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Dear Kay, K-J

Please find attached the 12th instalment of documents.

Best regards,
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Hornsea Project Three Offshore Wind Farm

**Appendix 63 to Deadline 4 submission - Detailed response to
the ExA Q2.2.7 and Q2.2.44**

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1. Introduction

- 1.1 This Appendix 63 provides the Applicant's response to Ex.A second written questions ("**SWQ**") 2.2.7 and 2.2.44, which are as follows:

No.	Question
2.2.7	<i>If the Secretary of State were to conclude that there may be an adverse effect on the integrity of the Flamborough and Filey Coast SPA, either alone or in combination, then what alternative solutions and compensatory measures have you considered?</i> <i>Please set out your case for Imperative Reasons of Overriding Public Interest</i>
2.2.44	<i>If the Secretary of State were to conclude that there may be an adverse effect on the integrity of the North Norfolk Sandbanks and Saturn Reef SAC and/or The Wash and North Norfolk Coast SAC, either alone or in combination, then what alternative solutions and compensatory measures have you considered?</i> <i>Please set out your case for Imperative Reasons of Overriding Public Interest.</i>

- 1.2 Although the questions concern three separate designated sites (one SPA and two SAC), it is considered appropriate that they be addressed together in this Appendix at this stage because the legal framework, policy and guidance applies in common to each site and the Imperative Reasons of Overriding Public Interest ("**IROPI**") case is the same. In adopting this approach, it is recognised there are differing impacts and considerations for the specific sites and protected features, such that if further submissions are necessary it may be appropriate to address those by way of site-specific responses.
- 1.3 In this Appendix the short-hand of **FFC SPA** is used to refer to the Flamborough and Filey Coast SPA and **NNSSR SAC** and **WNNC SAC** to denote the North Norfolk Sandbanks and Saturn Reef SAC and The Wash and North Norfolk Coast SAC respectively. Reference is also made to the Applicant's Report to Inform an Appropriate Assessment and accompanying appendices ("**RIAA**") [APP-050 to APP-054, AS-002 and AS-004]. Where reference is made to other documents, references are provided below.

2. Background

- 2.1 Special Protection Areas ("**SPAs**") classified pursuant to the Birds Directive¹ and Special Areas of Conservation ("**SAC**") designated pursuant to the Habitats Directive², referred to here collectively as European sites³, comprise the European-wide Natura 2000 network. The Habitats Directive is not designed to prohibit all development in or near European sites. The National Policy Statement ("**NPS**") for Renewable Energy Infrastructure (**EN-3**) makes clear that "*the designation of an area as*

¹ Council Directive 2009/147/EC of the European Parliament and of the Council of 30 November 2009 on the conservation of wild birds

² Council Directive 92/43/EEC of 21 May 1992 on the conservation of natural habitats and of wild fauna and flora.

³ By law or as a matter of policy, Sites of Community Importance, candidate SACs, possible SACs, potential SPAs and Ramsar sites are also to be treated as European sites in the UK and references in this Appendix to European sites should be taken to also include such sites where relevant.

[a] Natura 2000 site does not necessarily restrict the construction or operation of offshore wind farms in or near that area."⁴ EN-3 thus contemplates the possibility of offshore wind farms in or near European sites.

- 2.2 Hornsea Three is not in or near to the FFC SPA, which is some 149 km (approximately) from Hornsea Three. The Hornsea Three array area is not in or near the WNNC SAC, which is 120km from the array, although a nearshore section of the offshore cable corridor passes through the easternmost section of the WNNC SAC (see Figure 5.2 of the RIAA [APP-050]). The Hornsea Three array area is similarly not in or (being some 9km distant) particularly near the NNSSR SAC, which is the closest European site of concern in this context. Again sections of the central and seaward end of the Hornsea Three offshore cable corridor cross parts of the NNSSR SAC (see Figure 5.1 of the RIAA [APP-050]) but the extent has been reduced through routing decisions.
- 2.3 Any new development likely to significantly affect a European site must first be considered against the requirements of Article 6(3) of the Habitats Directive, which involves an 'appropriate assessment' ("AA"). If Article 6(3) requirements are not satisfied (i.e. the outcome of the AA is a conclusion that there would be an adverse effect on integrity of any European site), the derogation provisions contained in Article 6(4) should be considered, which is the focus of SWQ 2.2.7 / 2.2.44. Article 6(4) provides as follows:

"6.4. If, in spite of a negative assessment of the implications for the site and in the absence of alternative solutions, a plan or project must nevertheless be carried out for imperative reasons of overriding public interest, including those of a social or economic nature, the Member State shall take all compensatory measures necessary to ensure that the overall coherence of Natura 2000 is protected. It shall inform the Commission of the compensatory measures adopted.

Where the site concerned hosts a priority natural habitat type and/or a priority species, the only considerations which may be raised are those relating to human health or public safety, to beneficial consequences of primary importance for the environment or, further to an opinion from the Commission, to other imperative reasons of overriding public interest."

- 2.4 The provisions of the Birds Directive need not be set out because Article 6(4) above applies equally to SPAs. However, one important difference is that Birds Directive does not identify priority habitat or species, so the second paragraph of Article 6(4) (which limits the scope of IROPI in such cases) is not relevant to the FFC SPA.
- 2.5 In the UK for the purposes of NSIPs, the provisions of Article 6(4) are currently reflected in:
- 2.5.1 Regulation 29 of the Conservation of Offshore Marine Habitats & Species Regulations 2017 (as amended) (the "**Offshore Habitats Regulations**"); and
- 2.5.2 Regulation 62 of the Conservation of Habitats and Species Regulations 2017 (as amended) (the "**Terrestrial Habitats Regulations**").

⁴ NPS EN-3, at paragraph 2.6.69.

- 2.6 The Terrestrial Habitats Regulations encompass near-shore activities out to 12nm (in English waters) whereas the Offshore Habitats Regulations apply to activities beyond 12nm. The rules are substantially the same so reference here is made to the Habitats Regulations in a collective sense and should be taken to refer to the relevant regulations, as applicable.
- 2.7 The following extant UK and EC guidance addresses Article 6(4) and is principally referred to in this Appendix:
- 2.7.1 Habitats Directive: guidance on the application of article 6(4), published by DEFRA in August 2012⁵ (the "**DEFRA guidance**");
- 2.7.2 Managing Natura 2000 Sites - The provisions of Article 6(3) of the 'Habitats' Directive 92/43/EEC (2000)⁶ ("**MN 2000**"), first published by the EC in 2000 but updated in November 2018; and

3. The Applicants Primary Case

- 3.1 The Applicant's primary case is that Article 6(4) is not engaged in relation to the FFC SPA, the NNSR SAC or the WNNC SAC as a result of Hornsea Three (either alone or in-combination).
- 3.2 Having regard to the manner in which it is proposed to carry out Hornsea Three, and to the requirements and conditions subject to which it is proposed that development consent should be granted, the Applicant's evidence demonstrates there would be no adverse effect on the integrity of any European site. The reasoning and evidence for this conclusion is principally set out in the Applicant's RIAA [APP-050 to APP-054 and AS-002 and AS-004] as supplemented by a number of clarification notes and further submissions by the Applicant (including REP1-187 – screening & integrity matrices) on ornithology and benthic ecology matters submitted at Deadlines 1, 2 and 3.
- 3.3 At this stage, no "shadow" AA has been carried out by any other party. The Ex.A has not yet produced its Report on the Implications for European Sites ("**RIES**"). No detailed evidence, analysis or assessment has been presented which rebuts the Applicant's evidence and identifies the precise nature and quantifies the extent of any adverse effect on integrity of any European site.
- 3.4 This is relevant because the output of AA under Article 6(3) is important to the Article 6(4) process. Article 6(4) is only engaged if an AA reaches a negative conclusion and it relies upon the nature and the extent of any adverse effect on integrity having been identified through the AA under Article 6(3). That underpins any proper consideration of alternative solutions, IROPI and compensatory measures.
- 3.5 This has been confirmed by the Court of Justice of the European Union ("**CJEU**") in several decisions⁷. For example, in case C-304/05⁸ the Court stated:

⁵ Available at: https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/69622/pb13840-habitats-iropi-guide-20121211.pdf

⁶ Available at: http://ec.europa.eu/environment/nature/natura2000/management/docs/art6/Provisions_Art_nov_2018_endocx.pdf.

⁷ See also C-182/10 (*Solvay v Region Wallonne*, at paragraph 74); C-399/14 (*Grüne Liga Sachsen eV and Others v Freistaat Sachsen*, at paragraph 57) and C-387/15 (*Hilde Orleans and Others v Vlaams Gewest*, at paragraphs 60 and 61)

⁸ *Commission v Italy*, at paragraph 83.

"Article 6(4) of Directive 92/43 can apply only after the implications of a plan or project have been studied in accordance with Article 6(3) of that directive. Knowledge of those implications in the light of the conservation objectives relating to the site in question is a necessary prerequisite for application of Article 6(4) since, in the absence thereof, no condition for application of that derogating provision can be assessed. The assessment of any imperative reasons of overriding public interest and that of the existence of less harmful alternatives require a weighing up against the damage caused to the site by the plan or project under consideration. In addition, in order to determine the nature of any compensatory measures, the damage to the site must be precisely identified".

- 3.6 The DEFRA guidance sets out the Government's expectation that applicants and statutory nature conservation bodies ("**SNCBs**") will engage constructively, and that SNCBs will provide their view on "the extent of any AEol and the compensatory measures required"⁹ (our emphasis). DEFRA add that where Article 6(4) is engaged, they expect SNCB to play a role in helping to identify compensatory measures.
- 3.7 In line with this advice, the Applicant would welcome further constructive discussions with Natural England ("**NE**") to better understand its position. As matters stand, the Applicant is not clear as to NE's view as to the extent of any adverse impact on site integrity; NE's conclusion appears to be founded principally on uncertainty (which the Applicant does not accept). The Applicant respectfully requests that NE fully set out its reasoning and evidence regarding the extent of harm it identifies in respect of the integrity of each of FFC SPA, NNSSR SAC and WNNC SAC. If NE maintains its view that there is an adverse effect on integrity to any of these European sites, the Applicant also requests that NE provide advice on potential compensatory measures.
- 3.8 However, at this time, the Applicant respectfully submits that consideration of alternative solutions, IROPI and compensatory measures is premature. Formally these matters only arise if the Ex.A and in turn the Secretary of State do not accept the Applicant's primary position and identify an adverse effect on the integrity of one or more European sites. But since the Applicant does not identify any adverse effect on integrity of any European site - and neither NE nor RSPB has yet explained to what extent (in their opinion) there is an adverse effect on integrity - these considerations cannot be addressed by the Applicant. This can only be done if the precise nature and quantified extent of any contended adverse effect on integrity is identified, therefore the Applicant seeks further discussions with NE and RSPB to understand their respective positions.
- 3.9 These submissions therefore seek to respond to the Ex.A's questions so far as reasonably practicable in these circumstances, but are necessarily preliminary in nature for the reasons set out above and are made without prejudice to the Applicant's primary case. It is not considered reasonable to go further with submissions regarding Article 6(4) at this stage, given it can only be on a speculative basis.
- 3.10 In the event the Ex.A and/or the Secretary of State produce a negative AA, or NE carry out a "shadow" AA or provide further reasoning and quantitative analysis to support their conclusion of adverse effect on integrity in respect of one or more European site, the Applicant respectfully asserts its legitimate expectation of the right to be afforded sufficient time to make further detailed representations.

⁹ DEFRA guidance, at paragraph 9.

4. Structure of Submissions Regarding Article 6(4)

4.1 The HRA process is often described as a sequential process. In practice, there is overlap and iteration. It is noted SWQs 2.2.7 and 2.2.44 first ask as to the extent of consideration of alternatives and compensatory measures. However, in practice, the potential for alternatives can only be gauged once the purpose of the project in question and the need for that project has been established.

4.2 This is reflected in DEFRA's advice: "*the first step is to identify the objective of the plan or project to help frame the consideration of alternatives*". That is because: "*alternative solutions are limited to those which would deliver the overall objective as the original proposal*"¹⁰. In other words, the IROPI must first be established, at least in outline. It is from this starting point that it is possible to begin to consider whether there is an absence of alternative solutions.

4.3 This is consistent with CJEU case law. In case C-441/03¹¹ the Advocate General said (our emphasis added):

*"An obligation to assess alternatives therefore **only arises** if, in such a situation [i.e. having failed the integrity test], the plan or project is **nevertheless to be carried out for reasons of overriding public interest**. If, on the other hand, it is decided not to go ahead with the plan or project, even in the case of a negative assessment of its implications an assessment of alternatives is rendered unnecessary."*

4.4 The Advocate General Opinion for case C-239/04¹² is consistent with the above, but goes further and indicates that the availability of a less harmful alternative does not necessarily mean the test is failed. Essentially, a balancing exercise is involved and the urgency and strength of the IROPI in a given case may have implications for how one approaches the question of alternatives:

"...among the alternatives short-listed in that way, the choice does not inevitably have to be determined by which alternative least adversely affects the site concerned. Instead, the choice requires a balance to be struck between the adverse effect on the integrity of the SPA and the relevant reasons of overriding public interest."

4.5 For these reasons, it is considered appropriate to respond to SWQs 2.2.7 and 2.2.44 in the following order:

4.5.1 the IROPI case for Hornsea Three is addressed in section 5 below.

4.5.2 the absence of alternative solutions is considered in section 6 below.

4.5.3 issues relating to compensatory measures is considered in section 7 below.

4.6 As noted earlier, the Applicant's submissions, particularly in respect of alternatives and compensatory measures, are necessarily preliminary for the reasons explained above.

¹⁰ DEFRA guidance, at paragraph 11

¹¹ Opinion of AG, C-441/03, *Commission v Netherlands*, paragraph 16.

¹² Opinion of the AG, C-239/04, *EC v Portuguese Republic*, paragraphs 44 - 46.

5. The IROPI Case for Hornsea Three

5.1 The precise parameters of IROPI are not fixed or defined by the Habitats Directive. While there are EC opinions involving consideration of IROPI, there is little case law. Ultimately, in line with the subsidiarity principle, the relevant national authority must determine any IROPI in a given case. In the context of Hornsea Three, IROPI is a matter for the Secretary of State for Business, Energy and Industrial Strategy.

5.2 However, it is helpful to consider European and UK guidance on the topic and relevant precedent (such as the Able Marine NSIP Examination Report and Decision¹³) and, by reference to that, the following subsections set out the Applicant's understanding of the IROPI requirement and confirm the basis for the Applicant's view that, should it be necessary, the Secretary of State can be satisfied there are IROPI which would justify the grant of development consent for Hornsea Three.

5.3 IROPI unconstrained for Hornsea Three

5.3.1 As set out at paragraph 2.4 above, SPAs do not host priority habitats or species and that applies to the FFC SPA. The Applicant can additionally confirm that the NNSSR and WNNC SACs do not host any priority habitat type or priority species subject to any likely significant effect as a consequence of Hornsea Three (alone or in combination). This is a question of fact and the Applicant would not expect any difficulty in this point being agreed with NE or any other SNCB.

5.3.2 The second paragraph of Article 6(4)¹⁴ (which limits the scope of IROPI in respect of any site hosting priority habitat or species) is not engaged in this case and the considerations which may be raised as IROPI for Hornsea Three are not constrained to those relating to "*human health, public safety, or to beneficial consequences of primary importance for the environment*" and may encompass a range of socio-economic benefits (without the need for an opinion from the EC).

5.4 IROPI not all equal in weight

5.4.1 While the full range of IROPI can apply for Hornsea Three, it is important to recognise that considerations relating to human health, public safety and beneficial consequences of primary importance are central planks of the case for Hornsea Three.

5.4.2 The basis for this statement is addressed in detail later in this section but the important point of principle is that the most important reasons which may arise in the context of IROPI, and the considerations which must carry most weight, are those arising under the heads: (i) 'human health', (ii) 'public safety' and (iii) 'primary beneficial consequences for the environment'.

5.4.3 This is evident from the structure of Article 6(4). Reasons falling into these categories are elevated in the sense of being automatically capable of overriding a key objective of the Habitats Directive of preserving priority habitats and species (i.e. habitats and species in

¹³ Panel's Findings and recommendations to the Secretary of State on the Able Marine Energy Park Order: 24th February 2013

¹⁴ Transposed in Regulations 64(2) & (3) of the Terrestrial Habitats Regulations and Regulations 29(2) & (3) of the Offshore Habitats Regulations.

danger of disappearing). Therefore, an IROPI case incorporating one or more reasons falling into one or more of these categories must have added force and weight and (all other things being equal) is more likely to be "overriding". This applies to Hornsea Three.

5.5 Key IROPI components

5.5.1 The ambit of IROPI is not precisely defined but the EC and DEFRA guidance articulate some broad principles¹⁵:-

- (a) **Urgency and importance:** There would usually be urgency to the objective(s) and it must be considered "indispensable" or "essential" (i.e. imperative). In practical terms, 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.
- (b) **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).
- (c) **Long-term:** The interest would generally be long-term; short-term interests are unlikely to be regarded as overriding because the conservation objectives of the Habitats and Birds Directives are long term interests.
- (d) **Overriding:** The public interest of development must be greater than the public interest of conservation of the relevant European site(s).

5.5.2 The above considerations are developed and considered further in the following sub-sections. But the general observation can be made that Article 6(4) necessarily involves, as all planning decisions do, the exercise of judgement and the weighing and balancing of competing interests informed by evidence.

5.6 A clear urgency and importance

5.6.1 Hornsea Three has a current estimated electrical installed capacity of approximately 2.4 GW. This is not an upper limit and the ultimate electrical capacity could be greater depending on eventual turbine selection¹⁶. On any measure, it is a major infrastructure project. The fundamental importance of and need to urgently deliver Hornsea Three is clear and demonstrable. It arises from the important and urgent requirement to deliver substantial amounts of renewable energy generating capacity. This serves three highly important legal and/or policy objectives:

- (a) Combating climate change and the threats it poses to human well being in the widest sense and the environment (including well recognised effects on birds). The policy to reduce carbon emissions is at the heart of all sustainable policies in Europe and the UK, whether planning or energy policies and whether promoted

¹⁵ See DEFRA guidance at paragraphs 23 – 27 and section 5 of MN 2000 guidance at (numbered) page 59.

¹⁶ See Applicant's response to Ex.A first written question 1.13.35.

for social, welfare, health reasons or to ensure the future of the planet. Climate change has implications for human health and public safety and is therefore not only a matter of beneficial consequences of primary importance for the environment.

- (b) Increasing security of energy supply in the UK by developing, at scale, indigenous electricity generating sources. The sustainable provision of affordable energy to consumers again is of relevance to human health and public safety in the UK.
- (c) Further to (a) and (b), which require substantial renewable energy development to occur, there is an objective to maximise the economic benefits to the UK from such development, including developing and sustaining a UK supply chain.

5.6.2 The DEFRA guidance advises¹⁷ that NPS and other documents setting out Government policy (e.g. the UK Renewable Energy Roadmap) provide a context for competent authorities in considering Article 6(4) and that projects which enact or are consistent with national strategic plans or policies (e.g. such as those provided for in NPS EN-1 and EN-3) are more likely to show a high level of public interest.

5.6.3 The genesis of Hornsea Three can be traced directly back to both national and international policies to combat global warming, which feed through into Government energy and in turn planning policy contained in the NPSs applicable to Hornsea Three. Furthermore, in the context of each of (a), (b) and (c) above, it can be seen that offshore wind has a critical role to play, given its scale, maturity, ever lower cost (relative to other forms of energy generation) and the highly skilled nature of the workforce required to build and service such infrastructure, particularly offshore elements. Not all forms of renewable energy are equal and interchangeable in the context of the contribution they can make.

5.6.4 Detailed information on the legal and policy drivers can be found in section 8 of the Statement of Reasons [APP-032], section 3 of the Planning Statement [APP-177] and Chapter 2 (Policy and Legislation) in Volume 1 of the ES [APP-057], but it is considered helpful to draw together key strands here and develop the key themes emerging from International, European and UK obligations and policy on climate change and carbon emission reduction and the NPSs relevant to Hornsea Three.

The COP21 UN Paris Agreement

5.6.5 The Paris Agreement (12 December 2015), ratified by the UK, sets out the need to limit the increase in global average temperature to “*well below 2°C*” above pre-industrial levels and to pursue “*efforts to limit the temperature increase to 1.5°C*”. To achieve this long term target, the text states (our emphasis added) “*parties aim to reach global peaking of greenhouse gas emissions as soon as possible*”. The agreement also includes a ratcheting mechanism on climate action, with countries having to communicate nationally determined contributions to reducing global emissions. The first global “*stocktake*” is to take place in 2023 and will follow every five years thereafter.

¹⁷ See paragraphs 14 and 26.

- 5.6.6 Moving to a low carbon economy is now a globally shared goal involving absolute emission reduction targets. For the first time, some 195 countries have committed to act together to address climate change and be held accountable. This is unprecedented and alone illustrates the essential importance and urgency of the need to tackle climate change.
- 5.6.7 It must also be noted that countries will be legally obliged to make new post-2030 commitments to reduce emissions every five years, so this is a long-term endeavour involving concerted action at the international level for decades to come.

The IPCC SR1.5 Report

- 5.6.8 The Intergovernmental Panel on Climate Change ("IPPC") published a 'Special Report on the impacts of global warming of 1.5°C above pre-industrial levels'¹⁸ in response to an invitation contained in the Decision of the Conference of Parties of the United Nations Framework Convention on Climate Change to adopt the Paris Agreement. The IPCC accepted the invitation in April 2016 and the Special Report, known as 'SR1.5', was published in October 2018.
- 5.6.9 SR1.5 concludes that human-induced warming reached approximately 1°C above pre-industrial levels in 2017. At the present rate, global temperatures would reach 1.5°C around 2040. SR1.5 makes clear that:

*"delayed action, limited international cooperation, and weak or fragmented - policies that lead to stagnating or increasing greenhouse gas emissions would put the possibility of limiting global temperature rise to 1.5°C above pre-industrial levels out of reach....warming will not be limited to 1.5°C or 2°C unless transformations in a number of areas achieve the required greenhouse gas emissions reductions. Emissions would need to decline rapidly across all of society's main sectors, including buildings, industry, transport, energy, and agriculture, forestry and other land use."*¹⁹

- 5.6.10 Actions that reduce emissions are referenced and include increasing the amount of energy produced from renewable sources and electrifying transport. SR1.5 also underlines the need for action now – limiting global warming to 1.5°C is said to require "rapid and far-reaching" transitions in land, energy, industry, buildings, transport, and cities²⁰ and require "unprecedented changes".
- 5.6.11 Following the publication of SR1.5, the Government and devolved administrations wrote to the UK Committee on Climate Change and asked them to update their advice to Government on setting targets for carbon emissions in light of the SR1.5 report and to

¹⁸ Global warming of 1.5°C: An IPCC Special Report on the impacts of global warming of 1.5°C above pre-industrial levels and related global greenhouse gas emission pathways, in the context of strengthening the global response to the threat of climate change, sustainable development, and efforts to eradicate poverty, October 2018

¹⁹ IPCC, FAQ 2.1.

²⁰ IPCC Press Release, 8 October 2018 (*ibid*).

consider whether the UK needs to reduce carbon emissions at a faster rate or to a greater extent than originally planned²¹.

The Climate Change Act 2008

- 5.6.12 The Climate Change Act 2008 commits the UK to a net reduction in greenhouse gas emissions (against the 1990 baseline) of at least 34% by 2020 and 80% by 2050. A system of carbon budgets is used to act as 'stepping stones', with each legally binding carbon budget set by Government for a five year period. A carbon budget is a cap on the amount of greenhouse gases emitted in the UK over the relevant five-year period. Budgets must be set at least 12 years in advance to allow policy-makers, businesses and individuals enough time to prepare.
- 5.6.13 The Climate Change Act 2008 also created a statutory body, the Committee on Climate Change, to advise on the appropriate level of each carbon budget. The budgets are designed to reflect a cost-effective way of achieving the UK's long-term climate change objectives and the first five carbon budgets have been put into legislation and run up to 2032, with reduction targets of 35% by 2022 and 50% by 2027 respectively, as against 1990 levels²².

EU Renewable Energy Targets

- 5.6.14 Back in January 2008, the EC published a '20-20-20' targets package, which forms part of the European response to the challenges noted above. This included proposals for:
- A reduction in the EU's greenhouse gas emissions of at least 20% below 1990 levels;
 - Increasing the proportion of final EU energy consumption from renewable sources to 20%; and
 - A 20% reduction in primary energy use compared with projected levels, to be achieved by improving energy efficiency.
- 5.6.15 These targets were to be achieved by 2020, as set out in the EU Renewable Energy Directive (March 2009²³) but progress has been mixed. The 20% is split between Member States. For the UK, the EC's obligations include 16% reduction in UK greenhouse gas emissions by 2020 and for 15% of all energy consumed in the UK to come from renewable sources by 2020. Although current renewable targets relate to 2020, the need to reduce carbon emissions is clearly a long-term endeavour and that need does not end in 2020.
- 5.6.16 Irrespective of progress towards such targets, the UK is legally committed to delivering "at least 15%" (i.e. a minimum) of its energy demand from renewable sources. That commitment currently arises from The Promotion of the Use of Energy from Renewable

²¹ https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/748489/CCC_commission_for_Paris_Advice_-_Scot__UK.pdf

²² The Carbon Budget Order 2009 and The Carbon Budget Order 2011.

²³ Following Brexit the UK may be released from its legal obligations to meet its renewable energy targets under the EU Renewable Energy Directive. However, given the UK would still be bound by national and international decarbonisation obligations, it is reasonable to anticipate renewable and low carbon energy development would continue to form a central part of UK Government climate change policy. For the present the UK remains part of the EU and the above legal obligations related to the 2020 and related targets remain fully in place.

Sources Regulations 2011, Regulation 3. This not a cap and represents a minimum target. The UK renewable energy targets are therefore essentially unconstrained. This is highly relevant to the consideration of alternatives to Hornsea Three and other offshore wind farms.

- 5.6.17 In practice, the position as of the end of 2017 (the full year for which figures are available) was that renewable energy only accounted for approximately 10.2% of energy consumption in the UK. There is therefore a major shortfall against the minimum 15% target²⁴ for 2020.
- 5.6.18 Moreover, it has always been envisaged that offshore wind would make a large contribution to the electricity generation element of the target, the need for offshore wind has strengthened over the last 5 years as a result of policy and regulatory changes to the subsidy framework for onshore wind, which has essentially brought onshore wind development to a standstill in England and (to a lesser extent) Wales.
- 5.6.19 Finally, it is noted that in 2018 the EU agreed a revised directive on renewable energy which set a headline target of 32% of energy from renewable sources by 2030. The directive is part of the 2030 Clean Energy Package. As the UK negotiates its exit from the European Union, it is not yet clear the extent to which this will apply to the UK and the implications regarding national renewable energy targets to 2030. Regardless, the Climate Change Act 2008 would continue to provide the legal framework under which decarbonisation continues for the UK's commitment to decarbonisation²⁵.

United Kingdom Energy Policy: Renewable Energy Strategy (2009) and Roadmap: Updates (2012 & 2013)

- 5.6.20 The UK Renewable Energy Strategy set out the means by which the UK aimed (at that time) to meet both its legally binding, minimum target of 15% of energy consumption from renewable sources by 2020 and advance its longer term decarbonisation agenda²⁶ out to 2030 and 2050. It presented a 'lead scenario' that more than 30% of electricity should be generated from renewables by 2020²⁷. As set out above, there is currently a major shortfall.
- 5.6.21 The last update to the UK Renewable Energy Roadmap was published some time ago (6 November 2013) but the positive picture it sets out in respect of offshore wind from pages 50 to 54 has not changed. Nor has the recognised strategic importance of offshore wind, which is articulated in paragraph 140 and 141 (our emphasis added):

"140. Offshore wind is an ideal technology for the UK where our shallow seas and strong winds make it an important national asset which will play a key role in enabling the UK to meet its legally binding 2020 renewable energy target. In the

²⁴ DECC, Digest of UK Energy Statistics (July 2018), Chapter 6.

²⁵ See <http://data.consilium.europa.eu/doc/document/PE-48-2018-INIT/en/pdf>; and <https://www.consilium.europa.eu/en/press/press-releases/2018/12/04/energy-efficiency-renewables-governance-of-the-energy-union-council-signs-off-on-3-major-clean-energy-files/>

²⁶ Renewable energy accounted for 10.2% of UK energy consumption in 2017 (Source: DECC, Digest of UK Energy Statistics (DUKES) July 2018).

²⁷ The contribution of all renewables to UK electricity generation was 29.3% in 2017, (*Ibid*).

following decades, the UK has ambitious plans to decarbonise the economy as part of the drive to tackle climate change. As offshore wind becomes a more mature technology and costs fall, it has the potential to play a very significant role in the 2020s and out to 2050 alongside other low carbon technologies...

141. The offshore wind sector has the potential to become one of significant strategic economic importance to the UK, supporting a competitive and quality UK supply chain and exporting expertise and technology all over the world. The UK is currently the world's biggest offshore wind market with more capacity deployed than any other country. We are very likely to remain the biggest market up to 2020 and potentially beyond".

- 5.6.22 If anything, the necessity of continued offshore wind development in meeting the Government's objectives has intensified and goes beyond interim 2020 targets – it is fundamental to the long-term objectives of largely decarbonising energy generation by 2030 and full decarbonisation by 2050. As costs continue to reduce and the offshore wind industry continues to mature, it can reasonably be expected (of all forms of renewable energy technology) to make the biggest and most decisive contribution to the UK's long-term decarbonisation objective and consequently to its economic and social prosperity.

The UK Clean Growth Strategy (2017)

- 5.6.23 In 2017 the UK Government published the Clean Growth Strategy in October 2017²⁸. The Clean Growth Strategy ("**CGS**") defines "clean growth" as "*growing our national income while cutting greenhouse gas emissions. Achieving clean growth, while ensuring an affordable energy supply for businesses and consumers, is at the heart of the UK's Industrial Strategy*".
- 5.6.24 The introduction refers to the 2015 Paris Agreement (see above) and states that the actions and investments needed to meet the Paris commitments will ensure the shift to clean growth will be at the forefront of policy decisions made by Government in coming decades. Reference is also made to the 2008 Climate Change Act, which as noted above commits the UK to reducing greenhouse gas emissions by at least 80% by 2050. In order to meet the 4th and 5th carbon budgets (covering the periods 2023 – 2027 and 2028-2032), the Government has stated: "*we will need to drive a significant acceleration in the pace of decarbonisation and in this strategy we have set out stretching domestic policies that keep us on track to meet our carbon budgets*"²⁹.
- 5.6.25 The CGS sets out a comprehensive set of policies and proposals that aim to accelerate the pace of clean growth i.e. to deliver increased economic growth and decreased emissions, within the context of two guiding objectives:
- (a) "*To meet our domestic commitments at the lowest possible net cost to UK taxpayers, consumers and businesses*"; and,

²⁸ The Clean Growth Strategy *Leading the Way to a Low Carbon Future*, UK Government, October 2017; <https://www.gov.uk/government/publications/clean-growth-strategy>

²⁹ Clean Growth Strategy, at page 9.

(b) *"To maximise the social and economic benefits for the UK from this transition"*³⁰.

- 5.6.26 Notably, the CGS includes plans to commission a further 10GW of offshore wind capacity in the 2020s. More recently the Government has clarified that it intends to increase offshore wind capacity by 1-2GW per year between now and 2030. The Government has also confirmed that up to £557m per annum would be available under the 'Low Carbon Levy Control' framework for Contracts for Difference for offshore wind and other renewable projects, a policy originally announced in the 2017³¹.
- 5.6.27 On 23 July 2018, Claire Perry, the Minister for Energy, announced that the Government will open an auction for Contracts for Difference for offshore wind projects in May 2019 and that it intends to run further auctions approximately every two years after that³².

The UK Industrial Strategy (2017)

- 5.6.28 The Industrial Strategy White Paper³³ was published in November 2017. The Strategy's overall aim is to create an economy that boosts productivity and earning power throughout the UK. What are termed 'grand challenges' are identified to put the UK at the forefront of the industry of the future. One of these is entitled 'clean growth' and the Government states *"we will maximise the advantages for UK industry from the global shift to clean growth"*.
- 5.6.29 Clean growth is further addressed at page 42 *et seq* and it is set out that *"we will maximise the advantages for UK industry – through leading the world in the development, manufacture and use of low carbon technologies, systems and services which cost less than high carbon alternatives"*. Thus it can be seen that low carbon technology such as offshore wind farms are a key component of the UK's broader industrial and economic strategy.

National Planning Policy

- 5.6.30 As noted above, the DEFRA guidance explains³⁴ that a project which enacts or is consistent with national strategic plans or policies such as one (or more) NPS, is likely to show a high level of public interest. Offshore wind projects such as Hornsea Three are covered by and strongly supported in principle by:
- (a) EN - 1 Overarching National Policy Statement for Energy (July 2011); and
- (b) EN - 3 National Policy Statement for Renewable Energy Infrastructure (July 2011).
- 5.6.31 The Applicant's evidence demonstrates overall that Hornsea Three is consistent with and draws significant support from NPS EN-1, EN-3 and EN-5. The basis for this conclusion in respect of the offshore environment can be found in Volume 2 of the Environmental Statement [APP-062 *et seq*] and section 5 of the Planning Statement [APP-177].

³⁰ Clean Growth Strategy, second column at page 10.

³¹ Clean Growth Strategy, at p16 and p99.

³² <https://www.gov.uk/government/news/energy-minister-claire-perry-hails-success-story-of-offshore-wind-in-newcastle-today>

³³ Industrial Strategy: "Building a Britain fit for the Future", UK Government, November 2017.

³⁴ DEFRA guidance, at paragraph 26.

- 5.6.32 These NPS overwhelmingly recognise the indispensable nature of and urgency for substantially more renewable energy in general terms and specifically for significant amounts of offshore wind capacity, in the national interest. This is articulated throughout NPS EN-1, but in brief:
- (a) Paragraph 2.1.2 notes energy is vital to the UK's economic prosperity and social well-being and that it is a matter of key national interest to ensure the UK has a secure and affordable energy. That necessitates a significant amount of infrastructure. Large scale energy infrastructure (such as offshore wind farms) has a key role.
 - (b) Paragraph 2.2.1 notes the Government's commitment to meet its legally binding target to cut greenhouse gas emissions by at least 80% by 2050, compared to 1990 levels. Major investment across a range of areas is essential, including "*cleaner power generation*". Paragraph 2.2.2 notes the need for a "*rapid change*", again underlining the urgency.
 - (c) Paragraph 2.2.8 echoes the central challenge (reinforced by the recent IPPC SR1.5 referred to above), that to avoid the most dangerous impacts of climate change the increase in average global temperatures must be kept to no more than 2°C. That means global emissions must urgently start falling.
 - (d) Paragraph 2.2.20 highlights challenges in relation to security of supply. It notes that it is critical that the UK continues to have secure and reliable supplies of electricity as it transitions to a low carbon economy. To manage the risks, it is essential to have "*sufficient electricity capacity (including a greater proportion of low carbon generation) to meet demand at all times*". Demand for electricity must be simultaneously and continuously met by its supply. A safety margin of spare capacity is essential to accommodate unforeseen fluctuations in supply or demand.
 - (e) NPS EN-1 is explicit that the energy sector is expected to deliver climate change objectives by delivering low carbon energy infrastructure. Paragraphs 3.1.1 to 3.1.4 are clear and provide (in summary):
 - (i) The UK needs all types of energy infrastructure to achieve energy security at the same time as dramatically reducing greenhouse gas emissions (3.1.1).
 - (ii) There is no upper target or limit on any technology (3.1.2).
 - (iii) All applications for energy NSIPs must be approached on the basis of an assumed need for that type of infrastructure (including offshore wind) and that the scale and urgency of that need is as described in the relevant NPS (3.1.3).
 - (iv) Substantial weight attaches to the contribution which such projects will make to satisfying the urgent need which the Government has identified (3.1.4).

- (f) Section 3.4 specifically addresses the role of renewable electricity generation and paragraph 3.4.2 summarises the benefits of large scale renewable energy projects (such as offshore wind):

"Large scale deployment of renewables will help the UK to tackle climate change, reducing the UK's emissions of carbon dioxide by over 750 million tonnes by 2030. It will also deliver up to half a million jobs by 2020 in the renewables sector. Renewables have potential to improve security of supply by reducing reliance on the use of coal, oil and gas supplies to keep the lights on and power our businesses".

- (g) Paragraph 3.4.3 notes that large-scale renewable energy generation is likely to come from one of five sources including offshore wind, which is expected to provide the largest contribution (our emphasis added):

"● Offshore Wind – offshore wind is expected to provide the largest single contribution towards the 2020 renewable energy generation targets."

- (h) Finally, the urgent need for new renewable electricity generation is again confirmed by paragraph 3.4.5, which concludes:

"Paragraph 3.4.1 above sets out the UK commitments to sourcing 15% of energy from renewable sources by 2020. To hit this target, and to largely decarbonise the power sector by 2030, it is necessary to bring forward new renewable electricity generating projects as soon as possible. The need for new renewable electricity generation projects is therefore urgent."

5.7 A clear public interest

- 5.7.1 For the reasons set out in the preceding section, the strategy to exploit the UK's offshore wind resource to produce renewable electricity, and to identify and develop offshore sites and the Round 3 Zones (including the former Hornsea Zone) for that purpose, is a fundamental, national policy pursued within a clear framework which seek to protect the environment and human health (from the consequences of climate change) and promote public safety.
- 5.7.2 Critically, it is a state-led policy. From the earliest rounds of offshore wind it has been promoted and pursued by the Government and The Crown Estate ("TCE"). This is true of Round 3 and sites such as Hornsea Three now coming forward within Zones identified earlier in the Round 3 process by the Government and TCE. Site appraisal was initiated by the Government through Strategic Environmental Appraisals ("SEA"), with subsequent site appraisal and delivery refined by TCE through SEA and Zone Appraisal and Planning ("ZAP") studies (see further at section 6.7 below).
- 5.7.3 However, neither the Government nor TCE has the expertise or wherewithal to be offshore wind developers. There is no public corporation authorised or able to deliver the policy and so the involvement of private companies to facilitate the delivery of the strategic policy is inevitable. Delivery of the national energy policy in the public interest can only be through the private sector at this time.

- 5.7.4 In this regard, the MN 2000 guidance³⁵ clarifies it is the nature of the interest, not the party promoting that interest, that must be public:

"As regards the 'other imperative reasons of overriding public interest' of social or economic nature, it is clear from the wording that only public interests, irrespective of whether they are promoted either by public or private bodies, can be balanced against the conservation aims of the Directive."

- 5.7.5 It is beyond doubt that projects developed by private bodies can be considered where such public interests are served. Thus, while the Applicant is a private company, in pursuing and seeking to deliver national and international policy objectives, the public interest requirement is met.

5.8 A long-term interest

- 5.8.1 For IROPI to arise, the public interest would usually be long-term. There can be no doubt that the public interest served by Hornsea Three is long term.
- 5.8.1 Combating climate change and the threats it poses to human well being and the environment is at the heart of all sustainable policies in Europe and the UK and represents the foremost challenge facing the planet out to 2050 and beyond. In the UK, the Climate Change Act 2008 sets out a statutory framework which seeks to deliver emission reductions over the period out to 2050. This is also reflected in numerous International agreements, European directives and UK law and policies as has been set out above.
- 5.8.2 Increasing security of energy supply in the UK by developing indigenous electricity generating sources is also a long term interest. Large energy infrastructure projects have a long lead time. At the same time, planning for the future energy needs and requirements of the UK is a long-term endeavour.

5.9 Overriding interests

- 5.9.1 Public interest can occur at national, regional or local level; as can IROPI provided the other elements of the test are met. In case C-239/04³⁶ (Castro Verde) Advocate General Kokott said:

"45. The necessity of striking a balance results in particular from the concept of 'override', but also from the word 'imperative'. Reasons of public interest can imperatively override the protection of a site only when greater importance attaches to them. This too has its equivalent in the test of proportionality, since under that principle the disadvantages caused must not be disproportionate to the aims pursued."

- 5.9.2 The relevant public interests relating to Hornsea Three must be set against the weight of the interests protected by the Birds and Habitats Directive, having regard to the nature and extent of the harm identified to the relevant Natura 2000 interests. The overriding nature of

³⁵ MN 2000, second paragraph at page 58

³⁶ *Commission v Portuguese Republic*, C-239/04.

the public interests engaged in this case should be evident from the suite of legislation and policy documentation summarised above and need not be repeated. In this case, in terms of the approach to the balancing exercise, two key points should be borne in mind:

- (a) First, there is an absence of any priority habitats or species which are particularly rare or endangered. That means IROPI considerations are unconstrained. At the same time, since the Habitats Directive differentiates "priority" habitats and species from other protected habitats and species, with the former receiving a higher level of protection, any adverse effect on integrity identified in this case, would not relate to features receiving the highest level of protection.
- (b) Second, related to the above, not all IROPI weigh equally in the balance. Hornsea Three would deliver benefits relating to human health, public safety and beneficial consequences of primary importance for the environment. These considerations carry greatest weight because these reasons are capable of automatically overriding the competing public interest of preserving priority habitats and species.

5.9.3 Therefore, in our submission, the IROPI case for Hornsea Three has added force and weight and is more likely to be "overriding". As a starting point, the balance of the scales is tilted favourably.

5.10 Recent UK Precedent: Able Marine Energy Park NSIP

5.10.1 As the only NSIP project approved to date in reliance upon an IROPI case, it is instructive to consider the Panel and Secretary of State findings in relation to the Able Marine Energy Park NSIP³⁷. This case involved a proposal for a new quay together with associated facilities, partly in (and with consequent adverse effects on) European sites in the Humber Estuary.

5.10.2 As the new facility is to be used for the manufacture of marine energy components, primarily offshore wind turbines, it was promoted by the applicant and authorised by the relevant Secretary of State on the basis of very similar IROPI to those engaged by Hornsea Three and outlined above (our emphasis):

"Chapter 5 of the ES relates the need for the development to a number of international, national and regional imperatives. The topics introduced are: the need to decarbonise world energy production, the importance to the UK of energy security, the importance of developing large capacity offshore wind turbines, the UK's need to increase its manufacturing base and the particular need for growth in the Humberside economy"³⁸

"At the same time the Panel notes that it is entirely on the basis that the application meets a need for a Marine Energy Park directly related to the offshore wind industry that the IROPI case has been put forward by the applicant and it is on that basis that the Panel supports the case presented. This is a significant

³⁷ Panel's Findings and recommendations to the Secretary of State on the Able Marine Energy Park Order: 24th February 2013

³⁸ Ibid, at paragraph 10.34

*point in relation to the inclusion of a clause in the DCO that creates a linkage between the new quay and the marine energy sector."*³⁹

*"Specifically, he accepts that the applicant has made a compelling case that the overriding public interest in decarbonising the means of energy production, securing energy supplies from indigenous sources, manufacturing large scale offshore generators, increasing the UK's manufacturing base, and regenerating the Humber sub-region together outweigh the loss of 45 hectares of a Natura 2000 site. He is satisfied that the AMEP development will make a significant contribution to meeting these imperative needs in the long term and will provide benefits for society as a whole. In this context, he agrees with the Panel that the AMEP site provides a unique opportunity to support the offshore renewable energy industry while making a major contribution to employment and the economy"*⁴⁰

- 5.10.3 The IROPI engaged by Hornsea Three are not only very similar to those readily endorsed by the Panel and Secretary of State for the Able Marine NSIP, but logically apply with much greater force to an offshore wind farm, especially one of the magnitude of Hornsea Three.
- 5.10.4 The Applicant submits it would be unreasonable and irrational to conclude climate change and renewable energy considerations are IROPI justifying a port development providing logistical support to the offshore wind sector, and not treat the same objectives as IROPI in the case of an offshore wind farm itself.

5.11 Preliminary IROPI Conclusion

The Applicant does not and cannot know at this stage what conclusion the Ex.A and in turn the Secretary of State may reach in relation to adverse effects on integrity and the extent of any such adverse effect attributable to Hornsea Three. Without that element, a final judgment cannot be reached that the IROPI supporting Hornsea Three inevitably override any adverse effect which other parties may identify in respect of the qualifying interests in respect of one or more of FFC SPA, WNNC SAC and NNSSR SAC. These submissions are necessarily preliminary. However, in conclusion, it is submitted that it is highly likely to be the case here for the following reasons:

- 5.11.1 Hornsea Three enacts and is consistent with national strategic policy in NPS EN-1 and EN-3 and therefore demonstrates a high level of public interest⁴¹.
- 5.11.2 NPS EN-1 and EN-3 are clear on the indispensable need for such energy projects including offshore wind – it is unconstrained and to be assumed.
- 5.11.3 NPS EN-1 and EN-3 are also clear that the need is urgent. That stands to reason: the sooner a given renewable energy scheme can be brought into operation, the sooner its benefit is felt in climate change terms and security of supply.

³⁹ Ibid, at Paragraph 10.52

⁴⁰ Paragraph 17, Annex 1 of the Secretary of State's decision letter.

⁴¹ DEFRA guidance, paragraph 26.

- 5.11.4 There is recent UK precedent which confirms the same or similar public aims and objectives which are at the heart of Hornsea Three constitute IROPI – see section 5.10 above in respect of Able Marine. It would be unreasonable to conclude climate change and renewable energy considerations are IROPI justifying port development to support the offshore wind sector, and not treat the same objectives as IROPI for an offshore wind farm.
- 5.11.5 Combating climate change and contributing to the provision of affordable and sustainable energy for future generations are objectives of fundamental social and environmental as well as economic importance which fall into the categories 'human health', 'public safety' and 'primary beneficial consequences for the environment; as these are the most important forms of IROPI, the case for Hornsea Three carries substantial weight.
- 5.11.6 The Applicant's evidence supports a conclusion of no adverse effect on integrity of any European site and no contrary evidence positively identifying an adverse effect on the integrity of any European site is presented by NE or any other party. As matters stand, any conclusion of adverse effect will be marginal. That is to say, likely to have been reached either on grounds of uncertainty and excessive precaution, or on account of the potential in-combination effect of Hornsea Three with other projects. It is far from certain that in reality there would be any adverse effect on integrity, far less a significant one.
- 5.11.7 On the other side of the equation, the potential contribution of Hornsea Three is particularly large and significant (e.g. the estimated provision of approximately 2.4 GW of additional renewable energy capacity with associated security of supply and economic benefits).
- 5.11.8 Finally, when weighing the final public interest balance, it is important to take account of the fact that the project which is contended may give rise to an adverse effect is also having a substantial beneficial effect at the same time on the receptors adversely affected i.e. seabirds, by combating one of the greatest threats to them.

6. No Alternative Solution(s)

- 6.1 The identification of 'less harmful alternatives' (if any) involves a calibration exercise and comparison of the effects (and benefits) of any potential alternatives against the adverse effects (and benefits) of the project under consideration. As set out above, the evidence submitted by the Applicant does not identify any adverse effect on the integrity of any European site, the Ex.A has yet to publish its RIES and NE has not yet precisely explained the nature nor quantified the extent of the alleged harm to integrity of any European site. For these reasons, the Applicant is unable to fully address the 'absence of alternatives' requirement at this stage.
- 6.2 However, without prejudice to the Applicant's primary position, and insofar as the Applicant has considered alternatives, the following preliminary submissions are made regarding the correct approach to consideration of alternatives and the implications for Hornsea Three:-
- 6.3 **Alternatives must facilitate the identified objectives**
 - 6.3.1 While Article 6(4) of the Habitats Directive can in principle require consideration of a range of options in order for a decision-maker to be satisfied of the absence of alternative

solutions to a project, the scope for alternatives is not limitless - there are important parameters.

6.3.2 First and foremost, alternative solutions are limited to those which deliver the overall objective(s) as the proposed development. Hornsea Three is a major infrastructure project which enacts fundamental and urgent national objectives articulated at the highest level in policy documents including NPS EN-1 and EN-3 for the purpose of:

- (a) reducing carbon emissions in line with the Climate Change Act 2008, by decarbonising the means of UK energy production by growing the development of offshore renewable energy;
- (b) ensuring security of energy supply for the UK;
- (c) supporting economic growth.

6.3.3 Paragraphs 13 and 14 of the DEFRA guidance confirm that the competent authority must use its judgement to ensure that the framing of alternatives is reasonable by reference to the identified objectives, as they provide the context and set the scope for consideration of alternative solutions.

6.4 Alternatives must be feasible

6.4.1 DEFRA's guidance states that what must be considered are (our emphasis): "other feasible ways to deliver the overall objective of the plan or project". The word 'feasible' is important and is also used in the MN 2000 guidance. DEFRA explain that this means (our emphasis):

*"The consideration of alternatives should be limited to options which are financially, legally and technically feasible. An alternative should not be ruled out simply because it would cause greater inconvenience or cost to the applicant. However, there would come a point where an alternative is so very expensive or technically or legally difficult that it would be unreasonable to consider it a feasible alternative."*⁴²

6.4.2 The consideration of alternatives is therefore not a speculative and hypothetical exercise. It must be grounded in the real world, with reference to proven options. The Applicant, Ørsted, is a world leading offshore wind developer with an extensive track record having over 5.6 GW of operational offshore capacity and approximately 4 GW under construction. The project envelope for Hornsea Three and the judgements the Applicant has made in terms of design and the feasibility of alternatives (financially, legally and technically) has been informed by a wealth of expertise and extensive successful track record, worldwide. Ørsted not only undertakes feasibility studies for offshore wind farm developments, put progresses to develop, consent, construct and operate these assets. It has also recently been one of the first developers to decommission an offshore wind asset. On this basis, insofar as other parties may suggest the availability of other options, it is reasonable to

⁴² DEFRA guidance, paragraph 18.

expect them to provide some evidence as to the feasibility of such options (financially, technically and legally).

- 6.4.3 EC guidance similarly recognises that alternatives must be "feasible" and that cost is a legitimate consideration. It has been suggested that when considering alternative solutions, EC guidance is to the effect that only ecological criteria can be considered. In our submission, that is wrong and takes the relevant advice out of context. Section 5.3 of MN 2000 (headed "*Initial Considerations*" on page 57), in full, provides as follows (our emphasis added):

"Subsequently, the competent authorities should examine the possibility of resorting to alternative solutions which better respect the integrity of the site in question. All feasible alternatives that meet the plan or project aims, in particular, their relative performance with regard to the site's conservation objectives, integrity and contribution to the overall coherence of the Natura 2000 network have to be analysed, taking also into account their proportionality in terms of cost. They might involve alternative locations or routes, different scales or designs of development, or alternative processes.

As concerns the economic cost of the steps that may be considered in the review of alternatives, it cannot be the sole determining factor in the choice of alternative solutions (C-399/14, paragraph 77). In other words, a project proponent cannot claim that alternatives have not been examined because they would cost too much.

In line with the principle of subsidiarity, it is for the competent national authorities to assess the relative impact of these alternative solutions on the site concerned. It should be stressed that the reference parameters for such comparisons deal with aspects concerning the conservation and the maintenance of the integrity of the site and of its ecological functions. In this phase, therefore, other assessment criteria, such as economic criteria, cannot be seen as overruling ecological criteria."

- 6.4.4 It is plain from the above that cost can be a factor, though not necessarily the only factor. The principle of proportionality is engaged and there does come a point when the cost of an alternative can legitimately be regarded as disproportionate. Read properly, the advice in the final paragraph above (that economic criteria cannot be seen as overruling ecological criteria) can be seen to relate to the final weighing of ecological and economic considerations at the second stage, when one is comparing any feasible alternatives identified.
- 6.4.5 This is particularly relevant in the context of offshore wind where the Contracts for Difference financial support regime, by means of competitive bidding auctions, is designed to drive down the cost of generating electricity from renewable energy sources with the objective of reducing cost to consumers. Although not the sole financing option, Ørsted is most likely to seek to secure a CfD for Hornsea Three as part of the UK Government's continued support for offshore wind. In this context it is important to note the general downward cost trajectory, as set out in the Applicant's Statement of Reasons [section 8 of

APP-032]: compared with the £140/MWh strike price obtained by Hornsea Project One in 2014, Hornsea Project Two obtained a strike price of £57.50/MWh in 2017.

6.4.6 This demonstrates the rapid and dramatic fall in the cost of offshore wind and the need to ensure future projects are cost-competitive. Within the auction, administrative strike prices are set to put a cap on the highest strike price a given technology can obtain in an auction. These are priced competitively by the UK Government to reflect the cost of the technology in question. A project must therefore be competitive in order to meet its internal financial return requirements at this strike price.

6.4.7 Further to this, in the event that an auction budget cannot cover all those who apply at the administrative strike price then a competitive auction will dictate the winner of a CfD contract. In a competitive auction scenario only the lowest bids will secure a contract and therefore any uncompetitive projects will not be successful. The UK currently is a mature market with a great deal of competition for CfD contracts and as was the case in auction round two, prices are dropping quickly.

6.5 "Do nothing" is not an option

6.5.1 While the DEFRA guidance advises that the "do-nothing" option should be considered, it acknowledges this would rarely be a true alternative:

"Normally this would not be an acceptable alternative solution because it would not deliver the objective of the proposal. However it can help form a baseline from which to gauge other alternatives. It can also help in understanding the need for the proposal to proceed, which will be relevant to any later consideration of the IROPI test..."⁴³

6.5.2 In the case of the Able Marine NSIP, the Panel similarly concluded, and the relevant Secretary of State accepted, that the consideration of alternatives has to be realistic and undertaken in the context of a real-world project⁴⁴:

"We do not consider that the notion of alternatives can reasonably be cast so wide as to include any and every possible alternative strategy. Although a 'do nothing option' must be considered, an application must reasonably relate to a specific project, and it is in the context of that project that alternatives arise. In this case the applicant has argued the case in relation to alternative sites, alternative designs, alternative scales and alternative methods of operation. The Panel concludes that the examination of alternatives has been realistic and appropriate."

6.5.3 The Secretary of State similarly concluded:

"The zero option would clearly fail the objectives of the development to decarbonise the means of electricity production, to provide secure energy

⁴³ DEFRA guidance, at paragraph 17,

⁴⁴ See paragraph 10.50, Panel's Findings and recommendations to the Secretary of State on the Able Marine Energy Park Order: 24th February 2013

*supplies for the UK and to improve EU competitiveness by creating jobs and growth in a sector in which European business is a global leader."*⁴⁵

- 6.5.4 On the basis that UK renewable energy targets are *unconstrained*, as a matter of straightforward logic, there can be no ruling out of projects meeting an unconstrained need on the basis that there are alternative solutions. All available solutions i.e. all relevant projects are needed. Recent announcements regarding the prospect of further offshore wind licensing rounds (project "extensions" and a potential "Round 4") are further evidence that more offshore wind is considered necessary. Regardless, the public objectives that Hornsea Three (as a substantial offshore wind project) would serve as set out in section 5 above encompass considerations relating to human health, public safety, and provide beneficial consequences of primary importance for the environment and carry great force. Doing nothing is not a realistic option.

6.6 Other forms of energy generation are not alternatives

- 6.6.1 DEFRA explain in their guidance⁴⁶ that the competent authority must use its judgement to ensure that the framing of alternatives is reasonable. With regard to the specific example of an offshore wind farm they state (second bullet, our emphasis added):

"In considering alternative solutions to an offshore wind renewable energy development the competent authority would normally only need consider alternative offshore wind renewable energy developments. Alternative forms of energy generation (e.g. building a nuclear power station instead) are not alternative solutions to the project as they are beyond the scope of its objective."

- 6.6.2 The Applicant submits that the above statement is correct. Conventional forms of energy generation (coal, gas, nuclear) cannot be alternatives to an offshore wind project as they do not contribute to renewable energy targets. Other forms of renewable energy generation are not alternatives to offshore wind because the UK Government has determined that it is necessary for the energy mix to include a substantial component of offshore wind (irrespective of any other forms of renewable generation that may be developed). This is evident from NPS EN-1 and EN-3, the latter stating that offshore wind is expected to provide a "significant proportion of the UK's renewable energy generating capacity up to 2020 and towards 2050"⁴⁷. Developing solar or onshore wind farms does not deliver that objective. Moreover, the UK Government has set its mind against further onshore wind development at this time, and neither onshore wind nor solar can be developed at the same scale as offshore wind and do not provide the same level of economic benefit.

6.7 Other location(s) are not alternatives

Locations in other countries do not deliver relevant objectives

- 6.7.1 In view of the specific UK legal obligations and targets in relation to carbon emission reductions and renewable energy generation, and given different EU countries have

⁴⁵ Paragraph 15 in Annex 1 of the Secretary of State's decision letter on Able Marine.

⁴⁶ DEFRA guidance, at paragraph 13.

⁴⁷ NPS EN-3, at paragraph 2.6.1.

different binding targets in respect of both, projects outside the UK cannot count towards the need identified. Accordingly, consideration of proposals in different countries does not apply here.

No feasible locations outside former Hornsea Zone

- 6.7.2 In the UK context, this application is founded on, initially, an extensive and rigorous UK wide zone selection process undertaken over many years originally by the Government and TCE and, subsequently, by an equally extensive and rigorous project specific site selection process within the former Hornsea Zone.
- 6.7.3 The process and factors which influence and constrain site selection and design are described in NPS EN-3 from paragraph 2.6.15 through to 2.6.35, and also discussed in section 4.4 of the ES and illustrated on Figure 4.1 (*Two stage selection process of Round 3 offshore wind farms*) in the ES Vol.1, Ch. 4 "Site Selection and Consideration of Alternatives" [APP-059].
- 6.7.4 TCE holds the exclusive right to grant licences for offshore wind farms under the Energy Act 2004. Following the development of Round 1 and Round 2 offshore wind farm sites, TCE in conjunction with DECC (now part of the Department for Business, Energy and Industrial Strategy (BEIS)), embarked on a programme of site selection for offshore wind. As noted in NPS EN-3⁴⁸, TCE identifies potential development areas in accordance with The Crown Estate Act 1961, Government policy, plans and associated SEA work. For Round 3 this involved an approach based on the development zones, which ultimately included the former Hornsea Zone in its entirety.
- 6.7.5 TCE led the process to identify zones using MaRS (its Marine Resource System GIS tool). Initial areas of opportunity identified were then:
- (a) excluded if there were conflicting uses in place or planned;
 - (b) weighted for restriction if there were constraints such as nature conservation; and
 - (c) reviewed for local factors which included "sensitive bird areas".
- 6.7.6 11 initial zones were subject to consultation. In the course of this exercise the 11 zones were then adapted to 9 zones. Finally, slight boundary adjustments were made to the 9 'Round 3' Zones. The former Hornsea Zone was therefore developed following consultation initiated by TCE with stakeholders before a tender round was issued to potential developers with the intention for them to submit proposals as to how and when to develop projects within the former zones (of which Hornsea was one).
- 6.7.7 In December 2009 SmartWind (a consortium of Mainstream and Siemens Renewables) was awarded the Zone Development Agreement ("**ZDA**") for the former Hornsea Zone. In 2015, Ørsted acquired SmartWind and now owns the rights to develop within the former zone, with the intention of maximising benefits from the leased seabed to harness offshore

⁴⁸ NPS EN-3, at paragraph 2.6.21.

wind and turn this into energy to support the Government's focus on increased renewable energy contribution to energy supply.

- 6.7.8 As noted in NPS EN-3⁴⁹, the award of ZDAs amounted to a plan within the meaning of the Offshore Habitats Regulations⁵⁰ and therefore an Appropriate Assessment was carried out by TCE, as competent authority, before the ZDAs were awarded.
- 6.7.9 In parallel, DECC concluded a Strategic Environmental Assessment ("**SEA**") in accordance with the Environmental Assessment of Plans and Programmes Regulations 2004 (the SEA Regulations). As set out in NPS EN-3, through this Offshore Energy SEA ("**OESEA**") (DECC, 2009), the Government assessed *"the environmental implications and spatial interactions of a plan/programme for some 25GW of new offshore wind capacity, on top of existing plans for 8GW of offshore wind"*. The OESEA included consideration of alternatives to the draft plan/programme for all elements covered by the SEA, including future offshore wind leasing. The Government concluded there were no overriding environmental considerations to prevent the achievement of the plan/ programme.
- 6.7.10 In conclusion with regard to site selection:
- (a) Developers can only bid for the right to develop sites or zones made available by TCE. Sites not within areas identified to date by the TCE are not legally available.
 - (b) The location / boundaries of the former Hornsea Zone were outside the control of the Applicant and locations outside the former Hornsea Zone are not legally available to the Applicant (i.e. not feasible). Furthermore, the coordinates within the Agreement for Lease awarded by TCE mean Ørsted has to focus development projects within identified areas of the former Hornsea Zone.
 - (c) But in any event, the identification of the former Hornsea Zone was the output of a robust Government and TCE process involving SEA on the environmental implications of developing 25GW of offshore wind (which encompassed the Round 3 proposals) to identify indicate relative levels of constraint and opportunity, and an AA by TCE of its plan to award the 9 ZDAs. The former Hornsea Zone, within which Hornsea Three is located, was identified through this process.
 - (d) There is no good published evidence that identifies other less constrained sites which could host a comparable large-scale offshore wind proposal and avoid or have less impact on Natura 2000 interests. No one has identified an alternative location that could replace the current proposal wholesale.
 - (e) The notion that as yet unidentified and unconstrained areas exist to deliver the scale of development required, without the same or similar effects on the same or other Natura 2000 interests is speculative, as is the proposition that it is possible that a number of smaller schemes, developed incrementally across a

⁴⁹ NPS EN-3, at paragraph 2.6.23

⁵⁰ At the time the extant regulations being the Offshore Marine Regulations (Conservation Natural Habitats, &c) 2007.

wider geographical area, could come forward and deliver the same benefits, without similarly giving rise to impacts on Natura 2000 interests (cumulatively if not individually). Neither can reasonably be viewed as an alternative to Hornsea Three.

Feasible alternative locations within the former Hornsea Zone

- 6.7.11 As discussed in section 4.6 of Chapter 4 of the ES [APP-059], TCE initially established a target capacity of 4GW of generating capacity within the former Hornsea Zone, which was to be met through the development of several offshore wind farms.
- 6.7.12 The identification of discrete project sites within the former Hornsea Zone was carried out using the process of ZAP as recommended by TCE specifically for Round 3 and endorsed within NPS EN-3⁵¹. This process seeks to identify areas of least and greatest constraint/opportunity. Details in relation to identification of the areas for the Hornsea projects are provided in section 4.6 of Chapter 4 of the ES [APP-059].
- 6.7.13 Hornsea Projects One and Two, located in the central part of the former Hornsea Zone, were pursued first and have been consented on the basis there would be no adverse effect on integrity alone or in combination. Those locations are no longer available. The consenting of these projects does not lessen the scale or urgency of the need for further large-scale offshore wind projects, either in general terms or within the former Hornsea Zone (for all the reasons set out in preceding sections).
- 6.7.14 As set out in paragraph 4.6.1.8 of Chapter 4 of the ES, the Applicant carefully assessed the remaining areas of the former Hornsea Zone (the eastern portion, within which Hornsea Three is located, and the western portion, within which the Hornsea Four project (at scoping stage) is now proposed) against a range of technical and environmental criteria including Natura 2000 interests, and the Hornsea Three site was preferred.
- 6.7.15 For all the reasons set out above, there is no good published evidence that identifies other less constrained sites either inside or outside the former Hornsea Zone which could host a comparable large-scale offshore wind proposal and avoid or have less impact on Natura 2000 interests generally such that they should be preferred.

6.8 Design alternatives considered by Applicant

- 6.8.1 In the absence of detail from NE at this stage as to the nature and extent of any adverse effect on integrity which they contend arises in respect of relevant qualifying features of the FFC SPA, the WNNC SAC and NNSSR SAC, it is not possible (other than on a speculative basis) for the Applicant to set out specifically in respect of each European site why there are no further feasible measures beyond those already adopted which would serve to avoid or further reduce the impacts of concern to NE.

⁵¹ See EN-3 paragraphs 2.6.26 – 2.6.28.

6.8.2 Pending further engagement from NE, details relating to the Applicant's selection of the Hornsea Three array area, the landfall location and consequent routing of the offshore cable corridor can be found in the following documents:

- (a) ES Volume 1, Chapter 4: *Site Selection and Consideration of Alternatives of the Environmental Statement* [APP-059]
- (b) ES Volume 4, Annex 4.1 - *Grid Connection and Refinement of the Cable Landfall* [APP-092]
- (c) ES Volume 4, Annex 4.2 - *Selection and Refinement of the Offshore ECR and HVAC Booster Station* [APP-093].

6.8.3 Tables 4.2 and 4.7 of the RIAA [APP-051] additionally list design and mitigation measures adopted by Hornsea Three relative to benthic ecology and ornithology interests. The information presented in the above documents demonstrates the careful and extensive consideration of alternatives encompassing alternative sites, landfall locations, export cable routing, and different scales and designs of development which inform the current project envelope for Hornsea Three.

6.8.4 However, the Applicant considers it may assist to draw attention to the following general and specific points on location, design etc.:-

General

6.8.1 Ultimately it will be for the competent authority to determine the range and type of possible alternatives that should be considered, but it must use its judgement to decide what is reasonable and it should be acknowledged that there are limiting factors which serve to constrain feasible alternatives.

6.8.2 One key constraint is that the final grid connection offer is made at the discretion of National Grid. This in turn constrains the potential options in terms of landfall location, which in turn constrains the feasible offshore export cable routes between the array area (which must fall within boundaries set by TCE) and the landfall location.

6.8.3 Another limiting factor is the increasing number of designated sites between the Hornsea Three array area and the UK shoreline. Figure 3.1 of the RIAA [APP-051] illustrates the location of the Hornsea Three array relative to the European sites. When Figure 4.6 of the ES [Volume 1, Chapter 4, APP:049] is considered alongside Figure 3.1 of the RIAA, the significant constraining factors (legal, technical and financial) are readily apparent. All feasible export cable routes to shore intersect with one designated site or another to various extents; furthermore, seeking to avoid or reduce impacts on one designated site has implications for others and (all other constraining factors being equal) a balance has to be struck.

NNSSR SAC & WNNC SAC

6.8.4 For technical and cost reasons, offshore cable routing is a minimisation exercise to find the shortest route from the offshore array area to the selected landfall site, under constraints

dictated by engineering limitations, physical, third party and seabed use (e.g. avoid or minimise cable crossings) in addition to environmental considerations. In this context it should be noted:-

- (a) The NNSSR SAC extends from approximately 40 km off the north Norfolk coast out to approximately 110 km offshore and encompasses the most extensive area of offshore linear ridge sandbanks in the UK. Given the relative positions of the Hornsea Three array area and landfall area respectively, avoiding the SAC completely is not considered feasible. Although it is not considered feasible to avoid the NNSSR SAC, the Applicant has sought to minimise the extent of offshore cable corridor within the NNSSR SAC. This is apparent from ES Figure 4.6 of the ES [Volume 1, Chapter 4, APP:049] which identifies the various offshore cable corridor route options considered by the Applicant, with the selected route being the one which limited the interaction with the NNSSR SAC.
- (b) Initially preference was given to reducing overlap of the offshore cable corridor with the WNNC SAC over the Cromer Shoals MCZ. The reroute in the nearshore to reduce the length of cable within the MCZ, and increase the footprint within the WNNC SAC, was driven by stakeholder feedback including from NE and concerns that the impacts on the MCZ would be greater in relative terms (given the possibility of irreversible effects to sensitive protected features within the MCZ). In view of the strength of concerns raised by NE and others, the original (alternative) proposed nearshore routing of the offshore cable corridor through the MCZ is no longer considered feasible.

- 6.8.5 The Applicant is committed (as primary mitigation) to seek to avoid Annex I reefs within the SAC, wherever possible.
- 6.8.6 The Applicant is also committed to employing sensitive cable protection within both SAC. The cable protection measures used within SAC will not include concrete mattresses. The cable protection grain sizes used will consider the local seabed conditions within each of the NNSSR and WNNC SAC including sediment/substrate type.
- 6.8.7 The Applicant is also now able to confirm that remedial cable protection within designated sites could be decommissioned at the end of the operation and maintenance phase, subject to agreement from regulatory and nature conservation bodies at that time.
- 6.8.8 The Applicant's position in respect of the need to include both the HVAC and the HVDC transmission system options is set out in Appendix 22 of the Applicant's Deadline 2 submission (Transmission System (HVAC/HVDC) Briefing Note [REP1-164]) and was also addressed in the Applicant's oral case put at Issue Specific Hearing 1 (see written summary in REP3-003).

FFC SPA

- 6.8.9 In relation to location, the Hornsea Three array area lies to the east of Hornsea Projects One, Two and Four offshore wind farms. Of all locations within the former Hornsea Zone, it is located the furthest possible distance from the FFC SPA.

- 6.8.10 In relation to scale, responding to consultation with stakeholders, the maximum proposed number of turbines was reduced from 342 (proposed in the Preliminary Environmental Information Report), to a maximum of 300 (present). This reduced impacts on several receptors including key ornithological receptors.
- 6.8.11 A minimum wind turbine hub-height of 127.47 m (above LAT) has been adopted for Hornsea Three. This provides for a lower blade tip height clearance of 34.97 m LAT and was selected in order to minimise the risk of bird collisions.

7. Compensatory Measures

- 7.1 The obligation under Article 6(4) is for the relevant Member State to take all compensatory measures necessary to ensure that the overall coherence of Natura 2000 is protected. There is no legal authority on the overall question of how the "*protection of the overall coherence of Natura 2000*" should be interpreted or applied.
- 7.2 As repeated throughout these submissions, the Applicant does not identify any adverse effect on integrity of any European site and does not consider it necessary to identify compensatory measures. Furthermore, the nature and extent of compensatory measures can only be addressed if and when the precise nature of any adverse effect on integrity has been identified and quantified by the person contending that such effects arise. Specifically, the Applicant does not and cannot know at this stage:
- 7.2.1 Whether the Ex.A will advise or the Secretary of State will conclude that there is an adverse effect alone or in combination, and in the latter case what contribution to a cumulative effect is attributable to Hornsea Three;
- 7.2.2 If the Ex.A advises or Secretary of State concludes an adverse effect,
- (a) which particular species and/or habitats will this relate to;
 - (b) to what degree the contended impact is above the acceptable threshold for each relevant species / habitat (i.e. the level at which there would be no adverse effect on integrity), and
 - (c) insofar as in-combination concerns arise, what proportion of an adverse effect is considered to be attributable to Hornsea Three as compared to any other plans or projects.
- 7.3 Given this background, the Applicant has not identified any relevant compensation at this stage. This is reasonable, particularly since a real and fundamental doubt exists as to whether an adverse effect will actually arise in practice and if so what the extent of that impact may be.
- 7.4 The Applicant is open to discuss this matter in principle on a without prejudice basis with NE to understand its views on potential compensatory measures, in the event that the Applicant's primary case that Article 6(4) need not be invoked at all is not accepted and the Secretary of State is

considering this question. In this context it is noted that DEFRA advise that competent authorities and SNCBs should help applicants identify suitable compensatory measures⁵².

7.5 The Applicant would also reiterate that, if the Secretary of State is minded to or concludes that there is an adverse impact on integrity alone or on an 'in combination' basis, and that the Project satisfies the 'no alternative solutions' and IROPI requirements, but that compensatory measures are required, that the Applicant has a legitimate expectation that it would have the opportunity to make full submissions on this question and enter into discussions with the Secretary of State and NE. The Applicant would strongly reiterate that its primary case is that this situation should not arise.

7.6 In the circumstances, the remainder of the response to this topic addresses matters of principle relating the scope for compensation, namely:

7.6.1 The special circumstance of a conclusion of adverse effect based on uncertainty and precaution, where the statutory advisor has not or has declined to advise on the threshold at which they say that adverse effect on integrity begins to arise;

7.6.2 The level of required certainty as to the effectiveness of compensatory measures;

7.6.3 Proportionality - the extent to which compensatory measures are "*necessary*", including the point that the climate change and other benefits of Hornsea Three could themselves be regarded as compensatory measures.

7.7 Cases involving an AEol conclusion based on uncertainty and precaution

7.7.1 The present case may be considered unusual in that (based on NE's current position) if a conclusion of adverse effect on integrity is reached alone or on an in combination basis, it would be on the basis of an insufficient degree of confidence (on the part of NE) in ruling out an adverse effect, rather than a result of positive and uncontroversial evidence that an adverse effect will indeed occur. This is clear from the evidence of NE.

7.7.2 There are two potential categories of adverse effect conclusion as a result of the *Waddenzee*⁵³ case:

- (a) A positive conclusion of adverse effect, typically as a result of construction works within the Natura 2000 site as a result of e.g. a port, which is known in advance and can be the subject of advance consideration in terms of appropriate compensation inside and outside (e.g. by way of replacement habitat) the affected site and detailed discussion with the relevant SNCB to agree a deliverable and funded set of proposals; and
- (b) A conclusion based on uncertainty of effect due to an absence of evidence or issues of interpretation of the available evidence, such that, in applying the precautionary principle as required by *Waddenzee* an adverse effect cannot be ruled out.

⁵² DEFRA guidance, at paragraph 30.

⁵³ C-127/02, Landelijke Vereniging tot Behoud van de Waddenzee and Nederlandse Vereniging tot Bescherming van Vogels v Staatssecretaris van Landbouw, Natuurbeheer en Visserij

- 7.7.3 The present case would seem to fall into the second category. It is submitted that, in various respects, a conclusion based on uncertainty and precaution must necessarily be approached differently to one based on clear, positive evidence of a demonstrable adverse effect on integrity.
- 7.7.4 DEFRA's guidance recognises that in designing compensation requirements, competent authorities and SNCBs should ensure the requirements are "*flexible to ensure adequate compensation without going further than necessary*"⁵⁴. DEFRA has in contemplation a case where the anticipated harm to a site proves to be less than anticipated, such that compensatory measures could be scaled-back. The issue is more acute where the adverse effect may not arise at all, such that compensation was never "necessary". In this context it may be noted:
- (a) research projects continue (e.g. the Offshore Renewables Joint Industry Project – ORJIP) with government and industry funding intended to provide a firmer evidence base;
 - (b) there are key disputes between the Applicant and NE, particularly over the adequacy of the baseline characterisation and the correct approach to risk assessment (notably Collision Risk Modelling). However, on some of the points NE has previously provided different advice, their advice now differs from that being provided by other SNCBs (eg SNH). Furthermore, projects have recently been consented in Scotland (Neart na Gaoithe) that have a similar, if not greater, proportional effect on the same species which form the qualifying interest features of other SPAs. The implication is that if the current application were being decided in Scotland, under the same Habitats regime, no issue of adverse impact on the SPA might arise.
 - (c) other approved plans or projects may not proceed, or where they do proceed, may not fully-build out to the size and extent consented or assessed in the corresponding EIA, such that the conclusion of an adverse effect on integrity is likely to have been predicated on a false cumulative baseline (on a precautionary basis). This is addressed further in Appendix 4 of the Applicant's Deadline 1 submission (Analysis of precaution in cumulative and in-combination assessments – as-built scenarios)[REP1-148].
- 7.7.5 This gives rise to important questions including:-
- (a) What can be said to be "necessary" if it is accepted by the SNCB and the decision maker that the adverse effect may not arise at all. This is a fundamental point of principle in relation to an "uncertainty" conclusion. Is it reasonable to apply compensation where the need for it is in real doubt?
 - (b) If, post consent but before commencement of construction, new evidence is forthcoming (which supports the Applicant's case), or NE changes its position on impact assessment methods and assumptions (leading to them advising no

⁵⁴ DEFRA guidance, at paragraph 33.

AEOI), compensatory measures would not be necessary in that scenario, raising the question of whether they can properly be imposed?

- (c) If compensatory measures are identified as necessary and become available, how would they be calibrated and allocated between offshore projects which collectively have given rise to the conclusion of adverse impact on integrity?

7.8 Reasonable scientific doubt is permissible

- 7.8.1 Insofar as compensatory measures may be found to be necessary, it has previously been established in Able Marine Energy Park NSIP that the standard of “*no reasonable scientific doubt*” is not applicable to compensatory measures. This was accepted by NE and endorsed by both the Panel and Secretary of State in Able Marine:

"But NE states that it does not consider that European Law includes a test of 'no reasonable scientific doubt' (as RSPB seeks to argue) in relation to the success of compensatory measures under Article 6(4) of the Habitats Directive. NE considers that the correct test in Article 6(4) is a judgement that the compensatory measures must be sufficient to ensure the overall coherence of Natura 2000 is protected."

*"The Panel concurs with this view, and agrees with the applicant that the test of 'no reasonable scientific doubt' that there will be no adverse impact derived from the Waddenzee case can not reasonably be applied to assessing the likely outcomes of compensation measures. Any compensation measures should be designed to secure the desired outcomes, but as the success of such measures can rarely be predicted with certainty it is not possible to say that there is 'no reasonable scientific doubt' as to their success."*⁵⁵

- 7.8.2 This principle can also be implied from remarks in CJEU cases, for example the joined cases C-387/15⁵⁶ and C-388/15⁵⁷ concerning redevelopment of the port of Antwerp. In considering the distinction between mitigation and compensation, the Court expressed the view that: *"Any positive effects of new habitats to be created in the future are very difficult to forecast with certainty and could only be evident several years into the future."* It must follow from such statements that scientific doubt is permissible in the context of compensatory measures.
- 7.8.3 This is an important point in the context of the potential range of compensation options that may be considered, should the need arise for Hornsea Three – it is not the case that any compensatory measures would necessarily have to be 'proven' in order for them to be taken into account, should this become necessary.

7.9 Proportionality - the extent to which compensatory measures are necessary

⁵⁵ See 10.175 & 10.176 of Panel's Findings and recommendations to the Secretary of State on the Able Marine Energy Park Order: 24th February 2013

⁵⁶ Hilde Orleans and Others v Vlaams Gewest

⁵⁷ Denis Malcorps, Myriam Rijssens, Guido Van De Walle v Vlaams Gewest

- 7.9.1 There is no legal authority on how the protection of the "overall coherence of Natura 2000" should be interpreted or applied⁵⁸. However, the MN 2000 guidance advises⁵⁹ that, amongst other things, it would be necessary to consider the relative importance of a site to the coherence of the network. This could be done by reference to the species and/or habitats protected (e.g. are they priority habitats or species), the site's conservation objectives, the number and status of the habitats and species for which it has been designated, and on its role in securing an adequate geographical distribution in relation to the range of the habitats and species concerned.
- 7.9.2 MN 2000 gives the example of a project that would damage an area of a rare habitat type with a very restricted range, and for which the site in question is one of very few sites designated for that habitat type, where the compensatory measures may need to be substantial. Conversely, if the project will damage a habitat for a species which has a wide range across the EU, and for which the site in question has only a minor role to play in its conservation, the compensatory measures may be much less onerous. In the context of Hornsea Three, it is relevant to note:
- (a) **FFC SPA:** none of the key seabird species of particular concern (kittiwake, gannet, auks) are especially rare or highly protected. They are all widespread in the UK, to some extent north-west Europe and even wider.
 - (b) **WNNC SAC:** the sub-features affected by Hornsea Three are Subtidal Mixed Sediment, Subtidal Sand and Subtidal Coarse Sediment, all of which are widely distributed across the southern North Sea (e.g. included as features of most of the MCZs in Tranches 1-3).
- 7.9.3 The principle of proportionality is a fundamental principle of EC law contained in Art. 5 of the Treaty on the Functioning of the European Union and is to be applied generally. The use of the word "necessary" imports proportionality into the Habitats Directive.
- 7.9.4 The role of proportionality was considered by the Court of Appeal in *R (oao Ardagh Glass Ltd. V Chester City Council* [2010] EWCA Civ 172. Sullivan L.J said:
- "16 While Member States must take all appropriate measures to ensure compliance with the directive and to nullify the effects of any breach, it is a fundamental principle of community law that such measures must themselves be proportionate."*
- 7.9.1 In the present case, Hornsea Three would contribute towards the imperative of sustainability from the producing of electricity from renewables. Conversely, though important and protected, the species and habitats affected in this case are not especially rare and endangered. In deciding the balance between sustainable, economic and social benefits and the particular impacts on habitats a proportional exercise is required. In such circumstances, the approach to compensatory measures cannot be disproportionate and so extreme that, even in a case where the environmental benefit of a project is unarguably great, it would be necessary to refuse the project however undesirable that might be. It is

⁵⁸ Panel's Findings and recommendations to the Secretary of State on the Able Marine Energy Park Order: 24th February 2013

⁵⁹ MN 2000, second paragraph on page 62.

not the aim of the Directive to take such an overly restrictive approach which would undermine its balanced objective.

- 7.9.2 The Applicant submits that the balancing exercise does not require all harm to be compensated or justified as imperative in the public interest, merely that which tipped the balance on the appropriate assessment from positive to negative. In other words, the compensatory measures must offset those impacts that lie above the acceptable threshold for each relevant species / habitat (i.e. the level at which there would be no adverse effect on integrity). The obligation requires no more than that which is necessary to make the impact just less than that which would give rise to adverse effect on integrity.
- 7.9.3 This principle is reflected in DEFRA's guidance at paragraph 32, which states bluntly: *"Competent authorities should not require more compensation than is needed to ensure the integrity of the network of European sites is maintained"*. This further underlines the importance of DEFRA's advice that SNCBs should provide their view on *"the extent of any AEol and the compensatory measures required"*⁶⁰ (our emphasis).
- 7.9.4 It is submitted that the use of the word "necessary" also contemplates there may be occasions when overall coherence of Natura 2000 is not harmed despite the presence of an adverse effect upon the integrity of a given site. As set out above in para 7.9 above, the Opinion of the Advocate General in the *Commission v Portuguese Republic C-239/04* was:
- "44. Among the alternatives short-listed in that way, the choice does not inevitably have to be determined by which alternative least adversely affects the site concerned. Instead, the choice requires a balance to be struck between the adverse effect on the integrity of the SPA and the relevant reasons of overriding public interest."*
- 7.9.5 In circumstances such as the present, the achievement of sustainable benefits to the environment and its habitats may themselves be included as being part, or all, of the compensatory measures. The reduction in carbon emissions benefits flora and fauna as well as humans. Electricity from renewables compensates for the harm currently suffered by all habitats. For this reason it can be argued that this beneficial effect can be regarded as a form of inherent compensatory measure for any adverse effects which may be concluded on an in combination basis.

⁶⁰ DEFRA guidance, at paragraph 9.