



Colin Abernethy
Energy Consents Unit
The Scottish Government
Sent by email to: Econsents_Admin@gov.scot

5th July 2024

Dear Colin,

**THE ELECTRICITY WORKS (ENVIRONMENTAL IMPACT ASSESSMENT)
(SCOTLAND) REGULATIONS 2017**

**ELECTRICITY ACT 1989 : APPLICATION FOR SECTION 36 CONSENT FOR THE
PROPOSED LEITHENWATER WIND ENERGY HUB IN THE PLANNING AUTHORITY
AREA OF SCOTTISH BORDERS COUNCIL (ECU00004619)**

Many thanks for consulting RSPB Scotland on the proposed Leithenwater Wind Energy Hub.

RSPB Scotland supports the development of renewable energy to meet vital net-zero targets, however, we also face a crisis in biodiversity loss, with significant declines in the species and habitats across Scotland and wind farms must be carefully sited to avoid significant impacts on sites and species of highest conservation concern.

After considering the EIAR and associated appendices, RSPB Scotland has concerns regarding the impact of this proposal and do not think that sufficient mitigation measures have been proposed in the EIAR to address impacts to Annex 1 Golden Eagle and Red data listed Black Grouse and breeding Curlew. We therefore make recommendations for changes to infrastructure layout and mitigation measures in order to address this issue as follows:

- **The deletion of Turbine 13 in order to mitigate the impact through operational displacement for roosting Golden Eagle.**
- **The deletion or relocation of Turbines 11, 12, 13 in order to mitigate the impact of operational displacement on foraging Golden Eagle.**
- **Pre-construction surveys for roosting Golden Eagle, with suitable mitigation measures put in place to prevent disturbance during construction activities.**

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The RSPB is part of Bird Life International, a Partnership of conservation organisations working to give nature a home around the world.

Chair of Council: Kevin Cox **President:** Dr Amir Khan **Chair, Committee for Scotland:** Dr Vicki Nash **Director, RSPB Scotland:** Anne McCall.
The Royal Society for the Protection of Birds (RSPB) is a registered charity: England and Wales no. 207076, Scotland no. SC037654 Registered address: The Lodge, Potton Road, Sandy, Bedfordshire, SG19 2DL

- **Pre-construction surveys for both lekking male Black Grouse and nesting hens, with suitable mitigation measures put in place to prevent disturbance during construction activities.**
- **Pre-construction surveys for breeding Curlew on site, with suitable mitigation measures put in place to prevent disturbance during construction activities.**
- **Further information and detail regarding the proposals for habitat restoration and biodiversity enhancement on site as part of the Outline Restoration and Enhancement Plan (OREP), to determine whether these measures are adequate.**
- **Specific measures for Black Grouse to be included in the OREP to improve the surrounding habitat for this priority species.**

We provide further detail of our concerns and recommendations in the accompanying Annex and Confidential Annex.

We would be happy to discuss any of the recommendations proposed in this response.

Yours sincerely,

REDACT

Julia Gallagher

Senior Conservation Officer - Scottish Lowlands & Southern Uplands

ANNEX 1 – RSPB Comments on the Proposed Leithenwater Wind Energy Hub

Golden Eagle

South of Scotland Golden Eagle Project (SSGEP)

Given the ongoing active contribution the SSGEP is making to the recovery of Golden Eagle in southern Scotland, we consider that the potential for operational displacement should be a significant factor when considering the potential impact of this proposal on the future capacity of the southern Scotland Golden Eagle population to recover.

EIA findings

We have concerns regarding the likely impact to Golden Eagle, an Annex 1 species, as a result of operational displacement relating to use of the site by roosting and foraging birds associated with dispersing birds and territorial birds that have taken up residency in the area with a breeding attempt in 2023 within circa 1km of the project boundary; this territory has been established as a result of the reintroduction of this species by the South of Scotland Golden Eagle Project (SSGEP). Tag data from SSGEP and as illustrated in Figure 8.4 of the EIAR shows that Golden Eagles have been recorded roosting and foraging within the footprint of the proposed development site within the last two years. The GET model in Appendix 8.3 of the EIAR confirms that 94% of habitat within a 500m buffer area of the proposed infrastructure layout is suitable for Golden Eagle as assessed through GET modelling (6+). However, the EIAR concludes that impacts through operational displacement will be 'negligible' and therefore, not significant. **We do not agree with this conclusion and provide further detail to support our position in the attached Confidential Annex.**

Black Grouse

Population Status

Black Grouse are a Red-listed, UK BAP species and a priority for conservation action due to ongoing population declines. The Black Grouse population has undergone significant declines in numbers in the south of Scotland in recent years, with only 177 lekking males recorded across the region in 2023¹. Factors believed to be contributing to this decline include population fragmentation relating to cumulative pressures from developments and new productive forestry and degradation of suitable upland mosaic habitats. Black Grouse are listed within the "breeding bird assemblage" qualifying feature of the Moorfoot Hills SSSI, the boundary of which is approximately 650m from the site, which is within the range of territories of lekking males (1.5km) and dispersal distance of grey hens (9km), and it is therefore particularly important that any potential impacts on this species are fully considered and addressed as part of this application.

Assessment of impact

We disagree with the scoping out of Black Grouse from the assessment of impact made in the EIAR. EIAR section 8.62 states "no significant adverse effects are plausible" due to the distance of the lek sites from the proposed turbines and associated infrastructure. Whilst we acknowledge that lek sites recorded through survey effort to inform this proposal were located >500m from the closest proposed turbine (T13) which is the distance at which operational displacement has been evidenced in research to occur², this

¹ Dumfries and Galloway; Scottish Borders; South & East Ayrshire: Black Grouse in Southern Scotland 2023

² *Using environmental impact assessment and post-construction monitoring data to inform wind energy developments* – Zwart et al 2015

does not take into account the historical lek sites which records³ confirm are all within 1km of the proposed turbines (11, 12 and 13), the closest of which is less than 200m away from turbine 11.

Therefore, in the context of the proposed Leithenwater wind farm, should the historic lek sites become re-occupied, lekking males may be at risk of operational displacement. Although the historic lek sites were not occupied during the two years of survey work undertaken for this site, it is entirely possible that Black Grouse will return to re-occupy these sites in future years, as has been suggested from data through survey effort at other sites in the Scottish Borders⁴. Whilst the EIAR does make reference to historic lek sites in the vicinity of the proposed turbine array, it does not include any assessment of the potential for these sites to be reoccupied (EIAR section 8.62). Given the continued decline of this species regionally, we consider the fact that historic lek sites can be reoccupied as being highly significant in relation to the potential for population recovery. The relocation or deletion of proposed turbine T11 would support the potential for this recovery.

We are also aware of an additional lek site within the boundary of the proposed development in the south of the site which had one lekking male recorded in 2021 by the Southern Uplands Partnership (SUP)⁵; however this has not been included in the EIAR. The SUP data shows that this lek is approximately 800m north of the lek site recorded during survey work for this proposal as illustrated in Figures 8.9 and 8.10, and the presence of lekking males at this location has been recorded as early as 2011. We note the desk study did not appear to include a data request to SUP as recommended by RSPB Scotland during the Scoping consultation; it is unfortunate that the SUP data regarding this lek site has not been considered as part of the EIA, as it would have contributed to the assessment of status of Black Grouse at this site.

Consideration of hens and young broods

There is also a need to consider the presence of females and young broods associated with the lek sites which will be using and nesting in suitable habitats surrounding the occupied leks within a male's home range (1.5km). Hens are particularly vulnerable to disturbance when nesting but are very difficult to locate during survey work. We note that the breeding bird survey did not include the whole area of the project boundary including open ground habitat where lekking males were recorded. Although this survey is not aimed at detecting nesting hens, they may have been recorded through this survey effort through incidental flushing.

Female Black Grouse prefer to nest and rear their broods in wetter habitats with low cover and suitable food plants, and the areas of Wet dwarf shrub heath/Dry heath/acid grassland underneath turbines 11, 12 and 13 appear to be highly suitable for this purpose.

We therefore recommend that pre-construction surveys for Black Grouse (both males and females) are carried out and that suitable mitigation measures are included within the Bird Protection Plan (BPP) as appropriate; we recommend that the need for pre-construction surveys and a BPP are secured by a suitably worded planning condition.

³ Southern Upland Partnership (SUP) black grouse lek data

⁴ Southern Upland Partnership (SUP) black grouse data (2010-2023)

⁵ Southern Upland Partnership black grouse lek data 2021

Breeding Waders

Assessment of status

The extent of survey coverage for breeding waders as illustrated in Figure 8.1 (Breeding Bird Survey) did not encompass the entire project boundary with areas of potentially suitable habitat in open ground in the south-west excluded from survey coverage (green polygon). However, this apparent limitation is not listed in the EIAR with other areas north and north-west of the site being excluded (8.38). We consider that this is likely to have led to an underestimation of its status on site.

Curlew

Section 8.58 states that Curlew was not recorded as “.. confirmed breeding” on site but that birds were recorded as ‘possible’ breeding and therefore, are scoped out of the EIAR assessment. However, if a species is recorded as “possibly breeding” on a site, there is high likely-hood that it is breeding , regardless of whether or not that is confirmed through finding the nest or seeing young chicks. The methodology for upland breeding wader survey⁶ confirms signs of breeding which includes alarm calling and displaying/singing. Curlew were recorded ‘singing’ through VP survey effort in the southern half of the development boundary (Appendix 8.1; 4.49). Therefore, we interpret these results as there being a minimum of two active breeding Curlew territories on site in both years of survey. However, this is likely to be an underestimation of Curlew status within the proposed project boundary due to the limitations in survey coverage as we have highlighted above.

Disturbance impacts during construction.

Based on survey coverage, the closest breeding Curlew territory recorded was approximately 450m from a proposed turbine location (EIAR Appendix 8.1). Figure 8.9 confirms that this is turbine 13. Curlew are known to be sensitive to disturbance during the breeding season and are also vulnerable to displacement from turbine infrastructure. However, Curlew have not been included within any further assessments for this development. Due to the declining status of breeding Curlew in Scotland and the limitations in survey coverage within the proposed project boundary, **we recommend that pre-construction surveys are carried out to identify active Curlew territories on site, with suitable mitigation proposed for any territories located during these surveys relating to wind farm infrastructure and construction activities.**

Delivering Mitigation and Biodiversity Enhancement

NPF4

The Fourth National Planning Framework (NPF4) was adopted by Scottish Ministers in February 2023, and is now part of the statutory development plan. NPF4 sets out the Scottish Government’s planning policy position and is a significant material consideration in the decision-making process for energy consents applications.

NPF4 Policy 1 (Tackling the climate and nature crises) states that significant weight is to be given to the global climate and nature crises when considering all development proposals. Policy 3 (Biodiversity) sets out that development proposals will contribute to the enhancement of biodiversity, and that developments will only be supported “where it can be demonstrated that the proposal will conserve, restore and enhance biodiversity, including nature networks so they are in a demonstrably better state than without intervention”. Policy 3 includes a list of criteria which applicants must demonstrate they have met, including that “significant biodiversity enhancements are provided, **in addition to any proposed mitigation**”.

⁶ Brown and Shepherd – Bird Monitoring Methods Gilbert et al 1998

Scottish Government Planning Guidance

In November 2023, the Scottish Government published Draft Planning Guidance on Biodiversity⁷. This guidance seeks to set out Ministers' expectations for implementing NPF4 policies which support the cross-cutting NPF4 outcome "improving biodiversity", particularly focusing on the implementation of Policy 3. Although the document is labelled 'Draft Planning Guidance', this is to reflect that it is "a 'living document'... that will be updated as practice beds in" rather than a document which is currently under consultation. At the time of writing, this guidance is the most relevant and up to date expression of the Government's expectation of how NPF4 biodiversity policies are to be implemented, and this should be referred to by the Applicant in designing their proposal, including detailed proposals for enhancement, within the EIA or elsewhere in the application submission.

Outline Restoration and Enhancement Plan (OREP)

The area for habitat restoration and enhancement should be identified as early as possible in the planning process. Figure 7.10 shows indicative areas for restoration and enhancement. Chapter 3 of the OREP states that there are multiple parties whose agreement would be required to deliver the proposed interventions outlined in the OREP, and that agreement from each party will be sought post-consent. Failure to achieve this could inhibit the delivery of the measures outlined in the OREP and undermine the Applicant's ability to ensure significant biodiversity enhancements are delivered as per the requirements of NPF4 Policy 3. Outline REP priorities and objectives should be agreed **pre-consent** and approved with key stakeholders in the area prior to commencement of development if consent is granted, with inclusion of key information as outlined in NatureScot guidance on Habitat Management Plans⁸. Therefore, **we recommend that the Applicant obtains the agreement of all associated parties to carry out the proposed enhancement measures on site prior to consent, to ensure the feasibility of these measures in terms of land availability and grazing feasibility and the suitability of these measures to support target species on site, and that this is secured by a suitably worded planning condition, should consent be granted.**

We provide further comment on the specific management measures outlined in the OREP in Annex 2.

⁷ Scottish Government, 2023. *Biodiversity: draft planning guidance*. Available:

<https://www.gov.scot/publications/scottish-government-draft-planning-guidance-biodiversity/>

⁸ SNH (2016) Planning for development: what to consider and include in Habitat Management Plans.

ANNEX 2 – Outline Restoration Enhancement Plan (OREP) RSPB Scotland's comments

Black Grouse

We welcome the inclusion of habitat management measures for Black Grouse within the OREP, although we would advise on a revision of some of the locations proposed for this work and have recommendations regarding the specific measures proposed as follows.

Black Grouse lek and Invertebrate enhancement

These areas are described as “stepping stones” of habitat are mostly proposed to be located within the existing commercial plantation with one in the south of the development boundary on the edge of open ground. Only one of these locations is associated with lek sites in the south and since Black Grouse are a forest edge species, and do not generally venture deep into commercial conifer plantations unless seeking shelter in inclement weather, they are unlikely to use the habitat created within the forest. We note that there is also an objective to implement native shrubs in these areas within the conifer plantation which may be beneficial to grouse if it results in a general opening-up of forest habitat. Although, since the location of these sites proposed within conifer plantation are also underneath the turbine array, this will introduce a risk of collision or render the habitat redundant due to operational displacement. We would suggest that, since this option is a dual objective to create habitat for the Northern Brown Argus butterfly, it may be best to focus management on this species for sites proposed within the forest, unless alternative locations can be found away from the turbine array and closer to forest edge.

Wildflower/species rich grassland (OREP 4.41-4.45)

While we recognise that this objective is aimed at invertebrates some of the proposed locations are within proximity of lek sites (Woolhope Hill). Lek sites require short vegetation and are often maintained through sheep grazing. We therefore, recommend that habitat management on or close to lek sites avoids any fundamental change in sward condition. It would be advantageous to exclude these sites through suitable buffering to ensure this. This would include active and historical lek locations in the south of the OREP area.

Open ground habitat retention and enhancement (OREP 4.52-4.54)

This proposed location for this management is in optimum areas for existing and historical lek sites although we note that currently it is not listed as a target species for this management. We would therefore, suggest that Black Grouse is a target receptor for this management in areas outwith 500m of the proposed turbine array.

Riparian woodland tree planting (OREP 4.17-4.29)

We welcome the objectives to establish tree and shrub planting as part of habitat enhancement measures. The planting of riparian corridors may have a positive impact on Black Grouse if suitable species are planted at a low-density, and assuming that no deer fences are used. We would therefore, recommend that planting in areas where lek sites are currently recorded and in areas of historical range, is aimed at benefitting this species. This would include location in terms of topography associated with lek sites and species mix. The species mix recommended in the OREP is conducive to Black Grouse with the exception of Oak. We would therefore, recommend that oak species is excluded from areas associated with Black Grouse.

Shrub/Heath management (OREP 4.46-4.51)

We consider that this habitat is key for Black Grouse and we would welcome objectives to include this management aimed at supporting the current population and to encourage its wider recovery.

Other species

Section 4.21 states that tree planting will benefit upland breeding waders, however, waders have been shown to avoid areas of otherwise suitable habitat within 500m of trees. Therefore it is important that tree planting areas are designed with these species in mind, ensuring a buffer of at least 500m around breeding wader territories, especially for Curlew. We also note plans to plant within areas where breeding Ring Ouzel and Whinchat were recorded. Since tree planting has also been shown to be detrimental for these species, we advise that core breeding habitat for these species is omitted from planting.

Habitat Management Implementation

In relation to the implementation of the OREP, we would be happy to meet with the developer and Landowner to further discuss the potential management opportunities to benefit priority species on this site, such as Black Grouse, prior to any decision regarding the proposed development. In addition, although we note that RSPB Scotland is not listed as one of the potential stakeholders to feed into this process and that the Governance to oversee works is currently composed of the Landowner and sub-contractors, we take this opportunity to confirm that we would welcome a seat on any Habitat Management Group related to this site should consent be granted.

We recommend that the OREP is revised and re-submitted prior to consent, to take into account the issues and opportunities highlighted above and to provide stakeholders with further detail on how these aims will be achieved, should consent be granted.

Confidential Annex – RSPB Comments on the Proposed Leithenwater Wind Energy Hub

Golden Eagle

Disturbance and displacement impacts during construction

There are three known Golden Eagle roosts within the footprint of the site, within 500m of proposed turbine locations. The EIAR suggests that disturbance during construction will be limited since birds will avoid these sites and find alternative roost locations elsewhere (EIAR sections 8.101-8.102). This acknowledgement is an apparent acceptance that impact to Schedule 1/A1 species during construction will occur. It is stated that mitigation as part of a Bird Protection Plan (BPP) will ensure that disturbance to birds using any 'active' roosts will be minimised.

We recommend that mitigation measures to address impact through temporary displacement during construction are detailed in a BPP, and that the BPP is agreed in writing prior to commencement of development and made a condition of consent, should consent be granted. Measures should include pre-construction survey for roost occupation and cessation of construction activity within an agreed buffer distance from roost sites at times of roosting activity.

Displacement impacts during operation

EIAR section 8.125 confirms the suitability of habitat within the site to support existing territorial birds and wider foraging birds as predicted by the GET modelling, which calculates that 94.1% of habitat within 500m of the turbine array is suitable at GET6+ (Appendix 8.4; 3.4). We outline our conclusions regarding the impact of operational displacement on roosting and foraging Golden Eagle, and make recommendations to reduce this through mitigation in the following sections.

a) Roost sites

The EIAR section 8.126 describes that Golden Eagles have shown avoidance to the operational Bowbeat wind farm located to the north of the proposed Leithenwater wind farm site. EIAR section 8.128 states there is a likelihood for birds to be displaced from existing roosting sites within 300m of the proposed Leithenwater turbine array. We would agree with this conclusion, although we do not consider that the EIAR has considered this impact in relation to the appropriate level of mitigation measures.

The EIAR states that the SSGEP has confirmed that a pair of Golden Eagles took up residence and attempted to nest at a site located approximately 1km from the project boundary in 2023 (Confidential Annex Figure 1). SSGEP tracking data confirms their use of habitat at this time within the development boundary and specifically at the location of roost sites (Confidential Annex Figure 2).

EIAR Figures 8.4 and 8.5 show Golden Eagle flightlines over open ground during the non-breeding season in 2020-2022 before the current territorial pair attempted nesting. Based on the habitat in this area it is likely that the birds recorded through EIA survey work were foraging and moving between roost sites

with an apparent particular concentration in the area of the roost in the south-west of the boundary at Leithen Door Hill (EIAR Figure 8.5).

We therefore, question the conclusion made in the EIAR regarding the extent of operational displacement for roosting birds, which states that only one roost site would be within 300m of proposed turbine infrastructure (8.128). However, elsewhere in the EIAR it is stated that two roost sites are within 200m of a turbine (8.98). Certainly, our interpretation of the figure illustrating the location of roost sites and the proposed location for wind farm infrastructure suggests that all three roost sites are within 300m of turbine infrastructure (Confidential Annex Fig 1). We therefore agree with the EIAR that the location of turbines within 300m of roost sites will likely result in the abandonment of these sites by roosting birds (8.128) and consider that this relates to all three roosting sites identified through survey within the project boundary.

However, we acknowledge that planned felling operations (2025) will result in the habitat currently supporting the two roosts in the north of the project boundary on the forest edge becoming unsuitable in the immediate future (EIAR 8.128). Since the current layout includes proposals to locate turbine 9 in this area, even if there was an agreement to retain the forest edge habitat to support these roost sites through long term retention, at least one of these roost sites would remain unsuitable due to displacement of birds through turbine avoidance.

We would therefore recommend that mitigation is agreed to retain the viability of the third roost site in the south-west of the project boundary which is under ownership by Forestry and Land Scotland (Glentress - Tweed Valley Forest Park), which will provide the opportunity to ensure the retention of this roost site through consultation on the Land Management Plan for this site. **We therefore recommend that Turbine 13 is removed from this proposal in order to retain the immediate functionality of the roost site that is within 300m of this turbine in forest edge habitat and provide opportunity for its long term retention in support of recently established territorial pair of Golden Eagle.**

The removal of this turbine would also reduce the predicted displacement for foraging Golden Eagle as predicted through the GET modelling (see below).

b) Foraging

Fielding et al (2023) suggests that when planning new wind farms, attempts should be made to avoid preferred habitats in order to reduce functional habitat loss through avoidance of turbines¹. We agree with this statement.

Nesting Golden Eagles are tied to the home range around their nest site and, particularly if they are successful in raising chicks, the number of flight lines to and from the nest and for hunting over open ground will only increase over time, which would presumably increase the level of displacement from suitable foraging habitat during operation within range of a breeding pair. The nesting attempt in 2023 was within circa 1km of the project boundary and it is therefore possible that

¹ *Responses of GPS-Tagged Territorial Golden Eagles Aquila chrysaetos to Wind Turbines in Scotland* – Fielding et al 2023

subsequent nesting attempts will be in the same area or closer to the project boundary. The EIAR concludes that displacement through loss of habitat for foraging birds as a result of turbine locations would be 1.2kmsq which would equate to 1% of a typical Golden Eagle home range (6km) or 1.4kmsq of the available suitable habitat within this range. It goes on to suggest that this loss would be less impactful overall due to the unsuitability of habitat in the west which is rarely visited and that therefore, the prospect of turbine locations causing a barrier to movement by dispersing or foraging birds is highly unlikely (EIAR 8.127). We question this conclusion since it does not appear to be supported by figures illustrating satellite tracking fixes within habitat in the east, west and over open ground affiliated with the development footprint (Confidential Figure 2 and 3). Figure 3 also confirms the location and use of the development area in relation to the range of the breeding pair currently in residence.

The deletion of turbines proposed to be situated in the open hill ground (11, 12, 13) would mitigate displacement through loss of suitable foraging habitat. **We therefore recommend that consideration is given to the removal of turbines 11, 12 and 13 in order to retain the functionality of foraging habitat in this area and to mitigate predicted loss of suitable habitat as predicted through GET modelling and which was confirmed as being within range of a breeding pair of Golden Eagle (2023).**

However, should this not be accepted as mitigation and made a condition on any planning consent, we would suggest that the removal of T13 would partially address displacement of foraging birds as predicted through GET modelling through turbine avoidance across the wider open habitat. This turbine is the most southerly and on an adjacent hill range to turbines 11 and 12 and so its location geographically extends the scale and range of potential displacement. **We therefore, recommend and without prejudice to the recommendation for removal of all three turbines proposed to be located in open ground habitat, the removal of T13 in order to reduce the significance of predicted loss of suitable habitat within range of the established breeding pair of Golden Eagle (2023).**