



THE PLANNING ACT 2008

THE INFRASTRUCTURE PLANNING (EXAMINATION PROCEDURE)
RULES 2010

HORNSEA OFFSHORE WIND FARM - PROJECT TWO APPLICATION

International Mainstream Renewable Power Limited and Siemens

Project Ventures for:

The construction and operation of Hornsea Offshore Wind Farm Project Two, a 1,800 MW with up to 360 turbines wind farm located approximately 89km off the East Riding of Yorkshire coast, and 50km from the median line between UK and Dutch waters.

Planning Inspectorate Reference: EN010053

WRITTEN SUBMISSION FOR DEADLINE 8

Dated 11th December 2015

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INTRODUCTION

On 7th December 2015, the ExA issued a third Rule 17 letter requesting for further information from relevant stakeholders as well as amending the examination timetable. This document provides Natural England's response to the Rule 17 letter.

NATURAL ENGLAND'S RESPONSE TO THE RULE 17 LETTER ISSUED ON 7TH DECEMBER 2015

4.1 Please find below Natural England's responses to the question issued by the ExA, to Natural England, on 7th December 2015 in the Rule 17 letter.

2. Will Natural England (NE) please identify a level of kittiwake mortality in-combination which it could accept would not have an adverse effect on the integrity of the Flamborough and Filey Coast pSPA and the Flamborough Head and Bempton Cliffs SPA?

Levels and thresholds: key principles

4.2 The question of whether a specific level, or threshold, at which an impact would result in an adverse effect on integrity can be identified is frequently posed by competent authorities, be it in terms of a % of habitat loss within a designated site or the proportion of a designated population exposed to effects. In response, Natural England advises that a range of site, and project, specific factors need to be considered when making integrity judgements. It is not possible to identify a simple 'rule of thumb' or formula that would allow a competent authority to reach such a judgement on a purely quantitative basis.

4.3 For a proposal affecting a designated population, the factors requiring consideration could include the characteristics of the qualifying feature (for example, population trends at various scales, demographic structure, vulnerability to potential change), the nature of the impact (including its severity and longevity), the function the impacted area provides to the feature in terms of its ecological requirements, and the location of the impacted area with respect to the location of the site.

4.4 A further important consideration, particularly with respect to impacts on species, is the level of certainty that can be ascribed to impact assessments. This can manifest itself in three ways:

- Lack of clarity regarding the actual level of impact a plan or project has, for example the likely collision mortality from an offshore windfarm;
- Uncertainty regarding the population-level consequences of an impact, due to the limited evidence available on population demographics (particularly responses to environmental change);
- Multiplication of uncertainties where a number of projects, all carrying uncertainties, are considered in-combination.

4.5 In the face of such compounding uncertainties, it can seem all the more desirable to identify thresholds, or trigger levels, in order to ground discussions and reach agreements. However, the use of specific or precise thresholds carries a significant risk of creating a 'false precision' to assessing impacts and pressure to quantify impact levels, such as

collision mortality, in terms of single values rather than ranges. This could result in competent authorities failing to adequately identify potentially significant environmental effects and therefore not robustly ascertaining beyond reasonable scientific doubt that an adverse effect can be ruled out.

Applying the integrity test in this context

4.6 Important principles when applying the integrity test can be found in guidance and case law. A useful summary can be found in the DTA Habitats Regulations Assessments Handbook (available at <http://www.dtapublications.co.uk>). When considering potential levels or thresholds in this case at FHBC SPA and FFC pSPA some key considerations are:

- A site can be described as having a high degree of integrity where the inherent potential for meeting site conservation objectives is realised, the capacity for self-repair and self-renewal under dynamic conditions is maintained, and a minimum of external management support is required;
- When looking at effects on the integrity of a site it is important to take into account a range of factors, including the possibility of effects manifesting themselves in the short, medium and long-term, the duration of the effects and their reversibility;
- In order to avoid an adverse effect on integrity, the conservation status of a habitat must, if favourable, be preserved and, if unfavourable, must not be further harmed or rendered more difficult to restore to a favourable status.

Assessing impacts on the integrity of the Flamborough Head and Bempton Cliffs (FHBC) SPA and Flamborough and Filey Coast (FFC) pSPA

4.7 The principal factors that Natural England have considered when making its integrity judgements on the FHBC SPA and the FFC pSPA are set out in our Deadline III response (Appendix 2 Table 1) and updated on in subsequent submissions, such as our Deadline V response (paragraphs 3.59 – 3.90). These factors can be summarised as follows:

- The population trends at the site, and confidence in them;
- The conservation objectives for the SPA and pSPA;
- The predicted impacts and the variability and confidence in them;
- How the adverse effect on site integrity test is applied when considering these impacts against the conservation objectives.

4.8 In the current case, these factors have then been considered in the light of the two 'counterfactual' PVA metrics that have been identified as least sensitive to mis-specification of the population trend and demographic rates used in the PVA model. Please see Section C of our Deadline 7 response for more detail (paragraphs 4.23 to 4.27). One of the merits of PVA outputs is that, unlike those from PBR, they allow the effects of factors such as varying demographic parameters, population trends etc. to be explicitly investigated in terms of their effect on the population trajectory. PVA models also allow relative comparisons of

population level effects with and without the additional mortality to be considered in a way that is not possible with PBR.

4.9 Therefore, PVA offers a more transparent method that allows quantification of the impact of the additional mortality on population size. This means that PVA can be used to assess whether the population-level effects of an anthropogenic impact mean that a conservation objective to maintain or restore populations of protected sites are being met – a critical requirement under the Habitats Regulations. In this context, and given the limited evidence on population demographics available, it is difficult to identify a precise evidence-based threshold or specific level beyond which there would be an adverse effect on integrity.

4.10 This therefore requires careful emphasis on the factors set out in 4.7 above when considering PVA outputs. In the absence of a specified level or threshold, this is also necessary to counter the risk of taking an excessively precautionary position that any impact will result in an adverse effect on integrity, which would seem to run counter to EU guidance and UK case law regarding integrity judgements.

4.11 Two examples of Natural England's integrity judgements during the Examination illustrate how these might be formulated without the use of a precise or specific threshold.

4.12 Firstly, Natural England concluded in our Deadline 3, Appendix 2 response that an adverse effect on site integrity from the project alone could not be ruled out beyond scientific doubt for the predicted collision mortality of 134 kittiwakes (with a range of 73 and 231). Considering a range of impacts from 100-250 adults per annum (closest modelled outputs to the 73-231 predicted range) that factors in variability around numbers of birds in the Project area, the growth rate would fall by 0.17-0.34% and the final population size would be between 3.3% and 6.6% lower than the un-impacted population size at 25 years. Given the historic and recent population decline of the pSPA kittiwake population, at this point in the examination Natural England concluded that this range encompassed values that were significant in the context of a conservation objective seeking to restore a depleted population to a higher level, even when taking into account demographic factors such as annual survival and baseline mortality rates.

4.14 Following the Applicant's further analysis and the first set mitigation measures (proposed by the Applicant) formally submitted at Deadline 6, Natural England concluded in our Deadline 6 response that an adverse effect on integrity from the project alone could be ruled out, beyond reasonable scientific doubt, with a collision rate of 49 birds per annum (range 27 to 85). This was based on the view that a reduction in % per annum GR of around 0.116% and a relative reduction in final population size of around 2% (PVA outputs for 50 birds) would not be of sufficient significance in the context of annual survival and baseline mortality rates for kittiwake to cause an adverse effect on integrity, even for a population experiencing declines.

4.15 These two examples demonstrate how the lack of a threshold, or specified level at which an integrity effect arises, does not prevent the reaching of integrity judgements. They also show that the extent of the confidence limit-generated range around mean figures is an important consideration in the face of uncertainty.

4.16 Please see the MOU between the Applicant and Natural England and our Deadline 7 response for our most recent integrity judgements following the further mitigation proposed by the Applicant.