

# Agenda item 6

# Appendix 3

2025/0240/PAC (ECU 00005153)

NatureScot comments



# **MEMO / MEÒRACHAN**

To / Gu	Louise Clark
СС	Catherine Harry
From / Bho	Kate Macleod
Date / Latha	19 <sup>th</sup> November 2025
Subject / Cuspair	Kyllachy Wind Farm – S36 Application

ECU00005153

#### **Summary**

The Proposed Development would be sited approximately 5.5km to the north-west of the Cairngorms National Park (CNP) and result in significant adverse effects on two of the Special Landscape Qualities (SLQs). The Proposed Development would result in significant adverse effects on SLQ 28 Wildness during daytime and extending into effects after dark. As a result of the proposed aviation lighting¹ there would be significant adverse effects on SLQ 32 Dark skies.

It is our view that the collective significance of the effects on the SLQs of the National Park are not of a degree that they damage the unity or soundness of the National Park and therefore they would not affect its integrity.

We consider significant effects could be mitigated through a reduction in turbine height, removing the need for aviation lighting.

#### The proposal

The proposed development would comprise thirteen turbines, up to a 180 m blade tip height. Associated infrastructure would include turbine hardstanding areas, access tracks, Battery Energy Storage System (BESS), substation, construction compounds and borrow pits. Access is proposed via the existing wind farm tracks at Glen Kyllachy and Farr. Approximately 8.7km new on-site track would be constructed.

The proposed development would be situated to the north of Strathdearn, 2.8km west of the settlement of Tomatin across an area of elevated moorland that forms part of the north-eastern

<sup>&</sup>lt;sup>1</sup> Both the fully lit scheme and the mitigated scenario of 6 lit hubs.

Monadhliath mountains. The proposal site is close to the Cairngorms National Park (CNP) with the closest turbine sited approximately 5.5km from the CNP boundary.

The proposed development would provide a generating capacity of 78MW<sup>2</sup> and is a national development. As the turbines would be over 150 m in height visible aviation lighting would be required. It is noted that a reduced aviation lighting scheme has been proposed within the EIAR to reduce the number of lights from 13 lit towers and hubs to 6 lit hubs, it is our understanding that this has not yet been agreed with the Civil Aviation Authority (CAA). Our appraisal considers the effects of the fully lit scheme and reduced scheme.

#### Focus of this advice

This advice focuses on the potential for significant effects on the Special Landscape Qualities (SLQs) of the CNP. In accordance with the <u>agreement on roles in advisory casework between NatureScot and Scottish National Park Authorities</u>, NatureScot leads on the provision of advice concerning the effects of a proposal on the National Park Special Landscape Qualities caused by proposals outside the National Park. This should not be interpreted as meaning there are no other significant effects that need to be considered when determining the application.

### **Kyllachy Wind Farm and the Assessment Baseline**

The site is located to the north of Strathdearn, on an area of elevated moorland that forms part of the north-eastern Monadhliath mountains. The Landscape Character Type (LCT) description for host LCT 221 – Rolling Uplands – Inverness identifies: 'a strong sense of openness and exposure' from hilltops and plateaux and an uninhabited interior with 'a strong perception of remoteness' forming an extensive area of rolling hills 'extending far beyond the district boundary and into the Cairngorms National Park' where the LCT merges across the boundary into LCT 125 – Rolling Uplands – Cairngorms. The open nature of this landscape affords a high level of intervisibility across the hills, the Monadhliath Wild Land Area (WLA 20) and Cairngorms National Park, which are of a high sensitivity to wind development.

LCT 221 includes a number of existing wind farms. Operational and consented wind farms<sup>3</sup> broadly form five clusters, the majority of which are located in visually discreet lower-lying basins, with the exception of Dunmaglass to the southwest on more elevated ground. The closest operational wind farms to the proposal are Farr and Glen Kyllachy. The proximity of this proposal to Farr and Glen Kyllachy means that it may appear as an extension although is not technically one.

East of the A9, Tom nan Clach is the closest operational wind farm to the Park boundary (5.8km), however, like Moy, it appears as a relatively compact feature in the wider landscape due to its height (125m to blade tip) and partial screening from landform. West of the A9 in the Monadhliath, existing wind farms have a limited influence on the CNP, appearing as relatively distant and compact features in the wider landscape, as shown from VP 16 – Geal Charn Mor and VP 13 – Carn nam Baintighearna.

From higher elevations within the Park interior where operational wind farms are visible, existing wind farms are perceived as distant features. On the whole, operational and consented wind farms have a relatively limited influence both individually and cumulatively on the SLQs of the Park due to their distance, heights (all below 150m to blade tip), lack of turbine lighting and interspersed pattern of development.

<sup>&</sup>lt;sup>2</sup> EIA Report Chapter 2: The Proposed Development. Page 5. Noting100MW including BESS

<sup>&</sup>lt;sup>3</sup> Volume 2a - Chapter 5 - Figure 5.12 - Cumulative Basemap (A5573502) - View

Consented wind farm Ourack would lie approximately 30km to the east of the proposed development and would feature aviation lighting. None of the existing or consented wind farms within 20 km of the Proposed Development have visible aviation warning lights and there are no other existing or consented wind farms with lit turbines within the host LCT.

There are a number of wind farms at application stage in proximity to the site including Highland, Clune, Balnespick and Lynemore. All feature turbines above 150m and would require visible aviation lighting.

# The applicant's assessment of effects

Whilst the applicant has provided a brief assessment of the effects on the SLQs of the CNP within EIA Report Chapter 5: Landscape and Visual Impact Assessment, we do not consider the assessment has been carried out following our guidance - <a href="Special Landscape Qualities - Guidance on assessing effects">Special Landscape Qualities - Guidance on assessing effects</a>; the SLQ assessment does not identify a study area, identify the sensitivity of SLQs likely to be affected by the Proposal, or provide a detailed analysis of effects on identified SLQs. The assessment does not find any significant effects on SLQs as a result of the Proposed Development. The assessment has not sufficiently assessed the potential for significant effects on some SLQs;

SLQ	Assessment (Table 5.8)	Our comments
32. Dark skies	"Given that the turbines require aviation lighting, there will be some impact on this element, which will be covered in Appendix 5.4."	Within Appendix 5.4 there is no assessment of the effects of aviation lighting on the Dark skies SLQ. Therefore, we have provided a more detailed assessment within this advice.
28. Wildness	"Similar to described above, the sense of wildness that is experienced from areas where the Proposed Development is seen, is much more pronounced in the opposite direction, and the views of the Proposed Development would not significantly alter the perception of wildness."	This description of the areas where attributes and perceptual qualities underpinning the wildness SLQ are expressed is vague in contrast to the baseline descriptions of the Strathdearn Hills and Monadhliath offered elsewhere in the assessment where there would be visibility of the proposal; 'defined by a strong sense of elevation, openness, and landscape continuity, with high perceptual qualities linked to the area's remoteness and naturalistic land cover' and 'distinctly wild and expansive'. This SLQ is well expressed and highly susceptible to development of this type, it is considered further in this advice.
30. Grand panoramas and framed views	"Generally, views from within the National Park are limited, however there would be views from the summit of Cairn Gorm, which would be considered a grand panorama, given its elevation and openness. Viewpoint 20 (Figure 5.32) illustrates this view, and while the Proposed Development is visible, it is seen at over 30km distance and is a minor feature in the view. It would not detract from the grandness of the panorama nor its scenic qualities, and the Proposed Development would appear in a section of the view already characterised by wind turbines.	We believe the area affected would not be limited to the summit of Cairn Gorm. We are in agreement that effects on SLQ 30 would not be significant overall, though given the potential for significant effects both cumulatively and on it's own, we have provided more detailed advice.

The applicant has included a map<sup>4</sup> indicating levels of light pollution derived from the Visible Infrared Imaging Radiometer Suite (VIIRS) dataset though notes its limitations, especially across the Monadhliath mountains where it indicates some elevated areas with fairly high levels of light pollution; the applicant states that "this is likely an error in the data caused by atmospheric conditions or reflections from snow, and this much of this area would have the medium to low levels of light pollution." <sup>5</sup> It is unclear whether the applicant has verified desktop study with field work. From our experience in these uplands after dusk, the landscape is very dark, and we would consider light pollution levels to be low or negligible.

In terms of assessment viewpoints within the CNP, we would have expected to see photographs with 360 degree panoramas and/or wireline panels to illustrate successive views and cumulative baseline from VP 13 Carn nam Bain-tighearna and VP 15 Carn Glas-choire, given expected visibility of operational, consented and in-planning developments from this area. We also note some issues with the quality of baseline photography meaning some elements of the landscape are not sufficiently clear. From VP 15 the existing wind development is not clear due to the photograph quality, and VP 20 Cairn Gorm (Figure 5.32a) appears to have been taken in hazy weather conditions and does not illustrate existing wind farm development in the baseline.

We would have preferred the designation ZTV to be in the same format as figures 5.7 and 5.8. We note the cumulative assessment has not been supported by cumulative ZTVs including operational, consented or in-planning development.

# **NatureScot Appraisal of Effects**

We have focussed our assessment of effects on the areas of the National Park which we consider would be most affected by the proposal - the northwest rim of the Park (Study Area 1) and the northwestern area of the Cairngorms massif (Study Area 2). The relevant SLQs for these study areas are described and assessed below.

## Study Area 1: Rim of the Park

This linear study area follows the broad rim of hills that form the north and northwest boundary of the Park. It encompasses the hills within LCT 221 on either side of the Slochd, between Cairn Glaschoire (659m AOD) and Carn nam Bain-tighearna (634m AOD) in the Strathdearn Hills to the east. And from the area of Kinveachy forest to Carn Leacan Sleamhuinn (642m AOD) in the Monadhliaths.

### SLQ 28. Wildness

"Other areas of the Park are less remote, but the preponderance of near natural vegetation, together with distinctive wildlife and the general lack of development, can still give a perception of the dominance of nature. This includes the managed grouse moors, and the ancient, managed woods and plantations." SLQ 28

Ascending the Strathdearn Hills, the cultivated fields and settlements of Strath Spey are left behind and a sense of wildness comes to the fore. As described in the assessment from Carn Glas-choire (VP15), "the character of the landscape is one of sparsely inhabited wilderness, marked by a general absence of built development, reinforcing its sense of naturalness and remoteness. In the far distance on the horizon, a very faint line of turbines is just discernible, with the Farr and Glen Kyllachy turbines. However, these are seen at such a distance that their visual influence is limited and does

<sup>&</sup>lt;sup>4</sup> Appendix 5.4 Figure 2

<sup>&</sup>lt;sup>5</sup> Appendix 5.4: Visible Aviation Lighting Assessment Section 5.1 Baseline Conditions

not alter the perception of the foreground and middle ground landscapes, which remain largely free from overt human intervention."6. Described from Carn nam Bain-tighearna further to the west (VP 13), "The setting is peaceful and undeveloped, reinforcing its perception as part of a wild, upland character area. (...) In addition to the A9, the turbines at Glen Kyllachy and Farr appear on the horizon in the distance. Overall, the baseline is defined by a strong sense of elevation, openness, and landscape continuity, with high perceptual qualities linked to the area's remoteness and naturalistic land cover."<sup>7</sup>. Existing wind farm Tom nan Clach is sited to the north of the Strathdearn Hills however, it is partially screened by landform and at 125m to blade tip it appears as a relatively compact feature in the wider moorland landscape. Overall, there is an overarching dominance of nature in this large-scale landscape and a moderately high perception of remoteness, the Wildness SLQ is well expressed.

The Proposed Development would be seen partially in front of and extending to the south of the operational wind developments Farr (100m to blade tip) and Glen Kyllachy (110m to blade tip) where visible from the Strathdearn Hills. Whilst it is to be expected that the proposed turbines would appear larger than the existing wind development, due to their position in front of Farr and Kyllachy, from VP 138 and VP 159 they appear substantially larger and closer, bringing wind development into the middle distance views from the Strathdearn Hills and, eroding the current dominance of nature by creating an obvious man-made focal point in views along the edge of the Park.

The southern part of the study area extends approximately 8km north from Carn Leacan Sleamhuinn to the area of Kinveachy Forest. Bordered by the Monadhliath Wild Land Area (WLA 20) to the west, this area possesses a strong sense of openness and exposure. The assessment describes the experience from Geal Charn Mor (VP 16<sup>10</sup>) as "a far-reaching upland panorama with a distinctly wild and expansive character" noting that "The turbines at Glen Kyllachy and Farr are seen in the distance, with topography screening parts of these developments."11. We consider the effect from the Kinveachy forest area would be similar to those described above, with the proposal appearing much larger and closer than the existing Farr and Glen Kyllachy turbines and resulting in significant adverse effects on the Wildness SLQ. These effects would reduce across the hills towards the southern end of the study area, as with increasing distance the proposal would form a less prominent change to the uplands and relate more cohesively with the existing pattern of development. We note however that the proposed layout could benefit from re-siting or omitting turbines to reduce stacking as illustrated from VP 16.

As daylight fades the key characteristics which underpin the Wildness SLQ change altering the baseline. Some characteristics such as the naturalness of vegetation, are weakened and ultimately no longer present as they rely on noting the differentiation between land uses which is challenging as light fades. Other characteristics are strengthened, such as the apparent lack of development due to features such as hill tracks and existing unlit wind developments becoming increasingly less visible. The strength of this SLQ would increase with the reduction in natural light as features which currently weaken it, such as (unlit) wind farms, are no longer noticeable and the susceptibility of the SLQ to this proposal would heighten. This quality is well expressed and susceptible to change along the eastern Monadhliath at the edge of the Park and the Strathdearn Hills.

<sup>&</sup>lt;sup>6</sup> EIA Chapter 5- Appendix 5.2 - Viewpoint Assessment, Page 28

<sup>&</sup>lt;sup>7</sup> EIA Chapter 5- Appendix 5.2 - Viewpoint Assessment, Page 24

<sup>&</sup>lt;sup>8</sup> Volume 2b - Chapter 5 - Figure 5.25 - VP13 - Carn nam Bain-tighearna (A5573500) - View 
<sup>9</sup> Volume 2b - Chapter 5 - Figure 5.27 - VP15 - Carn Glas -choire (A5573504) - View

<sup>&</sup>lt;sup>10</sup> Volume 2b - Chapter 5 - Figure 5.28 - VP16 - Geal Charn Mor (A5573508) - View

<sup>&</sup>lt;sup>11</sup> EIA Chapter 5- Appendix 5.2 - Viewpoint Assessment, Page 30

The lighting ZTV<sup>12</sup> indicates a swathe of visibility of up to 13 nacelle lights along the rim of the Park in the Monadhliath out to approximately 16km, and along parts of the Strathdearn Hills to approximately 12km. There would also be some visibility of up to 13 tower lights across these areas. The introduction of aviation lighting would reduce the current sense of tranquillity and sense of wildness from these parts of the Park to a degree that is considered significant.

We note that a reduced lighting scheme has been submitted for approval by the CAA, proposing a reduction of lit hubs to 6, and removing lighting on all towers. With reference to the Mitigated Nacelle Lighting ZTV<sup>13</sup>, we note that with the proposed mitigation effects would be somewhat less extensive but would remain significant on SLQ 28.

There would be significant daytime and night-time effects on the Wildness SLQ from the Monadhliath and Strathdearn Hills.

#### SLQ 32. Dark skies

"At night, even the complete absence of colour, a pitch black sky bespeckled only with the light of the stars, is a distinctive feature as dark skies become increasingly rare in Britain." SLQ 32

Where skies remain dark, with only natural ambient lighting from the moon and stars, and uninterrupted by artificial light this 'dark skies' characteristic can instil a sense of calm, spirituality and sense of awe. There is a clear separation between land and sky. This SLQ can be found to varying degrees across the study area (not just in the Cairngorms Dark Skies Park).

Ascertaining how well expressed this quality is, in order to establish a baseline must be informed by field assessment. We have undertaken field work both during the hours of daylight and after dusk to inform our understanding of the baseline landscape character. As light fades, the strength of this quality increases particularly where light sources are only notable from A95 and A9 corridors, occasional lights from scattered buildings and intermittent headlights. As light from settlements are contained to low lying areas Strathspey, the Monadhliath and Strathdearn Hills have a very dark baseline and the SLQ Dark skies is well expressed across these hills. None of the existing or consented wind farms within 20 km of the Proposed Development have visible aviation warning lights and there are no other existing or consented wind farms with lit turbines within the host LCT. Whilst the consented Ourack wind farm (approximately 23km to the northeast) will introduce turbine lighting to some elevated locations within the Park, these would have a limited effect on the experience of dark skies within the study area. This quality is well expressed across the study area and susceptible to change.

The lighting ZTV<sup>14</sup> indicates a swathe of visibility of up to 13 nacelle lights along the rim of the Park in the Monadhliath out to approximately 16km, and along parts of the Strathdearn Hills to approximately 12km. There would also be some visibility of up to 13 tower lights across these areas. The Proposed Development would add a new layer of obvious bright red lights to the uplands incongruous with the current night-time baseline and would erode the underpinning characteristics of the SLQ 'the complete absence of colour' and 'a pitch black sky bespeckled only with the light of the stars'. There would be significant adverse effects on the *Dark skies* SLQ across the study area.

We note that a reduced lighting scheme has been submitted for approval by the CAA, proposing a reduction of lit hubs to 6, and removing lighting on all towers. **With reference to the Mitigated** 

<sup>&</sup>lt;sup>12</sup> Appendix 5.4 - Visible Aviation Lighting Assessment- Figure 3

<sup>&</sup>lt;sup>13</sup> Appendix 5.4 - Visible Aviation Lighting Assessment - Figure 6

<sup>&</sup>lt;sup>14</sup> Appendix 5.4 - Visible Aviation Lighting Assessment- Figure 3

Nacelle Lighting ZTV<sup>15</sup>, we note that with the proposed mitigation effects would be somewhat less extensive but would remain significant.

### Study Area 2: Northwestern flank of Cairngorms Massif

This study area includes the northwestern mountains of the Cairngorms central Massif; Cairn Gorm, Braeriach, Sgor Goaith, Bynack More, and the hills that rise between these summits and from Strathspey; Meall a' Bhuachaille-Craiggowrie, Castle Hill, Carn Eilrig, Creag Dhubh and Carn Bheadhair. The Lairig Ghru pass, Braeriach and Cairn Gorm Northern Corries also lie within the study area.

# SLQ 30. Grand panoramas and framed views

"...Views range from broad pastoral straths of green, over rolling hills of brown heather moor, with woodland at lower levels; and far, distant exposed, wild mountain terrain.

The assemblage of landscape features is aesthetically pleasing with views often framed by vegetation and landform, and the eye led to an inviting arrangement of hill slopes and glens" SLQ 30

The Cairngorms central massif encompasses some of Scotland's highest peaks. On the north-western reaches, inward views look over dramatic jagged granite forms, and outward views extend over Strathspey beyond the Monadhliath and Strathdearn Hills to the far reaches of the north-east coast and western highlands exemplifying the *Grand panoramas and framed views SLQ*. Around this area, journeys via corries, valleys and ridges offer changing views north and west sometimes unfolding with height gained or framed by landform. The spectacular gash or 'glacial trough' of the Lairig Ghru is a sheer, narrow mountain pass that splits Braeriach and the Cairntoul from Cairn Gorm and Ben Macdui. Its steep sides channel views in a north-west/south-east direction, severely limiting sight of outer landscapes. On slopes below the peaks (below 800m approximately) far reaching views are not yet available, and the dramatic interior of the massif is not yet revealed, focussing attention on the immediate Strathspey landscape instead; this view is framed from the north-west facing corries of Braeriach and Cairn Gorm where towering walls form a great amphitheatre overlooking Strathspey. *SLQ 30. Grand panoramas and framed views* is strongly expressed across the study area.

Beyond the Park boundary (which is not discernible from the study area) the open rolling moorland continues west into the Monadhliath and north into Dava Moor, where some existing wind farms are sited. However, due to their scale (all <125m) and distance from the Cairngorms massif (beyond 25km), do not generally appear as prominent features, and do not significantly detract from the experience of this SLQ. The Proposed Development would be viewed from the study area at distances of over 25km (with the exception of Craiggowrie) and would appear in relation to the existing Farr and Glen Kyllachy wind farms. This would result in a more concentrated cluster of turbines and from some areas would sightly increase the horizontal spread of development in the northern Monadliath (VP 20<sup>16</sup>). Though the proposed turbines would be larger than the existing developments, this would not represent a magnitude of change that would be considered to significantly detract from the experience of the *Grand Panoramas and framed views* SLQ.

<sup>&</sup>lt;sup>15</sup> Appendix 5.4 - Visible Aviation Lighting Assessment - Figure 6

<sup>&</sup>lt;sup>16</sup> Volume 2b - Chapter 5 - Figure 5.32 - VP20 - Cairn Gorm (A5573510) - View Viewpoint 20 is the only viewpoint within Study Area 2. Figure 5.32a baseline photograph appears to have been taken in hazy weather conditions and does not illustrate existing wind farm development in the baseline. From our experience on site, and with reference to baseline photography from Cairn Gorm for wind farm application Clune, there are a number of wind farms visible from Cairn Gorm on a clear day.

We have recommended a reduced turbine height to mitigate significant effects on SLQ 32 Dark skies, and SLQ 28 Wildness. Although we do not consider the effects on SLQ 30 Grand panoramas and framed views to be significant, a reduced turbine height could minimise adverse effects on this SLQ and result in a more successful design fit with existing wind development.

#### **Cumulative effects**

We largely agree with the cumulative effects on the CNP reported that where the proposed development would be seen from within the Park the proposed turbines would be seen in relation to the operational cluster of Farr and Glen Kyllachy, largely fitting with the pattern of development across the Monadhliath. Albeit being notably larger than the operational turbines.

There are a number of in-planning wind farm development proposals around the north-west boundary of the CNP which include turbines over 150m and, if consented, would require aviation lighting. With the increasing likelihood of taller and lit turbines in close proximity to the Park, there is potential for future significant adverse night-time effects on the Dark Skies SLQ which could affect the overall integrity of this designation.

### Mitigation

To reduce the anticipated significant adverse daytime and night-time effects on SLQ 28 Wildness and SLQ 32 Dark skies of the Cairngorms National Park, we advise that the applicant explore turbines under 150 m to blade tip height to remove the need for aviation lighting.

Should there be any change to the Proposed Development regarding its design, layout or mitigation, we may wish to revisit our advice and request that we are consulted prior to any consent.

#### Conclusion

The Proposed Development would result in significant adverse effects on SLQ 28 *Wildness* during daytime and extending into effects after dark. As a result of the proposed aviation lighting<sup>17</sup> there would be significant adverse effects on SLQ 32 *Dark skies*.

It is our view that the collective significance of the effects on the SLQs of the National Park are not of a degree that they damage the unity or soundness of the National Park and therefore they would not affect its integrity.

We consider significant effects could be mitigated through a reduction in turbine height, removing the need for aviation lighting.

<sup>&</sup>lt;sup>17</sup> Both the fully lit scheme and the mitigated scenario of 6 lit hubs.