sites, the applicant must include with their application such information as may reasonably be required to assess a potential derogation under the Habitats Regulations."*
NPS EN-1, paragraph 5.4.27	*"If the SNCB gives such an indication at a later stage in the development consent process, the applicant must provide this information as soon as is reasonably possible and before the close of the examination. This information must include assessment of alternative solutions, a case for Imperative Reasons of Overriding Public Interest (IROPI) and appropriate environmental compensation."*
NPS EN-1, paragraph 5.4.28	*"Provision of such information will not be taken as an acceptance of adverse impacts and if an applicant disputes the likelihood of adverse impacts, it can provide this information as part of its application "without prejudice" to the Secretary of State's final decision on the impacts of the potential development. If, in these circumstances, an applicant does not supply information required for the assessment of a potential derogation, there will be no expectation that the Secretary of State will allow the applicant the opportunity to provide such information following the examination."*
NPS EN-3	

Policy	Requirements
NPS EN-3: CNP Infrastructure	
NPS EN-3 paragraph 2.1.7	*"As stated in Section 4.2 of EN-1, to support the urgent need for new low carbon infrastructure, all onshore and offshore electricity generation covered in this NPS that does not involve fossil fuel combustion (that is, renewable generation, including anaerobic digestion and other plants that convert residual waste into energy, including combustion, provided they meet existing definitions of low carbon) are considered to be Critical National Priority (CNP) Infrastructure."*
NPS EN-3 paragraph 2.1.8	*"The assessment principles outlined in Section 4 of EN-1 continue to apply to CNP infrastructure. Applicants must show how any likely significant negative effects would be avoided, reduced, mitigated or compensated for, following the mitigation hierarchy. Early application of the mitigation hierarchy is strongly encouraged, as is engagement with key stakeholders including SNCBs, both before and at the formal pre-application stage"*
NPS EN-3 Glossary	*"A policy set out at Section 4.2 of EN-1 which applies a policy presumption that, subject to any legal requirements (including under section 104 of the Planning Act 2008), 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. CNP Infrastructure is defined as nationally significant low carbon energy. Low carbon infrastructure means:* • *for electricity generation, and all onshore and offshore enabling electricity generation that does not involve fossil fuel…"*
NPS EN-3: Consideration of Sites[8]	
NPS EN-3 paragraph 2.8.51	*"The UK Government has obligations to protect the marine environment with a network of well managed Marine Protected Areas (MPAs), which also includes Highly Protected Marine Areas (HPMAs). MCZs together with HPMAs, SACs SPAs, and Ramsar sites and marine elements of SSSIs form an ecologically coherent network of MPAs. Government has set a target for MPA condition under the Environment Act 2021"*
NPS EN-3: Derogation	
NPS EN-3, paragraph 2.8.265	*"With increasing deployment of offshore wind farms and offshore transmission, environmental impacts upon SACs SPAs, and Ramsar sites and MCZs (individually and as part of a network) may not be addressed by avoidance, reduction, or mitigation alone, therefore compensatory measures (through derogation for SACs SPAs, Ramsar sites, and, MCZs may be required at a plan or project level where adverse effects on site integrity and/or on conservation objectives cannot be ruled out."*
NPS EN-3, paragraph 2.8.266	*"For many receptors, the scale of offshore wind and offshore transmission developments and potential in-combination effects means compensation*

[8] Note that this paragraph relates to the selection of sites so is relevant to the Applicant's ES Chapter 4 Site Selection and Consideration of Alternatives but is also of relevance when considering the Applicant's Assessment of Alternative Solutions set out in this derogation case.

Policy	Requirements
	could be required and applicants must refer to the latest Defra compensation guidance when making their assessments."
NPS EN-3, paragraph 2.8.267	*"If, during the pre-application stage, SNCBs indicate that the proposed development is likely to adversely impact a protected site, the applicant should include with their application such information as may reasonably be required to assess potential derogations under the Habitats Regulations..."*
NPS EN-3, paragraph 2.8.268	*"Where such an indication is given later in the development consent process, the applicant should share this information as soon as reasonably practical."*
NPS EN-3, paragraph 2.8.269	*"This information includes:* • *assessment of alternative solutions, showing the relevant tests on alternatives have been met;* • *a case showing that the relevant tests for IROPI or Measures of Equivalent Environmental Benefit have been met; and* • *appropriate securable environmental compensation, which will ensure no net loss to the MPA network and help ensure that the MPA target (including any interim target) set under the Environment Act 2021 targets can be met"*
NPS EN-3, paragraph 2.8.270	*"Provision of such information will not be taken as an acceptance of adverse impacts and if applicants dispute the likelihood of adverse effects, they can provide this information as part of their application, "without prejudice" to the Secretary of State's final decision on the impacts of the potential development."*
NPS EN-3, paragraph 3.8.271	*"If, in these circumstances, an applicant does not supply information required for the assessment of a potential derogation, consent may be refused as there will be no expectation that the Secretary of State will allow the applicant the opportunity to provide such information following the examination."*
NPS EN-3, paragraph 2.8.272	*"It is vital that applicants consider the need for compensation as early as possible in the design process, as 'retrofitting' compensatory measures will introduce delays and uncertainty to the consenting process. Applicants are encouraged to include all compensatory measures considered, with reasoning for why they have been discounted."*
NPS EN-3, paragraph 2.8.273	*"Applicants should work closely at an early stage in the preapplication process with SNCBs, and Defra, in conjunction with the relevant regulators, Local Planning Authorities, National Park Authorities, landowners and other relevant stakeholders to develop a compensation plan for all protected sites adversely affected by the development."*
NPS EN-3, paragraph 2.8.274	*"Before submitting an application, applicants should seek the views of the SNCB and Defra, as to the suitability, securability and effectiveness of the compensation plan to ensure that the overall coherence of the National Site Network for the impacted SAC/SPA/MCZ feature is protected. Consultation should also take place throughout the pre-application phase with key stakeholders (e.g. via the evidence plan process and use of expert topic groups)."*

Policy	Requirements
NPS EN-3, paragraph 2.8.275	*"In cases where such views are provided, the applicant should include a copy of this information with the compensation plan in their application for further consideration by the Examining Authority and Secretary of State."*
NPS EN-3, paragraph 2.8.276	*"The British Energy Security Strategy has committed to introducing mechanisms to support strategic compensatory measures, to compensate for environmental impacts and reduce delays to individual projects."*
NPS EN-3, paragraph 2.8.277	*"Strategic compensation is defined as a measure or a series of measures that can be delivered at scale and/or extended timeframes, which cannot be delivered by individual offshore wind and/ or offshore transmission project developers in isolation. Any measure(s) would usually be led and delivered by a range of organisations, including Government, industry and relevant stakeholders. Strategic compensation measures would normally be identified at a plan level and applied across multiple offshore wind projects to provide ecologically meaningful compensation to designated site habitats and species adversely impacted, ensuring the coherence of the MPA network."*
NPS EN-3, paragraph 2.8.278	*"This may include central coordination for measures delivered across a series of projects or biogeographic region.."*
NPS EN-3, 2.8.279	*"Applicants will be able to access tools and mechanisms to support identification of suitable compensation and facilitate delivery of strategic compensation measures where appropriate"*
NPS EN-3, paragraph 2.8.280	*"The government is still developing its policies on strategic compensation, through the COWSC programme and guidance will be published in due course."*
NPS EN-3, paragraph 2.8.281	*"The government will work collaboratively with industry and stakeholders to develop strategic compensation for projects currently in the consenting process (where possible) as well as for future developments."*
NPS EN-3, paragraph 2.8.282	*"Not every impact for every project will initially fall within the strategic compensation proposals, so applicants should continue to discuss with SNCBs, and Defra the need for site specific or strategic compensation at the earliest opportunity."*
NPS EN-3, paragraph 2.8.283	*"Applicants should also coordinate with other marine industry sectors, e.g. oil and gas, who might also need to find compensatory measures. This will ensure compensatory measures are complementary and/or take advantage of opportunities to join together to deliver strategic compensation. Applicants should demonstrate they have consulted with those industries/stakeholders who are affected by any proposed compensation measures."*

2.3 Habitats Regulations Assessment Process

45. Under the Habitats Regulations, the relevant competent authority must consider whether a plan or project has the potential to have an AEoI on a European Site. HRA derogation must only be considered once AA has concluded and determined that AEoI cannot be ruled out.[9]
46. Guidance, including the following, addresses the approach to the principles derived from Article 6(4) as transposed in the Habitats Regulations:

- Defra, Natural England, Natural Resources Wales' Habitats regulations assessments: protecting a European site (Defra, 2021a);
- Defra's Draft best practice guidance for developing compensatory measures in relation to Marine Protected Areas; (Defra, 2021b); and
- Defra's Consultation on policies to inform updated guidance for Marine Protected Area (MPA) assessments (Defra, 2024).

47. Plate 1 provides an overview of the HRA process, based on Planning Inspectorate, 2024.[10] This derogation case document provides information relating only to the derogation and compensation parts of the HRA Process. The RIAA (document reference 7.1) is provided with the DCO application, which supports the Appropriate Assessment stage of the HRA process.
48. Summary and signposting of the conclusions of the RIAA as relevant to the European Sites, features and risks considered in this derogation case is set out in Section 3.4 (Define the Potential for Harm).
49. As discussed above, CNP status has relevance for the HRA process. Figure 3 of NPS EN-1 sets out how this CNP status affects Secretary of State decision making on the issues of Alternative Solutions and IROPI and is set out at Plate 2 below.

[9] As discussed elsewhere, the Applicant's primary position is that AEoI can be ruled out for the European Sites and features discussed in this derogation case other than the collision risk to Kittiwake within the FFC SPA.

[10] Please note that in version 1 of this derogation case submitted at Application, this Plate contained a diagram of this information taken from EC, 2021a. The Applicant has replaced this in version 2, submitted at Deadline 4, with a diagram of this information taken from Planning Inspectorate, 2024 – an updated advice note published since Application.

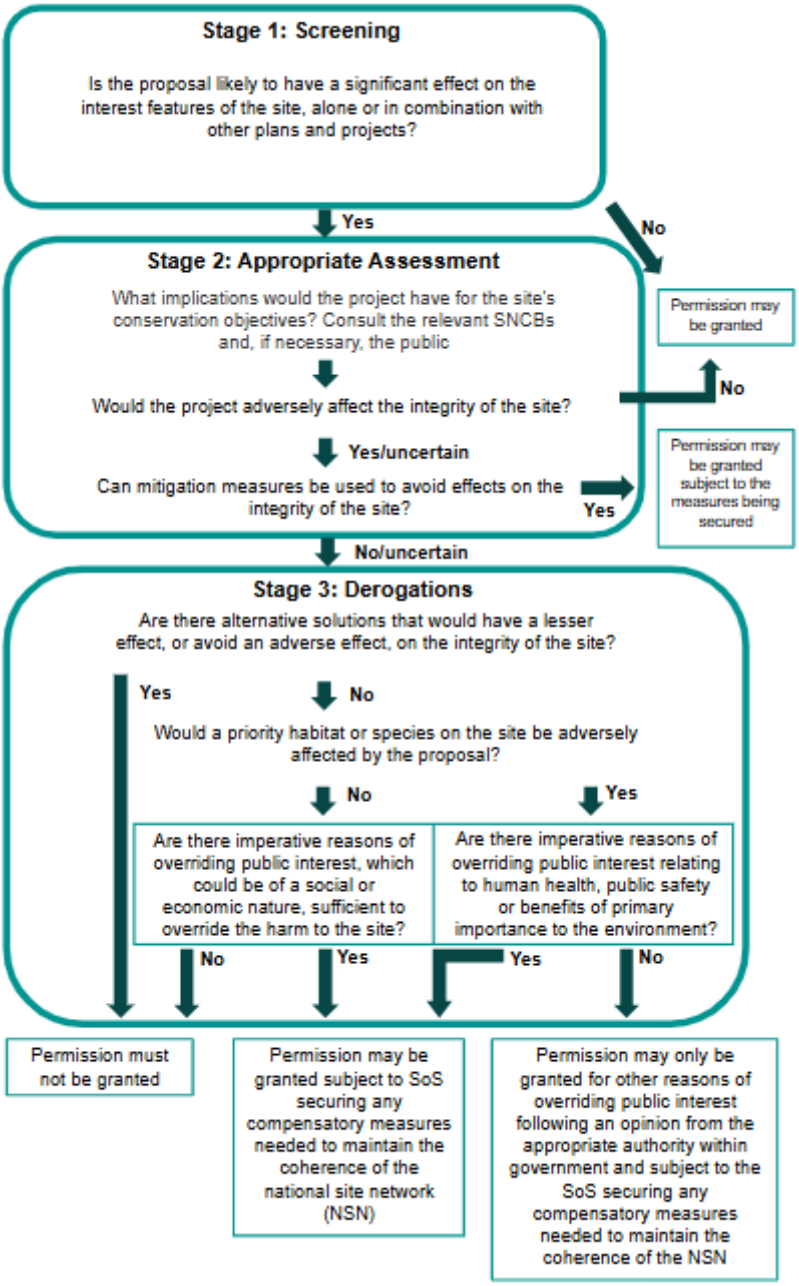

Plate 1 – Outline of HRA process

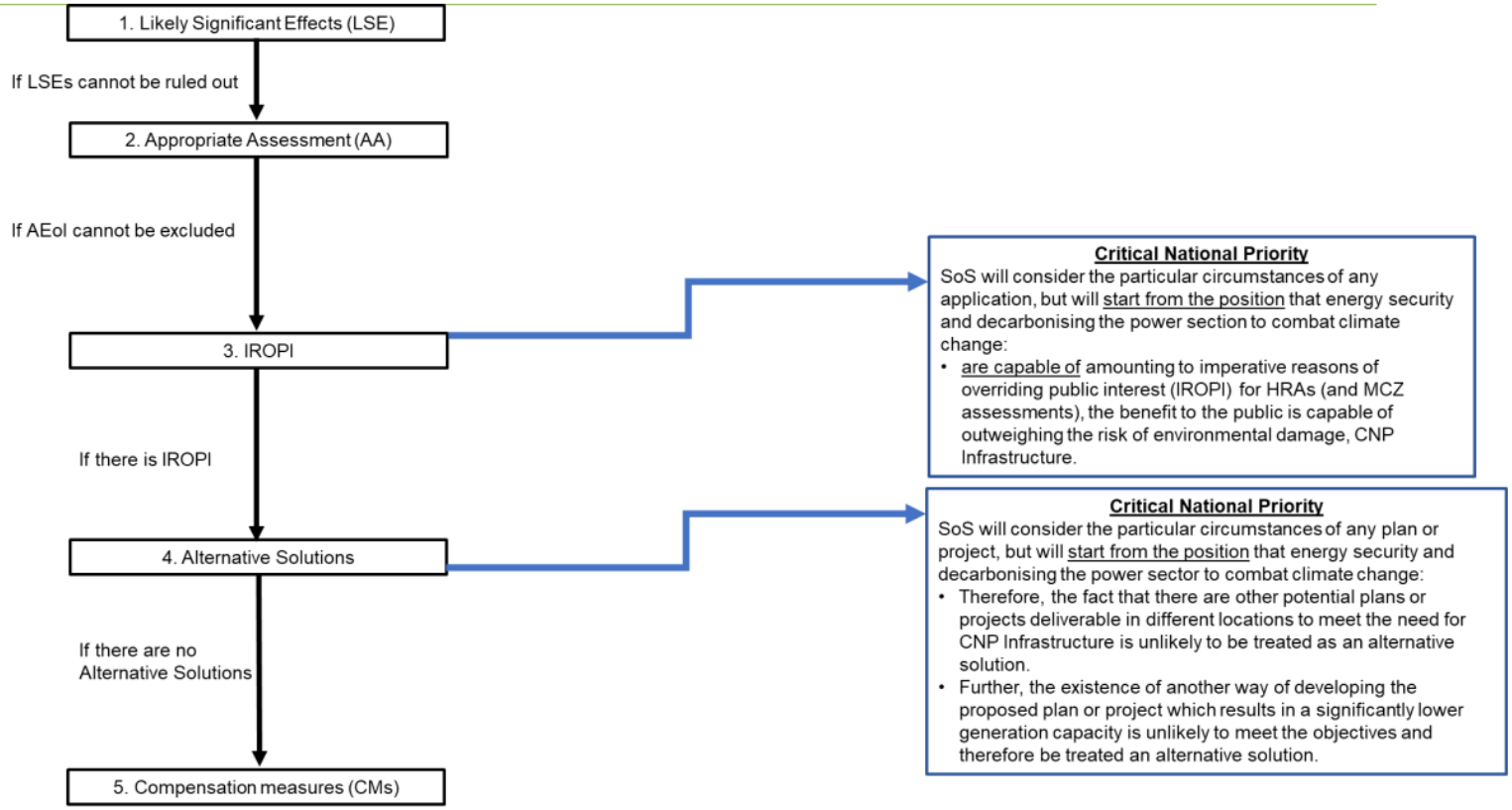

Figure 3: Application of CNP in decisions relating to Habitats Regulations Assessments

Plate 2 – NPS EN-1 Application of CNP in decisions relating to Habitats Regulations Assessment

3 Assessment of Alternative Solutions

3.1 Introduction

50. The Project will lie 54km off the shore of Lincolnshire. Its rights over this area of seabed were received as part of the TCE's Offshore Wind Leasing Round 4 (commonly referred to as Round 4). Round 4 related to seabed rights to develop offshore wind projects in English and Welsh waters and included seabed rights for offshore wind development within four bidding regions (North Wales & Irish Sea, Eastern, South East, and Dogger Bank).

51. As part of the Round 4 process TCE undertook a Plan-Level Habitats Regulations Assessment (HRA) in July 2022 (following the approval of a Plan-level derogation requirement by the Secretary of State). To ensure optimal use of – and hence greatest environmental gain from – the seabed which it has been leased, the Project will meet a minimum power density of 5MW per km^2 under its lease with TCE and in line with its objectives. This will narrow the array area and place some constraint on the Project's design parameters.

3.2 Approach to Assessment of Alternatives

3.2.1 Guidance and precedent

52. The methodology adopted to assess alternative solutions has been developed based on former and current guidance from a range of sources, including: [11]

- The Planning Inspectorate (2024). Nationally Significant Infrastructure Projects: Advice on Habitats Regulations Assessments: Nationally Significant Infrastructure Projects: Advice on Habitats Regulations Assessments - GOV.UK.
- Defra (2012). Habitats Directive: guidance on the application of article 6(4);
- DEFRA (2021a);
- DEFRA (2021b);
- DEFRA (2024);
- EC (2001). Assessment of plans and projects significantly affecting Natura 2000 sites Methodological guidance on the provisions of Article 6(3) and (4) of the Habitats Directive 92/43/EEC;
- EC (2019). Managing Natura 2000 sites: The provisions of Article 6 of the 'Habitats' Directive 92/43/EEC;
- Defra (2021c). Changes to the Habitats Regulations 2017;
- EC (2021a). Guidance document on wind energy developments and EU nature legislation; and

[11] Note that where former guidance is provided, this has been reviewed for, and reference to it provided for, illustrative purposes

- EC (2021b). Methodological guidance on the provisions of Article 6(3) and (4) of the Habitats Directive 92/43/EEC and Annex (the EC Methodological Guidance).

53. The approach to this derogation case has also been developed through consideration of examples of HRA cases considered by the Secretary of State and consent awards based on derogations made by the Secretary of State, including:

- Hornsea Three OWF (Hornsea Three) (BEIS, 2020);
- Norfolk Boreas OWF (Norfolk Boreas) (BEIS, 2021);
- Norfolk Vanguard OWF (BEIS, 2022d);
- East Anglia ONE North OWF (BEIS, 2022a);
- East Anglia TWO OWF (BEIS, 2022b);
- Hornsea Four OWF (Hornsea Four (DESNZ, 2023h); and
- Sheringham Shoal and Dudgeon Offshore Wind Farm Extension Projects (SEP and DEP).

54. Another recent example of an offshore wind HRA derogation case is The Crown Estate's plan-level HRA for Offshore Wind Leasing Round 4 (TCE, 2022a) which subsequently resulted in the Project (along with a number of other projects) entering an Agreement for Lease with TCE. Following completion of its AA, TCE concluded there was a risk of an AEoI with regards to the kittiwake feature of the FFC SPA in-combination, and the sandbanks feature of the Dogger Bank SAC, alone or in-combination. As such, TCE prepared an HRA derogation case which was subsequently approved by BEIS allowing the Round 4 plan to proceed. It should be noted that the Secretary of State concluded that *"there are no alternative solutions to the preferred [Round 4] options that would have a lesser effect on the integrity of the sites in our National Site Network, whilst meeting our decarbonisation and renewables ambitions under the British Energy Security Strategy (BESS)"* (BEIS, 2022e).

55. Some examples of applications/plans which have required derogation are provided at Table 3-1. Those projects exemplify that plan or project-level offshore wind farm developments which involve AEoI can nevertheless receive consent.

Table 3-1 Derogation Cases relevant to the Project

Name	Nature of Relevant Site / Feature	Timescale
Hornsea Three[12]	▪ Kittiwake at FFC SPA ▪ Sandbanks at North Norfolk Sandbanks and Saturn Reef SAC ▪ Sandbanks at Wash and North Norfolk Coast SAC	Planning Decision granted on 31 December 2020
Norfolk Boreas[13]	▪ Kittiwake at FFC SPA	Planning Decision

12 derogation case presented without prejudice

13 derogation case presented without prejudice for both Boreas and Vanguard

Name	Nature of Relevant Site / Feature	Timescale
	▪ Lesser black-backed gull at Alde-Ore Estuary SPA ▪ Sandbanks and reef at Haisborough, Hammond and Winterton SAC	granted on 20 December 2021
Norfolk Vanguard	▪ Kittiwake at FFC SPA ▪ Lesser black-backed gull at Alde-Ore Estuary SPA ▪ Sandbanks and reef at Haisborough, Hammond and Winterton SAC	Planning Decision granted on 11 February 2022
East Anglia ONE North	▪ Kittiwake at FFC SPA ▪ Lesser black-backed gull at Alde-Ore Estuary SPA ▪ Red-throated diver at Outer Thames Estuary SPA	Planning Decision granted on 31 March 2022
East Anglia Two[14]	▪ Kittiwake at FFC SPA ▪ Lesser black-backed gull at Alde-Ore Estuary SPA ▪ Red-throated diver at Outer Thames Estuary SPA	Planning Decision granted on 31 March 2022
Hornsea Four[15]	▪ Kittiwake, Guillemot and Razorbill at FFC SPA	Planning Decision granted on 12 July 2023
SEP and DEP[16]	▪ Kittiwake at FFC SPA ▪ Guillemot and razorbill at FFC SPA ▪ Gannet at FFC SPA ▪ Sandwich tern feature of the North Norfolk Coast SPA and Greater Wash SPA	Planning Decision award on 17 April 2024
Round Four Plan Level Derogation Case	▪ Kittiwake at FFC SPA ▪ Sandbanks at Dogger Bank SAC	Derogation Notice approved in April 2022, and agreements for lease awarded in January 2023.

14 derogation case presented without prejudice for both East Anglia applications

15 derogation case presented without prejudice

16 derogation case presented without prejudice other than in relation to Kittiwake and Sandwich Tern features

3.2.2 Factors for assessment of alternatives

56. On the basis of the guidance reviewed, the following factors have been taken into account when assessing alternatives.

57. First, though not an exhaustive list[17], Defra (2021a) recommends that an applicant considers whether its proposals could: happen at a different location; use different routes across a site; change its scale, size, design, method or timing.

58. Defra (2021b) states that a "do nothing" option should be considered, though it is "unlikely in most cases that [it would] be an acceptable alternative as it would not deliver the same overall objective".

59. Defra (2021a) states that, to merit consideration, the alternative must be "suitable" and must meet the outcome of the original proposal. An alternative will only be suitable if it:

- *"achieves the same overall objective as the original proposal*
- *is financially, legally and technically feasible*
- *is less damaging to the European site and does not have an adverse effect on the integrity of this or any other European site"*

60. As set out in Defra (2021a), the consideration of alternative solutions need not go beyond the form of energy generation proposed in order to deliver the objectives of renewable energy production:

"Examples of alternatives that may not meet the original objective include a proposal that…offers nuclear instead of offshore wind energy".

61. Defra 2012 previously illustrated the way in which "overall objective" will be limited by form of energy:

"Alternative solutions are limited to those which would deliver the same overall objective as the original proposal. For example, in considering alternative solutions to an offshore wind renewable energy development the competent authority need only consider alternative offshore wind renewable energy developments. Alternative forms of energy generation are not alternative solutions to this project as they are beyond the scope of its objective."

[17] As set out in Defra (2021b) at paragraph 18.

62. NPS EN-1 also sets limits on alternatives that are to be considered. The Secretary of State should be guided by whether there is a realistic prospect of the alternative delivering the same infrastructure capacity (including energy security, climate change, and other environmental benefits) in the same timescale and, given the level and urgency of need for new energy infrastructure, subject to relevant legal requirements, only alternatives that can meet the objectives of the proposed development need to be considered. NPS EN-3 makes clear that in order to tackle climate change a significant number of deliverable locations for renewable energy infrastructure, such as the Project, are required and further it is necessary for each location to maximise its capacity. Importantly the NPS does not place a limit on the amount of renewable energy development to be consented – meaning that the fact that there are other potential plans or projects deliverable in different locations is unlikely to be treated as an alternative solution. Further, the existence of another way of developing the proposed plan or project which results in a significantly lower generation capacity is unlikely to meet the objectives and therefore be treated as an alternative solution.

3.2.3 Methodology steps

63. The methodology adopted in this Assessment of Alternatives steps set out below at Table 3-2.

Table 3-2 Assessment of alternative process steps

Assessment of alternative process		
Step	Detail	Section
Step 1 Project Need and Objectives	The Applicant summarises the Project need and objectives in order to allow comparison with alternatives (Step 3) including whether possible alternatives achieve the same overall objectives. As set out there is an urgent need for offshore wind developments such as the Project and the Project has a range of objectives to help deliver capacity and aid decarbonisation in line with Government policy.	3.3
Step 2 Define the Potential for Harm	The Applicant here sets out the "worst-case scenario" design parameters for the Project and identifies the risk of harm to the integrity of the relevant European sites. As set out, the approach taken is precautionary: the actual project parameters may be more limited; and the range of possible potential harms encapsulates the position which the Applicant considers could feasibly be advanced by SNCBs rather than solely the Applicant's assessment.	3.4
Step 3 Consideration of feasible Alternative Solutions	The Applicant considers alternative solutions, including the "do nothing" approach, other sites in different locations, and different design parameters of the same site including on the basis of changes to scale, size, design, method or timing.	3.5

Assessment of alternative process		
	As set out, the Applicant concludes that none of these changes to the Project provide alternatives which are feasible and meet the Objectives of the Project.	
Step 4 Assessment of Effects of feasible Alternative Solutions	This step allows space for the Applicant to consider whether any of the potential alternatives have a lesser effect than the current design parameters of the Project. As set out, on the basis of the Applicant's conclusion that there are no feasible alternatives which meet its objectives, no comparative exercise of effects is provided here.	3.6

3.3 Step 1: Project Need and Objectives

3.3.1 The Need for the Project

64. This section sets out key drivers which underpin the need for offshore wind power generally, as established by relevant policy and guidance. It then provides a table of the Project's objectives and how they align with these drivers. Later sections determine whether alternatives meet these objectives in order to consider, as required by DEFRA, 2021a, whether a potential alternative "achieves the same overall objective as the proposal". Overall, it will be shown that there is an urgent need for offshore wind development which the Project will play a part in fulfilling through its objectives. The need for the Project is further discussed in Chapter 2 of the Environmental Statement: Need, Policy and Legislative Context (document reference 6.1.2) and Section 5 of the Planning Statement (document reference 9.1).

65. The key drivers are:

- The urgent need to reduce greenhouse gas emissions;
- The need for energy security;
- the urgent need for new nationally significant energy infrastructure projects and offshore wind projects; and
- The need to maximise economic opportunities from energy infrastructure investment for the UK.

3.3.1.1 The urgent need to reduce greenhouse gas emissions

66. The Intergovernmental Panel on Climate Change (IPCC) report, 2007 Fourth Assessment Report (IPCC, 2007), predicts that a continuation of global emission trends, including emissions of greenhouse gases such as carbon dioxide, could lead average global temperatures to rise by up to 6°C by the end of this century. The potential impacts associated with such a global temperature rise include:

- Increased frequency of extreme weather events such as floods and drought;
- Reduced food supplies;
- Impacts on human health;

- Increased poverty; and
- Ecosystem impacts, including species extinction.

67. In 2018, the IPCC highlighted the impacts of temperature increases of 1.5°C on natural and human systems (IPCC 2018, Chapter 3) which include impacts on terrestrial and marine ecosystems, coastal processes including sea level rises, and on land use, food security and food production systems.
68. The UK Committee on Climate Change (CCC) (2017 carbon budget) (CCC,2017) reported that 2016 was the hottest year on record, which represented the fifth time in the 21st century a new record high annual temperature had been set (along with 2005, 2010, 2014, and 2015). The UK CCC, in its 2023 progress report noted that 2022 was the UK's warmest recorded year and one of the six warmest years on record globally; 2020, and 2023 are also considered some of the warmest years in the UK (Met Office, 2024).
69. A commitment by the UK was made during COP26 in Glasgow in 2021 to pursue efforts to limit the global temperature increase to within 1.5°C of the pre-industrial average temperature.
70. Power sector emissions fell 17% in 2015 to 50% below 1990 levels. This follows an average annual decrease of 5% in the years between 2009 and 2014. This reduction is largely due to an increase in renewable and nuclear generation, equating to almost half of the UK's electricity demand in 2015 (CCC, 2016). In order to achieve necessary ongoing reductions in emissions, the CCC recommended that the UK government should set out an intention to support 1-2GW of offshore wind per year, provided costs continue to fall, with a view to phasing out subsidies in the 2020s (CCC, 2015).
71. The UK Government has a statutory commitment under the Climate Change Act 2008 (2050 Target Amendment) Order 2019 to reduce GHG emissions by at least 100% of 1990 levels by 2050 and has committed to decarbonising the UK electricity system by 2035. The British Energy Security Strategy (BESS) (UK Government, 2022a) sets out an ambition to reach up to 50GW of offshore wind by 2030 with offshore wind part of its '10 Point Plan' for net zero by 2050. As part of the Clean Power 2030 Action Plan (DESNZ, 2024), the UK Government has set out that the up to 50 GW of wind in 2030 will be within the "Clean Power Capacity Range" being either 43 GW or 50 GW depending on which of two possible pathways are taken.[18] The Climate Change Act 2008 (2050 Target Amendment) Order 2019 target is reflected in NPS EN-1 (paragraph 2.2.1).

[18] As set out in NESO, 2024: "*Our work identifies two primary clean power pathways. In addition to the elements outlined above, one pathway successfully builds 50 GW of offshore wind by 2030, but no new dispatchable power from hydrogen or gas with CCS. The other pathway delivers new dispatchable plants (totalling 2.7 GW) and 43 GW offshore wind. Either of these requires a dramatic acceleration in progress compared to anything achieved historically and can only be achieved with a determined focus on pace and a huge collective effort across the industry*"

72. The full suite of legislation in place to secure a reduction in emissions – and which the Project responds to – is outlined in Chapter 2 of the Environmental Statement: Need, Policy and Legislative Context (document reference 6.1.2).[19] The discussion of urgent need to reduce greenhouse gas emissions is set out in more detail in the Planning Statement (document reference 9.1) Section 5.3.

3.3.1.2 The need for energy security

73. As a result of the ongoing war in Ukraine and its impact on global energy markets, a sharp focus has been placed on the UK's dependence on imports to heat homes, fuel cars and generate electricity. This and other global factors require greater domestic energy security underpinned by increased offshore wind generation.

British Energy Security Strategy

74. In April 2022, the UK Government stated its ambition to increase offshore wind capacity up to 50GW by 2030 through BESS (UK Government, 2022a) in order to, among other things, create energy "that is affordable, clean and above all secure" and a power supply "that's made in Britain, for Britain". As set out above, this target has now been provided as the "Clean Power Capacity Range" (either 43 GW or 50 GW depending on which pathway is taken) (DESNZ, 2024).

75. In doing so, the BESS sets out recent factors which require greater energy security:

- Covid-19: "as the global economy reopened in the aftermath of the pandemic, the sudden surge in demand for everything from new cars to foreign holidays drove a massive spike in demand for oil and gas, dramatically increasing the price of these essential fuels."
- Russia's invasion of Ukraine: "As we are part of a global market, the price we pay for gas is set internationally. And President Putin has used this against us by restricting the supply of Russian gas to the European market, further pushing up prices. The vital sanctions imposed by the UK and its allies to support the Ukrainian people will also inevitably have an adverse effect on all economies"
- "As a result of all these factors, European gas prices soared by more than 200% [in 2021] and coal prices increased by more than 100%. This record rise in global energy prices has led to an unavoidable increase in the cost of living in the UK, as we use gas both to generate electricity, and to heat the majority of our 28 million homes."

76. BESS sets out that in order to reduce energy bills in the long term the UK requires to address underlying vulnerability to international oil and gas prices by reducing our dependence on imported oil and gas, a key requirement of which is "the transition away from oil and gas [which] depends critically on how quickly we can roll out new renewables".

77. The BESS ambition represents an increase from approximately 13.6GW of offshore wind currently deployed, with over £1.6 billion invested so far in the UK offshore wind infrastructure securing 3,600 jobs (UK Government, 2022a).

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[19] The Applicant notes that, in line with the discussion of the issues at Issue Specific Hearing 2 (summarised by the Applicant in REP3-041 20.4.3 The Applicant's Written Summary of oral case put at Issue Specific Hearing 2 on Offshore matters, 4th Dec), the ES will be updated at Deadline 5 and once updated will include, among other things, details of Clean Power 2030 Action Plan.

78. In order to achieve its aims, the BESS recognises the need to act on other drivers set out in this section: reducing greenhouse gas emissions and increasing energy generation from low carbon sources to replace high carbon energy sources. It makes clear that "fundamental to energy security" is the need to "accelerate our progress towards net zero".

Powering Up Britian

79. In 2023, the UK Government published "Powering Up Britian" (UK Government, 2023c) which further emphasises the need for energy security, sets out "the steps the Government is taking to ensure the UK is more energy independent, secure and resilient", and makes clear that energy security necessitates "the smooth transition to abundant, low-carbon energy" and that "If we do not decarbonise, we will be less energy secure".

Clean Power 2030 Action Plan

80. The Clean Power 2030 Action Plan, published in December 2024, further emphasises the need to ensure energy security (DESNZ, 2024, *Ensuring energy security,* page 23 – 24) where, citing the war in Ukraine among other recent factors, the UK Government makes clear that "*Our energy system must meet demand while protecting families and businesses from global supply shocks and volatile prices*."

81. The need for energy security is further emphasised in NPS EN-1 which states (paragraph 2.5.5)

- "as global energy costs rise due to demand soaring as the economy reopened after COVID-19 and the Russian invasion of Ukraine, security of supply requires a greater focus on domestic energy production."

3.3.1.3 The urgent need for new nationally significant energy infrastructure projects and offshore wind projects

82. The need to increase energy security and reduce greenhouse gasses requires an urgent increase in large-scale low carbon capacity energy, such as offshore wind.

83. Part 3 of NPS EN-1 establishes the urgent policy need for all types of energy infrastructure and particularly low carbon NSIPs in order to provide security of supply, affordable and reliable energy system and ensuring the system is net zero consistent (NPS EN-1, paragraph 3.1.1, 3.3.58 – 59).

84. It is not therefore necessary, when determining applications for offshore wind, to demonstrate a specific need for the principle of offshore wind development (NPS EN-3 2.1.6). NPS EN-1 further explains that extant targets require significant offshore wind: "*a secure, reliable, affordable, net zero consistent system in 2050 is likely to be composed predominantly of wind and solar*".

85. Beyond the principle of offshore wind being needed generally, UK Government targets require a level of deployment such that all currently planned and proposed offshore wind projects are needed. This is captured in NPS EN-1 paragraph 3.2.7 which states that the Secretary of State has determined that substantial weight should be given to the need for new energy NSIPs when considering Planning Act 2008 applications such as this and paragraph 4.2.21 which notes the need for a significant number of deliverable locations with no limit placed on the projects which may be consented.

86. EN-1 further notes the ambition of up to 50GW of offshore wind by 2030 (paragraph 3.3.21), which in practice means the installation of in the region of 2,666 of the larger turbines currently available at a rate of 333 turbines per year. EN-1 (3.3.20) makes clear that a net zero consistent system in 2050 is "likely to be composed predominately of wind and solar" which are "the lowest cost ways of generating electricity, helping reduce costs and providing a clean and secure source of electricity supply".
87. NPS EN-1 (paragraphs 3.3.3) anticipates that large parts of the country's heat and transportation demand will be electrified, meaning total electricity consumption (measured in terawatt hours over a year) could more than double by 2050, depending on the choice of how electricity is supplied.
88. This increase in electricity demand is uncertain, but is likely to be considerably higher than today, particularly now that the UK Government has legislated for net zero emissions. This translates into very significant need for large-scale renewable energy projects. The role of offshore wind in delivering this additional capacity of low carbon energy is highlighted by the CCC reports which recognise that the sector is now maturing and showing very significant cost reductions.
89. To significantly decarbonise the power sector by 2030, NPS EN-1 indicates that it is necessary to bring forward renewable energy projects as soon as possible (NPS EN-1, paragraph 3.3.58).
90. NPS EN-3 also makes clear that offshore wind will deliver a significant proportion of the UK's renewable energy generating capacity. It references the Offshore Energy Strategic Environmental Assessment (SEA) (UK Government, 2023a) which concludes that there are no overriding environmental considerations preventing 25GW of new offshore wind capacity, if mitigation measures are implemented to prevent, reduce and offset significant adverse effects (NPS EN-3, paragraph 2.8.4) though this was based on previous rather than updated GW targets (see EN-3, footnote 32).
91. The urgency for new low carbon infrastructure including offshore wind has culminated in its classification in NPS EN-1 and EN-3 as a Critical National Priority, further discussed in Table 2-3.
92. The urgency for offshore wind projects has been further captured in the Clean Power 2030 Action Plan (DESNZ, 2024). The National Energy Systems Operator ("NESO")'s Clean Power 2030 Advice on achieving clean power for Great Britain by 2030 makes clear that, in its view, that *"either [the 43 GW or 50 GW pathways] requires a dramatic acceleration in progress compared to anything achieved historically and can only be achieved with a determined focus on pace and a huge collective effort across the industry … Offshore wind contracting and deployment must happen at unprecedented pace, far exceeding previous records."*

3.3.1.4 The need to maximise economic opportunities from energy infrastructure investment for the UK

93. Each of the above policy drivers creates the opportunity for economic growth stimulated by the renewable energy industry generally and the offshore wind sector specifically. Conversely, these drivers, and the green transition that they envisage, will benefit from the growth of the renewable energy sector, including a local and national supply chain to deliver projects.

94. The BESS and Powering Up Britian both reference supply chain opportunities. BESS sets out that "The government's 'Ten point plan for a green industrial revolution', together with the 'Net zero strategy' and this Energy Strategy, is driving an unprecedented £100 billion of private sector investment by 2030 into new British industries including offshore wind and supporting around 480,000 clean jobs by the end of the decade."

95. The Offshore Wind Sector Deal (UK Government, 2020a) emphasises how UK companies can benefit from the opportunities presented by the expansion of the sector and highlights the Humber region as a significant region aiding the development of the sector in the UK, as the region already supports a windfarm cluster with a pre-existing manufacturing base, enabling economies of scale and increased productivity which could drive innovation and improve competitiveness in the sector.

96. The Clean Power 2030 Action Plan further sets out a range of economic opportunities for growth, supply chains and the economy generally created by renewable energy (DESNZ, 2024, *Supporting business and promoting growth,* page 43, *Supply chains and workforce*, page 119). As discussed below, NESO, 2024, cites the figure of the potential for up to 100,000 skilled roles as a result of offshore wind (see 4.3.1.3, Socio-economic benefit below).

97. The Project has the potential to support the development of the offshore wind sector in the Humber, expanding the offshore wind cluster and building on the region's expertise in the sector in line with the objectives of the Humber Local Energy Strategy (Humber Local Enterprise Partnership, 2019).

98. The Greater Lincolnshire LEP Local Industrial Strategy (Greater Lincolnshire LEP, 2021) highlights that, as a result of the existing offshore wind clusters in proximity to the area, offshore wind manufacturing, installation, O&M businesses now have established businesses in the region, enabling the expansion of the offshore wind sector in the area to continue to support the creation of local sustainable jobs and the development of the local economy. Offshore wind developments are creating sustainable jobs in the area and supporting the local economy as the offshore wind sector grows.

99. The strategy particularly highlights the opportunities the offshore wind sector presents for Greater Grimsby, which currently has low wages and productivity, as well as high unemployment and challenges retaining businesses and skilled workers in the area. The strategy highlights how the development of the offshore wind sector could support the economic development through establishing offshore wind O&M businesses in the area.

100. The Project has the potential to contribute to the expansion of the offshore wind sector in proximity to Greater Lincolnshire by creating sustainable job opportunities in sectors which are firmly established in the area, such as offshore wind manufacturing, installation, O&M, and in doing so, continue to develop the economic contribution the sector has already made to local areas of Lincolnshire.

101. Maximising the economic opportunities of the renewable energy industry is vital to support the other drivers, reap their benefits, and ensure that communities see the benefit of the transition to net zero.

3.3.1.5 Summary of Need

102. The Project directly responds to the four drivers set out above: the twin requirements of reducing greenhouse gas emissions and increasing energy security place an urgent need on the delivery of low carbon infrastructure and in particular offshore wind and the Project will deliver an anticipated 1.5 GW of low carbon generation. Maximising the economic opportunities linked to the delivery of this infrastructure will benefit the area in which the Project is situated and will assist in growing the sector required for delivery of future projects.

103. The relationships between the offshore wind drivers, UK Government targets, and the Project's Objectives can be seen in Table 3-3 overleaf.

104. It is noted that previous Secretary of State Decisions have, in reference to Project Objectives, set out "primary objectives" based on those provided by applicants. On the basis of previous primary objectives considered by the Secretary of State, the Applicant considers its "primary objectives" to be:

- To generate low carbon electricity from an offshore wind farm to support the urgent need for decarbonisation of the UK electricity supply; and
- To export electricity to the UK National Grid to support UK urgent commitments for offshore wind generation and security of supply.

Table 3-3 Project Objectives

#	Objective	Driver responded to	Basis for objective
"Primary" objectives			
To generate low carbon electricity from an offshore wind farm to support the urgent need for decarbonisation of the UK electricity supply.			
To export electricity to the UK National Grid to support UK urgent commitments for offshore wind generation and security of supply.			
Specific objectives			
1	**Urgent decarbonisation** The Project seeks to develop a large-scale offshore windfarm to generate around 1.5 GW of low carbon electricity to support decarbonisation of the UK electricity supply.	**Driver 1**: The urgent need to reduce greenhouse gas emissions	As set out above, urgent action is needed to deliver decarbonisation and limit global warming to less than 1.5 degrees. By delivering an anticipated 1.5GW of renewable energy into the UK electricity supply, the Project will make a direct and meaningful contribution towards decarbonisation. The Project will displace the equivalent of nearly 2 million tonnes of CO2 emissions per year of operations through the generation of renewable electricity. This is the equivalent of removing over 650,000 petrol cars from the road for the duration of the Project.
2	**Energy security**: The Project will assist in meeting the UK's energy security needs by bringing around 1.5 GW of low carbon electricity online, thus reducing dependence on imported oil and gas.	**Driver 2**: Energy security	As set out above, the UK Government has emphasised the need for energy security in recent years citing global events which have highlighted vulnerability to global oil and gas markets which can increase domestic energy bills as they fluctuate. Capacity delivered by the Project will contribute towards an energy-secure UK.

#	Objective	Driver responded to	Basis for objective
3	**Exporting offshore wind-generated electricity to the national grid:** The Project will harness offshore wind to export electricity to the UK National Grid, supporting UK commitments for offshore wind generation and security of supply.	**Driver 3:** the urgent need for new nationally significant energy infrastructure projects and offshore wind projects **Driver 2:** Energy Security; **Driver 1:** The urgent need to reduce greenhouse gas emissions	As set out above, additional wind-generated electricity is a requirement for addressing key policy drivers. Electricity exported by the Project will contribute towards meeting the aims of these drivers. At around 1.5GW, the Project will be one of the UK's largest offshore wind farms upon completion and is anticipated to generate renewable electricity equivalent to the annual electricity consumption of over 1.6 million households.
4	**Harness grid connection opportunity to meet 2030 targets**: The Project will take advantage of an early Grid connection to make a significant contribution to the volume of electricity required to meet the UK Government's 2030 offshore wind capacity target.	**Driver 3:** the urgent need for new nationally significant energy infrastructure projects and offshore wind projects; **Driver 1:** The urgent need to reduce greenhouse gas emissions	The urgent need for renewable energy capacity and the UK Government 2030 targets require that the opportunities presented by Grid connections such as the Project's be harnessed and converted to electricity generation. The Applicant's grid connection and Project timeline enables it to be online in the course of 2030, likely making it one of the last projects to contribute towards the Clean Energy Action Plan 43-50 GW by 2030 ambition.[20]
5	**Optimisation**: The Project will optimise generation and export capacity within the constraints of available sites and onshore transmission infrastructure.	**Driver 3:** The urgent need for new nationally significant energy infrastructure projects	Each of these drivers necessitate that lease areas provided by the TCE be used to their optimum capacity. TCE Round 4, under which the Project received its agreement for lease, creates the opportunity for around 8 GW of new offshore

[20] The Clean Power 2030 Action Plan makes clear that "*Accelerating delivery is exceptionally critical for offshore wind, where lead times for projects are often more than a decade. This means that all that can be deployed by 2030 has either already been consented or is in the development and consenting process*" (DEZNS, 2024)

#	Objective	Driver responded to	Basis for objective
		and offshore wind projects; **Driver 2:** Energy Security; **Driver 1:** The urgent need to reduce greenhouse gas emissions	wind projects in the waters around England and Wales including the Project. The Project will contribute to optimising the wind generation linked with those seabed rights leased under Round 4. Optimising capacity in those regions with high-capacity factors and windspeeds will help achieve the targets and security described elsewhere.
6	**Consumer costs:** Provide low-cost energy to UK consumers.	**Driver 2**: Energy security	As set out above, a key aspect of the drive for secure energy supply is to avoid market vulnerability leading to increased consumer energy bills caused by global events. The Project will assist domestic energy supply.
7	**Local benefit:** Help create a positive legacy for Lincolnshire, facilitating socio-economic enhancement, including encouraging locals and businesses to realise the benefits associated with the investment associated with the Project.	**Driver 4**: The need to maximise economic opportunities from energy infrastructure investment for the UK	The opportunity for job creation and investment stimulated by the renewable energy industry should, where possible, be to the benefit of those living within the proximity of developments. The Project aspires to create local jobs and enable local individuals and businesses to see the economic benefits of the Project – for instance, through its estimated peak of supporting 810 jobs in the regional area.

3.4 Step 2: Define the Potential for Harm

105. Table 3-4 provides the Potential for AEoI for the relevant sites and features. Further information on the assessment of AEoI can be found in the RIAA (document reference 7.1). As set out in Section 1.2 of this derogation case and as set out in Table 12.1 of the RIAA, the Applicant cannot rule out an in-combination adverse effect on the kittiwake feature of the FFC SPA during the operation and maintenance phase of the Project but maintains that there will be no AEoI on the other sites and features set out in Table 3-4, for which the derogation case is made on a "without prejudice" basis.

Table 3-4 Relevant sites, features and potential impacts for harm

Site	Feature	Potential for AEoI
Flamborough and Filey Coast Special Protected Area	Kittiwake	Collision risk
	Guillemot	Displacement risk
	Razorbill	Displacement risk
	Seabird assemblege	Collision risk and displacement
Farne Islands Special Protected Area	Guillemot	Displacement risk
Inner Dowsing, Race Bank, and North Ridge Special Area of Conservation	Sandbanks slightly covered by sea water all the time ('sandbanks')	Potential loss of sandbanks at IDRBNR SAC resulting from the installation of cable protection material on the offshore export cables in those parts of the SAC where they cross the designated sandbank features.
	Biogenic reef (specifically *S. spinulosa*)	Potential loss of biogenic reefs (specifically *S. spinulosa and S.spinulosa supporting habitats*) at the IDRBNR SAC resulting from loss during cable installation where the offshore ECC crosses the SAC.

3.4.1 Flamborough and Filey Coast Special Protected Area

3.4.1.1 Conservation Objectives

106. As set out in Table 9.4 of the RIAA, the conservation objectives for the FFC SPA related to the site generally, the assemblage of species for which it has been classified, and the above species are:

- to ensure that the integrity of the site is maintained or restored as appropriate, and ensure that the site contributes to achieving the aims of the Wild Birds Directive, by maintaining and/or restoring:

The extent and distribution of the habitats of the qualifying features;

The structure and function of the habitats of the qualifying features;

The supporting processes on which the habitats of the qualifying features rely;

The population of each of the qualifying features; and

The distribution of the qualifying features within the site.

3.4.1.2 Nature of ornithology potential AEoI conclusions

107. The data summarised below and discussed more fully in the RIAA (document reference 7.1) sets out the range of possible AEoI for the relevant features of the FFC and Farne Islands SPAs (including the Applicant's view on the range of impacts which could feasibly be advanced by the SNCB). The Applicant's primary position is that other than in relation to Kittiwake, there will be no AEoI on the Site's features. For Kittiwake the Applicant has not been able to rule out AEoI.

3.4.1.3 Kittiwake - Potential AEoI

108. The potential in-combination AEoI on the Kittiwake feature (and FFC assemblage) of the FFC is set out at paragraph 1844 – 1856 of the RIAA.

109. The range of potential effects on the Kittiwake feature (ranging from that which the Applicant considers could result to that which could feasibly be advanced by SNCBs) are as follows:

Table 3-5 FFC SPA Kittiwake collision risk estimates

Kittiwake collision risk: Annual mortality	
Project-alone	
Applicant's approach	15.5
Anticipated Natural England approach[21]	15.5
In-combination	
Applicant's approach	434.3
Anticipated Natural England approach	618.9

3.4.1.4 Guillemot - Potential AEoI

110. As set in Section 1.2 above, a "without prejudice" derogation case has been provided here for the Secretary of State's consideration.

111. The potential in-combination AEoI on the Guillemot feature (and FFC assemblage) of the FFC SPA from the Project are set out at paragraphs 1768 - 1792 of the RIAA which this section summarises.

112. The range of potential effects on the Guillemot feature (ranging from that which the Applicant considers could result to that which could feasibly be advanced by SNCBs) are as follows:

Table 3-6 FFC SPA Guillemot displacement risk estimates

Guillemot displacement: displacement consequent mortality estimate (Annual total increase in mortality)	
Project-alone	
Applicant's approach	18.2

[21] At the point of the submission of version 2 of this derogation case, the Applicant is not aware of any difference between the Applicant's approach and the anticipated NE approach to Kittiwake collision risk estimates.

Guillemot displacement: displacement consequent mortality estimate (Annual total increase in mortality)	
Anticipated Natural England approach	248.7
In-combination	
Applicant's approach	347.8
Anticipated Natural England approach	2,259.9

3.4.1.5 Razorbill - Potential AEoI

113. As set in Section 1.2 above, a "without prejudice" derogation case has been provided here for the Secretary of State's consideration.

114. The potential in-combination AEoI on the Razorbill feature (and FFC assemblage) of the FFC SPA from the Project are set out at paragraph 1793 - 1811 of the RIAA which this section summarises.

115. The range of potential effects on the Razorbill feature (ranging from that which the Applicant considers could result to that which could feasibly be advanced by SNCBs) are as follows:

Table 3-7 FFC SPA Razorbill displacement risk estimates

Razorbill displacement: displacement consequent mortality estimate (Annual total increase in mortality)	
Project-alone	
Applicant's approach	10.5
Natural England's approach	68.9
In-combination	
Applicant's approach	94.7
Natural England's approach	426.5

3.4.2 Farne Islands Special Protected Area

3.4.2.1 Conservation Objectives

116. As set out in Table 9.4 of the RIAA, the conservation objectives for the Farne Islands SPA related to the site generally, the assemblage of species for which it has been classified, and the above species are:

- to ensure that the integrity of the site is maintained or restored as appropriate, and ensure that the site contributes to achieving the aims of the Wild Birds Directive, by maintaining and/or restoring:
    - The extent and distribution of the habitats of the qualifying features;
    - The structure and function of the habitats of the qualifying features;
    - The supporting processes on which the habitats of the qualifying features rely;
    - The population of each of the qualifying features; and
    - The distribution of the qualifying features within the site.

3.4.2.2 *Nature of ornithology potential AEoI conclusions*

117. The data summarised below and discussed more fully in the RIAA (document reference 7.1) sets out the range of possible AEoI for the guillemot feature of the Farne Islands (including the Applicant's view on the range of impacts which could feasibly be advanced by the SNCB). The Applicant's primary position is there will be no AEoI on the Site's features.

3.4.2.3 *Guillemot - Potential AEoI*

118. As set in Section 1.2 above, a "without prejudice" derogation case has been provided here for the Secretary of State's consideration.

119. The potential in-combination AEoI on the Guillemot feature of the Farne Islands SPA from the Project are set out at paragraphs 1739 – 1754 of the RIAA which this section summarises.

Table 3-8 Farne Islands SPA Guillemot displacement risk estimates

Guillemot displacement: displacement consequent mortality estimate (Annual total increase in mortality)	
Project-alone	
Applicant's approach	1.7
Anticipated Natural England approach	2.2
In-combination	
Applicant's approach	77.1
Anticipated Natural England	213.4

3.4.3 Precautionary nature of ornithology displacement and collision risk calculations

120. For the reasons set out in the RIAA (document reference 7.1) and the Applicant's Levels of precaution in the assessment and compensation calculations for offshore ornithology (REP2-057), the Applicant's view is that the ornithology displacement and collision risk calculations are inherently precautionary. For displacement, the assessment assumes the peak abundance of birds within any given bio-season are displaced, even when the peak occurs within defined months. The mid and upper range of displacement rates are far greater than the latest evidenced rates from offshore windfarm projects. In addition, the mortality rates used for displaced birds is highly unlikely, as the species assessed in the RIAA (document reference 7.1), are not solely dependent upon the area within the array area and buffer for all their foraging needs.

121. Likewise, the collision risk assessment also contains several layers of precaution. For example, there are many different species-specific behavioural parameters that are fed into the collision risk model, all of which contain precaution, which vastly inflates any mortality estimates. Key parameters within collision risk models for which the evidence suggests a less precautionary value is appropriate are avoidance rates, flight speeds and nocturnal activity.

3.4.4 Inner Dowsing, Race Bank, and North Ridge Special Area of Conservation

3.4.4.1 Conservation Objectives

122. As set out in paragraph 124 of the RIAA the conservation objectives of the IDRBNR SAC are:

- To ensure that, subject to natural change, the integrity of the site is maintained or restored as appropriate, and that the site contributes to achieving the Favourable Conservation Status of its qualifying features, by maintaining or restoring:

the extent and distribution of qualifying natural habitats and habitats of the qualifying species;

the structure and function (including typical species) of qualifying natural habitats;

the structure and function of the habitats of the qualifying species;

the supporting processes on which qualifying natural habitats and the habitats of qualifying species rely;

the populations of each of the qualifying species; and

the distribution of qualifying species within the site.

3.4.4.2 Sandbanks and Reef – Potential AEoI

123. As set in Section 1.2 above, a "without prejudice" derogation case has been provided here for the Secretary of State's consideration.

124. The Potential AEoI of the IDRBNR features is encapsulated in the design parameters relevant to the sandbank and reef features set out in the table below.

125. The potential impacts on the IDRBNR SAC are set out in Section 9.1 of the RIAA (project-alone) and Section 10.1 (in-combination).

3.4.5 Relevant design parameters

3.4.5.1 Rochdale envelope approach

126. To ensure design flexibility, as necessary for largescale offshore windfarms where technology continues to evolve, the Project's design envelope has followed a Rochdale Envelope

3.4.5.2 FFC and Farne Islands SPAs

127. The design parameters relevant to the collision risk and displacement risk for the above features of the FFC and Farne Islands SPAs are set out in Table 3-9.

Table 3-9 Design Parameters relevant to FFC and Farne Islands SPAs

Design parameters relevant to the potential residual harm	
Maximum number of WTGs	100
Maximum number of WTGs assuming maximum rotor diameter	50
Maximum tip height from Lowest Astronomical Tide (LAT) (m)	403
Minimum tip height from MSL (m)	40
Minimum height of lowest blade tip against mean sea level (m)	40
Minimum rotor diameter (m)	236
Maximum rotor diameter (m)	340

Design parameters relevant to the potential residual harm	
Minimum spacing Downwind (m)	605
Minimum Spacing Crosswind (m)	605
Wind farm site area (excluding offshore temporary works area (km^2)	436
Distance from FFC SPA (km)	93.5
Distance from Farne Islands SPA (km)	286.4
Anticipated design life (years)	35

3.4.5.3 IDRBNR SAC

128. The design parameters relevant to the risk to the sandbank feature of the IDRBNR SAC are set out in Table 3-10. As discussed elsewhere, the Applicant is presenting its IDRBNR SAC derogation cases on a "without prejudice" basis. The Applicant believes that the need for cable protection within the IDRBNR SAC is highly unlikely and the design parameters set out here represent a worst-case scenario should they be necessary.

129. As detailed within the Biogenic Reef Compensation Plan (document reference 7.6.2), an absolute worst case scenario could assume that *S. spinulosa* reef is present across the entire offshore ECC where this crosses with the IDRBNR SAC, so would be impacted by the installation of export cables (this would assume that reef covered the full 29.8km length of the cable route section which passes through the SAC and across the full 2km width, with no ability to microsite cables between individual reefs). This is not at all realistic. The Applicant has found no evidence for the presence of *S. spinulosa* reef within the areas of the SAC that the ECC intersects. In the absence of an agreed position on this point it is necessary for the Applicant to assign a theoretical worst case upon which to demonstrate the availability of sufficient compensation as part of its without prejudice derogation case. The area for the worst case scenario for installation of export cables within the IDRBNR SAC (excluding the sandbank features) would be 4.63km^2. This value has been used for the current purpose of demonstrating that the Applicant can deliver sufficient compensation in the event that an AEoI for reef is concluded. However, in reality it is wholly unrealistic for any assumption to be made that *S. spinulosa* reef would be present within the entirety of this area. Further details of this are presented within document reference 6.1.3 and within the Biogenic Reef Compensation Plan (document reference 7.6.2).

130. Following consultation with Natural England, a mapping exercise undertaken by the Applicant at Deadline 4a [REP4a-122] and updated most recently at Deadline 6 (document reference 22.11, V3), identified 31.23 km^2 of habitat potentially suitable for supporting *S.spinulosa* reef within the section of the offshore ECC that crosses with the IDRBNR SAC. The Applicant has calculated as a worst-case scenario that the amount of removable cable protection within the areas of supporting habitats for Annex I *S. spinulosa* reef will be 0.095 km^2 as shown in Table 3-11 below. This is well within the worst-case scenario used above (4.63 km^2) in developing the compensation measures.

Table 3-10 Design Parameters a relevant to the IDRBNR SAC

Design parameters relevant to the potential residual harm	
Sandbank risks	
Total footprint of removable cable protection infrastructure on sandbank features within IDRBNR SAC	▪ 2,880m^2 (0.288 ha) over North Ridge sandbank ▪ 2,880m^2 (0.288 ha) over Inner Dowsing sandbank
Worst-case maximum impact on sandbank features	5,760 m^2 (0.576 ha) equating to 1.84% of the sandbanks feature.
Number of crossings within the IDRBNR SAC	0
Biogenic reef	
Total area of installation of export cables within the IDRBNR SAC	4.63km^2
Total area of removable cable protection infrastructure within potential areas of Annex I *S.Spinulosa* supporting habitat within the IDRBNR SAC	0.0954km^2

Table 3-11 Calculation of area of removable cable protection within areas of supporting habitat for Annex I *S.spinulosa.*

Calculation Step Description	Value	Unit
Number of Cables	4	each
Length of transit for each cable through Supporting Habitat	16562.5	m
Length of transit for all cables through Supporting Habitat	66250	m
20% of total length	13250	m
Number of mattresses required (rounded up)	4417	each
Each mattress footprint	18	m^2
Footprint within Supporting Habitat	79506	m^2
20% allowance for installation accuracy and slippage	15901.2	m^2
Total Footprint for Supporting Habitat	95407.2 (0.0954)	m^2 (km^2)

3.5 Step 3: Feasible Alternative Solutions

131. The below section considers whether feasible and appropriate alternatives exist.

132. When doing so it assesses whether alternative solutions are acceptable using the criteria set out by Defra, 2021a: they achieve the same overall objective as the original proposal, they are financially, legally and technically feasible and less damaging to the European Site and do not have an adverse effect on the integrity of European sites.

133. The need to consider feasibility is set out in Managing Natura 2000 guidance (EC, 2019) and illustrated by DEFRA 2012 (noting that this references the European Directive, however the same factors broadly continue to apply under the Habitats Regulations):

> *"The decision to go ahead with a plan or project must meet the conditions and requirements of Article 6(4). In particular, it must be documented that: the alternative put forward for approval is the least damaging for habitats, for species and for the integrity of the Natura 2000 site(s), regardless of economic considerations, and that no* ***other feasible alternative*** *exists that would not adversely affect the integrity of the site(s)"* [Emphasis added] (EC, 2019)

> *"The consideration of alternatives should be limited to options which are* ***financially, legally and technically feasible****. An alternative should not be ruled out simply because it would cause greater inconvenience or cost to the applicant. However, there would come a point where an alternative is so very expensive or technically or legally difficult that it would be unreasonable to consider it a feasible alternative"* [Emphasis added] (DEFRA, 2012)

3.5.1 The "Do nothing" or "Zero Option"

134. Though a "do nothing" option should be considered it is "unlikely in most cases that [it would] be an acceptable alternative as it would not deliver the same overall objective" (Defra, 2021b). However,

> *"it is useful to provide a comparison for other alternatives and to act as a baseline against which public benefits can be assessed. Where it is most likely to be an option is where no or limited tangible public benefit can be demonstrated".* (Defra, 2021b, paragraph 21)

135. The "do nothing" option for the Project would be not to develop the Project at all and therefore remove the potential harms outlined above.

136. Not developing the Project would result in approximately 1.5 GW of low carbon electricity being lost from the current pipeline of UK projects contrary to the requirement of urgent deployment of offshore wind and delivery of decarbonisation and energy security. Not developing the Project would be contrary to each of its objectives and to the UK Government policy underpinning them which includes:

- The urgent need for deployment of offshore wind (NPS EN-1 and EN-3);
- The requirement for energy security outlined in BESS, Powering Up Britian and the Clean Power 2030 Action Plan; and
- Meeting the UK's Climate Act 2008 Net Zero target and the 2030 ambition for 43-50 GW of offshore wind.

137. There is the possibility that alternatives to new electricity infrastructure, such as reduction of total demand through efficiency measures, could make the "do nothing" option more palatable. However, as set out in NPS EN-1, the UK Government has considered the possible alternatives to the need for new large-scale electricity infrastructure and believes that it "is prudent to plan on a conservative basis to ensure that there is sufficient supply of electricity to meet demand across a wide range of future scenarios" (paragraph 3.3.10). It therefore considers that reduction in demand is not a possible alternative to new electricity infrastructure.

138. On the basis of the above the "do nothing" approach is not considered a feasible alternative to the Project and will not be considered further.

3.5.2 Alternative form of energy generation

139. As set out above, Defra guidance requires that consideration only be given to the same form of energy generation to the Project in order to deliver the Project's objectives. In addition, key Project objectives relate to offshore wind, including Objective 4 relating specifically to the UK Government's 2030 target for offshore wind capacity. An alternative form of energy generation would not address these objectives. Only offshore wind alternatives are therefore considered further.

3.5.3 Offshore wind farms not in UK EEZ

140. Selecting an alternative location not in the UK EEZ could perhaps reduce potential for impact on European Sites.

141. However, the needs case set out above relates to UK-based drivers, objectives and policy which all seek to harness offshore wind within the UK and the UK EEZ, such as Objective 2 relating to UK energy security and Objective 3 relating to export of electricity to the UK Grid.

142. In the HRA and MCZ Assessments for Hornsea Project Three and East Anglia One North (EA1N), the Secretary of State confirmed that

> *"The Secretary of State does not consider offshore wind farm projects that are located outside UK territorial waters as being an alternative to the Project since this would not meet the objective to support the decarbonisation of the UK electricity supply and UK commitments on offshore wind generation"* (Hornsea Project Three HRA (BEIS, 2020), section 11.3.3)

> *"The Secretary of State considers offshore wind farm projects that are located outside UK territorial waters are not an alternative to the Project … the UK has its own specific legal obligations and targets in relation to carbon emission reductions and renewable energy generation… Sites outside the UK are required for other countries to achieve their own respective targets in respect of climate change and renewable energy."* (East Anglia One North HRA (BEIS, 2022a), section 9.1.3.2)

143. On this basis, offshore wind farms outside the UK and UK EEZ are not considered a feasible alternative to the Project and are not considered further.

3.5.4 Alternative wind farm locations outside of leasing rounds

144. Alternative locations in the UK outside those sites offered during leasing rounds could, possibly, reduce potential for impacts on the relevant European Sites. However, in the UK, offshore wind projects require TCE or Crown Estate Scotland leases under the Agreement for Lease (AfL) process which, in England, precedes the Planning Act 2008 application process. As a result, locations which are not within existing leasing rounds are not legally feasible alternatives. In the EA1N HRA and MCZ Assessment (BEIS, 2022a), the Secretary of State stated that (paragraph 9.1.3.3):

> *"The site selection for all offshore wind proposals in the UK is controlled by The Crown Estate leasing process. Sites not within the areas identified by The Crown Estate leasing process or outside of that which the Applicant has secured (the southern East Anglia Zone) are not legally available, and therefore do not represent alternative locations."*

145. The same is true for the Applicant. On this basis, development of locations outside the TCE lease area is not considered a feasible alternative to the Project and is not considered further.

3.5.5 Alternative wind farms within Leasing Rounds

146. The specific location of the European Sites and features may mean that an alternative leasing round site could present less potential for impacts.

147. However, this section sets out that other offshore wind projects within TCE and CES leasing rounds do not provide feasible alternatives to the Project because:

- First, as set out in relation to East Anglia above, Sites "outside of what the Applicant has secured… are not legally available" and hence should not be considered alternatives;
- Second, the Project is Critical National Priority infrastructure under national policy. The need for deployment of significant amounts of such infrastructure urgently is established, with no limits placed on the number of consents which may be granted. In these circumstances it is not considered that potential plans or projects in different locations could be treated as alternative solutions to the Project, especially given the inherent uncertainty in the offshore wind pipeline.

148. Plate 3[22] sets the GWs of offshore wind which are currently online and are currently planned (see below for the status of each tranche of capacity).

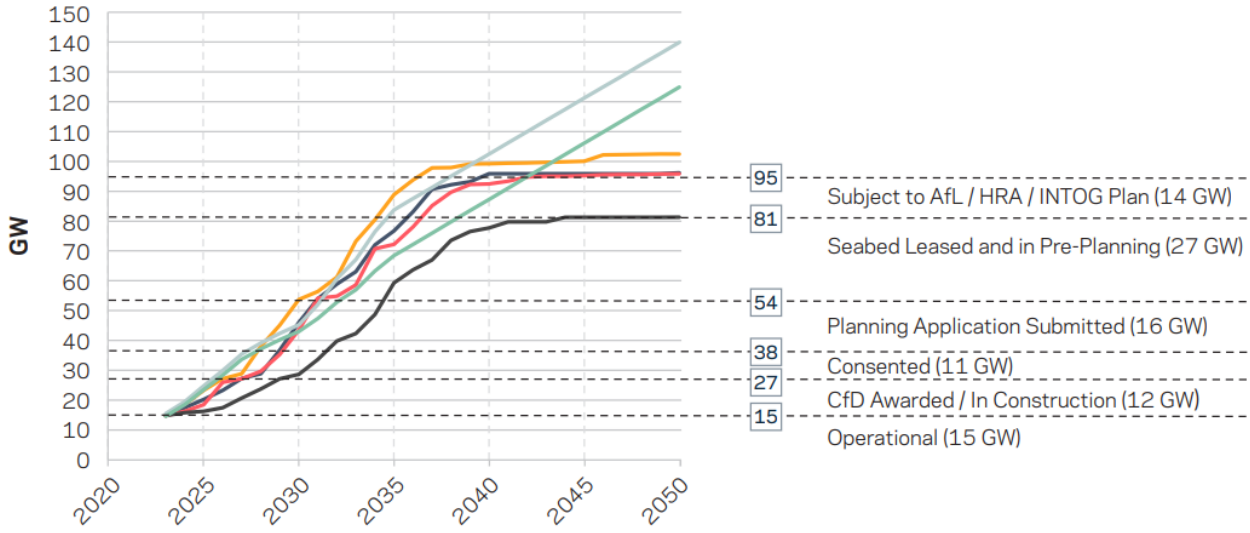
149. Even if all of the capacity currently (i) with Contracts for Differences awarded / in construction or (ii) with consent is brought forward and becomes operational before or during 2030, this still leaves a capacity gap of between 5 – 12 GW to meet the 43 – 50 GW target.

150. As set out above, the Applicant's grid connection and Project timeline enables it to be online in the course of 2030, likely making it one of the last projects to contribute towards the Clean Energy 2030 Action Plan target (see Objective 4 Harness grid connection opportunity to meet 2030 targets).

[22] Version 2 of the Derogation case updates the previously provided Table 3-10 with a Plate 3 on the basis of data produced by The Crown Estate (TCE, 2024, Figure 1) which captures this information

151. On that basis, all projects capable of contributing to the policy targets and which meet statutory requirements require to be brought forward.

Plate 3 Current, Leased and Planned offshore wind capacity



3.5.5.1 Certainty of offshore wind pipeline

152. There is no certainty that unconsented projects within the above pipeline will result in extra capacity being added to the current operational offshore wind capacity within the same timeframe as the Project given uncertainty related to the planning process, grid connection, and delivery timelines, as set out in Clean Power 2030 Action Plan: "*all* [capacity] *that can be deployed by 2030 has either already been consented or is in the development and consenting process*". Uncertainty also exists in relation to consented projects due to market factors as seen in the decision in July 2023 to suspend the 1.4 GW Norfolk Boreas project (BBC, 2023).

153. When coupled with UK Government targets which will require "dramatic acceleration in progress compared to anything achieved historically" and "unprecedented pace" (DEZNS, 2024) in order to achieve a considerable amount of offshore wind additional capacity in a short period of time, potential other offshore wind capacity does not provide a suitable alternative to the Project.

154. Moreover, the consideration of alternatives is premised on the possibility that the alternative would lead to less harm to the integrity of the European Site and the National Site Network (Defra, 2021a). The scale of offshore wind deployment and the nature of the TCE and CES lease areas is such that it cannot be assumed that alternatives within leasing rounds will provide less harm to European Sites.

3.5.5.2 NPS and Critical National Priority Status of offshore wind

155. As discussed elsewhere, low carbon electricity infrastructure such as offshore wind is considered under NPS EN-1 and EN-3 to have CNP status. In relation to the consideration of a derogation and in particular the assessment of alternatives, this status requires the Secretary of State to, where relevant, "consider making a derogation under the Habitats Regulation" and:

- "Consider the particular circumstances of any plan or project, but starting from the position that energy security and decarbonising the power sector to combat climate change… requires a significant number of deliverable locations for CNP Infrastructure and for each location to maximise its capacity."
- On this basis NPS EN-1 "imposes no limit on the number of CNP infrastructure projects that may be consented. Therefore, the fact that there are other potential plans or projects deliverable in different locations to meet the need for CNP Infrastructure is unlikely to be treated as an alternative solution" (EN-1 Paragraphs 4.2.18 – 4.2.22).

156. Though other projects which have, or will, secure TCE AfLs may contribute towards the current and future UK Government targets for offshore wind, NPS EN-1 makes clear that these are "unlikely" to be seen as an alternatives to the CNP infrastructure project undergoing determination.

157. Moreover, NPS EN-1 sets out that when considering alternatives generally the Secretary of State should be guided by whether there is a realistic prospect of the alternative delivering the same capacity in the same timescale. The significant scale of new renewable electricity capacity required as soon as possible means that all other projects within leasing rounds which will not deliver capacity in 2030 should be discounted as feasible alternatives to the Project.

158. The position in NPS EN-1 aligns with the ExA's position in Hornsea Project Four, which stated:

> *"other wind farm proposals do not present an alternative solution as all available projects are required in order to meet UK 2030 targets for renewable energy. These conclusions are in line with those of the SoS's HRAs for the recently consented East Anglia ONE North and East Anglia TWO Offshore Wind Farm projects"* (Hornsea Project Four ExA Report (Planning Inspectorate, 2022) 13.10.7)

3.5.5.3 Secretary of State consideration of other locations within the UK

159. More generally, the ExA and Secretary of State in Hornsea Project Four took the view that the nature of TCE leasing meant that where a project and TCE have agreed an AfL, other sites "outside of that which the Applicant has secured" do not represent alternatives:

> *The site selection for all offshore wind proposals in the UK is controlled by The Crown Estate leasing process. Sites not within the areas identified by The Crown Estate leasing process or outside of that which the Applicant has secured (the former Hornsea Zone of the north-western portion) are not legally available, and therefore do not represent alternative locations.*
>
> *The ExA [ER13.10.8] stated that consideration of alternative locations is intrinsically linked to the consideration of other available projects, given that site selection for all offshore wind proposals in the UK is bound by TCE's leasing process.* ***Sites outside the zones identified by TCE or the lease area that the Applicant has secured through the bidding process are not legally available.*** *The ExA was satisfied that there are no other locations or sites that would represent a feasible alternative."* [emphasis added] (Hornsea Project Four HRA (DESNZ, 2023h)9.2.3).

160. On this basis, such sites should not be considered feasible alternatives to the Project.

3.5.5.4 Conclusion on alternative site locations within and outside of the UK

161. Under relevant guidance, alternatives which may present less harm to European Sites require only to be considered if they provide feasible alternatives.

162. The Project will contribute towards key UK Government policy and targets. Its Critical National Priority status reflects the urgent need for the delivery of a significant amount of renewable energy infrastructure within the UK. In such circumstances no other potential projects should be treated as an alternative, and the TCE leasing process means that the Project is inherently constrained to build the Project in the leased location. Government targets, coupled with the inherent uncertainties in the offshore wind pipeline, require that all suitable projects be given the opportunity to come forward.

163. On this basis, there are no other sites which would provide an alternative solution to the Project.

3.5.6 Alternative route, scale, size, design, method or timing of the Project

164. This section sets out possible alternatives to the Project parameters based on scale, size, design or timing of the proposal (Defra, 2021b). The design parameters considered are set out in Tables 3-8 and 3-9.

165. Alterations to the Project to reduce the risk of adverse effects on the integrity of relevant European Sites have been a consideration through the Project's iterative design process. Reduction of the risk and/or magnitude of AEoI will continue to be an important factor in the Project's approach such as when discharging marine licence conditions and DCO requirements.

166. The possible reduction in harm, the site selection and project design considerations by the Project, and the feasibility constraints are set out for each alternative below for the relevant European Site.

3.5.6.1 Alternatives related to potential AEoI on features of the FFC SPA and Farne Islands SPA

Fewer WTGs

167. The most straightforward way to alter the scale and design of the Project would be to reduce the number of WTGs, currently at a maximum of 100. A lesser number of WTGs would decrease collision risk for the Kittiwake feature of the FCC SPA and may decrease displacement risk for relevant Auk species in the FFC SPA and Farne Islands SPA.

168. The Project has considered the number of WTGs during the design process. Following a supply chain review, and to ensure the Project remains deliverable, the maximum number of WTGs was increased from 93 to 100 so that the Maximum Design Scenario incorporates the size and scale of WTGs expected to be available to the Project.

169. To fulfil the Project's objectives (Specifically Objective 6 which seeks to reduce consumer cost) an MDS including a 100 turbine option requires to be included in the MDS to ensure deliverability of the Project at the target capacity and to allow procurement involving the maximum number of suppliers to stimulate competition and the most competitive procurement process. The result of which the Project believes will be reduced price for consumers.

170. Committing to a reduction in WTGs, and hence removing the 100-turbine "smaller" WTG option, may require delay to allow supply chain certainty that higher capacity WTGs would be available (which at present is not clear). Doing so would risk delivery of the Project's Objective 4 relating to delivery to meet 2030 targets and would delay and/or undermine the ability to contribute towards Objectives 1, 2, 3, 5, and 6.

171. Should higher capacity WTGs be available, a "larger" WTG option featuring only 50 WTGs may be used instead. However, the MDS requires to include a "smaller" WTG option based on the current market.

Increase air gap: minimum tip height from MSL

172. Increasing the "air gap" between sea level and the minimum tip height of the WTGs could reduce the scope for bird collisions, thus potentially decreasing the potential AEoI on the Kittiwake feature of the FFC SPA.

173. The air gap between minimum sea level (MSL) and the lower tip blade height is required to be at least 22m in accordance with the Maritime and Coastguard Agency's MGN 654 (Maritime and Coastguard Agency, 2021). The Project made an early commitment to a minimum air gap of 40m, beyond the minimum requirement, in order to balance potential AEoI on ornithology features and achieving technical feasibility. Doing so results in the rotor area occupying space with lower densities of sea birds thus reducing collision risk.

174. Increasing the minimum air gap any further is reliant on the availability of a small number of vessels capable of installing at the hub heights which would result from a greater minimum tip height. The current minimum tip height is therefore considered the maximum technically feasible in the circumstances.

175. Though the offshore wind industry is rapidly growing and technology developing, the Project is of the view that there is not a sufficient certainty of supply chain to support a commitment to the design parameters associated with an air gap of greater than 40m MSL, (supply chain constraints and uncertainties include for instance, tower suppliers and WTG installation vessels capable of lifting blades to the heights required). In order to ensure the ability to complete its objectives – including Objective 4 which relates to the contribution towards ambitious 2030 targets and Objective 1 which relates to contributing towards urgent decarbonisation – the Applicant requires to be confident that the supply chain can provide such vessels, operating safely, to carry out the work in a timeline which meets the Project's timelines and therefore objectives.

176. Because there is no guarantee of an increased availability of the required vessels, to adopt this alternative would require the Project to risk the deliverability in line with the 2030 targets and resultant objectives. The current supply chain is such that the Applicant does not believe that committing to greater tip height would be technically feasible.

Wind farm site area; Minimum Spacing Crosswind and sidewind (m)

177. A smaller, more condensed site area (by reducing crosswind and sidewind spacing) could reduce the potential for harm of features of the FCC and Farne Islands SPAs based on the risk of displacement.[23] Given other constraints within the array area (for example set off distances to oil and gas operators), it has not been possible for the Applicant to reduce the area of the Project any further. A reduction in spacing could allow a reduction in area but would reduce the power outputs which would conflict with Objective 5 under which the Project will optimise generation and export capacity within the constraints of available sites and onshore transmission infrastructure (together with the other objectives which are each undermined by reductions in energy output).

178. On this basis, this change to layout is not a feasible alternative.

Alternative timing

179. Alternative timing will not provide an alternative to the displacement risk to ornithological feature of the FFC and Farne Islands SPAs. This is on the basis that altering project timings do not appear to have an improved effect on displacement and the level of seasonal restriction which would be required in order to attempt to change the potential effect would undermine Project objectives through the substantial loss of generation and undermine Project viability (including financial feasibility).

180. In relation to collision risk of ornithological features, NPS EN-1 makes clear that at present peak migration periods are uncertain and "shutting down turbines" at certain periods is unlikely to offer mitigation and for this reason alternative timing is not considered to provide an alternative solution:

> *"The exact timing of peak migration events is inherently uncertain, although research is ongoing into estimates for peak migration periods for a number of bird species and detection technologies (e.g. using radar and integrated sensors) are improving.*
>
> *Currently, shutting down turbines within migration routes during estimated peak migration periods is unlikely to offer suitable mitigation, but this might be a possibility in the future."* (paragraph 28.233 – 234)

181. Given this inherent uncertainty, any attempted seasonal restrictions would require to be carried out for a number of months in order to have any chance of being effective. The result of this would mean a substantial reduction in the energy output of the Project, putting in jeopardy the ability to meet its objectives related to electricity output (Objectives 1 – 6), all of which are premised on the ability to export electricity at scale onto the Grid, and would put the viability (including financial feasibility) of the Project at risk.

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[23] Note that since submission of the Application, the Applicant has introduced the ORBA which provides an area within the offshore redline boundary in which no surface piercing infrastructure will be sited as mitigation to reduce impacts from the presence of the WTGs (and offshore platforms) on auk species (guillemot and razorbill) as well as having the effect of reducing shipping and navigation impacts.

3.5.6.2 Alternatives related to potential AEoI on features of the IDRBNR SAC

Alternative offshore cable corridors

182. It is necessary to consider whether avoiding the SAC or its features could provide an alternative to the potential impacts on sandbank and biogenic reef. This section first summarises the design process taken to select the chosen offshore ECC, as detailed in Site Selection (document reference 6.1.4), before considering any possible alternatives.

183. The proposed cable route was the result of detailed consideration involving technical and environmental factors but was also limited by an overarching constraint: a developer requires to connect between two relatively fixed points (array area to grid connection point), the location of which is dictated to a large extent by TCE and National Grid respectively. In so doing, for technical and financial feasibility reasons, the route requires, to as great an extent as possible, to take the shortest and straightest route subject to existing constraints such as engineering limitations, physical obstructions, third party assets, competing seabed and designated sites. It is within this context that the Applicant has selected its chosen offshore ECC route between the array area and landfall at Wolla Bank on the Lincolnshire coast.

- **Hard constraints:** A range of constraints exist within the possible areas for offshore cable corridor as set out within Section 6 of Site Selection (document reference 6.1.4) which limit the possible offshore ECC route options.[24]
- **Array area**: the offshore ECC route is constrained by the array area location which, as discussed above, requires for reasons of legal feasibility to be within the boundaries set by TCE. Within the array area, the Applicant undertook GIS constraint mapping and evaluation to identify the Project AfL array area including evaluation of constraints and issues. This process is detailed at Plate 4.1 of Site Selection (document reference 6.1.4) and resulted in the chosen array area.
- **Landfall**: the landfall area is constrained by the Holistic Network Design (HND) process and the Project's final grid connection offer, made at the discretion of National Grid, which constrains the potential options for landfall locations. The considerations which informed the final decision on landfall site are set out in Site Selection (document reference 6.1.4).
- **Decision based on holistic consideration of landfall and offshore ECC**: rather than determine landfall and offshore ECC separately, the Applicant sought to consider them holistically, to ensure the most favourable export cable route was taken forward, considering engineering and environmental constraints. The Applicant considered landfall sites within three sectors (LC, LA, LB) but following confirmation from the HND, only landfalls and associated ECCs within "LB" were considered suitable and were considered unlikely to result in potentially significant effects to designated sites at the landfall as further detailed in Site Selection. The result of this selection process was the selection of landfall option "LB-10" and offshore ECC "L3" on the basis that among other things, of those options which were technically feasible, L3 provided a comparatively reduced overlap with the IDRBNR SAC.

[24] As discussed elsewhere, it should be noted that the ES will be updated at Deadline 5 to incorporate the changes introduced by the ORBA and the ECC Revision.

184. Alternative offshore ECCs for section LB which were not taken forward are discussed below.

185. Regarding the combination of offshore ECCs and landfall options for sections LC and LA, all the landfall options for LC and LA would have fallen within a number of coastal SACs, designated for a range of features including dune systems and saltmarsh. For all landfalls within these sectors, the length of the required HDD to avoid the features was considered an engineering feasibility risk, and it was likely that it would not have been possible to fully avoid impacts to these features. ECC option L6 was able to avoid the sandbank feature of the IDRBNR SAC but that for the LA landfall (which this route was associated with), it was not possible to avoid the known biogenic reef offshore of Saltfleetby-Theddlethorpe Dunes & Gibraltar Point SAC. Route L5, also associated with LA landfalls, would have crossed both the sandbank and biogenic reef features of the IDRBNR SAC.

3.5.6.3 Use of offshore ECC routes L2b – L4

186. As above, following confirmation from the HND, only landfall options and associated ECCs within landfall sector LB were considered suitable for connection. Three offshore ECCs were considered which corresponded to sector LB: L2b, L3, L4. The reasons why these do not provide feasible alternatives which provide less risk of harm are set out below. Further details about each are provided in Section 5 and 6 of Site Selection (document 6.1.4).

- **L2b:** Export cable route L2b passes through the centre of the Inner Silver Pit in which no infrastructure has previously been installed and was not considered technically feasible for cable installation due to the engineering constraints this caused. Additionally, this route would have been unable to avoid known areas of biogenic reef to the south of the Inner Silver Pit.
- **L4**: This route would cross a more substantial area of the IDRBNR SAC and has a greater degree of overlap with the SAC as a whole and specifically the sandbank feature (based on length of cable routing through the sandbanks) leading to a greater potential risk of harm to the sandbank and biogenic reef feature than L3.

187. On this basis, alternative routes which did not interact with IDRBNR do not provide technically feasible alternatives which present less risk of harm to designated sites.[25]

[25] It should be noted that the Applicant had included in its Application two route options for the ECC corridor. One of the routes has since been removed on the basis of its unavailability to the Applicant, as set out in Applicant documents (see, for instance, 15.9; PD1-081):

"The offshore ECC presented within the Environmental Statement (ES) that supported the DCO Application included two routeing options within the inshore area of the cable route, a northern and a southern route. The northern route was included as it is situated north of the Inner Dowsing sandbank and thus avoided impacts to this designated feature. The southern route was also included as the northern route passes through aggregates Area 1805 which has an Exploration and Option area agreement with The Crown Estate, although this was due to expire on 31st August 2024. In the event that the option agreement was not taken up by the holder, this seabed area would have become available to the Project, thus allowing the Project to avoid crossing the Inner Dowsing sandbank. It has now been confirmed that the option on this area has been extended … it is clear that the agreement holder intends to take up the option over this area of the seabed for aggregate extraction, and therefore it is no longer a viable option for the Project to pursue. Consequently, the Project has excluded the northern route from the offshore ECC and is amending the Order Limits to exclude this section of the offshore ECC from the draft DCO."

3.5.6.4 Route within the IDRBNR SAC

188. **Micrositing:** In order to reduce effects on biogenic reef, the Applicant has committed to microsite around any known areas of *S. spinulosa* reef. Geophysical data for the Project confirms that there is no biogenic reef along the proposed route. This geophysical interpretation has been reinforced by secondary analysis of the geophysical and benthic survey data which reconfirms that there was no evidence of biogenic reef within the export cable corridor. Therefore, were biogenic reef to form prior to construction, this is likely to only occur within a part of the export cable corridor, enabling micrositing to be undertaken to avoid any biogenic reef.

3.5.6.5 Conclusion and further information

189. As set out above, no alternative to the current route would provide a feasible alternative which would reduce the risk of effects on European Sites.

190. Details of the consideration of the above issues is further discussed in:

- ES Chapter 4 Site Selection and Consideration of Alternatives (document 6.1.4); and
- ES Chapter 4, Appendix 4.1: Landfall Assessment & Offshore ECC Route Optioneering (document reference: 6.3.4.1).

Reducing cable infrastructure within IDRBNR: proceeding without cable protections

191. The potential AEoI on the sandbank feature of the IDRBNR is linked to the requirement to place cable protection within the feature. The Applicant has also committed to removable cable protection in potential areas of supporting habitat for Annex I *S.spinulosa*. As discussed in Section 1.2 above, it should be noted that the conservation objectives of the SAC do not require that habitats with the potential to support designated habitats receive the same level of protection as the designated habitats themselves. Whilst the conservation objective focuses on maintaining and restoring the supporting processes necessary for qualifying habitats, it is not reasonable to interpret this as a requirement to protect all habitats within the SAC that could develop into Annex I reef at some undefined time as if they were reef features themselves, nor has Natural England provided a justification for such an approach. The Applicant considers that the further analysis and further commitment to removable cable protection in defined areas of supporting habitat bolsters the existing conclusions of the assessment that there is no AEoI.

192. This section considers whether proceeding without cable protection could provide a feasible alternative with less effect on the Site.

193. The Applicant's consideration of cable protection can be found in the RIAA (document reference 7.1). As detailed there, as far as practicable, all offshore cables will be buried to a sufficient depth below the seabed, with target burial depth informed by the findings of a Cable Burial Risk Assessment (CBRA) as part of the final project design process. A preliminary CBRA has been undertaken by the Project for the section of the cable route which passes through the IDRBNR. The CBRA will further define the approach to cable installation as well as informing the requirement or otherwise for cable protection material over the designated sandbank features within the SAC site and the type, design and installation process for any such protection (although the need for cable protection cannot be finally determined until post cable installation).

194. Where it is not possible to bury cables to an adequate depth, the Applicant has determined it will be necessary to install cable protection to prevent scour forming around cables and to minimise the risk of cable exposure, to protect the cable asset from forces and movement damaging the cables over time resulting in additional works, and to ensure cables are not snagged by other sea users.

195. On this basis, proceeding without cable protections as part of the project design would not present an alternative: doing so would either result in a requirement to bury the cables to a greater depth in areas where the Applicant has determined this may not be technically feasible or result in the cables being insufficiently protected from cable damage which would risk undermining the viability of the Project and achievement of its objectives. The possible damage to exposed cables would undermine the Project's ability to export electricity and therefore provide optimised export to contribute towards the decarbonisation need (Objective 1, 3, 4, 5) and contribute towards increased energy security and decreased consumer costs (Objectives 2, 6).

196. Use of marker buoys would not provide an alternative to cable protection which meets the Project's objectives for the same reasons as above: though marker buoys may reduce the threat of damage from some activities they do not provide the equivalent protection necessary to protect Project assets nor do they mitigate all relevant threats such as anchor dragging.

Reduction in cable corridor: commit to HVDC and exclude HVAC

197. The Project's intention is to use HVAC transmission for its export cable.

198. Committing to HVDC at the exclusion of HVAC, in order to reduce the amount of infrastructure in the IDRBNR SAC by use of fewer cables, has been suggested by Natural England and considered by the Applicant. However, the Project has confirmed that only HVAC will be used.

199. As set out below, the Project considers that the current HVDC supply chain is insufficient to ensure that Project objectives can be met and the difference in design parameter between use of an HVAC and HVDC solution may not result in reduced risk of potential harm to features. For these reasons, HVDC does not present an appropriate alternative Project design. Further discussion of this issue can be found in the ES Chapter 9 Benthic Subtidal and Intertidal Ecology (document reference 6.1.9) and the Section 2 of the Without Prejudice Sandbank Compensation Plan and Without Prejudice Biogenic Reef Compensation Plan (document reference 7.6.1 and 7.6.2 respectively).

- **Ensuring feasibility in the UK market to meet project objectives**: HVAC cabling has been used for the majority of UK offshore windfarms, including all of those commissioned to date. The supply chain for HVDC technology is currently much more constrained and so could compromise the construction schedule. Objective 4 is to contribute towards the UK Government's 2030 net zero target, crucial for ensuring vital renewable energy capacity reaches the Grid to tackle climate change, and energy security. The Project considers that the supply chain is insufficient to allow for this.

- **Comparable harm**: As discussed elsewhere, the alternatives that the Project requires to consider are those that will reduce the harm on relevant designated sites. During design discussions, and in line with the mitigation hierarchy, the number of HVAC cables required for the Project have been reduced from six to four, the same number of cables which similar sized projects have considered for their HVDC design parameter such as Norfolk Vanguard. It should also be noted that HVDC systems may have a reduced number of circuits compared to HVAC, however this does not necessarily result in a reduced number of cables as multiple cores are required to form a circuit which as a minimum would be 2 circuits with 2 single core cables and a sperate FOC each, this results in a minimum of 6 separate cables. Although likely to be in bundled configuration, there is the possibility that they may not be and installed in separate trenches instead, especially through challenging areas or depending on contractor capability. In addition any subsea joint, pull-in, landfall or repair will be separated out a minimum of 150m either side where applicable resulting in additional remedial protection and likelihood of unburied cable.

Alternative Forms of Cable Protection

200. This design alternative relates to the sandbank feature of IDRBNR SAC for the following reason: the Applicant believes that it is the deposit of cable protection over the sandbank feature of the SAC and supporting habitat for Annex 1 reef which Natural England view as causing an AEoI (in respect of this feature) however damage to *S. spinulosa* reef (if present) may occur during any cable laying activities as noted above. Should cable burial not be possible, cable protection within the sandbank feature of the SAC will only take place via concrete mattresses or another form of protection with the same or lesser impact. The Applicant has committed to remove cable protection over the sandbank feature at decommissioning and this form of cable protection has been selected because it is able to be removed with only short-term disturbance to the seabed as discussed further in the RIAA (document reference 7.1, Section 9.1, paragraph 152).

201. The Applicant has considered possible cable protections and has committed, within the sandbank feature, to using only those which can be removed in decommissioning so as to reduce the impact on the sandbank feature of the SAC.

202. On this basis, use of other forms of cable protection do not present an alternative which is less damaging for the sandbank feature of the European Site.

Alternative Timing

203. There is no evidence that alternative timing for the Project would change the impact on features of the IDRBNR SAC.

3.6 Step 4: Assessment of Effects of Alternative Solutions

204. On the basis that no feasible alternative solutions have been identified, no such assessment is necessary.

3.7 Conclusion of Alternative Assessment

205. Steps 1 – 4 above provide an examination of possible alternatives to the Project based on its objectives. As set out, the Project is necessary and encapsulates a range of objectives which seek to tackle the urgent need for offshore wind projects and its associated benefits. The Applicant has analysed a range of possible alternatives to consider whether it could reduce the risk of potential harm on relevant European Sites. The conclusion drawn is that each of the alternatives are not feasible or do not meet the Project's objectives and therefore do not provide alternatives as defined by relevant legislation and guidance.

Table 3-12 Summary of alternatives considered

Stage	Alternative considered	Reasons for discounting alternative
	Project-wide	
Do Nothing	Do not develop the Project	Does not meet Project objectives
Alternative method of generation or site	Alternative form of energy generation	Does not meet Project objectives and not required to be considered per guidance.
	Offshore wind farms not in UK EEZ	Does not meet Project objectives nor address Project needs.
	Alternative wind farm locations outside of leasing round	Not legally feasible on the basis of TCE leasing procedure.
	Alternatives within Leasing Round	Not legally feasible on the basis of TCE leasing procedure. Guidance provides that existence of alternative locations for CNP Infrastructure is unlikely to be treated as an alternative solution.
	FFC and Farne Islands SPAs	
Alternative route, scale, size, design, method or timing of the Project	Fewer WTGs	Would not fulfil Project objectives.
	Increase air gap: minimum tip height from MSL	Would not meet Project timeline objectives in order to meet urgent need for decarbonisation.
	Wind farm site area; Minimum Spacing Crosswind and sidewind (m)	Would not fulfil Project optimisation objective (or the other objectives).
	Alternative timing	Substantial seasonal restriction would not fulfil Project objectives or be feasible.
	IDRBNR SAC	
Alternative route, scale, size, design, method or timing of the Project	Alternative offshore cable corridors	No feasible alternative which would reduce the effect on the European Site(s).
	Reducing cable infrastructure within IDRBNR: HVDC and/or proceeding without cable protections	An HVDC solution could compromise the Project timeline objectives and would not necessarily cause less harm. Ensuring 100% cable burial would not be technically feasible. Proceeding without protections would undermine Project viability and hence the achieving of Project objectives.
	Alternative Forms of Cable Protection	Cable Protections used by the Project create the lowest risk of AEoI on the sandbank feature of the SAC.
	Alternative Timing	No relationship to Potential AEoI

4 Imperative Reasons of Overriding Public Interest (IROPI)

4.1 Introduction and method of assessment

206. This section evaluates whether there are Imperative Reasons of Overriding Public Interest in favour of granting consent to the Project (subject to adequate compensation measures) notwithstanding any potential AEoI on European Sites.

207. As summarised by relevant guidance, this assessment requires consideration of whether the Project is:

- "imperative - it's essential that it proceeds for public interest reasons;
- in the public interest - it has benefits for the public, not just benefits for private interests;
- overriding - the public interest outweighs the harm, or risk of harm, to the integrity of the European site that's predicted by the appropriate assessment" (Defra, 2021a))

208. In addition, as described in DESNZ, 2023h, the interest must typically (but not always) be long-term. This is on the basis that, as set out above, the interests which European Sites protect, and which the interest of the Projects are to be balanced against, are themselves long-term.

209. The legislation which underpins the IROPI test is set out at Section 2 above.

4.1.1.1 Priority species or habitats

210. Per the Habitats Directive Article 6(4), as transposed into UK legislation, where a site hosts a priority species or natural habitat, the available considerations are *"those relating to human health or public safety, to beneficial consequences of primary importance for the environment or, further to an opinion from the Commission to other imperative reasons of overriding public interest."*

211. There are no such priority species or natural habitats in the FCC SPA or IDRBNR SAC so these restrictions have not been used in the below.

212. As no priority species or habitats are present, overriding public interest "including those of a social or economic nature" have been considered in this assessment (Conservation of Habitats and Species Regulations 2017, Regulation 64, Conservation of Offshore Marine Habitats and Species Regulations 2017 Habitats Regulations, Regulation 29).

213. As set out in Defra, 2021b, IROPI may be of a social or economic nature, subject to the proviso that, where the site hosts priority habitats or species, the authority can normally only consider "reasons relating to human health, public safety or beneficial consequences of primary importance to the environment."

4.1.1.2 IROPI and CNP status

214. The Project is CNP Infrastructure for the purposes of NPS EN-1 and EN-3. On this basis, "the Secretary of State will consider the particular circumstances of any plan or project, but starting from the position that energy security and decarbonising the power sector to combat climate change … are capable of amounting to imperative reasons of overriding public interest (IROPI) for HRAs … for CNP Infrastructure."

215. The Applicant has provided an IROPI case here for the Secretary of State's consideration. The Applicant considers that the delivery of the Project objectives amounts to imperative reasons of overriding public interest for the Project HRA.

4.2 Imperative

216. The first question that this case requires to address is whether the objectives of the Project are urgent and whether the Project be considered "indispensable" or "essential" which can be evidenced where the objective falls within one or more of the following categories (DESNZ, 2023):

- actions or policies aiming to protect fundamental values for citizens' life (health, safety, environment);
- fundamental policies for the State and the Society; or
- activities of an economic or social nature, fulfilling specific obligations of public service.

217. For the reasons set out below, the Project falls within each of these frameworks.

4.2.1 Actions or policies aiming to protect fundamental values for citizens' life (health, safety, environment)

218. As set out above, the UK has committed to pursue efforts to limit the global temperature increase to within 1.5°C of the pre-industrial average temperature due to the urgent need to reduce greenhouse gas to reduce the rate of climate change. The UK Government has a statutory commitment under the Climate Change Act 2008 (2050 Target Amendment) Order 2019 to reduce GHG emissions by at least 100% of 1990 levels by 2050 and has committed to decarbonising the UK electricity system by 2035. This commitment was underpinned by a declaration of a "climate emergency".

219. Government policy reflects the urgency required to address this emergency: Part 3 of NPS EN-1 establishes the urgent policy need for all types of energy infrastructure and particularly low carbon NSIPs in order to provide security of supply, affordable and reliable energy system and ensuring the system is net zero consistent (NPS EN-1, paragraph 3.1.1, 3.3.58 – 59). This urgency is captured in the decision to deem low-carbon infrastructure "critical national priority" infrastructure.

220. Reducing GHG and limiting climate change is fundamental to the protection of the environment, including the changes affecting terrestrial and marine ecosystems, coastal process and climate, water resources and flood risk and food security. Such effects are also directly and indirectly linked to human health and safety as set out by IPCC, 2018, summarised above.

221. The above targets seek to address climate change and are designed to protect fundamental values for citizens' life and the Project will be a direct contribution towards them.

4.2.2 Fundamental policies for the State and the Society

222. The UK has set ambitious targets and legally binding commitments commensurate with the importance and scale of the challenge of tackling climate change.

223. Targets, such as the Clean Power 2030 Action Plan ambition of 43 – 50 GW Uof offshore wind by 2030, are an acknowledgement of the imperative nature of offshore wind to the meeting of climate change commitments.

224. The Project will contribute an estimated 1.5 GW of renewable energy capacity to the UK's efforts against climate change and the UK's battle against what the UK Government has described as a climate emergency.

225. The Project will therefore be a key component of adhering to a fundamental policy of the State and of Society by contributing towards crucial Government targets which seek to address a fundamental issue of our time.

4.2.3 Activities of an economic or social nature, fulfilling specific obligations of public service

226. The Project is an economic activity which fulfils specific objectives of public service by assisting in addressing the issue of energy security for UK consumers, highlighted by the UK Government as a key driver for the need for the growth of renewable energy (as further detailed in Section 3.3 above).

227. The Clean Power 2030 Action Plan states that, among other things, increasing offshore wind capacity to 43 – 50GW by 2030 is necessary to "build[…] an energy system that is affordable for the long term". It highlights that "since Russia's invasion of Ukraine, Britain has experienced a devastating cost of living crisis caused by our exposure to volatile fossil fuel markets" where "every family and business in the country has paid the price". It makes clear that the "[energy] transition is the only way to protect businesses and families for good from increased energy bills resulting from volatile global gas markets". Among its aims are a long-term reduction in energy bills for the consumer[26] – a key public service obligation which the Project will help to deliver by contributing towards meeting UK Government offshore wind and net zero targets. Similar commitments to renewable energy providing a means to fulfil the public service obligation of reducing costs for consumers are stated in previous policy documents (see UK Government, 2022a).

[26] "*This plan will provide the foundation for the UK to build an energy system that can bring down bills for households and businesses for good.*" (page 6, DEZNS, 2024)

4.3 Public interest

4.3.1.1 Public interest in an NSIP tackling climate change

228. As set out elsewhere, there is a clear public interest in pursuing the domestic policies which seek to reduce climate change such as those discussed in this derogation case which the Project will contribute towards.

229. Defra 2021c makes clear that the reasons in favour of the Project must be in the public interest not "just" the private interest, making clear that it is not a requirement that reasons are *exclusively* in the public interest. As acknowledged by EC, 2019, this is the case "whether [projects] are promoted either by public or private bodies" such as the Applicant.

230. Defra 2021c also makes clear that "National strategic plans, policy statements and major projects are more likely to have a high level of public interest and be able to show they are imperative and overriding."

231. The Project is a major project which will work towards tackling a key domestic and international policy challenge and responding to key UK Government targets and obligations.

4.3.1.2 Public interest in increase in electricity supply

232. The Project responds to the combined drivers of the need to increase energy security, reduce GHG emissions and, consequently, increase offshore wind capacity. In this respect, the Project is contributing towards Government-pursued objectives of increased electricity supply in the public interest.

4.3.1.3 Socio-economic benefits

233. The socio-economic effects of the proposed Project are considered to be beneficial, as concluded in ES Chapter 29: Socio-Economic Characteristics (document reference 6.1.29). As set out there, the ES predicts a moderate effect on the economic activity in the local economic area (LEA) in both gross value added and employment terms. Discussion of some of its local economic benefits are also discussed above (Section 3.3.1.4: The need to maximise economic opportunities from energy infrastructure investment for the UK).

234. The Project is expected to generate, at its peak, some 1,200 jobs in the UK, which will occur during the 3-year manufacturing and construction period expected to peak in Q3 of 2029, when the construction of the Project is expected to support:

- 680 jobs in the LEA;
- 810 jobs in the Regional Area; and
- 1,200 jobs across the UK.

235. In addition, the worst case scenario of the Project could result in the creation of:

- 1,690 years of employment in the LEA;
- 2,010 years of employment in the Regional Area; and
- 4,030 years of employment across the UK.

236. In addition to the direct and supply chain impacts set out above, the Project will support economic activity through the spending of those employed during its construction (induced impacts). These benefits could amount to an extra 430 years of employment in the LEA, 540 years of employment in the Regional Area and 1,680 years of employment across the UK.

Table 4-1 Construction and Development: Total Employment (Years of Employment)

	LEA	Regional Area	UK
Direct Employment	1,070	1,110	2,060
Indirect Employment	620	900	1,970
Total Employment	**1,690**	**2,010**	**4,030**
Induced Employment	430	540	1,680
Total Employment Including Induced	**2,120**	**2,550**	**5,710**

237. Those benefits will also be subject to further consideration within the Supply Chain Plan which will be produced in support of the CfD bid and will aim to secure local investment.

238. The socio-economic benefits also require to be balanced against the significant costs to the economy of unmitigated climate change (as recognised in policy terms (UK Government, 2022a). Once this balance is considered, then the net socio-economic effects are even greater.

4.3.1.4 Offshore Wind Sector Deal; British Energy Security Strategy; Clean Power 2030 Action Plan

239. The extent of the socio-economic public interest of the Project can be seen when reviewing the current policy context.

240. The Offshore Wind Sector Deal (UK Government, 2020a), updated by the UK Government in 2020, sets out the Government's aim to support the development of offshore wind energy generation in the UK, making the sector a significant part of a low-cost, low-carbon flexible grid system. The deal also emphasises how UK companies can benefit from the opportunities presented by the expansion of the offshore wind sector, enhancing the competitiveness of UK firms internationally and sustaining the UK's role as a global leader in offshore wind generation.

241. The deal emphasises the Humber as a majorly significant region to the development of the sector in the UK, as the region already supports a windfarm cluster with a pre-existing manufacturing base, enabling economies of scale and increased productivity which could drive innovation and improve competitiveness in the sector.

242. The BESS and the Clean Power 2030 Action Plan updated the Offshore Wind Sector Deal ambition and the capacity increase that BESS, the Clean Power 2030 Action Plan, and the Climate Change Act 2008 require, such as that contributed by the Project, will lead to further jobs growth in the UK.

243. Reaching the level of capacity required by Government policy could support up to 100,000 skilled roles up from previous estimates of 27,000 jobs in the UK[27], while the sector will work with government, existing institutions, and universities to increase job mobility between energy sectors, increase apprenticeship opportunities and coordinate local efforts, further developing the benefits to the UK economy.

244. As a result, the Project would play a role in the larger positive socio-economic impact of offshore wind in the public interest.

4.4 Long-term

245. The Project will contribute electricity generation across its operational lifetime (anticipated to be approximately 35 years). In this respect, the imperative public interest reason for derogation that it provides will be over the long-term.

4.5 Overriding

246. In order for the case in favour of the Project to be "overriding", the imperative reasons for derogation set out above require to be weighed against, and found to outweigh, the potential harms which may be caused to European Sites. The Secretary of State will require to consider whether the substantial and imperative long-term public interests that the Project delivers overrides the potential harm to each of the below European Sites.

4.5.1 Risk of harm to European Sites from the Project

247. The risk of harm to relevant European Site are set out in Step 2 of the above Assessment of Alternatives ("Define the Potential for Harm") and discussed in more detail in the RIAA (document reference 7.1).

4.5.2 Risk of harm to European Sites from climate change

248. By contributing to the reduction of GHG and addressing climate change, the Project will be aiding the conservation of the FFC and Farne Islands SPAs and the IDRBNR SACs because of the wide ranging ecological effects of climate change which, if unaddressed, will themselves cause adverse impacts on European Sites such as these.

249. In relation to ornithological features, the EU Strategic Environmental Assessment North Seas Energy (SEANSE) project (Rijkswaterstaat Zee & Delta 2020) identified climate change as the strongest influence on future seabird population trends:

[27] The figure of 100,000 was included in NESO, 2024 based on figures from the Offshore Wind Industry Council ("*the Offshore Wind Industry Council suggests more than 100,000 skilled roles are required to deliver 50 GW of offshore wind (up from 32,000)"*). This builds on the previous estimate of 27,000 per the Offshore Wind Sector Deal (UK Government, 2020a) based on the target "deploying up to 30GW of installed capacity by 2030.

"it is concluded that prey availability effects due to climate change is the pressure/pathway that in the present day appears to have the largest impact on kittiwake…and lesser black-backed gull at the wider North Sea level, and is likely to be responsible for a substantially greater effect than impacts resulting from any of the other activities. For all seabirds it is largely expected that climate change impacts will become more severe in the future as both temperatures, and possibly the rate of increase, become greater, and extreme weather events become more frequent."

250. As set out in IPCC 2018 (as discussed above), climate change will generally impact on natural systems including on the marine ecosystems. The UK's Fourth Report by the United Kingdom under Article 17 of the Habitats and Birds Directive (UK Government, 2019) makes clear (quoting Birchenough et al., 2013) that

"Climate change is likely to impact the benthos in future. The changes documented in soft-sediment communities are expected to continue, and probably escalate, in response to the cumulative effects of seawater warming and ocean acidification".

251. The Project's contribution to tackling climate change is therefore in the direct interest of reducing harm to the ornithological and benthic features that this IROPI case considers.

4.5.3 Overriding Public Interest of the Project

252. The imperative public interest served by the Project which requires to be weighed against the potential harms outlined above is grounded in the range of legislation and policy which the Project's objectives contribute towards meeting. In this respect, the Project will contribute towards fundamental values for citizens' lives, is taken forward in response to fundamental policies for the State and the Society, and fulfils specific obligations of public service.

253. The Project's contribution to tackling climate change generally, and the imperative objectives which it will contribute towards, outweighs the potential specific and localised effects on the FFC and Farne Islands SPAs and IDRBNR SAC in light of the need to tackle climate change and address the many adverse effects that climate change is having including on European Sites.

254. This is on the basis of both the imperative public interest reasons for the Project's delivery in general and the specific ways in which tackling climate change will be to the direct benefit of the FFC and Farne Islands SPAs and IDNBRN SAC.

255. The Applicant submits that the balance which the Secretary of State requires to consider is in favour of the Project being delivered.

4.6 Conclusion

256. As set out above, the Project, and its objectives, will make a significant contribution to limiting the extent of climate change in accordance with the objectives of the Paris Agreement, UK Government policy, and imperative, long-term, public interest goals. The consequences of not achieving such objectives would be severely detrimental to societies in the UK and around the world and to citizens' health, social and economic interests and environment.

257. For the reasons set out above, there is a compelling case that the Project must be carried out for IROPI. The Project's benefits override the potential AEoI on the FFC SPA, the Farne Islands SPA, and the IDRBNR SAC, which, subject to the Secretary of State's consideration, the Project will provide adequate compensation measures for.

258. This conclusion is in line with the Plan-level HRA for National Policy Statements EN1 -5 which concluded that, subject to Project-specific assessment,

> *"there is IROPI in designating this policy which permits new energy infrastructure because security of supply is essential for the maintenance of human health and public safety, and because combating climate change (which is one of the factors creating the demand for new generating capacity) will have beneficial consequences of primary importance for the environment. The Government is certain that we need new energy infrastructure; we need a system of development consents and a set of criteria against which they will be determined. The Government is therefore satisfied that there are IROPI in adopting EN-1 to EN-5".*
> (DESNZ, 2023e)

5 Compensation

259. Possible compensation measures capable of delivering the necessary compensation for the Project's impacts are set out in the following documents (and associated appendices). As discussed above, the documents relating to Guillemot, Razorbill, and Benthic features are submitted on a "without prejudice" basis. The following documents are submitted in this regard (and their appendices):

- Without Prejudice Benthic Compensation Strategy (document reference 7.6);
- Ornithology Compensation Strategy (document reference 7.7);
- TCE Kittiwake Strategic Compensation Plan (document reference 7.8);
- Compensation Funding Statement (document reference 7.9.

260. Should the Secretary of State reach a conclusion of AEoI in respect of any above features, the compensation measures are considered sufficient to ensure the coherence of the National Site Network.

261. A mechanism for identifying which of the possible measures will be delivered and by when is proposed within the DCO (document reference 3.1). The Conservation of Habitats and Species Regulations 2017 Regulation 68 and the Conservation of Offshore Marine Habitats and Species Regulations 2017 Regulation 36 requirement for the appropriate authority to secure necessary compensation has therefore been demonstrated.

6 Conclusion

262. As set out above, there is a clear need for the Project, there is an absence of alternatives capable of fulfilling the Project's objectives and there are Imperative Reasons of Overriding Public Interest (IROPI) in favour of the Project being developed. As a result, the Secretary of State can be confident that the steps required to meet the HRA Derogation process have been undertaken and the tests met.

263. There are no feasible alternatives to the Project which meet its objectives and there are Imperative Reasons of Overriding Public Interest for its development, fulfilling the steps required before the Secretary of State may give consent to the Project notwithstanding any negative assessment of the implications for a European Site. The Applicant's documents provided in Section 5 set out how adequate compensation measures to be secured and implemented by the Project (if required) can protect the overall coherence of the national site network.

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