



Scottish Natural Heritage Dualchas Nàdair na h-Alba

All of nature for all of Scotland
Nàdar air fad airson Alba air fad

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Our ref: A1606096

Dear Mr Hughson

THE ELECTRICITY WORKS (ENVIRONMENTAL IMPACT ASSESSMENT) (SCOTLAND) REGULATIONS 2000. SECTION 36 APPLICATION FOR THE PROPOSED MACRITCH HILL WIND FARM ON LAND CLOSE TO BACKWATER RESERVOIR, KIRRIEMUIR, ANGUS

Thank you for consulting Scottish Natural Heritage (SNH) on the Macritch Wind Farm proposal.

1. Summary

Landscape and Visual impacts

We acknowledge the early consideration of various turbine layouts and groups as part of the wind farm iteration. While this has led to a marked reduction in wind turbine visibility the proposed development still presents significant landscape and visual effects on sensitive and nationally important receptors.

- **Cairngorms National Park**

SNH objects to the Macritch wind farm proposal due to significant adverse impacts on the Cairngorms National Park (CNP). It would have adverse effects upon the special landscape qualities of the Park, in particular those special qualities associated with the southern plateaux within the Park, including the summits and ridges of Mayar and Dreish, which are contiguous with the wind farm site outside the Park boundary. It would significantly affect the quality of visitor experience of those special qualities in key parts of the Park where people go specifically to enjoy them as a fundamental part of their experience of the Angus Glens.

We consider it unlikely that, given the sensitive location of the proposal, its detrimental impacts could be reduced or mitigated to a level where we would remove our objection.



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We offer this advice with respect to: Scottish Planning Policy set out for National Designations (para 212-213) and (para 83 - 84) which aim to conserve and enhance the natural and cultural heritage of the National Park; and the Cairngorms Park Partnership Plan Policies 1.3 and 2.3 with regard to conserving the special landscape qualities of the Park.

- **Wild Land Areas**

The proposed wind farm would have significant adverse effects on the wildness qualities experienced in the Wild Land Area (WLA) 16 Lochnagar – Mount Keen. In our view these effects cannot be substantially overcome by siting, design or other mitigation. **We therefore object to this proposal.**

- While not part of our objection, we also offer advice on other adverse landscape and visual impacts of the proposal to assist your determination.

Schedule 1 bird species

The proposed wind farm could affect Schedule 1 bird species associated with the population in *North East Glens – Natural Heritage Zone 12*. Additional information is provided in the attached confidential annex.

We advise that ongoing bird survey work should be extended to provide a full year of additional data (January to December 2015) to cover both the breeding and wintering season. This information is required to enable assessment of the likely significance of impacts. Once this information has been provided we will provide further advice. **We object to this proposal until this further information is provided.**

Loch of Lintrathen SSSI and RAMSAR sites

With respect to potential effects upon Loch of Lintrathen, this proposal could be progressed if it was undertaken in accordance with mitigation measures set out below. However, **we object** to this proposal unless it was made subject to conditions requiring this mitigation.

2. **Appraisal of the impacts**

Cairngorms National Park

The proposed Macritch Wind Farm is located 1.5km from the South Eastern boundary of the Cairngorms National Park. The wind farm proposal would be near some of the most visited Munro summits in the south-eastern part of the Park.

Landscape and visual

The proposed wind farm would be orientated north-south and extend across two contrasting landscape character types, *Middle Highland Glens* and *Highland Summits and Plateaux* (the latter of which is described as *Angus Glens Upland in the CNP Landscape Character Assessment*). The steep-sided middle highland glens such as Glen Doll, Glen Clova, and Glen Prosen, are deeply incised into the highland plateaux, ridges and summits and provide access into the mountain massif and the National Park. The broad ridges of the *Highland Summits and Plateaux* separate the glens and culminate in the higher plateau area of Mayar, Dreish and Glas Maol within the Park boundary. The landscape is characterised by overlapping, yet clearly defined and distinct individual hills. The rolling hills landform with moorland land cover and muirburn management remains the dominant overriding landscape character experienced, extending out from the National Park. Thus, the Highland Summits

and Plateaux character extends across the imperceptible park boundary, near and into the proposed wind farm site.

In many of the views from the National Park the separation between the northern and southern groups is such that they would appear as two separate developments with different designs. The layout of neither turbine group would relate well to the underlying landform, nor their respective landscape character. From the Park, the contrast between the two landscape characters is less apparent such that the southern group's turbines would also appear to relate to a hill and moorland setting.

Special Qualities

The proposal would adversely impact on several of the Special Landscape Qualities of these south-eastern parts of the Park: ***“Vastness of space, scale and height”***; ***“The surrounding hills”***; ***“Extensive moorland, linking the farmland, woodland and the high tops”***; ***“Dominance of natural landforms; “Wildness”; “Wild Land,” and “Grand panoramas and framed views”***.

The landscape characteristics that underpin these Special Landscape Qualities in the affected areas of the Park are:

- *The sense of expanse experienced from the undulating plateaux is reinforced by the openness of the rounded summits and the moorland that extends out to the south across the boundary of the NP, which is not demarcated and therefore not visible. There are conifer woodlands within this landscape but they do not diminish appreciation of the landform.*
- *There is a dominance of natural landform in the view from the rounded summits of the plateaux, the rocky tops and corries of Caenlochan, the overlapping distinct hills between the Angus glens and the distant lower hills and ridges that dip towards Strathmore. Distances from the public roads and settlements in Glen Clova are short and it is the ruggedness at the head of the glens, the sudden sense of exposure and the dominance of natural landform that underpins the sense of wildness as one emerges/crosses/walks onto the plateau. This contrast of experience and character whilst walking from the rugged and confining, sheltered glen head, up and onto the open, exposed plateaux and hill summits is fundamental to how the Angus Glens are experienced. This character of experience is consistent across Glen Clova, Glen Doll, and Glen Esk.*
- *Emerging onto the plateau from the main access footpaths from Glen Doll the view south is framed between the shoulders of Mayar and Little Dreish. Elsewhere (including from the hills and slopes east of Glen Clova), the views from the hill tops focus down the Angus glens as well as to the higher hills to the north.*

Vastness of space, scale and height”; ***“The surrounding hills”***; ***“Extensive moorland, linking the farmland, woodland and the high tops”***

The wind farm would introduce large scale structures into a landscape currently without scale reference and it would appear to ‘shrink’ the expansive nature and reduce the *vastness of space, scale and height* of the landform. The wind farm would interrupt the perception of the wide panoramas and overlapping north-south ridgelines that span out from the Park and the unifying land cover that extends from the Park into the *surrounding hills*.

“Dominance of natural landforms; “Wildness”; “Wild Land,”

The height, stature, movement and repetitive form of the turbines and associated access tracks of the proposed wind farm would compete with those natural landforms, (the shapes and lines of the hills, crags and gullies). The introduction of 125m wind turbines into this landscape at distances of between 1.5km and 13km (VP 4, Glas Maol) would introduce a

large scale development which would intrude significantly upon the tangible sense of wildness. The turbines of Macritch would be introduced at distances of around 7km into views that are fundamental to the experience of the Angus Glens and hills such as Dreish and Mayar. The close proximity would heighten the magnitude of change and therefore the significance of effect.

“Grand panoramas and framed views”.

From the main footpaths which emerge onto the plateau from Glen Doll, the view south is framed between the shoulders of Dreish and Mayar (viewpoints 3 and 20). Elsewhere (including from the hills and slopes east of Glen Clova), the views from the hill tops focus down the Angus Glens to the south as well as to the higher hills to the north. The full wind farm would be introduced prominently into this *grand panorama and framed view* at a distance of approximately 8kms, intruding upon the visual experience of visitors emerging from Glen Doll onto the plateau.

Wild Land Area (WLA) 16 Lochnagar – Mount Keen

The turbines would be located between 3 and 18km from the southern boundary of the WLA.

The ZTV (Figure 6.2) illustrates that there would be 2 broad areas of visibility from within the WLA: from the western part, incorporating the hills of “The Mounth” and from the high summits of the south-eastern spur above Glen Clova. For the western part, there would be visibility from the south-facing slopes and summits of Munros, in particular, Dreish and Mayar (at approximately 7kms) and their intervening plateau and further west, from the massif of Glas Maol, including its radial ridgelines out to Crag Leacach and Monega Hill (at distances between 10 and 12kms). On the south-eastern spur, from 11 to 18kms, visibility is predicted from and between, the south-west facing upper slopes and summits of the hill range running north from Hill of Glansie to Boustie Ley and includes the popular walks around Loch Brandy, Loch Wharral and Ben Tirran.

Whilst the areas of predicted visibility are relatively contained, these areas coincide with popular hills where people actively go to experience qualities of the wild land. This relates to their proximity to Glen Doll, the main Angus glens gateway to the area as well as from Glenshee to the west.

The introduction of the wind farm would constitute a significant change and impact on the physical WLA attributes, including *Lack of Modern Artefacts*. Large scale man-made rotating structures would dominate the experience, introducing a significant new focus. There would be a substantial increase in built development in close proximity to the viewer. In addition, the *Sense of Remoteness and Inaccessibility* and *Rugged Terrain*, would be affected by tracks being closer to the observer, as they would signify easier pedestrian, and new vehicular access.

There would be a significant change caused by the introduction of the turbines upon the perceptual attributes of *Sense of Sanctuary* and the *Arresting and Inspiring Qualities*. The turbines would bring the experience of large scale development up and into the upland plateau where people purposely walk to attain seclusion and distance from man-made artefacts. In addition the turbines would interrupt the *Sense of Awe* from the interlocking ridgelines which run out from the Wild Area, creating a new dominant and prominent focus. The perception of *Risk and/or experience of Physically Challenging Terrain* would be affected as turbines and views of the access tracks would signify vehicular access and interrupt the expansive scale of the uplands.

Advice on other landscape and visual impacts

We agree with the ES that there would be significant adverse effects on the landscape character of the site, described as *Backwater Valley/Glen Damff* character unit (LCU) and the Highland Summits and Plateaux character type (LCT). The level of effect on the immediate site and wider landscape character would be major. We also consider there would be significant effects on the valued local amenity of the Backwater Reservoir valley, which provides a series of walks on the shoreline and along the glen. This value heightens the sensitivity and susceptibility of this area to the proposed scale of commercial wind energy development.

The wind farm would comprise two separate groups approximately 3km apart. We consider that neither group relates well to the underlying landform: they bear no relationship to the landform of the ridgelines, nor do they relate to the linearity or relatively intimate scale and confining character of the glen. From many views the southern group in particular would appear unbalanced, situated on side slopes to the glen and uneven in spacing, with overlapping views of turbines and variable turbine heights.

The size of the turbines would be overwhelming; in the southern group they would breach the scale of the glen and extend above the confining slopes. Related to this, we consider that the benching and new track network required to build turbines on the steep glen slopes (not fully assessed in the ES) would have significant negative impacts.

Angus wind farm Capacity Study

The Strategic Landscape Capacity Assessment for wind energy in Angus (2013) concluded that highland areas of Angus were not suitable for commercial wind farm development. This is due to their landscape quality and visual sensitivity and the likelihood of adverse effects on their key characteristics of relative remoteness, wildness and low level of built development. For Mid Highland Glens, some capacity is noted for turbines up to 50m.

The difficulty of designing a wind farm at this site and the extent of residual significant effects is congruent with the findings of the Capacity Study that there is limited or no capacity across the underpinning landscape character types.

Loch of Lintrathen SSSI

Loch of Lintrathen lies 0.7km downstream of the development site although the access track, which is the nearest proposed infrastructure, is 1.3km from the designated site. The notified features include greylag geese and open water mesotrophic loch. We advised at scoping stage that greylag geese did not need to be assessed further.

The open water mesotrophic loch notified feature is vulnerable to changes in water quality and sedimentation. There is the potential for an increase in sediment runoff and pollution during the construction phase of this development. Given the scale of the proposal, the amount of earthworks required and the short distance between the development and the loch we advise that without adequate mitigation the risk is significant. However, if the proposal is amended so that the works are done strictly in accordance with the following mitigation this impact could be avoided.

Should your authority be minded to consent to this proposal, SNH would be able to remove this part of its objection if any consent was made subject to conditions achieving the following):

A detailed site Construction Environmental Management Plan (CEMP) and specific Pollution Prevention Plans (PPP) as outlined in Chapter 5, Section 5.4 should be produced and agreed with Scottish Ministers and SEPA prior to work commencing on site. The EMP and PPP should seek to minimise pollution and sedimentation in the water environment.

Cairngorms Massif and Caenlochan SPAs

The proposal boundary lies approximately 4km from the Cairngorms Massif Special Protection Area (SPA) classified for golden eagle. The SNH website has a summary of the legislative requirements (<http://www.snh.gov.uk/docs/A423286.pdf>).

In our view, this proposal is likely to have a significant effect on golden eagles. Consequently, Scottish Ministers are required to carry out an appropriate assessment in view of the site's conservation objectives for its qualifying interests.

To help you do this we advise that, in our view, based on the information provided, the proposal would not adversely affect the integrity of the site. The appraisal we carried out considered the potential impact of the proposals on the following: displacement, disturbance and collision mortality.

While the closest distance between a turbine and the SPA boundary is 5.9km, the development lies more than 6km from any eagles nesting within the SPA. Golden eagles normally forage within 6km of their nests, with only occasional flights beyond this (see SNH guidance on connectivity). SPA-related flight activity over the proposed wind farm is therefore expected to be very limited.

In respect of a National Heritage Zone (NHZ) level assessment, North East Glens NHZ 12 currently fails all of the tests for favourable conservation status (FCS) set out in the Golden Eagle Framework. Low territory occupancy - probably linked to low survival rates - has been a feature of this NHZ for many years. A collision mortality rate of 0.13 birds/yr is unlikely, in itself, to prove a significant additional hindrance to returning NHZ12 to FCS. Unfortunately, a cumulative assessment is not currently possible, because predicted mortality for NHZ 12 from other wind farms has not been collated.

You may wish to carry out further appraisal before completing the appropriate assessment and SNH would be happy to advise.

Protected Species and Habitats

We advise that in the event of any consent, proposed protected species pre-construction surveys should be extended to include bat surveys of any trees to be felled. We also recommend the implementation of the mitigation measures contained within Chapter 7 and 8 for a number of habitats and species outlined in the ES, particularly in relation to black grouse and waders. The proposal could potentially affect a significant proportion (7.5%) of the black grouse population of the NHZ. Black grouse are vulnerable to collision with turbines and displacement during the construction and operational phase of wind farms. There is a lack of alternative nesting habitat in the surrounding area for both black grouse and waders displaced by this proposal, but this could be mitigated by the creation and management of new habitat on site.

We recommend that the draft Habitat Management Plan (HMP) should include specific habitat creation measures for waders and black grouse and is extended and revised beyond the

current extent proposed in the ES to include the Annex 1 habitats: blanket bog, dry and wet heaths.

Further information is available on our website on habitat management plans
<http://www.snh.gov.uk/docs/A1187633.pdf>

- **Ecological Clerk of Works (ECoW)**

If the proposal is approved we recommend that the developer appoints an ECoW, whose role should include provision of ecological advice to inform micro-siting of turbines and detailed on-site construction activity. This would help to reduce or avoid impacts on sensitive habitats and species. We also advise that the ECoW should have power to stop works if an unexpected event occurred (for example discovery of unknown otter holt, heavy rainfall increasing the risk of sediment control measure failure, etc).

- **Decommissioning**

We recommend that an additional consultation is carried out well in advance (e.g. 3-5 years) of any decommissioning to ensure all natural heritage considerations were taken into account. We advise that further survey work could be required prior to decommissioning to fully assess the likely impacts, particularly on legally protected species and protected areas.

- **Compensatory planting**

Compensatory planting would be required for the removal of conifer plantations in the south of the site. This has not yet been determined but should be subject to consultation with Forestry Commission Scotland. There would be the potential to improve forest structure and composition for biodiversity and landscape.

For further information or advice in connection with this proposal, please contact Matthew Burnett in the first instance (matt.burnett@snh.gov.uk).

Yours sincerely



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