



**RWE Renewables UK Dogger Bank
South (West) Limited**

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**Dogger Bank South Offshore
Wind Farms**

**The Applicants' Responses to Regulation 32
Transboundary Consultation Responses**

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Glossary

Term	Definition
Array Areas	The DBS East and DBS West offshore Array Areas, where the wind turbines, offshore platforms and array cables would be located. The Array Areas do not include the Offshore Export Cable Corridor or the Inter-Platform Cable Corridor within which no wind turbines are proposed. Each area is referred to separately as an Array Area.
Collision	The act or process of colliding (crashing) between two moving objects.
Development Consent Order (DCO)	An order made under the Planning Act 2008 granting development consent for one or more Nationally Significant Infrastructure Project (NSIP).
Environmental Impact Assessment (EIA)	A statutory process by which certain planned projects must be assessed before a formal decision to proceed can be made. It involves the collection and consideration of environmental information, which fulfils the assessment requirements of the EIA Directive and EIA Regulations, including the publication of an Environmental Statement (ES).
Environmental Statement (ES)	A document reporting the findings of the EIA and produced in accordance with the EIA Directive as transposed into UK law by the EIA Regulations.
Offshore Development Area	The Offshore Development Area for ES encompasses both the DBS East and West Array Areas, the Inter-Platform Cable Corridor, the Offshore Export Cable Corridor, plus the associated Construction Buffer Zones.
Offshore Export Cable Corridor	This is the area which will contain the offshore export cables (and potentially the ESP) between the Offshore Converter Platforms and Transition Joint Bays at the landfall.
Offshore Export Cables	The cables which would bring electricity from the offshore platforms to the Transition Joint Bays (TJBs).
Preliminary Environmental Information Report (PEIR)	Defined in the EIA Regulations as information referred to in part 1, Schedule 4 (information for inclusion in environmental statements) which has been compiled by the applicants and is reasonably required to assess the environmental effects of the development.
Projects Design (or Rochdale) Envelope	A concept that ensures the EIA is based on assessing the realistic worst-case scenario where flexibility or a range of options is sought as part of the consent application.

Term	Definition
Statutory Nature Conservation Bodies (SNCBs)	Comprised of JNCC, Natural Resources Wales, Department of Agriculture, Environment and Rural Affairs/Northern Ireland Environment Agency, Natural England and Scottish Natural Heritage, these agencies provide advice in relation to nature conservation to government.
The Applicants	The Applicants for the Projects are RWE Renewables UK Dogger Bank South (East) Limited and RWE Renewables UK Dogger Bank South (West) Limited. The Applicants are themselves jointly owned by the RWE Group of companies (51% stake) and Masdar (49% stake).
The Projects	DBS East and DBS West (collectively referred to as the Dogger Bank South Offshore Wind Farms).
Topic Specific Study Area	The area where potential impacts from the Projects could occur, as defined for each individual EIA topic.

Acronyms

Term	Definition
DCO	Development Consent Order
DMLs	Deemed Marine Licences
EEA	European Economic Area
EEZ	Exclusive Economic Zone
EIA	Environmental Impact Assessment
EPS	European Protected Species
ES	Environmental Statement
ExA	Examining Authority
HPAI	Highly Pathogenic Avian Influenza
MMMP	Marine Mammal Mitigation Protocol
NAS	Noise Abatement Systems
NNPP	National Nathusius' Pipistrelle Project
PEIR	Preliminary Environmental Information Report
SAC	Special Areas of Conservation
SIP	Site Integrity Plan
SNCBs	Statutory Nature Conservation Bodies
SNS	Southern North Sea
UK	United Kingdom

1 Introduction

1. This document presents the Applicants' responses to comments raised by European Economic Area (EEA) members on the Dogger Bank South Development Consent Order (DCO) application. These comments were received by the Examining Authority (ExA) following the transboundary consultation undertaken by the Planning Inspectorate in line with Regulation 32 of the Infrastructure Planning (Environmental Impact Assessment) Regulations 2017.
2. Transboundary consultation comments were received from Germany, the Netherlands and Denmark following the closure of the Dogger Bank South statutory consultation period.
3. In their responses to the comments received from EEA consultees, for ease of referencing and to facilitate future cross-referencing, the Applicants have used the existing Planning Inspectorate identification number (e.g. OD-001) applied to each consultation response and created a unique identifier for each comment by itemising the representation into paragraphs or sections (e.g. OD-001: 1.1). The ID numbers can be found in the first column of each table.
4. In response to OD-011, the Applicants have presented the representation as received in German alongside the Applicants' translation into English. A response has been provided by the Applicants in English only.
5. The Applicants have provided responses to the comments received from Denmark, Germany and the Netherlands respectively through sections 2.1, 2.2 and 2.3 of this report.

2 Comments on Regulation 32 Transboundary Consultation Responses

6. The Applicants' comments on transboundary representations received from Denmark, Germany and the Netherlands are provided in this section.

2.1 Denmark

Table 2-1 - Applicants' Comments on Regulation 32 Transboundary Consultation Responses from Denmark

I.D.	Relevant Representation	Applicants' Comment
OD-010	<p>The Environmental Protection Agency's Species and Nature Conservation unit has reviewed the material submitted for Dogger Bank South East and Dogger Bank South West Offshore Wind Farms concerning migratory birds.</p> <p>Species and Nature Conservation cannot, on the basis of the present data, assess whether the realization of the Dogger Bank offshore wind farms will affect the migration of birds that migrate across the North Sea between Denmark and England. Species and Nature Conservation can ascertain that the material Volume 7 Chapter 12 - Offshore Ornithology Application Reference: 7.12 and Volume 6 Part 4 of 4 - Marine Ornithological Features Application Reference: 6.1 has not dealt with which migratory birds are on the basis of designation in Danish bird protection areas, Species and Nature notes that, for example, the species Great Scoter (<i>Numenius arquata</i>) and Great Copper Sandpiper (<i>Limosa Limosa</i>) migrate between Denmark and England over the part of the North Sea where the Dogger Bank South East and Dogger Bank South West offshore wind farms are planned to be located. The mentioned birds are on the basis of designation in the respective Bird protection area F38 Nisum fjord, F43 Ringkøbing Fjord and Nymindestrømmen, as well as F52, F60 Wadden Sea in Denmark. The two examples of Danish migratory birds are not included in the assessment of displaced birds in Volume 7 Chapter 12 - Offshore Ornithology Application Reference: 7.12.</p> <p>Species and Nature will draw attention to the large expansion of wind energy parks in the North Sea, which is in the pipeline for the coming years, in relation to cumulative effects, as well as the importance that all relevant migratory birds are taken into account when assessing transboundary effects for these offshore wind farms.</p> <p>Against this background Species and Nature Conservation wishes to continue to follow the process of environmental assessment of the specific project</p>	<p>The Applicants are aware that terrestrial migrant birds can be considered at risk of collisions at offshore wind farms, and in the UK bespoke methods for estimating collision risk have been developed (Wright <i>et al.</i> 2012¹). Using these methods, assessments have been undertaken for previous offshore wind farms which have demonstrated that the risks to terrestrial migrant populations from collisions cumulatively at wind farms in the North Sea are extremely small, with typically fewer than 0.01% of any species' population estimated to be at risk of collision per year (e.g. Vattenfall, 2019²). For this reason, UK Statutory Nature Conservation Bodies (SNCBs) no longer routinely request such assessments be conducted, since they are content that the impacts are so small as to be undetectable against background variations. No request for such an assessment was received from any UK SNCBs or European Nature Conservation Bodies during the pre-submission phase of the Projects.</p>

¹ Wright, L.J., Ross-Smith, V.H., Massimino, D., Dadam, D., Cook, A.S.C.P. & Burton, N.H.K. (2012). Assessing the risk of offshore wind farm development to migratory birds designated as features of UK Special Protection Areas (and other Annex I species). Strategic Ornithological Support Services. Project SOSS-05. BTO Research Report No. 592.

² [https://infrastructure.planninginspectorate.gov.uk/wp-content/ipc/uploads/projects/EN010079/EN010079-002765-ExA%3B%20AS%3B%2010.D6.18 Norfolk%20Vanguard Migrant%20non-seabird%20CRM%20Revision%20of%20REP3-038.pdf](https://infrastructure.planninginspectorate.gov.uk/wp-content/ipc/uploads/projects/EN010079/EN010079-002765-ExA%3B%20AS%3B%2010.D6.18%20Norfolk%20Vanguard%20Migrant%20non-seabird%20CRM%20Revision%20of%20REP3-038.pdf)

2.2 Germany

Table 2-2 – Applicants’ Comments on Regulation 32 Transboundary Consultation Responses from Germany

I.D.	Relevant Representation	Applicants’ Comment
OD-011: 1	<p>See- und Rastvögel Nach derzeitiger Einschätzung auf Basis der vorliegenden Informationen werden die wesentlichen von den Windparks ausgehenden potenziellen Umweltauswirkungen für verschiedene Seevogelarten berücksichtigt. Grenzüberschreitende Auswirkungen auf See- und Rastvögel werden laut Angaben der Unterlagen voraussichtlich minimal sein. Eine vollständige quantitative Bewertung zu grenzüberschreitenden Auswirkungen war jedoch aufgrund mangelnder Populationsdaten und methodischen Unterschieden zwischen den Ländern bisher nicht möglich. Die fortlaufende Untersuchung grenzüberschreitender Auswirkungen der Offshore-Windparks auf Seevögel (hier insbesondere der Arten Dreizehenmöwe, Basstölpel, Trottellumme und Tordalk) sollte demnach dringend weiterverfolgt werden.</p> <p>The Applicants’ Translation: Seabirds and resting birds</p> <p>According to the current assessment based on the information available, the main potential environmental impacts of the wind farms for various seabird species taken into account. According to the documents, transboundary impacts on seabirds and resting birds are expected to be minimal. However, a full quantitative assessment of transboundary impacts has not yet been possible due to a lack of population data and methodological differences between countries. The ongoing investigation of transboundary impacts of offshore wind farms on seabirds (in particular the species kittiwake, northern gannet, guillemot and razorbill) should therefore be urgently pursued.</p>	<p>The Applicants agree that there is a need for alignment of seabird assessment methodologies between different countries in order for common features to be assessed across borders. However, this is not something that individual developers are able to instigate and requires agreement between the relevant agencies in the countries in question. In the absence of such agreements, the approach taken for consideration of transboundary effects by the Applicants remains appropriate and in accordance with UK legislation.</p>
OD-011: 2	<p>Meeressäuger: Aufgrund der Entfernung zur deutschen AWZ (mind. 40 km) werden schallbedingt keine Auswirkungen auf das Schutzgut Meeressäuger erwartet. Dennoch bitten wir um Auskunft, ob bei den Installationsarbeiten sowie bei der Sprengung von Altmunition Schallminderungsmaßnahmen zum Einsatz kommen werden. In den vorliegenden Dokumenten werden zwar zusätzliche Maßnahmen erwähnt, aber nicht weiter ausgeführt, worum es sich dabei handelt. Ebenso bitten wir um Auskunft, ob ein Assessment zur Erfassung von Meeressäugern für die Betriebsphase der beiden Windparkflächen vorgesehen ist.</p> <p>The Applicants’ Translation: Marine Mammals:</p> <p>Due to the distance to the German EEZ (at least 40 km), no impact on marine mammals as a protected asset is expected due to noise. Nevertheless, we would like to know whether noise reduction measures will be used during the installation work and when old ammunition is detonated. The documents at hand mention additional measures, but do not explain what they are. We would also like to know whether an assessment to record marine mammals is planned for the operational phase of the two wind farm areas.</p>	<p>The Applicants are considering the use of noise abatement systems (NAS) as mitigation for underwater noise. The Applicants note that potential mitigation options, including NAS, are listed within the Outline Marine Mammal Mitigation Protocol (MMMP) (Revision 2) [AS-100] and the In Principle Site Integrity Plan (SIP) for the Southern North Sea (SNS) Special Area of Conservation (SAC) (Revision 2) [AS-102] which were submitted in late November 2024.</p> <p>The type and use of NAS will be dependent on the final project design and determined at the post-consent stage. The Deemed Marine Licences (DMLs) require that final MMMP and SIP will need to be signed off by the Marine Management Organisation if pile foundations are used, so the proposed NAS measures will be subject to approval before being implemented. NAS is being included within the Projects’ procurement strategy as an optional element to allow it to be called upon should it be required based on the final design parameters.</p> <p>The finalisation of the MMMP for piling and European Protected Species (EPS) licencing applications post-consent will consider the latest policy on NAS at the time.</p> <p>In principle monitoring of marine mammals is detailed in the In Principle Monitoring Plan [APP-247]. Monitoring during the operational phase is not currently proposed as the Projects’ assessments conclude that there are no significant effects on marine mammal species. Furthermore, long-term monitoring is not required by UK Statutory Nature Conservation Bodies (SNCBs).</p>
OD-011: 3	<p>Zugvögel: Innerhalb der zur Verfügung stehenden Unterlagen wurden die von den Windparks ausgehenden potentiellen Umweltauswirkungen (Kollisionen, Stör- und Verdrängungseffekte) für verschiedene Seevogelarten betrachtet (Volume 7 Chapter 12). Darüber, in wie weit sich die geplanten</p>	<p>The Applicants are aware that terrestrial migrant birds can be considered at risk of collisions at offshore wind farms, and in the UK bespoke methods for estimating collision risk have been developed (Wright <i>et al.</i> 2012¹). Using these methods, assessments have been undertaken for</p>

I.D.	Relevant Representation	Applicants' Comment
	<p>OffshoreWindparks auch auf terrestrische Zugvögel auswirken können, wurden bis auf die Anlockwirkung durch Licht (Volume 7 Appendix 12-11) keine Aussagen gemacht. Allerdings zeigen Monitorings, die innerhalb von deutschen offshore Windparkvorhaben durchgeführt wurden, dass nachts ziehende Singvögel den größten Teil des Vogelzugs über der Nordsee ausmachen. Über der deutschen AWZ verläuft der Vogelzug vor allem in nordöstlicher (Frühjahr) bzw. südwestlicher (Herbst) und teilweise auch in Ost-West Richtung. Es ist daher davon auszugehen, dass die ziehenden Vögel nach bzw. vor dem Überfliegen der deutschen AWZ auch auf die Gebiete der „Dogger Bank South Offshore Wind Farms“ in der englischen AWZ treffen werden. Aus Sicht des BSH bestehen generell Unsicherheiten innerhalb der Bewertung der kumulativen Auswirkungen, die von den geplanten Offshore-Windparks auf nachts über das Meer ziehende terrestrische Singvögel ausgehen. Das BSH bittet um weitere Informationen, ob es Untersuchungen bzw. Erkenntnisse zur Zugintensität und Zugrichtung von terrestrischen Arten im Bereich der offshore Vorhaben gibt.</p> <p>Laut der Unterlage 8.23 „Principle Monitoring Plan“ ist für die Offshore-Windparks ein Monitoring zum Kollisionsrisiko vorgesehen. Das BSH empfiehlt auch terrestrische Zugvögel in das Monitoring mit aufzunehmen, wie es für die zukünftigen Windparks in der deutschen AWZ durchgeführt wird. Dies wäre eine wichtige Maßnahme um in Zukunft die grenzüberschreitenden kumulativen Auswirkungen besser abschätzen zu können. Das BSH würde es begrüßen bezüglich des fachlichen Kenntnisstands über ein mögliches Monitoring von Zugvögeln weiterhin beteiligt zu werden.</p> <p>The Applicants' Translation: Migratory Birds:</p> <p>The available documents examined the potential environmental impacts (collisions, disturbance and displacement effects) of the wind farms for various seabird species (Volume 7 Chapter 12). No statements were made on the extent to which the planned offshore wind farms could also affect terrestrial migratory birds, apart from the attraction effect of light (Volume 7 Appendix 12-11). However, monitoring carried out within German offshore wind farm projects shows that songbirds migrating at night make up the majority of bird migration over the North Sea. Over the German EEZ, bird migration runs mainly in a northeasterly (spring) or southwesterly (autumn) direction and sometimes also in an east-west direction. It can therefore be assumed that the migrating birds will also encounter the areas of the "Dogger Bank South Offshore Wind Farms" in the English EEZ after or before flying over the German EEZ. From the BSH's point of view, there are general uncertainties in the assessment of the cumulative impacts of the planned offshore wind farms on terrestrial songbirds migrating over the sea at night. The BSH requests further information on whether there are any studies or findings on the intensity and direction of migration of terrestrial species in the area of the offshore projects.</p> <p>According to document 8.23 "Principle Monitoring Plan", collision risk monitoring is planned for offshore wind farms. The BSH also recommends including terrestrial migratory birds in the monitoring, as is done for future wind farms in the German EEZ. This would be an important measure to reduce the cross-border cumulative effects. The BSH would welcome continued involvement in the technical knowledge regarding possible monitoring of migratory birds.</p>	<p>previous offshore wind farms which have demonstrated that the risks to terrestrial migrant populations from collisions cumulatively at wind farms in the North Sea are extremely small, with typically fewer than 0.01% of any species' population estimated to be at risk of collision per year (e.g. Vattenfall, 2019²). For this reason, UK SNCBs no longer routinely request such assessments be conducted, since they are content that the impacts are so small as to be undetectable against background variations. No request for such an assessment was received from any UK SNCBs during the pre-submission phase of the Projects.</p>
OD-011: 4	<p>Fledermäuse: Keine Anmerkungen. The Applicants' Translation: Bats:</p>	<p>The Applicants acknowledge this comment.</p>

I.D.	Relevant Representation	Applicants' Comment
	No comments.	
OD-011: 5	<p>Fische:</p> <p>Im Screening werden keine grenzüberschreitenden Auswirkungen auf das Schutzgut Fische und Rundmäuler festgestellt. Aufgrund der großen Entfernung zum Vorhaben (mind. 40km) schließt sich das BSH dieser Einschätzung an und hat keine weiteren Anmerkungen.</p> <p>The Applicants' Translation:</p> <p>Fish:</p> <p>The screening did not identify any cross-border impacts on the protected species of fish and cyclostomes. Due to the great distance to the project (at least 40 km), the BSH agrees with this assessment and has no further comments.</p>	The Applicants acknowledge this comment.
OD-011: 6	<p>Benthos & Biotope:</p> <p>Keine Anmerkungen. Aufgrund der großen Entfernung des Vorhabens zur deutschen AWZ (mind. 40km) geht das BSH nicht von signifikanten grenzüberschreitenden Auswirkungen aus.</p> <p>The Applicants' Translation:</p> <p>Benthos & Biotopes:</p> <p>No comments. Due to the great distance of the project from the German EEZ (at least 40 km), the BSH does not expect any significant cross-border impacts.</p>	The Applicants acknowledge this comment.
OD-011: 7	<p>Boden/Fläche:</p> <p>Keine Anmerkungen. Aufgrund der großen Entfernung des Vorhabens von der deutschen AWZ (mind. 40 km) werden hinsichtlich der Schutzgüter Boden und Fläche keine signifikanten grenzüberschreitenden Auswirkungen erwartet.</p> <p>The Applicants' Translation:</p> <p>Floor/Area:</p> <p>No comments. Due to the large distance of the project from the German EEZ (at least 40 km), no significant cross-border impacts are expected with regard to the protected assets of soil and area.</p>	The Applicants acknowledge this comment.

2.3 Netherlands

Table 2-3 – Applicants’ Comments on Regulation 32 Transboundary Consultation Responses from the Netherlands

I.D.	Relevant Representation	Applicants’ Comment
OD-012: 1	<p>1. Ecological effects with transboundary perspective There are several offshore transboundary effects we would like to highlight, give advice or comment on.</p> <p>One serious concern is the inconsistency we found in the assessments of cumulative effects on ecology. In the PEIR, a distinction is made between cumulative and transboundary effects. Effects on neighbouring countries are considered, yet only with UK activities taken into account. By doing so, results become heavily skewed; ecological effects should be considered internationally and the effects of wind farms and other activities are therefore better tested at a relevant geographical scale, appropriate to the scope of the effects. In other words, if a North Sea population is considered then all activities occurring in the same area should be included in the impact assessment.</p> <p>Many North Sea countries are developing offshore wind farms in order to meet their net zero goals to combat climate change. When using the seas more intensively, there is an increased need for us all to assess impacts on ecology and implement adequate measures to limit these impacts. This is necessary because we have a shared duty to maintain the important ecological services the North Sea provides us with</p>	<p>The Applicants acknowledge this comment. Potential transboundary effects have been assessed where relevant throughout the Environmental Statement (ES) in accordance with the transboundary effects assessment methodology detailed in Chapter 6 Environmental Impact Assessment Methodology [APP-076]. Where it is concluded that ecological effects at a local scale do not have a significant impact in Environmental Impact Assessment (EIA) terms, it is considered that there would not be a significant effect at a wider geographic scale. All Topic Specific Study Areas have been informed by project specific survey data or the best available publicly available datasets.</p>
OD-012: 2	<p>Physical marine environment</p> <p>Regarding the physical marine environment we would like to note that according to the documentation provided, no direct transboundary ecosystem effects are expected. However, we feel the need to emphasise that transboundary effects cannot be ruled out solely based on the 40 km distance from the nearest EEZ boundary. This is especially true when considering indirect ecosystem effects. As such, we would like to bring to your attention ecosystem effect modelling studies by Deltares which show that ecosystem effects might be incurred over longer distances than 40 km (see Annex for ecosystem effect modelling study from Deltares).</p> <p>Furthermore, there are indications that turbidity caused by construction has a more significant impact than thus far assumed. Sediment from the construction of one turbine might settle within a few days and therefore is not likely to create significant negative effects. However, a total of 200 wind turbines (100 per area) are planned to be constructed, which encompasses a large proportion of the entire construction period and may well have a more significant impact on turbidity than is assumed.</p>	<p>As noted in Appendix 8-3 Marine Physical Processes Modelling Technical Report [APP-084], project specific modelling undertaken for the Projects details that the maximum extent of the sediment plume during peak tidal currents from installation activities may reach 18km from the Offshore Development Area. As the UK EEZ boundary is located 40km from the Offshore Development Area at its nearest point to the Projects, there is no potential for transboundary effects on marine physical processes resulting from the Projects.</p>
OD-012: 3	<p>Fish and shellfish ecology</p> <p>It is mentioned that there may be temporary and permanent loss of spawning and nursery grounds of several vulnerable and endangered species, including shark species (see OSPAR List of Threatened and/or Declining Species & Habitats³). We would appreciate additional mitigation and compensation plans for these species, as the loss of spawning and nursery grounds for vulnerable species seems more substantial than the minor adverse effects that are described.</p>	<p>It is acknowledged that temporary and permanent habitat loss associated with the Projects has the potential to occur in regions where spawning and nursery grounds of fish and shellfish species are present. However, it should be noted that the assessment submitted as part of the Development Consent Order (DCO) Application gives consideration to impacts on receptor groups at a population level scale, and not at an individual scale.</p> <p>The assessments undertaken within sections 10.6.1.1; 10.6.2.1. and 10.6.2.6 of Chapter 10 Fish and Shellfish Ecology [APP-091] determine that the scale of this disturbance is not considered to have an adverse effect beyond minor, which is not significant in EIA terms. This determination is based on both the limited scale of habitat loss when compared to the wider availability of suitable habitat across the study area and the wider North Sea, combined with the mobility of fish and shellfish species allowing for the</p>

³ <https://www.ospar.org/work-areas/bdc/species-habitats/list-of-threatened-declining-species-habitats/fish>

I.D.	Relevant Representation	Applicants' Comment
		<p>utilisation of alternate suitable spawning and nursery grounds beyond the Offshore Development Area. Due to the determination of no significant effects, mitigation and compensation are not considered further within this assessment.</p>
<p>OD-012: 4</p>	<p>Marine mammals</p> <p>We are not aware that any information on (best available techniques for) underwater noise reduction by applying mitigating measures has been included in your study. We hope this nevertheless will be included in an updated Environmental Impact Assessment (EIA) and further construction process, as major effects are predicted for the harbour porpoise, minke whale and the grey seal due to underwater noise as a result of pile driving during the construction of Dogger Bank South Offshore Wind Farms. This was also a real concern for Dogger Bank Teesside A and B. The Netherlands mitigate this issue by setting requirements for maximum underwater noise exposure during pile driving. Various noise mitigation measures can reduce noise exposure, for example using a bubble screen during pile driving. We hope that these suggestions can be taken into account in your further activities.</p> <p>Impacts on harbour porpoises and grey seals are transboundary as both populations do not keep to national boundaries. International cumulative effects should be included, as transboundary effects on the Dutch marine mammal population and Dutch Natura 2000 areas are expected. The Dogger Bank and Cleaver Bank Natura 2000 areas have both been designated for the protection of harbour porpoises and grey seals under the EU Habitats Directive. We also want to highlight that the migration routes of the grey seal between the United Kingdom and the Netherlands cross the area of the proposed wind farms. Moreover, the highest densities of harbour porpoises in the southern part of the North Sea can be found in and closely around the suggested project site according to previous analyses. We would value a thorough assessment as the proposed development is likely to affect our conservation objectives for these species.</p>	<p>The Applicants are considering the use of noise abatement systems (NAS) as mitigation for underwater noise. The Applicants note that potential mitigation options, including NAS, are listed within the Outline Marine Mammal Mitigation Protocol (MMMP) (Revision 2) [AS-100] and the In Principle Site Integrity Plan (SIP) for the Southern North Sea (SNS) Special Area of Conservation (SAC) (Revision 2) [AS-102] which were submitted in late November 2024.</p> <p>The type and use of NAS will be dependent on the final project design and determined at the post-consent stage. The Deemed Marine Licences (DMLs) require that final MMMP and SIP will need to be signed off by the Marine Management Organisation if pile foundations are used, so the proposed NAS measures will be subject to approval before being implemented. NAS is being included within the Projects' procurement strategy as an optional element to allow it to be called upon should it be required based on the final design parameters.</p> <p>The finalisation of the MMMP for piling and European Protected Species (EPS) licencing applications post-consent will consider the latest policy on NAS at the time.</p> <p>A full screening of potential impacts from projects in the wider North Sea was conducted in the Environmental Statement Appendix 11-5 Cumulative Effects Assessment Screening [APP-101]. A transboundary assessment has been undertaken in section 8.3.10 of the Report to Inform Appropriate Assessment Habitats Regulations Assessment Part 3 of 4 [APP-047].</p>
<p>OD-012: 5</p>	<p>Birds and bats</p> <p>As already mentioned before, attention for cumulative effects on a transboundary scale is a crucial issue of this PEIR. Since the southern part of the North Sea already harbours various wind farms in the United Kingdom and neighbouring countries in combination with other activities, the combination of all these activities will cause negative cumulative effects on birds. We suggest you consider this in further stages of the process. This is possible with comprehensive monitoring data that is available in the European Seabirds at Sea⁴ database. We offer our assistance to analyse these data so that a proper transboundary analysis can be made, if desired.</p> <p>Assessing cumulative impacts is challenging indeed. The Netherlands, however, has been quite successful in conducting such ecological research. We would therefore like to refer to the Framework for Assessing Ecological and Cumulative Effects⁵ in which international cumulative effects of wind farms have been calculated.</p> <p>We expect considerable habitat loss for various bird species by this new development and thus we would be grateful if you will pay extra attention and mitigation measures to this aspect in the updated EIA and further activities. Bird species that are of special interest due to possible conservation targets in the Netherlands are razorbill, guillemot, great black-backed gull, northern gannet and kittiwake. It is probable that the construction of this wind farm will have an external effect on bird species living in the four Dutch Natura 2000</p>	<p>Cumulative and transboundary effects on offshore ornithology, including the species referenced, are assessed within sections 12.10 and 12.12 of Chapter 12 Offshore Ornithology (Revision 2) [AS-057].</p> <p>The maximum estimated area of habitat loss resulting from the Projects has been reduced considerably since the Preliminary Environmental Information Report (PEIR), with both the Array Areas and Offshore Export Cable Corridor boundaries being reduced, the removal of suction bucket and gravity-base foundations from the Project's Design Envelope within the Array Areas, the reduction of the number of offshore platforms from eleven to eight and reduction of the potential number of Offshore Export Cables from six to four. Mitigation measures embedded into the Projects design to reduce the minimise potential habitat loss within the Offshore Development Area are detailed in Table 9-3 of Chapter 9 Benthic and Intertidal Ecology [APP-085].</p> <p>The Report to Inform Appropriate Assessment Habitats Regulations Assessment Part 4 of 4 (Revision 2) [AS-085] presents an assessment of the effects of the Projects on areas protected for avian conservation reasons. Compensation for adverse effects on such sites has been proposed where relevant.</p>

⁴ <https://www.ices.dk/data/data-portals/Pages/European-Seabirds-at-sea.aspx>

⁵ <https://www.noordzeeloket.nl/en/functions-and-use/offshore-wind-energy/ecology/accumulation-ecological-effects/framework-assessing-ecological-cumulative-effects/>

I.D.	Relevant Representation	Applicants' Comment
	<p>areas Dogger Bank, Cleaver Bank, Frisian Front and Central Oyster Grounds, especially considering international cumulative effects.</p> <p>In the Netherlands, bird collisions with wind turbines and habitat loss due to wind farms are perceived to be an essential issue. Unfortunately, in the PEIR bird collisions are only described for the northern gannet and thus the Netherlands proposes to pay extra attention to the great black-backed gull and the kittiwake as we believe these might also be affected by collisions. Mitigation measures should be considered to avoid such collisions⁶⁷</p> <p>Furthermore, the migration route of razorbill and guillemot from the breeding grounds in the United Kingdom to the moult areas (e.g., Frisian Front) in the Netherlands are not included in the assessment. Also during non-breeding time these species are expected to experience negative effects from additional offshore wind farms. We would appreciate if you would look into mitigation measures to avoid collisions, habitat loss, and barrier effects.</p> <p>The PEIR mentions that research is being done on avian flu, however it is not clear how this has been done. It would be highly appreciated if attention will be paid to avian flu, especially in relation to the northern gannet.</p> <p>Research on impacts on bat species is still in preliminary stages and much is yet unknown. Nevertheless we do know that their migration routes cross the North Sea and thus we would like to point out that they ought to be given attention⁸.</p>	<p>Updated displacement assessment and collision risk modelling has been undertaken since PEIR within Chapter 12 Offshore Ornithology (Revision 2) [AS-057] with the results detailed within the chapter. Mitigation measures embedded into the Projects design to reduce the potential effects on marine ornithological receptors (including collision risk) are detailed in Table 12-4 of Chapter 12 Offshore Ornithology (Revision 2) [AS-057].</p> <p>Investigations into the recent Highly Pathogenic Avian Influenza (HPAI) outbreak are currently being undertaken by the appropriate Statutory Nature Conservation Bodies and non-governmental organisations. Data collected for the Projects to aid this assessment across the 2022 and 2023 breeding seasons (including for northern gannet) are included in Appendix 12-3 to 12-9 [AS-060 to AS-071, and APP-112] of this submission. It is hoped this data may be used in these investigations to provide an indication of the health of the affected colonies in the vicinity of the Projects in the year following the avian flu outbreak.</p> <p>Indications to date are that the gannet colony at Flamborough and Filey Coast Special Protection Area has continued to increase despite apparent losses from HPAI, and there is no clear evidence for changes in the numbers of any species recorded at the Project's Array Areas between 2021 (pre-HPAI in English colonies) and 2022 (during and post HPAI noted at English colonies). It thus appears that despite concerns for a wide range of species, colony numbers have remained relatively unaffected, at least in counts made to date. It should also be noted that Natural England has specifically requested a breakdown of survey estimates across all months of survey data in order to review this aspect.</p> <p>Regarding the potential impacts on bat migration routes, most bat species in the UK are not known undertake large-scale migrations and so do not spend significant time over the sea. The exception to this is Nathusius' pipistrelle <i>Pipistrellus nathusii</i>, which is known to undertake long-distance migrations throughout Europe, including sea crossings. Notably, evidence indicates that the migratory corridors of the species are closely associated with coastlines and change depending on environmental conditions (Voigt <i>et al.</i>, 2023⁹). Nathusius' pipistrelles are known to migrate to the UK from Europe, as evidenced by the UK Bat Conservation Trust's National Nathusius' Pipistrelle Project (NNPP) which recorded an individual in Essex that had been ringed previously in Latvia (BCT, 2023¹⁰). Broad migratory flyways are known to run from Russia to Spain, following the northern coastline of mainland Europe (Pravettoni and UNEP/GRID-Adrenal, 2015¹¹). Narrower migratory flyways are known to branch off the coastal broad flyway into Germany, Switzerland and Czechia. Data on the migratory routes, patterns and behaviour of Nathusius' pipistrelles across the North Sea to/from the UK is minimal, with no known number of migrating individuals. The potential migration routes highlighted</p>

⁶ <https://www.noordzeeloket.nl/en/functions-and-use/offshore-wind-energy/ecology/offshore-wind-ecological-programme-wozep/birds/reports-birds/>

⁷ <https://www.noordzeeloket.nl/en/functions-and-use/offshore-wind-energy/start-stop/>

⁸ <https://www.noordzeeloket.nl/en/functions-and-use/offshore-wind-energy/ecology/offshore-wind-ecological-programme-wozep/bats/reports-bats/>

⁹ Voigt, C.C., Kionka, J., Koblitz, J.C., Stiliz, P.C., Pētersons, G. and Lindecke, O. (2023). Bidirectional movements of Nathusius' pipistrelle bats (*Pipistrellus nathusii*) during autumn at a major migration corridor. *Global Ecology and Conservation*, 48, p.e02695

¹⁰ Bat Conservation Trust (2023) National Nathusius' Pipistrelle Project. Available at: <https://www.bats.org.uk/our-work/national-bat-monitoring-programme/surveys/national-nathusius-pipistrelle-survey>

¹¹ Pravettoni, R. and United Nations Environment Programme/GRID-Adrenal (2015) Nathusius' Pipistrelle distribution and migration. Available at: <https://www.grida.no/resources/7643>

I.D.	Relevant Representation	Applicants' Comment
		<p>by the nationwide NNPP dataset were based on the long-distance data of only ten individuals, and therefore to date there is only evidence of ad hoc movement from Europe to the UK.</p>
<p>OD-012: 6</p>	<p>Other activities</p> <p>In our analysis of the transboundary effect of the Dogger Bank South Offshore Wind Farms we considered various activities such as international shipping, protection of marine protected areas, cables and pipelines, other offshore wind projects and commercial fishing. From this analysis, only commercial fishing expects effects on their activities.</p> <p>The PEIR acknowledges that Dutch vessels are present in the area and record catches. Mitigation measures such as opportunities for co-use functions are discussed, which the Netherlands would appreciate. The area consists of important fishing grounds for various demersal and pelagic fisheries that use beam trawls and seine netting (demersal) and midwater otter trawls (pelagic). Chapter 14 already analyses the expected short- and long-term impact for different fisheries on access to the fishing grounds.</p> <p>The Netherlands would like to request that the analysis also looks at the economic value of the fisheries and accounts for possible economic losses that may occur due to lack of or lesser access to important fishing grounds. It is important to note that whilst the Dutch do not have historic rights in the given area, the Netherlands does have a share in the quota in these waters, for instance plaice (PLE/2A3AX4) and horse herring (HER/1/2-). The construction of the park poses the risk that fisheries may fail to take advantage of fishing their share of quota due to the construction in these specific areas. This is not yet considered in the PEIR as a risk. Therefore the Netherlands would be interested to learn more what the United Kingdom's government or wind farm operators can and will do to further mitigate potential losses and facilitate commercial fisheries in the area.</p>	<p>Given the prevalence of non-UK registered fishing vessels within the Commercial Fisheries Study Area, impacts that might arise on the interests of European Economic Area states within UK waters, e.g. Dutch fishing vessels, have been considered throughout assessments on the commercial fisheries sector in Chapter 13 Commercial Fisheries [APP-117].</p> <p>The Applicants acknowledge there is a need for mitigation and coexistence with the fisheries industry. Details of the Applicants commitments can be found within the Outline Fisheries Liaison and Co-existence Plan [As-082].</p>
<p>OD-012: 7</p>	<p>Conclusion</p> <p>The mentioned issues emphasise the necessity of international coordination related to the exploitation of new activities in the North Sea, in order to create a common understanding on ecological cumulative effects of wind farms and management options for protection of the marine environment. As Dutch government, we hope to intensify contacts with UK governmental bodies, and in parallel, we aim to discuss this issue in OSPAR or NSEC. At the same time we hope that wind farm developers will keep improving applied methodologies, taking into account a broader international perspective when predicting environmental effects of wind farm construction activities in the North Sea.</p> <p>Concerning the development of the Dogger Bank South Offshore Wind Farms, the Netherlands would like to be involved in the process of assessing the ecological (and other) effects of this development and think along about the required mitigation measures.</p>	<p>The Applicants acknowledge this comment and confirm that the EIA and Report to Inform Appropriate Assessment Habitats Regulations Assessment have been completed in alignment with relevant best practice in the UK and internationally, and in consultation with Natural England and other relevant bodies. Consultation with Natural England and other relevant bodies will continue as the development of the Projects continues.</p>

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