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Our Ref: **SID-KY-2024-016**
(Please quote in all related correspondence)

4 July 2024

The Secretary
An Bord Pleanála
64 Marlborough Street
Dublin 1
D01 V902

Via email to laps@pleanala.ie

Re: Notification under the Planning and Development Act, 2000, as amended.

Proposed Strategic Infrastructure Development (SID): Proposed Wind Farm Repowering Application of the existing Kilgarvan Wind Farm in the townlands of Inchincoosh, Inchee, Lettercannon, Coomacullen and Cloonkeen, County Kerry

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I refer to correspondence received in connection with the above.

Outlined below are heritage-related observations/recommendations of the Department under the stated headings.

Archaeology

It is noted that the Environmental Impact Assessment Report (EIAR) submitted as part of the planning application includes a desk-based Archaeological Impact Assessment (AIA) which was carried out in relation to the proposed development by Tobar Archaeological Services (EIAR Chapter 14; date 3 May 2024).

The proposed development is located in proximity to a number of Recorded Monuments which are subject to statutory protection under Section 12 of the National Monuments (Amendment) Act 1930-2014. The EIAR acknowledges that there is a potential that previously unknown sub-surface archaeological features or deposits may be present within the proposed development site (PDS). The Department notes that archaeological monitoring of construction stage groundworks were carried out in conjunction with the development of the existing 28-turbine Wind Farm at the proposed development site. The Department also notes that a number of new archaeological sites were identified during these monitoring works and have been preserved in situ within the proposed development site. The



Department notes that a number of new archaeological sites were identified during advance fieldwork for this AIA and are also in situ within the proposed development site.

The Department notes that exclusion zones may be necessary to protect vulnerable heritage assets located within and in proximity to the proposed development site and ensure that they are safely preserved in situ during the construction phase. In that regard, the Department advises that similar measures may be required at decommissioning phase also—both for the existing 28-turbine Wind Farm and the proposed 11-turbine Wind Farm if permitted—and that the advice of a suitably qualified archaeologist may be needed to inform any plan for decommissioning of the development in due course. In this regard the Department notes that the Decommissioning Plan included at Appendix 4.5 of the EIAR states at Section 2.4.4.1 that the following Enabling Works would be required as part of decommissioning:

- The temporary construction compounds will be established;
- Vegetation and scrub clearance along with some levelling works will be carried out at the turbine hardstand areas and access tracks as necessary;
- Improvements to existing tracks

These are all actions with the potential to have negative effects on in-situ archaeological sites, in the absence of appropriate mitigation or management measures. The Department advises that this can be addressed by the inclusion of an appropriate condition if the development is permitted.

The Department has reviewed the EIAR and advises that the following should be included as a condition of any grant of permission. Note these recommended conditions align with Sample Conditions C5 and C6 as set out in *OPR Practice Note PN03: Planning Conditions* (October 2022), with appropriate site-specific additions/adaptations based on the particular characteristics of this development and informed by the findings of the EIAR.

Archaeological Requirements:

1. All mitigation measures in relation to archaeology and cultural heritage as set out in Chapter 14 of the EIAR (Tobar Archaeological Services; date 3 May 2024) shall be implemented in full, except as may otherwise be required in order to comply with the conditions of this Order.
2. A suitably qualified archaeologist shall be retained to advise on, and establish appropriate Exclusion Zones around the external-most elements of vulnerable Heritage Assets (as identified in Chapter 14 of the EIAR or by any subsequent investigations associated with the project).
 - a. Exclusion Zones shall be fenced off or appropriately demarcated for the duration of decommissioning and construction works in the vicinity of the monuments. The location and extent of each Exclusion Zone and the



appropriate methodology for fencing off or demarcating at each location shall be agreed in advance with the Department and the Planning Authority.

- b. No groundworks of any kind (including but not limited to advance geotechnical site investigations) and no machinery, storage of materials or any other activity related to decommissioning or construction will be permitted within Exclusion Zones.
3. The Construction Environmental Management Plan (CEMP) shall include the location of any and all archaeological or cultural heritage constraints relevant to the proposed development as set out in Chapter 14 of the EIAR and by any subsequent archaeological investigations associated with the project. The CEMP shall clearly describe all identified likely archaeological impacts, both direct and indirect, and all mitigation measures to be employed to protect the archaeological or cultural heritage environment during all phases of site preparation and construction activity (including decommissioning of the existing Wind Farm infrastructure).
4. The applicant shall retain the services of a suitably qualified archaeologist to advise on an archaeological mitigation plan for decommissioning of the development, to include mitigation measures for the removal of the turbines and the protection of any archaeological sites and monuments that are *in situ* at the site. The Decommissioning Plan shall be updated to include the location of any archaeological or cultural heritage constraints as set out in Chapter 14 of the EIAR and by any subsequent archaeological investigations associated with the project. It shall clearly describe all identified likely impacts from decommissioning—both direct and indirect—and all mitigation measures to be employed to protect the archaeological or cultural heritage environment during decommissioning works.
5. The Planning Authority and the Department shall be furnished with a final archaeological report describing the results of all archaeological monitoring and any archaeological investigative work/excavation required, following the completion of all archaeological work on site and any necessary post-excavation specialist analysis. All resulting and associated archaeological costs shall be borne by the developer.

Reason:

To ensure the continued preservation (either *in situ* or by record) of places, caves, sites, features or other objects of archaeological interest.

Nature Conservation

Protected species – white-tailed sea eagle

The proposed Wind Farm is within the actively-used range of the recently re-introduced white-tailed sea eagle, a species listed in Annex I of the EU Birds Directive (Council Directive 2009/147/EC). This species, which became extinct in Ireland over one hundred years ago,



is now establishing itself in the wild after two reintroduction programmes which released birds from Norway¹. This species is particularly susceptible to collision with wind turbine blades. For example, in Norway, 39 white-tailed eagle deaths were recorded from such collisions at one large Wind Farm (Smøla) between 2005 and 2010². Three deaths due to wind turbine collisions were recorded in Ireland, representing 10% of total mortality, between 2007 and 2014³. All three fatalities were in the Wind Farms in the Kilgarvan area (Sillahertane and Lettercannon-Coomagearahy area Wind Farms). Since then, a further two likely wind turbine fatalities of released eagles have been recorded in the same region in County Kerry, in 2022 and 2023.

Bullet Point 7 on page 6-108 of the Environmental Impact Assessment Report (EIAR) outlines the mitigation strategy proposed to reduce the risk of turbine blade collision, in particular focussing on avoiding carrion attraction within the Wind Farm, which was reportedly the component cause of fatalities mentioned above. This strategy is described in Appendix 6-9 of the EIAR, and is related to that agreed at the nearby Grousemount Wind Farm.

However, the original EIS for the Grousemount Wind Farm (p.9.23 and 9.24) referred to pig and calf carcasses attracting eagles to the Lough Nabuddoga area in 2009. In contrast, the eagle fatalities were recorded in 2011 and 2012², and may not have been related to carcasses. Even if attraction to carrion was reportedly a component cause of three initial fatalities mentioned above, it is not clear what contributed to the subsequent two fatalities.

The topographic structure of the Roughty Valley may also be a potential contributing factor. Turbines located at the crest of valley slopes may be directly in the line of eagles gaining height by soaring. Indeed, eagles, when soaring, may even be slightly attracted to fly within the rotor-swept zone of turbines⁴, “possibly induced by the extra wind energy created by the turbulence”⁵. Recent modelling has been developed to attempt assess this risk, albeit for golden eagles⁶.

¹ <https://www.npws.ie/research-projects/animal-species/birds/white-tailed-eagle-phase-2>

² Dahl, E.L., Bevanger, K., Nygörd, T., Røskift, E. and Stokke, E.C. (2011) Reduced breeding success in white-tailed eagles at Smøla windfarm, western Norway, is caused by mortality and displacement. *Biological Conservation* 145: 79-85.

³ Mee, A. (2014) Irish white-tailed sea eagle reintroduction programme report 2014. Golden Eagle Trust/ Department of Arts, Heritage & the Gaeltacht/Norwegian Institute for Nature Research. http://www.norway.ie/PageFiles/747152/Irish%20WTSE%20report_2014.pdf ; see also ‘Rare sea eagle killed by wind turbine’, *Irish Times*, 4 April 2011.

⁴ Dahl, E.L., May, R., Hoel, P.L., Bevanger, K., Pedersen, H.C., Røskift, E. and Stokke, B.G. (2013) White-tailed eagles (*Haliaeetus albicilla*) at the Smøla wind-power plant, Central Norway, lack behavioural flight responses to wind turbines. *Wildlife Society Bulletin* 37: 66-74.

⁵ Nygörd, T., Bevanger, K., Dahl, E.L., Flagsted, Ø., Follestad, A., Hoel, P.H., May, R. and Reitan, O. (2010) A study of white-tailed eagle movements and mortality at a Wind Farm in Norway. <http://www.bou.org.uk/bouproc-net/ccb/nygard-et-al.pdf>

⁶ Sandhu, R., *et al.* (2022) Stochastic agent-based model for predicting turbine-scale raptor movements during updraft-subsidized directional flights. *Ecological Modelling* 466: 109876.



While it is recognised that the existing turbines on the slope edges of the Roughty Wind Farm are being discontinued and replaced by larger turbines further back (Site Layout Plan, Sheet 8), nevertheless, serious concerns remain about collision risk, particularly due to topography (e.g. turbines T10 and T11), in the absence of a topographic risk assessment. Also, the feasibility of more sophisticated mitigation needs to be assessed (e.g. automated curtailment systems⁷). The existing EIAR may not meet the criteria of the Kerry County Development Plan objective 12-9 to demonstrate sufficiently that there will be no significant adverse effects on the natural environment.

The white-tailed sea eagle reintroduction programme is still at a very critical phase, where the production of sufficient wild-bred eagles over the next few years will determine the survival of the population, and success of the project. Studies of reintroduced and recolonizing white-tailed eagles have emphasised the importance of controlling mortality in this current early stage of the reintroduction programme:

“Differences in demographic rates of wild-bred and released birds suggest that in future re-introduction programmes steps to maximise the success and output of the earliest breeding attempts would help ensure the most rapid shift to a population composed largely of wild-bred birds, which should then have a higher rate of increase.”⁸

You are requested to send any further communications to this Department’s Development Applications Unit (DAU) at manager.dau@npws.gov.ie, or to the following address:

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Julie Sullivan
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⁷ McClure, C.J.W., *et al.* (2021) Eagle fatalities are reduced by automated curtailment of wind turbines. *Journal of Applied Ecology* 58: 446-452.

⁸ Evans, R.J., Wilson, J.D., Amar, A., Douse, A., MacLennan, A., Ratcliffe, N. and Whitfield, D.P. (2009) Growth and demography of a re-introduced population of white-tailed eagles *Haliaeetus albicilla*. *Ibis* 151: 244-254.