

Carn Fearna Wind Farm

Design Statement

April 2025



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The design process for the Proposed Development has led to an Application Layout of nine turbines with mixed blade tip heights of 180m (four turbines) and 200m (five turbines). This layout was developed from the 14-turbine Scoping Layout (all turbines with a 200m blade tip height) through a series of design iterations that have addressed and mitigated issues that arose in relation to the Scoping Layout. The Application Layout has been developed on the basis of a thorough understanding and appreciation of the environmental and technical investigations carried out as part of the EIA process, including landscape and visual considerations, and in response to feedback from the community and consultees. Consequently, as well as satisfying environmental and technical requirements, the Application Layout of the Proposed Development is considered to be acceptable in landscape and visual terms, creating a balanced and compact arrangement of turbines when seen in key sensitive views, including those from residential properties. Importantly, the setting of the site in the Rounded Rocky Hills - Ross & Cromarty Landscape Character Type (LCT) provides an appropriate receiving environment that can accommodate the Proposed Development in both landscape and visual terms.

1.1 Introduction

1.1.1 Carn Fearna Wind Farm Limited (the Applicant), a wholly owned subsidiary of Statkraft UK Limited, is applying to the Scottish Government for consent to build and operate Carn Fearna Wind Farm (the Proposed Development). The nearest turbine in the Proposed Development is located approximately 2.8 kilometres (km) to the east of the village of Garve and 6 km to the north of Contin in The Highland Council (THC) local authority area. Figure 1 shows the Proposed Development and a 45 km radius study area.

1.1.2 The Application Layout (also referred to as Layout D – Design Freeze) of the Proposed Development consists of nine wind turbines and associated infrastructure including a substation and compound, turbine foundations, crane hardstands, access tracks, underground cabling, temporary construction compounds, and search areas for temporary borrow pits.

1.1.3 A Scoping Report was submitted to the Energy Consents Unit (ECU) in July 2023 and since then, the Applicant and consultants acting on their behalf have engaged with a range of consultees and members of the public in order to understand their response to the proposals. Landscape architects at SLR Consulting, working on behalf of the Applicant, have made a number of site visits and have provided advice with regard to the turbine and infrastructure layout of the wind farm.

1.1.4 The layout of wind turbines at the site (Figure 2) has evolved through a process of iterative design and has considered the potential impacts on landscape and visual receptors in the surrounding area at all stages of the process, in addition to environmental constraints. Overall generation capacity, wind resource and operational requirements of the Proposed Development have also, necessarily, been a key consideration in design. Working within these technical and operational constraints, the design process of the Proposed Development has sought to produce a layout that avoids or reduces impacts on key environmental receptors balanced with the need to avoid increasing significant effects on other receptors or generating significant effects where previously there were none.

1.1.5 The purpose of this Design Statement (DS) is to outline the considerations and constraints that have led to the Application Layout (Layout D – Design Freeze) of the Proposed Development and describe the mitigation that has been incorporated into the layout design. The DS focuses on landscape and visual matters but also makes reference to other relevant environmental disciplines. The DS is a supporting document to the Carn Fearna Wind Farm Environmental Impact Assessment Report (EIA Report) and accompanies the application for the Carn Fearna Wind Farm, which is made under Section 36 of the Electricity Act 1989.



Figure 1: Location Plan with 45km Radius

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Figure 2: Application Layout

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2.1 Planning Policy Framework

2.1.1 The planning policy framework is set out by way of national and local planning policy and guidance as contained within the statutory Development Plan covering the site. This consists of:

- National Planning Framework 4 (NPF4) (2023);
- The Highland wide Local Development Plan (HwLDP) (adopted 2012); and
- Relevant supplementary guidance, in particular the Onshore Wind Energy Supplementary Guidance (OWESG) (adopted 2016) and Addendum Supplementary Guidance: Part 2b (adopted 2017).

2.1.2 In addition, it should be noted that whilst the Inner Moray Firth LDP2 which was adopted in 2024 forms part of the statutory Development Plan, it does not contain any design policies of relevance for the Proposed Development. The Moray Firth LDP2 does however provide a detailed illustration of the boundaries of Special Landscape Areas (SLAs).

2.1.3 A detailed Planning Statement has been submitted with the Section 36 application and that should be referred to for its detail in relation to the policy framework.

2.1.4 However, for the purposes of the design of the Proposed Development, whilst there are numerous planning policies of relevance covering various environmental and technical topics, key policy provisions in relation to landscape design considerations include in particular NPF4 Policy 11 (Energy). This policy sets out that, for wind farms, project design and mitigation will have to demonstrate how a range of impacts are addressed including *"significant landscape and visual impacts, recognising that such impacts are to be expected for some forms of renewable energy. Where impacts are localised and/or appropriate design mitigation has been applied, they will generally be considered to be acceptable."*

2.1.5 The various other considerations within Policy 11 include matters such as impacts on road traffic, hydrology, the historic environment, biodiversity, aviation and defence interests.

2.1.6 In terms of the HwLDP, the various policy considerations within it are all encompassed within the broad policy scope of NPF4.

2.1.7 From a design perspective, the other important planning policy document is the OWESG, and whilst the content of the document in relation to the spatial framework approach to wind energy can be disregarded now because it is based upon the superseded national planning policy approach to wind energy development that was contained within Scottish Planning Policy (SPP), the OWESG does contain relevant considerations in relation to landscape and visual effects and scheme design. It should be noted that the criteria within the document do not set absolute requirements, but rather they seek to ensure that developers are aware of key constraints to development. It includes criteria as follows:

- Criterion 1: Relationship between settlement/key locations and wider landscape respected;
- Criterion 2: Key gateway locations and routes are respected;
- Criterion 3: Valued natural and cultural landmarks are respected;
- Criterion 4: The amenity of key recreational routes and ways is respected;
- Criterion 5: The amenity of transport routes is respected;
- Criterion 6: The existing pattern of wind energy development is respected;
- Criterion 7: The need for separation between developments and/or clusters is respected;
- Criterion 8: The perception of landscape, scale and distance is respected;
- Criterion 9: Landscape setting of nearby wind energy developments is respected; and
- Criterion 10: Distinctiveness of landscape character is respected.

3.1 Landscape Character

3.1.1 The great majority of the Proposed Development, including all of the turbines, lies within the Rounded Rocky Hills - Ross & Cromarty LCT (referred to hereafter as Rounded Rocky Hills LCT). This LCT forms a transition between rounded hills and mountains that lie to the north and the more rugged mountains to the south, and consists of hills with a rounded profile that are of smaller scale and more closely grouped than adjoining rounded mountain and hill types. The ground cover of the site, and much of the interior area of Rounded Rocky Hills LCT, is heather moorland and rough grassland.

3.1.2 The elevation of Rounded Rocky Hills LCT rises considerably from west to east. To the west, it abuts the Strath LCT of Strath Garve, with a low point of approximately 75 m AOD, from where it rises steeply up to the local high points of Meall Ruighe an Fhirich (with its distinctive masts) and Carn Fearna (both 432 m AOD). The ground then drops again, particularly in the southern part of the LCT, before rising again further to the east up to the high points of Carn Gorm (556 m AOD) and Meall Odhar Beag (596 m AOD), which broadly demarcate the north-eastern edge of the LCT.

3.1.3 The central part of the LCT, between these two sets of high points, forms an enclosed plateau or 'shelf', contained on each side, and it is within this plateau that the Proposed Development is located. Within the dished landform of the plateau are several lochans and a number of minor watercourses. LVIA Viewpoint 4 (Little Wyvis) is located just within the Rounded Mountain Massif LCT, close to the northern edge of the Rounded Rocky Hills LCT and provides a useful overview of the landscape of the site. The plateau shelf of the site is clearly visible, as is the high ground of Meall Ruighe an Fhirich and Carn Fearna which encloses the western edge of the site.

3.1.4 To the north and north-east of the Rounded Rocky Hills LCT, landform

 Proposed Turbine Location OS Terrain 50 DTM Elevation (m, OD) 1181.0 -2.2 Inchbae Garbai Carn na Forest Dubh Choille Garbat lie Forest An Caba Winis riemoillie Strathgarve Gorstan Forest Cam

Tarvie

Torrachilt

Garve

Station

tle Scatwell

Figure 3: Site Landform

Bott

Achternee

Castle Leod



BASELINE PHOTOGRAPH: LVIA Viewpoint 4 (Little Wyvis)

90° (cylindrical projection)

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Figure 4: View from Little Wyvis View southwards across the site from Little Wyvis (LVIA Viewpoint 4), showing the plateau 'shelf' of the site and its enclosure by higher ground to the west and east



 Proposed Turbine Location
 NatureScot (2019) National Landscape Character Assessment 329. Rounded Mountain Massif
 330. Rounded Hills and Moorland Slopes - Ross & Cromarty
 331. Rounded Rocky Hills - Ross & Cromarty
 335. Wooded Glens and Rocky Moorland
 340. Strath - Ross & Cromarty
 341. Forest Edge Farming

Figure 5: Landscape Character

rises again into Rounded Mountain Massif LCT, the south-western edge of which is formed by the high points of Little Wyvis (763 m AOD) and Cnoc nan Each Mhor (606 m AOD). The Rounded Mountain Massif LCT covers the Ben Wyvis massif and is an extensive area of vast, rounded landforms, spanning approximately 16 km from south-west to north-east and rising to a high point of Glas Leathad Mor (1046 m AOD). While Glas Leathad Mor is the high point of the LCT and forms something of a focal point, it is only one part of the distinctive mountain landscape of the Rounded Mountain Massif LCT, which also includes the dramatic landform of the Bealach Mor, enclosed by An Cabar and Tom na Caillich, and the deeply incised Loch Glass, enclosed by Glas Leathad Beag and Meall Mor.

3.1.5 To the west of the Rounded Rocky Hills LCT is the very different but also distinctive low-lying Strath LCT that covers the enclosed landscape of Strath Garve. The eastern side of the strath is notably contained by the steeply rising western edge of Rounded Rocky Hills LCT, specifically by the high points of Meall Ruighe an Fhirich and Carn Fearna, which greatly restrict views up into the Rounded Mountain Massif LCT from the strath.

3.1.6 Overall, the landscape of the Rounded Rocky Hills LCT is of moderate-scale and upland in character, and the area of the site itself has simple landform and landscape patterns. Rounded Rocky Hills LCT is not in itself a dramatic or distinctive landscape, but derives importance from a transitional role between the distinctive Rounded Mountain Massif and Strath LCTs and its provision of a peripheral hill landscape to Rounded Mountain Massif LCT.

3.2 Landscape Planning Designations

3.2.1 There are no national scenic designations (e.g. National Scenic Areas (NSA)) within a 20 km radius of the site. However, the north-eastern edge of the site, including three turbines and associated infrastructure, lies within the local designation of the Ben Wyvis Special Landscape Area (SLA), as designated by THC. The Ben Wyvis SLA covers the rounded summits and foothills of Ben Wyvis, extending from the southern shores of Loch Glass in the north-east to Little Wyvis in the south-west (see Figure 6).

3.2.2 The Ben Wyvis SLA lies almost entirely within the Rounded Mountain Massif LCT. There is just a very small area of Rounded Rocky Hills LCT at its south-western tip, where it overlaps with the site, and a very small area of Rounded Hills and Moorland Slopes - Ross & Cromarty LCT at its north-western edge.

3.2.3 A detailed description of the SLA is provided in 'Assessment of Highland Special Landscape Areas' (THC in partnership with SNH, 2011), and this describes the Special Landscape Quality (SLQ) for which the SLA is valued.

3.2.4 The Ben Wyvis SLA has one SLQ - "Dominant Landmark and Uninterrupted Panoramas" - which is described in five sub-sections (emphasis added):

- "Standing well above a surrounding range of much lower foothills, Ben Wyvis has a commanding presence with its broad and fairly level summit ridge stretching more than 7kms from Garbat to Loch Glass. It is a dominant landmark feature from many locations, most notably from the south and northwest, including Inverness and the Black Isle. Little Wyvis also appears prominent at a local level.
- The summit of Ben Wyvis provides some of the most extensive panoramas in Scotland. These include the wild and dramatic mountain profiles of Wester Ross and Sutherland to the north and west, the indented coastline and settled, fertile lowlands of Easter Ross and the Black Isle to the east, and the distant summits of the Cairngorms and Ben Nevis to the south.
- Views of the top and the overall profile of the mountain are limited from the immediate surroundings, due to its massive scale and convex upper slopes. The form of the mountain is most clearly appreciated when viewed from a distance, for example from Inverness and the Black Isle.
- Ben Wyvis is a popular Munro due in part to its proximity to Inverness but also because it is a relatively straightforward walk with a broad, easy ridge from which the panoramic views can be appreciated. It is also popular for cross-country skiing.
- With the exception of Wyvis Lodge, the odd shieling hut, and the very occasional boundary wall and rough track there is virtually no visible evidence of human occupation in the SLA."

3.2.5 The effects of the Proposed Development on the SLA have been considered throughout the design process, and embedded mitigation has ensured that effects are reduced as far as possible.



3.3 Viewpoints

3.3.1 The assessment of the landscape and visual effects of the Proposed Development is informed by a series of 33 viewpoints that represent visibility of the Proposed Development from a range of receptors, including LCTs, landscape planning designations, the Wild Land Area (WLA), and principal visual receptors including settlements, routes, and walking destinations. The viewpoints are listed in Table 1 below and show on Figure 7.

3.3.2 A number of the viewpoints have been chosen as 'design viewpoints'; that is, locations from where the appearance of the Proposed Development has been considered throughout the design process. These viewpoints are used to monitor the appearance of the Proposed Development throughout the design process and measure the appearance of layout iterations. The design viewpoints are shaded in green in Table 1.

No.	Viewpoint Name	Grid Reference / Distance to nearest turbine	Comment	No.	Viewpoint Name	Grid Reference / Distance to nearest turbine	Comment
1	Garve	239475, 861514	View from the A835 (North Coast 500 (NC500)) as it passes through Garve, located near the bus	18	Milton of Leys Primary School	269594, 842174 32.75 km	Viewpoint included to provide a long, open view from the elevated southern part of Inverness.
		2.86 km	travelling on the Kyle of Lochalsh railway line.	19	Culloden Battlefield	274231, 844814 35.18 km	Viewpoint located on the path route at Culloden Battlefield, historic location and visitor attraction.
2	Gorstan	3.42 km	View from the residential area of Gorstan.	20	Simpsons Garden Centre	269561, 844146	Viewpoint included to provide a long, open view from the elevated south-eastern part of Inverness.
3	Tarvie	242340, 858473 3.35 km	View from the residential area of Tarvie, located on elevated ground to the south of the A835 at the southern end of Loch Garve.	21	A9, Black Isle	259049, 858071 16 km	Viewpoint located in a layby on the A9 as it crosses the Black Isle.
4	Little Wyvis	242946, 864425 980 m	Viewpoint located at the high point of Little Wyvis, within the Ben Wyvis SLA and on the edge of WLA 29 Rhiddoroch - Beinn Dearg - Ben Wyvis.	22	A835/B9169 2	256018, 853765 14.96 km	Viewpoint located at the crossroads between the A835(T) and the B9169. This viewpoint represents the long, open views towards the Ben Wyvis massif that are available from the area to the south.
5	An Cabar	245044, 866573 3 97 km	Viewpoint located at the intermediate summit of Ben Wyvis. Within the Ben Wyvis SLA and WLA				
	Glas Leathad	246293, 868374	Viewpoint located at the highest summit of Ben	23	A835, Contin	245850, 855850 6.59 km	Viewpoint located on the A835 (NC500) in the village of Contin.
6	Mor (Ben Wyvis)	6.15 km	Rhiddoroch - Beinn Dearg - Ben Wyvis.	24	A835, south end of Loch Garve	242500, 858973 2.83 km	Viewpoint located in a layby adjacent to the A835 (NC500) at the southern end of Loch Garve.
7	View Rock	245953, 857344 5.60 km	view from viewpoint near strathpetter. Theoretical visibility of the Proposed Development currently screened by forestry.	25	A835, Loch Glascarnoch	231283, 872275 14.10 km	Viewpoint on the A835 as it passes Loch Glascarnoch.
8	Loch Kinellan	246832, 857769 5.37 km	View from a core path at Kinellan, a popular walking area near Strathpeffer.	26	A832, Strath Bran	222005, 860859 20.13 km	Viewpoint on the A832 (NC500) as it passes through Strath Bran.
9	A834, Jamestown	247728, 856757 6.72 km	View from the A834 near the settlement of Jamestown.	07	A832, Lochluichart	232957, 863116 9.06 km	Viewpoint in a layby beside the A832 (NC500) in the hamlet of Lochluichart. A similar but less elevated view will be gained by local residents and people travelling on the Kyle of Lochalsh railway line.
10	Marybank	247940, 853746 9.37 km	Viewpoint close to the Fairburn Memorial Hall in Marybank.	27			
11	Knockfarrel	250535, 858548 7.81 km	Viewpoint with a panoramic view and located on a core path.	28	A832 near Torriegorrie	237292, 863152 4.72 km	Viewpoint located on the A832 (NC500) to the west of the junction with the A835(T), north of Garve.
12	Peffery Way at Fodderty Cemetery	251199, 859173 8.17 km	View from the Peffery Way as it passes the elevated southern edge of Fodderty Cemetery.	29	Sgùrr a' Mhuilinn	226468, 855741 17.09 km	One of the Strathconon Corbetts, within the Strathconon, Monar and Mullardoch SLA.
13	Tesco Dingwall	254934, 858891 11.81 km	View from the Tesco car park in Dingwall, included to represent views gained by people in Dingwall.	30	Beinn a' Bha'ach Ard	236057, 843478 19.54 km	Corbett on the northern side of Glen Strathfarrar, within WLA 24 Central Highlands.
14	Culbokie	260284, 859249 16.97 km	View from the Culbokie Inn, included to represent views gained by people in Culbokie.	31	An Coileachan	224177, 868005 18.52 km	Munro within the Fannichs, Beinn Dearg and Glen Calvie SLA and WLA 28 Fisherfield - Letterewe - Fannichs
15	A862, west of Inverness	260468, 846196 23.17 km	Viewpoint on the A862 (NC500 and Moray Firth tourist route) to the west of Inverness.	32	Am Faochagach	230407, 879329 19.78 km 260739, 869751	Munro within the Fannichs, Beinn Dearg and Glen Calvie SLA and WLA 29 Rhiddoroch - Beinn Dearg - Ben Wyvis.
16	Great Glen Way near Ladycairn	256054, 838986 26.21 km	Viewpoint on the Great Glen Way/minor road on the north-western side of Loch Ness.				
17	Inverness Castle	266627, 845053 28.65 km	Viewpoint at Inverness Castle, included to represent views that will be gained by visitors to the castle.	33	monument	18.71 km	Fyrish Monument, on a core path.



Figure 7: Viewpoint Locations with Zone of Theoretical Visibility Diagram

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4.1 Site Selection

4.1.1 The design of the Proposed Development reflects a range of technical, environmental, planning and commercial factors that have been considered from the initial site selection through the design process to the Application Layout of the Proposed Development. In the process of site selection, the Applicant follows a series of key stages of site identification and screening, feasibility studies, initial EIA studies and survey work. A number of factors were considered when selecting the site for the Proposed Development including:

- The presence of a very good wind resource (determined by initial desk based studies);
- The availability of the site for wind energy development;
- The site was subject to a previous onshore wind application, Carn Gorm, in 2014;
- No planning policies that, in principle, preclude wind energy development;
- No internationally or nationally designated sites within the site boundary;
- Suitable ground conditions with limited areas of deep peat;
- Suitable access point from the adjacent A835; and
- Existing tracks on the site which would help minimise the length of new track required.

4.1.2 Overall, the site was considered as a viable option to take forward through the subsequent stages of development.

5.1 Consultation

5.1.1 Consultation with statutory organisations, non-statutory organisations and the general public has taken a number of forms, including pre-application consultation, EIA Scoping, community engagement and design workshop meetings.

5.1.2 Statutory consultees were invited to input to the design process for the Proposed Development. THC major applications pre-application advice was used for the Proposed Development, with a pre-application meeting held with THC in September 2023, followed by a design meeting with THC in March 2024. Feedback from both meetings, along with input from other consultees, such as SEPA in relation to peat and NatureScot in relation to ecological impacts has been incorporated into the design evolution process.

5.1.3 Two rounds of public consultation events have been undertaken for the Proposed Development. The first round, held in November 2023, included exhibitions in Contin, Tarvie, Strathpeffer, and Dingwall. The second round, in May 2024, included exhibitions in Contin, Garve, and Strathpeffer. These events allowed members of the local community to comment on the design proposals. Feedback from the public consultation events was incorporated into the design evolution process where possible and is presented in the Pre-Application Consultation (PAC) Report accompanying this application. Further details of the public consultation process can be found in Chapter 6 of the EIA Report.

Plate 1: Visitors at Contin Community Hall, November 2023

Plate 2: Project team members demonstrating the 3D modelling systems on display at Contin, November 2023

Plate 3: The exhibition set-up at Garve Public Hall, May 2024

6.1 Layout Considerations and Constraints

6.1.1 A number of specialist technical and environmental surveys have been carried out as part of the EIA process in order to establish existing conditions on and around the site. The constraints arising from these surveys, which provide a baseline of environmental conditions that is used to inform the design process, are summarised below.

- Archaeology and Cultural Heritage: the infrastructure and turbine layout have been designed to avoid direct impacts to archaeology assets identified during the baseline assessment and archaeological blanket walkover where possible. The reduction in the number of turbines to nine from fourteen, and reducing the height of four turbines to 180m in tip height (while five remain 200m) has also lowered the scale of setting impacts on cultural heritage. More detail is provided in Chapter 11 of the EIA Report.
- **Ecology:** the design of the Proposed Development has taken account of:
 - minimising land-take, impacts on deeper peat and the number of watercourse crossings, reducing the loss of moorland habitats and potentially sensitive fish habitats;
 - minimising effects on areas of key habitats;
 - maximisation of use of existing tracks (floating tracks to be used where peat depth >1 m, where appropriate);
 - avoidance of new watercourse crossings as far as possible (with any necessary crossings sensitively designed to allow continued free movement of water and aquatic wildlife);
 - where access track does cross watercourses, where possible, the track has been aligned to cross watercourses at 90 degrees (perpendicular) to direction of flow, to minimise disturbance during works in the vicinity of the watercourse through maximising separation between parts of the access track and watercourses;
 - minimum 50 m buffer from watercourses and waterbodies with exception of some access tracks, with the length of access track within 50 m of such features minimised;
 - minimum 50 m buffer between turbine blade tip and edge habitats (e.g. watercourses, forestry), and from trees/structures that have potential to support roosting bats;
 - avoidance of watercourses supporting water vole with a minimum 10 m buffer between the Proposed Development, and signs of water vole (latrines); and
 - avoidance of badger setts (works to be >30 m from any sett, and high impact works such as blasting at least 100 m from a sett).
 - More detail is provided in Chapter 8 of the EIA Report.

Ornithology: the design of the Proposed Development has taken account of:

- minimum 750 m around black grouse leks and ptarmigan breeding territory from proposed turbines, and typically for all aspects of the Proposed Development including the on-site tracks;
- minimum 100 m (but exceeds 750 m) around barn owl nest site from proposed turbines, and minimum 50 m from the on-site tracks;
- sensitivity, where practicable, to the most suitable golden eagle habitat with turbines offset from upper ridge/peaks in order to reduce potential impacts (e.g. from collision risk or displacement);
- sensitivity to the habitat in the south-west of the site and around Carn Gorn to the east which was most typically used by red kite, with turbines offset from these areas
- avoidance, where practical, of better quality/conditioned moorland/peatland in order to benefit ground-nesting wetland species (e.g. waders) and reduce potential for displacement of these species, with proposed turbines offset from breeding areas of these species at a distance which typically exceeds the documented species disturbance thresholds;
- key habitat features such as woodland that may be used by key ornithological species, with proposed turbines appropriately offset from these features
- appropriate buffering from waterbodies that may be used by wetland species (e.g. greenshank and teal) in order to reduce the potential for displacement to these species.
- More detail is provided in Chapter 9 of the EIA Report.
- Hydrology, Hydrogeology, Geology, Peat and Soils: the design of the Proposed Development has taken into account:
 - areas of deeper peat (> 1m) where technically feasible;
 - minimum 50m buffer around watercourses and waterbodies within the site; and
 - use of existing tracks where possible and minimise the requirement for watercourse crossings.
 - More detail is provided in Chapter 11 of the EIA Report.
- Noise and Vibration: the turbines are located at least 1.7 km from the nearest property and relevant national standards and design guidance have been followed.
 - More detail is provided in Chapter 12 of the EIA Report
- Shadow Flicker: The Proposed Development includes distancing of at least 1,882m from any turbine to most inhabited properties.
 - More detail is provided in Chapter 16 of the EIA Report

7.1 Layout Design Iteration

7.1.1 The design optimisation process has been iterative, with each design involving a review of visualisations from key landscape and visual receptors, consideration of setting impacts on cultural heritage assets, potential noise and visual effects on residential properties, impacts to peat, hydrology, ecology and consideration of the energy generation seeking to maximise wind yield.

7.1.2 Turbine tip heights explored during the design process ranged from 180 m to 220 m, including the use of varied tip heights across the site.

7.1.3 Four key design iterations for the Proposed Development are described below.

7.2 Layout A - Scoping Layout (June 2023): 14 turbines, 200 m to blade tip

7.2.1 This layout took into account initial desk-based observed constraints including ecologically important sites, sites of archaeological and/or cultural heritage importance, residential properties, watercourses and slopes. Desk-based constraints were augmented by the results of field-based survey work. At Scoping, approximately 2 years of ornithological surveys had been undertaken. Further survey work undertaken included phase 1 habitat and National Vegetation Classification (NVC) Survey, initial peat depths surveyed for the Carn Gorm Wind Farm Peat Stability Assessment, and a landscape design visit to identify key receptors.

 Layout A - Scoping Layout (June 2023): 14 turbines, 200 m to blade tip

 Layout C - Design Chill (May 2024): nine turbines, 200 m/180 m to blade tip

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T2

Site Boundary

Proposed Turbine Location (180 m Blade Tip Height) Proposed Turbine Location (200 m Blade Tip Height)

 Layout B - First Exhibition (November 2023); 11 turbines, 200 m to blade tip

 Layout D - Design Freeze (November 2024): nine turbines, 200 m/180 m to blade tip

Figure 8: Key Layout Design Iterations

7.2.2 The turbines in this layout represented the maximum number of turbines that could be incorporated within the initial parameters. The appearance of the Proposed Development and its potential effect on landscape and visual receptors was not taken into consideration.

7.2.3 When the appearance of Layout A - Scoping Layout was reviewed, it became apparent that the distribution of turbines extended widely across the landform of Rounded Rocky Hills LCT and therefore across many views, with notable variations in the ground levels of the turbine bases. The arrangement of turbines also led to an eye-catching and prominent appearance of some turbines.

7.2.4 As a result, a layout review was carried out with the objective of improving the appearance and fit of the Proposed Development in the landscape and visual context. This recommended the following actions:

- redesign of the turbine layout so that it is focussed in the central part of the site, enclosed as a cohesive group within the plateau 'shelf' landform;
- removal of turbines from the northern, western and eastern edges of the site to avoid the placement of turbines on high points and ridges and remove the turbines that were placed outwith the plateau shelf; and
- reduction in the number of turbines to reduce clustering and gapping and ensure that the Proposed Development could be enclosed within the plateau shelf.

7.3 Layout B - First Exhibition (November 2023); 11 turbines, 200 m to blade tip

7.3.1 Implementation of the landscape and visual actions described above in relation to the Scoping Layout led to the removal of three turbines and the redesign of the turbine layout to create Layout B. Landscape and visual factors were a key driver of Layout B (with all other parameters also taken into consideration) and this layout represented a key landscape and visual iteration in the full design process. This layout was presented during an initial round of public and online consultation.

7.3.2 Layout B comprises 11 turbines that are located within the plateau shelf, with the northern, western and eastern turbines being removed. The redesign had the following benefits:

- a reduction in the extent of the Proposed Development across almost all views, including those from Garve, the A835 and A832, walking destinations, and residential properties;
- a reduction in the prominence of turbines on sensitive skylines and ridgelines (e.g. in views from Garve);
- an increase in the distance of the turbines from a number of sensitive visual receptors (e.g. the A835 and the settlement of Garve);
- a reduction in the extent of the Proposed Development within the WLA and removal of all but one turbine from within the Ben Wyvis SLA; and
- the creation of a compact, balanced and cohesive array of turbines.

WIRELINE: LVIA Viewpoint 2 (Garve)

53.5° (planar projection)

Figure 9: Wireline View from Garve showing Layout A – Scoping Layout and Layout B – First Exhibition

7.3.3 In addition to landscape and visual considerations, the following revisions were made in this design iteration:

- three turbines were moved to avoid hydrology and bat buffers;
- three turbines were moved to avoid ground water terrestrial ecosystem (GWDTE) buffers;
- one turbine was moved to avoid a telecommunications link buffer;
- three turbines were moved to less steep ground; and
- several turbines were moved to areas of shallower peat.

7.4 Layout C - Design Chill (May 2024): nine turbines, 200 m/180 m to blade tip

7.4.1 This layout was initiated by revised wake separation parameters, with a 4 (downwind) x 3 (crosswind) rotor diameter separation between turbines rather than the 5 x 3 rotor separation that was used in Layouts A and B. This altered parameter also provided an opportunity for further refinement in the appearance of the turbines in relation to sensitive landscape and visual receptors. As a result of these factors, two turbines were removed, leading to a layout of nine turbines. Layout C was presented at the second round of public exhibitions and in the Gatecheck Report.

7.4.2 The tip height of the turbines was also reviewed at this stage, and four turbines were reduced to a tip height of 180 m, with the other five turbines remaining at 200 m. This reduction in tip height was implemented to reduce impacts on sensitive landscape and visual receptors, and in particular views from the south and west.

7.4.3 In discussions with THC, one turbine (T5) was moved further to the north-east in order to reduce visibility of the turbine base (which was resulting in perceived encroachment) and improve the coherence of the overall design.

7.4.4 The key improvements in the appearance of the Proposed Development in this layout were as follows:

- a further reduction in the horizontal extent of the Proposed Development across almost all views;
- a further reduction in the prominence of turbines on sensitive skylines and ridgelines;
- an increase in the distance of the turbines from a number of sensitive visual receptors; and
- a more compact, balanced and cohesive array of turbines.

This wireline view from the A835 in Garve shows a comparison between Layout B - First Exhibition and Layout C - Design Chill

WIRELINE: LVIA Viewpoint 2 (Garve)

53.5° (planar projection)

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Figure 10: Wireline View from Garve showing Layout B - First Exhibition and Layout C - Design Chill

7.4.5 The movement of turbines, and particularly T5, which was moved north-east after discussion with THC, did result in turbines pushing slightly further into WLA 29 and the Ben Wyvis SLA. However, while this effect can be seen on plan, the actual appearance of the turbines in views from within and towards the WLA and SLA is in fact improved by the turbine movements, and on balance this is considered to be beneficial.

7.5 Layout D - Design Freeze (November 2024): nine turbines, 200 m/180 m to blade tip

7.5.1 Layout D represents the final stage of design iteration, resulting in the Design Freeze Layout, which included finalisation of turbine locations and siting and design of ancillary infrastructure. Landscape and visual issues were considered, with the layout being tested against the LVIA viewpoints, and particularly the design viewpoints, to ensure that effects mitigated in Layout C were not undermined.

7.5.2 The following revisions were made in this design iteration:

- the locations of turbines T1, T6 and T7 were optimised by small movements into areas of shallower peat while taking account of other relevant constraints;
- turbine hardstandings and tracks were re-orientated to avoid areas of deeper peat;
- track orientations were adjusted to minimise cut and fill as far as possible;
- Borrow Pit search area 4 was removed from the layout to avoid impacts on priority peatland;
- the footprint of Borrow Pit search area 2 was adjusted to move it off the top of the nearby hill and to minimise areas of deep peat (>1m) being extracted;
- the substation was located to the south-west of T7 to make use of landform screening and reduce landscape and visual impacts as far as possible;
- Temporary Construction Compound (TCC) 1 at the site entrance was redesigned to minimise cut and fill as far as possible; and
- an additional section of track was added from T9 to link up with track to the north of T5 in order to enable a circular recreational walking
 route to be created on the site.

PHOTOMONTAGE: LVIA Viewpoint 2 (Garve)

Figure 11: Photomontage View from Garve showing Layout D - Design Freeze

53.5° (planar projection)

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8.1 Landscape and Visual Design Considerations

8.1.1 As described above in relation to layout iteration, the landscape and visual effects of the Proposed Development have been a key consideration throughout the design process. Landscape and visual considerations do not generally constitute technical or 'hard' restrictions to development but are rather matters that inform the layout design process. These considerations, many of which relate to the mitigation of effects on key sensitive landscape and visual receptors, are summarised below:

- the relationship of the Proposed Development with the site, in terms of its landform and topography, scale, enclosure, elevation, and complexity;
- the relationship of the Proposed Development with the Ben Wyvis massif, in terms of the Ben Wyvis SLA, landscape character and views towards and from the massif;
- the effect of the Proposed Development on WLA 29;
- effects on views from key sensitive visual receptors;
- effects on the Residential Visual Amenity of residents of the area around the site;
- effects of visible aviation lighting; and
- effects of infrastructure.

8.1.2 These considerations are explored in detail in the following sections of this DS in relation to the Design Freeze layout of the Proposed Development. Comparisons are also drawn between various layout iterations in order to demonstrate how the design considerations have been implemented and illustrations are provided so that the improvements made through the design iteration process can be seen.

PHOTOMONTAGE: LVIA Viewpoint 4 (Little Wyvis)

65.5° (planar projection)

Figure 12: Photomontage View from Little Wyvis showing Layout D – Design Freeze

9.1 The Relationship of the Proposed Development with the Site

9.1.1 It is important that the Proposed Development achieves a good fit with the site in terms of the scale, elevation, enclosure and complexity of the landform, and the patterns of the landscape such as watercourses, field boundaries, and woodland. The following factors ensure that Layout D – Design Freeze - is successfully accommodated on the site:

- the turbines are contained within the plateau shelf that is enclosed by the high ground of Meall Ruighe an Fhirich and Carn Fearna to the west and Carn Gorm and Meall Odhar Beag to the east;
- the Proposed Development has a **compact footprint**, with turbines spaced in a double row across the site;
- this footprint reflects the landform of the site, following the curve of the slope from north-west to south-east;
- the site is characterised by large-scale, simple landform with no eye-catching landmark features. This prevents the occurrence of scale comparisons between the turbines and landform and avoids detraction from any important on-site features;
- the topography and landscape patterns on the site are also large-scale and simple, with no complex patterns of, for example, woodland or field boundaries;
- uniform moorland ground cover across the site emphasises the sense of cohesion; and
- the avoidance of steep slopes and ridgelines in turbine placement prevents the perception of instability that can arise from 'perched' turbines.

9.1.2 The layout iteration from Layout A - Scoping Layout to Layout D - Design Freeze has been highly beneficial in the mitigation of effects on the landscape of the site, for the following reasons:

- a reduction in the area of landscape affected by the Final Application Layout, so that the physical effects on landscape elements of ground cover are considerably lessened;
- a reduction in the variation in turbine base elevations; in Layout A - Scoping Layout the base elevations ranged from 333 m to 544 m, a variation of 211 m, whereas in Layout D - Design Freeze, the base elevations range from 400 m to 446 m, a variation of 46 m; and
- reduction in the encroachment of turbines beyond containing landform by the removal of the western and eastern turbines from Layout A -Scoping Layout, where turbines extended beyond logical ridgelines.

Figure 13: Layout A - Scoping Layout compared with Layout D - Design Freeze

10.1 Landscape and Visual Design Considerations

10.1.1 The Proposed Development is located to the south-west of the Ben Wyvis massif. The Ben Wyvis massif covers the vast, rounded mountain landform of Ben Wyvis and its smaller foothills to the east and west. While the massif is formed by a number of complex landforms, it can be described in simple terms as having a centrepoint formed by the long 'whaleback' ridge that runs between An Cabar in the west and Glas Leathad Mor in the east, with outlying shoulders formed by the smaller but distinctive landforms of Little Wyvis and Glas Leathad Beag to the west and east respectively. It is this distinctive skyline that is immediately recognisable on the approach from the south.

10.1.2 Other distinctive landforms in the massif include the summit of Tom a Choinnich, Tom na Caillich, and the deeply incised Bealach Mor, which passes between An Cabar and Tom na Caillich. These features are generally more apparent in views from the north and north-west, as they are largely screened by higher ground in views from the south.

10.1.3 While the Ben Wyvis massif lies within both the Rounded Mountain Massif LCT and the Ben Wyvis SLA, it does not follow the same boundaries as these features and there are marked differences in extents. This is discussed further below.

BASELINE PHOTOGRAPH: LVIA Viewpoint 22 (A835/B9169 Crossroads) Extract from 90° baseline image (cylindrical projection)

Figure 14: The Landform of the Ben Wyvis Massif seen from the South, on the A835 (Viewpoint 22)

BASELINE PHOTOGRAPH: LVIA Viewpoint 25 (A835, Loch Glascarnoch) Extract from 90° baseline image (cylindrical projection)

Figure 15: The Landform of the Ben Wyvis Massif seen from the North-West, on the A835 (Viewpoint 25)

10.2 Landscape Character of the Ben Wyvis Massif

10.2.1 The Ben Wyvis massif lies within the Rounded Mountain Massif LCT and displays the typical landform of this LCT, which is (emphasis added):

- "The Rounded Mountain Massif...consists of the high, core mountain groups which sit within a broad belt of lower, smooth rounded hills, moorland slopes and straths.
- High, broad-based, smooth sided, lobed mountains found in discrete groups set within, and sweeping down to, smooth, lower hills and high level straths and u-shaped valleys, giving a sense of grandeur.
- Well-defined summits with either a rounded or angular profile. Often both occur on the same summit where rounded tops have been sculpted by glacial activity into corries and cliff faces."

10.2.2 However, as can be seen on Figure 16, the Ben Wyvis massif occupies only a part of the unit of Rounded Mountain Massif LCT within which it lies, and the Rounded Mountain Massif LCT extends considerably further to the north and north-east than the massif. Here, the LCT extends beyond the massif to take in Loch Glass and the high ground that rises to the north of the loch. While the landform and landscape of this north-eastern area is consistent with the Rounded Mountain Massif LCT, it is not part of the distinctive form that distinguishes the Ben Wyvis massif and makes its skyline instantly recognisable.

10.2.3 The Proposed Development turbines lie within the Rounded Rocky Hills LCT, which is adjacent to the Rounded Mountain Massif LCT, as shown on Figure 16.

Figure 16: The Landform and Landscape Character of the Ben Wyvis Massif

Proposed Turbine Location
 Landscape Character Type Boundary
 OS Terrain 50 DTM
 Elevation (m, OD)
 1181.0
 -2.2

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10.2.4 The transition between the Rounded Rocky Hills LCT and Rounded Mountain Massif LCT is apparent in views towards the site and Ben Wyvis, with the Rounded Rocky Hills LCT appearing as a more rugged, enclosed landscape that lacks the massive, rounded grandeur of the Rounded Mountain Massif LCT.

10.2.5 This can be seen in Figure 17, which shows the approximate boundary between the two LCTs.

BASELINE PHOTOGRAPH: LVIA Viewpoint 22 (A835/B9169 Crossroads)

Extract from 90° baseline image (cylindrical projection)

Figure 17: Approximate Boundary between Rounded Rocky Hills LCT and Rounded Mountain Massif LCT (shown at Viewpoint 22)

10.3 The Ben Wyvis SLA

10.3.1 The Ben Wyvis massif lies within the Ben Wyvis SLA, which is described previously in this DS. The description of this SLA ('Assessment of Highland Special Landscape Areas' (THC in partnership with SNH, 2011)) notes that "This area covers the rounded summits and foothills of Ben Wyvis from the southern shores of Loch Glass in the north-east to Little Wyvis in the south-west". The extent of the Ben Wyvis SLA is shown on Figure 6.

10.3.2 The SLA has one SLQ: Dominant Landmark and Uninterrupted

Panoramas, and this in turn is described in five sub-sections that are referred to in the following sections, where relevant.

10.3.3 Viewpoints 4, 5 and 6 lie **within** the SLA, and show the panoramic views that are gained from within the designated area. Viewpoints that illustrate the view **towards** the SLA as seen from the south and north-west are also important in relation to the SLQ, including Viewpoints 14, 21 and 22 on the Black Isle; Viewpoints 17, 18, 19 and 20, within and south of Inverness; and Viewpoints 25 and 28, on the A835/A832 to the north-west and west.

10.4 The Relationship between the Proposed Development and the Ben Wyvis Massif

10.4.1 One of the principal considerations in the design of the Proposed Development has been the relationship between the Proposed Development and the Ben Wyvis massif. This is important in relation to:

- the appearance of the Proposed Development in views towards the Ben Wyvis massif; and
- the appearance of the Proposed Development in views from the Ben Wyvis massif.

10.5 Views Towards the Ben Wyvis Massif

10.5.1 Key views towards the Ben Wyvis massif are gained from the **south**, **south-east** and **north-west**, where its distinctive skyline is a landmark feature of long, open views. These views are noted in the SLQ of the Ben Wyvis SLA, which notes that:

"Standing well above a surrounding range of much lower foothills, Ben Wyvis has a commanding presence with its broad and fairly level summit ridge stretching more than 7kms from Garbat to Loch Glass. It is a dominant landmark feature from many locations, most notably from the south and northwest, including Inverness and the Black Isle. Little Wyvis also appears prominent at a local level."

And

"The form of the mountain is most clearly appreciated when viewed from a distance, for example from Inverness and the Black Isle."

10.5.2 A key objective in the design process has been to **ensure separation between the Proposed Development and the Ben Wyvis massif** in these important views, avoiding encroachment towards the massif. Layout D – Design Freeze is considered to achieve this objective, as while the Proposed Development will be seen in the same broad aspect of the view as the Ben Wyvis massif in some views, it is peripheral to the principal focus of the view, which is towards the distinctive skyline of Ben Wyvis. This ensures that the Proposed Development is clearly associated with the lower western slopes of the Rounded Rocky Hills LCT, which covers the site, rather than the Ben Wyvis massif.

10.5.3 The design iteration from Layout A – Scoping Layout to Layout D – Design Freeze is illustrated below for three representative viewpoints where the Proposed Development is seen in the same aspect of the view as the Ben Wyvis massif, one each from the south, south-east and north-west.

Views from the South

10.5.4 The distinctive skyline of the Ben Wyvis massif can be seen in many views from the south and south-south-east, including the area around Marybank (Viewpoint 10), Knockfarrel (Viewpoint 11), the south side of the Beauly Firth (Viewpoint 15), the Great Glen Way to the south-west of Inverness (Viewpoint 16), and the A835 as it crosses the western end of the Black Isle (Viewpoint 22).

10.5.5 In these southern views, the profile of An Cabar and Glas Leathad Mor form the distinctive and prominent 'whaleback' skyline of the massif, 'bookended' by the smaller foothills of Little Wyvis to the west and Glas Leathad Beag to the east. This skyline can be seen on Figure 14. 10.5.6 Viewpoint 22 (A835/B9169 Crossroads) provides a useful illustration of an open and clear view towards the Ben Wyvis massif from the south-southeast, where the Proposed Development will appear peripherally to the main focus of the outlook. The layout iteration from Layout A – Scoping Layout to Layout D – Design Freeze is shown in the wirelines on the following pages, along with a photomontage of Layout D – Design Freeze.

Views from the South-East

10.5.7 Views towards the Ben Wyvis massif from the south-east are gained from a number of locations, including Culbokie (Viewpoint 14), the A9 (Viewpoint 21), and Inverness (Viewpoints 17, 18, 19 and 20). In these views, where there is clear visibility, the flat-topped skyline of Glas Leathad Mor and An Cabar gives way in the west to the lower high points of Little Wyvis and Tom na Caillich while to the east of Glas Leathad Mor is the high ground around Glas Leathad Beag, which forms the eastern side of the massif.

10.5.8 Viewpoint 21 (A9, Black Isle) provides a useful illustration of an open and clear view towards the Ben Wyvis massif from the south-east, where the Proposed Development will appear peripherally to the main focus of the outlook. The layout iteration from Layout A – Scoping Layout to Layout D – Design Freeze is shown in the wirelines on the following pages, along with a photomontage of Layout D – Design Freeze.

Views from the North-West

10.5.9 Views towards the Ben Wyvis massif from the north-west are less widely available than those from the south and south-east due to the limited number of accessible locations and receptors in this direction. However, where clear and open views are gained, the massif forms an eye-catching landmark feature in views.

10.5.10 Views from the north-west are available from the A835 (Viewpoint 25) and also from hilltops in the area, including Am Faochagach (Viewpoint 32).

10.5.11 Viewpoint 25 (A835, Loch Glascarnoch) provides a useful illustration of an open and clear view towards the Ben Wyvis massif from the northwest, where the Proposed Development will appear peripherally to the main landmark of the massif. In this view, the landform of the western part of the Ben Wyvis massif appears more complex than in southern views, with the deeply incised Bealach Mor and the rounded form of Tom na Caillich forming features. Little Wyvis also appears as a rounded, enclosing landform. Further to the east, An Cabar and Glas Leathad Mor continue to form the distinctive and prominent 'whaleback' skyline of the massif.

10.5.12 The layout iteration from Layout A – Scoping Layout to Layout D – Design Freeze is shown in the wirelines on the following pages, along with a photomontage of Layout D – Design Freeze.

Viewpoint 22: Wireline View showing Layout A - Scoping Layout

53.5° (planar projection)

Viewpoint 22: Wireline View showing Layout D - Design Freeze

53.5° (planar projection)

Viewpoint 22: Photomontage View showing Layout D - Design Freeze

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Figure 18: View towards Ben Wyvis Massif from the South Visualisations showing the Design Iteration of the Proposed Development as seen at Viewpoint 22 (A835/B9169 Crossroads) © Crown copyright, All rights reserved (2025). Licence number AC0000808122

Viewpoint 21: Wireline View showing Layout A - Scoping Layout

53.5° (planar projection)

Viewpoint 21: Wireline View showing Layout D - Design Freeze

53.5° (planar projection)

Viewpoint 21: Photomontage View showing Layout D - Design Freeze

Figure 19: View towards Ben Wyvis Massif from the South-East Visualisations showing the Design Iteration of the Proposed Development as seen at Viewpoint 21 (A9, Black Isle)

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Viewpoint 25: Wireline View showing Layout A - Scoping Layout

53.5° (planar projection)

Viewpoint 25: Wireline View showing Layout D - Design Freeze

53.5° (planar projection)

Viewpoint 25: Photomontage View showing Layout D - Design Freeze

53.5° (planar projection)

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Figure 20: View towards Ben Wyvis Massif from the North-West Visualisations showing the Design Iteration of the Proposed Development as seen at Viewpoint 25 A835, Loch Glascarnoch) © Crown copyright, All rights reserved (2025). Licence number AC0000808122 **10.5.13** In addition to the layout iteration, which has reduced the effects of the Proposed Development on views towards the Ben Wyvis massif from the south, south-east and north-west as shown in the examples above, the effects on views towards the massif are also mitigated by the following considerations:

- as noted in the Ben Wyvis SLA citation, "the form of the mountain is most clearly appreciated when viewed from a distance, for example from Inverness and the Black Isle"; this ensures that when the Proposed Development and the massif are seen in the same broad aspect of a view, the impact of the Proposed Development will almost always be reduced by distance;
- views towards the Ben Wyvis massif are almost always wide and open and, in this context, the Proposed Development will generally affect a limited part of the full available view, ensuring that the great majority of the outlook will remain unaffected;
- many views towards the Ben Wyvis massif, especially from the south and south-east, are characterised by a wide range of land uses and influences, and the addition of the Proposed Development into this setting will provide one more influence among many, rather than creating the focal point feature that it can introduce to a simpler outlook; and
- the skyline on which the turbines will be seen in these views, and with which they are associated, is a large-scale landform with simple, uniform landscape patterns that can accommodate the turbines without uncomfortable scale comparisons.

10.6 Views from the Ben Wyvis Massif

10.6.1 Views **from** the Ben Wyvis massif are of key importance in the layout design of the Proposed Development, as high points within the massif gain spectacular open views across the surrounding landscape, which is widely varied in character. These views are noted in the SLQ of the Ben Wyvis SLA, which notes that:

10.6.2 "The summit of Ben Wyvis provides some of the most extensive

panoramas in Scotland. These include the wild and dramatic mountain profiles of Wester Ross and Sutherland to the north and west, the indented coastline and settled, fertile lowlands of Easter Ross and the Black Isle to the east, and the distant summits of the Cairngorms and Ben Nevis to the south."

And

10.6.3 "Ben Wyvis is a popular Munro due in part to its proximity to Inverness but also because it is a relatively straightforward walk with **a broad, easy ridge** from which the panoramic views can be appreciated." 10.6.4 A key objective in the design process has been to **minimise visibility of the Proposed Development in the key sensitive views from the massif** and avoid the introduction of a dominant new feature into these views.

10.6.5 The key viewpoint in the massif is the summit of Ben Wyvis, Glas Leathad Mor (Viewpoint 6), as noted in the SLQ of the Ben Wyvis SLA. The "broad, easy ridge" that runs between An Cabar (Viewpoint 5) and Glas Leathad Mor is also sensitive, as noted in the SLQ.

10.6.6 Viewpoint 6 has been used as a design viewpoint for the Proposed Development, and Layout D – Design Freeze is considered to achieve the objective to minimise visibility of the Proposed Development from this location. The design process that has led from Layout A – Scoping Layout to Layout D – Design Freeze is illustrated in Figure 21 on the following page.

10.6.7 In addition to the layout iteration, which has led to the limited visibility of the Proposed Development as shown above, the effects on the panoramic view from Glas Leathad Mor are mitigated by the following considerations:

- in the context of this widely varied view which, as noted in the SLA citation, displays many different characteristics and features (including wind energy development) the Proposed Development will have less impact than in a view where the landscape shows fewer elements of development;
- the screening of turbine towers and hubs ensures visual separation between the viewpoint and the turbines, ensuring that they do not appear to encroach towards the viewpoint or into the landscape around the summit of Glas Leathad Mor;
- the Proposed Development lies to the south-west of the viewpoint and will not affect the "wild and dramatic mountain profiles of Wester Ross and Sutherland to the north and west, the indented coastline and settled, fertile lowlands of Easter Ross and the Black Isle to the east and the distant summits of the Cairngorms...to the south" that are noted in the Ben Wyvis SLA SLQ (the turbines could be seen in the same aspect of the view as Ben Nevis, but as Ben Nevis lies just over 100 km away from Ben Wyvis and the turbines are contained well below the skyline in the view, the skyline profile of Ben Nevis will not be affected on those occasions when it might be visible);
- the location of the viewpoint on elevated landform above the site, with backclothing by landform, reduces the prominence of the turbines and also minimises their vertical impact;
- the turbines will affect a very limited part approximately 9°
 of the full panoramic view available, and are not seen in the most dramatic and scenic part of the view, which is to the west and north-west; and
- the large-scale landform of the setting to the Proposed
 Development reduces the perceived scale of the turbines and prevents eye-catching scale comparisons.

Viewpoint 6: Photomontage View showing Layout D - Design Freeze

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53.5° (planar projection)

Figure 21: View from the Ben Wyvis Massif Visualisations showing the Design Iteration of the Proposed Development as seen at Viewpoint 6 (Glas Leathad Mor (Ben Wyvis)) © Crown copyright, All rights reserved (2025). Licence number AC0000808122 **10.6.8** Views of the Proposed Development will be gained from elsewhere in the Ben Wyvis massif as well as from Glas Leathad Mor, and visibility at some of these locations (e.g. Viewpoint 4 (Little Wyvis) and Viewpoint 5 (An Cabar)) will be higher than is seen at Glas Leathad Mor. However, Glas Leathad Mor is considered to be the most sensitive location within the massif, as recognised in the SLA citation. Moreover, the Zone of Theoretical Visibility (ZTV) Figures show that visibility from the massif is greatly restricted by the landform of Little Wyvis and Carn Gorm, which enclose the eastern edge of the site, and there are limited areas that are shown to gain theoretical visibility of the Proposed Development.

Proposed Turbine Location DATE Natalius 2 Ukn Study Area Viewpoint 4. Little Wyvis 5. An Cabar 6. Sait seathad Mor (Ben Wyvis) Hadring TV Number of Blade Tips Theoretically Visible 1. 2 3. 4 5. 5 7. 9 Viewpoint 1. 4

Figure 22: Blade Tip ZTV in Relation to the Ben Wyvis Massif

10.6.9 This can be seen on Figures 22 and 23, which show theoretical visibility of the Proposed Development from the Ben Wyvis massif. These figures illustrate the limited and intermittent visibility of turbine blades and the very limited and intermittent visibility of turbine hubs.

10.6.10 The ZTVs also show that the ridge between an Cabar and Glas Leathad Mor, which is also mentioned in the SLQ of the Ben Wyvis SLA, has very limited theoretical visibility of the Proposed Development.

Figure 23: Hub Height ZTV in Relation to the Ben Wyvis Massif

10.6.11 The effects of the Proposed Development on the Ben Wyvis massif have been a key consideration throughout the design process, and Layout D - Design Freeze is considered to be accommodated into the landscape setting in a manner that mitigates effects on the massif, and, in turn, on the SLQ of the Ben Wyvis SLA. This mitigation is relevant to both views towards the massif and views from the massif.

10.6.12 In views towards the massif, the Proposed Development appears peripheral to the key landform feature, and in this peripheral location, the turbines are clearly associated with the lower slopes of the Rounded Rocky Hills LCT, which covers the site, rather than the Rounded Mountain Massif LCT, which covers the sen Wyvis massif.

10.6.13 In views from the massif, the level of visibility has been reduced through layout iteration, particularly when seen from the key viewpoint of Glas Leathad Mor (Viewpoint 6). Theoretical visibility of the Proposed Development from the massif is generally very limited and when it is visible, it will not affect the most scenic and dramatic aspects of views.

11.1 Wild Land Area 29 (Rhiddoroch - Beinn Dearg - Ben Wyvis)

11.1.1 The south-eastern part of the site lies just within the southern extremity of Wild Land Area (WLA) 29 Rhiddoroch – Beinn Dearg – Ben Wyvis. The NatureScot 'Description of Wild Land Areas' (2017) includes the following overview of WLA 29:

"This WLA is one of the most extensive nationally, extending 905 km2 across the north-west of Ross-shire and south Sutherland...It comprises a long oval shaped area extending between Ullapool in the north-west to the mountain of Ben Wyvis in the southeast. Main roads flank it to the west and south, the latter to nearby Inverness and population centres of Easter Ross..."

WLA 29 has four Wild Land Qualities (WLQs):

- WLQ1: A range of awe-inspiring massive, high rounded hills and plateaux, as well as steep rocky peaks and ridges, offering elevated panoramas
- WLQ2: Long and deep penetrating glens with steep, arresting side slopes that limit views, some containing
 access routes and clearly influenced by estate management;
- WLQ3: A very large interior with a strong sense of remoteness and sanctuary that seems even more extensive where appearing to continue into neighbouring wild land areas; and
- WLQ4: Rocky hills, cnocan and peatland slopes that appear simple and awe-inspiring at a broad scale, but harbour intricate features at a local level, as well as a strong sense of sanctuary and solitude.

11.1.2 WLAs are referred to in Policy 4g of NPF4, which states that (emphasis added):

"Development proposals in areas identified as wild land in the Nature Scot Wild Land Areas map... must be accompanied by **a wild** land impact assessment which sets out how design, siting, or other mitigation measures have been and will be used to minimise significant impacts on the qualities of the wild land, as well as any management and monitoring arrangements where appropriate..."

11.1.3 A full assessment of the effects on the WLA is included in the LVIA (Chapter 7 of the EIA Report) and is not reiterated here. The mitigation of effects on the WLA has been a key objective in the layout design of the Proposed Development, with potential effects on the WLQs being considered at each stage in the design iteration, as described below.

11.1.4 The assessment of effects on the WLA concludes the following:

"The assessment of effects on wild land indicates that the Proposed Development is likely to result in **a localised significant effect** on WLQ1 where it is expressed in the "high rounded hills and plateaux" in the south-western part of the WLA. This significant effect will arise as a result of visibility of the Proposed Development, as it will not have direct physical effects on the WLQ.

11.1.5 **Elsewhere**, the level of influence of the Proposed Development, the baseline nature of the WLA, and the attributes and responses of the WLQs ensure that **the effect of the Proposed Development will be not significant**. This includes the interior area, where the physical attributes and perceptual responses are most strongly expressed."

There are two key aspects of mitigation of effects on WLA 29:

- layout design iteration; and
- the location of the Proposed Development in relation to the WLA.

Figure 24: Wild Land Areas in the 45km Radius Study Area

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11.2 Layout Design Iteration

11.2.1 Layout D - Design Freeze has been designed with a specific objective of the mitigation of effects on the WLA. This is best demonstrated through a comparison of the appearance of Layout A - Scoping Layout and Layout D - Design Freeze from a selection of viewpoints that lie within the WLA.

11.2.2 LVIA Viewpoints 4, 5, 6 and 32 are within the WLA. A set of additional wireline views for three viewpoints that lie within WLAs has also been included in the LVIA (Technical Appendix 7.3) and these show two views from within WLA 29 and a third view from Beinn nan Ramh which is within WLA 28 Fisherfield - Letterewe – Fannichs, to the west of WLA 29.

11.2.3 The layout iteration of the Proposed Development from Viewpoint 6 (Glas Leathad Mor), within the WLA, is shown in Figure 21 of this DS, which illustrates the reduction in visibility and influence of the Proposed Development that has been implemented through the design process.

11.2.4 Comparative wirelines that show the design iteration from three further viewpoints within WLA 29 are shown in Figures 25, 26 and 27. These viewpoints are Viewpoint 32 (Am Faochagach); the path west of Loch Bealach Culaidh (Figure A7.3.1 in Technical Appendix 7.3); and Beinn a'Chaisteil (Figure A7.3.2 in Technical Appendix 7.3).

Viewpoint 32: Wireline View showing Layout A - Scoping Layout

53.5° (planar projection)

Viewpoint 32: Wireline View showing Layout D - Design Freeze

53.5° (planar projection)

Viewpoint 32: Photomontage View showing Layout D - Design Freeze

53.5° (planar projection)

Figure 25: Visualisations showing the Design Iteration of the Proposed Development as seen at Viewpoint 32 (Am Faochagach)

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Wireline View showing Layout A - Scoping Layout

53.5° (planar projection)

Wireline View showing Layout D - Design Freeze

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53.5° (planar projection)

Figure 26: Visualisations showing the Design Iteration of the Proposed Development as seen at Path west of Loch Bealach Culaidh

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Wireline View showing Layout A - Scoping Layout

53.5° (planar projection)

Figure 27: Visualisations showing the Design Iteration of the Proposed Development as seen at Beinn a'Chaisteil

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11.3 The Location of the Proposed Development in Relation to the WLA

11.3.1 The layout iteration shown in the previous section illustrates how the development of Layout D – Design Freeze has mitigated effects on WLA 29 through the creation of a compact and balanced group of turbines that relates well to its landscape and visual context.

11.3.2 This layout has limited visibility from the WLA, as shown on Figure 28. This indicates that theoretical visibility is found in very small parts of the WLA, including intermittent visibility in the south-western extremity and further intermittent visibility on the western edge, beyond 13 km away from the turbines.

Figure 28: Theoretical Visibility of the Proposed Development from the WLA

11.3.3 With this optimised layout, the location of the Proposed Development in relation to the WLA also provides effective mitigation that greatly limits the effect on the WLQs of the WLA. This is because the most apparent effect of the Proposed Development will arise on a part of the WLA – the south-western extremity – that is affected by internal baseline development both within the WLA (e.g. tracks, hydro-electric infrastructure) and outwith the WLA (e.g. wind farms, forestry, roads, houses). In relation to the wider WLA, the Proposed Development will also be perceived in the context of development that lies outwith the WLA (e.g. wind farms, roads, houses, forestry, hydro-electric infrastructure).

11.3.4 The context of wind energy development around the WLA can be seen in the photomontage view for Viewpoint 32 (Figure 29) and the wirelines for the Beinn a'Chaisteil viewpoint (Figure 27)

11.3.5 The greatest effects of the Proposed Development will arise on those parts of the WLA that display a lower baseline strength of WLQs, where WLQs are not expressed to their optimum and where other external influences have resulted in a diminution of the strength of WLQs. Conversely, effects on the area where WLQs (and their attributes and responses) are expressed to a greater degree – broadly speaking, the interior and northern areas - will undergo a considerably more limited effect from the Proposed Development. There is very limited theoretical visibility of the Proposed Development from areas where the WLQs are more strongly expressed, and where it is visible, it is likely to be seen in the context of other wind farm development, which ensures that it will not introduce an entirely new influence on attributes and responses.

Viewpoint 21: Photomontage View showing Layout D - Design Freeze

53.5° (planar projection)

Figure 29: Photomontage View from Viewpoint 32 (Am Faochagach) This view illustrates the baseline wind energy influence on views within the WLA, with Corriemoillie and Lochluichart wind farms seen from a minimum of 11.2 km away. The consented Kirkan and Lochluichart Extension II wind farms will add to this baseline development, seen from a minimum distance of 10.5 km away.

11.3.6 Whilst removing all visibility from the WLA is not possible, the Proposed Development has been specifically designed to minimise significant effects on the qualities of the WLA and mitigate its effect on the WLA.

Figure 30: Principal Visual Receptors within 10km of the Proposed Development

Layout A - Scoping Layout
 Layout D- Design Freeze
 10km Radius
 Settlement (Large)
 Settlement (Medium)
 Railway
 A Road
 National Cycle Route

— Corepath

11.4 Effects on Views

11.4.1 While the site and its close surroundings are relatively undeveloped, there are a number of settlements, routes and other locations in the surrounding area from where people may gain views of the Proposed Development. These include:

- the settlements of Garve and Contin and smaller groups of houses such as Gorstan, Marybank and Tarvie;
- walking destinations (e.g. Little Wyvis, An Cabar, Ben Wyvis, and core paths around Loch Kinellan and Knockfarrel); and
- roads, including the A832 and A832, some parts of which are recognised as national tourist routes (NC500).

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11.4.2 Settlements and routes that lie within 10 km of the site are shown on Figure 30, which also shows the Scoping Layout and Application Layout. This illustrates that:

- separation distance between the turbines and the settlement of Garve and residential area at Gorstan has increased considerably in Layout
 D Design Freeze;
- separation distance between the turbines and the A832, A835 (NC500) and Inverness-Kyle of Lochalsh railway line has increased considerably in Layout D - Design Freeze; and
- separation distance between the turbines and other features such as Loch Garve, Strath Garve and Black Water falls has increased in Layout
 D Design Freeze.

11.4.3 The design iteration has also made a considerable difference to the appearance of the Proposed Development at a number of key sensitive viewpoints and examples of this are shown in the illustrations on the following pages. These illustrations include baseline photographs, wirelines and photomontages from a selection of the viewpoints that have been considered in the design process

- Viewpoint 11 Knockfarrel.
- Viewpoint 23 A835, Contin.
- Viewpoint 24 A835, south end of Loch Garve.
- Viewpoint 27 A832 Lochluichart.
- Viewpoint 28 A832 near Torriegorrie.

11.4.4 The wireline illustrations show Layout A - Scoping Layout of the Proposed Development as well as Layout D - Design Freeze in order that the benefits of the design process can be clearly seen.

11.4.5 Wirelines showing the layout iteration at the other design viewpoints - Viewpoint 1 (Garve), Viewpoint 6 (Glas Leathad Mor), Viewpoint 21 (A9, Black Isle) and Viewpoint 22 (A835/B9169 crossroads) - are shown in Figure 10, Figure 21, Figure 19 and Figure 18 of this DS respectively.

11.4.6 Whilst removing all visibility from sensitive visual receptors is not possible, the Proposed Development has been carefully designed to minimise its effect on sensitive visual receptors, and the extensive layout iteration process that is illustrated in the visualisations above demonstrates that the effects of the Proposed Development on sensitive views have been successfully mitigated. Mitigation through design is of key importance in the accommodation of the Proposed Development without unacceptable effects on views.

Viewpoint 11: Wireline View showing Layout D - Design Freeze

53.5° (planar projection)

Viewpoint 11: Photomontage View showing Layout D - Design Freeze

Figure 31: Visualisations showing the Design Iteration of the Proposed Development as seen at Viewpoint 11 (Knockfarrel)

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Viewpoint 23: Wireline View showing Layout A - Scoping Layout

53.5° (planar projection)

Viewpoint 23: Wireline View showing Layout D - Design Freeze

53.5° (planar projection)

Viewpoint 23: Photomontage View showing Layout D - Design Freeze

53.5° (planar projection)

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Figure 32: Visualisations showing the Design Iteration of the Proposed Development as seen at Viewpoint 23 (A835, Contin)

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Viewpoint 24: Wireline View showing Layout A - Scoping Layout

53.5° (planar projection)

Viewpoint 24: Wireline View showing Layout D - Design Freeze

53.5° (planar projection)

Viewpoint 24: Photomontage View showing Layout D - Design Freeze

Figure 33: Visualisations showing the Design Iteration of the Proposed Development as seen at Viewpoint 24 (A835, south end of Loch Garve)

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Viewpoint 27: Wireline View showing Layout A - Scoping Layout

Viewpoint 27: Wireline View showing Layout D - Design Freeze

53.5° (planar projection)

Viewpoint 27: Photomontage View showing Layout D - Design Freeze

53.5° (planar projection)

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Figure 34: Visualisations showing the Design Iteration of the Proposed Development as seen at Viewpoint 27 (A832 Lochluichart)

Viewpoint 28: Wireline View showing Layout A - Scoping Layout

53.5° (planar projection)

Viewpoint 28: Wireline View showing Layout D - Design Freeze

53.5° (planar projection)

Viewpoint 28: Photomontage View showing Layout D - Design Freeze

53.5° (planar projection)

Figure 35:Visualisations showing the Design Iteration of the ProposedDevelopment as seen at Viewpoint 28 (A832 near Torriegorrie)

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12.1 Residential Properties

12.1.1 Residential properties that lie in the vicinity of the site and views gained from those properties have been an important consideration in the design iteration of the Proposed Development.

12.1.2 Guidance produced by the Landscape Institute (2019)* indicates that it is relevant to consider the effects that the Proposed Development may have on views from residential properties that lie within a 2 km radius of the nearest turbine in the Proposed Development.

12.1.3 The relatively undeveloped setting of the site and the compact extent of the Proposed Development ensure that there are limited properties in the vicinity of the Proposed Development, with a total of six properties lying within 2 km (as shown on Figure 36). Four of these properties, which are clustered together to the north-west of the Proposed Development, gain theoretical visibility of the Proposed Development, while the other two properties are shown on the ZTV to gain no theoretical visibility of the Proposed Development.

12.1.4 A Residential Visual Amenity Assessment (RVAA) that evaluates the likely effects of the Proposed Development on residential visual amenity on the four relevant properties is included as part of the LVIA (Technical Appendix 7.2 to Chapter 7 of the EIA Report). The purpose of the RVAA is to identify any properties where the magnitude of change could result in an 'overbearing' or 'dominant' visual impact on the amenity of a residential property, referred to in the Landscape Institute Guidance as the 'RVAA threshold'. The 'threshold' infers a level of impact which would become a material planning consideration.

12.1.5 The RVAA indicates that one of the four properties (Tigh Fiodha Larder) included in the RVAA is likely to experience a highmedium magnitude of change and significant visual effect as a result of the Proposed Development. The effect on this property will not reach the RVAA threshold as the magnitude of change is below the high level required to have potential to cross the threshold. This property is not in residential use and is owned by the landowner of the wind farm site, who is financially involved with the Proposed Development.

12.1.6 Design iteration has been instrumental in both the limited number of properties that lie within the 2 km radius and the fact that no effects on views from residential properties will cross the 'RVAA threshold' and thus become a material planning consideration.

12.1.7 The design process is shown in relation to one of the relevant properties (Silverbridge Lodge) in Figure 37. The wirelines show Layout A – Scoping Layout of the Proposed Development as well as Layout D – Design Freeze in order that the benefits of the design process can be clearly seen. This property is not financially involved in the Proposed Development.

Figure 36: Residential Properties with ZTV Diagram

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12.1.8 Removing all visibility from residential properties is not possible. However, the Proposed Development has been carefully designed to minimise the number of affected properties, and the extensive layout iteration process that is illustrated in the visualisations above ensures that the effects of the Proposed Development on residential visual amenity have been successfully mitigated. This mitigation is of key importance in the accommodation of the Proposed Development in the residential visual amenity context without breaching the RVAA threshold.

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Development as seen at Silverbridge Lodge

13.1 Visible Aviation Lighting

13.1.1 The Civil Aviation Authority (CAA) requires that 'en-route obstacles' at or above 150 m above ground level are lit with visible lighting to assist their detection by aircraft. As the turbines in the Proposed Development are a maximum of 180 m or 200 m to tip height there is a requirement for the turbines to display medium intensity 'steady' (e.g. not flashing) red aviation lights (emitting 2,000 candela (cd)) at night. These will be fitted to the nacelles of the turbines, and mid-level tower lights will not be required. All nacelles will also be fitted with infra-red lighting, which is not visible to the human eye.

13.1.2 While the light source on nacelles is steady, the lights may appear to flicker on and off with blade rotation when the turbine blades pass between the lights and the observer, dependent on wind direction and the position of the observer. The 'hours of darkness' impacts of visible aviation lighting of the Proposed Development are assessed and illustrated in the LVIA (Chapter 7 of the EIA Report).

13.1.3 Mitigation of the effects of visible aviation lighting is implemented in three ways.

- Through a reduced lighting scheme (as agreed with the CAA), whereby only four (T1, T4, T7 and T9) of the nine turbines in the Proposed Development will be fitted with visible lights.
- The Applicant's commitment to the use of dimming mitigation, which effectively reduces the intensity of the lighting to not less than 10% of the minimum peak intensity (200 cd rather than 2,000 cd) if the horizontal meteorological visibility in all directions from every wind turbine in the group is more than 5 km (more information is provided in Technical Appendix 15.1, Aviation Lighting and Mitigation Technical Report).
- In addition to dimming mitigation, a reduction in lighting intensity may also be achieved through vertical directional intensity mitigation. This is achieved through the use of a light that has a reduced lighting intensity dependent on the degree of the vertical angle of view from the light in relation to landform, and is also described in Technical Appendix 15.1, Aviation Lighting and Mitigation Technical Report.

13.1.4 The benefits of the reduced scheme can be seen in the hours of darkness photomontages shown in Figures 38 and 39 on the following page, which demonstrate that the visible lighting of just four turbines is considerably less apparent than it would be with light fitted to all of the turbines. These photomontages show the relatively limited effects of the visible turbine lighting due to the reduced lighting scheme.

13.1.5 Removing all visibility of visible aviation lighting is not possible. However, the reduced lighting scheme for the Proposed Development ensures that the number of lights that will be visible from sensitive locations is reduced. The use of dimming mitigation is also instrumental in the reduction of lighting intensity. These types of mitigation are important in the accommodation of the Proposed Development in the 'hours of darkness' environment.

Silverbridge Lodge: Wireline View showing Layout A - Scoping Layout

53.5° (planar projection)

Figure 38: Hours of Darkness Photomontage at Viewpoint 1 (Garve)

53.5° (planar projection)

Silverbridge Lodge: Wireline View showing Layout D - Design Freeze

Figure 39: Hours of Darkness Photomontage at Viewpoint 2 (Gorstan)

14.1 Infrastructure

14.1.1 The site infrastructure has been designed to minimise effects on a number of environmental constraints (e.g. ecology and ground conditions), as described in Chapter 2 of the EIA Report. Landscape and visual issues have also been considered, and are particularly relevant to two aspects of the infrastructure design:

- location of the substation; and
- access tracks.

14.1.2 Both of these elements of infrastructure will be in place throughout the lifetime of the Proposed Development and have potential for visibility from surrounding areas during this time.

14.1.3 Figure 40 shows the layout of the Proposed Development, including the infrastructure of the substation and access tracks.

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14.2 The Substation & Operational Compound

14.2.1 The Proposed Development will be connected to the electricity network via an on-site substation control building, located within a substation compound. A number of locations have been investigated for the substation location, based on technical and environmental constraints, including locations on steep west-facing slopes at the northern end and western edge of the site.

14.2.2 Wirelines and 3D renders were run in order that the level of visibility of these locations could be examined, and in all cases the level of visibility was high, with theoretical visibility gained from a number of receptors including Gorstan, Lochluichart and the A832.

14.2.3 The final location for the substation is on a gently north-east-facing slope on the western edge of the interior plateau of the site, as shown on Figure 40, where the enclosing high ground to the west ensures that there is no visibility from the great majority of viewpoints.

14.3 Access Tracks

14.3.1 The Proposed Development will require a network of tracks to enter the site and provide access to each of the turbines as well as other infrastructure. The main access up into the turbine development area runs from the A835 up the steep slope to the northern end of the site, and then skirts along the upper slope Meall na Glaic Baine before passing Loch an Tuirc and turning eastwards into the turbine area. This track is the most visible part of the Proposed Development track network as it lies on the steep western side of Strath Garve, which slopes steeply down to Strath Garve, and is in the line of sight of a number of receptors, including residents of Gorstan and people using the A835.

14.3.2 As shown on Figure 40, the great majority of this section of track will follow the route of an existing track, with just several new sections required, and will be upgraded to increase its width from 4 m to 6 m. The use of existing (upgraded) track on this section is highly beneficial as it minimises the need for the new cut and fill that would be required to create a new track.

14.3.3 Figure 41 shows the baseline photograph at Viewpoint 28 (A832 near Torriegorrie), with the existing line of the track clearly visible following the hillside. The photomontage of the Proposed Development from the same viewpoint shows the line of the upgraded track, following the line of the existing track. This photomontage is illustrative only, but the photograph and photomontage do show that the existing track is visible at this viewpoint, and that the upgraded track will follow the same route.

14.3.4 Overall, just over 3.3 km of access track required for the Proposed Development will be existing track (upgraded) while up to 11.6 km of new track will be required. The new sections of track are almost all contained within the plateau shelf, where the turbines are located, and have very limited visibility due to the landform screening that encloses the western side of the site.

Viewpoint 28: Baseline photograph

Viewpoint 28: Photomontage View showing Layout D - Design Freeze

53.5° (planar projection)

Figure 41: Visualisations from Viewpoint 28 (A832 near Torriegorrie)

15.1 Cultural Heritage (see EIA Report Chapter 11 for further detail)

15.1.1 Historic Environment Scotland (HES) and THC Archaeological Environment Team were consulted at Scoping stage in relation to the 14 turbine Scoping Layout of 200m tip height. In its Scoping Response, HES outlined three assets that they disagreed with being scoped out of further setting impact assessment due to potential effects, comprising:

- Little Garve, bridge over Black Water (SM2720);
- Castle Leod (LB7826); and
- Castle Leod (GDL0094).

15.1.2 The detailed design work that was carried out to reduce the Proposed Development from fourteen to nine turbines significantly reduced the potential for significant effects on the cultural significance of the assets listed by HES by causing change in their setting, as well as the other assets scoped in for setting impact assessment, particularly Castle Leod (LB7826), raised by HES as being susceptible to impact. The design work undertaken resulted in there being no visible turbines and therefore no impacts.

15.1.3 As a result of the design iterations, the Cultural Heritage and Archaeology chapter has predicted operational effects of no higher than minor significance on the cultural significance of these monuments. The reduction in visibility of the Proposed Development is such that no significant effects on the cultural significance is predicted.

15.1.4 The revisions to the layout have therefore had a number of benefits in adequately maintaining the integrity of the setting of the heritage assets in the wider area of the Proposed Development and also in reducing the potential for direct impacts on heritage assets within the site boundary.

16.1 Ecology (see EIA Report Chapter 8 for further detail)

16.1.1 A full suite of ecology surveys, comprising protected species, habitats, fish habitat, and bat activity surveys, were undertaken across the site in 2023 - 2024, Baseline survey revealed the upper reaches of the site is dominated by blanket bog and heath, with grasslands and bracken dominated on the lower land in the north. With the application of embedded mitigation, no significant effects were identified in the EIA Report for most ecological features, with the exception of peatland. Accordingly, additional mitigation through peatland restoration of degraded habitat, would be implemented to achieve benefits (albeit 'minor' and not significant in the context of the EIA Regulations). Furthermore, precautionary additional mitigation would also be implemented through feathering blades of the wind turbines to reduce collision risk to bats.

16.1.2 The reduction in turbine numbers from the Scoping Layout to the Application Layout of the Proposed Development was beneficial in terms of sensitive habitats as it reduced the area of disturbance/ loss of sensitive habitats (such as peatlands) that would have been required to construct the Proposed Development. The reduction in turbine numbers is also likely to have reduced the collision risk for bat species.

17.1 Ornithology (see EIA Report Chapter 9 for further detail)

17.1.1 Ornithology surveys following NatureScot guidance were undertaken across the site and out to a 6 km buffer between September 2019 and August 2021. Surveys comprised Vantage Point (VP) flight activity surveys, moorland breeding bird surveys (MBBS), Annex 1 of the EU Birds Directive and Schedule 1 of the Wildlife and Countryside Act 1981) breeding raptor and owl searches, breeding black grouse searches and breeding diver searches. Through pre-scoping consultation, NatureScot agreed with the scope of surveys. The EIA Report did not identify potential impacts which would be significant in the context of the EIA Regulations, at the Natural Heritage Zone (NHZ) 7 population-level, for any scoped-in ornithological species. However, precautionary additional mitigation will be implemented through sensitive timing of works/operation to minimise potential disturbance to lekking black grouse, and removal of carcasses (deer and sheep) from the site to minimise encouraging raptors into the site potentially closer to operational turbines.

17.1.2 The reduction in turbine numbers from the Scoping Layout to the Application Layout of the Proposed Development was beneficial in terms of reduced disturbance and likely collision risk to birds. To minimise the likelihood of significant effects on ornithological features, the design process has avoided (where possible) locating infrastructure within at least 750 m from any known nest site of a Schedule 1 breeding raptor/owl species and black grouse lekking location (with all proposed turbines offset by at least 750 m from such nest/lek sites). The Outline Nature Enhancement Management Plan (ONEMP) includes plans to restore/ enhance habitat for key species, including ground-nesting waders and black grouse.

18.1 Noise (see EIA Report Chapter 12 for further detail)

18.1.1 Noise and vibration from the Proposed Development is considered to be not significant when assessed against applicable UK standards and current best practice.

18.1.2 Residential properties have been selected as being representative of the closest located noise sensitive receptors to the Proposed Development. Noise assessments have been undertaken at these properties by comparing predicted construction and operational noise levels with relevant assessment criteria. In the case of construction noise, relevant assessment criteria are in the form of absolute limit values derived from a range of environmental noise guidance. In relation to operational noise, the limits have been derived from the existing background noise levels at four surrounding properties, as derived from measurements made over approximately four weeks at each location.

18. Noise

19.1 Hydrology/Peat (see EIA Report Chapter 10 for further detail)

19.1.1 Impacts on watercourses have been avoided by adhering to a 50m buffer to watercourses and waterbodies within the site. The design has strived to minimise the number of locations where infrastructure does encroach within the buffer. The layout of the access track was also designed to use existing tracks where technically feasible in order to minimise the requirement for watercourse crossings.

19.1.2 Private water supplies and potential areas of GWDTEs have been mapped and taken account of in the design of the Proposed Development.

19.1.3 A Phase 2 peat survey has been undertaken and has confirmed the presence of areas of deep peat >1m within the flatter lying topographic lows within the main turbine area outwith the areas of steep bedrock outcrop. The more extensive areas of peat were recorded in the north of the Proposed Development to the west of the turbine array T1, T2 and T3 and around T6 with deep peat >2.5m recorded. Peat deposits were also recorded in the southern area of the Proposed Development to the west of T8 and to the south-west of T9 as peat >3m recorded . There are localised hollows of peat across the Proposed Development. These pockets of deeper peat are to the south-west of T7 and north of the proposed substation, with peat >3m mapped. Pockets of peat located to the north of T1 and at the temporary construction compound record depths of >2m.

19.1.4 The Phase 2 survey data has been used to support extensive design work to minimise disturbance to soils and peat and avoid areas of deep peat (>1.0 m) where possible. All excavated peat and soils can be re-used appropriately and safeguarded within the Proposed Development.

19.1.5 The following areas have been avoided:

- areas of deep peat, requiring potentially large volumes of excavation;
- areas of very wet peat (such as flushes, pool and hummock complexes and gullied peatland) which might be important for hydrological connectivity;
- areas of moderate to steep slopes (where site infrastructure might increase the chance of peat instability); and
- areas of sensitive habitat.

19.1.6 The design iterations have therefore avoided significant effects on Geology, Hydrology, Hydrogeology and peat receptors.

20.1 Conclusion

20.1.1 The design process for the Proposed Development, as described in this Design Statement, has led to an Application Layout of nine turbines with a blade tip height of 180 m/200 m. This layout was developed from the 14-turbine Scoping Layout (with a 200 m blade tip height for all turbines) as a result of a number of stages of design iteration that have allowed issues that arose in relation to the Scoping Layout to be addressed and mitigated.

20.1.2 The Application Layout has been developed on the basis of a thorough understanding and appreciation of the environmental and technical investigations carried out as part of the EIA process, including landscape and visual considerations, and in response to feedback from the community and consultees.

20.1.3 Consequently, as well as satisfying environmental and technical requirements, the Application Layout of the Proposed Development is considered to be acceptable in landscape and visual terms. It appears as a balanced, compact and logical arrangement of turbines when seen in key sensitive views, and its setting in the plateau shelf of the Rounded Rocky Hills LCT provides an appropriate receiving environment that can accommodate the Proposed Development.

20.1.4 In relation to the WLA, the Proposed Development has been specifically designed to minimise significant effects on the qualities of the WLA and mitigate its effect on the WLA.

20.1.5 Effects on residential visual amenity have been considered in the design process and have been mitigated to a notable degree in the Application Layout through the removal of the turbines in the Scoping Layout that were most prominent and lay at closest proximity to residential properties. The reduction in the height of four turbines has also been beneficial in this respect.

20.1.6 The nature of wind farm development means that significant effects on landscape character and visual amenity are always likely to remain after mitigation, and these effects have been identified and assessed within the LVIA (Chapter 7 of the EIA Report). Overall, the Applicant's landscape advisors are of the view that the Proposed Development is appropriate and acceptable in terms of its design relationship with the landscape and visual context.

20.1.7 The DS demonstrates that environmental effects associated with the Proposed Development have been avoided or minimised through the application of the identified design considerations within the design evolution process. The potential environmental effects from the Proposed Development are detailed in the EIA Report and where possible, mitigation measures have been proposed to eliminate or reduce these effects.

