Novar 1 Wind Farm Repowering

Environmental Impact Assessment Report Volume 1:

Non-Technical Summary (NTS)

September 2026



Non-Technical Summary

1. Introduction

1.1 Overview

1.1.1 This document forms the Non-Technical Summary (NTS) of the Environmental Impact Assessment Report (EIAR) for the Novar 1 Wind Farm Repowering ('the Proposed Development').

1.1.2 The EIAR accompanies an application by Beaufort Wind Limited (hereafter referred to as 'the Applicant') to the Scottish Ministers for consent under Section 36 of the Electricity Act 1989 and deemed planning permission under Section 57 of the Town and Country Planning (Scotland) Act 1997. The EIAR provides the environmental information that Scottish Ministers must take into account when considering a decision to grant consent under the Electricity Act and directing that planning permission be deemed granted.

1.1.3 The Proposed Development consists of the deco missioning of the existing Novar 1 Wind Farm and the construction of up to 9 wind turbines with a maximum blade tip height of up to 180 m with a total generating capacity of approximately 55.8 Megawatts (MW), together with associated infrastructure works, including widening the existing Access Route from the B817, constructing approximately 3 km of new Internal Track, and delivering biodiversity improvements.

1.1.4 The Application Site is 314.8 hectares (ha) and has been split into the following elements as shown on **Figure 1, Annex 1:**

- '**Site'** refers to everything within the red line application boundary;
- '**Turbine Array'** refers to the main part of the Site on the ridgeline where the existing Novar 1 Wind Farm turbines are located and the proposed new turbines would be sited;
- '**Access Route'** refers to the existing vehicular track within the Site which is used to access the Turbine Array and substation from the Main Vehicular Access Point;
- '**Main Vehicular Access Point'** refers to the junction of the Access Route and the B817 and would be utilised during the decommissioning of the Novar 1 Wind Farm and the construction of the repowered wind farm;
- '**Secondary Vehicular Access Route'** refers to the route within the Site between the existing substation and the Secondary Vehicular Access Point. This would be used during the operational phase of the Proposed Development;
- '**Secondary Vehicular Access Point'** means the junction of the Secondary Vehicular Access Route and Boath Road (U1990); and
- '**Internal Tracks'** refers to the routes between the Access Route and the proposed turbines.

1.2 Purpose of the Non-Technical Summary

1.2.1 The aim of the NTS is to summarise the content and main findings of the EIAR in a clear and concise manner to assist the public in understanding what the likely significant environmental effects of the Proposed Development are, and where it has been possible, how such effects have been reduced, and any mitigation of effects proposed.

1.2.2 The EIAR comprises the following five volumes:

- **Volume 1:** Non-Technical Summary (this document);
- **Volume 2:** Main Report;
- **Volume 3a**: Figures;
- **Volume 3b:** NatureScot Visualisations;
- **Volume 3c:** Highland Council Visualisations;
- **Volume 4:** Technical Appendices; and
- **Volume 5:** Confidential Information.

1.2.3 Additional documentation which has been prepared to support the Section 36 application, but do not form part of the EIAR:

- Planning Statement;
- Design and Access Statement;
- MD-SEDD Checklist
- Socio-Economic Benefit Statement; and
- Pre-Application Consultation Report.

1.3 Copies of the EIAR

1.3.1 Paper copies of the EIAR containing the EIAR will be made available at the following publicly accessible locations:

- Cornerstone Café, 16 Balconie Street, Evanton, IV16 9UN; and
- Alness Library, Averon Leisure Centre, High Street, IV17 0QB.

1.3.2 One further public paper copy will be accessible for public viewing by prior appointment at the THC Local Area Office at:

- Dingwall Council Offices, 84 High Street, Dingwall, IV15 9QN.

1.3.3 This EIAR, including all figures, technical appendices and accompanying documents are available to view and download from the project website[1]. The application documents are also available on the Scottish Government Energy Consents (reference: ECU00006087)[2]

1.3.4 For anyone who is unable to access the documentation online or in person at one of the public viewing locations, a USB copy will be made available free of charge.

1.3.5 Hard copies of the NTS can also be made available free of charge by contacting Novar1repowering@nadara.com.

1.3.6 The Applicant has been in contact with all the statutory consultees to understand their requirements for receiving physical copies of the EIAR. The key statutory consultees for this application are The Highland Council (THC), Scottish Environmental Protection Agency (SEPA), Historic Environment Scotland (HES) and NatureScot (NS).

1.4 Commenting on the Application

1.4.1 When the application has been validated by the ECU, the Applicant will advertise it in accordance with legislation, as follows:

- The Scotsman for one week;
- The Edinburgh Gazette for one week; and

1 https://novar1repowering.co.uk

2 https://www.energyconsents.scot/Default.aspx

- The Ross-Shire Journal for two weeks.

1.4.2 The advertisement will provide details of the date by which representations should be made. The Scottish Government will invite formal representations on the Proposed Development, which will be considered before the application is determined.

1.4.3 Any representations in relation to the application should be made via the Energy Consents website at www.energyconsents.scot or by post to The Scottish Government, Energy Consents Unit, 4th Floor, 5 Atlantic Quay, 150 Broomielaw, Glasgow, G2 8LU, identifying the Proposed Development and specifying the grounds for representation. Written or emailed representations should be dated, clearly stating the name (in block capitals), full return email and postal address of those making representations.

Existing Novar 1 Wind Farm



2. EIA Scope and Methodology

2.1.1 EIA is the process undertaken to present a clear and impartial assessment of the potential environmental effects (both positive and negative) of a proposed development and the potential mitigation measures proposed to avoid, reduce, and offset likely significant negative effects.

2.1.2 The EIA consists of a series of environmental assessments. The topics were identified through a Scoping Report and consultation process, as potentially resulting in significant environmental effects, such that they should be scoped in as technical chapters. Where the assessments presented in this EIAR differ from that envisaged in either the Scoping Report or Scoping Opinion, this is a detailed and justified within the methodology section of each technical chapter.

2.1.3 Technical chapters have considered whether there is the potential for significant effects to be generated during each phase – the decommissioning of the existing Novar 1 Wind Farm and the construction, operation, and decommissioning of the proposed repowered wind farm.

2.2 EIA Scoping

2.2.1 The Applicant submitted a request for a Scoping Opinion to Scottish Ministers in January 2025, which was accompanied by a Scoping Report, prepared by Ramboll on behalf of the Applicant, which set out a summary of the Proposed Development, identified the likely significant environmental effects, and summarised the proposed scope of the EIA.

2.2.2 A Scoping Opinion was received from the ECU in May 2025. The scoping process allowed the EIA to focus on the main areas of interest raised by the various consultees, with agreement with consultees that impacts which are not likely to be significant could be scoped out of further assessment. Details on the matters raised within the Scoping Opinion and how they have been addressed in the EIAR are presented in the following technical chapters in **EIAR Volume 2**:

- Landscape and Visual Amenity (Chapter 5);
- Cultural Heritage (Chapter 6);
- Ecology (Chapter 7);
- Ornithology (Chapter 8);
- Hydrology, Hydrogeology and Soils (Chapter 9);
- Noise (Chapter 10);
- Traffic and Access (Chapter 11); and
- Aviation (Chapter 12).

2.2.3 Through the EIA Scoping Opinion, it was agreed that the following topics should be excluded from the EIA as there was unlikely to be any significant effects:

- Telecommunications
- Shadow flicker;
- Air Quality;
- Heat and radiation; and
- Agriculture.

2.2.4 Some topics have been addressed through standalone technical reports and/or technical appendices to the EIAR, in Volume 4, including:

- Outline Circular Decommissioning Strategy (Technical Appendix 1.5);
- Arboricultural Impact Assessment (Technical Appendix 3.2);
- Carbon Balance Assessment (Technical Appendix 3.3); and
- Grid Connection Environmental Appraisal (Technical Appendix 3.4).

2.3 Public Consultation

2.3.1 To inform the EIA and to seek the views of local residents, the Applicant conducted public engagement events in 2025:

- First round of consultation:
  - 4th March 2025: Evanton and Ardross; and
  - 5th March 2025: Alness.
- Second round of consultation:
  - 27th August 2025: Evanton and Ardross; and
  - 28th August 2025: Invergordon and Alness.

2.3.2 A summary of the representations received during the public exhibitions is provided in the **Pre-Application Consultation Report**, which accompanies the application.

Existing Novar 1 Wind Farm



3. Site Description and Proposed Development

3.1 Site Description

3.1.1 The Site is located between Glen Glass and Strath Rusdale within the administrative boundaries of THC and includes a combination of blanket bog; upland flushes, fens and swamps; wet heathland with cross-leaved heath; and mountain heaths and willow scrub.

3.1.2 The Site is situated along the ridgeline connecting Meall Mor, Meall an Tuirc, Bendeallt and Cnoc Gille Mo Bhrianaig with the elevation of the land ranging from 625 m Above Ordnance Datum (AOD) to 310 m AOD.

3.1.3 Settlement around the Site includes small towns and villages with scattered rural dwellings. Key settlements include Dingwall, Evanton, Alness and Invergordon, with the nearest settlement to the Site being Evanton located along the B817 and 1 km to the south of the Main Vehicular Access Point. There are a number of individual residential properties within 3 km of the Site to the northeast around Boath and to the southwest within Glen Glass. Extensive commercial forestry plantation is located to the west and south of the Site.

3.1.4 Most of the Site is located within an area identified in high-level mapping[3] as potentially nationally important peatland (Class 1 Peat) with areas of upland heath, acid grassland and blanket bog. The Stage 1 and Stage 2 peat surveys that have been completed revealed that there is peat more than 1 m in depth in largely the northern, central and southern areas of the Site.

3.1.5 The Site is occupied by the Novar 1 Wind Farm which has been operational since 1997. It consists of 34 wind turbines providing an overall electrical capacity of 17 MW. Each turbine extends to a maximum height of 62 m. In December 2019, an application (ref: 19/05504/S42) to extend the operational life of the wind farm for an additional 10 years to 2031 was submitted to THC. This was approved in June 2025.

3.1.6 The Site is accessed off the B817 or along the B9176 and onto Boath Road (then onto the Secondary Vehicular Access Route) (see **Figure 1, Annex 1**). The power output from the existing turbines is delivered by underground cables which are buried alongside the Internal Tracks and the Access Route to a substation located adjacent to the Secondary Vehicular Access Route.

3.1.7 The Site is located immediately adjacent to the Novar 2 Wind Farm, which has been operating since 2012. Coire na Cloiche, Beinn nan Oighrean and Beinn Tharsuinn Wind Farms are located between 6 and 10 km to the northeast of the Site. Other operational wind farms are located slightly further afield, such as Fairburn and Corriemoillie approximately 25 km southwest/west. There are also other wind farm developments within the planning system that are either approved (with some under construction), subject to a live planning application or at the EIA scoping stage (see **Figure 2, Annex 1**). These have been considered in the cumulative assessment.

3.1.8 The proposed Access Route passes through the Novar Special Protection Area (SPA) for approximately 3 km, along its western edge. An SPA is a nature conservation designation to protect rare, vulnerable and migratory bird species and their habitats. The qualifying feature of the Novar SPA is capercaillie, which is the world's largest species of grouse.

3.1.9 There are also three Sites of Special Scientific Interest (SSSIs) and 30 designated heritage assets within 5 km of the Site.

[3] Carbon and Peatland 2016 Map. Available at: https://www.nature.scot/professional-advice/planning-and-development/planning-and-development-advice/soils/carbon-and-peatland-2016-map [Accessed November 2025].

3.1.10 The Site is not subject to any landscape designation. The nearest landscape designation is the Ben Wyvis Special Landscape Area (SLA) located 3 km to the west. The Site is not located in a Wild Land Area (WLA), but the closest is WLA 29 (Riddoroch – Beinn Dearg – Ben Wyvis) the southeastern boundary of which is approximately 1.2 km northwest of the operational Novar 1 Wind Farm. These environmental designations are shown on **Figure 3, Annex 1**.

3.2 Overview of Proposed Development

3.2.1 The Proposed Development layout is show on **Figure 4, Annex 1** and includes the following key components:

- Decommissioning and restoration (as appropriate) of the existing wind farm including the removal of all 34 existing turbines and some of the supporting infrastructure such as those crane pads and internal tracks that are no longer required;
- Up to nine new turbines with a rotor blade diameter of approximately 162 m, a hub height of approximately 99 m, and a maximum tip height of up to 180 m, with a combined generation capacity of over 50 Megawatts (MW);
- Foundations and hardstanding areas to support each new wind turbine;
- Widening and upgrade of existing sections of Internal Tracks;
- Construction of new sections of Internal Track;
- Watercourse crossings;
- Demolition of the existing substation and control building and construction of a new substation and control building using the same area and further additional land;
- Underground cable arrays within the Site connecting the new turbines to the on-Site substation. These would be located in trenches alongside the new sections of Internal Track;
- Creation of a borrow pit to source aggregate to support the construction phase;
- Construction of three temporary construction compounds;
- Widening of the existing Access Route between the Main Vehicular Access Point and the Turbine Array to accommodate Heavy Goods Vehicles (HGV). The Secondary Vehicular Access Point from Boath Road (U1990) would be retained for Light Goods Vehicles (LGV) during the operational phase of the Proposed Development; and
- Biodiversity enhancement measures including 135.7 ha of peatland restoration are proposed within the Application Boundary. An additional 12 ha for peatland restoration may be available either within land controlled by Novar Estates, or at another appropriate location subject to the outcome of ongoing landowner engagement. In addition, 0.7 ha of compensatory tree planting is proposed within the wider Novar Estate.

3.2.2 The locations of the proposed turbines and other infrastructure would be subject to a 100 m micrositing which allows for minor changes in turbine or infrastructure locations to respond to possible variations in ground conditions across the Site, which would only be confirmed following detailed site investigation work carried out prior to construction. Any repositioning would be carried out under the supervision of an Environmental Clerk of Works (EnvCoW) and an appropriately qualified engineer with the aim to avoid environmentally constrained areas.

3.3 Decommissioning and Construction Phase

3.3.1 The decommissioning of the existing Novar 1 Wind Farm and the construction of the proposed repowered wind farm is expected to take up to 3 years to complete. It is possible that for the short period of time some of the existing turbines may be in place whilst the repowered wind farm is being constructed. The potential effects of this temporary overlap have been considered in each of the assessments where appropriate.

3.3.2 Normal working hours would be Monday to Friday 07:00 to 19:00 and Saturday 07:00 to 13:00. No works, with the exception of turbine delivery, the completion of turbine erection, concrete pours and emergency works, would take place outside of these hours. Any out-of-hours works would require the prior agreement with THC.

3.3.3 A Construction Traffic Management Plan (CTMP) would be agreed in consultation with THC and Transport Scotland. This would address the scheduling, routing and overall management of abnormal load movements along with the timing and management of all other heavy goods vehicle (HGV) movements.

3.3.4 A Decommissioning and Construction Environmental Management Plan (DCEMP) would be implemented during the decommissioning and construction phases to avoid, reduce or control potential negative environmental effects. An Outline DCEMP is provided in **Technical Appendix 3.1 of EIAR Volume 4**. A detailed DCEMP would be agreed with THC in consultation with relevant statutory consultees prior to decommissioning/construction commencing.

3.4 Operational Phase

3.4.1 The Proposed Development is expected to be operational for a period of 35 years, and it has been assumed that once the wind farm ceases operation that the Site would be decommissioned in a similar way to what is proposed for the existing Novar 1 Wind Farm.

3.4.2 The Proposed Development would deliver enough electricity to meet the needs of approximately 45,453[4] households every year. It is also expected that the Proposed Development would reduce carbon dioxide (CO_2) emissions by up to 65,258 tonnes per year compared to if the electricity were generated by a fossil fuel source such as a gas-fired power station. Further details on the carbon balance for the Proposed Development are provided in the **Technical Appendix 3.3 Carbon Balance Assessment (EIAR Volume 4)**. These substantial benefits support national policy aims and are a key driver for the Proposed Development.

3.4.3 As the proposed turbines would be more than 150 m in height, they would need to be lit to satisfy the Civil Aviation Authority's (CAA) requirements, in addition to meeting the lighting requirements of the Ministry of Defence (MOD). A reduced lighting scheme in which 4 of the 9 turbines are fitted with visible spectrum lighting, has been designed.

3.4.4 Wind farms are designed to operate largely unattended, with operational monitoring often undertaken remotely with regular monthly or weekly maintenance on-site and emergency works as required. Each of the new turbines would be fitted with an automatic system designed to ensure strong performance, e.g. start-up, shut-down, rotor direction, blade angles; and to monitor conditions such as generator temperature. If a fault is detected on

[4] RenewableUK (www.renewableuk.com/energypulse/UKwed): 'Homes Powered Equivalent' is calculated using the most recent statistics from DESNZ showing that annual GB average domestic household consumption is 3,323 kWh (as of December 2025, updated annually). RenewableUK calculates homes powered as number of megawatts installed (55.8 MW), multiplied by DESNZ's "all wind" load factor expressed as a fraction of 1 (0.309), multiplied by number of hours in a year (8,760 hours), divided by average annual domestic electricity consumption (3.323 MWh) expressed in MWh = 45,453 homes powered equivalent [source accessed 09/09/2026].

any of the monitoring systems, the system would generate an alarm which would be sent to the maintenance operator and, if required, the equipment would be automatically switched off.

3.4.5 Once operational, maintenance would involve a team of technicians visiting the Site regularly to undertake operational checks to ensure the wind farm is running efficiently. Access to the Site for cars and light goods vehicles (LGVs) would be via the Secondary Vehicular Access Point.

3.5 Decommissioning of Repowered Wind Farm

3.5.1 At the end of its operational life the repowered wind farm would be decommissioned, equipment removed and the Site restored where possible, using a similar method to what it proposed for the existing Novar 1 Wind Farm. Any alternative to this such as an extension to the life of the wind farm or repowering would require a new consent.

3.5.2 The decommissioning activities and sequence are expected to be broadly the reverse of the construction activities and would use similar equipment and personnel.

3.5.3 Activities would likely take place in a shorter overall duration (approximately 6 to 12 months). Wind turbines, electrical equipment such cabling would be removed and the turbine hardstanding and substation restored/reinstated.

3.5.4 A Decommissioning Environmental Management Plan (DEMP) would perform a similar role to the DCEMP for the construction phase, setting out the mitigation measures that would be implemented to minimise adverse environmental effects.

4. Design Evolution and Alternatives

4.1 Site Selection and Considerations

4.1.1 The Site was identified as suitable for wind farm development for the following reasons:

- The Proposed Development would replace the 34 existing Novar 1 turbines with nine larger, more powerful, technologically advanced wind turbines that can produce more electricity at higher efficiency;
- The Proposed Development involves repowering an existing wind farm and is located close to other wind farm developments, including the adjoining Novar 2 Wind Farm. The Proposed Development would be seen in the context of an established wind farm rather than introducing wind farm infrastructure into a new, undeveloped area;
- The Turbine Array is located outside environmental designated sites, as shown in **Figure 3, Annex 1;**
- Appropriate separation from residential properties; there are none within 2 km of the nearest proposed turbine;
- Potential to reuse existing areas of hardstanding for new turbine foundations and some of the existing turbine locations as temporary construction compounds;
- The Site would utilise already existing on-Site Internal Tracks where possible, with limited requirements to build new Internal Track to deliver suitable access for both construction traffic including abnormal indivisible loads (AIL); and

4.2 Alternatives

Design Evolution and Alternative Layouts

4.2.1 **Figure 5, Annex 1** summarises the design evolution of the wind turbine layout from Layout A (Early Feasibility) to Layout G (Design Freeze).

4.2.2 Layout A (Early Feasibility) was the original turbine layout based on a desk-based site feasibility assessment, which compromised 12 turbines with a maximum tip height of 150 m. The design of the Proposed Development has been refined through an iterative process, with the design changing as environmental constraints were identified through a series of desk-based studies and site surveys, as well as from the feedback received from consultees. Feedback from members of the public has also been considered during the design process, as outlined in the **Pre-Application Consultation Report**. The final design freeze layout (Layout G) includes 9 turbines with a tip height of up to 180 m.

4.2.3 Layout G forms the conclusion of the design process and represents the Proposed Development layout **(see Figure 5, Annex 1)**. This was taken forward because it:

- Maximises the reuse of existing wind farm infrastructure;
- Avoids wind turbulence from poorly spaced turbines;
- Maximises the amount of construction material that can be won on the Site;
- Avoid slopes greater than 10 degrees on straight sections of Internal Track up to 200 m and 7 degrees on the bends of the Internal Tracks;
- Minimises impacts on existing watercourses;
- Avoids impact on existing infrastructure that crosses part of the Site;
- Avoids disturbance to areas of deep peat;
- Avoids impact on Scottish Water Drinking Water Protected Area (DWPA) catchments;

- Avoids impact on Private Water Supplies (PWS);
- Minimises impacts on sensitive habitats and species;
- Minimises the influence on sensitive receptors such as the Ben Wyvis Special Landscape Area, residential properties, hill walkers and road users;
- Creates a balanced and coherent layout by avoiding turbines appearing at greatly different elevations;
- Avoids direct impacts on heritage receptors such as scheduled monuments;
- Minimises impacts on built heritage receptors such as listed buildings and gardens and designated landscapes;
- Minimises impacts on Noise Sensitive Receptors (NSR); and
- Minimises impacts on Inverness Airport radar.

4.2.4 The design process has resulted in a Proposed Development that balances efficient energy generation with environmental and technical constraints. The careful design of the layout of the proposed turbines and associated infrastructure, and the reduction in turbines from 12 to 9 has resulted in the avoidance or reduction of a number of potentially significant effects from the Proposed Development as far as reasonably practicable.

Existing Novar 1 Wind Farm



5. Findings of the EIA

5.1 Overview

5.1.1 The findings of the EIA are presented in chapters 5-12 of the EIAR, with each chapter relating to one of the environmental topics listed in Section 2.2.2 of this NTS.

5.1.2 The conclusions of the EIA are that potential likely significant effects were identified for a number of topics, however for the majority of these, the application of mitigation would reduce these effects to a non-significant level. The only exception to this is for certain residual effects on Landscape and Visual Amenity and Cultural Heritage receptors, where some significant operational and cumulative residual effects have been predicted.

5.2 Landscape and Visual Amenity

5.2.1 **Chapter 5: Landscape and Visual Amenity (EIAR Volume 2)** considers the likely significant effects of the Proposed Development in relation to the landscape and the visual and residential amenity of the local environment.

5.2.2 Desk-based studies, including Zone of Theoretical Visibility (ZTV) mapping, and field survey work were carried out to establish the current landscape and visual baseline context of the Site and area to which it relates, and to identify key sensitive receptors and representative viewpoints for assessment based on those likely to be affected by views of the Proposed Development.

5.2.3 To fully understand the impacts of a repowering project, the assessment considers two scenarios:

- The **comparative scenario** whereby the effects of the Proposed Development are assessed against a baseline that includes the existing Novar 1 Wind Farm; and
- The **restored scenario** whereby the effects of the Proposed Development are assessed against a baseline that assumes the Novar 1 Wind Farm site is undeveloped.

5.2.4 The assessment uses a Study Area of 35 km.

Baseline

LANDSCAPE

5.2.5 The Site does not lie within any landscape designation. The nearest landscape designation is the Ben Wyvis Special Landscape Area (SLA) which is located approximately 3 km west of the Site.

5.2.6 The Site is not located within a Wild Land Area (WLA). The closest is WLA29 Riddoroch – Beinn Dearg – Ben Wyvis which is located approximately 1.2 km northwest of the operational Novar 1 Wind Farm.

5.2.7 The Site is located across four Landscape Character Types (LCTs) as defined by NatureScot as units of landscape with consistency of character. The Proposed Development would be situated mainly within LCT329 Rounded Mountain Massif, characterised by an open area of moorland which has been modified by the Novar 1 and Novar 2 Wind Farms. The Access Route passes through LCT345 Farmed and Forested Slopes – Ross and Cromarty, LCT330 Rounded Hills and Moorland Slopes – Ross and Cromarty and LCT341 Forest Edge Farming.

VISUAL

5.2.8 The Site is bisected by various regionally important as well as minor local routes. The Main Vehicular Access Point connects from the A9 via the B817, while the Secondary vehicular Access Point connects from the B9176 via Boath Road.

5.2.9 Within the Study Area there are three National Cycle Network (NCN) routes.

5.2.10 There are five core paths within the 10 km of the Site:

- Tollie to Lealty Path (RC05.02);
- Swordale Hill (RC16.01);
- Dam Wood (RC05.03);
- Fyrish Path (RC05.01); and
- Dublin to Ardross Mains (RC05.04).

5.2.11 The nearest settlements to the Site are Boath and Alness. There are no residential properties within 2 km of the Site.

Embedded Mitigation

5.2.12 Throughout the design iteration process, various measures have been included in the design to mitigate the landscape and visual effects, including:

- The proposed turbine locations have been set slightly downhill from the ridge crest to minimise the disparity in scale between Novar 2 and proposed turbines (as seen from local area);
- The proposed turbines are aligned along the ridge to create a simple composition within the landscape and a more balanced and coherent array;
- The proposed turbines are within the footprint of the Novar 1 Wind Farm to minimise impacts;
- The height of the proposed turbines Above Ordnance Datum (AOD) in the array corresponds to underlying landform while avoiding markedly differing elevations;
- The spacing between turbines is consistent without large gaps between groups of turbines or the presence of outliers; and
- A reduced lighting scheme comprising of nacelle lights on T1, T5, T7 and T9 only with no mid-tower lights.

Additional Mitigation

5.2.13 The following precautionary additional mitigation measures are proposed during the construction phase to minimise landscape impacts:

- All plant and materials would be restricted to specified construction areas where possible, to avoid them affecting more open areas of the Site;
- Material storage and temporary stockpiles would be kept for the shortest possible duration and would be sited in accordance with the latest best practice guidance and to avoid visual intrusion to neighbouring visual receptors in accordance with the Outline DCEMP; and
- The Turbine Array and Internal Tracks have been designed to limit effects on deep peat. Where peatland materials do need to be excavated or moved, they would be placed wherever practicable to avoid double handling, reduce the number of vehicle movements and to reduce the potential drying out and oxidisation of the material.

Significant Residual Effects

5.2.14 Following the implementation of embedded mitigation, no significant residual effects are predicted during the decommissioning of the existing Novar 1 Wind Farm, and the construction and decommissioning of the proposed repowered wind farm.

OPERATIONAL LANDSCAPE CHARACTER EFFECTS

5.2.15 Once the repowered wind farm has been constructed, some significant negative residual effects are predicted during the operational phase as follows:

Landscape character receptors:

- LCT329: Rounded Mountain Massif;
- LCT330: Rounded Hills and Moorland Slopes – Ross and Cromarty;
- LCT339: Inland Strath; and
- LCT341: Forest Edge Farming.

5.2.16 For all these receptors, significant residual effects would occur only under the restored scenario.

5.2.17 Beyond 8 km of the Site effects on LCT329: Rounded Mountain Massif would be not significant.

5.2.18 Beyond 4 km of the Site effects on LCT330: Rounded Hills and Moorland Slopes – Ross and Cromarty would be not significant.

DESIGNATED LANDSCAPES AND WILD LAND AREAS

5.2.19 The landscape designation closest to the Site, Ben Wyvis SLA, would experience significant residual effects (Major/Moderate) only under the restored scenario. The Proposed Development would mainly affect views east from Ben Wyvis but not views in other directions. The special quality of "extensive panoramas" would be significantly affected. Wider views available from summit of Ben Wyvis would be unaffected.

5.2.20 One Wild Land Quality (WLQ) of WLA Rhiddoroch – Beinn Dearg – Ben Wyvis, would experience significant residual effects. Significant effects would be restricted to a small number of summits within 10 km of the proposed turbines and the overall effect on the relative wildness of WLA29 would not be significant and the integrity of the WLA would not be affected.

OPERATIONAL VISUAL EFFECTS

5.2.21 The small community of Boath would experience significant residual visual effects in both the comparative and restored scenarios. Significant effects would arise because the proposed turbines would appear larger in scale but would not seem out of character in views.

5.2.22 There would be significant adverse effects on the following core paths:

- **RC05.02**: Tollie to Lealty: Major/Moderate significant effects in the comparative scenario and Major significant effects in the restored scenario;
- **RC16.01**: Swordale Hill: Major/Moderate significant effects in both scenarios;
- **RC05.03**: Dam Wood: Major/Moderate significant effects in comparative scenario and Major significant effects in restored scenario; and
- **RC05.04**: Dublin to Ardross Mains: Moderate significant effects in the comparative scenario and Major significant effects in the restored scenario.

5.2.23 A selection of 30 representative viewpoints within the Study Area have been assessed. Significant adverse residual effects have been identified at the following:

- Viewpoint 2 Carn Salachaidh: Moderate significant effects in both scenarios;
- Viewpoint 3 Loch Glass, Wyvis Lodge: Moderate significant effect in both scenarios;
- Viewpoint 4 Strath Rusdale: Major/Moderate significant effects in both scenarios with forestry felled only;
- Viewpoint 5 A9 between Duncanston and Causeway: Moderate significant effects in both scenarios for tourists only;
- Viewpoint 6 Boath: Major/Moderate significant effects in comparative scenario and Major significant effects in restored scenario;
- Viewpoint 7 Minor Road at Inchlumpie: Major/Moderate significant effects in the comparative scenario and Major significant effects in the restored scenario;
- Viewpoint 8 Minor Road by Ardross Distillery: Major/Moderate significant effects in the restored scenario only;
- Viewpoint 10 Beinn TharsuinnL Major/Moderate significant effects in the restored scenario only;
- Viewpoint 16 Beinn Wyvis: Major/Moderate significant effect in the restored scenario only; and
- Viewpoint 20 Glen Glass: Major/Moderate significant effects in both scenarios.

Night-time effects

5.2.24 No significant night-time effects are identified on Dornoch Firth NSA and the integrity of the designation would not be undermined.

5.2.25 No significant night-time effects are identified on Fannichs, Beinn Dearg and Glen Calvie SLA or Ben Wyvis SLA and the integrity of these designations would not be undermined.

5.2.26 No significant night-time effects are identified on visual receptors in the Study Area.

Cumulative effects

5.2.27 The main cumulative interaction would be with the proposed Ceislein Wind Farm, which is the subject of a S36 application that is currently under determination. All cumulative sites within 35 km were considered in the assessment, but the focus was given to main cumulative interactions occurred within 20 km.

5.2.28 There would be limited in-addition significant cumulative effects from summits in proximity to the Site. One LCT (LCT339: Inland Strath) would experience cumulative significant effects arising from the cumulative interaction with the Ceislein Wind Farm.

5.2.29 Residents of Boath and recreational users of RC05.02: Tollie to Lealty would experience significant visual effects from cumulative interaction with Ceislein Wind Farm. While the addition of the Proposed Development to the proposed Ceislein Wind Farm would increase the influence on views it would not seem out of character because views of the existing Novar 2 Wind Farm would be present.

5.3 Cultural Heritage

5.3.1 **Chapter 6: Cultural Heritage (EIAR Volume 2)** considered the likely significant environmental effects arising from the decommissioning of the existing Novar 1 Wind Farm and the construction, operation, and decommissioning of the repowered wind farm on cultural heritage receptors e.g., historic environment sites and features and archaeological remains.

5.3.2 The assessment was informed by a desk-based assessment and field surveys to establish the cultural heritage baseline within the Site and the wider landscape (generally referred to as 10 km from the Site). The assessment has been informed by the scoping response provided by HES and ongoing engagement.

Baseline

5.3.3 One designated asset, the Novar Garden and Designed Landscape (GDL) (Asset 32) is recorded within the Site. A further 24 non-designated heritage assets (Assets 43, 44, 55, 56, 77, 78, 85, 328, 354, 356, 363, 364, 368-373, 392, 470, 471, 550 and 618) have been identified within the Site, consisting of predominantly post-medieval settlement and agricultural remains, as well as the modern Novar 1 Wind Farm (Asset 44), a World War II camp (Assets 470 and 471) and a commemorative monument for the Novar 1 Wind Farm (Asset 618).

5.3.4 Within 1 km there are 16 designated heritage assets, including:

- Five scheduled monuments;
- Seven category B listed buildings; and
- Two category C listed buildings.

5.3.5 Between 1 km and 5 km of the Turbine Array there are 14 designated heritage assets including:

- Two scheduled monuments;
- Ardross Castle Garden and Designated Landscape (GDL);
- Eight category A listed buildings;
- Two category B listed buildings; and
- One category C listed building.

5.3.6 The baseline data identified 33 previous archaeological events within the Site, including desk-based assessments and walkover surveys of much of the Site in advance of the existing wind developments and subsequent watching briefs. Within the surrounding 1 km Study Area, a further 153 events have been undertaken.

5.3.7 Site walkover surveys were undertaken in May 2024 and October 2025. No additional heritage assets were identified within the Turbine Array. The proposed construction compound area in the southeast portion of the Access Route is situated within the Novar GDL; however, site survey confirmed that the area has been in use as a sand and gravel quarry. The Access Route also extends through the extents of several non-designated heritage assets, but no upstanding remains were identified within the Site itself, as they have likely been impacted by the existing wind farm tracks.

Embedded Mitigation

5.3.8 Wherever possible, built infrastructure has been located to avoid scheduled monuments, non-designated historic assets and earthworks of potential historic interest. In accordance with best practice, mitigation measures to avoid and minimise adverse effects, including demarcation, micrositing of infrastructure and archaeological monitoring have been proposed to minimise and/or offset direct effects.

5.3.9 To avoid the effects on Scheduled Monument Cladh Churadain chape and burial ground (Asset 14), archaeological monitoring during tree-felling works, including demarcation and pre-condition and post-condition surveys of the asset, would be undertaken.

Additional Mitigation

DECOMMISSIONING OF NOVAR 1 WIND FARM

5.3.10 No mitigation is required as no significant effects are anticipated during the decommissioning phase.

CONSTRUCTION

5.3.11 Given the identified archaeological potential within the Site, it is proposed that prior to construction of the repowered wind farm commencing, a programme of archaeological investigation would be undertaken to further investigate the potential for disturbance of unknown archaeological remains.

5.3.12 Additional mitigation measures for potential physical effects on known heritage assets include:

- Demarcation and avoidance of known heritage assets within the Site. If avoidance is not possible an archaeological watching brief of all ground-breaking works would be undertaken within 50 m of all heritage assets; and
- The potential removal and re-siting or reinstatement of the non-designated Novar 2 Wind Farm Commemorative Monument (Asset 618).

5.3.13 There is potential for as-yet unknown archaeological remains to survive along the Internal Tracks. To avoid physical effects, archaeological watching briefs, in addition to those for known heritage assets, would be undertaken for a proportion of ground-breaking works.

5.3.14 The requirement for watching briefs and any further mitigation would be agreed with the THC Historic Environment Team (HET), with the scope of any required works defined through a Written Scheme of Investigation (WSI) and secured through a condition of any consent that is granted.

OPERATION

5.3.15 No additional mitigation has been identified for non-physical effects on heritage assets arising from changes to their setting, as these are difficult to mitigate beyond design changes that minimise effects as far as possible.

DECOMMISSIONING OF REPOWERED WIND FARM

5.3.16 Demarcation of any identified heritage assets within close proximity to the Proposed Development has been proposed to mitigate direct physical impacts on known heritage assets during decommissioning of the repowered wind farm.

Significant Residual Effects

DECOMMISSIONING OF EXISTING WIND FARM

5.3.17 There would be no significant residual effects during the decommissioning of the existing Novar 1 Wind Farm.

CONSTRUCTION

5.3.18 It is considered that through mitigation, any direct effects on both the known and the unknown heritage resource within and directly adjacent to the Site would be, at worst, Minor negative and not significant.

OPERATION

5.3.19 It is considered that the setting effects upon the Category A Listed Wyvis Lodge (Assets 23.1-23.4), Ardross Castle (Assets 26.1-26.4), Ardross Garden and Designed Landscape (GDL) (Asset 31) and Scheduled Easter Ballone cairns (Assets 17.1-17.3) have the potential to be Moderate negative and significant. For all other designated heritage assets, Minor adverse or Neutral setting effects are considered likely, which are not significant.

DECOMMISSIONING OF REPOWERED WIND FARM

5.3.20 No direct effects are anticipated to arise from decommissioning, provided all works remain within the existing construction footprint.

5.3.21 All operational and cumulative effects upon the settings of heritage assets would be reversed with the removal of the turbines following decommissioning, resulting to a Neutral residual effect.

CUMULATIVE EFFECTS

5.3.22 It is predicted that there would be Moderate negative and significant cumulative effects on the Scheduled Boath, three chambered cairns NE and NNE of Easter Ballone Farm (Assets 17.1-17.3). All other residual cumulative effects would be minor adverse and not significant.

5.4 Ecology

5.4.1 **Chapter 7: Ecology (EIAR Volume 2)** presents the assessment of the likely significant environmental effects of the Proposed Development in relation to designated nature conservation sites, habitats and protected species in line with best practice guidance.

5.4.2 The Study Area includes a Field Survey Area which consists of the Site and surrounding land extending up to 250 m where required, including the Access Route. It also includes a wider Desk Study Area extending 5 km from the Site, which represents the area within which potential ecological impacts could occur.

5.4.3 The following ecological surveys were completed in 2025 to gather information on the habitats and animal species present on or near the Site:

- UK Habitat Classification (UKHab) survey;
- National Vegetation Classification (NVC) survey of the Turbine Array area (excluding the Access Route);
- Protected land-based (terrestrial) species; and
- Bat activity and roost assessment.

Baseline

5.4.4 No statutory designated nature conservation sites for ecological features occur within the field Survey Area. Ben Wyvis Special Area of Conservation (SAC) is the one internationally designated site located 1.5 km southeast of the Site. There are three nationally important Sites of Special Scientific Interest (SSSI), including the Altt nan Caorach site approximately 1 km west of the Site, the Cromarty Firth site approximately 1.4 km east and south of the Site and the Ben Wyvis site approximately 1.5 km southeast of the Site.

5.4.5 Ancient woodland is found within the Desk Study Area. No Ancient Woodland of semi-natural origin occurs on the Site. All the woodland identified in the Ancient Woodland Inventory that occurs on Site is categorised as Long-established of plantation origin (LEPO). The LEPO woodland occurring on Site is crossed by 3.5 km of existing Access Route and overlaps with the Novar Special Protection Area SPA.

5.4.6 Surveys to map all habitat types on Site were completed and the most commonly occurring habitats are coniferous woodland plantation, and peatlands such as blanket bog and heath. Much of the peatland is in a degraded state. The existing Access Route, which would be widened passes through areas of LEPO Ancient Woodland.

5.4.7 Protected species surveys identified signs of pine marten and badger on Site as well as low level activity by common bat species.

5.4.8 Four confirmed bat species (common pipistrelle, soprano pipistrelle, Natterer's bat and Myotis spp.) were recorded in the field survey area.

5.4.9 No confirmed protected species such as pine marten dens or badger setts were recorded in the Field Survey Area.

Embedded Mitigation

5.4.10 To address the potential impacts on ecology, appropriate mitigation measures would be implemented. Work within all habitats would be completed within strict controls to avoid pollution or other habitat damage beyond the project limits. Embedded mitigation measures have been incorporated into the design and layout of the Proposed Development with the aim of avoiding or reducing the potential for significant effects on important ecological features. This includes:

- Undertaking a tree survey to identify the quantity and quality of trees in the areas required to widen the existing Access Route. Where feasible, the requirement for tree felling has been minimised through re-design;
- Positioning turbines and infrastructure in areas that would keep impacts on natural functions of habitats to a minimum; and
- Areas of Ancient Woodland of semi-natural origin have been avoided.

5.4.11 A Decommissioning and Construction Environmental Plan would be prepared and would include:

- Appointment of an Ecological Clerk of Works (ECoW);
- A pre-construction ecological survey programme;
- Standard practice construction methods, to include current best practice and prescribed use of low noise, vibration and artificial lighting controls to limit disturbance and displacement effects; and
- Standard pollution prevention measures to manage pollution or siltation risk to watercourses.

Additional Mitigation

5.4.12 The following additional mitigation measures are proposed to respond to the habitat that would be lost during the construction of the repowered wind farm:

- 0.7 ha of broadleaved woodland replanting in area adjacent to the Novar SPA;
- Restoration of 135.7 ha of peatland within Application Boundary. An additional 12 ha for peatland restoration may be available either within land controlled by Novar Estates, or at another appropriate location subject to the outcome of ongoing landowner engagement; and
- Enhancement of montane heath and willow scrub within the Site.

5.4.13 Further information is provided in **Technical Appendix: Outline Biodiversity Enhancement Management Plan (Volume 4)**.

5.4.14 Peatland restoration and enhancement measures across the Site, including in areas where redundant Internal Tracks or Turbines are removed, would deliver an overall improvement in peatland habitat on Site.

Significant Residual Effects

5.4.15 No significant residual ecology effects are predicted during the decommissioning of the existing Novar 1 Wind Farm or the construction, operation or decommissioning of the repowered wind farm.

5.4.16 No significant residual cumulative construction or operational effects are anticipated for ecology.

5.5 Ornithology

5.5.1 **Chapter 8: Ornithology (EIAR Volume 2)** considers the significance of effects resulting from the Proposed Development on protected sites, specifically the Novar SPA and internationally important species for the SPA, including capercaillie. The assessment also covers other bird species present within the Site and surrounding Study Area.

5.5.2 The Study Area includes the Site, and an area of up to 20 km surrounding it. The extent of the field survey was based on best practice species-specific standard guidance.

5.5.3 Desk studies and the following field surveys were carried out to identify the baseline conditions for ornithological features:

- Vantage point (VP);
- Moorland breeding bird (MBBS);
- Breeding bird of prey (raptor); and
- Black grouse;

Baseline

5.5.4 The desk study identified eight statutory sites of nature conservation interest within 20 km of the Site: two designated as both SPA and Ramsar, five sites designated as SPA only and one site designated as Ramsar only. A Ramsar Site is a wetland of international importance designated under the Ramsar Convention on Wetlands.

5.5.5 Desk study data was purchased from the Royal Society for the Protection of Birds (RSPB) and the Highland Raptor Study Group (HRSG) to inform the baseline for breeding raptor territories/nests and capercaillie lek sites. There are two active capercaillie lek sites within the Site, along the Access Route and within the Novar SPA. There is also one golden eagle territory located approximately 2.3 km to the southwest of the Site, near Loch Glass.

5.5.6 A total of 23 golden eagle flights were recorded during the VP surveys, with two flights recorded at potential collision height within a 200 m buffer of the proposed Turbine Array. Evidence of breeding through displaying and presence of young juvenile birds was recorded between Loch Morie and Loch Glass northwest of the Site.

5.5.7 There is one established golden eagle territory confirmed within 2 km of the Site.

5.5.8 Two golden plover flights were recorded on Site during the first year of VP surveys. No flights were recorded during the second year of survey.

5.5.9 Thirteen hen harrier flights were recorded during the VP surveys, with four flights recorded within 200 m from the Turbine Array. Evidence of displaying was recorded in the southeast section of the Site.

5.5.10 There was one hen harrier territory confirmed during breeding raptor surveys approximately 750 m outside of the Site.

5.5.11 Eighty red kite flights were recorded during the VP surveys, with 42 flights recorded within 200 m of the proposed Turbine Array at potential collision height. Evidence of territorial display and hunting between turbines was recorded.

5.5.12 Two merlin flights were recorded, with one flight recorded within 200 m of the proposed Turbine Array at potential collision height. No breeding activity by merlin was recorded during the survey work.

5.5.13 Two osprey flights were recorded in 2024, where a section of one flight was recorded on Site at potential collision height within 200 m of the Turbine Array. No breeding activity by osprey was recorded during the survey work.

5.5.14 Two flights of peregrine falcon were recorded on Site observed hunting below potential collision height.

5.5.15 One flight of over 40 pink-footed geese was recorded commuting across the Access Route.

5.5.16 Three flights of sparrowhawk were recorded during the surveys, all three were located off-Site.

5.5.17 Three flights of white-tailed eagle were recorded during VP surveys, with two flights crossing within 200 m of the proposed Turbine Array at potential collision height. No breeding activity for white-tailed eagle was recorded.

5.5.18 No confirmed breeding territories were identified during MBBS surveys. One probable red grouse territory was recorded on two occasions on Site. Seven other possible red grouse breeding territories were recorded both on and off-site.

5.5.19 One black grouse lek site was recorded within the survey area approximately 1 km outside the Proposed Development.

Embedded Mitigation

5.5.20 Embedded mitigation measures have been incorporated into the design and layout of the Proposed Development. This includes design changes made to avoid sensitive receptors, such as the removal of two turbines from the previous design to reduce potential effects on a nearby golden eagle territory.

5.5.21 The DCEMP would include:

- A Bird Species Protection Plan (SPP) that sets out measures to avoid or minimise impacts on bird species, including the protection of nests and lek sites through the use of species-specific disturbance buffers;
- An ECoW to oversee works and ensure mitigation measures are implemented; and
- Measures to programme construction, operation and decommissioning activities to avoid sensitive periods during breeding seasons. Where this cannot be achieved, pre-construction surveys would be undertaken to manage potential impacts.

Additional Mitigation

5.5.22 Pre-construction surveys are required to identify any nesting birds within and around the Site. If active nests are found, appropriate disturbance buffers would be put in place and works delayed until breeding activity is complete.

5.5.23 Pre-construction surveys are required in black grouse lekking areas. Works within the disturbance buffer distance would be supervised by an ECoW and timed to avoid the breeding season.

5.5.24 Woodland loss within the Novar SPA would be compensated through replanting and habitat enhancement. To improve the condition of and extent of the woodland within Novar SPA for capercaillie, a minimum 0.7 ha of native woodland would be required to be replanted.

5.5.25 Pre-decommissioning surveys for rare and vulnerable breeding raptors would be undertaken to identify any active nests. Appropriate buffer zones and timing of works would be applied to avoid potential disturbance.

5.5.26 Pre-decommissioning surveys would be required in black grouse lekking areas. Works required within disturbance distance of these areas would be supervised where necessary and timed to avoid the breeding season.

Significant Residual Effects

5.5.27 Following implementation of the additional mitigation, no significant adverse residual effects are anticipated for ornithology during decommissioning of the existing Novar 1 Wind Farm and the construction, operation and decommissioning of the repowered wind farm.

5.5.28 No significant residual cumulative construction or operational effects are anticipated for ornithology.

5.6 Hydrology, Hydrogeology, Geology and Soils

5.6.1 **Chapter 9: Hydrology, Hydrogeology and Soils (EIAR Volume 2)** considers the likely significant effects on hydrology, hydrogeology and soils associated with the decommissioning of the existing Novar 1 Wind Farm and the construction, operation and decommissioning of the repowered wind farm.

5.6.2 The Study Area for the desktop assessment of hydrology, hydrogeology and soils includes the Site and land within a 2 km radius, as well as receptors with downstream connectivity with the Proposed Development.

5.6.3 A site walkover was carried out in June 2024 to assess hydrological conditions, proposed watercourse crossing points and potential groundwater dependent terrestrial ecosystem (GWDTE) locations.

5.6.4 Stage 1 and Stage 2 peat surveys were undertaken in May 2024 and June 2025.

Baseline

5.6.5 The assessment establishes the Site's hydrological and geological context, detailing the watercourses and associated catchments within the desktop study area (including the Loch Glass, River Glass, and River Averon catchments), the groundwater characteristics of underlying aquifers and the presence of water supplies within proximity to the Site. Watercourses and waterbodies at the Site are of High sensitivity while the underlying aquifer is shown to be of limited productivity (a Low to Moderately productive aquifer). The assessment includes a description of soils and peat depth, which indicated that approximately half of the Site is underlain by areas where either no peat is present or, where the organic soils that are present are shallow in depth, with a maximum depth around 3.55 m. The peatland is also largely modified or drained.

Embedded Mitigation

5.6.6 Embedded mitigation measures have been incorporated into the project design, including minimising watercourse crossings, maintaining hydraulic connectivity of surface water flows, and avoiding deep peat and Ground Water Dependent Terrestrial Ecosystem (GWDTE) areas where possible. Mitigation also emphasises reuse of existing infrastructure to limit peat disturbance and sets out applicable buffers around watercourses to protect water quality and peatlands as part of the design.

5.6.7 A DCEMP and Pollution Prevention Plan (PPP) would be prepared to manage pollution and sediment control.

5.6.8 Further measures include:

- A peat management approach that prioritises reuse of excavated peat and restoration of disturbed areas;
- Restoration and enhancement of degraded peatland habitats across the Site;
- Careful siting of infrastructure during construction (micrositing) to avoid sensitive areas; and
- Monitoring and supervision of works near watercourses.

5.6.9 Most excavated peat would be reused on Site, and significant areas of peatland would be restored to improve habitat condition.

Additional Mitigation

CONSTRUCTION PHASE

5.6.10 An Outline Peat Management Plan (PMP) and detailed Peat Landslide Hazard Risk Assessment (PLHRA) would be implemented to minimise adverse effects on peat. Micrositing and further design refinements would reduce the potential for peat and peatland disturbance.

5.6.11 In relation to effects on peat and carbon rich soils, further specific mitigation aims to further reduce non-significant effects on peat and carbon rich soils and provide offsetting (reinstatement) of peatland that would be disturbed by the Proposed Development through implementation of a detailed PMP and enhancement of some of the currently degraded peatland habitats present on the Site. The mitigation approach uses a combination of reuse and restoration which has formed the peat management strategy. Through this approach most excavated peat can be reused for reinstatement opportunities. Excavated peat could also be reused for the restoration and enhancement of habitats at the Site, for example, the infilling of artificial drainage channels and erosion features and gullies.

5.6.12 At the limited number of locations where an Internal Track is required to cross a watercourse, or where other infrastructure is necessary within 50 m of a surface watercourse, the installation of Sustainable Urban Drainage System (SuDS) measures would be supervised by an Environmental Clerk of Works (EnvCoW) and any requirement for monitoring of water quality within watercourses would be agreed with SEPA and detailed in the CEMP.

OPERATIONAL PHASE

5.6.13 During the operational phase, a site maintenance programme for Site plant and infrastructure would be implemented by the Principal Contractor together with a maintenance schedule, which would be developed for all SuDS and drainage assets.

DECOMMISSIONING PHASE

5.6.14 No additional mitigation is expected to be required during the decommissioning phase.

Significant Residual Effects

5.6.15 Following implementation of the additional mitigation, no significant adverse residual effects are anticipated for hydrology, hydrogeology and soils during the decommissioning of the existing Novar 1 Wind Farm and the construction, operation and decommissioning of the repowered wind farm.

5.6.16 No significant residual effects are expected to be generated from the Proposed Development and the cumulative schemes.

5.7 Noise

5.7.1 **Chapter 10: Noise (EIAR Volume 2)** assesses potential significant noise effects from the decommissioning of the Novar 1 Wind Farm and the construction, operation and decommissioning of the proposed repowered wind farm.

5.7.2 The construction noise assessment was completed to meet the requirements of BS 5228-1:2009+A1:2014[5] and operational noise limits for the Proposed Development were set in accordance with ETSU-R-97[6] guidance. At the time of finalising the EIAR, the Assessment and Rating of Wind Turbine Noise (ARWTN) guidance was published[7]. The conclusions of the operational noise assessment are consistent with the ARWTN guidance.

Baseline

5.7.3 The Proposed Development is located in an area of low population density, with a noise environment mainly characterised by natural sources. The assessment has considered the residential properties nearest to the Site as these are considered noise sensitive.

5.7.4 A survey has been undertaken to establish existing baseline noise levels at a representative location, as well as the use of historical baseline survey data at some receptors from a previous wind farm application in the area. Noise limits at receptors have either been derived from data about the existing noise environment or using a simplified fixed noise limit, both following the method suggested in national planning guidance.

Embedded Mitigation

5.7.5 The turbine layout has been developed to avoid significant operational wind turbine noise effects and to maintain compliance with ETSU-4-97 guidance and ARWTN guidance.

5.7.6 The location of the substation was determined with consideration of the proximity of noise-sensitive locations while considering other design constraints. The noise assessment considered the substation equipment at the shortest distance from the nearest receptor.

5.7.7 For construction and decommissioning noise, the following good practice measures are proposed to reduce noise impacts:

- Working hours would be limited to Monday to Friday 07:00 to 19:00 and Saturday 07:00 to 13:00 and no working on Sundays or public holidays without prior written approval from THC;

[5] BS 5228 1:2009-A:2014 'Code of practice for noise and vibration control on construction and open sites – Part 1: Noise'.

[6] September 1996. The Working Group on Noise from Wind Turbines. ETSU R 97, The Assessment and Rating of Noise from Wind Farms, Final Report for the Department of Trade & Industry.

[7] Assessment and Rating of Wind Turbine Noise, Department for Energy Security and Net Zero, Published 19th June 2026 (https://www.gov.uk/government/publications/assessment-and-rating-of-noise-from-wind-turbines-guidance). Assessment and Rating of Wind Turbine Noise, M. Cand, R. Davis, C. Jordan, M. Hayes, R. Perkins, Institute of Acoustics, May 2013.

- All construction activities would adhere to good practice as set out in BS 5228;
- All equipment would be maintained in good working order, and associated noise attenuation, such as engine casings and exhaust silencers, would remain fitted at all times;
- Where possible, construction activities would be separated from residential neighbours by the maximum possible distances; and
- Construction plant capable of generating significant noise and vibration levels would be operated in a manner to restrict the duration of the higher magnitude levels.

5.7.8 These measures would be implemented in the DCEMP and a Construction Traffic Management Plan (CTMP).

Additional Mitigation

5.7.9 No additional mitigation measures or enhancement measures are required.

Significant Residual Effects

5.7.10 No significant adverse residual noise effects are anticipated to be generated from the Proposed Development and in-combination with the cumulative developments.

5.8 Traffic and Access

5.8.1 **Chapter 11: Traffic and Access (EIAR Volume 2)** considers the potential effects of the Proposed Development on transport during the construction phase, including both general construction traffic and abnormal indivisible loads (AIL) associated with the transportation of turbine components to the Site.

5.8.2 A desk study was carried out to establish the nature of the surrounding road network and footway infrastructure, which included:

- A review of relevant transport planning policy;
- Consideration of potential origin locations of construction staff and potential supply locations for construction materials to inform the extent of the local area roads network;
- Collection of existing traffic flow information;
- Review of the road hierarchy within the study area;
- Review of personal injury accident data;
- Identification of sensitive locations such as settlements, schools, tourist attractions using freely available online mapping;
- Identification of any other traffic sensitive receptors in the area using freely available online mapping and relevant agency websites;
- Review of OS plans;
- Review of cumulative development information; and
- Identification of constraints to the movement of AILs through a route survey including swept path assessments.

5.8.3 The collection of traffic flows and speed data was undertaken in June and November 2024.

Baseline

5.8.4 The Proposed Development would be accessed from the B817 (Fyrish Crescent) via an existing simple priority junction, which currently provides access to the operational Novar 1

Wind Farm. This junction would be upgraded to accommodate the larger wind turbine components proposed as part of the Proposed Development.

5.8.5 Strategic access to the Site would be taken from the A9 to the southeast and northeast, with construction traffic routing through to the Site via the B9176 and B817. Where feasible, local materials would be sourced which would avoid traffic impacting on local communities as far as is possible.

5.8.6 The likely Port of Entry used for wind turbine components would be the Port of Nigg, routing via the B9175, A9, B9176 and B817, utilising sections of proven abnormal indivisible load routes used during the construction of other wind farms in the area.

5.8.7 The study area includes:

- B817, between the B9176 and the Main Vehicular Access Point;
- B9176, between the B817 and A9; and
- A9, between Ardullie and The Mound.

5.8.8 There is a shared pedestrian and cycle path on the B817 from Alness through to the settlement of Evanton to the west of the Site. The path forms part of the Evanton – Skiach Cycleway (RC16.08) which is classified as a Core Path within THC and part of the National Cycle Network Route 1.

5.8.9 Further away from the Site there are pedestrian facilities within the larger settlements of Alness and Evanton, where there are footways on one or both sides of the carriageway.

Embedded Mitigation

5.8.10 The Proposed Development has been designed to include a range of measures to mitigate potential traffic and access effects. For example, 100% of all aggregate material for the repowered wind farm is anticipated to be sourced from the on-Site borrow pit and from the recycling and re-use of materials sourced from the decommissioning of the existing Novar 1 Wind Farm. By prioritising the reuse of site-won aggregates (where practicable) for sub-base fill during repowering, the Proposed Development can minimise waste, avoid unnecessary off-site haulage, and reduce reliance on virgin mineral extraction.

5.8.11 The following management plans would be implemented as embedded mitigation at the outset to mitigate any adverse effects of traffic during the construction phase and in line with mitigation required for this type of development:

- Construction Traffic Management Plan (CTMP);
- Abnormal Load Transport Management Plan;
- Outline Access Management Plan; and
- A Staff Travel Plan

5.8.12 The CTMP would include the following measures:

- Agreement on Abnormal Indivisible Loads (AIL) route modification and improvements with THC and Transport Scotland (TS);
- Staff Travel Plan;
- Transport Management Plan for AIL deliveries;
- All material delivery lorries (dry materials) would be sheeted to reduce dust and stop spillage on public roads;
- Specific training to ensure the highest standards are maintained to prevent construction vehicles from carrying mud and debris onto the carriageway;
- Wheel cleaning facilities established at the Site subject to the agreement of THC;

- Normal Site working hours would be limited to 07:00 and 19:00 Monday to Friday and 07:00 and 13:00 on Saturdays, with no construction work taking place on Sundays or Bank Holidays without prior written approval from THC. Outside of these specified hours, maintenance works, emergency works and construction works would be limited to turbine erection, commissioning, maintenance, dust suppression and pouring of concrete foundations, unless otherwise approved in advance in writing by THC;
- Appropriate traffic management on relevant roads to avoid conflict with general traffic;
- Make staff associated with regular deliveries to the Site aware of any known issues on the proposed routes to the Site;
- Adoption of a voluntary reduced speed limit for all construction vehicles, as required;
- Construction updates would be provided on the project website, social media feeds and a newsletter and would be distributed to residents within an agreed distance of the Site; and

5.8.13 An AIL Transport Management Plan would be prepared to cater for all movements to and from the Site, which would include:

- Procedures for liaising with the emergency services to ensure that Police, fire and ambulance vehicles are not impeded by the loads. This is normally undertaken by informing the emergency services of delivery times and dates and agreeing communication protocols and lay over areas to allow overtaking;
- A diary of proposed delivery movements to liaise with the communities to avoid key dates;
- A protocol for working with local businesses to ensure the construction traffic does not interfere with deliveries or normal business traffic; and
- Proposals to establish a construction liaison committee to ensure the smooth management of the Proposed Development/public interface with the Applicant, the construction contractors, the local community, and if appropriate, the Police forming the committee. This committee would form a means of communicating and updating on forthcoming activities and dealing with any potential issues arising.

5.8.14 A Staff Travel Plan would be deployed where necessary, to manage the arrival and departure profile of staff and to encourage sustainable modes of transport, especially car sharing. A package of measures would include:

- Appointment of a Travel Plan Coordinator (TPC);
- Provision of public transport information;
- Mini-bus service for transport of site staff;
- Promotion of a car sharing scheme;
- Car parking management; and
- Restrictions on parking, for example on the public road network and verges in the vicinity of the Site entrance.

5.8.15 Within the Site, consideration has been given to pedestrians and cyclists alike due to potential interactions between construction traffic and users of Core Paths/paths, cycle routes and public roads. A framework Outdoor Access Management Plan (OAMP) has been prepared as a part of this EIAR, while a full OAMP would be developed and secured via a planning condition.

Additional Mitigation

5.8.16 No additional mitigation measures or enhancement measures are required.

Significant Residual Effects

5.8.17 Whilst traffic movements and HGV traffic are predicted to increase during construction of the repowered wind farm, through the implementation of embedded mitigation measures, any effects are not expected to be significant. The residual effects are all assessed to be negligible or minor and as they would occur during the construction phase only, they are temporary and reversible.

5.8.18 Based on the cumulative assessment, there would be increases in total and HGV flows when considering all cumulative developments being constructed at the same time compared to the percentage increases associated with the Proposed Development being constructed alone. However, it is extremely unlikely that the peak traffic conditions and AIL deliveries would occur at the same time. In the unlikely event of all the sites being constructed at the same time it is suggested this would be mitigated through the use of an overarching Traffic Management and Monitoring Plan (TMMP) for all of the sites and by introducing a phased delivery plan which would be agreed with THC and Police Scotland. Therefore, no significant residual cumulative effects are anticipated for traffic and access.

5.9 Aviation

5.9.1 **Chapter 12: Aviation (EIAR Volume 2)** presents the potential significant effects on aviation receptors from the decommissioning of the existing Novar 1 Wind Farm and the construction, operation and decommissioning of the repowered wind farm. The assessment focuses on the effects of the proposed turbines on Inverness Airport's instrument flight procedures (IFPs) and primary surveillance radar (PSR), and on military low flying.

Baseline

5.9.2 The proposed Turbine Array is in uncontrolled airspace (Class G) extending from ground level to approximately 9,500 ft above mean sea. Above that level is the Class E controlled airspace of the Moray Control Area (CTA), within which air traffic services are provided by National Air Traffic Services En Route plc (NERL).

5.9.3 The Site is in a daytime military Low Flying Area (LFA) 14 and night low flying area, where fixed wing military aircraft may fly as low as 250ft above the ground. Proposed Turbines 1 and 2 are located within LFA 14(T), where fixed wing aircraft may fly as low as 100 ft above the ground.

5.9.4 The Site is also within the Highlands Restricted Area (HRA), a volume of airspace that can be activated periodically for use by military aircraft flying at low level without visual reference (for example in cloud or poor visibility) by day or night.

5.9.5 The Turbine Array is located 30 km northwest of Inverness Airport, which has two PSRs and instrument arrival, departure and approach procedures and both runway directions. Only one turbine (T3) is located within the line of sight of the Inverness Airport PSR.

Embedded Mitigation

5.9.6 The Proposed Development layout was refined through several designs to minimise turbine visibility on the Inverness Airport PSR.

5.9.7 Any effects on military low flying would be acceptably mitigated by adding conditions to any consent requiring that proposed wind turbines with tip heights of 150 m or more is fitted

with aviation safety lighting and sufficient data is submitted to the MoD to ensure that structures can be accurately charted to allow deconfliction.

Additional Mitigation

5.9.8 Highlands & Islands Airports Ltd (HIAL) has installed wind farm-tolerant radar at Inverness Airport to mitigate the effects of wind farms on its PSR. In the event of that HIAL determines that the effect of a single turbine from the Proposed Development on the Inverness Airport PSR is unacceptable, the Applicant would enter into a commercial agreement with HIAL, to implement appropriate mitigation. This includes blanking of the PSR in the airspace over the wind farm and use of the data from the wind farm tolerant-radar as 'in-fill'.

Significant Residual Effects

5.9.9 As all significant residual effects of the Proposed Development on aviation must be mitigated in agreement with relevant stakeholders and with approval from the CAA in accordance with national and international regulatory provisions, and from the MoD, there would be no significant residual effects on aviation receptors.

5.10 Cumulative Effects

5.10.1 **Chapter 13: Intra-Project Cumulative Effects (EIAR Volume 2)** considers whether any sensitive receptors would experience multiple effects considered under different topics and whether these would interact to increase or exacerbate the effect (an 'in-combination effect').

5.10.2 Cumulative effects with other developments are assessed in each technical chapter of the EIAR and summarised in Sections 5.2 to 5.9 above.

5.10.3 The assessment focuses on the potential interactions between the following technical chapters: **Chapter 5: Landscape and Visual Amenity**, **Chapter 10: Noise** and **Chapter 11: Traffic and Access (EIAR Volume 2)**.

5.10.4 The intra-project cumulative assessment identified three potential effects during the decommissioning of the existing Novar 1 Wind Farm and construction of the repowered wind farm.

5.10.5 There is potential for intra-project cumulative effects on residential properties close to the Site. These effects could arise from increased construction traffic on local roads, views of the repowered wind farm as it is being constructed, and temporary increases in noise from construction plant, machinery and traffic. However, visual impacts would be temporary and limited to properties near Boath and Strath Rusdale. Noise effects would be minimised through embedded good practice measures, and restriction of construction activity working hours, and traffic would be managed through a Construction Traffic Management Plan (CTMP). Overall, the intra-project effect on residential properties would be temporary, reversible and not significant.

5.10.6 There is potential for intra-project effects on users of recreational routes. Temporary traffic movements could impact on core path and National Cycle Network users alongside visual amenity effects associated with the construction of the repowered wind farm. However, traffic effects would be negligible to minor adverse and managed through the CTMP, while visual amenity effects would be temporary, fully reversible and limited to the construction period. As these effects would be short-term, reversible and would cease following construction, the overall intra-project effect on users of recreational routes is considered to be not significant.

5.10.7 Users of the local road network, specifically the B817 and B9176, increased traffic, changes to visual amenity and temporary increase of noise generation during the construction phase. However, the predicted change in traffic noise would remain below 3 dB(A), which is considered a minor, short-term impact. Traffic effects would be managed through the CTMP and would cease once construction is complete. Visual amenity effects would arise from views of construction activity but would be temporary and fully reversible. Overall, the intra-project effect on the public road network is considered temporary, reversible and Not Significant.

5.10.8 There is no potential for intra-project effects during the operation or decommissioning of the repowered wind farm.

6. Summary of Significant Residual Effects

6.1.1 As a result of embedded mitigation and the implementation of additional mitigation and management measures, the EIAR concludes that the likely significant residual environmental effects would be limited to the operational phase of the Proposed Development.

6.1.2 All identified significant residual effects are negative.

6.1.3 Significant residual effects have been identified for landscape and visual, where the Proposed Development has potential to affect:

- The landscape character;
- One of the special qualities of the Ben Wyvis Special Landscape Area (SLA) but the overall integrity of the SLA would not be compromised; and
- The views due to the physical presence of the Proposed Development.

6.1.4 For cultural heritage there would be significant setting effects upon some of the designated heritage sites.

6.1.5 There would be potential for significant cumulative effects on some of the cultural heritage and landscape receptors.

6.1.6 With the implementation of the required mitigation measures no significant residual effects are identified for relevant receptors associated with the following topics: ecology; ornithology; hydrology, hydrogeology and soils; noise; traffic and access; and aviation.

Annex 1 Figures

Secondary Vehicular Access Point

Secondary Vehicular Access Route

Turbine Array

Internal Tracks

Access Route

Access Route

Access Route

Main Vehicular Access Point

0 1 2 Kilometres

Legend

Application Boundary

SCOTLAND
Edinburgh
Newcastle Upon Tyne
Belfast
Douglas

Figure Title
Site Location
Page Number: 1

Project Name
Novar 1 Wind Farm Repowering

Project No./Filery ID
1620016706 / REH2023N04156

Date	Figure No.	Revision
September 2026	1	1.0

Prepared By	Scale
RS	1:30,000 @A3

Client

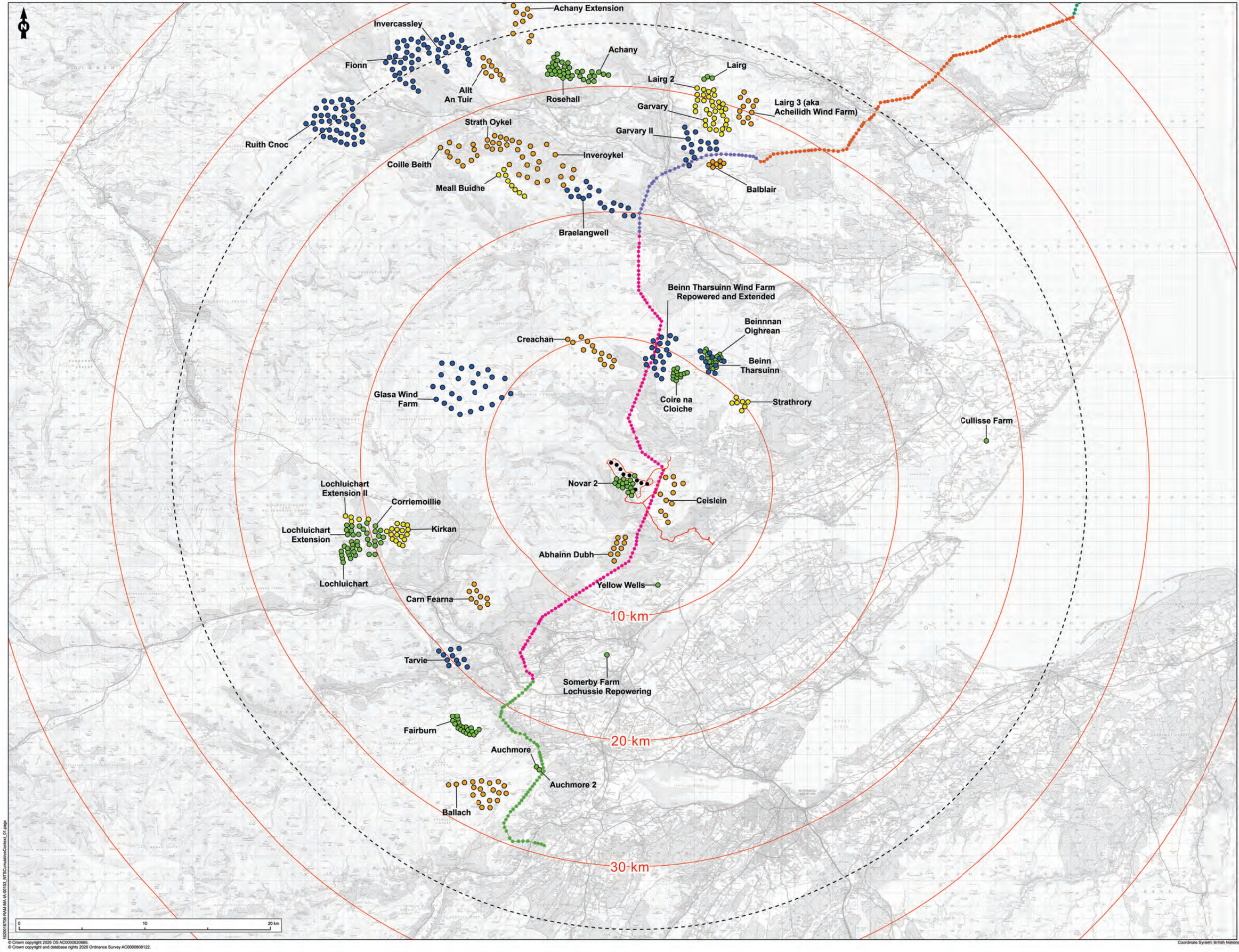
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Legend

- Application Boundary
- Novar 1 Turbine Location
- 10 Km Radi from Outer Turbines
- Study Area (35 km from Outer Turbines)

Cumulative Wind Turbine

- Operational
- Approved
- In Planning
- Screening / Scoping

Spittal to Loch Buidhe OHL Section Towers

- Section A
- Section B
- Section C
- Section D
- Section E

Spittal to Loch Buidhe OHL Section

- Section A
- Section B
- Section C
- Section D
- Section E

Note
The base map used is Ordnance Survey 1:50,000 Scale Raster. This product does not cover the full extent of the figure. Where gaps exist (open water), Ordnance Survey 1:250,000 Scale Raster has been included. The cartographic variation between datasets has not affected any analytical outputs or assessment findings.

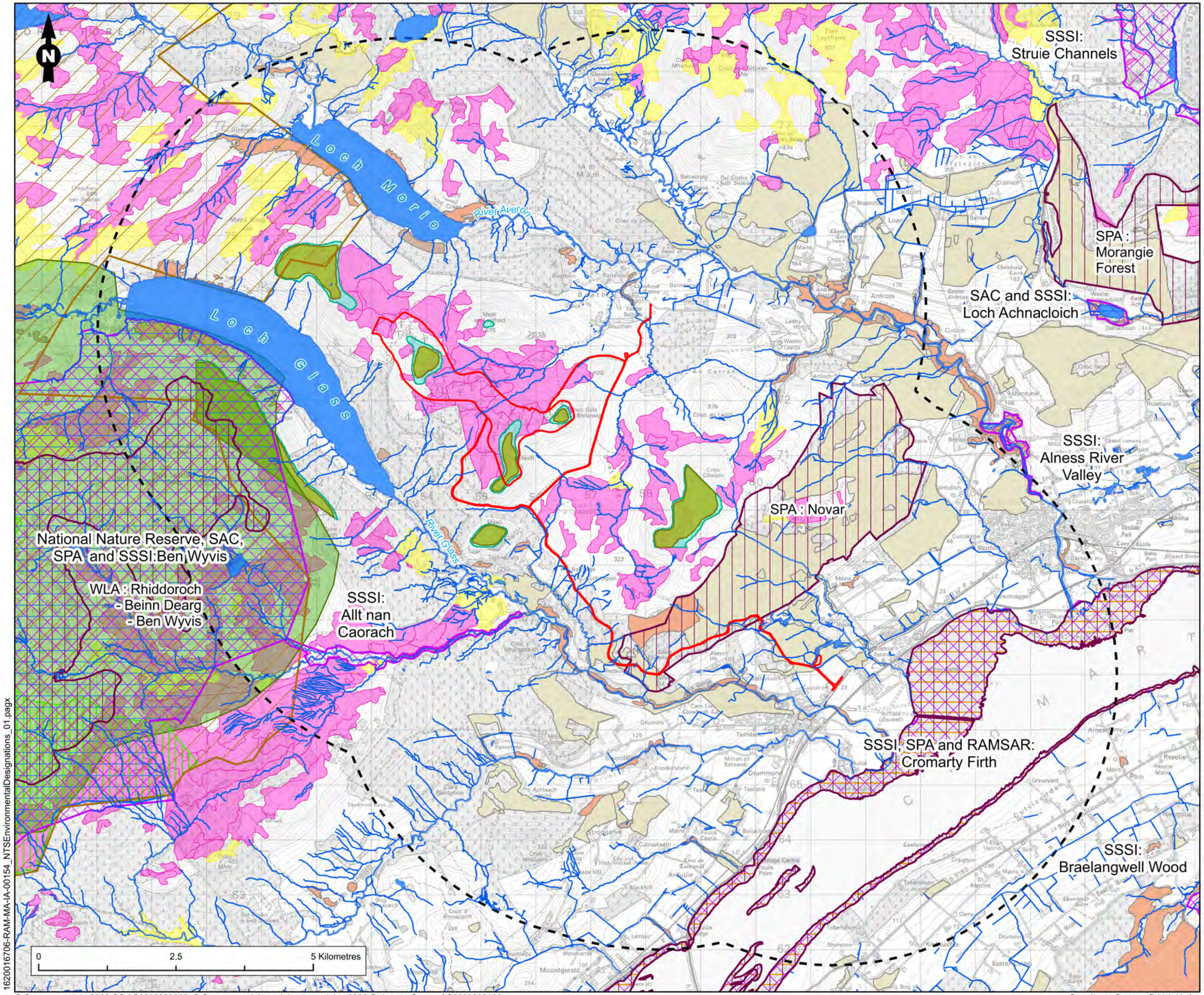
Last review conducted July 2026.

Figure Title: Cumulative Developments		
Project Name: Novar 1 Wind Farm Repowering		
Project No./Filery ID: 1620016706 / REH2023N04156		
Date: September 2026	Figure No.: 2	Revision: 1.0
Prepared By: RD/RS	Scale: 1:130,000 @A1	NTS
Client: nadara		
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Legend

- Application Boundary
- 5 km Study Area

Designated Sites

- Special Areas of Conservation (SAC) Current
- RAMSAR Wetlands of International Importance
- Sites of Special Scientific Interest (SSSI)
- Special Protection Area
- National Nature Reserves
- Highland Special Landscape Area
- Wild Land Areas 2014

Ancient Woodland Inventory

- Ancient (of semi-natural origin)
- Long-Established (of plantation origin)
- Other (on Roy map)

Carbon and Peatland Importance

- Class 1
- Class 2

Surface Water Feature

- Watercourse
- Waterbody

Aviation

- Inverness Radar LOS 167.5 m
- Inverness Radar LOS 180 m

Figure Title
Environmental Designations and Constraints

Project Name
Novar 1 Wind Farm Repowering

Project No./Filery ID
1620016706 / REH2023N04156

Date	Figure No.	Revision
September 2026	3	1.0

Prepared By	Scale
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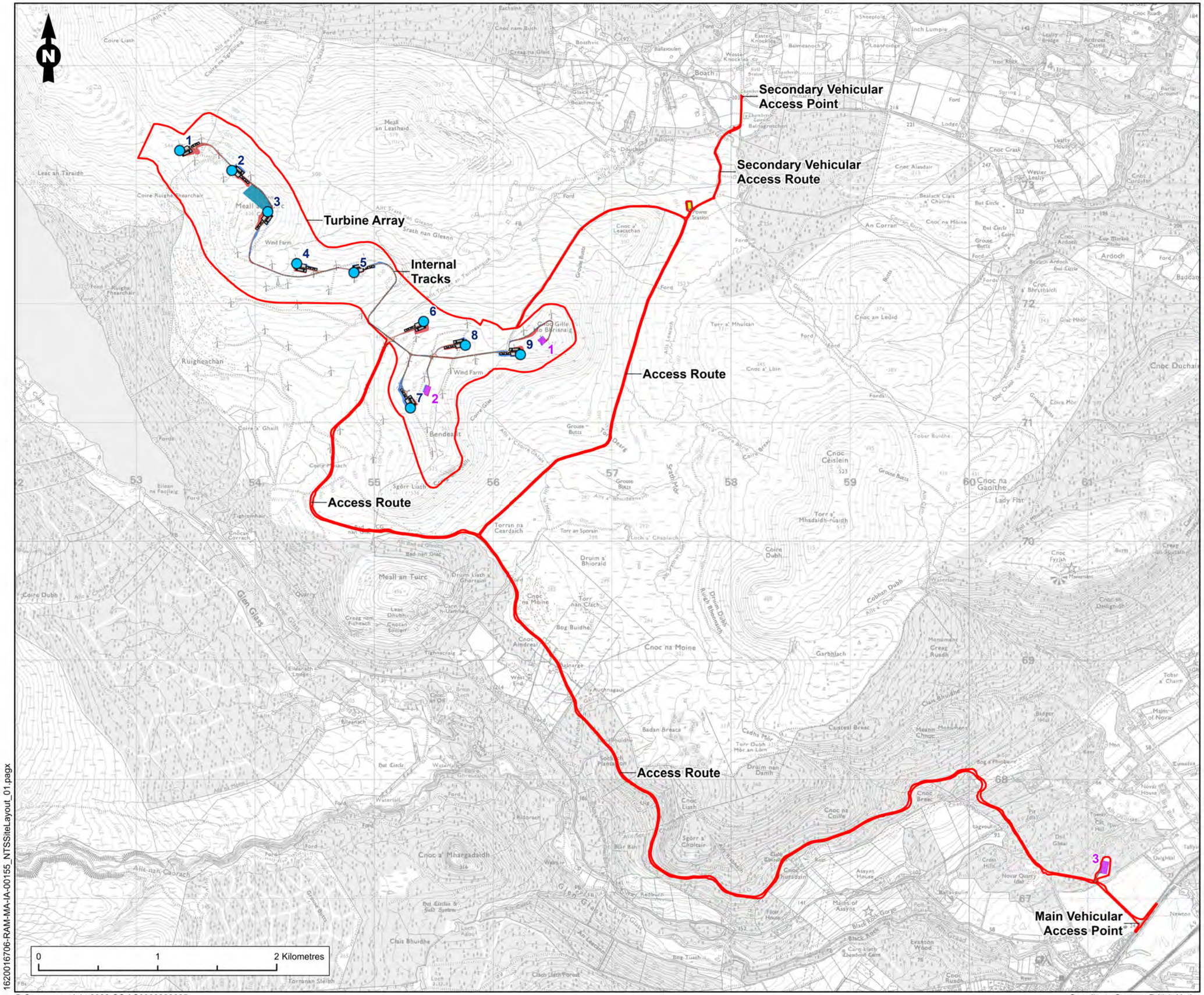
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Legend

- Application Boundary
- Turbine Locations
- New Tracks
- Existing Tracks
- Hardstandings - Long Term Temporary
- Hardstandings - Short Term Temporary
- Hardstandings - Clearance
- Earthworks Cut
- Earthworks Fill
- Substation
- Construction Compound
- Borrow Pit Search Area

Figure Title
Proposed Site Layout

Project Name
Novar 1 Wind Farm Repowering

Project No./Filery ID
1620016706 / REH2023N04156

Date	Figure No.	Revision
September 2026	4	1.0

Prepared By	Scale
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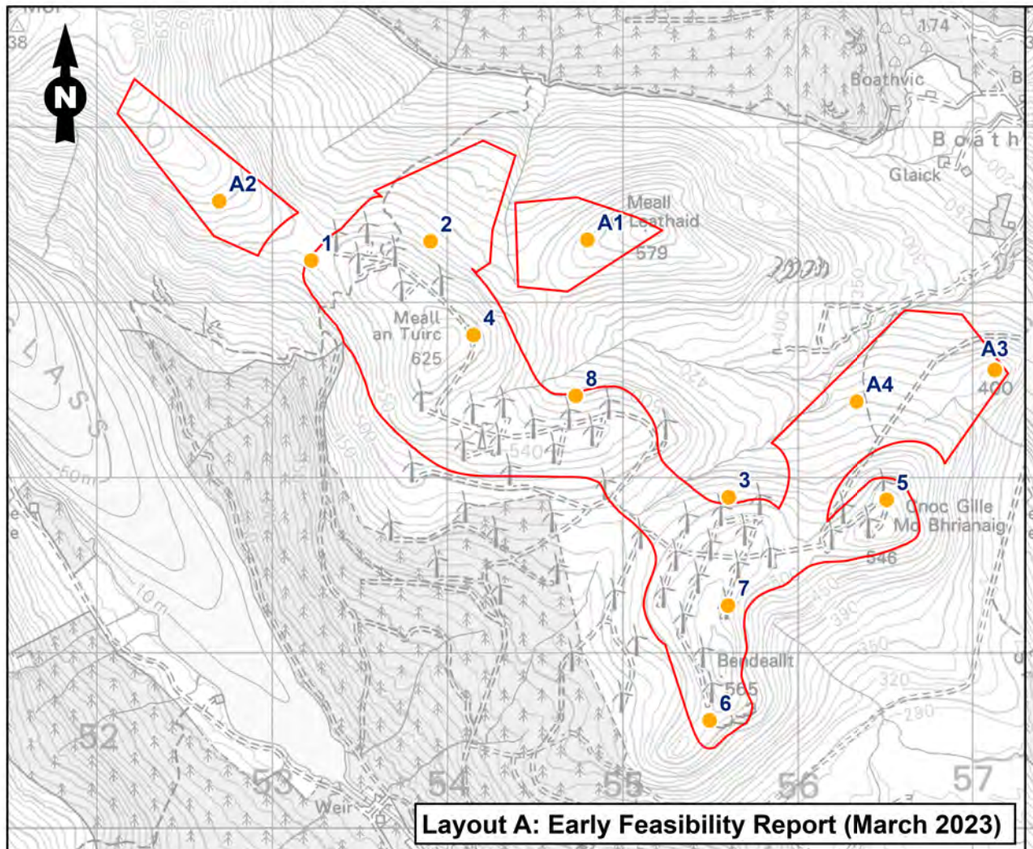
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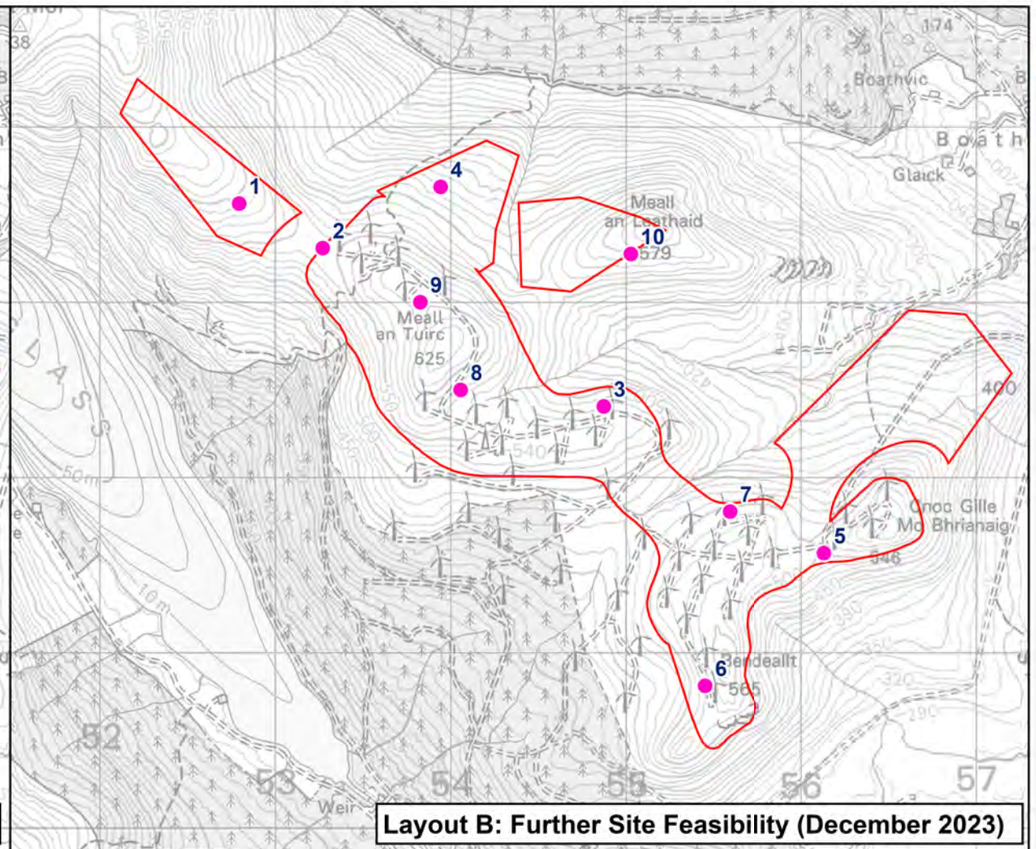
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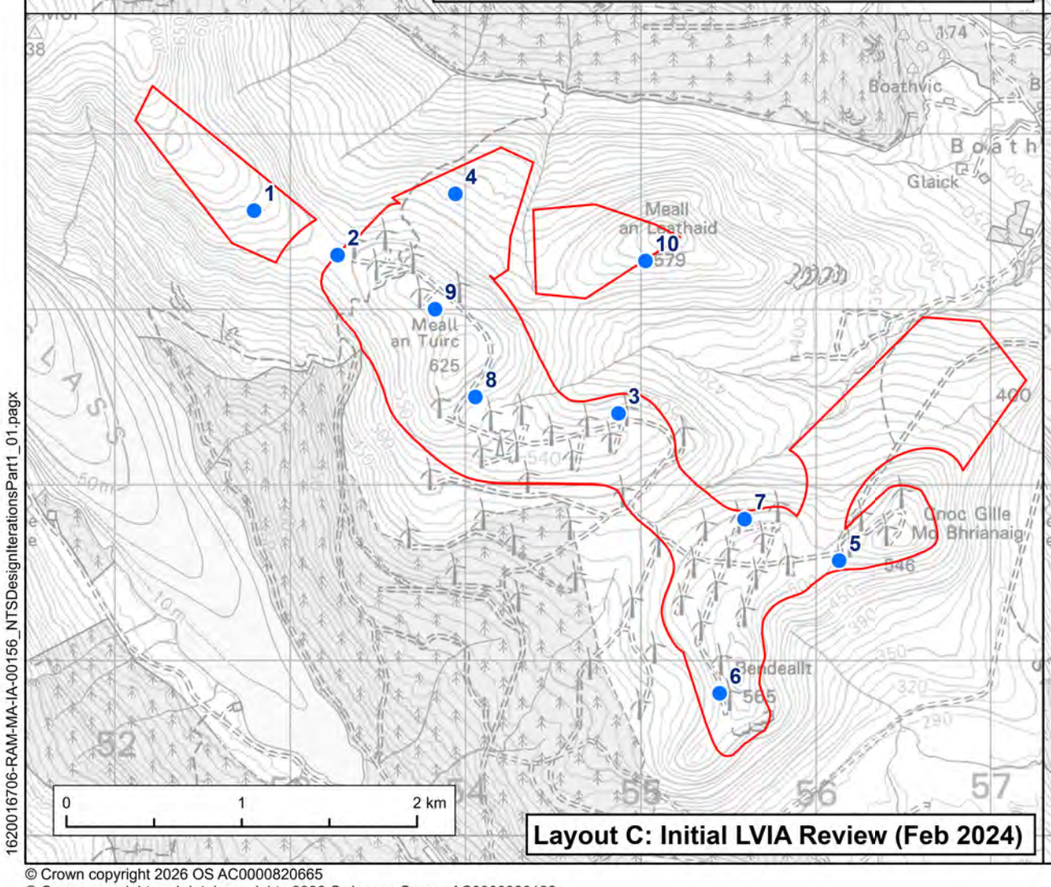
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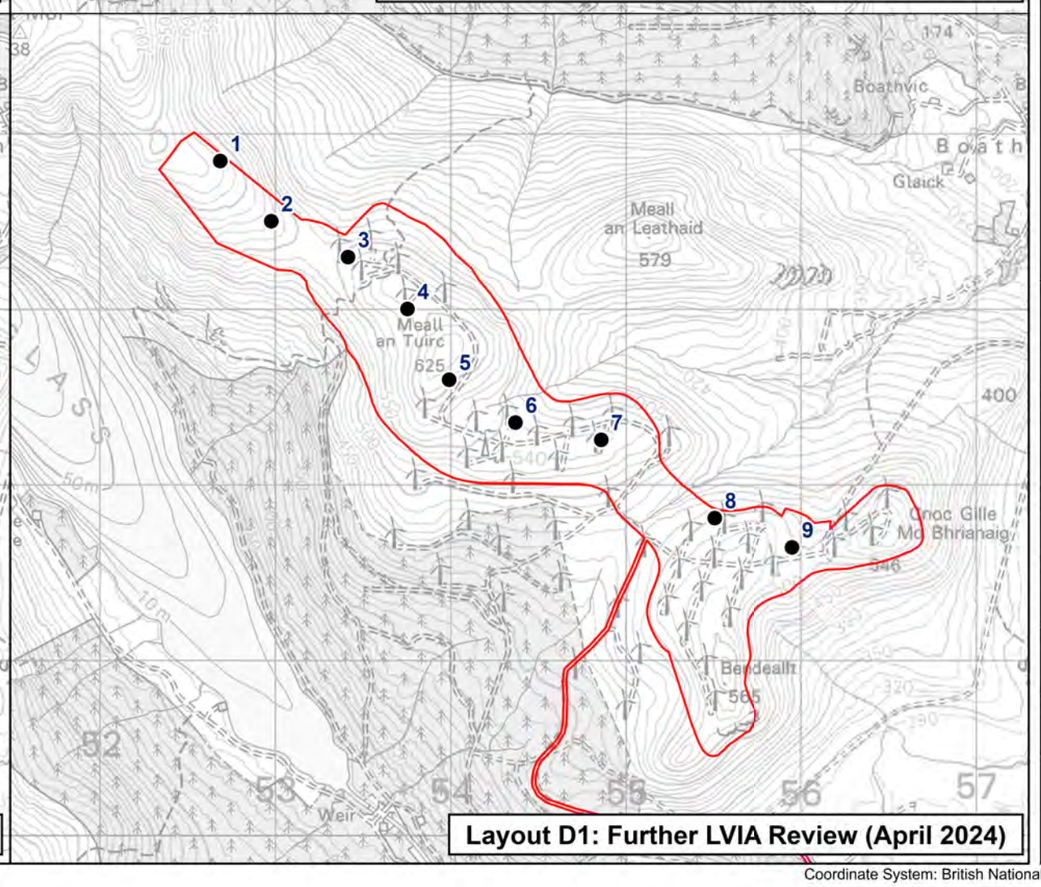
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Legend

- Application Boundary
- Layout A: Early Feasibility Report (March 2023)
- Layout B: Further Site Feasibility (December 2023)
- Layout C: Initial LVIA Review (Feb 2024)
- Layout D1: Further LVIA Review (April 2024)

Figure Title
Design Iteration - Part 1

Project Name
Novar 1 Wind Farm Repowering

Project No./Filery ID
1620016706 / REH2023N04156

Date	Figure No.	Revision
September 2026	5	1.0

Prepared By	Scale
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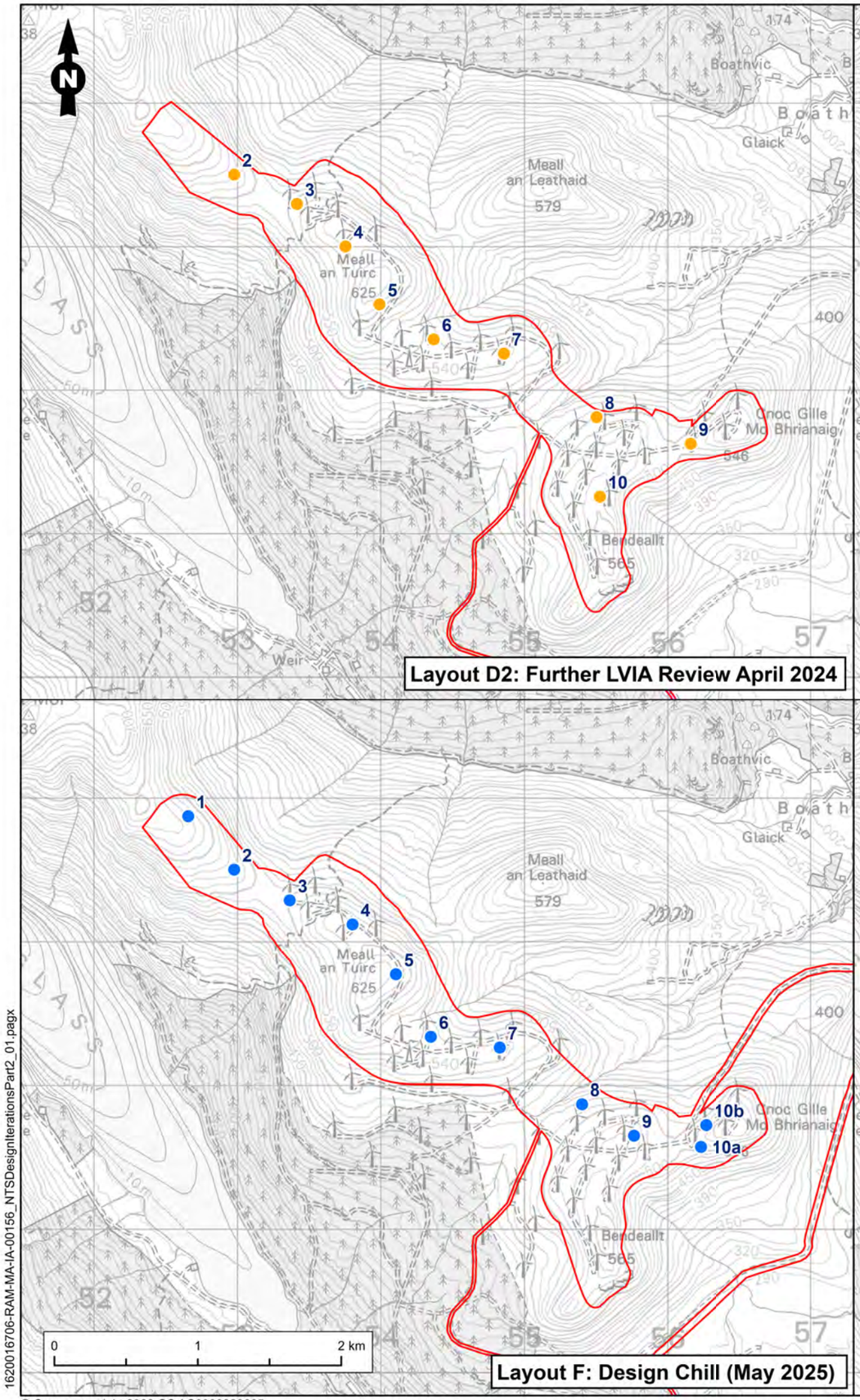
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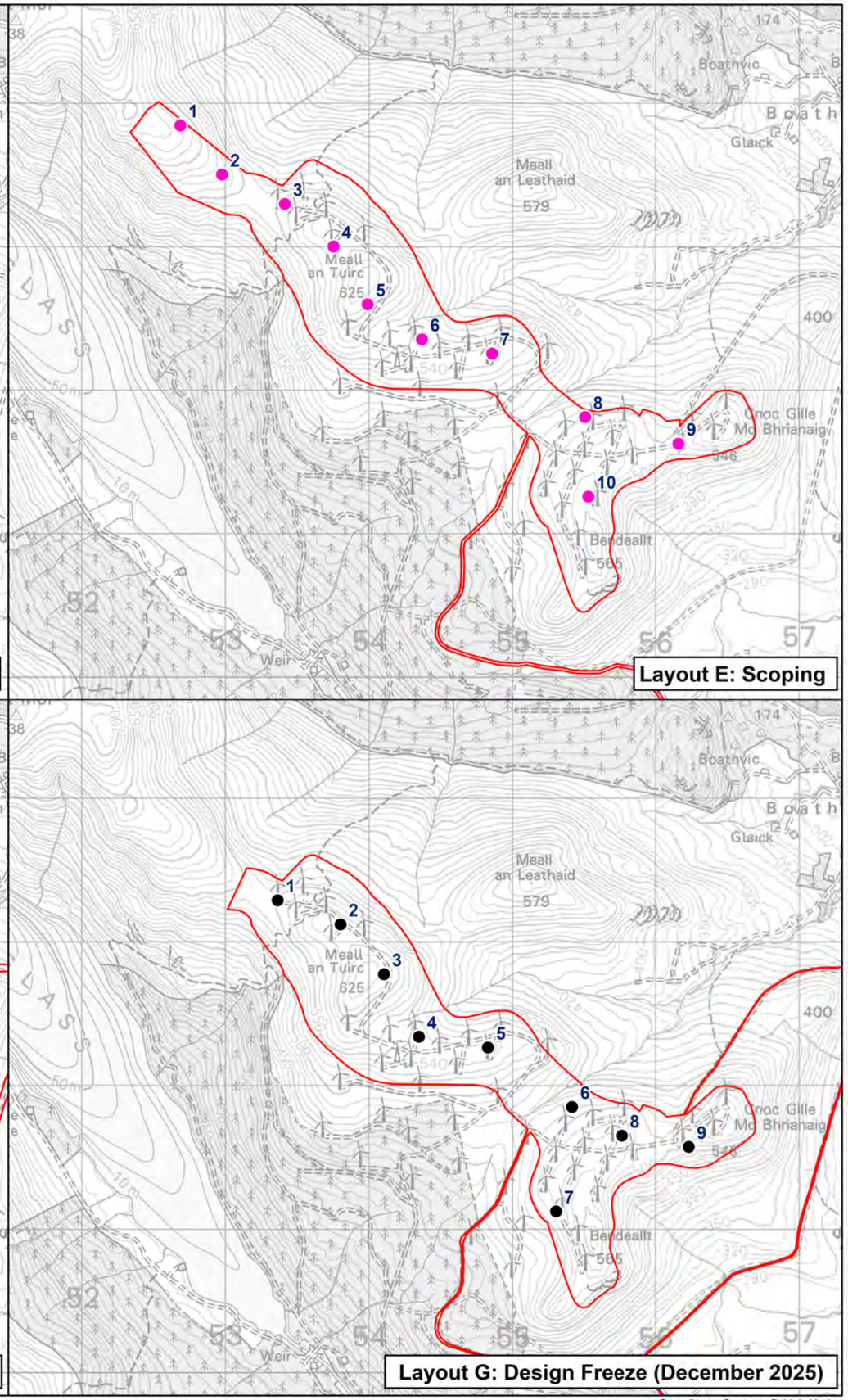
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Legend

- Application Boundary
- Layout D2: Further LVIA Review (April 2024)
- Layout E: Scoping
- Layout F: Design Chill (May 2025)
- Layout G: Design Freeze (December 2025)

Figure Title
Design Iteration - Part 2

Project Name
Novar 1 Wind Farm Repowering

Project No./Filery ID
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Date	Figure No.	Revision
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