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**Subject:** Hornsea Project Three (UK) Ltd response to Deadline 5 (Part1)  
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Dear Kay, K-J

We are pleased to enclose Ørsted Hornsea Project Three (UK) Ltd (“the Applicant”) response to Deadline 5, Wednesday 23<sup>rd</sup> Jan 2019. These documents have been prepared by the Applicant and have been produced in response to the Examining Authority’s (ExA) letter of 9 October 2018 (“the Rule 8 letter”).

These documents are being issued over a series of emails, each email containing a pdf file or files. The **last** email to be issued by the Applicant will contain a supporting file tracking sheet – to help the ExA ensure that it has received each email transmission.

Please acknowledge safe receipt of these documents.

If we can be of any assistance in that regard, please do not hesitate to contact myself or Andrew Guyton.

Best regards,  
**Dr Dominika Chalder PIEMA**  
Environment and Consent Manager



Environmental Management UK | Wind Power  
5 Howick Place | London | SW1P 1WG



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Hornsea Project Three  
Offshore Wind Farm



## Hornsea Project Three Offshore Wind Farm

Appendix 5 to Deadline 5 submission - Confirmation of  
migratory seabirds considered in migratory collision risk  
modelling

Date: 23<sup>rd</sup> January 2019

Hornsea 3  
Offshore Wind Farm

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Front cover picture: Kite surfer near a UK offshore wind farm © Ørsted Hornsea Project Three (UK) Ltd., 2019.

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## 1. Introduction

- 1.1 As part of the Hornsea Three Issue Specific Hearing 2 (ornithological matters) (5<sup>th</sup> December 2018) it was requested by the Examining Authority, following a request from Natural England, that further information be provided by the Applicant in relation to the species selection process used for the collision risk modelling exercise undertaken for migratory seabirds. It was suggested by Natural England that the suite of species considered at other projects with similar characteristics to Hornsea Three (i.e. those across the same migratory front or those located at a similar distance offshore) be investigated to determine if the suite of species considered at Hornsea Three is appropriate.

## 2. Species considered at Hornsea Three

- 2.1 The process to identify species for consideration in migratory modelling at Hornsea Three (Volume 5, Annex 5.3: Collision Risk Modelling (APP-109)) included consideration of SPA populations and their migratory routes, migratory behaviour and the likelihood of birds occurring 150 km offshore and the suite of species included for migratory collision risk modelling at the consented Hornsea Project One and Hornsea Project Two offshore wind farms.
- 2.2 This process led to the consideration of five species in the migratory seabird collision risk modelling undertaken in the Hornsea Three application (see Appendix B of Volume 5, Annex 5.3: Collision Risk Modelling (APP-109)):
- Arctic skua;
  - Great skua;
  - Little gull;
  - Common tern; and
  - Arctic tern.

## 3. Projects considered

- 3.1 Hornsea Three is located approximately 150 km offshore of the English east coast. This is especially relevant to migratory seabirds as the majority of migration will occur closer inshore (Stienen et al., 2007; WWT Consulting and MacArthur Green, 2014). This therefore means that the suite of species considered at Hornsea Three can only be compared to the suite of species considered at those projects that are located at a comparable distance offshore. The projects considered are:

- Hornsea Project One;
- Hornsea Project Two;
- Dogger Bank Creyke Beck A&B;
- Dogger Bank Teesside A and Sofia;
- East Anglia One;
- East Anglia Three; and
- Norfolk Vanguard.

3.2 Thanet Extension has also been considered in this report as this project is currently progressing through the planning process and as such Natural England’s advice on that project, which is located closer inshore and potentially in an area through which the migratory flux of birds would be higher, is relevant to Hornsea Three.

#### 4. Species considered at other projects

4.1 Table 1.1 identifies those species considered for migratory collision risk modelling at those projects considered to be comparable to Hornsea Three

Table 1.1: Species considered in migratory collision risk modelling at other offshore wind farms

Project	Species considered	Reference	Notes
Hornsea Project One	<ul style="list-style-type: none"> <li>• Arctic skua;</li> <li>• Great skua;</li> <li>• Little gull;</li> <li>• Common tern; and</li> <li>• Arctic tern</li> </ul>	Appendix D to Volume 5, Chapter 5.5.1: Offshore Ornithology Technical Report	The five species included in the modelling were selected based on a relatively high proportion of birds occurring within the regional SPAs close to the proposed Hornsea subzone 1 wind farm development area. Recommendations from the phase 3 consultation response from the Joint Nature Conservation Committee (JNCC) and Natural England (NE) were also incorporated into the species selection (paragraph D.27)
Hornsea Project Two	<ul style="list-style-type: none"> <li>• Arctic skua;</li> <li>• Great skua;</li> <li>• Little gull;</li> <li>• Common tern; and</li> <li>• Arctic tern</li> </ul>	Appendix D to Volume 5, Annex 5.5.1: Offshore Ornithology Technical Report  Appendix V to the Applicant’s submission for Deadline 5	Natural England discussed the migratory CRM in their Written Representation but did not request the inclusion of any other species (paragraphs 6.5.88 to 6.5.91)  Applicant’s Deadline 5 submission indicates that Natural England did not raise any queries in relation to the suite of species included (paragraph 1.2.2)

Project	Species considered	Reference	Notes
Dogger Bank Creyke Beck A&B	No comparable migratory seabird collision risk modelling approach conducted	-	Collision risk modelling was carried out at Dogger Bank Creyke Beck A & B and Dogger Bank Teesside A & B (now Sofia) for a large suite of species that included those usually considered as part of migratory modelling (e.g. Arctic skua, great skua, common tern and Arctic tern), however these were not considered in the context of specific migratory collision risk, rather monthly estimates based on monthly survey data collected between 2010-2011. The suite of species considered therefore includes those usually included in migratory CRM but using an approach that is not comparable with that used at Hornsea Three.
Dogger Bank Teesside			
East Anglia One	<ul style="list-style-type: none"> <li>Great skua</li> </ul>	Section 12.6.3.3. Collision Risk in Volume 2 Chapter 12: Ornithology Marine and Coastal	<p>Approach considers great skua but does not appear to provide reasoning for why this was the only species included.</p> <p>In their Relevant Representation JNCC welcomed the approach to collision risk modelling undertaken for great skua.</p> <p>In their Written Representation JNCC stated that through discussions with the Applicant they were able to conclude no LSE on great skua.</p>
East Anglia Three	<ul style="list-style-type: none"> <li>Great skua</li> <li>Arctic skua</li> <li>Common tern</li> <li>Arctic tern</li> </ul>	Table 13.35 in Volume 1, Chapter 13 of the East Anglia Three EIA	<p>Natural England stated in their Relevant Representation that:</p> <p><i>"In regard to migrant sea birds, while we cannot say with certainty that there will be no impact, we do agree with the Applicant that given the distance EA3 is offshore, any impacts will be negligible."</i></p>
Norfolk Vanguard	<ul style="list-style-type: none"> <li>Arctic skua</li> <li>Great skua</li> <li>Arctic tern</li> <li>Common tern</li> <li>Little gull</li> </ul>	Table 13.62 in Volume , Chapter 13: Offshore Ornithology of the Norfolk Vanguard EIA	Consultation log in ES suggests NE recommended the inclusion of little gull to a suite of species already including great skua, Arctic skua, common tern and Arctic tern

Project	Species considered	Reference	Notes
Thanet Extension	None	-	Agreed with Natural England that migratory species would be screened out of CRM (see paragraph 4.1.41 of ES chapter)

## 5. Conclusion

- 5.1 The suite of migratory species included in collision risk modelling for Hornsea Three is appropriate and consistent with those considered at other comparable sites in the southern North Sea. It is also considered that the suite of species considered is consistent with the advice provided by Natural England for other comparable offshore wind farm projects.

## 6. References

- SMartWind (2013). Hornsea Offshore Wind Farm Project One. Chapter 5.5.1 Ornithology Technical Report. [Online]. Available at: <https://infrastructure.planninginspectorate.gov.uk/projects/yorkshire-and-the-humber/hornsea-offshore-wind-farm-zone-4-project-one/?ipcsection=docs> (Accessed May 2017).
- SMartWind (2015a). Hornsea Offshore Wind Farm Project Two. Annex 5.5.1 Ornithology Technical Report Part 2. [Online]. Available at: <https://infrastructure.planninginspectorate.gov.uk/projects/yorkshire-and-the-humber/hornsea-offshore-wind-farm-zone-4-project-two/?ipcsection=docs> (Accessed May 2017).
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- Stienen, E.W.M., Waeyenberge, V., Kuijken, E. and Seys, J. (2007). Trapped within the corridor of the southern North Sea: the potential impact of offshore wind farms on seabirds. [Online]. Available at: <http://www.vliz.be/imisdocs/publications/129847.pdf> (Accessed 28 March 2013).
- WWT Consulting and MacArthur Green (2014). *Strategic assessment of collision risk of Scottish offshore wind farms to migrating birds*. [Online]. Available at: <https://www2.gov.scot/Resource/0046/00461026.pdf> (Accessed January 2019).