The Repowered and Extended Ben Aketil Wind Farm

Appendix 7.5: Deer Assessment

avianecology

CONTENTS

1 INTRODUCTION

1.1 Background

1.1.1 This section provides an assessment of the potential implications of the Proposed Development for deer welfare and the potential for indirect impacts on other interests including habitat reinstatement and the impacts on neighbouring land and interests (including public roads).

1.2 Objectives

1.2.1 The objectives of the assessment are to:

- Outline baseline information pertaining to deer and deer management within the Site;
- Identify potential issues and impacts on deer arising from the Proposed Development; and
- Identify the requirement, or otherwise, for a Deer Management Strategy (DMS), in accordance with the criteria provided in NatureScot guidance (SNH, 2016).

2 BASELINE

2.1 Site Overview

2.1.1 Habitats within the Site are suitable for browsing deer, principally comprising open bog, heath and grassland habitat, with the operational Ben Aketil Wind Farm present at the north of the Site. These habitats are continuous across adjacent land for more than two kilometres either side of the Site boundary to the east and west, and the Site is bordered to the north by conifer plantation. The operational Edinbane Wind Farm is located in contiguous upland moorland habitat to the east, and the consented Ben Sca Wind Farm is located in contiguous upland moorland habitat to the north.

2.1.2 At the south of the Site, as the altitude decreases towards sea level at Loch Caroy, the habitats in the west change to comprise semi-improved and improved acid grassland, including enclosed fields, which also continue outside the Site to the west, between the Caroy River and Upper Feorlig (Glen Heysdal). The Site, part of the MacLeod Estate, and majority of the surrounding area sits within the Dunvegan Deer Management Unit and is covered by the Skye Deer Management Group (DMG; Association of Deer Management Groups, 2023). It is assumed that in the absence of the Proposed Development, deer control on, and surrounding, the Site would continue on its current basis.

2.2 Deer Species and populations

2.2.1 The British Deer Society (BDS) Deer Distribution Survey maps show that red and roe deer are the two species potentially present in this part of Skye, and the presence of both species was reconfirmed for the 10km square containing the Proposed Development during the deer distribution survey undertaken in 2016. This survey was updated in 2022, but the results have yet to be published[1].

2.2.2 Existing biological records returned by the HBRG contained seven records of red deer and one of roe deer from within 5 km of the Site since 2012. Both roe and red deer are known to be present and were recorded on Site during the course of baseline survey work carried out for the Proposed

[1] https://bds.org.uk/science-research/deer-surveys/deer-distribution-survey/ Accessed 30/01/2023

Development, with grazing pressure on bog and heath habitats within the Site considered attributable to deer as well as livestock noted during habitat surveys.

2.2.3 In the absence of detailed population counts for the Site, current NatureScot guidance (SNH, 2016) suggests that deer densities of <3-5 deer/km^2 are likely to be appropriate for woodland establishment and blanket bog sites. Given that Scotland's red deer density currently sits at 10 deer/km^2 in the Highlands and Islands[2], grazing pressure by deer being noted during surveys, and the principal land use within the Site is livestock grazing and the operational wind farm rather than sporting interests, it is considered that current deer densities (on average) are likely to be higher than 5/km^2.

2.2.4 Habitat restoration measures as proposed in the Habitat Management Plan (HMP) include both bog restoration and planting of native broad-leaved trees (see Technical Appendix 7.6). Deer densities above 8/km^2 have the potential to damage peatlands, while natural woodland regeneration requires densities of ≤5/km^2 [3] and so densities within the Site, in conjunction with livestock grazing, are unlikely to currently be at levels required for favourable conservation of bog habitats or native tree establishment.

2.3 Sources of shelter and grazing opportunities

2.3.1 In the absence of woodland habitats, the Site does not provide shelter opportunities for deer, but provides open bog, moorland and grassland grazing opportunities, which are contiguous with habitat outside the Site to the east and west.

2.3.2 Opportunities of shelter are provided by forestry cover to the north of the Site. Pasture enclosures within the south of the Site are enclosed with stock fencing, however, deer are not currently excluded from entering the Site from the surrounding area by deer fencing. Opportunities of connected grazing and shelter for deer are therefore extensive locally.

3 POTENTIAL ISSUES

3.1.1 The potential issues resulting from the Proposed Development comprise the following:

- Direct loss of foraging habitat for deer;
- Displacement of deer onto adjacent land and/or roads; and
- Impacts upon habitat restoration following the construction phase of the scheme.

3.2 Loss of Foraging Habitat

3.2.1 The Proposed Development will result in the direct and permanent loss of approximately 10.8ha of open bog, moorland and grassland grazing resources for deer from land take associated with the construction of turbine bases and associated infrastructure. Such losses are, considered to be very small with overall permanent habitat losses representing approximately 1.2% of the total Site area. Additional habitat losses will also occur as a result of disturbance within construction working areas

[2] Albon, S.D., McLeod, J., Potts, J., Irvine, J., Fraser, D. & Newey, S. 2019. Updating the estimates of national trends and regional differences in red deer densities on open-hill ground in Scotland. Scottish Natural Heritage Research Report No. 1149

[3] https://www.johnmuirtrust.org/resources/943-deer-management-faq-july-2021

however, habitat disturbed will be reinstated following the cessation of construction works and as such are considered temporary.

3.2.2 The Proposed Development does not include for the erection of any temporary or permanent deer fencing to exclude deer from the Site.

3.2.3 Given the very small extent of habitat loss (both temporary and permanent), grazing resources for deer populations within the Site and local area are not considered to be adversely affected by the Proposed Development.

3.3 Displacement

3.3.1 Deer have the potential to be displaced from the Site onto adjacent lands as a result of disturbance during construction and decommissioning activities associated with the Proposed Development.

3.3.2 Research does not suggest that deer are particularly disturbed by the presence of operational wind turbine schemes (Helldin *et al*., 2012), but do have the potential to be temporarily displaced during the operational maintenance works. Such events are, however, unlikely to be frequent or prolonged and as such would not result in any significant pressures on adjacent land. The evidence of grazing by deer within the Site indicates that they have not been displaced by the operational Ben Aketil Wind Farm.

3.3.3 Construction activities will be undertaken under one of two different scenarios:

- Scenario 1 proposes that the construction of the extension turbines and the construction of the repowering turbines is undertaken at the same time, over a construction period of approximately 18 months.

- Scenario 2 proposes that the four extension turbines are constructed first (one year), followed by the decommissioning of the existing, operational Ben Aketil Wind Farm (one year), followed by construction of the five repowering turbines (one year), so a total construction period of three years. There would be a delay between the completion of construction of the first five turbines and the start of construction of the second five turbines of no more than 5 years.

3.3.4 Decommissioning works would be expected to occur over a similar timeframe to Scenario 1, if not shorter.

3.3.5 Spatial displacement effects would be greater under Scenario 1 and temporal displacement effects would be greater under Scenario 2. However, under both scenarios, construction would be phased across the Site and so displacement impacts would not be applicable to all areas of the Site at all times during the overall construction programme. Deer have the potential to be displaced from the Site in part, or in whole, during construction and decommissioning depending upon the location of works. This may reasonably result in the relocation of some grazing activities onto moorland habitats to the east and west of the Site. However, given that there will be no barriers to deer movements within the Site, it is considered more likely that that construction work will result in redistribution of deer within the Site rather than significant displacement from it. As such any displacement of deer onto adjacent moorland habitats is unlikely to exert any substantial additional grazing pressures onto these habitats, due to the relatively low numbers of deer likely to be displaced at any given time and the extent of habitats in the local and wider area which have the capacity to accommodate them.

3.3.6 The potential for the displacement of deer onto adjacent roads, notably the A863 to the south and the A850 to the west, is also considered to be low given the spatial separation of these roads from the areas of greatest disturbance, and the low numbers of deer likely to be affected. No anticipated change to existing deer numbers crossing the road network is anticipated.

3.3.7 No impacts upon sheltering opportunities provided by the forestry cover to the north of the Site are anticipated.

3.3.8 It is noted that the developers of Ben Sca Wind Farm are proposing habitat restoration in the forestry to the north of the Proposed Development. However, no information regarding where the restoration area is or what measures are proposed is available to inform this assessment. As such, impacts to Ben Sca Wind Farm habitat restoration proposals due to deer displaced from the Proposed Development cannot be assessed. This is discussed further in Chapter 7, Section 7.7.

3.4 Habitat Restoration

3.4.1 The construction phase of the Proposed Development will result in temporary habitat losses due to disturbance within working areas around the permanent scheme footprint. These habitats will be reinstated following the cessation of construction works.

3.4.2 A Construction Environmental Management Plan (CEMP) will be produced for the scheme, which will include measures for restoration of temporary loss of areas of sensitive habitat, including blanket and wet modified bog and wet dwarf shrub heath. Monitoring would also be outlined to measure the effectiveness of restoration works.

3.4.3 Following the cessation of construction works, access for deer to the Site will be retained. Grazing pressures may therefore inhibit effective restoration of disturbed habitats within working areas.

3.4.4 The OHMP for the Proposed Development (Technical Appendix 7.6) includes bog restoration measures, including reprofiling and reseeding of peat hags, and controlling of grazing pressure. Planting of native broadleaved trees is also proposed. Successful implementation of the HMP prescriptions will therefore require deer densities to be kept at <5/km^2. As such, it is considered likely that deer control measures will be required.

3.4.5 It is proposed that a deer management plan for the Site be produced post-consent in collaboration with the landowner, adjacent interested parties (e.g. neighbouring land owners and developers) and the Skye DMG, and secured by an appropriately worded planning condition.

3.4.6 This will commit to keep deer densities at a sustainable level (<5/km^2) within the Site to increase the probability of success of habitat restoration, and to ensure that any management of deer to protect the habitat management measures and reduce densities on Site is done in accordance with deer welfare principles and best practice guidance for deer management. Opportunities for a strategic approach to deer management in collaboration with neighbouring wind farm developers and adjacent landowners will be sought, where relevant and practical. The deer management plan would also contain specific provision relating to carrion removal, to compliment the HMP regarding preventing attraction of foraging eagles into the Site.

3.4.7 The HMP will include provision for monitoring of habitat condition, which will allow for ongoing assessment of the impacts associated with deer densities within the Proposed Development, and to allow the DMS to remain adaptable to changing circumstances in relation to deer.

4 REFERENCES

Helldin, J.O., Jung, J., Neumann, W., Olsson, M., Skarin, A., Widemo, F. (2012) *The impacts of wind power on terrestrial mammals*. The Swedish Environmental Protection Agency, Sweden.

Putman, R., Landbein, J., Green, P. & Watson, P. (2011) Identifying threshold densities for wild deer in the UK above which negative impacts may occur. Mammal Review, **41** (3), pp 175-196.

SNH (2016) Planning for development: What to consider and include in a deer assessments and management at development sites (Version 2). Scottish Natural Heritage, Inverness.