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JNCC Reference: OIA-10611
PINS Reference: EN010121
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By email: MorecambeOffshoreWindProject@planninginspectorate.gov.uk

To whom it may concern,

Morecambe Offshore Windfarm Generation Assets – EN010121 – Ornithology response to the Examining Authority's written questions and requests for information (ExQ1)

Thank you for consulting JNCC on the Morecambe Offshore Windfarm Generation Assets.

The advice contained within this minute is provided by JNCC as part of our statutory advisory role to the UK Government and devolved administrations on issues relating to nature conservation in UK offshore waters (beyond the territorial limit).

ExQ1	Question	JNCC response
1BEM44	**Northern Ireland windfarms – screening and CEA** <u>To the Applicant</u> a) Could the Applicant explain why it has been able to consider Sceirde, Codling, Dublin Array and North Irish Sea windfarms in its CEA for marine mammals (ES Appendix 11.4, Table 4.1 [REP1-048]) based on overlapping construction activities but has ruled out an assessment for these sites in relation to birds in ES Chapter 12, Table 12.54 [REP1-032] due to lack of data and does not reference Sceirde in its list of sites for the Ornithological Assessment? Oriel and Arklow windfarms, which are listed in ES Table 12.54 are not referenced in Table 4.1 of the HRA Screening Report [APP-034] or in the RIAA [REP1-012] and appear to have been ruled out of further assessment based on the Applicant's Appendix 6.1 CEA longlist [APP-061]. b) Could the Applicant please provide more detailed HRA screening information for Sceirde, Northern Irish Sea Array (NISA), Arklow and Oriel offshore windfarms? It is noted that applications have been lodged for NISA, Arklow and Oriel windfarms, meaning that detailed information is now available for assessment. c) In addition, the Applicant should update the HRA screening report with information relating to Rockabill Special Protection Area (SPA) and the North-west Irish Sea (NWIS) SPA.	JNCC have not reviewed in detail the applications submitted for the projects highlighted by the Examining Authority, but it would appear that, for example Oriel Windfarm, the assessments for displacement and collision risk have followed advice produced by the UK Statutory Nature Conservation Bodies (SNCBs) (RPS 2024a). We note that this assessment has not apportioned impacts to UK Special Protection Areas (SPA), and therefore the NatureScot Apportioning Tool would need to be employed. Assuming that the other projects in the Irish Republic Territorial Waters have followed the same methodologies, indicative unapportioned breeding season impact numbers are potentially available for species within foraging range of the Skomer, Skokholm and the Seas off Pembrokeshire/Sgomer, Sgogwm a Moroedd Penfro SPA. However, it should be noted that the Biologically Defined Minimum Population Scale (BDMPS) populations against which impact is assessed in both Environmental Impact Assessment (EIA) and Habitats Regulations Assessment (HRA) (for non-breeding season impacts on breeding SPAs) scales are calculated for UK waters only (Furness, 2015). We are not aware of any corresponding estimate of the proportion of UK birds entering Irish Republic waters, which would be necessary in apportioning the displacement and collision mortalities estimates for the projects highlighted by the Examining Authority for inclusion in the cumulative and in-combination assessments for the Morecambe project. The UK SNCBs recognise this gap and are looking to address it in an update to the BDMPS report, but this will not be available in time for a consenting decision on this project to be made. We suggest that the Applicant investigates whether information on the proportion of UK birds entering Irish Republic waters is available, and whether the other Irish Projects identified by the Examining Authority have also assessed collision and displacement mortality in accordance with UK SNCB advice. We advise consultation with the relevant SNCBs to determine whether it is appropriate to include any available indicative impact totals into the cumulative and in-combination assessments.

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	d) In relation to all the above points, the Applicant's HRA screening and RIAA should be updated where relevant, to inform the SoS's Appropriate Assessment. To NE, NRW, DAERA and JNCC e) NE, NRW, DAERA and JNCC are invited to comment on the points above.	Rockabill SPA and the North-west Irish Sea SPA both fall under the jurisdiction of The Irish Republic's National Parks and Wildlife Service (NPWS), and therefore JNCC are unable to provide advice on potential impacts.
1BEM46	**Assessments** In paragraph 62 of the Offshore Ornithology Technical Note 1 (EIA) [REP1-080] it is noted that the NE advice in relation to the CEA was not to include historic projects with limited (or no) overlap with the construction and operational timeframe of the Proposed Development. a) However, would the existing background mortality rates include those associated with these windfarms? If so, does there need to be an associated assessment from the removal of their effects as they are decommissioned? It is appreciated that the assessment is precautionary, but without removing any such effects, is there a risk that the assessment becomes over-precautionary, leading to mitigation that is not required? It is also appreciated that there is a separate discussion in relation to when the Barrow windfarm is to be decommissioned (see ExQ1GEN10) which may also need to be considered. This argument, taken to its logical conclusion, should also factor in any effects associated with the decommissioning of other windfarms (see Table 5.1 of	Mortality due to existing windfarms, which may be decommissioned before Morecambe begins operation, is somewhat captured within frequently updated colony counts. Therefore, with regards to the HRA, existing background mortality rates include those associated with these windfarms. However, with regards to the EIA, the regional population sizes have been calculated based on data from the 1990s to 2015. Therefore, the ongoing impact of some, but not all, existing windfarms will have been captured. Similarly, the demographic rates (specifically adult survival) used to calculate baseline mortality are in large part based on data collected before the majority of offshore wind projects were constructed. For example, adult survival rates for black-legged kittiwake are based on studies published in 2002, 2004, and 2010 (see Table 18 in Horswill & Robinson, 2015) and therefore baseline mortality calculations will not take into account the impact from the majority of UK offshore wind projects. The UK SNCBs are progressing an update of demographic rates, but it should still be noted that it will be difficult to tease out the contribution that offshore wind projects make to this baseline. Therefore, while recognising the potential to over-estimate impacts, it will likely be necessary to continue to base assessments on the total baseline mortality due to the uncertainty of how to account for any contribution of offshore wind projects. In principle, we agree that removing the impact of offshore wind projects from the assessments as they are decommissioned would give more accurate cumulative and in-combination assessments. However, it is currently only possible to enter one impact value into the Population Viability Analysis at the beginning of the simulation. This will be

ExQ1	Question	JNCC response
	Applicant's response to Actions from PM and ISH1 [REP1-085]) for longer-term effects). b) Could the Applicant, JNCC, NE, NRW, NatureScot, DAERA, the RSPB and the North West Wildlife Trusts please give their views as to how the effects of the decommissioning of existing windfarms should be considered to avoid over-precautionary mitigation/ compensation.	addressed by the Cumulative Effects Framework on its release, but this is not currently available. Additionally, we note there are issues and lack of clarity regarding consented lifespans of early offshore wind projects (as highlighted in 1BEM47) and regarding consented vs. as built parameters within assessments (see response to 1BEM47 below). Therefore, we do not consider it currently possible to be less precautionary in assessments. We do note that this is a recognised issue and work is currently on-going at a national level to look at this, but we await its conclusions.
1BEM47	**Base cases** The ExA understands that, following NE advice, consented turbine parameters have been used as opposed to as built parameters on the basis that it is, theoretically, possible that the remainder of the consented scheme could be built out. a) However, either where a scheme is coming to end of its life (see Table 5.1 of Applicant's response to Actions from PM and ISH1 [REP1-085]) or where the scheme as built would prevent additional development, should not 'as built' data be utilised? Would this alter any of the effects assessed? b) Could the Applicant, JNCC, NE, NRW, NatureScot, DAERA, the RSPB and the North West Wildlife Trusts please give their views on this proposition.	The standard approach to cumulative and in-combination assessments is to use the consented parameters of each project and to refer to the worst-case scenario (WCS) assessed within the relevant Environmental Statement (ES), taking account of any updated assessments provided throughout the examination process. There is a recognition that the Rochdale Envelope WSC within the ES are often different to the as built project. Displacement and collision assessments based on the worst-case may over-estimate the total cumulative and in-combination impacts. However, it should be noted that the predicted collision mortalities as calculated for Burbo Bank in the Mona Offshore Wind Project cumulative and in-combination assessments were higher when using 'as-built' parameters compared to consented ones (RPS, 2024b). We consider it to be acceptable for projects to present assessments based on both consented and as built parameters. However, our current understanding is that with regard to projects in Welsh and English waters, unless the as built scenario is legally secured (which is a planning issue), the assessments should be based on the parameters within the Development Consent Order (DCO). We note that there is national recognition of this issue and that there is industry led work underway to look into and/or address this issue. However, it is highly complex and at present there is not an agreed way forward.

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		The same difficulties apply to projects approaching end of life and hence whether the as built parameters could be used, i.e. at what point in time it is not possible to build out more of the consented capacity and certainty over whether this is secured.
1HRA1	**Habitats Regulations Assessment** As the JNCC do not delegate authorisation to NE for sites in Wales, Scotland and Northern Ireland. JNCC are requested to provide comments on the Applicant's HRA [REP1-012] in respect of the UK National Site Network sites for which it is the statutory advisor.	The relevant SPAs for which JNCC has sole or joint responsibility are: • Skomer, Skokholm and the Seas off Pembrokeshire/Sgomer, Sgogwm a Moroedd Penfro SPA (joint responsibility with Natural Resources Wales) • Liverpool Bay/Bae Lerpwl SPA (joint responsibility with Natural Resources Wales and Natural England) • Irish Sea Front SPA (sole responsibility) In our view, the proposed project is not directly connected with or necessary for the conservation management of any SPA for which JNCC has sole or joint responsibility. Our conclusions on Likely Significant Effect (LSE) and Adverse Effect on Integrity (AEoI) to the relevant SPAs for which JNCC has sole or joint responsibility is presented below. **Skomer, Skokholm and the Seas off Pembrokeshire/Sgomer, Sgogwm a Moroedd Penfro SPA** The relevant seabird features of Skomer, Skokholm and the Seas off Pembrokeshire/Sgomer, Sgogwm a Moroedd Penfro SPA are: • European storm petrel • Manx shearwater • Atlantic puffin • Lesser black-backed gull • Seabird assemblage

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ExQ1	Question	JNCC response
		We agree with the conclusion that AEoI from the project alone can be ruled out for all qualifying features. We do not agree with elements of the in-combination assessment, which we detail in each feature's section below. Therefore, based on the information provided to the examination to date, we cannot rule out AEoI from the project in-combination with other Plans and Projects. However, we are minded to note that for the Mona and Morgan Generation Offshore Wind Projects we were able to conclude no AEoI from those projects in-combination with other plans and projects once all the required evidence was submitted. Given the proximity of Morecambe to those two projects, we see no reason that we would be unable to come to the same conclusion for Morecambe, upon receipt of the required information which we list within this response. We detail below our conclusions regarding LSE and AEoI to each feature below. *European storm-petrel* Given that European storm-petrel were not observed in baseline surveys, we agree that AEoI alone and in-combination can be ruled out. *Manx shearwater* The conclusion on AEoI alone and in-combination is given based on the Applicant's preferred displacement and mortality rates of 50% and 1%, respectively. For both the alone and in-combination assessments this results in less than 1% increase in baseline mortality, therefore a Population Viability Analysis (PVA) has not been carried out. However, we would advise that the full range of displacement and mortality ranges are used in determining the need for a PVA, and hence conclusions on AEoI. In this case, for the alone assessment at the worst-case scenario of 70% displacement and 10% mortality, the predicted 384 annual mortality represents a 0.32% increase in baseline mortality, therefore we agree that AEoI alone for Manx shearwater can be ruled out. However, for the in-combination assessment at the worst-case scenario of 70% displacement and 10% mortality, the predicted 1,201 annual mortality represents a 1.01% increase in baseline mortality, which suggests a PVA is required prior to coming to conclusions on AEoI. In addition, the Applicant has not quantitatively included several

ExQ1	Question	JNCC response
		other projects which may act in-combination with Morecambe on Skomer, Skokholm and the Seas off Pembrokeshire/Sgomer, Sgogwm a Moroedd Penfro SPA. We advise that estimates of mortality due to these projects are included quantitatively within the in-combination assessment. We note that the Mona Offshore Wind Farm has calculated estimates of mortality from multiple projects which do not have readily available mortality estimates, and from windfarms which have recently submitted applications, such as Llŷr Offshore Wind Project, all of which could be used within this in-combination assessment. We note that the Applicant has provided additional EIA cumulative information using this gap-filled information. The Applicant has also applied this gap-filled information to lesser black-backed gull qualifying features of Morecambe Bay and Duddon Estuary SPA and Ribble and Alt Estuary SPA. However, this should also be applied to Skomer, Skokholm and the Seas off Pembrokeshire/Sgomer, Sgogwm a Moroedd Penfro SPA. A PVA should then be based upon revised in-combination estimates. *Atlantic puffin* The alone assessment estimated between zero and two mortalities annually (based on 30% displacement and 1% mortality, and 70% displacement and 10% mortality, respectively), which in the worst-case scenario represents a 0.04% increase in baseline mortality, therefore we agree that AEoI alone and in-combination can be ruled out for Atlantic puffin. *Lesser black-backed gull* The alone assessment estimated 0.13 mortalities annually, which represents a 0.11% increase in baseline mortality, therefore we agree that AEoI alone can be ruled out for lesser black-backed gull. The in-combination assessment estimated 12.21 mortalities annually, which represents a 0.64% increase in baseline mortality. We note that the Llŷr Offshore Wind Project has not been included in the in-combination assessment, but based on location this wind project should be included quantitatively in the assessment.

ExQ1	Question	JNCC response
		Seabird assemblage The seabird assemblage has an estimated 394,260 individuals in total at designation, and the main components are razorbill, common guillemot, black-legged kittiwake, Atlantic puffin, lesser black-backed gull, Manx shearwater, and European storm petrel. The Applicant has made individual assessments of the impact of the Project on each assemblage component. We summarise our conclusions regarding AEoI to the seabird assemblage at the end of all of the components. Razorbill The alone assessment estimated between zero and two mortalities annually (based on 30% displacement and 1% mortality, and 70% displacement and 10% mortality, respectively), which in the worst-case scenario represents a 0.19% increase in baseline mortality. The conclusion on AEoI in-combination is given based on the Applicant's preferred displacement and mortality rates of 50% and 1%, respectively. However, we would advise that the full range of displacement and mortality ranges are used in determining the need for a PVA, and hence conclusions on AEoI. The in-combination assessment estimated two to 42 mortalities annually, which in the worst-case scenario represents a 4.23% increase in baseline mortality, which suggests a PVA is required prior to coming to conclusions on AEoI. In addition, the Applicant has not quantitatively included several other projects which may act in-combination with Morecambe on Skomer, Skokholm and the Seas off Pembrokeshire/Sgomer, Sgogwm a Moroedd Penfro SPA. We advise that estimates of mortality due to these projects are included quantitatively within the in-combination assessment. We note that the Mona Offshore Wind Project has calculated estimates of mortality from multiple projects which do not have readily available mortality estimates, and from wind projects which have recently submitted applications, such as Llŷr Offshore Wind Project, all of which could be used within this in-combination assessment. We note that the Applicant has provided additional EIA cumulative information using this gap-filled information. The Applicant has also applied this gap-filled information to lesser black-backed gull qualifying features of Morecambe Bay and Duddon Estuary SPA and Ribble and Alt Estuary SPA. However, this should also be applied to Skomer, Skokholm and the

ExQ1	Question	JNCC response
		Seas off Pembrokeshire/Sgomer, Sgogwm a Moroedd Penfro SPA. A PVA should then be based upon revised in-combination estimates. <u>Common guillemot</u> The alone assessment estimated between one and 15 mortalities annually (based on 30% displacement and 1% mortality, and 70% displacement and 10% mortality, respectively), which in the worst-case scenario represents a 0.90% increase in baseline mortality. The conclusion on AEoI in-combination is given based on the Applicant's preferred displacement and mortality rates of 50% and 1%, respectively. However, we would advise that the full range of displacement and mortality ranges are used in determining the need for a PVA, and hence conclusions on AEoI. The in-combination assessment estimated 13 to 300 mortalities annually, which in the worst-case scenario represents a 17.86% increase in baseline mortality, which suggests a PVA is required prior to coming to conclusions on AEoI. In addition, the Applicant has not quantitatively included several other projects which may act in-combination with Morecambe on Skomer, Skokholm and the Seas off Pembrokeshire/Sgomer, Sgogwm a Moroedd Penfro SPA. We advise that estimates of mortality due to these projects are included quantitatively within the in-combination assessment. We note that the Mona Offshore Wind Project has calculated estimates of mortality from multiple projects which do not have readily available mortality estimates, and from wind projects which have recently submitted applications, such as Llŷr Offshore Wind Project, all of which could be used within this in-combination assessment. We note that the Applicant has provided additional EIA cumulative information using this gap-filled information. The Applicant has also applied this gap-filled information to lesser black-backed gull qualifying features of Morecambe Bay and Duddon Estuary SPA and Ribble and Alt Estuary SPA. However, this should also be applied to Skomer, Skokholm and the Seas off Pembrokeshire/Sgomer, Sgogwm a Moroedd Penfro SPA. A PVA should then be based upon revised in-combination estimates. <u>Black-legged kittiwake</u> The alone assessment estimated 0.07 mortalities annually due to collisions, which represents a 0.02% increase in baseline mortality. We advise that a displacement

ExQ1	Question	JNCC response
		assessment is also carried out for black-legged kittiwake. There is variability around the behavioural response of black-legged kittiwake, with evidence of both attraction and displacement, hence the need for both a collision and displacement assessment. Peschko *et al*. (2020) showed that, in the breeding season, there was a significant 45% displacement rate within the offshore wind project plus 3km buffer, and a significant 29% displacement rate within the offshore wind project plus 20km buffer. Vanermen *et al*. (2016) showed that there was a significant 86% displacement rate within the offshore wind project plus 0.5km buffer. Therefore, the evidence that does exist quantifying a displacement rate for black-legged kittiwake aligns with recommended displacement rates of 30% to 70%. Atlantic puffin The alone assessment estimated between zero and two mortalities annually (based on 30% displacement and 1% mortality, and 70% displacement and 10% mortality, respectively), which in the worst-case scenario represents a 0.04% increase in baseline mortality. Lesser black-backed gull The alone assessment estimated 0.13 mortalities annually, which represents a 0.11% increase in baseline mortality. The in-combination assessment estimated 12.21 mortalities annually, which represents a 0.64% increase in baseline mortality. We note that the Llŷr Offshore Wind Project has not been included in the in-combination assessment, but based on location this wind project should be included quantitatively in the assessment. Manx shearwater The conclusion on AEoI alone and in-combination is given based on the Applicant's preferred displacement and mortality rates of 50% and 1%, respectively. For both the alone and in-combination assessments this results in less than 1% increase in baseline mortality, therefore a PVA has not been carried out. However, we would advise that the full

ExQ1	Question	JNCC response
		range of displacement and mortality ranges are used in determining the need for a PVA, and hence conclusions on AEoI. In this case, for the alone assessment at the worst-case scenario of 70% displacement and 10% mortality, the predicted 384 annual mortality represents a 0.32% increase in baseline mortality, therefore a PVA would not be required. However, for the in-combination assessment at the worst-case scenario of 70% displacement and 10% mortality, the predicted 1,201 annual mortality represents a 1.01% increase in baseline mortality, which suggests a PVA is required prior to coming to conclusions on AEoI. In addition, the Applicant has not quantitatively included several other projects which may act in-combination with Morecambe on Skomer, Skokholm and the Seas off Pembrokeshire/Sgomer, Sgogwm a Moroedd Penfro SPA. We advise that estimates of mortality due to these projects are included quantitatively within the in-combination assessment. We note that the Mona Offshore Wind Project has calculated estimates of mortality from multiple projects which do not have readily available mortality estimates, and from wind projects which have recently submitted applications, such as Llŷr Offshore Wind Project, all of which could be used within this in-combination assessment. We note that the Applicant has provided additional EIA cumulative information using this gap-filled information. The Applicant has also applied this gap-filled information to lesser black-backed gull qualifying features of Morecambe Bay and Duddon Estuary SPA and Ribble and Alt Estuary SPA. However, this should also be applied to Skomer, Skokholm and the Seas off Pembrokeshire/Sgomer, Sgogwm a Moroedd Penfro SPA. A PVA should then be based upon revised in-combination estimates. <u>European storm-petrel</u> European storm-petrel were not observed in baseline surveys. <u>Seabird assemblage conclusion</u> In conclusion, the Applicant has not provided all information required for JNCC to be able to come to a conclusion on AEoI alone or in-combination with other Plans or Projects for the seabird assemblage.

ExQ1	Question	JNCC response
		Liverpool Bay/Bae Lerpwl SPA JNCC are content for Natural England to provide advice regarding Liverpool Bay/Bae Lerpwl SPA on behalf of JNCC for this project examination. We fully support Natural England in the advice they have been providing, and continue to provide, to the examination. **Irish Sea Front SPA** The relevant seabird features of Irish Sea Front SPA are: • Manx shearwater We detail below our conclusions regarding LSE and AEoI to each feature below. *Manx shearwater* We agree with Appendix 2 Screening outcome for UK SPA and Ramsar Sites with ornithology qualifying features of the Habitats Regulations Assessment Screening Report (APP-028) that there would be no LSE to the Manx shearwater qualifying feature of the Irish Sea Front SPA.

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Please contact me with any questions regarding the above comments.

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