Department for Energy Security & Net Zero

Habitats Regulations Assessment for an Application Under the Planning Act 2008

Rampion 2 Offshore Wind Farm

Regulation 63, 64, and 68 of the Conservation of Habitats and Species Regulations 2017

Regulation 28, 29, and 36 of the Conservation of Offshore Marine Habitats and Species Regulations 2017

April 2025

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Contents

List of abbreviations

Term	Abbreviation
Adverse Effect on Integrity	AEoI
Appropriate Assessment	AA
Artificial Nesting Structure	ANS
Central Impact Value	CIV
Construction Environmental Management Plan	CEMP
Deemed Marine Licence	DML
Development Consent Order	DCO
Environmental Statement	ES
European Economic Area	EEA
Examining Authority	ExA
Flamborough and Filey Coast SPA	FFC SPA
Functionally Linked Land	FLL
Guillemot and Razorbill Implementation and Monitoring Plan	GRIMP
Habitat Regulations Assessment	HRA
Interested Parties	IPs
Imperative Reasons of Overriding Public Interest	IROPI
Kittiwake Implementation and Monitoring Plan	KIMP
Likely Significant Effect	LSE
Marine Management Organisation	MMO
Marine Recovery Fund	MRF
Mean Maximum Plus One Standard Deviation	Mean Max +1SD
Nationally Significant Infrastructure Project	NSIP
National Site Network	NSN
Natural England	NE
Population Viability Analysis	PVA
Preliminary Environmental Information Report	PEIR
Principal Areas of Disagreement Statement	PADS
Report on the Implications for European Sites	RIES
Report to Inform Appropriate Assessment	RIAA

Special Areas of Conservation	SACs
Special Protection Areas	SPAs
Statement of Common Ground	SoCG
Statutory Nature Conservation Body	SNCB
Supplementary Advice on Conservation Objectives	SACO
The Planning Inspectorate	PINS
Upper Confidence Interval	UCI
Wind Turbine Generator	WTG
Zone of Influence	ZoI

1 Introduction

1.1 Background

This is a record of the Habitats Regulations Assessment ("HRA") that the Secretary of State for Energy Security and Net Zero ("the Secretary of State") has undertaken under the Conservation of Habitats and Species Regulations 2017[1] ("the Habitats Regulations") and the Conservation of Offshore Marine Habitats and Species Regulations 2017 ("the Offshore Habitats Regulations") in respect of the Development Consent Order ("DCO") and Deemed Marine Licences ("DMLs") for the Rampion 2 Offshore Wind Farm and its associated infrastructure (the "Project"). The Examining Authority ("ExA") defines this as the "Proposed Development". It is defined as the "Project" within this HRA for consistency with the terminology of the Habitats Regulations. For the purposes of these Regulations, the Secretary of State is the competent authority.

The Project comprises the construction and operation of up to 90 wind turbine generators ("WTGs") accompanied by a network of subsea cables linking the WTGs to up to three offshore substations. The onshore works would consist of cabling to a new onshore substation, as well as to an expanded NGET substation at Bolney. The Project is described in more detail in Section 2.

The Project constitutes a nationally significant infrastructure project ("NSIP") as defined by s.14(1)(a) of the Planning Act 2008 as it is for an offshore generating station with a capacity over 100 megawatts ("MW").

The Project was accepted by the Planning Inspectorate ("PINS") on 7 September 2023 and five Inspectors were appointed as the Examining Authority ("ExA") for the Application. The Examination of the Project application began on 6 February 2024 and concluded on 6 August 2024. The ExA submitted its report of the Examination, including its recommendation ("the ExA's Report"), to the Secretary of State on 6 November 2024. Numbered references to the ExA's Report are presented in the format "[ER *.*.*]".

This HRA also contains a consideration of the potential effects of the Project upon protected sites in European Economic Area ("EEA") States ("transboundary sites"). This is described in more detail in Section 10.

1.2 Habitats Regulations Assessment

The Habitats Regulations aim to ensure the long-term conservation of certain species and habitats by protecting them from possible adverse effects of plans and projects. In the UK, the Habitats Regulations apply as far as the 12 nautical miles limit of territorial waters.

[1] https://www.legislation.gov.uk/uksi/2017/1012/contents

The Habitats Regulations provide for the designation of sites for the protection of habitats and species of international importance. These sites are called Special Areas of Conservation ("SACs"). The Regulations also provide for the classification of sites for the protection of rare and vulnerable birds and for regularly occurring migratory species within the UK and internationally. These sites are called Special Protection Areas ("SPAs"). SACs and SPAs together, referred to as European sites in legislation, from part of the UK's National Site Network ("NSN").

The Convention on Wetlands of International Importance 1972 ("the Ramsar Convention") provides for the listing of wetlands of international importance. These sites are called Ramsar sites. Government policy is to afford Ramsar sites in the United Kingdom the same protection as sites within the NSN (collectively referred to in this HRA as "protected sites").

Regulation 63 of the Habitats Regulations provides that:

…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, [the competent authority] must make an appropriate assessment of the implications for that site in view of that site's conservation objectives.

And that:

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).

This Project is not directly connected with, or necessary to, the management of a protected site. The Habitats Regulations require that, where the Project is likely to have a significant effect ("LSE") on any such site, alone or in-combination with other plans and projects, an appropriate assessment ("AA") is carried out to determine whether or not the Project will have an adverse effect on the integrity ("AEoI") of the site in view of that site's conservation objectives. In this document, the following stages are collectively referred to as the HRA:

- Stage 1: Assessment of LSE;
- Stage 2: AA to determine whether there is an AEoI of a protected site;
- Stage 3: Assessment of Alternative Solutions;
- Stage 4: Imperative Reasons of Overriding Public Interest ("IROPI"); and
- Stage 5: Proposed Compensatory Measures.

The Secretary of State has had regard to relevant guidance on the application of the HRA including the PINS (2022) Advice Note 10[2], European Commission guidance[3], as well as joint

[2] https://infrastructure.planninginspectorate.gov.uk/legislation-and-advice/advice-notes/advice-note-ten/

[3] https://op.europa.eu/en/publication-detail/-/publication/11e4ee91-2a8a-11e9-8d04-01aa75ed71a1

guidance by DEFRA, Natural England ("NE"), the Welsh Government, and Natural Resources Wales (2021) on 'Habitats Regulations Assessment: protecting a European site'[4].

1.3 Site conservation objectives

Where an AA is required in respect of a protected site, Regulation 63(1) of the Habitats Regulations requires that it be an AA of the implications of the plan or project for the site in view of its conservation objectives. Government guidance also recommends that in carrying out the LSE screening, applicants must check if the proposal could have a significant effect on a protected site that could affect its conservation objectives.

DEFRA Guidance indicates that disturbance to a species or deterioration of a protected site must be considered in relation to the integrity of that site and its conservation objectives[5]. It states that *"the integrity of a site is the coherence of its ecological structure and function, across its whole area, that enables it to sustain the habitat, complex of habitats and/or the levels of populations of the species for which it was designated"*.

Conservation objectives have been established by NE. When met, each site will contribute to the overall favourable conservation status of the species or habitat feature across its natural range. Conservation objectives outline the desired state for a protected site, in terms of the interest features for which it has been designated. If these interest features are being managed in a way which maintains their nature conservation value, they are assessed as being in a 'favourable condition'. An AEoI is likely to be one which prevents the site from making the same contribution to favourable conservation status for the relevant feature as it did at the time of its designation. There are no set thresholds at which impacts on site integrity are considered adverse. This is a matter for interpretation on a site-by-site basis, depending on the designated feature and nature, scale, and significance of the impact.

NE has issued generic conservation objectives, which should be applied to each interest feature of the site. Supplementary advice on conservation objectives ("SACOs") for each site underpins these generic objectives to provide site-specific information and give greater clarity to what might constitute an adverse effect on a site interest feature. SACOs are subject to availability and are currently being updated on a rolling basis.

Where supplementary advice is not yet available for a site, NE advises that HRAs should use the generic objectives[6] and apply them to the site-specific situation. For SPAs, the overarching objective is to avoid the deterioration of the habitats of qualifying features, and the significant disturbance of the qualifying features, ensuring the integrity of the site is maintained and the site makes a full contribution to achieving the aims of the Habitats Regulations. This is achieved by, subject to natural change, maintaining and restoring:

[4] https://www.gov.uk/guidance/habitats-regulations-assessments-protecting-a-european-site

[5] https://www.gov.uk/guidance/appropriate-assessment

[6] http://publications.naturalengland.org.uk/publication/6734992977690624?cache=1656417868.31

- 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 populations of the qualifying features; and
- the distribution of the qualifying features within the site.

For SACs, the overarching objective is to avoid the deterioration of the qualifying natural habitats and the habitats of qualifying species, and the significant disturbance of those qualifying species, ensuring the integrity of the site is maintained and the site makes a full contribution to achieving favourable conservation status of each of the qualifying features. This is achieved by, subject to natural change, maintaining and restoring:

- the extent and distribution of the qualifying natural habitats and habitats of qualifying species;
- the structure and function (including typical species) of qualifying natural habitats;
- the structure and function of the habitats of qualifying species;
- the supporting processes on which qualifying natural habitats and habitats of qualifying species rely;
- the populations of qualifying species; and
- the distribution of qualifying species within the site.

The conservation objectives and, where available, SACOs have been used by the Secretary of State to consider whether the Project has the potential to have an AEoI of sites, either alone or in-combination with other plans or projects.

1.4 The Report on the Implications for European Sites and statutory consultation

Under Regulation 63(3) of the Habitats Regulations and Regulation 28(4) of the Offshore Habitats Regulations the competent authority must consult the appropriate Statutory Nature Conservation Body ("SNCB") and have regard to any representation made by that body within such reasonable time as the authority specifies.

NE is the SNCB for England and for English waters within the 12 nm limit. The JNCC is the SNCB beyond 12 nm, but this duty has been discharged by NE following the 2013 Triennial Review of both organisations. However, JNCC retains responsibility as the statutory advisor for protected sites that are located outside the territorial sea and UK internal waters (i.e. more than 12 nm offshore) and as such continues to provide advice to NE on the significance of any potential effects on interest features of such sites.

The ExA, with the support of the Inspectorate's Environmental Services Team, produced a Report on the Implications for European Sites ("the RIES") [PD-014]. The purpose of the RIES was to compile, document, and signpost information submitted by the Applicant and IPs during the Examination up to Deadline 4 (up to 3 June 2024). It was issued to ensure that IPs, including NE as the SNCB under Regulation 5 of the Habitats Regulations, had been formally consulted

on Habitats Regulations matters in respect of the Application for the Project during the Examination.

The RIES was published on the PINS NSIP website and the ExA notified IPs that it had been published. Consultation on the RIES was undertaken between 18 June 2024 and 9 July 2024. The Applicant [REP5-120] and NE [AS-022] provided comments on the RIES.

Several Examination submissions at Deadline 5 and Deadline 6 included HRA-relevant information. NE [AS-022] noted that the RIES did not take account of this information and advised that it did not consider consultation on the RIES adequately discharges the statutory requirements to consult NE on AAs. Noting the Inspectorate's Advice Page 10, the RIES was not revised following consultation, and it was the ExA's recommendation [ER 4.1.12] that the RIES, and consultation on it, may be relied upon as an appropriate body of information to enable the Secretary of State to fulfil their duties under Regulation 63(3) of the Habitats Regulations and Regulation 28(4) of the Offshore Habitats Regulations.

For the avoidance of doubt, the Secretary of State considers all representations made by all IPs on HRA matters throughout the entirety of the Examination process. The Secretary of State does not rely solely on consultation on the RIES to inform his conclusions on matters relevant to the HRA, but he does consider that the RIES can formally support his duties to consult on AAs. The Secretary of State considers that the extensive consultation undertaken during the Examination has adequately fulfilled his duties to consult on the AA under Regulation 63(3) of the Habitats Regulations and Regulation 28(4) of the Offshore Habitats Regulations.

1.5 Documents referred to in this HRA

This HRA has taken account of, and should be read in conjunction with, the documents produced as part of the Application and Examination, which are available on the PINS NSIP website[7]. In particular, but not limited to:

- the ExA's Report;
- the RIES [PD-014];
- the Report to Inform Appropriate Assessment ("RIAA") [REP6-115]
- the HRA (Without Prejudice) Derogation Case [REP6-109]
- the Kittiwake Implementation and Monitoring Plan [REP5-115]
- the Guillemot and Razorbill Implementation and Monitoring Plan [REP6-271]
- Natural England's Advice on Guillemot and Razorbill Evidence and Roadmap, and Guillemot and Razorbill Implementation Monitoring Plan, Kittiwake Implementation Monitoring Plan, and Response to Examining Authority's Second Written Questions [REP6-288]
- the final Statements of Common Ground ("SoCG") with NE [REP6-266] and the Marine Management Organisation ("MMO") [REP6-241].

[7] https://national-infrastructure-consenting.planninginspectorate.gov.uk/projects/EN010117

Plus, all other information submitted during the Examination and during the Secretary of State's consideration of the Application.

The final signed SoCG between the Applicant and NE [REP6-266] was submitted at Deadline 6. Subsequent references to the SoCGs between the Applicant and NE in this HRA Report are to the final versions, unless otherwise stated. The SoCGs confirmed that not all matters relating to HRA were agreed between the two parties, and that there were HRA matters outstanding between them in respect of the Project.

2 Project description

A detailed description of the Project is presented in Chapter 4 of the ES [REP6-171].

The Project comprises the following offshore components:

- Up to 90 offshore wind turbine generators and associated foundations;
- Inter-array cables connecting the WTGs to up to three offshore substations;
- Up to two offshore interconnector export cables between the offshore substations;
- Up to four buried offshore export cables to connect the landfall area.

The Project also comprises the following onshore components:

- A landfall site at Climping Beach connecting offshore and onshore cables
- A buried onshore cable from Climping Beach to Oakendene
- A new onshore substation at Oakendene and further buried onshore cables to connect to the existing National Grid ("NGET") Bolney substation
- Alterations and extensions of the NGET Bolney substation.

The proposed Rampion 2 wind farm array area is approximately 160km^2, located 13km from the Sussex coastline at its closest point. A maximum of 90 WTGs are proposed, with a maximum rotor blade diameter of 295m.

Electricity generated from the Rampion 2 array area to the UK National Grid would be transmitted using a High Voltage Alternating Current with a voltage up to 275kV. The offshore export cables would make landfall at Climping Beach, Arun District, and from there, the buried onshore export cables would travel approximately 38.8km inland to a new onshore substation at Oakendene, near Cowfold, Horsham District. Further buried onshore export cables would then travel to the extended Bolney NGET substation.

The onshore components lie within the administrative areas of Arun District Council ("ADC"), Horsham District Council ("HDC"), Mid Sussex District Council ("MSDC"), West Sussex County Council ("WSCC"), as well as the South Downs National Park Authority ("SDNPA").

The final design for the Project may not be confirmed until after consent has been granted. Consequently, the Applicant has presented a Rochdale envelope approach whereby the maximum development scenarios are presented and assessed. The Rochdale envelope and the presented Maximum Design Scenarios provide sufficiently flexibility in the finalisation of the design whilst ensuring that the environmental effects of the Project eventually constructed have been properly assessed. The realistic worst-case maximum design scenario is assessed and outlined by the Applicant in its RIAA. The Secretary of State's HRA is based upon the realistic worst-case design scenario of the Project, in accordance with PINS Advice Note 9.

2.1 Changes to the Application during Examination

During the Examination, the Applicant submitted eight change requests with several proposed changes as reported in Chapter 1 of the ExA's Recommendation Report. These changes were accepted by the ExA on 24 July 2024. The ExA concluded that no relevant HRA matters arose from these change requests [ER 4.1.18].

The Applicant also submitted several revisions to the application documents, details of which can be found in the Guide to the Application document submitted at Deadline 6 [REP6-002]. This provides a guide to documents submitted as part of the Application and was updated at each Deadline when new or revised documents were submitted. It provides a record of all documentation submitted into the Examination by the Applicant.

3 Stage 1: Screening for Likely Significant Effects (“LSEs”)

Under Regulation 63 of the Habitats Regulations and Regulation 28 of the Offshore Habitats Regulations, the Secretary of State must consider whether the Project will have an LSE on a protected site, either alone or in-combination with other plans or projects. The purpose of this section is to identify any LSEs on protected sites that may result from the Project and to record the Secretary of State’s conclusions on the need for an AA.

The protected sites and qualifying features that were considered in the Applicant’s assessment of LSE are presented in Appendix E of the RIAA [REP6-115]. Section 5 of the RIAA also presents the broad approach undertaken to the approach for screening for LSE and the selection process to identify relevant protected sites and qualifying features.

The spatial relationship between the Order Limits of the Project and protected sites is shown in Figure 5-1 of the Applicant’s RIAA [REP6-115] and Figures F-1 to F-37 of Appendix F: European Sites Information [REP6-115].

NE [REP6-266] confirmed that the protected sites identified by the Applicant are those relevant to the Project. The protected sites and qualifying features identified by the Applicant were not disputed during the Examination [ER 4.2.8].

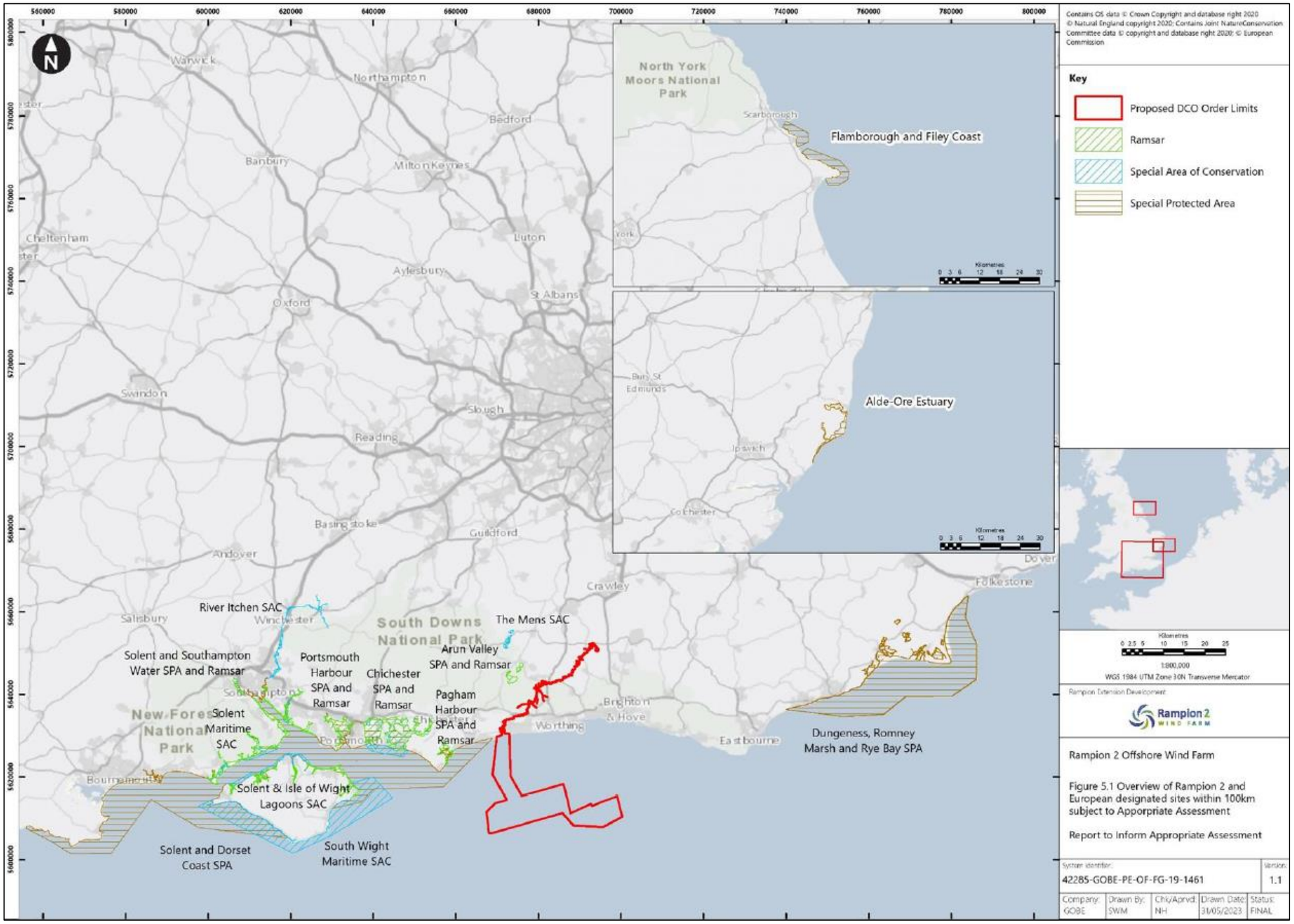

Figure 1: Spatial relationship of the Project and protected sites

3.1 Likely Significant Effects alone and in-combination

The Applicant identified the impacts, considered to have the potential to result in LSEs, from the Project alone in Section 5 of the RIAA [REP6-115].

The following impacts considered by the Applicant to have the potential to result in LSEs on protected sites during construction, operation, and decommissioning of the Project were:

- Land take / land cover change of functionally linked land ("FLL") during construction and decommissioning
- Noise and vibration during construction and decommissioning
- Fragmentation of habitats during construction and decommissioning
- Pollution effects during construction and decommissioning
- Spread of non-native species during construction and decommissioning
- Water neutrality during operation and maintenance
- Collision risk for birds during operation
- Collision risk for birds during migration during operation
- Collision risk for birds during breeding season during operation
- Increased light levels during construction and decommissioning
- Suspended sediment / deposition during all phases
- Marine invasive and non-native species during construction and decommissioning
- Pollution during all phases
- Disturbance and displacement for birds during all phases
- Barrier effects for birds during operation

The protected sites affected, and the potential impact pathways, are provided in Table 5.2 of the RIAA. The potential for alone LSE from the Project was identified for the following 37 protected sites:

- Arun Valley Ramsar site
- Arun Valley SPA
- Arun Valley SAC
- Pagham Harbour SPA
- Pagham Harbour Ramsar site
- Portsmouth Harbour SPA
- Portsmouth Harbour Ramsar site
- The Mens SAC
- River Itchen SAC
- Solent Maritime SAC
- South Wight Maritime SAC
- Solent & Isle of Wight Lagoons SAC
- Dungeness, Romney Marsh & Rye Bay SPA

- Solent and Dorset Coast SPA
- Chichester and Langstone Harbours SPA
- Chichester and Langstone Harbours Ramsar site
- Solent and Southampton Water SPA
- Solent and Southampton Water Ramsar site
- Medway Estuary & Marshes SPA
- Littoral seino-marin SPA (France)
- Foulness (Mid-Essex Coast Phase 5) SPA
- Falaise du Bessin Occidental SPA (France)
- Alde-Ore Estuary SPA
- Alde-Ore Estuary Ramsar site
- The Wash SPA
- Breydon Water SPA
- Greater Wash SPA
- North Norfolk Coast SPA
- North Norfolk Coast Ramsar site
- Cote de Granit Rose-Sept Iles SPA (France)
- Alderney West Coast & Burhou Islands Ramsar site (Guernsey)
- Grassholm SPA
- Flamborough and Filey Coast SPA
- Northumbria Coast SPA
- Northumbria Coast Ramsar site
- Coquet Island SPA
- Farne Islands SPA

The Applicant also identified the impacts considered to have the potential to result in LSEs from the Project, in-combination with other plans or projects, as detailed in Section 5.10 to 5.15 of the RIAA [REP6-115]. The Applicant considered that where potential for LSE has been identified alone, then the potential for in-combination effects should also be considered.

The Applicant applied a 'tiered' approach to the in-combination assessment to reflect the different levels of uncertainty associated with the project design and timeframes for the projects screened into assessment [REP6-115]. The allocated 'Tiers' reflect the current stage of relevant projects within the planning and development process. This allowed the in-combination impact assessment to consider several future development scenarios, each with a differing potential for being built out. As described in Table 5-1 of the RIAA, the tiers consisted of:

- **Tier 1a:** *Operational and under construction projects which were not in place when baseline data was collected. Projects with a legally secure consent that have been awarded a contract for difference but have not yet been implemented.*
- **Tier 1b:** *Projects/plans that have a legally secure consent, but have no contract for difference' therefore, there is uncertainty about the timeline for construction of these projects*

- **Tier 1c:** *Projects for which an application has been submitted, but not yet determined. There is therefore information on which to base a quantitative assessment of cumulative impact but there is a degree of uncertainty as to the final approved design of the project and the timeline for construction*
- **Tier 1d:** *Relevant marine infrastructure projects that the regulatory body are expecting to be submitted for determination and projects for which PEIR have been submitted, but not yet a full ES. There is therefore some information on which to base a quantitative assessment of cumulative impact but there is a large degree of uncertainty as to the final design of the project and the timeline for construction*
- **Tier 1e:** *Relevant marine infrastructure projects that the regulatory body are expecting to be submitted for determination*
- **Tier 2:** *Projects on the Planning Inspectorate's Programme of Projects where a Scoping Report has been submitted*
- **Tier 3:** *Projects on the Planning Inspectorate's Programme of Projects where a Scoping Report has not been submitted. Projects identified in the relevant Development Plan (and emerging Development Plans with appropriate weight being given as they move closer to adoption) recognising that much information on any relevant proposals will be limited. Projects identified in other plans and programmes (as appropriate) which set the framework for future development consents/approvals, where such development is reasonably likely to come forward*

The projects and plans considered for the in-combination assessment are set out in Table 2.1: Shortlist Other Development (Offshore) and Table 3.1: Shortlist Other Developments (Onshore) in ES Appendix 5.4: Cumulative Effects Assessment Shortlisted Developments [APP-128].

No additional plans or projects were identified by IPs during the Examination [ER 4.2.15].

The sites for which the Applicant could not exclude LSE from either the Project alone or in-combination with other projects and plans are presented in the Screening Matrices at Appendix E and in Table 10-1 of the Applicant's RIAA [REP6-115].

3.2 Likely Significant Effects conclusion

The Secretary of State has carefully considered the potential effects of the Project on all qualifying features of the protected sites raised during the Examination, taking into account their conservation objectives, to determine whether there will be LSEs in the context of the Habitats Regulations. The Secretary of State considers that sufficient information has been provided to inform an assessment in line with his duties under the Habitats Regulations.

NE [REP6-266] considered that the correct protected sites and impact pathways had been identified in the RIAA. No matters were raised by any IPs in the Examination in relation to the Applicant's screening for LSE [ER 4.2.18].

The ExA also considered that the correct protected sites and impact pathways had been identified in the RIAA and was satisfied with the approach to the assessment of alone and in-combination LSE [ER 4.2.19]. The ExA agreed that the Project is likely to have a significant effect on the qualifying features of the protected sites identified by the Applicant when considered

alone, or in-combination with other plans or projects [ER 4.2.20]. This was not disputed by IPs or NE during the Examination [ER 4.2.20]. Table B of the ExA's Report presents the protected sites for which the ExA considers that significant effects cannot be excluded.

Based on the information before him, the views of IPs and NE, as well as the recommendations of the ExA, the Secretary of State concludes that LSE from the Project, alone and in-combination with other plans or projects, could occur during construction, operation, and decommissioning of the Project. Table 1 of this document presents the protected sites for which the Secretary of State considers that significant effects cannot be excluded, either alone or in-combination, alongside the qualifying features and relevant impact pathways. The LSE are therefore taken forward to AA to consider whether the Project would result in an AEoI of the identified protected sites.

4 Appropriate Assessment methodology

The requirement to undertake an AA is triggered when a competent authority, in this case the Secretary of State, determines that a plan or project is likely to have a significant effect on a protected site either alone or in-combination with other plans or projects. Guidance issued by DEFRA[8] states that the purpose of an AA is to assess the implications of the plan or project in respect of the site's conservation objectives, either individually or in-combination with other plans and projects, and that the conclusions should enable the competent authority to ascertain whether the plan or project will adversely affect the integrity of the site concerned. The focus is therefore specifically on the species and/or habitats for which the protected site is designated.

In line with the requirements of Regulation 63 of the Habitats Regulations and Regulation 28 of the Offshore Habitats Regulations:

"*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*."

The purpose of this AA is to determine whether an AEoI on the features of the protected sites identified in Table 1 of this HRA, as a result of the Project alone or in-combination with other plans or projects, can be excluded in view of the site's conservation objectives and using the best scientific evidence available.

In accordance with the precautionary principle embedded in the integrity test and established through case law, the Secretary of State as the competent authority may agree to the plan or project only after having ascertained that it will not adversely affect the integrity of the protected site, and this must be demonstrated beyond all reasonable scientific doubt. If the Secretary of State cannot exclude AEoI of the affected protected sites beyond all reasonable scientific doubt, then he can only agree to a plan or project if it complies with the requirements of Regulation 64 of the Habitats Regulations. Regulation 64 provides that the Secretary of State may agree to the plan or project only if satisfied that there are no alternative solutions, and that the plan or project must be carried out for imperative reasons of overriding public interest (IROPI). In addition, Regulation 68 requires compensatory measures to be secured which maintain the overall coherence of the NSN.

8 https://www.gov.uk/guidance/habitats-regulations-assessments-protecting-a-european-site

5 Stage 2: Appropriate Assessment

The Secretary of State has undertaken an objective scientific assessment of the implications of the Project on the qualifying features of the protected sites identified in his screening assessment, using the best scientific evidence available. The assessment has been made in light of the site's conservation objectives, as detailed in Section 1.3 and set out in Table 1 of this HRA.

The Applicant's RIAA [REP6-115] concluded that the Project would not adversely affect the integrity of any of the protected sites and features for which a LSE pathway was identified, either alone or in-combination with other projects or plans.

The Applicant's conclusion of no AEoI was not disputed at the close of the Examination in respect of the following protected sites:

- The Mens SAC – Impact pathway: Land take / cover change
- Pagham Harbour Ramsar site – Impact pathway: Collision risk
- Pagham Harbour SPA – Impact pathway: Collision risk
- Portsmouth Harbour SPA – Impact pathway: Collision risk
- Portsmouth Harbour Ramsar site – Impact pathway: Collision risk
- South Wight Maritime SAC – Impact pathways: Marine invasive non-native species (MINNS), physical processes, pollution, and suspended sediments
- Solent Maritime SAC – Impact pathways: Suspended sediment and deposition, and MINNS
- Solent and Isle of Wight Lagoons SAC – Impact pathways: Suspended sediment and deposition, MINNS, physical processes, and pollution
- Dungeness, Romney Marsh and Rye Bay SPA – Impact pathways: Collision risk and disturbance / displacement
- Chichester and Langstone Harbours SPA – Impact pathways: Collision risk, disturbance / displacement, and collision risk on migration
- Chichester and Langstone Harbours Ramsar site – Impact pathway: Collision risk on migration
- Solent and Southampton Water SPA – Impact pathway: Collision risk on migration
- Solent and Southampton Water Ramsar site – Impact pathway: Collision risk on migration
- Medway Estuary and Marshes SPA – Impact pathway: Collision risk on migration
- Foulness (Mid Essex Coast) Phase 5 SPA - Impact pathway: Collision risk on migration
- Alde-Ore Estuary SPA – Impact pathway: Collision risk
- Alde-Ore Estuary Ramsar site – Impact pathway: Collision risk
- The Wash SPA – Impact pathway: Collision risk
- Breydon Water SPA - Impact pathway: Collision risk on migration
- Greater Wash SPA – Impact pathway: Collision risk on migration
- North Norfolk Coast SPA - Impact pathway: Collision risk
- North Norfolk Coast Ramsar site – Impact pathway: Collision risk
- Alderney West Coast and Burhou Islands Ramsar site - Impact pathway: Collision risk, and disturbance / displacement
- Grassholm SPA – Impact pathway: Collision risk
- Northumbria Coast SPA – Impact pathway: Collision risk

- Northumbria Coast Ramsar site – Impact pathway: Collision risk
- Solent and Dorset Coast SPA – Impact pathway: Disturbance / displacement
- Coquet Island SPA – Impact pathway: Collision risk
- Cote de Granit Rose Sept Iles SPA - Impact pathway: Collision risk, and disturbance / displacement
- Falaise du Bessin Occidental SPA – Impact pathway: Collision risk
- Littoral seino-marin SPA – Impact pathway: Collision risk

The ExA was satisfied that on the basis of the information provided in the Applicant's RIAA [REP6-115] and during the Examination, that an AEoI on all of the above sites and their qualifying features can be excluded [ER 4.4.6].

Based on the information before him, and subject to the mitigation measures as secured in the final Order, the Secretary of State is satisfied that the Project, either alone or in-combination with other plans or projects, will not adversely affect the integrity of the qualifying features of the protected sites listed above.

However, the Applicant also excluded AEoI alone or in-combination for the following sites and respective qualifying features:

- River Itchen SAC – Atlantic salmon
- Arun Valley SPA – Assemblage of wintering waterfowl
- Arun Valley SAC – Ramshorn snail
- Arun Valley Ramsar site – Assemblage of wintering waterfowl and northern pintail
- FFC SPA – kittiwake, guillemot, and razorbill
- Farne Islands SPA – guillemot

Several of the Applicant's conclusions of no AEoI in relation to these protected sites and their qualifying features were disputed by IPs and were discussed throughout the Examination [ER 4.4.8].

5.1 River Itchen SAC – Atlantic salmon

In Section 7.3 and 8.3 of the RIAA [REP6-115], the Applicant assessed the potential for an AEoI of the River Itchen SAC from the Project alone and in-combination with other plans and projects as a result of cumulative mortality and injurious effects from exposure to underwater noise, and behavioural disturbances from exposure to underwater noise. The RIAA concluded that there would be no AEoI from the Project alone and in-combination as a result of the Project due to the intermittent nature of any potential noise impacts and the low likelihood of significant numbers of Atlantic salmon present or resident within the Order Limits of the Project.

In its RR [RR-265], however, NE commented that whilst it would likely agree with the Applicant's conclusions, it raised the following concerns:

- NE disagreed with the detail of Table 7.1 of the Applicant's RIAA [APP-038] that fish are considered as a fleeing receptor;

- NE considered it would be more accurate to show noise modelling location closest to the SAC and requested that clarity was provided on which of the worst-case scenario the figure is showing; and
- NE advised that Figure 7-1 should show the full range of stationary noise effects.

In the RIES [PD-014], the ExA requested that the Applicant provide an update regarding the above concerns from NE. The Applicant responded at Deadline 5 [REP5-120]. In relation to concerns over fish being considered fleeing receptors, the Applicant considered that it is appropriate to use a fleeing receptor approach for Atlantic salmon as they are not spatially restricted to the piling areas. Additionally, the Applicant provided data sources to explain how far and fast Atlantic salmon can swim, and how they respond to noise. The Applicant stated that to assess Atlantic salmon as a stationary receptor would be over precautionary and could overestimate the potential for LSE.

Furthermore, the Applicant updated the RIAA at Deadline 5 [REP5-025] to provide for a revised Table 7-1 and Figure 7-1 to include the information requested by NE. In Figures 7-1a and 7-1b, the Applicant updated the impact ranges of a fleeing receptor for the simultaneous piling scenario for monopile and multileg foundations. The Applicant also presented the impact range contours for a stationary receptor in Appendix J of the RIAA. The Applicant maintained its conclusion that there would be no AEoI of the Atlantic salmon feature of the River Itchen SAC resulting from mortality and injurious effects associated with underwater noise from the Project.

At Deadline 6, the SoCG [REP6-266] between the Applicant and NE shows the status of this matter as agreed and no outstanding concerns by NE.

The ExA noted that NE stated in its initial RR [RR-265] that it would be likely to agree with the conclusions of the Applicant, but that it requested additional assessment of effects on Atlantic salmon. The ExA considered that the updates provided by the Applicant at Deadline 5 [REP5-120 and REP5-025] adequately responded to the requests of NE and were sufficient to support the Applicant's conclusion of no AEoI [ER 4.4.12]. Considering the further information provided by the Applicant and the agreement by NE, the ExA was therefore satisfied that an AEoI from the Project alone or in-combination can be excluded beyond reasonable scientific doubt for the River Itchen SAC [ER 4.4.13].

Based on the information before him, the Secretary of State is satisfied that the Project, either alone or in-combination with other plans or projects, will not adversely affect the integrity of the Atlantic salmon qualifying feature of the River Itchen SAC.

5.2 Arun Valley SAC, SPA, and Ramsar site – Water neutrality

In Section 7.2 of the RIAA [REP6-115], the Applicant assessed the potential for an AEoI of the Arun Valley SAC, SPA, and Ramsar site from the Project alone and in-combination with other plans and projects as a result of effects associated with water neutrality. The RIAA concluded that there would be no AEoI from the Project alone and in-combination as a result of abstraction of water.

In its RR [RR-265] and Principal Areas of Disagreement Statement [AS-011], however, NE requested that an assessment of water neutrality should be undertaken to demonstrate that water neutrality could be achieved.

At Deadline 3, the Applicant [REP3-051] confirmed no mains water would be required from the Sussex North Water Resource Zone as water for the Project would be imported to site via tanker or dispensers, and proposed commitment C-290 within Requirement 5(5) CoCP [REP3-050] to secure this mitigation measure.

However, at Issue Specific Hearing 2 [REP4-072], the Applicant informed the Examination that it had met with Horsham DC who advised that due to the number of proposed housing in the area being reduced from 1,000 to 400 dwellings, there was headroom for water capacity which Horsham DC considered could be used by the Project.

At Deadline 5, the Applicant submitted an updated RIAA [REP5-025], which set out the agreement between NE and Horsham DC that there was sufficient headroom for water supply for the Project during the construction phase. The Applicant subsequently removed commitment C-290 from the Outline CoCP.

In the updated RIAA, consideration was also given to the use of water during the operation and maintenance phase of the Project. The Applicant explained that local authorities within the Sussex North Water Supply Zone are progressing the delivery of the Sussex North Offsetting Water Scheme ("SNOWS"), a strategic offsetting scheme which would enable developers to make a financial contribution based on predicted water usage, to deliver water use reductions within the Zone. The Applicant stated that if the offsetting scheme is in place at the time of commissioning, then a financial contribution to the scheme would be made. If the offsetting scheme is not available at the time of commissioning, then the Applicant committed to a range of strategic measures. Through Commitment C-260 of the Commitments Register [REP6-227], for instance, the Applicant commits to strategies to minimise water use, such as water harvesting and recycling, to be employed at the onshore substation, as part of a multitiered approach to achieve water neutrality.

The SoCG [REP6-266] between the Applicant and NE shows the status of this matter as agreed. NE confirmed that it considered an AEoI on the Arun Valley protected sites could be ruled out for the construction phase. NE also noted that the mitigation via SNOWS is an appropriate means of achieving water neutrality during the operational phase and as such confirms an AEoI could be ruled out for the operational phase. The Principle Areas of Disagreement Statement ("PADS") from NE [REP6-295] also confirmed that this issue is now resolved.

The ExA noted that NE considers this matter to be resolved and agrees that an AEoI relating to water neutrality can be ruled out for the Arun Valley SAC, SPA, and Ramsar site, both alone and in-combination [ER 4.4.23].

Based on the information before him, and subject to the mitigation measures as secured in the final Order, the Secretary of State is satisfied that the Project, either alone or in-combination with other plans or projects, will not adversely affect the integrity of the Arun Valley SAC, SPA, or Ramsar site.

5.3 Arun Valley Ramsar site – Northern pintail

In Section 7.2 of the RIAA [REP6-115], the Applicant assessed the potential for an AEoI of the Arun Valley Ramsar site from the Project alone and in-combination with other plans and projects as a result of land take / land cover change and fragmentation of functionally linked land ("FLL"). The RIAA concluded that there would be no AEoI from the Project alone and in-combination due to the restricted spatial and temporal extent of the construction works, and due to the limited distribution and sporadic occurrence of Northern pintail within the vicinity of the Project.

In its RR [RR-265] however, NE requested further clarity on how the impacts on FLL had been assessed as it was not clear if the Applicant had underestimated the length of time that it would take to reinstate the FLL back to its previous condition and agricultural use. NE also requested further clarity on how the foraging range of Northern pintails had been estimated.

At Issue Specific Hearing 2 [EV5-005], the Applicant confirmed the location of potential FLL and explained that it did not consider the area to be used by Northern pintail as it did not consider it consisted of suitable habitat.

In the RIES [PD-014], the ExA requested NE clarify the status of Northern pintail in the Ramsar site as it was noted that it is listed as a feature for possible future inclusion rather than being a confirmed feature. NE were also requested to confirm if Northern pintail is part of the waterbird assemblage that is one of the features of the Arun Valley SPA. NE responded [AS-022] confirming that Northern pintail is not a feature of the Arun Valley SPA and Ramsar site but considered one of the main components of the waterbird assemblage.

In response to the RIES, the Applicant [REP5-120] also provided mapping showing the FLL of the Arun Valley Ramsar site in Appendix A. The Applicant explained that following a meeting between the Applicant and NE on 27 June 2024, there were no outstanding concerns regarding FLL for Northern pintail, and that the land in question did not appear to be FLL. NE [REP5-122] agreed that with the further information provided by the Applicant, the land in question is not used by pintail at a level where changes would alter the fitness of the local population.

The PADS [REP6-295] and Risk and Issues Log [REP6-296] from NE shows the status of this matter as resolved and agreed.

The ExA noted that NE considers this matter to be resolved and agrees that an AEoI relating to the Northern pintail qualifying feature can be ruled out for the Arun Valley Ramsar site, both alone and in-combination [ER 4.4.23].

Based on the information before him, the Secretary of State is satisfied that the Project, either alone or in-combination with other plans or projects, will not adversely affect the integrity of the Arun Valley Ramsar site.

5.4 Flamborough and Filey Coast SPA – Kittiwake

In Section 7.5 and 8.5 of the RIAA [REP6-115], the Applicant assessed the potential for an AEoI of the kittiwake qualifying feature of the FFC SPA from the Project alone and in-combination with

other plans and projects as a result of collision risk from the operation and maintenance of the Project.

The RIAA concluded that there would be no AEoI on the kittiwake qualifying feature of the FFC SPA from the Project alone and in-combination with other plans and projects in relation to collision risk.

In the RIAA, the Applicant considered that the contribution from the Project to collision mortality of kittiwakes associated with the FFC SPA was 0.56 birds in the return migration bio-season and 0.16 birds in the post-breeding bio-season, giving an annual total of 0.72 birds.

The Applicant noted that the latest in-combination totals for kittiwake collision mortality apportioned to the FFC SPA were those submitted at Deadline 2 of the examination for the Sheringham and Dudgeon Extension Project, as advised by NE. The Applicant further explained that the values presented for the Sheringham and Dudgeon Extension were updated for the Project and included additional values from the Green Volt floating offshore windfarm.

The Applicant concluded that the total collision risk from projects in-combination for kittiwake apportioned to the FFC SPA was 174.5 birds in the breeding season, 58 birds in the post-breeding migration bio-season, and 61 birds in the return migration bio-season. This gave an annual total of 293.5 birds.

The Applicant considered that the contribution from the Project of 0.72 birds per annum represents a small contribution to the 293.5 in-combination total of 0.25%. The Applicant considered that this was so small that the collision risk from the Project to the overall in-combination total is of no material contribution.

In its RR [RR-265] however, NE disagreed with the Applicant's conclusion. NE stated that even prior to the Secretary of State's decision on the Hornsea 3 offshore windfarm, in-combination impacts had already reached a level where an AEoI could not be ruled out. NE considered that, in-combination with other projects, the contribution from the Project furthers the already present adverse effect. NE therefore maintained that an in-combination AEoI could not be excluded for the FFC SPA in relation to the kittiwake feature.

The SoCG [REP6-266] between the Applicant and NE and the PADS [REP6-295] from NE shows the status of this matter as unresolved and that NE maintains its position that an AEoI cannot be ruled out for the Project in-combination with other projects.

The ExA agreed with NE that it is not possible to exclude an AEoI from the in-combination collision risk for kittiwake as it did not see sufficient robust evidence that would bring into doubt the conclusion of NE [ER 4.4.40].

Based on the information before him, the Secretary of State agrees that an AEoI on the kittiwake feature of the FFC SPA from collision risk can be excluded from the Project alone. However, the Secretary of State agrees with NE and the ExA that an AEoI on the kittiwake feature of the FFC SPA from the Project, in-combination with other plans or projects, cannot be ruled out beyond reasonable scientific doubt. Whilst the Secretary of State recognises the individual contribution of the Project to the overall in-combination is modest, the current overall in-combination impact from the Project with other plans and projects is already over the threshold considered to be an AEoI on the kittiwake feature of the FFC SPA, which the effects from the Project will contribute to.

5.5 Flamborough and Filey Coast SPA – Guillemot

In Section 8.5 of the RIAA [REP6-115], the Applicant assessed the potential for an AEoI of the guillemot qualifying feature of the FFC SPA from the Project alone and in-combination with other plans and projects as a result of disturbance/displacement during the non-breeding season from the operation and maintenance of the Project.

The RIAA concluded that there would be no AEoI on the guillemot qualifying feature of the FFC SPA from the Project alone and in-combination with other plans and projects in relation to disturbance/displacement.

The Project is situated 378.4km from the FFC SPA boundary. This is beyond the mean maximum foraging range of guillemot during the breeding period, and there is therefore no connectivity between the breeding population and the Project during the breeding season.

Under the Applicant's preferred approach of a 50% displacement rate, and 1% mortality rate, the Applicant considered that the disturbance/displacement mortality from the Project of guillemot associated with the FFC SPA was 1.26 birds per annum in the non-breeding bio-season. The Applicant considered that this would increase the baseline mortality by 0.03%. The Applicant concluded that this level of effect would not be considered to be significant and deemed the level of change as one that would not be detectable to the overall annual baseline natural mortality rate for the species, and therefore an AEoI from the Project alone can be excluded.

The SoCG [REP6-266] between the Applicant and NE shows the conclusion of no AEoI from the Project alone as agreed.

The ExA was also satisfied that an AEoI from disturbance/displacement mortality from the Project alone to the guillemot feature of the FFC SPA could be excluded [ER 4.4.51].

Based on the information before him, and the views of NE and the ExA, the Secretary of State agrees that an AEoI on the guillemot feature of the FFC SPA from disturbance/displacement mortality can be excluded from the Project alone.

For the assessment of AEoI in-combination with other plans and projects, the Applicant considered two mean max plus one standard deviation ("Mean Max +1SD") foraging ranges for guillemot. The first inclusive of data from the Fair Isle colony and the second excludes this data, resulting in a shorter foraging range. The Applicant considered the Mean Max +1SD foraging range value of 95.2km that excludes the Fair Isle data to be most appropriate for the Project in relation to the FFC SPA. However, the Applicant presented calculations using both foraging range values.

NE [REP3-080] disagreed with the Applicant's approach and did not consider the Applicant's preferred approach of using a shorter foraging range appropriate. NE considered that the effect of using the shorter foraging range value of 95.2km, rather than the standard 153.7km foraging range, was to eliminate the connectivity in the breeding season between the FFC SPA and consented projects with a relatively high disturbance/displacement mortality impact, such as Dogger Bank and Hornsea One and Hornsea Two offshore wind farms. NE considered that the standard 153.7km foraging range should be used for the in-combination assessment.

Whilst the Secretary of State notes the approach taken by the Applicant, he considers that the standard foraging range value to be appropriate, as advised by NE, and considers the in-combination assessment in this HRA using the 153.7km foraging range value for guillemot.

Under the Applicant's preferred approach of a shorter foraging range of 95.2km, 50% displacement rate, and 1% mortality rate, the Applicant considered that the total disturbance/displacement mortality from all projects in-combination for guillemot apportioned to the FFC SPA was 292.2 birds. The Population Viability Analysis ("PVA") predicts that this would result in a reduction in population growth rate of 0.20% and a reduction in final population size of 7%.

The Applicant concluded that due to the favourable condition of the colony, as demonstrated by the increasing growth rate from both historic and recent colony counts, there is a strong resilience to any potential displacement effect and that the modelled PVA outputs fall within the natural variation of population growth, and therefore an AEoI from the Project in-combination can be excluded.

NE [REP3-080] disagreed with the Applicant's conclusion. NE stated that even prior to the Secretary of State's decision on the Hornsea 4 offshore windfarm, impacts had already reached a level where an AEoI could not be ruled out. NE considered that, in-combination with other projects, the contribution from the Project furthers the already present adverse effect.

NE also did not consider the Applicant's preferred approach of using a shorter foraging range, as well as lower displacement and mortality rates as appropriate, but noted that the Applicant had presented a range of figures, some of which were considered appropriate by NE.

The Applicant presented NE's preferred approach which concluded that based upon a 30-70% displacement rate and 1-10% mortality rate, it is considered that the disturbance/displacement mortality from the Project of guillemot associated with the FFC SPA was between 0.8 – 17.7 birds per annum in the non-breeding bio-season.

Based upon a 153.7km foraging range, 30-70% displacement rate, and 1-10% mortality rate, it is also considered that the total mortality from disturbance/displacement from all projects in-combination for guillemot apportioned to the FFC SPA was between 215.4 – 5,025.1 birds. With a 70% displacement rate and 5% mortality rate giving a total in-combination mortality of 2,513, the PVA predicts that this would result in a reduction in population growth rate of 2% and a reduction in final population size of 46.2%.

NE [REP3-080] noted that although the guillemot population at the FFC SPA has grown in recent years, the sustainability of this growth rate is highly uncertain in the context of climate change, Highly Pathogenic Avian Influenza, and other pressures. NE also noted that the productivity rates of the guillemot population at the FFC SPA has been in decline. NE therefore considered that the future population growth rates at the FFC SPA could not sustain the predicted level of mortality and consequently concluded that it is not possible to rule out an AEoI from disturbance/displacement mortality from the Project, in-combination with other plans and projects, of the guillemot feature of the FFC SPA.

The SoCG [REP6-266] between the Applicant and NE and the PADS [REP6-295] from NE shows the status of this matter as unresolved and that NE maintains its position that an AEoI cannot be ruled out for the Project in-combination with other projects.

The ExA agreed with NE that it is not possible to exclude an AEoI from disturbance/displacement mortality, in-combination with other plans and projects, to the guillemot feature of the FFC SPA, as it did not see sufficient robust evidence that would bring into doubt the conclusion of NE [ER 4.4.52].

As adopted in decisions on previous offshore wind farms, the Secretary of State considers that values of displacement and mortality for the assessment of displacement impacts on guillemot of 70% and 2% are, at the current time and based on current evidence, suitably precautionary for an assessment to be made. The Secretary of State, however, notes that this does not preclude him from accepting alternative parameters in future decisions.

Based upon a 70% displacement rate, and 2% mortality rate, it is considered that the disturbance/displacement mortality from the Project of guillemot associated with the FFC SPA is 3.53 birds per annum in the non-breeding bio-season.

Based upon a 153.7km foraging range, 70% displacement rate, and 2% mortality rate, as adopted by the Secretary of State in decisions on previous offshore wind farms, the total mortality from disturbance/displacement from all projects (excluding Hornsea Four) in-combination for guillemot apportioned to the FFC SPA was 553 birds. The PVA predicts that this would result in a reduction in population growth rate of 0.40% and a reduction in final population size of 12.70%.

The Secretary of State notes the advice from NE that there is a high degree of uncertainty over whether the guillemot compensation from Hornsea Four will be adequately achieved, and thus their concern relating to the exclusion of Hornsea Four values from the in-combination assessment. The Secretary of State, however, is content that the guillemot compensation from Hornsea Four will be achieved and is, therefore, satisfied with adopting values that exclude Hornsea Four. The Secretary of State also notes the advice of NE that, regardless of whether Hornsea Four is included or excluded, they cannot rule out an AEoI from the Project in-combination with all other projects.

Based on the information before him, Secretary of State agrees with NE and the ExA that an AEoI on the guillemot feature of the FFC SPA from the Project, in-combination with other plans or projects, cannot be ruled out beyond reasonable scientific doubt.

Whilst the Secretary of State recognises the individual contribution of the Project to the overall in-combination is modest, the current overall in-combination impact from the Project with other plans and projects is already over the threshold considered to be an AEoI on the guillemot feature of the FFC SPA, which the effects from the Project will contribute to.

5.6 Flamborough and Filey Coast SPA – Razorbill

In Section 8.5 of the RIAA [REP6-115], the Applicant assessed the potential for an AEoI of the razorbill qualifying feature of the FFC SPA from the Project alone and in-combination with other plans and projects as a result of disturbance/displacement during all non-breeding bio-seasons from the operation and maintenance of the Project.

The RIAA concluded that there would be no AEoI on the razorbill qualifying feature of the FFC SPA from the Project alone and in-combination with other plans and projects in relation to disturbance/displacement.

The Project is situated 378.4km from the FFC SPA boundary. This is beyond the mean maximum foraging range of razorbill during the breeding period, and there is therefore no connectivity between the breeding population and the Project during the breeding season.

Under the Applicant's preferred approach of a 50% displacement rate, and 1% mortality rate, the Applicant considered that the disturbance/displacement mortality from the Project of razorbill associated with the FFC SPA was 1.23 birds per annum in all non-breeding bio-seasons. The Applicant considered that this would increase the baseline mortality by 0.06%. The Applicant concluded that this level of effect would not be considered to be significant and deemed the level of change as one that would not be detectable to the overall annual baseline natural mortality rate for the species, and therefore no AEoI from the Project alone.

The SoCG [REP6-266] between the Applicant and NE shows the conclusion of no AEoI from the Project alone as agreed.

The ExA was satisfied that an AEoI from disturbance/displacement mortality from the Project alone to the razorbill features of the FFC SPA could be excluded [ER 4.4.51].

Based on the information before him, and the views of NE and the ExA, the Secretary of State agrees that an AEoI on the razorbill feature of the FFC SPA from disturbance/displacement mortality can be excluded from the Project alone.

For the assessment of AEoI in-combination with other plans and projects, the Applicant considered two Mean Max +1SD foraging ranges for razorbill. The first inclusive of data from the Fair Isle colony and the second excludes this data, resulting in a shorter foraging range. The Applicant considered the Mean Max +1SD foraging range value of 122.2km that excludes the Fair Isle data to be most appropriate for the Project in relation to the FFC SPA. However, the Applicant presented calculations using both foraging range values.

NE [REP3-080] disagreed with the Applicant's approach and did not consider the Applicant's preferred approach of using a shorter foraging range appropriate. NE considered that the effect of using the shorter foraging range value of 122.2km, rather than the standard 164.6km foraging range, was to eliminate the connectivity in the breeding season between the FFC SPA and consented projects with a relatively high disturbance/displacement mortality impact, such as Dogger Bank and Hornsea One and Hornsea Two offshore wind farms. NE considered that the standard 164.6km foraging range should be used for the in-combination assessment.

Whilst the Secretary of State notes the approach taken by the Applicant, he considers that the standard foraging range value to be appropriate, as advised by NE, and considers the in-combination assessment in this HRA using the 164.6km foraging range value for razorbill

Under the Applicant's preferred approach of a shorter foraging range of 122.2km, 50% displacement rate, and 1% mortality rate, the Applicant considered that the total disturbance/displacement mortality from all projects in-combination for guillemot apportioned to the FFC SPA was 70.5 birds. The PVA predicts that this would result in a reduction in population growth rate of 0.1% and a reduction in final population size of 4.3%.

The Applicant concluded that due to the favourable condition of the colony, as demonstrated by the increasing growth rate from both historic and recent colony counts, there is a strong resilience to any potential displacement effect and that the modelled PVA outputs fall within the natural variation of population growth, and therefore an AEoI from the Project in-combination can be excluded.

NE [REP3-080] disagreed with the Applicant's conclusion. NE stated that even prior to the Secretary of State's decision on the Hornsea 4 offshore windfarm, impacts had already reached a level where an AEoI could not be ruled out. NE considered that, in-combination with other projects, the contribution from the Project furthers the already present adverse effect.

NE also did not consider the Applicant's preferred approach of using a shorter foraging range, as well as lower displacement and mortality rates as appropriate, but noted that the Applicant had presented a range of figures, some of which were considered appropriate by NE.

The Applicant presented NE's preferred approach which concluded that based upon a 30-70% displacement rate and 1-10% mortality rate, it is considered that the disturbance/displacement mortality from the Project of razorbill associated with the FFC SPA was between 0.7 – 17.3 birds per annum in all non-breeding bio-seasons.

Based upon a 164.6km foraging range, 30-70% displacement rate, and 1-10% mortality rate, it is also considered that the total mortality from disturbance/displacement from all projects in-combination for guillemot apportioned to the FFC SPA was between 46.6 – 1,087.6 birds. With a 70% displacement rate and 5% mortality rate giving a total in-combination mortality of 544, the PVA predicts that this would result in a reduction in population growth rate of 1.1% and a reduction in final population size of 28.7%.

NE [REP3-080] noted that although the razorbill population at the FFC SPA has grown in recent years, the sustainability of this growth rate is highly uncertain in the context of climate change, Highly Pathogenic Avian Influenza, and other pressures. NE therefore considered that the future population growth rates at the FFC SPA could not sustain the predicted level of mortality and consequently concluded that it is not possible to rule out an AEoI from disturbance/displacement mortality from the Project, in-combination with other plans and projects, of the razorbill feature of the FFC SPA.

The SoCG [REP6-266] between the Applicant and NE and the PADS [REP6-295] from NE shows the status of this matter as unresolved and that NE maintains its position that an AEoI cannot be ruled out for the Project in-combination with other projects.

The ExA agreed with NE that it is not possible to exclude an AEoI from disturbance/displacement mortality, in-combination with other plans and projects, to the razorbill feature of the FFC SPA, as it did not see sufficient robust evidence that would bring into doubt the conclusion of NE [ER 4.4.52].

As adopted in decisions on previous offshore wind farms, the Secretary of State considers that values of displacement and mortality for the assessment of displacement impacts on razorbill of 70% and 2% are, at the current time and based on current evidence, suitably precautionary for an assessment to be made. The Secretary of State, however, notes that this does not preclude him from accepting alternative parameters in future decisions.

Based upon a 70% displacement rate, and 2% mortality rate, it is considered that the disturbance/displacement mortality from the Project of razorbill associated with the FFC SPA is 3.45 birds per annum in all non-breeding bio-seasons.

Based upon a 164.6km foraging range, 70% displacement rate, and 2% mortality rate, as adopted by the Secretary of State in decisions on previous offshore wind farms, the total mortality from disturbance/displacement from all projects in-combination for razorbill apportioned to the FFC SPA is 217.5 birds. The PVA predicts that this would result in a reduction in population growth rate of 0.40% and a reduction in final population size of 12.7%.

Based on the information before him, Secretary of State disagrees with NE and the ExA, and concludes that an AEoI on the razorbill feature of the FFC SPA from the Project, in-combination with other plans or projects, can be ruled out.

Noting the consistent increasing growth rate from both historic and recent colony counts, and the favourable condition of the colony, the Secretary of State does not consider that the level of disturbance/displacement mortality, as currently predicted, would undermine the conservation objectives and SACOs for the razorbill feature of the FFC SPA.

5.7 Farne Islands SPA - Guillemot

In Section 8.5 of the RIAA [REP6-115], the Applicant assessed the potential for an AEoI of the guillemot qualifying feature of the Farne Islands SPA from the Project alone and in-combination with other plans and projects as a result of disturbance/displacement during the non-breeding season from the operation and maintenance of the Project.

The RIAA concluded that there would be no AEoI on the guillemot qualifying feature of the Farne Islands SPA from the Project alone and in-combination with other plans and projects in relation to disturbance/displacement.

The Project is situated 555km from the Farne Island SPA boundary. This is beyond the mean maximum foraging range of guillemot during the breeding period, and there is therefore no connectivity between the breeding population and the Project during the breeding season.

Under the Applicant's preferred approach of a 50% displacement rate, and 1% mortality rate, the Applicant considered that the disturbance/displacement mortality from the Project of guillemot associated with the Farne Island SPA was 1.07 birds per annum in the non-breeding bio-season. The Applicant considered that this would increase the baseline mortality by 0.03%. The Applicant concluded that this level of effect would not be considered to be significant and deemed the level of change as one that would not be detectable to the overall annual baseline natural mortality rate for the species, and therefore no AEoI from the Project alone.

The SoCG [REP6-266] between the Applicant and NE shows the conclusion of no AEoI from the Project alone as agreed.

The ExA was satisfied that an AEoI from disturbance/displacement mortality from the Project alone to the guillemot feature of the Farne Island SPA could be excluded [ER 4.4.58].

Based on the information before him, and the views of NE and the ExA, the Secretary of State agrees that an AEoI on the guillemot feature of the Farne Island SPA from disturbance/displacement mortality can be excluded from the Project alone.

For the assessment of AEoI in-combination with other plans and projects, under the Applicant's preferred approach of a foraging range of 153.7km, 50% displacement rate, and 1% mortality rate, the Applicant considered that the total disturbance/displacement mortality from all projects in-combination for guillemot apportioned to the Farne Island SPA was 75.5 birds. The PVA predicts that this would result in a reduction in population growth rate of 0.1% and a reduction in final population size of 4.1%.

The Applicant concluded that the contribution from the Project of 1.07 birds per annum to the in-combination total of 75.5 from all projects was so small, and that the reduction in growth rate of 0.1% per annum would be indistinguishable from natural fluctuations in the population, that the disturbance/displacement mortality from the Project to the overall in-combination total is of no material contribution, and therefore an AEoI from the Project in-combination can be excluded.

NE [REP3-080] disagreed with the Applicant's conclusion. NE stated that they have advised Marine Scotland in relation to the Berwick Bank offshore wind farm that adverse effects could not be ruled out due to the disturbance/displacement mortality impacts on guillemot from that project alone. NE considered that, in-combination with other projects, the contribution from the Project furthers the already present adverse effect.

NE also did not consider the Applicant's preferred approach of using lower displacement and mortality rates as appropriate, but noted that the Applicant had presented a range of figures, some of which were considered appropriate by NE.

The Applicant presented NE's preferred approach which concluded that based upon a 30-70% displacement rate and 1-10% mortality rate, it is considered that the disturbance/displacement mortality from the Project of guillemot associated with the FFC SPA was between 0.6 – 15 birds per annum in the non-breeding bio-season.

Based upon a 153.7km foraging range, 30-70% displacement rate, and 1-10% mortality rate, it is also considered that the total mortality from disturbance/displacement from all projects in-combination for guillemot apportioned to the FFC SPA was between 43.3 – 1,056.6 birds. With a 70% displacement rate and 5% mortality rate giving a total in-combination mortality of 528, the PVA predicts that this would result in a reduction in population growth rate of 1.0% and a reduction in final population size of 25.7%.

NE [REP3-080] considered that the future population growth rates at the Farne Islands SPA could not sustain the predicted level of mortality and consequently concluded that it is not possible to rule out an AEoI from disturbance/displacement mortality from the Project, in-combination with other plans and projects, of the guillemot feature of the Farne Islands SPA.

The SoCG [REP6-266] between the Applicant and NE and the PADS [REP6-295] from NE shows the status of this matter as unresolved and that NE maintains its position that an AEoI cannot be ruled out for the Project in-combination with other projects.

The ExA agreed with NE that it is not possible to exclude an AEoI from disturbance/displacement mortality, in-combination with other plans and projects, to the guillemot feature of the Farne

Islands SPA, as it did not see sufficient robust evidence that would bring into doubt the conclusion of NE [ER 4.4.59].

As adopted in decisions on previous offshore wind farms, the Secretary of State considers that values of displacement and mortality for the assessment of displacement impacts on guillemot of 70% and 2% are, at the current time and based on current evidence, suitably precautionary for an assessment to be made. The Secretary of State, however, notes that this does not preclude him from accepting alternative parameters in future decisions.

Based upon a 70% displacement rate, and 2% mortality rate, it is considered that the disturbance/displacement mortality from the Project of guillemot associated with the FFC SPA is 2.99 birds per annum in the non-breeding bio-season.

Based upon a 153.7km foraging range, 70% displacement rate, and 2% mortality rate, as adopted by the Secretary of State in decisions on previous offshore wind farms, the total mortality from disturbance/displacement from all projects in-combination for guillemot apportioned to the FFC SPA was 211.3 birds. The PVA predicts that this would result in a reduction in population growth rate of 0.40% and a reduction in final population size of 11.2%.

The Secretary of State notes the latest 2018-2023 average annual colony growth rate for guillemot at the Farne Islands SPA of -1.50%.

Based on the information before him, Secretary of State agrees with NE and the ExA that an AEoI on the guillemot feature of the Farne Islands SPA from the Project, in-combination with other plans or projects, cannot be ruled out beyond reasonable scientific doubt.

Whilst the Secretary of State recognises the individual contribution of the Project to the overall in-combination is modest, the current overall in-combination impact from the Project with other plans and projects is already over the threshold considered to be an AEoI on the guillemot feature of the Farne Islands SPA, which the effects from the Project will contribute to.

5.8 Appropriate Assessment conclusion

As the competent authority under the Habitats Regulations for this Application under the Planning Act 2008, the Secretary of State has undertaken an AA in respect of the conservation objectives of two protected sites to determine whether the Project, either alone or in-combination with other plans or projects, will result in an AEoI.

The Secretary of State has carefully considered all the information available to him, including the recommendations of the ExA, the advice of NE as the SNCB, the views of all other IPs, and the Applicant's case.

The Secretary of State is satisfied that, given the relative scale and magnitude of the identified effects on the qualifying features of the protected sites and where relevant, the measures secured in the DCO and DML to avoid or reduce potential adverse effects, there would not be any implications for the achievement of site conservation objectives and therefore adverse effects on the integrity of the following protected sites can be excluded:

- The Mens SAC

- Pagham Harbour Ramsar site
- Pagham Harbour SPA
- Portsmouth Harbour SPA
- Portsmouth Harbour Ramsar site
- South Wight Maritime SAC
- Solent Maritime SAC
- Solent and Isle of Wight Lagoons SAC
- Dungeness, Romney Marsh and Rye Bay SPA
- Chichester and Langstone Harbours SPA
- Chichester and Langstone Harbours Ramsar site
- Solent and Southampton Water SPA
- Solent and Southampton Water Ramsar site
- Medway Estuary and Marshes SPA
- Foulness (Mid Essex Coast) Phase 5 SPA
- Alde-Ore Estuary SPA
- Alde-Ore Estuary Ramsar site
- The Wash SPA
- Breydon Water SPA
- Greater Wash SPA
- North Norfolk Coast SPA
- North Norfolk Coast Ramsar site
- Alderney West Coast and Burhou Islands Ramsar site
- Grassholm SPA
- Northumbria Coast SPA
- Northumbria Coast Ramsar site
- Solent and Dorset Coast SPA
- Coquet Island SPA
- Cote de Granit Rose Sept Iles SPA
- Falaise du Bessin Occidental SPA
- Littoral seino-marin SPA
- River Itchen SAC
- Arun Valley SPA
- Arun Valley SAC
- Arun Valley Ramsar site

For the reasons given above, the Secretary of State disagrees with NE and the ExA and concludes that an AEoI can be ruled out in relation to displacement and disturbance of razorbill of the Flamborough and Filey Coast SPA, in-combination with other plans or projects.

However, the Secretary of State agrees with the ExA, in accordance with the advice of NE, that an AEoI cannot be ruled out beyond reasonable scientific doubt in relation to:

- Collision mortality of kittiwake of the Flamborough and Filey Coast SPA, in-combination with other plans or projects;
- Displacement and disturbance of guillemot of the Flamborough and Filey Coast SPA, in-combination with other plans or projects;
- Displacement and disturbance of guillemot of the Farne Islands SPA, in-combination with other plans and projects.

The Secretary of State has not identified any further mitigation measures that could reasonably be imposed which would avoid or mitigate the potential AEoI identified and has therefore proceeded to consider the derogation provisions of the Habitats Regulations, as presented in Sections 6 to 9 below.

6 Consideration of case for derogation

Based on the AA, the Secretary of State cannot conclude, beyond all reasonable scientific doubt, the absence of an adverse effect from the Project in-combination with other plans or projects on the integrity of the Flamborough and Filey Coast SPA and the Farne Islands SPA. The Secretary of State concludes that the Project does not meet the integrity test. The Secretary of State has therefore decided to review the Project in the context of Regulations 64 and 68 of the Habitats Regulations and Regulations 29 and 36 of the Offshore Habitats Regulations to determine whether the Project can be consented.

Regulation 64 allows for the consenting of a project that is required for imperative reasons of overriding public interest (IROPI), even though it would cause a negative AEoI of a protected site. Consent may only be given where no alternative solutions to the project are available which are less damaging to the affected protected site and where Regulation 68 is satisfied. Regulation 68 requires the appropriate authority to secure any necessary compensatory measures to ensure that the overall coherence of the UK NSN is protected. The Secretary of State's consideration of information provided to inform these further tests are presented in subsequent sections of this HRA alongside his conclusions.

This part of the HRA has followed a sequential process whereby:

- alternative solutions to the Project have been considered;
- consideration has been given to whether there are IROPI for the Project to proceed; and
- compensation measures proposed by the Applicant for ensuring that the overall coherence of the UK NSN is protected have been assessed.

7 Consideration of alternatives

The Applicant [REP6-109] identified the following six objectives as relevant to the Project, as an offshore wind farm and extension project:

- To generate low carbon electricity from an OWF in support of the decarbonisation of the UK electricity supply;
- To export electricity to the UK National Grid to support UK commitments for offshore wind generation and security of supply;
- To optimise generation and export capacity within the constraints of available (UK) sites and onshore transmission infrastructure;
- To deliver a significant volume of (UK) offshore wind in the 2020s;
- To maximise renewable energy generation at optimal UK seabed locations; and
- To maximise the use of existing infrastructure

The Secretary of State has identified the objectives of the Project and has considered whether these objectives could be met by any feasible alternative solutions with a lesser impact on protected sites.

The Applicant also identified that the case for the need of the Project is based primarily on three strands:

- **Decarbonisation**: The Applicant considered that the Project, as a major renewable energy infrastructure project with an anticipated capacity of up to 1,200MW of low-carbon energy, would make a significant contribution towards the decarbonisation of the Great Britain electricity sector, as part of a wider global effort to address climate change. The Applicant also referenced the ability of the Project to address the UK Committee on Climate Change's identification of the need for urgent action to increase the pace of decarbonisation in order to keep decarbonisation on track and meet the UK's legal obligations under the Paris Agreement (2015), Climate Change Act 2008 (as amended), and the Glasgow Climate Pact (2021) to reach 'Net Zero' by 2050 in the UK.
- **Wind Generated Electricity**: The Applicant also considered the Project, as a major offshore wind generation project, as an essential element of the UK's response to climate change, and to provide an important contribution to a future generation portfolio capable of supporting a massive increase in low-carbon electricity demand. The Applicant highlights the urgency for increased offshore wind generation emphasised in the then draft NPS EN-1 which establishes the need for substantially more installed offshore wind capacity to achieve Net Zero by 2050. The Applicant also references the support for offshore wind in the UK Net Zero Strategy (2021) and the target to generate 50GW from offshore wind by 2030 under the British Energy Security Strategy (BESS) (2022).
- **Resilience of Electricity System**: The Applicant also considered that the Project would make an important contribution, as part of a diverse generation mix, to improve the stability of capacity utilisations among renewable generators and play an important role in the resilience of the Great Britain electricity system.

The Applicant also noted the potential for the UK to benefit from further cost reductions as a result of further investment in the renewables sector, and cited considerable reductions in the cost of offshore wind already achieved in the Contracts for Difference process.

The Applicant provided an assessment of any feasible alternative solutions to the Project [REP6-109, Section 4]. It is stated to have been prepared in accordance with a range of guidance published by DEFRA and the European Commission [REP6-109, Paragraph 4.1.5].

The Secretary of State has considered alternative forms of energy generation in the context of the alternative solutions test and is satisfied that, in line with the 2021 joint guidance, alternative forms of electricity generation would not meet the objectives of the Project. Furthermore, other OWF proposals do not present an alternative solution as all available OWF projects are required in order to meet UK targets for renewable energy.

In his consideration of alternatives, the Secretary of State has not constrained himself solely to those alternatives that could be delivered by the Applicant. Nevertheless, the Secretary of State acknowledges that any alternative must be economically feasible for the developer and allow the developer to fulfil the terms of its lease with The Crown Estate.

Alternatives to the Project considered by the Secretary of State are consequently limited either to 'do nothing' or to alternative offshore wind farm projects.

Alternative types of offshore wind farm projects considered are:

- Offshore wind farms not in the UK Exclusive Economic Zone (EEZ);
- Offshore wind farms within the UK EEZ; and
- Feasible alternative design parameters of the Project.

7.1 'Do Nothing'

The 'do nothing' option is dismissed by the Applicant on the basis that this approach would not deliver any of the objectives of the Project or meet any of the identified needs. The Applicant notes that the 50GW target would require the majority of offshore wind farms in the process of seeking consent to go ahead. In terms of offshore wind generating capacity, the Applicant has identified 13.7GW from built and operational wind farms, with approximately 14.9GW from wind farms consented and under development. A further 8.3GW would be delivered by projects currently seeking consent. Another 37.1GW of generating capacity is proposed through recent lease awards by The Crown Estate's Round 4 and by ScotWind. However, the Applicant notes that only a few of these have the potential to be advanced through the planning and construction process to be operational by 2030, and the Applicant considered that current offshore wind applications are unlikely to meet the UK target for 50GW by 2030.

The Secretary of State agrees that a compelling need in the public interest for the Project is clearly established and the 'do nothing' option is not a feasible alternative solution as it would fail to meet any of the aims and objectives of the Project in meeting such compelling need.

7.2 Offshore wind farms not in UK EEZ

The Secretary of State considers that offshore wind farm projects which are located outside of UK territorial waters are not an alternative to the Project as this would not meet the objective to support decarbonisation and security of the UK's energy supply.

Although the UK is party to international treaties and conventions in relation to climate change and renewable energy, according to the principle of subsidiarity and its legally binding commitments under those treaties and conventions, the UK has its own specific legal obligations and targets in relation to carbon emission reductions and renewable energy generation. International and EU countries similarly have their own (different) binding targets and sites outside of the UK EEZ are therefore required for other countries to achieve their own respective targets in respect of climate change and renewable energy.

7.3 Offshore wind farms within the UK

Within the UK, all offshore wind farms are required to secure an Agreement for Lease from the Crown Estate or Crown Estate Scotland. The Crown Estate / Crown Estate Scotland identify suitable locations for offshore wind through leasing rounds informed by HRA and Strategic Environmental Assessment. The Applicant considers that this precludes the use of sites which have not been identified through the leasing rounds.

The Applicant considers that reliance on other alternative offshore wind farms already identified within the various leasing rounds would not deliver the objectives of the Project. This is on the grounds that there is a significant time lag between the identification of suitable locations in the leasing rounds and offshore wind farms becoming operational. Despite the 36.9GW (excluding Rampion 2) currently identified across UK waters therefore, delivering 50GW by 2030 remains challenging. There is also a risk that other projects may be refused consent, or developers may not proceed, as has already occurred with some existing projects.

The Applicant notes the potential for the repowering of existing offshore wind farms but concludes that most would not be close to the end of their normal lifespan. The Applicant considered therefore that the timeframes involved for the decisions on repowering would not be made in the foreseeable future and cannot meet the objective of delivering a significant volume of offshore wind capacity by 2030.

The Applicant also noted the potential alternative area within Zone 6 of the English Channel, with the consent for Rampion 1 covering an area of 139km^2 within the total 271km^2 area of Zone 6. The Applicant considered that the Project makes best use of the less constrained residual area of Zone 6 and that the remainder of Zone 6 is suboptimal for the development of an offshore wind farm. The Applicant concluded that to use the suboptimal area of Zone 6 would not fulfil the objectives to optimise generation and export capacity or to maximise renewable energy generation at optimal UK seabed locations.

The Secretary of State agrees that a compelling need in the public interest for the Project is clearly established, and the use of alternative locations or the repowering of existing offshore wind farms would fail to meet the aims and objectives of the Project.

7.4 Alternative designs

Other potential alternative solutions reviewed by the Applicant relate to the design and operation of the Project. The Applicant considered the Project has adopted commitments (primary design principles, installation techniques and engineering designs/modifications) as part of the pre-application phase, to eliminate and/or reduce the LSE arising from any potential impacts as far as possible.

The Applicant also considered consultation under the Planning Act 2008 as a key part of consideration of potential options, selection, and subsequent refinement of project infrastructure, both formally through Evidence Plan meetings and through the feedback received from public consultations. Having regard to feedback received through consultation, the Applicant sought to avoid or mitigate potential effects on sensitive ecological receptors. Since the Preliminary Environmental Information Report (PEIR), the Applicant highlights that the proposed Order Limits of the Project have been reduced in size and the maximum number of turbines reduced. It is noted that the offshore array area was reduced from a 270km^2 'area of search' identified in the PEIR to the approximately 160km^2 area proposed, as well as the maximum number of WTGs being reduced from 116 identified in the PEIR to the 90 proposed.

The Applicant considered the final design and maximum area for development of the Project provides appropriate mitigation for potential effects on kittiwake and guillemot and considers that any further design refinement is likely to reduce the benefit without any material improvement, and therefore further design changes are not a feasible alternative solution for the Project.

The ExA considered that the final design for the Project had been reached following appropriate consultation and that the siting of the Project has been influenced by geological, shipping, and landscape and visual factors. The ExA was also content that the maximum development scenario has assessed adverse effects on sensitive ecological receptors and considers that design changes are not an alternative solution [ER 4.6.17]. The Secretary of State agrees that a compelling need in the public interest for the Project is clearly established, and that further design changes are not a feasible alternative solution for the Project.

7.5 Conclusion

The ExA concluded that no alternative design parameters are known to be implementable that would present a feasible alternative solution and that there are no alternative solutions that would deliver appreciable benefits in terms of reduced AEoI of the impacted protected sites [ER 4.6.18 – ER 4.6.19]. The ExA was satisfied that the Applicant has presented a compelling case that there are no alternative solutions to the delivery of the Project.

No comments were received from any IP during the Examination in respect of the consideration of alternatives specifically related to HRA matters [ER 4.6.14].

Following a review of the information submitted by the Applicant, the recommendation of the ExA, and having identified the objectives of the Project and considered all alternative solutions to fulfil these objectives, the Secretary of State is satisfied that no feasible alternative solutions are available that would meet the Project objectives with an appreciable reduction in predicted

impacts on protected sites. The Secretary of State notes that this conclusion does not preclude further design refinements being made following the completion of further site investigations in the post-decision stage.

8 Imperative Reasons of Overriding Public Interest

The HRA derogation provisions provide that a project having an AEoI on a protected site may proceed (subject to a positive conclusion on alternatives and the provision of any necessary compensation) if there are IROPI. This section of the HRA determines whether there are IROPI for the Project to proceed.

The parameters of IROPI are explored in relevant guidance, including the 2021 joint guidance and the European Commission guidance (2018), which identify the following principles:

- **Imperative** – urgency and important: There would usually be urgency to the objective(s), and it must be considered "indispensable" or "essential" (i.e. imperative). In practical items, this can be evidenced where the objective falls within a framework for one or more of the following;
    - (i) actions or policies aiming to protect fundamental values for citizens' life (health, safety, environment);
    - (ii) fundamental policies for the State and the Society; or
    - (iii) activities of an economic or social nature, fulfilling specific obligations of public service.
- **Public Interest**: The interest must be a public rather than a solely private interest (although a private interest can coincide with delivery of a public objective).
- **Long-Term**: The interest would generally be long-term; short-term interests are unlikely to be regarded as overriding because the conservation objectives of protected sites are long-term interests
- **Overriding**: The imperative need in the public interest of the development must outweigh the harm, or risk of harm, to the integrity of the protected site which is predicted by the AA.

The HRA derogations identify certain in-principle grounds of IROPI that may be advanced in favour of such a project. Where the site concerned hosts a priority natural habitat or a priority species, grounds for IROPI should include human health, public safety, or beneficial consequences of primary importance to the environment but otherwise may also be of a social or economic nature, in accordance with DEFRA's guidance. The Applicant's derogation case [REP6-109, Section 5.3] concluded that the identified affected features of the FFC SPA and Farne Islands SPA were not priority species and therefore the case presented for IROPI included consideration of social and economic benefits.

The Applicant's case for the imperative need for the Project as presented in [REP6-109, Section 5.3] is based on the following points (in summary):

- There is an urgent need to establish a secure, diverse, affordable and resilient energy supply and meet the UK's decarbonisation objectives. This provides a clear and urgent need for the Project to help meet the BESS (2022) target of 50GW of offshore wind installed capacity by 2030
- Urgent action is required to reduce rising global temperatures and to limit the effects of climate change on human health, social and economic interests, and the environment

- The Climate Change Act 2008 (2050 Target Amendment) Order 2019 sets a UK target for at least a 100% reduction of greenhouse gas emissions (compared to 1990 levels) by 2050. This ambitious 'net zero' target will only be met by the delivery of significant volumes of renewable energy from the offshore wind industry.
- NPS EN-1 and EN-3 2011 require the delivery of substantial amount of renewable energy, with offshore wind being one of the major components
- Substantial economic benefit to the UK and its regions through facilitating confidence in the UK and local supply chains, growing a skilled workforce, providing wider community benefits, and the Gross Value-Added output from the construction and operation of the Project

The Applicant [REP6-109] argues that the Project can be viewed as of overriding public interest compared with the extent of harm to the impacted qualifying features of the FFC SPA and Farne Islands SPA, because of the public interest from the benefits of the Project. The Applicant considers that the future protection of local communities and infrastructure arising from the Project, improving the reliable supply of low-carbon electricity for the UK in the long-term, and forming a fundamental component of the UK's need and obligations to address climate change, means that the harm caused by the Project is clearly outweighed by the substantial public interest.

8.1 The National Policy Statements (NPSs)

The Project is considered against the 2011 NPSs, as those were in force at the time of Examination and therefore subsequent references are to the 2011 NPSs. The Secretary of State notes that updated NPSs were designated in January 2024 and considers that these are important and relevant to his consideration of the Project. He has considered these and notes that the 2024 NPSs stress the urgent need for new electricity generating capacity and the importance of generation from renewable sources. He is satisfied that they do not materially alter his conclusions on IROPI for this Project.

The 2011 NPSs were established against obligations made as part of the Climate Change Act 2008. The overarching NPS for Energy (NPS EN-1) sets out national policy for energy infrastructure in Great Britain. It has effect, in-combination with the relevant technology-specific NPS, on recommendations made by PINS to the Secretary of State on applications for energy developments that fall within the scope of the NPSs. These provide the primary basis for decisions by the Secretary of State on National Energy Infrastructure.

The NPSs set out a case for the need and urgency for new energy infrastructure to be consented and built with the objective of supporting the Government's policies on sustainable development, in particular by:

- mitigating and adapting to climate change; and
- contributing to a secure, diverse, and affordable energy supply

The 2011 NPS for renewable energy infrastructure covers those technologies which, at the time of publication in 2011, were technically viable at generation capacities of over 50 MW onshore

and 100 MW offshore. This includes offshore wind and as such the need for this technology is fully covered by the NPSs.

The Energy White Paper, Powering Our Net Zero Future, was published on 14 December 2020. It announced a review of the suite of energy NPSs but confirmed that the current NPSs were not being suspended in the meantime. The NPS EN-1 published in 2024 confirmed that for any application accepted for examination before designation of the new NPSs, the 2011 suite of NPSs should continue to have effect. The 2011 energy NPSs therefore remain the basis of the Secretary of State's consideration of the Application.

The Secretary of State is of the view that the NPSs clearly set out the specific planning policies which the Government believes both respect the principles of sustainable development and can facilitate the consenting of energy infrastructure on the scale and of the kinds necessary to help us maintain, safe, secure, affordable, and low-carbon supplies of energy.

The 2011 NPSs set out the national case and establish the need for certain types of infrastructure, as well as identifying potential key issues that should be considered by the decision maker. Section 104 of the Planning Act (2008) makes clear that where an NPS exists relating to the development type applied for, the Secretary of State must have regard to it. The NPSs provide specific policy in relation to offshore wind development, and the policies set out in NPS EN-1, EN-3, and EN-5 therefore apply.

This national need relates both to the decarbonisation of the electricity supply within the required timeframe and to the risk the decarbonisation programme could pose to the security of electricity supply as more traditional generating stations are decommissioned. With regard to the latter, the Secretary of State notes the ruling in case C-411/17 by the European Court of Justice that the objective of ensuring the security of the electricity supply constitutes an IROPI.

At the time the NPSs were published, scientific opinion was that, to avoid the most dangerous impacts of climate change, the increase in average global temperatures must be kept to no more than 2 degrees Celsius. Global emissions must therefore start falling as a matter of urgency.

The energy NPSs were intended to speed up the transition to a low-carbon economy and help the UK to realise its climate change commitments sooner than would a continuation under the current planning system. They recognise that moving to a secure, low-carbon energy system to enable the UK to meet its legally binding target to cut greenhouse gas emissions by at least 80% by 2050, compared to 1990 levels, is challenging, but achievable. This would require major investment in new technologies to electrify heating, industry, transport, and cleaner power generation. Under some 2050 pathways, electricity generation would need to be virtually emission-free, as emissions from other sectors were expected to persist. Consequentially, the need for electrify large parts of the industrial, heating, and transportation sectors could double electricity demand by 2050.

The NPSs conclude that the UK needs sufficient electricity capacity from a diverse mix of technologies and fuels, and therefore the UK also needs all forms of energy infrastructure covered by the NPSs to achieve energy security at the same time as dramatically reducing greenhouse gas emissions. Thus, all applications for development consent for the forms of energy infrastructure covered by the energy NPSs should be assessed on the basis that the Government has demonstrated that there is a need for those forms of infrastructure and that the scale and urgency of that need is as described within EN-1 Part 3. Substantial weight should

therefore be given to the contribution which projects would make towards satisfying this need for a secure, low carbon, electricity supply when considering applications for development consent under the Planning Act 2008.

To achieve the target of UK commitments to largely decarbonise electricity generation by 2030, the NPSs conclude that it is necessary to bring forward new renewable electricity generating projects as soon as possible. The need for new renewable electricity generation projects is therefore urgent. The NPSs expected offshore wind farms to make up a significant proportion of the UK's renewable energy generating capacity up to 2020 and towards 2050.

8.2 The United Kingdom's legal commitment to decarbonise

This section sets out the obligations of the 2008 Act, against which the 2011 NPSs were established. It then outlines the UK's 2019 legally binding commitment to achieving 'Net Zero' carbon emissions by 2050, against which the need for future electricity generation developments should be assessed, as well as updated ambitions in the Clean Power Action Plan 2030 (2024).

8.2.1 Climate Change Act 2008

The Government through the 2008 Act, set legally binding carbon targets for the UK, aiming to cut emissions (relevant to the 1990 baseline) by 34% by 2020 and at least 80% by 2050, through investment in energy efficiency and clean energy technologies such as renewables, nuclear, and carbon capture and storage.

The 2008 Act is underpinned by further legislation and policy measures. Many of these have been consolidated in the UK Low Carbon Transition Plan (LCTP), and UK Clean Growth Strategy. A statutory body, the Committee on Climate Change (CCC), was also created by the 2008 Act, to advise the UK and devolved Governments and Parliaments on tackling and preparing for climate change, and to advise on setting carbon budgets. The CCC reports regularly to the Parliaments and Assemblies on the progress made in reducing greenhouse gas emissions. The UK Government has set five-yearly carbon budgets which currently run until 2032.

8.2.2 Enhancements of existing UK Government Policy: Net-Zero

In October 2018, following the adoption by the UN Framework Convention on Climate Change of the Paris Agreement, the Intergovernmental Panel on Climate Change (IPCC) published a 'Special Report' on the impacts of global warming of 1.5 degrees Celsius above pre-industrial levels. This report concluded that human-induced warming had already reached approximately 1 degrees Celsius above pre-industrial levels, and that without a significant and rapid decline in emissions across all sectors, global warming would not likely be contained, and therefore more urgent international action is required.

In response, in May 2019, the CCC published their report titled: 'Net-Zero: The UK's Contribution to Stopping Global Warming'. This report recommended that the UK Government extend the ambition of the 2008 Act past the delivery of net UK greenhouse has savings of 80% from 1990 levels, by 2050. The CCC recommended that "the UK should set and vigorously pursue an ambitious target to reduce GHG emissions to 'Net-Zero' by 2050, ending the UK's contribution

to global warming within 30 years." Importantly, the CCC recommendation identified a need for low-carbon infrastructure development which is consistent with the need case set out in NPS EN-1, but points to an increased urgency for action.

Since the implementation of the Climate Change Act 2008, the UK Government has set five-yearly carbon budgets. The latest of which is the sixth carbon budget (CB6) which was laid in legislation in April 2021 and commits to cutting greenhouse gas emissions by 78% by 2035, compared to the 1990 level, in line with the CCC's recommendation. The sixth carbon budget spans from 2033-2037.

In October 2021, the UK Government published The Net Zero Strategy: Build Back Greener. It is a cross-economy strategy which set out the measures to keep the UK on a path to achieving Net Zero, including action to keep on track for meeting carbon budgets and the UK's 2030 Nationally Determined Contribution. The Net Zero Strategy was set to meet the level of decarbonisation that CB6 requires and simultaneously cater to a 40-60% increase in electricity demand. This presents a substantial challenge and could require having to build out all currently known low-carbon technologies in the power sector at or close to their maximum technical limits by 2035.

In March 2019 the Government announced its ambition to deliver at least 30GW of offshore wind by 2030, as part of the Offshore Wind Sector Deal (the 'Sector Deal'). The Sector Deal reinforced the aims of the UK's Industrial Strategy and Clean Growth Strategy, which seeks to maximise the advantages for UK industry from the global shift to clean growth, and in particular: "The deal will drive the transformation of offshore wind generation, making it an integral part of a low-cost, low-carbon, flexible grid system." Within supplementary documents to the Queen's Speech, December 2019, the Government committed to increase their ambition on offshore wind to 50GW by 2030. In June 2019, the Government amended the 2008 Act to implement the CCC's recommendation. This made the UK the first major economy to pass laws requiring it to end its contribution to global warming by 2050.

The inclusion of a project on a 'future project timeline' does not indicate that the project will go ahead, or if it does, at a particular generation capacity. It is therefore not the case that government policy will certainly be met by those projects currently under consideration. Within this context, the importance of all offshore wind projects currently under development, to the achievement of government policy and pledges, is clear. Without the Project, it is possible that the delivery of the UK Government 2030 ambitions will fall short.

8.3 Conclusion

The ExA noted that the absence of priority habitats and species allows the consideration of benefits of a social and economic nature [ER 4.7.3].

The ExA, considering the information surrounding the need for the Project, the public interests presented, and that the interests are overriding when measured against the adverse effects on the affected features of the FFC SPA and Farne Islands SPA, was content that IROPI for the Project has been established [ER 4.7.6].

The Secretary of State agrees with the ExA and the Applicant and considers that imperative reasons in the public interest for the Project to proceed are clearly established, especially the contribution that the Project would make towards renewable electricity generation and ensuring the security of electricity supply from a domestically generated source. The Secretary of State also considers that such need in the public interest for the Project clearly outweighs the predicted harm to the integrity of the FFC SPA and Farne Islands SPA.

9 Compensatory measures

Having determined that there are no feasible alternative solutions and that the Project must be carried out for IROPI, the Secretary of State has proceeded to consider below the requirements of Regulation 68; to provide that any necessary compensatory measures are secured to ensure that the overall coherence of the NSN is maintained.

The Applicant submitted, on a without prejudice basis, a proposed package of compensatory measures for the following protected sites and qualifying features:

- Kittiwake feature of the FFC SPA
- Guillemot and razorbill features of the FFC SPA
- Guillemot feature of the Farne Islands SPA

As the Secretary of State concluded that an AEoI can be ruled out in relation to displacement and disturbance of razorbill of the FFC SPA, the Secretary of State has only considered compensatory measures for the kittiwake feature of the FFC SPA and the guillemot features of the FFC SPA and Farne Islands SPA.

9.1 Kittiwake – FFC SPA

The compensatory measures proposed by the Applicant for kittiwake are provided in the following documents:

- HRA (without prejudice) Derogation Case [REP6-109];
- Appendix 7 – Further information for Action Point 33 – KIMP [REP1-026]; and
- Kittiwake Implementation and Monitoring Plan (KIMP) [REP5-115].

The initial compensatory measures suggested by the Applicant [APP-039] for kittiwake of the FFC SPA were:

- Providing a monetary contribution to strategic compensation through the Marine Recovery Fund (MRF)
- Collaborating with another Offshore Wind Farm project to provide additional nesting spaces for kittiwake through either a purpose-built artificial nesting structure (ANS), artificial ledges, or other means
- Improving key kittiwake habitat within the FFC SPA
- Improving kittiwake breeding success through reducing avian predation (diversionary feeding and predator removal)
- Improving kittiwake breeding success through supplementary feeding

These proposed compensation measures were refined in the subsequent submission of the HRA (without prejudice) derogation case submitted at Deadline 4 [REP4-014]. The potential compensation measures suggested by the Applicant are now:

- Provision of a monetary contribution to strategic compensation through the MRF; or

- Collaborating with other offshore wind farms (such as Dogger Bank South offshore wind farm) to provide additional nesting spaces for kittiwake either at an ANS, artificial ledges, or other means.

In the KIMP [REP5-115], the Applicant set out ratios for 1:1, 1:2, and 1:3 for both the Central Impact Value (CIV) and the 95% upper confidence interval (UCI), to calculate how many nesting spaces would be required to compensate for the impact.

The Applicant [REP5-115] considered the CIV, and not the 95% UCI, as the most appropriate measure to calculate compensation requirements. The Applicant considered the CIV, applying a 1:2 ratio for the Stage 1 of the Hornsea Three calculation method to be the most appropriate. Under this approach, the Applicant concluded a compensation quantum of 4.34 breeding pairs of kittiwakes, and that the provision of 5 nesting spaces would compensate for the impact to the kittiwake feature of the FFC SPA.

The Applicant [REP5-115] stated that the delivery of the artificial nesting spaces would be undertaken through use of the existing kittiwake ANS at Gateshead that was constructed on behalf of RWE Renewables UK Dogger Bank South (East) Limited and RWE Renewables UK Dogger Bank South (West) Limited.

The Applicant has secured formal agreement with Dogger Bank South, submitted as an appendix to the Pre-Exam Procedural Deadline Submission – 1.1. – Cover Letter [PEPD-001], to contribute towards a defined share of the kittiwake ANS to cover the required compensation quantum of the Project.

The Applicant considered that as the East coast of England kittiwake population is mainly found on the stretch of coast between Humberside and Northumberland, the location of the ANS at Gateshead is in an optimal location with connectivity to existing kittiwake colonies and the FFC SPA.

The Applicant also highlighted that as the existing ANS at Gateshead has already been constructed and is already providing artificial nesting spaces for kittiwakes to utilise, the FFC SPA would receive benefit from these compensation measures before Rampion 2 becomes operational.

The Applicant, through Pre-Exam Procedural Deadline Submission – 5.10.1 – Alternative Schedule 17 [PEPD-017], submitted an initial schedule to secure measures for kittiwake through Schedule 17 of the DCO. An updated version of the Alternative Schedule 17 was submitted at Deadline 6 on a without prejudice basis [REP6-111]. It states that no offshore works shall commence until the undertaker has confirmed in writing whether it would make a payment to the MRF, or a Final KIMP has been submitted and approved by the Secretary of State.

At Deadline 2, NE [REP2-037] commented that although it does not generally support the use of onshore artificial nesting structures for kittiwake, in this case it considers that the proposed additional nesting at the existing ANS at Gateshead would be an appropriate and proportionate compensatory measure.

However, NE disagreed with the Applicant's approach to calculating how many nesting spaces would be required to compensate for the impact. At Deadline 6, NE [REP6-288] summarised what it considered the approach to compensation should consist of:

- Input value of 95% UCI to reflect the uncertainty regarding the potential impacts of the development
- Use of the Hornsea Three Stage 2 approach, as this takes into account the need for the ANS to produce recruits to service the structure itself when birds need replacing, rather than draw on the wider biogeographic population to do so
- Ratio of 1:3 to reflect various uncertainties around the timing and speed of colonisation of the ANS, whether the ANS will grow the population rather than simply relocating breeding birds to it, and the extent to which its recruits would end up breeding in the NSN.

Under this approach, NE concluded a compensation quantum of 33.00 breeding pairs of kittiwakes, and that the provision of 33 nesting spaces would compensate for the impact to the kittiwake feature of the FFC SPA.

At Deadline 6, NE [REP6-287] also highlighted that Schedule 17 does not include a requirement to provide a schedule of preparation and delivery for the OKEG and advised that this should be included. NE also noted that the Schedule included a requirement that no operation may be undertaken until the ANS has been in place for four full breeding seasons but advised that an amendment should be made to require all compensation options to be delivered four full breeding seasons prior to works.

The SoCG [REP6-266] between the Applicant and NE shows the matter as agreed and that NE considers the proposed KIMP to be an appropriate and proportionate measure to compensate to the modest contribution of the Project to the in-combination AEoI on the kittiwake feature of the FFC SPA. NE, however, disagree with the Applicant and consider that the 95% UCI should be used alongside a compensation ratio of 1:3. The PADS from NE [REP6-295] considers the proposed compensation measures are proportionate to the level of impact and considers this matter closed on the basis that advice given by NE is followed.

The ExA concluded that the package of proposed compensation measures is feasible, appropriate, and would ultimately ensure the overall coherence of the UK NSN [ER 4.8.22]. The ExA agreed with NE that the collaborative approach to compensatory measures proposed by the Applicant for kittiwake is sufficient for the modest level of impact anticipated from the Project and agrees the implementation of the KIMP [REP5-115], secured through Schedule 17, has the potential to deliver a proportionate level of benefit [ER 4.8.24].

Considering the evidence presented by the Applicant and precedents from previous methods accepted by the Secretary of State in determining to grant consent, the ExA recommended to the Secretary of State parameters to use to calculate the compensation quanta for kittiwake for the FFC SPA for the Project.

The ExA recommended that the CIV be used in the interest of taking a consistent approach on the grounds that it was accepted by the Secretary of State in determining consent for Hornsea Project Three and Hornsea Project Four offshore wind farm, and that the Project would have a significantly lower impact on kittiwakes than those two projects [ER 4.8.27].

The ExA also recommended that a 1:2 ratio be used as the connectivity of the Project with the FFC SPA is low given their respective locations [ER 4.8.27].

The ExA also recommended that the Hornsea Four Stage 2 approach be used as the ExA noted that this was advised by NE and that the ExA could find no substantial reasons against using a Stage 2 approach [ER 4.8.27].

Under this recommended approach, the ExA concluded a compensation quantum of 9.32 breeding pairs of kittiwakes, and that the provision of 10 nesting spaces would compensate for the impact to the kittiwake feature of the FFC SPA [ER 4.8.28]. The ExA inserted this quantum into Schedule 17 Part 1(5)(b) of the Recommended DCO.

The Secretary of State agrees with NE and the ExA that the approach to compensatory measures proposed by the Applicant is appropriate for the level of impact identified from the Project and agrees that an appropriate contribution to the MRF (should the MRF be available at that time), or the implementation of a final KIMP, would deliver a proportionate level of compensation and benefit.

Considering the advice from NE and the ExA in relation to the compensation quantum, as adopted in decisions on previous offshore wind farms, the Secretary of State considers that in this case the CIV, using a 1:2 ratio and the Stage 2 approach, are, at the current time and based on current evidence, appropriate to calculate the compensation quantum required. The Secretary of State, however, notes that this does not preclude him from accepting alternative parameters in future decisions.

Under this approach, the Secretary of State agrees with the ExA and concludes a compensation quantum of 9.32 breeding pairs of kittiwakes, and that the provision of 10 nesting spaces would sufficiently compensate for the impact to the kittiwake feature of the FFC SPA.

Considering the advice from NE on the DCO, the Secretary of State has amended Schedule 17 Part 1(3) of the DCO to include a requirement for a schedule of preparation and delivery as part of the plan for work of the OKEG, should the Applicant opt to submit a final KIMP for the approval of the Secretary of State. Whilst the Secretary of State also notes the advice from NE to amend Schedule 17 Part 1(8) to require all compensation options to be delivered four full breeding seasons prior to works, he considers this unnecessary. In relation to the MRF, the Secretary of State is content that compensatory measures must be effective and have been secured by a payment being made into the MRF before the harm to the site occurs.

Having reviewed all the information before him, the Secretary of State is satisfied that the compensation level and scale of compensation required as identified are appropriate, and appropriate monitoring and adaptive management is secured to ensure the long-term success of the measure.

The Secretary of State is satisfied that the necessary compensatory measures can be secured and delivered to protect the coherence of the UK NSN for kittiwake as required by Regulations 29 and 36 of the Offshore Habitats Regulations and Regulations 64 and 68 of the Habitats Regulations. He considers that Schedule 17 Part 1 adequately secures the further work required to progress the proposed compensation measures, including a contribution to the MRF or the approval of a final KIMP.

9.2 Guillemot – FFC SPA and Farne Islands SPA

In response to NE's concerns in respect of guillemot of the FFC SPA and guillemot of the Farne Islands SPA, the Applicant submitted a Guillemot and Razorbill Evidence and Roadmap (on a without prejudice basis) at Deadline 3 [REP3-060] and updated the HRA (without prejudice) derogation case to include compensation proposals for guillemot at Deadline 4 [REP4-014].

The compensatory measures proposed by the Applicant for guillemot are provided in the following documents:

- HRA (without prejudice) Derogation Case [REP6-109];
- Guillemot & Razorbill Roadmap Compensation Plan [REP6-259]; and
- Guillemot and Razorbill Implementation and Monitoring Plan (GRIMP) [REP6-271].

The potential compensatory measures suggested by the Applicant were:

- Provision of a monetary contribution to strategic compensation through the MRF; or
- Reducing recreational disturbance of guillemot through the following measures at selected sites:
    - Signage
    - Visitor access statements
    - Restriction of dogs
    - Restriction of visitor time
    - Restriction of visitor approach
    - Restriction of boat approach distances
    - Seasonal closures
    - Birdwatching codes
    - Wardens
    - Coordination with equipment hire business
    - Coordination with recreational organisations

The Applicant [REP6-109] considered that the proposed measures would reduce recreational disturbance on guillemot in locations within the biogeographic range of the FFC SPA and Farne Islands SPA, and directly contribute breeding adults back into the regional population and the NSN.

At Deadline 4, NE [REP4-091] considered that further work should be undertaken by the Applicant to establish the current levels and sources of disturbance each colony experiences. NE stated that this assessment should be combined with discussions with local experts who could advise specific compensation measures that would be most effective at each site.

The Applicant [REP5-120] responded to NE stating that initial site investigations and engagement with local experts had been undertaken at ten short-listed colonies in the south-west of England during the 2024 breeding season and provided information regarding site investigations in Appendix A of [REP6-259]. The ten short-listed colonies selected for compensation measures were:

- Bawden Rocks
- Carters Rocks

- Carvannet – Portreath 3
- Grower Rock
- Highveer Point
- Lye Rock
- Lynton 1 & 2
- North Cornwall 2
- Tresungers Point
- Treyarnon – Merope

Of the ten colonies, the Applicant [REP6-259] considered that five have low potential, two have moderate potential, and three have high potential for compensatory measures to be successful. Given the amount of recreational activity, North Cornwall 2, Tresungers Point, and Lye Rock were considered by the Applicant to have high potential for compensation measures targeted at reducing recreational disturbance.

The Applicant [REP6-109] considered that once further surveys are completed to characterise baseline levels of disturbance and colony productivity, along with further coordination with relevant stakeholders, have been completed, the final site and compensation measure selections can be made to develop the GRIMP and evidence that the chosen measures would sufficiently offset the population losses from the Project.

In the GRIMP [REP6-271], the Applicant set out 50:1 and 70:2 displacement and mortality ratios from the CIV to the FFC SPA and Farne Islands SPA using the Hornsea Four compensation calculation method, alongside compensation ratios of 1:1, 1:2, and 1:3.

The Applicant [REP6-271] considered a displacement rate of 50% and a mortality rate of 1% as the most appropriate measures to calculate compensation requirements. The Applicant did not offer a preferred compensation ratio.

The Applicant considered that although the Hornsea Four compensation calculation method provides a rough estimate of the required compensation quanta and was accepted by the Secretary of State in determining the consent for Hornsea Four, the method does not consider the additional boost to the productivity of auks that benefit from disturbance reduction and therefore is an overestimate of the compensation requirements for the Project. The Applicant therefore considered that until an appropriate compensation calculation methodology can be agreed with NE, it considers that any requirements should be presented in terms of impact numbers.

The Applicant updated Alternative Schedule 17 (on a without prejudice basis) at Deadline 4 [REP4-016] and Deadline 6 [REP6-111]. Part 2 of the Schedule states that no offshore works shall commence until the undertaker has confirmed in writing whether it would make a payment to the MRF, or a Final GRIMP has been submitted and approved by the Secretary of State.

The SoCG [REP6-266] between the Applicant and NE shows the matter as agreed and that NE considers the proposed GRIMP to be an appropriate and proportionate measure to compensate to the modest contribution of the Project to the in-combination AEoI on the guillemot feature of the FFC SPA and Farne Islands SPA. NE [REP6-288] also agrees that further surveys to characterise baseline levels of disturbance and any influence on colony productivity are needed

in the next breeding season to select the colonies and implementation measures to be included in the GRIMP.

NE [REP6-288] did not comment on the appropriateness of the Hornsea Four compensation calculation method during the Examination but advised the Applicant to check the calculations used to derive fledgling survival rates as part of the method and correct any errors that may be found.

The ExA concluded that the package of proposed compensation measures is feasible, appropriate, and would ultimately ensure the overall coherence of the UK NSN [ER 4.8.22]. The ExA agreed with NE that the collaborative approach to compensatory measures proposed by the Applicant for guillemot is sufficient for the modest level of impact anticipated from the Project and agrees the implementation of the Guillemot and Razorbill Evidence and Roadmap [REP6-259] and the GRIMP [REP6-271], secured through Schedule 17, has the potential to deliver a proportionate level of benefit [ER 4.8.24].

The Secretary of State agrees with NE and the ExA that the approach to compensatory measures proposed by the Applicant is sufficient for the level of impact identified from the Project and agrees that an appropriate contribution to the MRF (should the MRF be available at that time), or the implementation of a final GCIMP, would deliver a proportionate level of compensation and benefit.

As adopted in decisions on previous offshore wind farms, the Secretary of State considers that in this case the Hornsea Four compensation calculation method, using a 70:2 displacement and mortality ratio and a 1:2 compensation ratio, is, at the current time and based on current evidence, appropriate to calculate the compensation quantum required. The Secretary of State, however, notes that this does not preclude him from accepting alternative parameters in future decisions.

Under this approach, the Secretary of State concludes a compensation quantum of 30.00 breeding pairs of guillemot for the impact to the guillemot feature of the FFC SPA. The Secretary of State also concludes a compensation quantum of 25.42 breeding pairs of guillemot for the impact to the guillemot feature of the Farne Islands SPA. The Secretary of State, however, notes the advice from NE for the Applicant to check the calculations used to derive fledgling survival rates. The Secretary of State considers that the Applicant should check the calculations in line with the advice from NE and, if any errors are found, present updated values in the GCIMP to be submitted to the Secretary of State for his consideration and approval.

Considering the advice from NE on the DCO, the Secretary of State has also amended Schedule 17 Part 2(14) of the DCO to include a requirement for a schedule of preparation and delivery as part of the plan for work of the OGEG, should the Applicant opt to submit a final GCIMP for the approval of the Secretary of State.

Having reviewed all the information before him, the Secretary of State is satisfied that the compensation level and scale of compensation required as identified are appropriate, and appropriate monitoring and adaptive management is secured to ensure the long-term success of the measures.

The Secretary of State is satisfied that the necessary compensatory measures can be secured and delivered to protect the coherence of the UK NSN for guillemot as required by Regulations

29 and 36 of the Offshore Habitats Regulations and Regulations 64 and 68 of the Habitats Regulations. He considers that Schedule 17 Part 2 adequately secures the further work required to progress the proposed compensation measures, including a contribution to the MRF or the approval of a final GCIMP.

10 Transboundary assessment

The Secretary of State considers that it is important to consider the potential impacts on protected sites in other European Economic Area ("EEA") states, known as transboundary sites. The ExA also considered the implications for transboundary sites. The conclusions of the ExA's considerations and the Secretary of State's own views on this matter are presented below.

On 30 April 2021, following the Applicant's request for an EIA scoping opinion, PINS undertook a transboundary screening and consultation on behalf of the Secretary of State pursuant to Regulation 32 of The Infrastructure Planning (Environmental Impact Assessment) Regulations 2017 and the United Nations Environment Programme Convention on Biological Diversity 1992. A second and final screening was undertaken on 8 January 2024 following submission of the Application documents. PINS considered that the Project was likely to have a significant effect either alone or in-combination on the environment in an EEA state. Notification of transboundary issues were required under Regulation 32 of the 2017 EIA Regulations and issued to The Netherlands, Belgium, France, and Spain.

Potential transboundary impacts were considered in the Applicant's RIAA [APP-038], updated at Deadline 6 [REP6-115]. The Secretary of State notes that the Applicant considered non-UK protected sites in its Application and concluded that there would be no AEoI from the Project alone and in-combination on any transboundary sites.

NE [REP6-266], in their final SoCG, considered that the correct protected sites and qualifying features had been considered in the Applicant's RIAA [REP6-115].

At Deadline 3, however, a submission was received from the French Secretariat D'Etat Charge de la Mer [REP3-104] concerning HRA matters.

The Secretariat raised a concern that certain sites had not been taken into consideration where common seals and grey seals are qualifying features. The Applicant [REP4-070] responded that it had applied the relevant Seal Management Unit (South England – Unit 10) provided by the Special Committee on Seals (SCOS), which indicated that there were no SACs for either seal species that share the Management Unit with the Project. The Applicant also noted that current advice from UK SNCBs defines site connectivity distances as 20km for grey seal. The Applicant considered that a screening range of 20km would not result in any additional sites being screened in as the closest designated site for grey seals to the Project is the Ridens et dunes hydrauliques du Detroit du Pas-de-Calais SAC which is 73.6km from the Project. The Applicant maintained that no sites were identified for either seal species for screening and that there was no potential for LSE.

The Secretariat also raised a concern over how foraging distances for seabirds had been taken account of in the screening assessment, particularly in relation to fulmar, kittiwake, lesser black-backed gull, gannet, and herring gull.

In relation to fulmar, the Applicant [REP4-070] responded to confirm that consideration was given to the potential connectivity and effects of the Project on this species. The Applicant highlighted that connectivity to French SPAs was considered using the species mean max foraging range presented by Woodward et al., (2019) and that for all French SPAs identified as having potential

breeding season connectivity, no LSE was concluded for fulmar features due to literature sources stating that the species was insensitive to potential effects from offshore wind farm developments. The Applicant also emphasised that there was only a single record of fulmar within the 24 months of baseline characterisation surveys as presented within [APP-150].

In relation to kittiwake, the Applicant [REP4-070] responded to confirm that consideration was given to the potential connectivity and effects of the Project on this species. The Applicant highlighted that connectivity to French SPAs was considered using the species mean max foraging range presented by Woodward et al., (2019). The Applicant emphasised that following the conclusions of the screening, LSE could not be ruled out for the kittiwake feature of the Littoral seino-marin SPA and the Falaise du Bessin Occidental SPA, and that further assessment had been undertaken as set out in Section 7.5 of the RIAA. The level of predicted additional mortality apportioned to the Littoral seino-marin SPA and the Falaise du Bessin Occidental SPA was concluded to be under one breeding adult (0.33 and 0.31, respectively) per annum. The Applicant concluded that this level of effect would not affect the achievement of the conservation objectives for the SPAs and that, therefore, there would be no AEoI on either SPA, either alone or in-combination with other plans or projects.

In relation to lesser black-backed gull, the Applicant [REP4-070] responded to confirm that consideration was given to the potential connectivity and effects of the Project on this species. The Applicant highlighted that connectivity to French SPAs was considered using the species mean max foraging range presented by Woodward et al., (2019), which superseded the Thaxter et al. (2012) foraging range highlighted by the Secretariat. The Applicant emphasised that following the conclusions of the Screening, LSE could not be ruled out for the lesser black-backed gull feature of the Littoral seino-marin SPA and the Falaise du Bessin Occidental SPA, and that further assessment had been undertaken as set out in Section 7.5 of the RIAA. The level of predicted additional mortality apportioned to either SPA was concluded to be under one breeding adult per annum. The Applicant concluded that this level of effect would not affect the achievement of the conservation objectives for the SPAs and that, therefore, there would be no AEoI on either SPA, either alone or in-combination with other plans or projects.

In relation to gannet, the Applicant [REP4-070] responded to confirm that consideration was given to the potential connectivity and effects of the Project on this species. The Applicant highlighted that connectivity to French SPAs was considered using the species mean max foraging range presented by Woodward et al., (2019). The Applicant emphasised that following the conclusions of the Screening, LSE could not be ruled out for the gannet feature of the Cote de Granit Rose-Sept Iles SPA, and that further assessment had been undertaken as set out in Section 7.5 of the RIAA. The level of predicted additional mortality apportioned to the SPA was concluded to be under one breeding adult (0.65) per annum. The Applicant concluded that this level of effect would not affect the achievement of the conservation objectives for the SPA and that, therefore, there would be no AEoI, either alone or in-combination with other plans or projects.

In relation to herring gull, the Applicant [REP4-070] responded to confirm that consideration was given to the potential connectivity and effects of the Project on this species. The Applicant highlighted that connectivity to French SPAs was considered using the species mean max foraging range presented by Woodward et al., (2019), which superseded the Thaxter et al. (2012) foraging range highlighted by the Secretariat. The Applicant emphasised that as the Project was located beyond the species mean max foraging range of all French SPAs with

herring gull as a qualifying feature, no connectivity was concluded during the breeding season. During the non-breeding season, the Applicant considered that as there is a wider mixing of individuals from different populations with species no longer restricted in movements due to colony attendance, the potential for a material effect to be apportioned back to any single SPA within the non-breeding season is highly limited. The Applicant, therefore, concluded that that there was no potential for LSE on herring gull features of French SPAs.

The ExA was satisfied that, on the basis of the information provided by the Applicant and NE's agreement that the correct sites and qualifying features had been considered in the RIAA, that the Project would not have an AEoI on protected sites in any EEA state [ER 4.1.27].

The Secretary of State has not been presented with any substantive evidence to demonstrate that transboundary impacts would have an AEoI on any protected site in an EEA state. As such, the Secretary of State is satisfied that the Project, either alone or in-combination with other plans or projects, would not have an AEoI on any transboundary protected site. The Secretary of State is satisfied that further stages of a transboundary assessment are therefore not required.

11 Conclusion

The Secretary of State has carefully considered all information presented within the Application, during the Examination, and the representations made by NE and all IPs, along with the ExA's Recommendation Report.

The Secretary of State concludes that an AEoI cannot be ruled out on the kittiwake feature of the Flamborough and Filey Coast SPA due to collision impacts, and the guillemot feature of the Flamborough and Filey Coast SPA and the Farne Islands SPA due to displacement impacts. He has considered the derogation provisions to determine whether the Project can be consented.

The Secretary of State is satisfied that there are no feasible alternative solutions to fulfilling the objectives of the Project which would remove or reduce the risk of an AEoI of the protected sites. The Secretary of State is also satisfied that there are clearly imperative reasons in the public interest for the Project to proceed, and that these reasons clearly outweigh the impacts to the protected sites.

The Secretary of State is also satisfied that a package of compensatory measures to ensure that the overall coherence of the UK NSN is maintained is secured through Schedule 17 of the DCO and can be delivered with regards to kittiwake and guillemot of the Flamborough and Filey Coast SPA and guillemot of the Farne Islands SPA.

Table 1: Protected sites and qualifying features considered in the assessment of LSE.

Protected site	Qualifying feature(s)	SACOs	Potential for Likely Significant Effects
Alde-Ore Estuary SPA	Sandwich tern Lesser black backed gull	See footnote[9]	Collision risk (alone and in-combination)
Alde-Ore Estuary Ramsar Site	Lesser black backed gull	N/A	Collision risk (alone and in-combination)
Alderney West Coast and Burhou Islands Ramsar Site	Gannet	N/A	Collision risk (alone and in-combination) Disturbance / displacement (alone and in-combination)
Arun Valley SAC	Ramshorn snail	See footnote[10]	Water neutrality (alone)
Arun Valley SPA	Bewick's swan	See footnote[11]	Land take / cover change (alone and in-combination)
	Assemblage of wintering waterfowl		Fragmentation of habitats (alone and in-combination)

[9]https://designatedsites.naturalengland.org.uk/Marine/SupAdvice.aspx?SiteCode=UK9009112&SiteName=Alde-Ore%20Estuary&SiteNameDisplay=Alde-Ore+Estuary+SPA&countyCode=&responsiblePerson=&SeaArea=&IFCAArea=&NumMarineSeasonality=8

[10]https://designatedsites.naturalengland.org.uk/Terrestrial/TerrestrialSiteDetail.aspx?SiteCode=UK0030366&SiteName=arun%20valley&SiteNameDisplay=Arun%20Valley%20SAC&countyCode=&responsiblePerson=&SeaArea=&IFCAArea=

[11]https://designatedsites.naturalengland.org.uk/Terrestrial/TerrestrialSiteDetail.aspx?SiteCode=UK9020281&SiteName=arun%20valley&SiteNameDisplay=Arun%20Valley%20SPA&countyCode=&responsiblePerson=&SeaArea=&IFCAArea=

			Noise and vibration (alone and in-combination) Pollution effects and spread of non-native species (alone and in-combination) Water neutrality (alone)
Arun Valley Ramsar Site	Northern pintail	N/A	Land take / cover change (alone and in-combination)
	Assemblage of wintering waterfowl		Fragmentation of habitats (alone and in-combination) Noise and vibration (alone and in-combination) Pollution effects and spread of non-native species (alone and in-combination) Water neutrality (alone)
Breydon Water SPA	Common tern	See footnote[12]	Collision risk on migration (alone and in-combination)
Chichester and Langstone Harbours SPA	Bar tailed godwit Bark bellied brent goose Dunlin		Collision risk on migration (alone and in-combination)

12 https://designatedsites.naturalengland.org.uk/Marine/SupAdvice.aspx?SiteCode=UK9009181&SiteName=breydon%20water&SiteNameDisplay=Breydon+Water+SPA&countyCode=&responsiblePerson=&SeaArea=&IFCAArea=&NumMarineSeasonality=6

	Grey plover Pintail Red breasted merganser Redshank Ringed plover Sanderling Shelduck Shoveler Teal Turnstone Wigeon Waterbird assemblage	See footnote[13]	
	Common tern		Collision risk (alone and in-combination)
	Sandwich tern		Collision risk (alone and in-combination) Displacement / disturbance (alone and in-combination)

[13] https://designatedsites.naturalengland.org.uk/Marine/SupAdvice.aspx?SiteCode=UK9011011&SiteName=Chichester%20and%20Langstone%20Harbours%20&SiteNameDisplay=Chichester+and+Langstone+Harbours+SPA&countyCode=&responsiblePerson=&SeaArea=&IFCAArea=&NumMarineSeasonality=18

Chichester and Langstone Harbours Ramsar Site	Ringed plover Black tailed godwit Redshank Dark bellied brent goose Shelduck Grey plover Dunlin Waterbird assemblage	N/A	Collision risk on migration (alone and in-combination)
Coquet Island SPA	Sandwich tern Arctic tern Common tern Herring gull Lesser black backed gull Kittiwake	See footnote[14]	Collision risk (alone and in-combination)
Cote de Granit Rose-Sept Iles SPA	Gannet	N/A	Collision risk (alone and in-combination) Disturbance / displacement (alone and in-combination)

[14] https://designatedsites.naturalengland.org.uk/Marine/SupAdvice.aspx?SiteCode=UK9006031&SiteName=coquet&SiteNameDisplay=Coquet+Island+SPA&countyCode=&responsiblePerson=&SeaArea=&IFCAArea=&NumMarineSeasonality=4

Dungeness, Romney Marsh and Rye Bay SPA	Sandwich tern	See footnote[15]	Collision risk (alone and in-combination) Disturbance / displacement (alone and in-combination)
	Common tern		Collision risk (alone and in-combination)
Falaise du Bessin Occidental SPA	Kittiwake Lesser black backed gull	N/A	Collision risk (alone and in-combination)
Farne Islands SPA	Common tern Arctic tern Sandwich tern Kittiwake	See footnote[16]	Collision risk (alone and in-combination)
	Guillemot		Disturbance / displacement (alone and in-combination)

15 https://designatedsites.naturalengland.org.uk/Marine/SupAdvice.aspx?SiteCode=UK9012091&SiteName=Dungeness,%20Romney%20Marsh%20and%20Rye%20Bay%20&SiteNameDisplay=Dungeness%2c+Romney+Marsh+and+Rye+Bay+SPA&countyCode=&responsiblePerson=&SeaArea=&IFCAArea=&NumMarineSeasonality=13

16 https://designatedsites.naturalengland.org.uk/Marine/SupAdvice.aspx?SiteCode=UK9006021&SiteName=farne%20islands&SiteNameDisplay=Farne+Islands+SPA&countyCode=&responsiblePerson=&SeaArea=&IFCAArea=&NumMarineSeasonality=5

Flamborough and Filey Coast SPA	Gannet Kittiwake Herring gull	See footnote[17]	Collision risk (alone and in-combination)
	Gannet Guillemot Razorbill		Disturbance / displacement (alone and in-combination)
Foulness (Mid Sussex Coast Phase 5) SPA	Common tern Sandwich tern	See footnote[18]	Collision risk (alone and in-combination)
Grassholm SPA	Gannet	N/A	Collision risk (alone and in-combination)
Greater Wash SPA	Common tern Sandwich tern	See footnote[19]	Collision risk on migration (alone and in-combination)
Littoral seino-marin SPA	Lesser black backed gull Kittiwake	N/A	Collision risk (alone and in-combination)

17 https://designatedsites.naturalengland.org.uk/Marine/SupAdvice.aspx?SiteCode=UK9006101&SiteName=filey%20coast&SiteNameDisplay=Flamborough+and+Filey+Coast+SPA&countyCode=&responsiblePerson=&SeaArea=&IFCAArea=&NumMarineSeasonality=4

18 https://designatedsites.naturalengland.org.uk/Marine/SupAdvice.aspx?SiteCode=UK9009246&SiteName=foulness&SiteNameDisplay=Foulness+(Mid-Essex+Coast+Phase+5)+SPA&countyCode=&responsiblePerson=&SeaArea=&IFCAArea=&NumMarineSeasonality=12

19 https://designatedsites.naturalengland.org.uk/Marine/SupAdvice.aspx?SiteCode=UK9020329&SiteName=greater%20wash&SiteNameDisplay=Greater+Wash+SPA&countyCode=&responsiblePerson=&SeaArea=&IFCAArea=&NumMarineSeasonality=6

Medway Estuary and Marshes SPA	Common tern	See footnote[20]	Collision risk on migration (alone and in-combination)
North Norfolk Coast SPA	Sandwich tern Common tern	See footnote[21]	Collision risk (alone and in-combination)
North Norfolk Coast Ramsar Site	Sandwich tern Common tern	N/A	Collision risk (alone and in-combination)
Northumbria Coast SPA	Arctic tern	See footnote[22]	Collision risk (alone and in-combination)
Northumbria Coast Ramsar Site	Arctic tern	N/A	Collision risk (alone and in-combination)

20 https://designatedsites.naturalengland.org.uk/Marine/SupAdvice.aspx?SiteCode=UK9012031&SiteName=Medway%20Estuary%20and%20Marshes%20&SiteNameDisplay=Medway+Estuary+and+Marshes+SPA&countyCode=&responsiblePerson=&SeaArea=&IFCAArea=&NumMarineSeasonality=11

21 https://designatedsites.naturalengland.org.uk/Marine/SupAdvice.aspx?SiteCode=UK9009031&SiteName=north%20norfolk&SiteNameDisplay=North+Norfolk+Coast+SPA&countyCode=&responsiblePerson=&SeaArea=&IFCAArea=&NumMarineSeasonality=11

22 https://designatedsites.naturalengland.org.uk/Marine/SupAdvice.aspx?SiteCode=UK9006131&SiteName=northumbria%20&SiteNameDisplay=Northumbria+Coast+SPA&countyCode=&responsiblePerson=&SeaArea=&IFCAArea=&NumMarineSeasonality=4

Pagham Harbour SPA	Dark bellied brent goose Common tern Ruff	See footnote[23]	Collision risk (alone and in-combination)
Pagham Harbour Ramsar Site	Dark bellied brent goose	N/A	Collision risk (alone and in-combination)
Portsmouth Harbour SPA	Black tailed godwit Dark bellied brent goose Dunlin Red breasted merganser	See footnote[24]	Collision risk (alone and in-combination)
Portsmouth Harbour Ramsar Site	Dark bellied brent goose	N/A	Collision risk (alone and in-combination)
River Itchen SAC	Atlantic salmon	See footnote[25]	Underwater noise (alone and in-combination)

23 https://designatedsites.naturalengland.org.uk/Marine/SupAdvice.aspx?SiteCode=UK9012041&SiteName=Pagham%20Harbour%20&SiteNameDisplay=Pagham+Harbour+SPA&countyCode=&responsiblePerson=&SeaArea=&IFCAArea=&NumMarineSeasonality=4

24 https://designatedsites.naturalengland.org.uk/Marine/SupAdvice.aspx?SiteCode=UK9011051&SiteName=portsmouth%20Harbour%20&SiteNameDisplay=Portsmouth+Harbour+SPA&countyCode=&responsiblePerson=&SeaArea=&IFCAArea=&NumMarineSeasonality=4

25 https://designatedsites.naturalengland.org.uk/Terrestrial/TerrestrialSiteDetail.aspx?SiteCode=UK0012599&SiteName=river%20itchen&SiteNameDisplay=River%20Itchen%20SAC&countyCode=&responsiblePerson=&SeaArea=&IFCAArea=

Solent and Dorset Coast SPA	Common tern Little tern Sandwich tern	See footnote[26]	Collision risk (alone and in-combination) Disturbance / displacement (alone and in-combination)
Solent and Isle of Wight Lagoons SAC	Coastal lagoons	See footnote[27]	Suspended sediment and deposition (alone and in-combination) MINNS (alone and in-combination) Physical processes (alone and in-combination) Pollution (alone and in-combination)
Solent and Southampton Water SPA	Black tailed godwit Dark bellied brent goose Ringed plover Teal Waterbird assemblage	See footnote[28]	Collision risk on migration (alone and in-combination)

26 https://designatedsites.naturalengland.org.uk/Marine/SupAdvice.aspx?SiteCode=UK9020330&SiteName=solent%20and%20dorset%20coast&SiteNameDisplay=Solent+and+Dorset+Coast+SPA&countyCode=&responsiblePerson=&SeaArea=&IFCAArea=&NumMarineSeasonality=3

27 https://designatedsites.naturalengland.org.uk/Marine/SupAdvice.aspx?SiteCode=UK0017073&SiteName=solent%20and%20isle&SiteNameDisplay=Solent+and+Isle+of+Wight+Lagoons+SAC&countyCode=&responsiblePerson=&SeaArea=&IFCAArea=&NumMarineSeasonality=

28 https://designatedsites.naturalengland.org.uk/Marine/SupAdvice.aspx?SiteCode=UK9011061&SiteName=solent%20and%20south&SiteNameDisplay=Solent+and+Southampton+Water+SPA&countyCode=&responsiblePerson=&SeaArea=&IFCAArea=&NumMarineSeasonality=9

	Sandwich tern		Collision risk (alone and in-combination)
Solent and Southampton Water Ramsar Site	Black tailed godwit Dark bellied brent goose Ringed plover Teal Waterbird assemblage	N/A	Collision risk on migration (alone and in-combination)
Solent Maritime SAC	Estuarine Atlantic salt meadows *Spartina* swards *Salicornia* and other annuals colonising mud and sand Mudflats and sandflats not covered by seawater at low tide Coastal lagoons Sandbanks slightly covered by seawater all the time	See footnote[29]	Suspended sediment and deposition (alone and in-combination) MINNS (alone and in-combination) Physical processes (alone and in-combination) Pollution (alone and in-combination)
South Wight Maritime SAC	Reefs Submerged / partially submerged sea caves	See footnote[30]	Suspended sediment and deposition (alone and in-combination) MINNS (alone and in-combination) Physical processes (alone and in-combination)

29 https://designatedsites.naturalengland.org.uk/Marine/SupAdvice.aspx?SiteCode=UK0030059&SiteName=solent%20maritime&SiteNameDisplay=Solent+Maritime+SAC&countyCode=&responsiblePerson=&SeaArea=&IFCAArea=&NumMarineSeasonality=

30 https://designatedsites.naturalengland.org.uk/Marine/SupAdvice.aspx?SiteCode=UK0030061&SiteName=south%20wight&SiteNameDisplay=South+Wight+Maritime+SAC&countyCode=&responsiblePerson=&SeaArea=&IFCAArea=&NumMarineSeasonality=

			Pollution (alone and in-combination)
The Mens SAC	Barbastelle bat	See footnote[31]	Lank take / cover change (alone and in-combination) Fragmentation of habitats (alone and in-combination) Noise and vibration (alone and in-combination)
The Wash SPA	Common tern	See footnote[32]	Collision risk on migration (alone and in-combination)

31 https://designatedsites.naturalengland.org.uk/Terrestrial/TerrestrialSiteDetail.aspx?SiteCode=UK0012716&SiteName=the%20mens&SiteNameDisplay=The%20Mens%20SAC&countyCode=&responsiblePerson=&SeaArea=&IFCAArea=

32 https://designatedsites.naturalengland.org.uk/Marine/SupAdvice.aspx?SiteCode=UK9008021&SiteName=the%20wash&SiteNameDisplay=The+Wash+SPA&countyCode=&responsiblePerson=&SeaArea=&IFCAArea=&NumMarineSeasonality=21

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Date: April 2025