

THE PLANNING ACT 2008

THE INFRASTRUCTURE PLANNING (EXAMINATION PROCEDURE) RULES 2010

MORECAMBE GENERATION OFFSHORE WIND FARM

Appendix I to Natural England's Deadline 5 Submission

Natural England's comments on Bats Offshore

For:

The construction and operation of Morecambe Generation Offshore Wind Farm, located approximately 30 km from the Northwest English Coast in the Irish Sea.

Planning Inspectorate Reference EN010121

Morecambe OWF document 9.48: Technical Note on the Assessment of Offshore Impacts on Bats over the Irish Sea.

1. Major/Complex comments

In formulating these comments, the following documents have been considered:

• [REP4_055] 9.48: Technical Note on the Assessment of Offshore Impacts on Bats over the Irish Sea.

1.1. Summary

- Natural England advises that the Applicant should include evidence from the Environmental Statements of several other offshore wind farm projects in an update to this technical note as these have not yet been considered.
- Natural England advises that there is evidence on the role of barotrauma in wind turbine related bat mortality that has not been considered in the technical note and should be included.
- Natural England advises that many of the conclusions drawn in the technical note are
 poorly supported and should be presented as low confidence conclusions in an
 updated note. This is due to the paucity of evidence available directly related to bat
 behaviour in relation to offshore infrastructure. Whilst there are suitable methods
 available for improving this evidence base, including the deployment of bat detectors
 and night vision aids at offshore structures, we recognise that implementing these is
 outside the scope of this Examination. However, it would be a legitimate topic for
 strategic approaches to evidence gathering by developers in the Irish Sea.

1.2. Detailed comments - Tabular

Table 2: Natural England's Advice On: Bats in the Offshore Environment

NE Ref	Section	Key Concern and/or Update	Natural England's Advice to Resolve Issue
1	Para 7	Although the phrase 'there is no data or published literature evidencing migratory bats across the Irish Sea' may have been true at the time of writing, this is no longer the case.	The North Irish Sea Array Offshore Wind Farm Environmental Impact Assessment chapter 35 specifically investigates offshore bat activity. Leisler's bat and all pipistrelle species (common, soprano and Nathusius') were recorded in the near vicinity of Rockabill lighthouse approximately 6 km offshore. The Oriel offshore wind farm conducted offshore bat surveys using a marine vessel with static bat detectors onboard, although no bats were detected. The Codling wind park has a dedicated offshore bats Environmental Impact Assessment. This detailed results from both onshore and offshore bat surveys, where several thousand bat passes were recorded.
			The Arklow Bank wind park has a dedicated offshore bats Environmental Impact Assessment chapter. This includes reporting from a fixed-point survey at a monopile located approximately 8km offshore. Leisler's bats were recorded in June, July and August, whereas common pipistrelle was recorded in August and October.
			There is a commonality of bat species detected truly offshore in Irish marine waters and other areas (e.g. North Sea). However, it is currently difficult to distinguish between migration, commuting and foraging behaviours. The above chapters should be used to further inform the Morecambe OWF offshore bat technical note.
2	Para 40/41.	The North Irish Sea Array and the EOWDC reports both concluded that no significant effects are likely to occur on bats. NE advises that this conclusion should not be used in support of Morecambe OWF unless it	Monitoring bat activity around existing offshore wind turbines would help to provide confidence to the 'no significant effects' comment. This could be done using both bat detectors and night vision aids.

		can be further justified. We do not believe a conclusion of 'no significant effects' can be determined with any confidence when so little is known about offshore bat behaviour around wind turbines, and migration behaviour/routes.	
3	Para 43.	More evidence is needed to support the conclusion that 'there is a risk that migratory bats could physically collide with offshore WTGs, however the degree of risk and likelihood of occurrence is improbable'.	Very little is known about offshore migrating bat flight height. Even if they usually fly too high/low for blade collision, it is known that onshore wind turbines can change bat behaviour, therefore it is a reasonable assumption that offshore wind turbines might do too. Again, monitoring bat activity around existing offshore wind turbines would help to provide evidence. This could be done using both bat detectors and night vision aids.
4	Para 44.	The applicant states 'by focussing monitoring efforts at offshore structures used as resting opportunities, it is likely that the data collected would not be representative of the wider bat population'. Natural England advises that monitoring offshore bat activity is extremely difficult, and in the absence of much information it is important to use the best available evidence that can be gathered.	This further highlights the need to look at bat behaviour around existing windfarms in addition to looking at development areas for future ones, ideally as part of a strategic approach to data collection by Irish Sea developers.
5	Para 45.	Natural England advises that there is debate regarding the involvement of barotrauma in causing windfarm bat mortality, which should be discussed in this note.	The following paper should be included and considered: Lawson M, Jenne D, Thresher R, Houck D, Wimsatt J, Straw B (2020) An investigation into the potential for wind turbines to cause barotrauma in bats. PLoS ONE 15(12): e0242485. https://doi. org/10.1371/journal.pone.0242485
6	Para 46.	The applicant states 'the extent to which bats use offshore structures as refuges in the Irish Sea is unclear, and there is no evidence that migratory flights to access such structures currently exist'. Natural England advises that a lack of evidence does not mean that migratory flights to access offshore structures do not happen, and this cannot be ruled out, given that this lack of evidence is largely due to the subject being poorly studied.	This lack of data further highlights the need to look at bat behaviour around existing windfarms in addition to looking at development areas for future ones, ideally as part of a strategic approach to data collection by Irish Sea developers.
7	Para 47.	The screening conclusion states that 'the potential for likely significant effects is assessed as low'. The lack	This further highlights the need to look at bat behaviour around existing windfarms in addition to looking at development areas for future ones.

		of current evidence means that such a conclusion cannot be approached with confidence.	
8	Para 47.	The applicant states 'there is no evidence of and no known migratory routes between the island of Ireland and the UK over the Irish Sea, including within the Project's array area'.	Whilst the amount of information/evidence is low, the Environmental Statements cited in comment 1 do provide tentative evidence of bat migration across the Irish Sea. Those Environmental Statements should be considered in a further draft of this document.
9	Para 47.	The applicant states 'if any migratory bats are present, they are likely opportunistic individuals and any mortalities relating to offshore WTGs would not occur at a number significant enough to impact the conservation status of Nathusius' pipistrelle, common noctule or Leisler's bat species. The lack of current evidence means that such a conclusion cannot be approached with confidence.	Whilst the amount of information/evidence is low, the Environmental Statements referred to above do provide tentative evidence of bat migration across the Irish Sea (i.e. not simply opportunistic). Those Environmental Statements should be considered in a further draft of this document. It should also be considered that the likelihood of recording migrating bats means that even a small number of recorded bats within a large area could indicate significant bat movement.
10	Para 47.	The applicant states 'offshore WTGs and structures have been opportunistically used for foraging and by migratory bats for refuge, however, this is unlikely over the Irish Sea due to its shorter crossing distance and respective ease of access to preferred terrestrial roosting and foraging areas for bats'.	Whilst the amount of information/evidence is low, the environmental statements referred to above do provide tentative evidence of bat migration across the Irish Sea (including activity around offshore structures such as lighthouses). Those Environmental Statements should be considered in a further draft of this document. This further highlights the need to look at bat behaviour around existing windfarms in addition to looking at development areas for future ones.
11	Para 47.	The applicant states 'the Project maintains its position that bats can be excluded from the HRA Screening Report (REP3-006) and impact assessment, as none of the migratory species identified are qualifying features of any relevant SAC'.	Whilst it is true that the species identified are not qualifying features of any relevant SACs, protection of bats during migration is not currently delivered under the Habitats Regulations. The five bat species protected under Annex 2 of the Habitat Regulations (greater horseshoe, lesser horseshoe, barbastelle, Bechstein's and greater mouse-eared) are not associated with regular migration movements, although the re-establishment of a UK greater mouse-eared breeding population will be dependent on immigrants from continental Europe. Nevertheless, Natural England remains concerned that potential impacts to the identified migratory species have not been fully considered. The cumulative effect of operational and new offshore windfarms in the Irish Sea has the potential to impact the migration of particularly vulnerable bat species to Ireland (e.g. Nathusius' pipistrelle).

3. References

Lawson M, Jenne D, Thresher R, Houck D, Wimsatt J, Straw B (2020) An investigation into the potential for wind turbines to cause barotrauma in bats. PLoS ONE 15(12): e0242485. https://doi. org/10.1371/journal.pone.0242485