

# **Vattenfall Wind Power Ltd**

## **Thanet Extension Offshore Wind Farm**

### **Appendix 39 to Deadline 5 Submission: Statement of Common Ground – Natural England - Offshore Ornithology**

Relevant Examination Deadline: 5

Submitted by Vattenfall Wind Power Ltd

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## 1 Introduction

### 1.1 Overview

- 1 This Statement of Common Ground (SoCG) relates to the proposed development of the Thanet Extension Offshore Wind Farm (Thanet Extension). It has been prepared with respect to the application made by Vattenfall Wind Power Ltd (VWPL) (the Applicant) for a Development Consent Order (DCO) to the Planning Inspectorate (PINS) under the Planning Act 2008 (the Application).
- 2 This SoCG with Natural England (NE) is a means of clearly stating any areas of agreement and disagreement between the two parties in relation to Ornithological matters in the Application.
- 3 It is the intention that this document will help facilitate post application discussions between both parties and also give the Examining Authority (Ex. A) an early sight of the level of common ground between both parties from the outset of the examination process. It also reflects the request made by the Ex. A in the 'Rule 6' letter published on the 9<sup>th</sup> November 2018.

### 1.2 Approach to SoCG

- 4 This SoCG has been developed during the pre-examination and examination phase of the Thanet Extension. In accordance with discussions between the Applicant and NE, the SoCG is focused on those issues raised by NE within its response to Scoping, Section 42 consultation and as raised through the Evidence Plan process that has underpinned the pre-application consultation between the parties.
- 5 The structure of the SoCG is as follows:
  - Section 1: Introduction;
  - Section 2: Natural England's Remit;
  - Section 3: Consultation;
  - Section 4: Agreements Log; and
  - Section 5: Summary.

## 1.3 The Development

- 6 Thanet Extension will comprise of wind turbine generators (WTGs) and the entire infrastructure required to transmit the power generated to the national grid. A maximum of 34 WTGs will be installed with a power output of 340 MW. The project will install up to four offshore export cables and may require the installation of one Offshore Substation (OSS) and up to one Meteorological Mast.
- 7 The key offshore components of Thanet Extension are likely to include:
- Up to 34 offshore WTGs;
  - OSS (if required);
  - Meteorological Mast (if required);
  - WTG Foundations;
  - Subsea inter-array cables linking individual WTGs;
  - Subsea export cables from the OWF to shore; and
  - Scour protection around foundations and on inter-array and export cables (if required).
- 8 The offshore elements of the project comprise an offshore export cable corridor (Work Area 3), and Work Areas 1 and 2. The latter are an area of 68.8 km<sup>2</sup> and comprise the Array Area (59.5 km<sup>2</sup>) and the Structures Exclusions Zone (9.3 km<sup>2</sup>). The latter being an area subject to restrictions on what can be placed within it, as described in Annex A of Appendix 7 of the Applicant's Deadline 5 Submission and Schedule 1, Part 3, Requirement 6 of the draft DCO. The Order Limits surround the existing Thanet Offshore Wind Farm (TOWF). It is located approximately 8 km north-east of the Isle of Thanet, situated in the County of Kent. Each WTG would have a maximum blade tip height of 250 m above Mean High Water Springs (MHWS), a maximum diameter of 220 m and a minimum 22 m clearance between the MHWS and the lowest point of the rotor.
- 9 Electricity generated will be carried via a maximum of four high voltage subsea cables to the landfall site, situated at Pegwell Bay. Offshore cables will be connected to the onshore cables and ultimately the national grid network at Richborough Energy Park. The onshore cable corridor is 2.6 km in length at its fullest extent.

- 10 More details on the proposed development are described in the Environmental Statement (ES) Volume 2, Chapter 1: Project Description (Offshore) (PINS Ref APP-042/ Application Ref 6.2.1) and Volume 3, Chapter 1: Project Description (Onshore) (PINS Ref APP-057/ Application Ref 6.3.1) of the Environmental Statement (ES).

## 2 Natural England's Remit

- 11 Natural England is an executive non-departmental public body established under the Natural Environment and Rural Communities Act 2006 ('NERC Act') and is the statutory advisor to the Government on nature conservation in England and promotes the conservation of England's wildlife and natural features. NE's remit extends to the territorial sea adjacent to England, up to 12 nautical miles from the coastline.
- 12 Natural England is a statutory consultee for the proposed development under section 42 of the Planning Act 2008 and a prescribed consultee under the Infrastructure Planning (Environmental Impact Assessment) Regulations 2017. Natural England is a statutory consultee in respect of all applications for consent for Nationally Significant Infrastructure Projects which are likely to affect land in England.

### **3 Consultation**

#### **3.1 Application elements under Natural England's remit**

- 13 Work Nos. 1-16, detailed in Part 1 of Schedule 1 of the draft DCO describe the elements of Thanet Extension which may affect the interests of NE.
- 14 Natural England is a non-departmental public body responsible for ensuring that England's natural environment, including its land, flora and fauna, freshwater and marine environments, geology and soils, are protected and improved. It also has a responsibility to help people enjoy, understand and access the natural environment.
- 15 The technical components of the DCO application of relevance to NE (and therefore considered within this SoCG) comprise:
- Report to Inform Appropriate Assessment (RIAA) (PINS Ref APP-031/ Application Ref 5.2); and
  - Volume 2, Chapter 4: Offshore Ornithology (PINS Ref APP-045/ Application Ref 6.2.4).

#### **3.2 Consultation Summary**

- 16 This section briefly summarises the consultation that VWPL has undertaken with NE. Engagement during the pre-application phase, both statutory and non-statutory, is summarised in Table 1 below, this includes any meetings and correspondence held as part of the Evidence Plan process and Section 42 consultation.



**Table 1: Consultation undertaken with Natural England pre-application**

| Date & Type:                   | Detail:   |
|--------------------------------|---|
| 2017 Ecological Review Panel   | HRA Review Panel (RIAA)   |
| 2017 Ecological Review Panel   | HRA Evidence Plan Meeting   |
| 2017 Consultation              | RIAA Consultation   |
| 2017 Ecological Review Panel   | Evidence Plan Meeting – Marine Ecology                                |
| 2017 Ecological Review Panel   | Evidence Plan Meeting – Offshore Ornithology                          |
| 2017 Ecological Review Panel   | Evidence Plan Meeting – Onshore Ecology and Ornithology               |
| January 2018, S42 Consultation | Comments relating to the Preliminary Environmental Information Report |
| February 2018                  | Evidence Plan Meeting – Onshore Ecology and Ornithology               |
| May 2018                       | Evidence Plan Meeting – Onshore and Offshore Ecology                  |

### 3.3 Post-application Consultation

17 VWPL has engaged with NE since the Thanet Extension development was accepted for examination by the Planning Inspectorate on 23<sup>rd</sup> July 2018. A summary of the post-application consultation with NE is detailed in Table 2.

**Table 2: Consultation undertaken with the Natural England post-application**

| Date/ Type:   | Detail:  |
|---------------|--|
| July 2018     | Outline Landscape and Ecological Management Plan Meeting   |
| July 2018     | Saltmarsh Management and Mitigation Meeting  |
| October 2018  | Initial Discussions on developing a SoCG   |
| November 2018 | SoCG meeting to discuss technical notes compiled in response to NE Relevant Representations  |
| January 2019  | Teleconference to discuss Natural England’s Written Representations and the Applicant’s revised technical notes submitted at Deadline I. |
| February 2019 | Teleconference Pending   |
| March 2019    | Teleconference to discuss progression of SoCG and revised CRM note   |
| March 2019    | Teleconference to discuss progression of SoCG  |

## 4 Agreements Log

18 The following section of this SoCG identifies the level of agreement between the parties for each relevant component of the application material (as identified in Section 3.1). In order to easily identify whether a matter is “agreed”, “under discussion” or indeed “not agreed” a colour coding system of green, yellow and orange is used in the “final position” column to represent the respective status of discussions.

### 4.1 Report to Inform Appropriate Assessment

19 The Project provided a Report to Inform Appropriate Assessment with the submitted application to determine the potential for an Adverse Effect on Integrity (AEoI) on Natura 2000 sites.

20 This SoCG considers responses from Natural England on specific areas relating to offshore ornithology, including assessment methods, outcomes, and conclusions relating to the relevant ES chapter (PINS Ref APP-045/ Application Ref 6.2.4) and the RIAA (PINS Ref APP-31/ Application Ref 5.2). In addition, RAMSAR issues are addressed within a further SoCG.

21 The sites considered within the RIAA and therefore this SoCG are:

- Transboundary European designated sites:
  - Bancs de Flandres SPA;
  - Cap Gris Nez SPA/Recifs Gris-Nez Blanc-Nez;
- SPAs:
  - Outer Thames Estuary SPA;
  - Thanet Coast and Sandwich Bay SPA;
  - Flamborough and Filey Coast SPA;
  - Flamborough Head and Bempton Cliffs SPA;
  - Northumberland Marine SPA;
  - Farne Islands SPA;
  - St Abb’s Head to Fast Castle SPA;
  - Foulness (Mid-Essex Coast Phase 5) SPA; and

- Alde-Ore Estuary SPA.
- 22 A revised RIAA (PINS Ref REP2-018 & REP2-019/ Application Ref Appendix 21 to Deadline 2 Submission: RIAA – Part 1 and Part 2 of 2) was submitted at Deadline II in February 2019. In relation to offshore ornithology the significant revisions were:
- Accounting for recent European Court judgements;
  - Accounting for the submission from the French Government (PINS Ref AS-006) with the addition of two SPAs within the screening process – Cap Gris Nez SPA and Bancs des Flandres SPA; and
  - The classification of the Flamborough and Filey Coast SPA.

**Table 3: Status of discussions relating to the RIAA**

| Discussion Point          | Thanet Extension Position   | NE Position   | Final Position  |
|---------------------------|---|---|---|
| Screening                 | The RIAA has identified all relevant features of the designated sites that may be sensitive to changes as a result of the proposed activities.  | Agreed.   | Agreed.   |
| Screening (transboundary) | The RIAA has identified all relevant transboundary designated sites that may be sensitive to changes as a result of the proposed activities.  | Natural England has no further comments upon transboundary designated sites. Natural England do not consider it within our remit to advise on this.   | Agreed  |
| Outcomes of the RIAA      | No adverse effect on the integrity of transboundary sites are predicted either alone or in-combination as a result of as a result of the proposed activities.   | Natural England has no further comments upon transboundary designated sites. Natural England do not consider it within our remit to advise on this.   | Agreed  |
| Outcomes of the RIAA      | No adverse effect on the integrity of the Outer Thames Estuary SPA is predicted from Thanet Extension alone.<br><br>The Applicant recognises that Natural England’s opinion is that it is not possible to rule out an adverse effect on the integrity on the red-throated diver population of the Outer Thames Estuary SPA from existing operational projects. However: | Natural England advises that Thanet Extension will not have an adverse effect on the integrity on the red-throated diver population of the Outer Thames Estuary SPA when considered <b>alone</b> . However, Natural England considers that it is not possible to rule out an adverse effect on integrity when the project is considered <b>in combination</b> with consented and operational offshore windfarm projects (OWF) projects. | Agreed for the project alone.<br><br>Not agreed for the project in-combination with other OWFs. |

| Discussion Point | Thanet Extension Position   | NE Position   | Final Position |
|------------------|---|---|----------------|
|                  | <ul style="list-style-type: none"> <li>• It is acknowledged that the relevant in-combination projects are existing projects which have been approved by the Secretary of State on the basis that there would be no adverse in-combination effects on the integrity of the SPA;</li> <li>• The evidence from post-construction monitoring of the existing Thanet OWF demonstrates that the distance at which the percentage displacement of red-throated diver falls to zero at this particular site is less than 4 km. Further, red-throated diver were recorded within the array itself, evidence that displacement is not 100% even within Thanet OWF;</li> <li>• In the particular circumstances of this case, the Thanet Extension would not cause any appreciable effect on the wider in-combination effects relating to the mortality of</li> </ul> | <p>Prior to the submission of Thanet Extension, Natural England had already advised that it was not possible to rule out an adverse effect on integrity on the SPA from operational and consented projects due to displacement effects. Displacement effects on red-throated diver from post-construction monitoring appear to vary between projects, but have been reported up to and beyond 8km, and there is therefore potential for the proposal to exert additional displacement pressure on the SPA. This in-combination contribution is in all likelihood very small in the context of impacts from other OWF projects which lie within, rather than some distance beyond, the SPA. Following the introduction of the SEZ we acknowledge that there is now some uncertainty whether there would be <u>any</u> displacement effects, given the distance that the project is now planned to be from the SPA. However, it cannot be concluded that there will be no displacement effect at all.</p> |                |

| Discussion Point     | Thanet Extension Position  | NE Position  | Final Position   |
|----------------------|--|--|--|
|                      | <p>this species which arise from those projects;</p> <ul style="list-style-type: none"> <li>• Thanet Extension would not cause an adverse effect on integrity to arise as a result of this project being included as part of an in-combination assessment.</li> </ul>  |  |  |
| Outcomes of the RIAA | No adverse effect on the integrity of Thanet Coast and Sandwich Bay SPA is predicted either alone or in-combination as a result of as a result of the proposed activities.   | Agreed – Providing the SMRMP is updated appropriately following Natural England’s comments on Revision B and implemented successfully during the construction and operation phase.   | Agreed   |
| Outcomes of the RIAA | <p>No adverse effect on the integrity of Flamborough and Filey Coast SPA is predicted from Thanet Extension alone for kittiwake.</p> <p>The Applicant recognises that Natural England’s opinion is that it is not possible to rule out the potential of an adverse effect on the integrity on the kittiwake population of the Flamborough and Filey Coast SPA from other plans and projects. However</p> | Natural England advises that Thanet Extension will not have an adverse effect on the integrity on the kittiwake population of the Flamborough & Filey Coast SPA when considered <b>alone</b> . However, Natural England considers that it is not possible to rule out an adverse effect on integrity when the project is considered <b>in combination</b> with proposed, consented and operational OWF projects. | <p>Agreed for the project alone.</p> <p>Not agreed for the project in-combination with other OWFs.</p> |

| Discussion Point     | Thanet Extension Position  | NE Position   | Final Position                       |
|----------------------|--|---|--------------------------------------|
|                      | <ul style="list-style-type: none"> <li>It is acknowledged that the relevant in-combination projects are other plans and projects, including projects which have been approved by the Secretary of State on the basis that there would be no adverse in-combination effects on the integrity of the SPA when these plans and projects are considered in combination;</li> <li>Thanet Extension would not cause any appreciable effect on the wider in-combination effects relating to the mortality of this species which arise from those plans and projects;</li> <li>Thanet Extension would not cause an adverse effect on integrity to arise as a result of this project being included as part of an in-combination assessment.</li> </ul> | <p>Prior to the submission of Thanet Extension, Natural England had already advised (at East Anglia 3) that it was not possible to rule out an adverse effect on integrity on the SPA from operational and consented projects due to the level of annual collision mortality predicted for kittiwake. Thanet Extension is some distance beyond the likely foraging range of kittiwake from the SPA during the breeding season, though there is the potential for Flamborough kittiwakes to be impacted by the proposal during the non-breeding season, when they disperse more widely. There is therefore the potential for the proposal to make a contribution to the overall collision mortality total. This contribution is likely to be small in the context of an in-combination total arising from a number of operational, consented or proposed projects, several of which are larger and/or closer to the SPA, including projects within the likely foraging range during the breeding season.</p> |                                      |
| Outcomes of the RIAA | No adverse effect on the integrity of Flamborough and Filey SPA is predicted either alone or in-combination, for gannet,   | Natural England agree that there is no adverse effect on the integrity of gannet from Flamborough and Filey Coast SPA from the Project alone.   | Under discussion for in-combination. |

| Discussion Point     | Thanet Extension Position   | NE Position  | Final Position |
|----------------------|---|--|----------------|
|                      | as a result of as a result of the proposed activities.  | Natural England notes that the applicant has not provided an in-combination total for predicted mortality for gannet at Flamborough and Filey Coast SPA. However, the in-combination total provided during the Norfolk Vanguard examination have raised the potential for significant impacts on the Flamborough gannet colony, as set out in Natural England’s Deadline 7 response to that examination. Natural England are currently investigating the implications of these impacts on the SPA gannet population and will be able to provide a view on adverse effect on integrity in-combination with other plans and projects at the next deadline. |                |
| Outcomes of the RIAA | No adverse effect on the integrity of Flamborough Head and Bempton Cliffs pSPA is predicted either alone or in-combination as a result of as a result of the proposed activities. | This particular site is no longer relevant as it has been superseded by the Flamborough and Filey Coast SPA which has recently been classified.  | Agreed         |
| Outcomes of the RIAA | No adverse effect on the integrity of Northumberland Marine SPA is predicted either alone or in-combination as a result of as a result of the proposed activities.                | Agreed.  | Agreed.        |



| Discussion Point     | Thanet Extension Position   | NE Position   | Final Position   |
|----------------------|---|---|--|
| Outcomes of the RIAA | No adverse effect on the integrity of Farne Islands SPA is predicted either alone or in-combination as a result of as a result of the proposed activities.                      | Agreed.   | Agreed   |
| Outcomes of the RIAA | No adverse effect on the integrity of St Abb's Head to Fast Castle SPA is predicted either alone or in-combination as a result of as a result of the proposed activities.       | Agreed – however this is a Scottish SPA and encourage the applicant to consult our colleagues at SNH (if they have not already) to fully determine any conclusions. | Agreed with Natural England. Discussion underway with SNH. |
| Outcomes of the RIAA | No adverse effect on the integrity of Foulness (Mid-Essex Coast Phase 5) SPA is predicted either alone or in-combination as a result of as a result of the proposed activities. | Agreed.   | Agreed.  |
| Outcomes of the RIAA | No adverse effect on the integrity of Alde Ore estuary SPA is predicted either alone or in-combination as a result of as a result of the proposed activities.                   | Agreed.   | Agreed.  |
| Outcomes of the RIAA | No adverse effect on the integrity of Alde Ore estuary Ramsar is predicted either alone or in-combination as a result of as a result of the proposed activities.                | Agreed.   | Agreed.  |

| Discussion Point    | Thanet Extension Position   | NE Position  | Final Position |
|---------------------|---|--|----------------|
| Mitigation measures | The proposed mitigation measures (over wintering seasonal restriction within the intertidal working area) is appropriate and adequately secured within the DCO/dML. | Agreed – However, it should be stated here that this applies to the Thanet Coast and Sandwich Bay SPA and Ramsar site. | Agreed         |

## 4.2 Offshore Ornithology

- 23 The Project has the potential to impact upon offshore ornithology and these interactions are duly considered within Volume 2, Chapter 4 of the Thanet Extension ES (PINS Ref APP-045/Application Ref 6.2.4). Table 4 identifies the status of discussions relating to this topic area between the parties.

**Table 4: Status of discussions relating to Offshore Ornithology**

| Discussion Point                 | Thanet Extension Position   | NE Position  | Final Position   |
|----------------------------------|---|--|--|
| Policy and Planning              | The assessment has identified all appropriate plans and policies relevant to offshore ornithology and has given due regard to them within the assessment. | Agreed.  | Agreed.  |
| Consultation                     | The ES chapter has been adequately updated following S42 and Evidence Plan consultation and concerns raised have been adequately addressed or clarified.  | <p>The ES chapter should include assessments based on SNCB advice presented alongside those preferred by the applicant. The displacement assessment based on buffers advised in the joint SNCB advice is not presented in the ES.</p> <p>The predicted mortality from collision is based on input parameters not advised by Natural England, for example assessments based on lower nocturnal activity factors than recommended have been used in the ES chapter. However, although we disagree that the ES has been adequately updated and we have concerns relating to the methodology, we acknowledge that when using the overall conclusions are unlikely to change.</p> | The Applicant and Natural England agree that assessments based on either parties' methods and effects of parameters used make no material difference to the overall conclusions. |
| Scope and Assessment methodology | The potential impacts identified are appropriate and accurate for offshore ornithology receptors.   | Natural England advise that a displacement of red throated diver out to 4km should be used for assessment.   | The Applicant and Natural England agree that   |

| Discussion Point | Thanet Extension Position  | NE Position  | Final Position  |
|------------------|--|--|---|
|                  |  |  | assessments based on either parties' displacement buffer make no material difference to the overall conclusions.  |
|                  | The study area defined for the assessment is appropriate for the impacts considered.     | Agreed.  | Agreed.   |
|                  | The methods of assessing collision risk are appropriate and have been applied accurately | Natural England is concerned that site specific flight height data (from the digital aerial surveys or the ORJIP BCA study) has not been used to assess the collision risk assessments in the ES Chapter. Also lower than recommended nocturnal activity factors (NAF) have been used in the assessment. Both of which mean the assessments of collision risk are lower than they would be if site specific flight height data and recommended NAFs were used, which means the figures going into the in-combination and cumulative totals may be under-estimated. However, we acknowledge that even when using the Natural England recommended methodology the overall conclusions do not change. | The Applicant and Natural England agree that assessments based on either parties' use of different input parameters for collision risk modelling make no difference to the overall conclusions. |

| Discussion Point                            | Thanet Extension Position   | NE Position  | Final Position  |
|---|---|--|---|
|   | <p>The methods of assessing displacement, appropriately utilises site specific data and as such is appropriate for the purposes of assessing the risks of displacement of auks and divers in relation to Thanet Extension</p> | <p>Whilst Natural England welcome the use of site specific data to assess displacement there are issues with the methodology, particularly in relation to red throated diver, namely the post consent monitoring data were based on boat surveys (and red throated divers are sensitive to boats) and the buffer was limited to 2km. However, we acknowledge that even when using the Natural England recommended methodology the overall conclusions do not change.</p> | <p>Agreed.</p>  |
| <p>Baseline data used in the assessment</p> | <p>Sufficient primary and secondary data has been collated to appropriately characterise the baseline environment for the purposes of informing the EIA.</p>  | <p>Agreed.</p>   | <p>Agreed.</p>  |
|   | <p>The survey scopes and methodologies undertaken for the offshore ornithological surveys were adequate for characterising the baseline.</p>  | <p>Please see comments on displacement (red throated diver) and collision risk modelling.</p>  | <p>Please refer to final agreed positions on displacement and collision risk modelling.</p> |
|   | <p>The sensitivity and importance of the receiving environment is accurately described within the Environmental Statement.</p>  | <p>Agreed.</p>   | <p>Agreed.</p>  |

| Discussion Point  | Thanet Extension Position   | NE Position   | Final Position  |
|---|---|---|---|
| <p>Use of site-specific data on seabird flight heights (from digital aerial surveys).</p> | <p>The use of digital aerial data on seabird flight heights in collision risk modelling (CRM) was not deemed appropriate due to the sample size being too small (well below the 100 individuals used a minimum threshold).</p>  | <p>We acknowledge that a small sample size for calculating site specific flight heights is not ideal, and therefore the use of generic flight heights has been accepted. To ensure that an appropriate level of precaution we advise that CRM modelling is re-run, either using the MSS Stochastic Collision Risk Modelling tool or the deterministic model capturing the variability and using the recommended input parameters and focussing on the higher confidence limits.</p> | <p>Agreed - The applicant and Natural England agree that assessments based on either parties' methods and effects of parameter used make no material difference to the overall conclusions.</p> |
| <p>Use of site-specific data on seabird flight heights (from ORJIP study findings).</p>   | <p>The use of ORJIP data on seabird flight heights in collision risk modelling (CRM) was not deemed appropriate due to the final findings not being reported on and a lack of guidance on how data from ORJIP can be applied in the Band (2012) collision risk model.</p> | <p>Whilst using Potential Collision Heights (PCHs) generic flight heights (Option 2) has been accepted, we are aware that the results using site-specific flight PCH from the Bowgen and Cook (2018) report produce significantly higher mortality predictions. Therefore we would see this as the upper end of the range of Option 2 outputs from the stochastic CRM used and the revised figure used in the RIAA.</p>   | <p>Agreed - The applicant and Natural England agree that assessments based on either parties' methods and effects of parameter used make no material difference to the overall conclusions.</p> |

| Discussion Point  | Thanet Extension Position  | NE Position  | Final Position  |
|---|--|--|---|
| <p>Use of a range in the data on seabird flight heights (from SOSS 02).</p> | <p>The range in SOSS 02 mortality rates using the upper and lower confidence intervals around flight heights was provided in the original Development Application, which is presented in the CRM appendix to the ES Chapter (PINS Ref APP-079/ Applicant Ref 6.4.4.4).</p> <p>Through consideration of this range of flight heights in the CRM from SOSS 02 the mortality rates for seabirds remain at a consistently low level.</p> | <p>Natural England acknowledge that upper and lower confidence intervals are presented in the CRM appendix, but these are based on the lower end of recommended nocturnal activity factors only. We welcome the Applicants undertaking to present the outputs in a further clarification note. We advise that the revised figures using predicted collision mortalities using Natural England’s recommended avoidance rates, nocturnal activity rates and upper confidence intervals around SOSS 02 flight heights and updates the apportionment of mortality rates to estimate the contribution of Thanet Extension to in-combination total</p> | <p>Agreed - The applicant and Natural England agree that assessments based on either parties’ methods and effects of parameter used make no material difference to the overall conclusions.</p> |
| <p>Nocturnal activity rates used for seabirds in CRM.</p>                   | <p>Through consideration of a range of nocturnal activity rates for seabirds within the CRM it is considered that mortality rates remain at a consistently low level.</p> <p>The RIAA and Revised RIAA (submitted at Deadline 2) did not account for the full range in the CRM inputs as requested by Natural England during Examination. However, a complete range of CRM inputs were applied for the recent CRM</p>                | <p>The Natural England recommended range of nocturnal activity factors should be used in Collision Risk modelling. We acknowledge that Option 2 outputs with the higher end of the nocturnal activity factors have been presented in the CRM clarification note. However, it is noted that the figure based on the lower range of nocturnal activity is still used in the RIAA.</p>  | <p>Agreed - The applicant and Natural England agree that assessments based on either parties’ methods and effects of parameter used make no material difference to the overall conclusions.</p> |



| Discussion Point    | Thanet Extension Position  | NE Position  | Final Position |
|---------------------|--|--|----------------|
|                     | Clarification Note, submitted at Deadline III (REP3-058) and further specifically for kittiwake at Deadline IV (REP4-029). These concluded that any change to CRM mortality rates apportioned to SPA would be minimal and the conclusions of no AEol remain. |  |                |
| Mitigation Measures | The embedded mitigation measures are considered appropriate and are appropriately secured through the DCO. The most significant embedded mitigation measure was to move the Red Line Boundary further away from the Outer Thames Estuary SPA.                | Agreed.  | Agreed.        |
| Outcomes of the EIA | The conclusions of the assessment accurately reflect the potential impacts on offshore ornithology receptors within the study area from the project alone.   | Agreed.  | Agreed.        |
|                     | The cumulative effects have been adequately and appropriately described within the ES and the conclusions are appropriate.   | It is not possible to rule out a significant cumulative effect on the displacement of red throated diver, due to the displacement effects from other operational projects. However, we agree that the contribution this project makes to | Agreed.        |

| Discussion Point  | Thanet Extension Position  | NE Position  | Final Position |
|---|--|--|----------------|
|   |  | the cumulative total is not likely to make a material difference.  |                |
|   | The contribution of Thanet Extension to cumulative effects on offshore ornithological receptors is agreed as minimal.  | Agreed.  | Agreed.        |
| Assessment of displacement for red-throated diver alone (at EIA level). | <p>Culmination of data on displacement rates from within or in close proximity to the Thanet Extension site provides further evidence in support of lower displacement levels for this unique project.</p> <p>Having provided a range of data from three different survey sources; including boat surveys out to 2km (Thanet), boat surveys beyond 4km (Kentish Flats Extension) and digital aerial surveys (Thanet and Thanet Extension), the Applicant considers that this project has evidence in support of lower displacement rates – particularly in the 4km buffer.</p> | <p>We disagree that the Thanet Extension data provides definitive evidence that displacement out to 4km should not be considered as part of the assessment. The winter aerial surveys for the Thanet Extension project demonstrate that 100% of divers are displaced from the wind farm, and the surveys did not extend beyond 4km beyond the extension boundary. Therefore we advise that a range of scenarios are considered, including NE’s approach of assuming 100% displacement out to 4km. However, we do acknowledge that the Applicant has presented matrices to allow consideration of a range of scenarios. Although we disagree on the methodology of the assessment, Natural England agrees that there is unlikely to be a significant effect on red throated diver from the project alone.</p> | Agreed.        |

| Discussion Point   | Thanet Extension Position  | NE Position   | Final Position |
|--|--|---|----------------|
|  | <p>The Applicant considered a range of displacement scenarios including that from site-specific evidence and that advocated by Natural England for red-throated diver (100% displacement out to 4km). The latter of which were included within an annex to the ES Chapter (PINS Ref APP-079/ Applicant Ref 6.4.4.3) and included again within more recent post-submission note (PINS Ref REP1-023/ Responses to RRs (Annexes C to F)).</p> |   |                |
| <p>The rate of and spatial extent of displacement for divers, gannet and auks (at an EIA level).</p> | <p>Culmination of data on displacement rates from within or in close proximity to the Thanet Extension site provides further evidence in support of lower displacement levels for this unique project.</p>   | <p>Natural England accepts that there is some evidence to suggest that displacement is not 100% out to 4km for red throated divers or 100% out to 2km for gannet, razorbill and guillemot. However, we maintain that these figures should be presented alongside those already undertaken by the Applicant in the ES to allow a range to be considered, given the uncertainty around displacement rates. However, we acknowledge that even when using our recommended methodology for assessing displacement effects the overall conclusions do not change.</p> | <p>Agreed.</p> |

| Discussion Point  | Thanet Extension Position   | NE Position   | Final Position   |
|---|---|---|--|
| <p>The contribution of Thanet Extension being of no material difference to cumulative collision risk.</p>     | <p>That collision risk, even accounting for a range in the nocturnal activity rates, a range of avoidance rates and a range in PCHs is still well below the values for all five seabirds assessed (gannet, kittiwake, herring gull, lesser black-backed gull and great black-backed gull) that would constitute a material contribution to the cumulative totals.</p>     | <p>The contribution of Thanet Extension is likely to be relatively small, but if the recommended nocturnal activity factors and site specific PCHs are used then the contribution is increased. The figures using the recommended input parameters in the proposed revised CRM clarification should be included in the cumulative totals. However, we accept that the contribution of Thanet Extension will not make a consequential difference to the cumulative collision totals.</p> | <p>Agreed – The CRM clarification note has now been provided. The applicant and Natural England agree that assessments based on either parties methods and effects make no material difference to the overall conclusions.</p> |
| <p>The contribution of Thanet Extension being of no material difference to in-combination collision risk.</p> | <p>That the contribution of Thanet Extension to the in-combination collision mortality rates, a range of avoidance rates and a range in PCHs even accounting for a range in the nocturnal activity rates, is still below the values considered to be of material contribution for those seabirds assessed with respect to individual designated sites within the HRA.</p> | <p>The contribution of Thanet Extension is likely to be relatively small, but if the recommended nocturnal activity factors and site specific PCHs are used then the contribution is increased, and these figures should be used to assess potential impacts of the project.</p> <p>The revised CRM clarification note has now been provided, and although it does not change the overall conclusions, Natural England advise that the figures based on the recommended nocturnal</p>   | <p>Agreed – The CRM clarification note has now been provided. The applicant and Natural England agree that assessments based on either parties methods and effects make no material difference to the overall conclusions.</p> |

| Discussion Point   | Thanet Extension Position  | NE Position  | Final Position  |
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|  |  | activity rates and avoidance rates should be used in the RIAA.   |   |
| Assessment of displacement for red-throated diver alone (at HRA level).                              | Following the discussion of methods applied for the assessment of red-throated diver displacement for Thanet Extension alone at the HRA level it is understood that this matter is now agreed.                 | Natural England agree that there is unlikely to be an adverse effect on integrity on red throated diver population within Outer Thames Estuary SPA alone, based on the fact that the project and 4km buffer is outside of the Outer Thames Estuary SPA boundary.   | Agreed.   |
| Assessment of displacement in-combination with other projects for red-throated diver (at HRA level). | Following the discussion of methods applied for the assessment of red-throated diver for Thanet Extension in-combination with other projects at the HRA level it is understood that this matter is now agreed. | The methods for undertaking the in-combination/cumulative assessment for red throated diver are broadly agreed. However, the revised red-throated diver cumulative (EIA) and in-combination (HRA) impact assessment methodology clarification note (December 2018) appears to under-estimate the extent of the cumulative effects. This is because the number of divers potentially displaced is derived using Seabird Mapping and Sensitivity Tool (SeaMaST) but then the expressed as a percentage of the SW North Sea winter Biologically Defined Minimum Population Scale (BDMPS), and not the percentage of the total derived using SeaMaST. The population of the winter BDMPS is 10,177 and | The Applicant and NE agree that the issue that NE has identified affects the consideration of the percentage contribution made by other consented offshore wind farms, but with respect to proposal applied for the Applicant and NE agree that the methodology does not change the |

| Discussion Point                    | Thanet Extension Position   | NE Position  | Final Position   |
|-------------------------------------|---|--|--|
|                                     |   | <p>within the same area the SeaMaST data set provides an estimate of 7,639. Therefore the cumulative effects are underestimated by around a quarter. However, we acknowledge that the methodology does not change the relative contribution that Thanet Extension which is small compared to consented offshore windfarms.</p>   | <p>relative contribution that Thanet Extension makes which is small compared to consented offshore wind farms.</p> |
| <p>Post-consent Monitoring Plan</p> | <p>The Applicant submitted an In Principle Offshore Ornithology Monitoring Plan (as Appendix 38 to the Applicant’s Deadline 3 Submission (PINS Ref REP3-057) which focuses on both strategic and site specific RTD proposals for discussion post construction.</p> <p>The Applicant considers it appropriate at this stage to retain both the option of a site specific study or a wider study, subject to a power analysis conducted post-consent to determine whether a significant effect can be detected.</p> | <p>Natural England notes the applicant’s comments in relation to Ornithological Monitoring. We accept that both options of a site specific study and a wider study are considered at this stage. We acknowledge that whether a site specific study is appropriate will depend on the results of a power analysis to determine whether a significant displacement effect can be detected. If post consent monitoring outside of the project area is considered, we advise that the focus should remain on validating the extent of red throated diver displacement from the Outer Thames Estuary SPA.</p> | <p>Agreed.</p>   |

## 5 Matters under discussion

24 This section identifies those matters raised by Natural England during the pre-application consultation that have yet to be resolved and are subject to ongoing discussion as of the last consultation meeting held with the Natural England. These ongoing discussion points are

- In-combination effect on the integrity of Outer Thames Estuary SPA with regards red throated diver; and
- In-combination effect on the integrity of Flamborough and Filey Coast SPA with regards gannet and kittiwake.