Public Consultation for the Planning Inspectorate UK on Transboundary Environmental Impact Assessment (EIA) – Morecambe Offshore Windfarm development, located approximately 30km from the Lancashire coastline

A submission by staff at BirdWatch Ireland

Contact: Rochelle Streker, Marine Spatial Planning Officer,

BirdWatch Ireland Address for correspondence: BirdWatch Ireland, Unit 20 Block D, Bullford Business Campus, Kilcoole/Greystones, Co. Wicklow.

Phone: + 353 87 4374401

Email: rstreker@birdwatchireland.ie

Introduction

BirdWatch Ireland is Ireland's leading charity focused on the conservation of wild birds. Established in 1968, we currently have over 15,000 members and supporters and a local network of over 30 branches nationwide. As an organisation, our conservation team is actively involved in seabird conservation, research, and monitoring. Our policy and advocacy team are active stakeholders contributing to marine conservation at a national and EU level. We are the Irish partner of Birdlife International and are members of the Irish Environmental Network, Stop Climate Chaos, and the Sustainable Water Network, and a founding partner of the Fair Seas coalition.

Our vision is that Ireland should become a world leader in marine conservation and the sustainable management of our marine environment. The protection and restoration of Ireland's biodiversity is vital, and rapid decarbonisation is an essential element of this process. BirdWatch Ireland therefore supports the production of renewable energy and offshore wind to help achieve this. However, offshore renewable energy (ORE) devices and infrastructure must be sensitively located to minimise negative impacts on marine and terrestrial ecosystems, and on seabirds in particular as these may be more impacted than other taxa.

Ireland's Seabirds

Ireland's marine environment plays host to a huge diversity of ornithological life year-round. In summer, our offshore islands and cliffs host seabird breeding colonies, many of which are of international importance or regional significance. In winter, our coasts and estuaries are of huge importance for wintering waterbirds. Seabirds, as top marine predators exposed to all threats affecting the ocean, are excellent biodiversity indicators, providing us with an insight into the health of, and pressures facing, our marine environment [1].

However, 23 of 24 breeding seabirds in Ireland are either Red or Amber listed Birds of Conservation Concern [2]. They are highly vulnerable, facing current pressures and future threats, including (ranked in order of frequency of occurrence) [3].

- Bycatch and incidental killing (due to fishing and hunting activities) [4]
- Desynchronisation of biological/ecological processes due to climate change
- Decline or extinction of related species (e.g. food source/prey, predator/parasite, symbiote, etc.)
- Other invasive alien species (other than species of Union concern).
- Potential impacts from wind, wave and tidal power, including the associated infrastructure

Even though Ireland has designated a network of SPAs at coastal sites aimed at protecting the most important areas for breeding seabirds, trends in population and range for some species are declining [5]. On an European level, of the 24 seabird species regularly breeding in Ireland, nine are declining (Atlantic puffin *Fratercula arctica*, Black-headed gull *Larus ridibundus*, Kittiwake *Rissa tridactyla*, European herring gull *Larus argentatus*, European shag *Gulosus aristotelis*, Great black-backed gull *Larus marinus*, Little tern *Sternula albifrons*, Mediterranean gull *Larus melanocephalus*, and Fulmar *Fulamrus glacialis*) and an additional four have an unknown population trends (Black guillemot *Cepphus grylle*, European storm petrel *Hydrobates pelagicus*, Leach's storm petrel *Hydrobates leucorhous*, and Manx shearwater *Puffinus puffinus*) [6]. On an Irish level, of the 24 seabird species regularly breeding in Ireland, two are declining (Atlantic puffin and Kittiwake) with an additional two species facing probable declines due to HPAI-H5N1 since last census (Arctic tern *Sterna paradisaea* and Common tern *Sterna hirundo*) and unknown population trends for three species (Great cormorant *Phalacorax carbo*, European Shag, and Fulmar) [5 and Pers Comm Dr. Steve Newton, Senior Seabird Conservation Officer, BirdWatch Ireland October 8th 2024]. Due to the sensitive nature of these populations, special consideration should be allocated to any potential effects of offshore development on these seabird species.

For many years BWI has been working to gather data and information on the importance and usage of our marine environment for seabirds and waterbirds. Our work in the Irish Sea includes tagging and tracking of seabirds at key sites, Digital Aerial Survey (DAS) work and observations on the daily movements and flight lines of a range of seabirds. The latter has been part of our annual monitoring and management of key seabird colonies in the Irish Sea for more than 20 years (largely under contract to the National Parks and Wildlife Service (NPWS)). BirdWatch Ireland therefore has a unique understanding of the importance of the Irish Sea for seabirds and the possible impacts of new offshore windfarm developments.

The main impacts of ORE windfarm projects on seabirds and waterbirds include displacement, disturbance, and collision risks. However, there are a range of other possible impacts, including:

- Barrier effects: wind turbines and structural development can interfere with birds foraging and migration routes, potentially increasing their individual energy expenditure and limiting the available habitat
- Cumulative impacts: how are the cumulative impacts being examined? We are extremely concerned that the cumulative impacts of all current and future ORE projects in the Irish Sea are not being assessed
- Wider ecological impacts on fish stocks/prey base and its impact on fishing effort and location: Knowledge of the impact on the prey base/fish stocks is essential to be able to fully assess the impacts on seabirds. How will fishing efforts be shifted and what is the likely impact of such a shift on seabird foraging opportunities? Particular consideration should be given during construction and post-construction on how the additional

disturbance and new structures within the marine environment may change prey location and numbers

- Impacts on non-seabird species, waterbirds and other larger birds using the air space: The flight heights are not known for key species and this data has not been collected, as many digital aerial surveys don't collect height data.

Transboundary Environmental Impact Assessment (EIA) Public Consultation – Morecambe Offshore Windfarm development

Despite the proposed windfarm development being located outside the territorial waters of Ireland's EEZ, we are commenting due to concerns of transboundary effects on seabirds. There is no overall marine spatial plan for the Irish Sea, but rather six different plans from different jurisdictions at different stages of implementation. We are unclear if there is coordinated strategic planning about locations of United Kingdom (UK) offshore windfarms and nor are we clear if there have been any discussions with the Irish government on its plans for ORE and the protection of Ireland's marine biodiversity in the Irish Sea. As a whole, the Irish Sea is a unique and interconnected ecosystem and should be managed as such, with the range and habitats of many seabird species crossing multiple borders within it. Ensuring transboundary communication and collaboration as multiple governments look to increase and implement more offshore renewable processes is key to ensuring that the cumulative effects of multiple projects do not negatively impact important marine species, including seabirds, and that the marine plans for one region do not undermine the management or ecosystem health of another.

Many of the seabird species seen and recorded by the digital aerial surveys from the Project within the proposed development area are species of special conservation interest that triggered the designation of the many Special Protection Areas (SPAs) in the countries that surround the Irish Sea. In Ireland, the closest SPA to the proposed development site is the North-west Irish Sea (NWIS) SPA which was created due to the immense importance of this area for marine birds [7]. Many of the species which are qualifying interests for the NWIS SPA occur in the proposed Morecambe Offshore Windfarm area as well, including : Common guillemot *Uria aalge*, Manx shearwater, Kittiwake, Razorbill *Alca torda*, Lesser black-backed gull *Larus fuscus*, Herring gull, Common scoter *Melanitta nigra*, Common gull *Larus canus*, Atlantic Puffin, Little gull *Hydrocoloeus minutus*, Red-throated diver *Gavia stellata*, Fulmar, Great black-backed gull, Common tern, Black-headed gull, Cormorant and Shag. These species are found in breeding colonies within the NWIS SPA or occur in large winter assemblages within its waters; this SPA therefore supports important populations throughout the year. Due to its closeness to the proposed area and the large ranges of many of these species, it is likely that some of these birds will be found in the proposed development area. The extent to which birds from the NWIS SPA utilise the Morecambe Offshore Windfarm area should be investigated. We understand that this SPA was possibly designated after the assessment of transboundary effects of the

Morecambe Offshore Windfarm on Irish SPAs, but the assessment should be updated to take account of this new SPA, together with the other Irish SPAs, as set out in the *Morecambe Offshore Windfarm: Generation Assets Volume 4 Report to Inform Appropriate Assessment* document.

Additionally, BirdWatch Ireland has also worked with BirdLife International to identify Important Bird and Biodiversity Areas (IBAs) in Ireland to help inform where further SPAs could be located to meet global targets [8]. While IBAs do not afford legal protection to a site, they are identified using a globally agreed standarised set of data-drive criteria and thresholds. Two of the marine IBAs identified, named the Northwest Irish Sea and Dublin Islands & Cliffs marine extension, overlaps and expands the North-west Irish Sea SPA to further protect seabirds at sea in critically important marine areas. The species for which the IBAs were designated are similar to the qualifying interest species of the SPA and are therefore also likely to be found in the proposed development area for the Morecambe Offshore Windfarm.

In the *Morecambe Offshore Windfarm: Generation Assets Volume 4 Report to Inform Appropriate Assessment* document, the potential effects of the Morecambe Offshore Windfarm development are assessed for a variety of different Irish SPAs, primarily different breeding colony islands and cliffs. The table below shows a summary of the birds assessed in the different Irish SPAs:

Table 1: Table of the Irish seabird species assessed by Morecambe Offshore Windfarm Ltd., the number of Irish SPAs each species was assessed at, and their names

Species	**Number of Irish SPAs assessed in**	**Name of SPAs**
Guillemot	3	Lambay, Saltee Islands, Cliffs of Moher
Razorbill	4	Lambay, Ireland's Eye, Saltee Islands, Cliffs of Moher
Puffin	5	Lambay, Saltee Islands, Blasket Island, Puffin Island, Skelligs

Fulmar (including breeding only sites)	16	Lambay, Saltee Islands, Horn Head to Fanad Head, West Donegal Coast, Tory Island, Cliffs of Moher, Clare Island, Duvillaun Island, High Island Inishshark and Davillaun, Kerry Head, Dingle, Iveragh, Blasket Island, Deenish Island and Scariff Island, Puffin Island, Skelligs
Lesser Black-backed Gull	2	Lambay, Blasket Island
Herring Gull	1	Lambay
Kittiwake	7	Lambay, Howth Head Coast, Ireland's Eye, Wicklow Head, Saltee Islands, Horn Head to Fanad Head, Cliffs of Moher
Shag	4	Lambay, Saltee Islands, Horn Head to Fanad Head, West Donegal Coast
Cormorant	5	Lambay, Ireland's Eye, Saltee Islands, Horn Head to Fanad Head, West Donegal Coast
Leach's Storm Petrel	1	Stags of Broad Haven,
Manx Shearwater	5	Cruagh Island, Blasket Island, Deenish Island and Scariff Island, Puffin Island, Skelligs
Gannet	3	Saltee Islands, The Bull and the Cow Rocks, Skelligs

The findings in the *Morecambe Offshore Windfarm: Generation Assets Volume 4 Report to Inform Appropriate Assessment* document state that no significant effects will occur to any Irish seabirds due to the development; however, BirdWatch Ireland has the following concerns, which we believe should be addressed:

Firstly, the analysis of transboundary impacts of the Morecambe Offshore Windfarm looked at each SPA on its own, assessing impacts to that SPAs population of the critical seabirds individually. We feel this approach is insufficient as it fails to take the ecosystem-based approach. We therefore would recommend a metapopulation approach in order to better understand the potential impacts to the seabirds utilising the marine ecosystem of the Irish Sea as a whole. For example, the seabirds from Irish SPAs individually assessed the most are Fulmar (16 site assessments), Kittiwake (7 site assessments), and Puffin, Manx Shearwater, and Cormorant (5 site assessments each). Within the 7 individual Irish SPA site assessments that assessed Kittiwakes, all were found to be within maximum foraging range for kittiwakes to the proposed development site and the annual total of breeding adult kittiwakes were assessed to be less than 1 bird at each site. The *Morecambe Offshore Windfarm: Generation Assets Volume 4 Report to Inform Appropriate Assessment* concludes that there is '*no potential for the Project to have an adverse effect on the integrity*' at each of these Irish SPAs based on the assumed loss of less than 1 bird at each site; however, Ireland's Kittiwake breeding population is in decline at -36% [5] and its reported status overall has changed from 'Unknown' in 2020 to currently 'GES not achieved' in Ireland's Marine Strategy (established under the Marine Strategy Framework Directive). While losing less than 1 bird may not affect an individual site significantly, the potential combined losses of 7 birds annually in the total Irish breeding population could exacerbate the overall decline of Kittiwakes at a national level. We would suggest that further assessment of the transboundary effects of windfarm developments on seabirds in the Irish Sea should take a metapopulation approach to better understand the combined impacts of these developments on both the populations within the relevant SPAs and the overall national and international populations.

Secondly, we recognise that the cumulative approach has been taken for assessing the impacts to seabirds from the three other proposed wind farms within UK's waters; however, we would request that future cumulative impacts include all proposed wind farm developments within the Irish Sea, including those in the Irish EEZ in order to have a more comprehensive understanding of the totality of the potential impacts to seabirds utilizing this marine ecosystem.

Additionally, Rockabill SPA is not included in the assessment of Irish SPAs. We understand why the NWIS SPA might not be included due to its relatively recent designation(see above for more details), but the lack of inclusion of the Rockabill SPA is a significant oversight due to the importance of this site for Roseate terns (*Sterna dougallii*), Common terns, Arctic terns, and Kittiwakes. Roseate terns in Ireland are not assessed in any of the documentation found in the Morecambe Offshore Windfarm proposed development, despite Rockabill hosting the largest colony of Roseate terns in Europe. The majority of the North West European population is found at just three colonies: Rockabill SPA (Dublin), Lady's Island Lake SPA (Wexford), both in the Irish Sea, and Coquet Island SPA (Northumberland) in the English North Sea. Together these sites act as a metapopulation; Rockabill is the main source population and the other two are more often sinks, especially when the subpopulations nesting at Coquet and Lady's Island Lake

were lower and ‘recovering’ [9]. This situation may be recurring now given the recent (2022-23) outbreak of HPAI-H5N1 that disproportionately impacted Coquet Island SPA. There is continual inter-connection between the three, with individuals emigrating from one site and recruiting (to breed) at another. This inter-colony movement is illustrated by Redfern *et al.* (2020a) [10].

Significantly, the movement (autumn/spring migration) of Roseate terns to and from Coquet Island is largely oriented northeast-southwest overland (Northern England) rather than via the sea corridor of the North Sea. The majority of tagged birds are passing through the northeast Irish Sea lying between the Isle of Man, Cumbria and North Wales, with several moving through Morecambe Bay itself (see Figures 1 and 2 below). This research clearly illustrates the importance of the Irish Sea for Roseate terns moving between these three colonies.

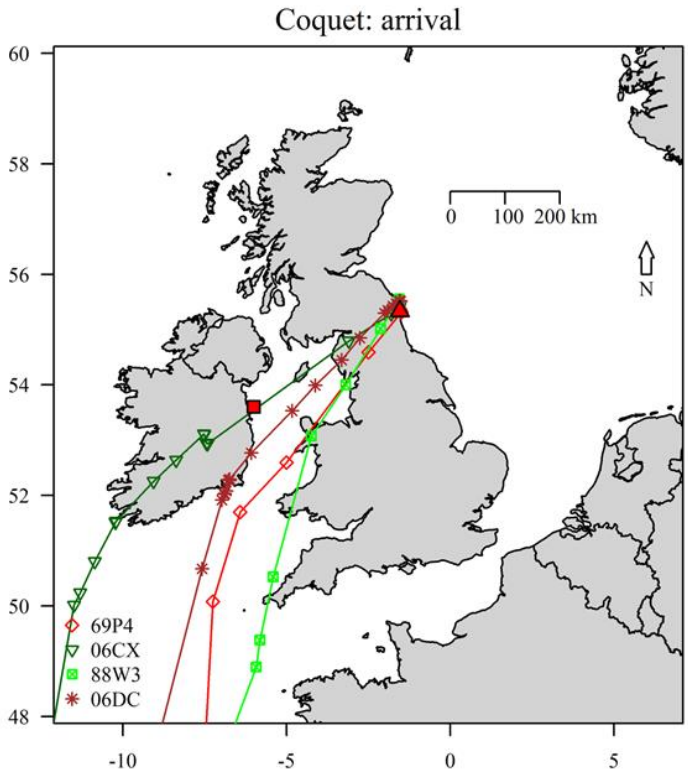

Figure 1: Tracking data on the arrival routes of 4 individual Roseate Terns to Coquet Island SPA that show use of the Irish Sea and Morecambe Bay in migration.

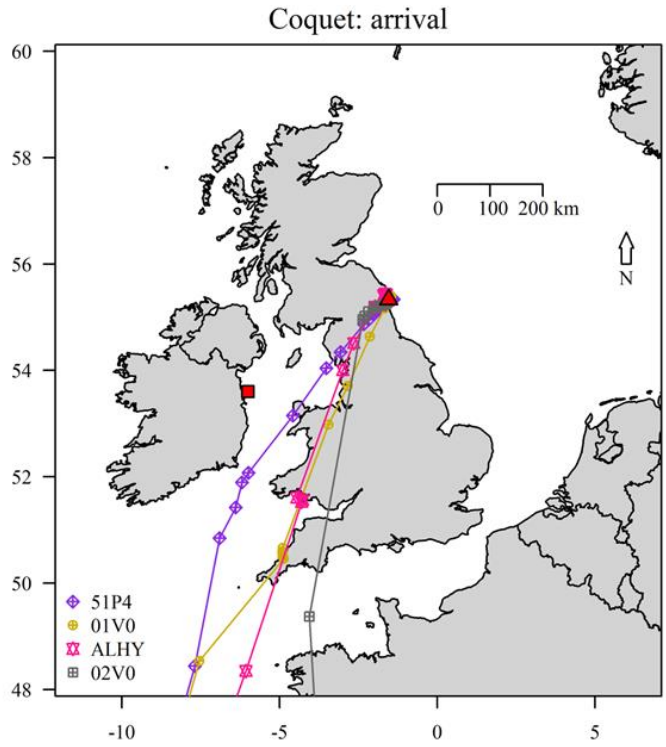

Figure 2: Tracking data on the arrival routes of an additional 4 individual Roseate Terns to Coquet Island SPA that show use of the Irish Sea and Morecambe Bay in migration.

We are concerned that this internationally important and rare European Red-listed species was not identified as a species of interest and at risk in the surveys, literature reviews, consultations and environmental assessments of the project. BirdWatch Ireland finds this a significant oversight and would request that the impacts of the Morecambe Offshore Windfarm and all future developments in the Irish Sea consider impacts to Roseate Terns and the connections between these important colonies.

Also, we know from geolocator tracking data for Arctic Terns that the Irish Sea is an important staging area for birds leaving the UK in autumn (August-September) and arriving in spring (see Figure 3 below) [11].

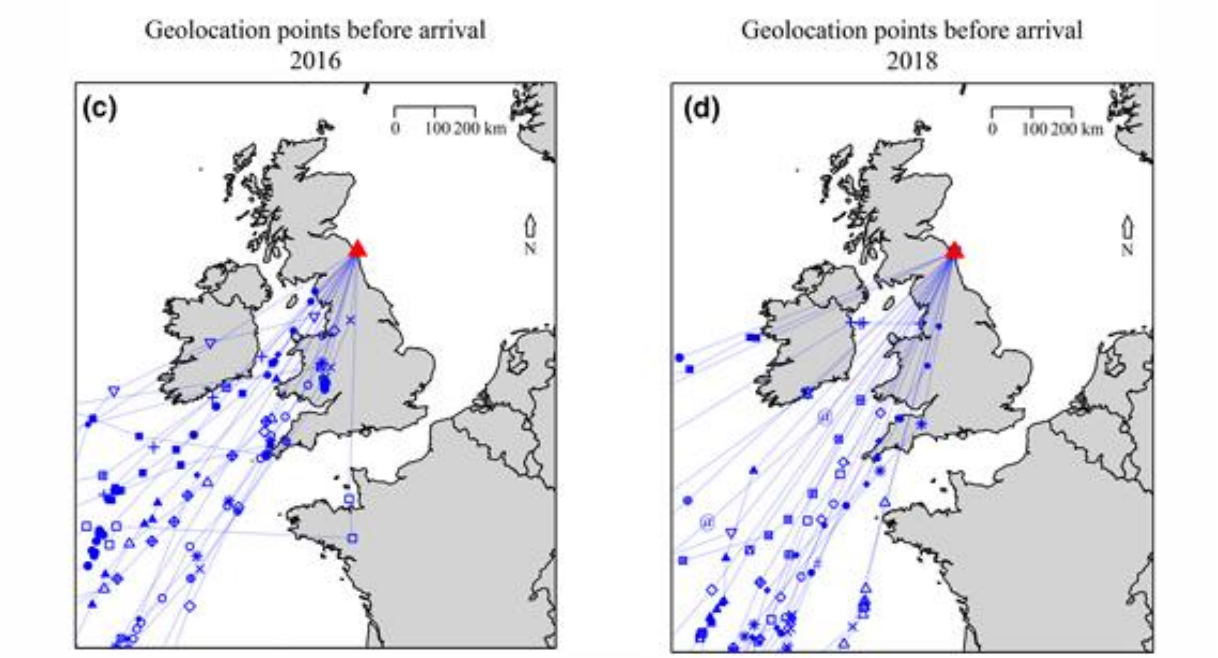

Figure 3: Tracking of the arrival routes of Arctic terns to Coquet Island SPA in 2016 and 2018 that show use of the Irish Sea and Morecambe Bay in migration

Redfern *et al.* (2020b) refer to overland migration of Arctic terns heading to and from the large Northumberland colonies of the Farne Islands and Coquet Island SPA, where the birds were tagged. As geolocator accuracy may be up to +/- 50 km, these birds may well be using Morecambe Bay coastal waters at some stage. Although parts of Morecambe Bay are designated as SPAs, there are several windfarms are already operating in this part of the Irish Sea. We would request that further assessment be done for Arctic Terns in the Irish Sea due to their migration patterns which could put them at risk of collision and displacement from offshore energy development.

Finally, the *Scoping Report for the Morecambe Offshore Windfarm* states that '*birds are considered to be most at risk from disturbance when they are resident in an area at any time of year, as opposed to birds on passage during migratory seasons'*. We welcome the addition of 'at any time of year' to the definition of resident bird species given the importance of the Irish Sea to both breeding and wintering assemblages of birds; however, we concur with the Scoping Opinion - we are unsure of the evidence of this statement. The effects on migratory birds must be fully considered when assessing the potential impacts to birds from this proposed development and should be assessed along with the effects on breeding and wintering assemblages. Migratory birds often fly at higher elevations, and therefore could be more impacted by the development of wind farms, particularly when it comes to collisions [12]. The *Morecambe Offshore Windfarm: Generation Assets Environmental Statement Volume 5 Non-Technical Summary (PINS Document Reference 5.1)* also states that '*the risk to seabirds from*

cumulative displacement and collision is assessed as no greater than minor adverse significance for all species, with the exception of Great black-backed gull'; however, no data or justification is given for this statement. The Scoping Opinion also highlights the lack of justification for potential transboundary impacts during construction and decommissioning and asks for this or an assessment of transboundary impacts to birds to be included. We would second this request. Indeed, the UK is a party to the Convention on the Conservation of Migratory Species and has agreed to measures to protect migratory species including birds.

Conclusion:

With an increase in the amount of proposed renewable development in the Irish Sea, from within Ireland and outside Irish borders, transboundary impacts and the cumulative effect these projects may have on birds needs to be better understood and planned for. The migratory nature of seabirds and the large size of their ranges make it possible that the populations of seabirds within the Irish sea intermix and are inter-connected between the countries; this should be further studied in order to understand how transboundary impacts could affect the overall populations of seabird species utilizing these waters. Given the amount of offshore renewable development planned in the Irish Sea, we at BirdWatch Ireland ask for a comprehensive transboundary assessment to be completed before the application goes any further. One central issue for the Morecambe Offshore Windfarm proposal is whether the increase in turbines and expansion of windfarm development in the Irish Sea will have an effect where the birds are being squeezed into ever smaller areas in both Morecambe Bay and Irish waters. To answer that we would need evidence on whether seabirds are avoiding other windfarm areas.

We would also like more information on whether the Morecambe Offshore Windfarm would be in an area likely to be used by foraging seabirds. The potential that windfarms could have positive benefits for fish spawning, increasing prey availability for foraging seabirds, should be explored as it could help mitigate some negative effects of increased offshore development to seabirds. Another possible mitigation we feel should be added to planning is that UK regulators should consider painting at least one turbine blade black as a collision-reduction measure [13], and request that funding is made available to find out if painting a blade black would lower any risk of collisions with seabirds in the Irish Sea and encourage further tern tracking work to better understand tern migration through the area.

In the Irish waters of the Irish Sea, several windfarm developments are being proposed, and with the proposed Morgan and Mona wind farm developments in UK waters as well as the Morecambe Offshore Windfarm, there is a very genuine possibility that cumulative effects of all these new wind developments could be a serious threat to seabirds that utilize the marine environment. We fear that assessing each development individually and within a bubble without a cumulative assessment of the totality of all the proposed developments within the Irish Sea risks missing or underestimating impacts to birds and the marine environment and could

negatively affect seabirds in the entire Irish Sea marine environment regardless of country boundaries.

From the evidence presented to us in the supporting documents to the application and the gaps in the identification of seabirds at risk of the proposed development, it is not possible to conclude that there will be no significant adverse impacts to the conservation interests of Irish SPAs and further investigation and mitigation is required.

References

[1] Lescroel et al. (2016) 'Seeing the ocean through the eyes of seabirds: A new path for marine conservation?', Marine Policy, 68, 212-220.

[2] Gilbert, G, Stanbury, A., Lewis, L., (2021) Birds of Conservation Concern in Ireland 4: 2020–2026 Irish Birds 43: 1–22 Kilcoole

[3] Cummins, S., Lauder, C., Lauder, A. & Tierney, T. D. (2019) The Status of Ireland's Breeding Seabirds: Birds Directive Article 12 Reporting 2013 – 2018. Irish Wildlife Manuals, No. 114. National Parks and Wildlife Service, Department of Culture, Heritage

[4] Bycatch risk was based on an assessment of seabird bycatch in the UK, as there was very little data available on bycatch in Irish waters. For more details on methodology, see Cummins, S., Lauder, C., Lauder, A. & Tierney, T. D. (2019) The Status of Ireland's Breeding Seabirds: Birds Directive Article 12 Reporting 2013 – 2018. Irish Wildlife Manuals, No. 114. National Parks and Wildlife Service, Department of Culture, Heritage.

[5] Burnell, D., Perkins, A. J., Newton, S. F., Bolton, M., Tierney, T. D., & Dunn, T. E. (2023). Seabirds Count: a census of breeding seabirds in Britain and Ireland (2015-2021). Lynx Nature Books, Barcelona.

[6] BirdLife International (2021) European Red List of Birds. Luxembourg: Publications Office of the European Union.

[7] National Parks & Wildlife Service, Department of Housing, Local Government, and Heritage. (2023) North-west Irish Sea SPA 004236. Retrieved from CO004236.pdf (npws.ie).

[8] Donald, P. F., Fishpool, L. D. C, Ajagbe, A., Bennun, L. A., Bunting, G., Burfield, I. J., Butchart, S. H. M., Capellan, S., Crosby, M. J., Dias, M. P., Diaz, D., Evans, M. I., Grimmett, R., Heath, M., Jones, V. R., Lascelles, B. G., Merriman, J. C., O´Brien, M., Ramirez, I., Waliczky, Z. and Wege, D. C. (2018) Important Bird and Biodiversity Areas (IBAs): the development and characteristics of a global inventory of key sites for biodiversity. Bird Conserv. Internatn. doi:10.1017/S0959270918000102.

[9] Seward, A., Ratcliffe, N., Newton, S., Caldow, R., Piec, D., Morrison, P., Cadwallender, T., Davies, W. & Bolton, M. 2018. Metapopulation dynamics of roseate terns: Sources, sinks and implications for conservation management decisions. Journal of Animal Ecology. DOI: 10.1111/1365-2656.12904

[10] Redfern, C.F., Kinchin-Smith, D., Newton, S., Morrison, P., Bolton, M & Piec, D. (2020a) Upwelling systems in the migration ecology of Roseate Terns (*Sterna dougallii*) breeding in northwest Europe. *Ibis* doi:10.1111/ibi.12915

[11] Redfern, C.P.F & Bevan, R.M. 2020b Overland movement and migration phenology in relation to breeding of Arctic Terns *Sterna paradisaea. Ibis* 162(2): 373-380. **https://doi.org/10.1111/ibi.12723**

[12] Smith, J.A. and J.F. Dwyer. (2016). Avian Interactions with renewable energy infrastructure: An update. The Condor Ornithological Applications. DOI: 10.1650/CONDOR-15-61.1.

[13] May et al. (2020). Paint it black: Efficacy of increased wind turbine rotor blade visibility to reduce avian fatalities. Ecology and Evolution, 10: 8927– 8935. https://doi.org/10.1002/ece3.6592