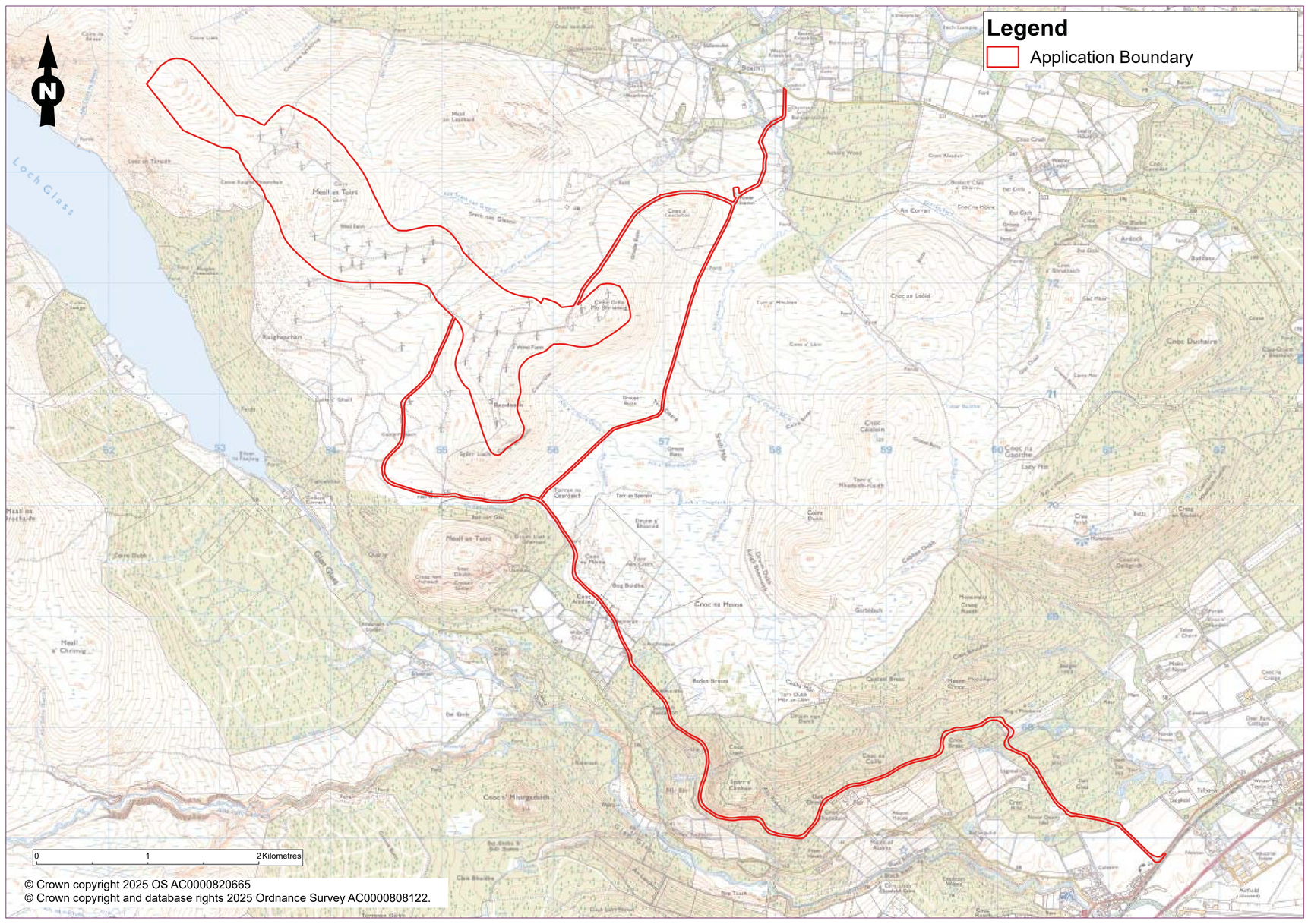
Welcome to our public exhibition event

Welcome to the second public consultation for the proposed repowering of Novar 1 Wind Farm.



Existing Novar 1 Wind Farm

Novar 1 Wind Farm has been operational since 1997 and consists of 34 turbines that are 62 metres to tip.

Due to the age of the existing turbines and advances in wind power technology, we are proposing to repower the wind farm with up to nine new turbines of up to 180 metres to tip.

Repowering Explained

Repowering is the process of replacing older first generation wind turbines before the end of their operational life with more powerful models that use the latest technology and are capable of producing significantly more electricity more efficiently. The existing 34 turbines have a maximum capacity of approximately 17 Megawatts (MW), while the nine new turbines would have a maximum capacity of approximately 55.8 MW.

Number of turbines	Up to 9
Maximum blade heights	180 m
Expected installed capacity	55.8 MW combined generating capacity
Estimated annual generation homes equivalent	150,651 MWh 50,012 households
CO_2 avoided annually compared to energy produced with coal	65,835 tons

Developer

Nadara is an independent renewable generator, formed through the coming together of Renantis and Ventient Energy in January 2024. We design, build, and manage power plants from renewable energy sources, with an installed capacity of more than 1.1 GW across the UK.

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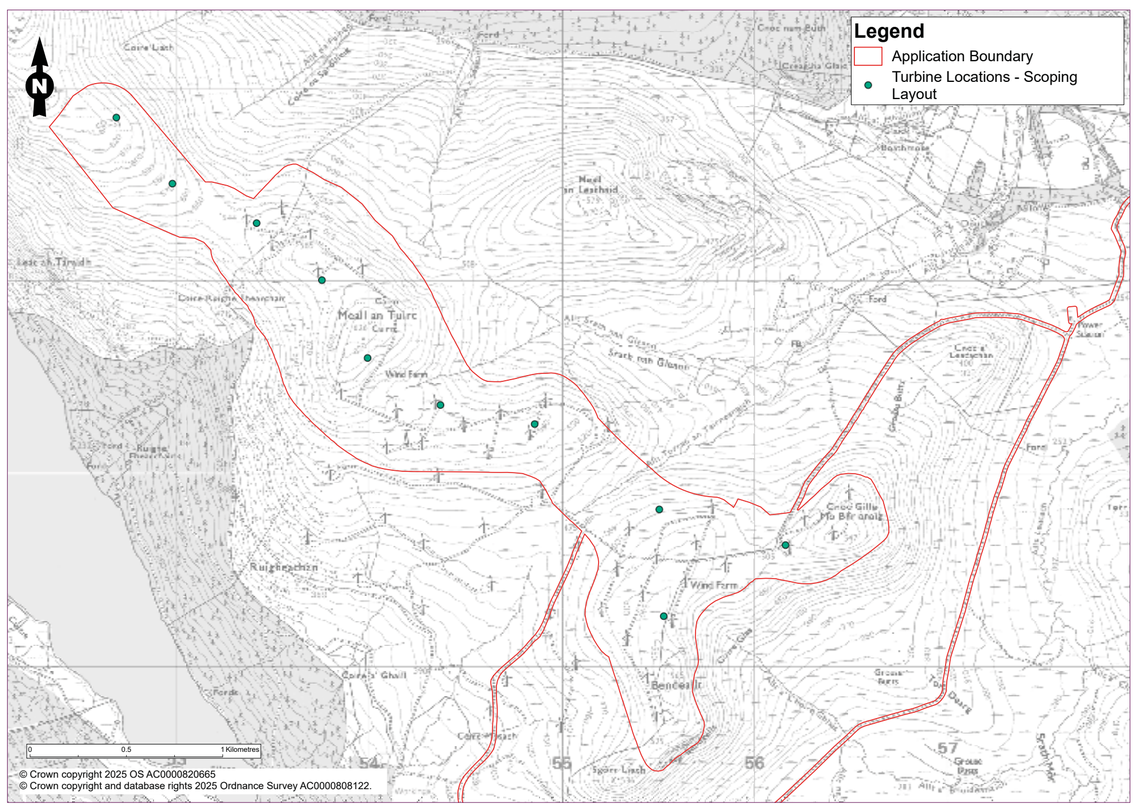
Design Evolution

Since our first public exhibition, we have revised our design based on consultation feedback and further environmental surveys to optimise the layout to avoid, where feasible, sensitive environmental constraints and utilise the existing infrastructure as much as possible whilst maximising renewable energy generation.



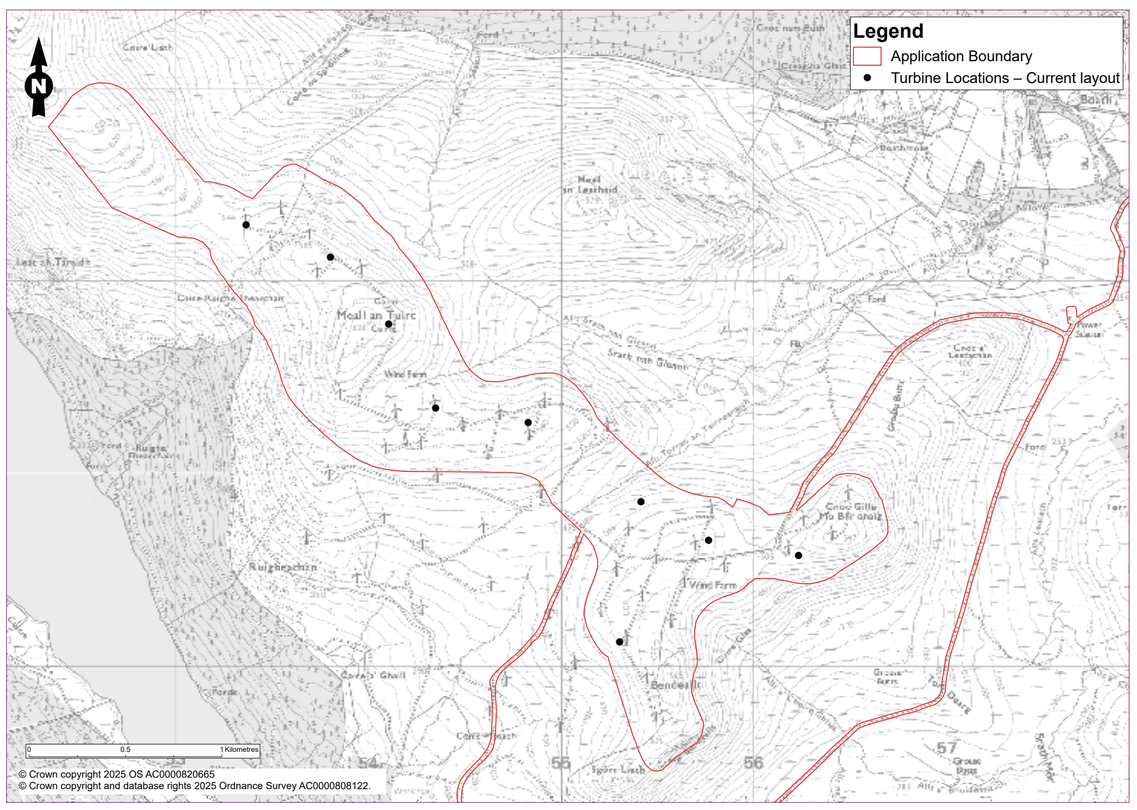
Scoping Layout–January 2025

10 turbines, up to 180 m blade tip height

A key design principle is to use existing infrastructure and access tracks as much as possible, and where feasible locate individual infrastructure elements within areas of shallower peat and within areas that are considered to already be degraded/eroded.

The key updates to the design include:

- Removal of the two turbines in the north of the site – mainly due to the depth of peat in this area, but also due to landscape and visual and constructability considerations. Removal of these turbines also maintains the development within the boundary of the existing wind farm.
- Addition of a turbine in the southern area of the site providing a more compact turbine layout.



Current Layout–August 2025

9 turbines, up to 180 m blade to tip height

Turbines and associated infrastructure have been located, where feasible, outwith areas of deeper peat based on the results of the peat surveys undertaken to date, whilst taking into consideration the objective to maintain the use of the existing infrastructure.

Further design work in combination with the Habitat Management and Enhancement Plan and Peat Management Plan will be undertaken prior to confirming the final design of the scheme.

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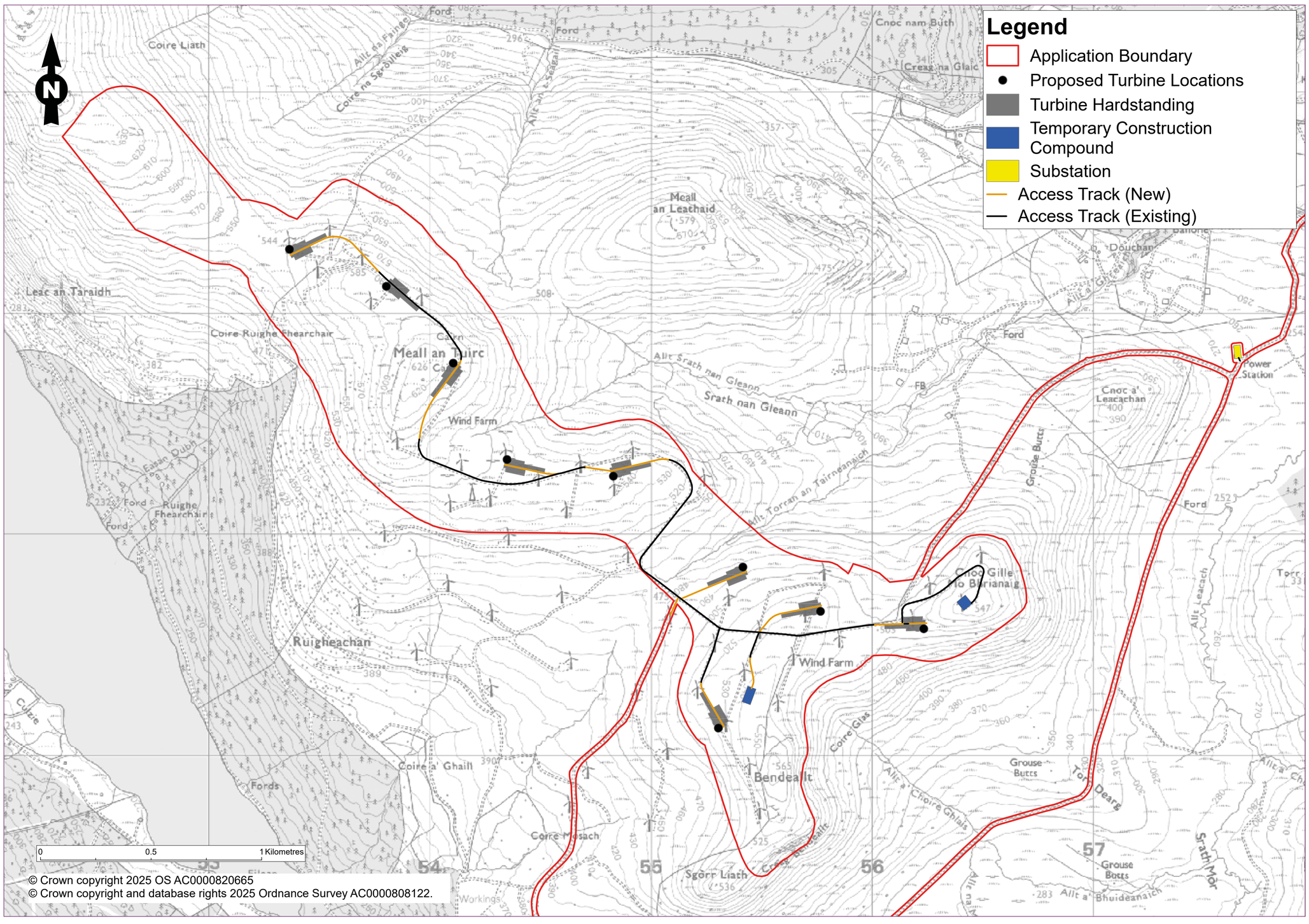
The Proposed Development

The repowered Novar 1 Wind Farm will consist of up to nine new wind turbines (maximum tip height of 180m) and associated permanent infrastructure such as access tracks, buried cables and a distribution substation.



Construction and Access

The project will require construction compounds and upgraded and/or new access tracks and associated watercourse crossings to enable construction.

A main construction compound is proposed close to the site entrance (location of the compound to be determined) with further satellite compounds located within the area of the wind turbine array.

Crushed stone will be used to upgrade existing or construct new access tracks and hardstanding areas for cranes and foundations. The source of the stone and aggregate will be confirmed as the design progresses with opportunities to win material on site explored.

Crushed stone from the hardstanding of the existing turbines will be reused for the new turbine hardstanding areas, where feasible.

Access to the wind turbine area will use the access track for the existing wind farm, with upgrades (widening) required in localised areas to accommodate the transport of the turbine components. Access to the substation will be taken along an existing track with some minor upgrade works required. Light Good Vehicle (LGV) access will be maintained from the site entrance near Boath.

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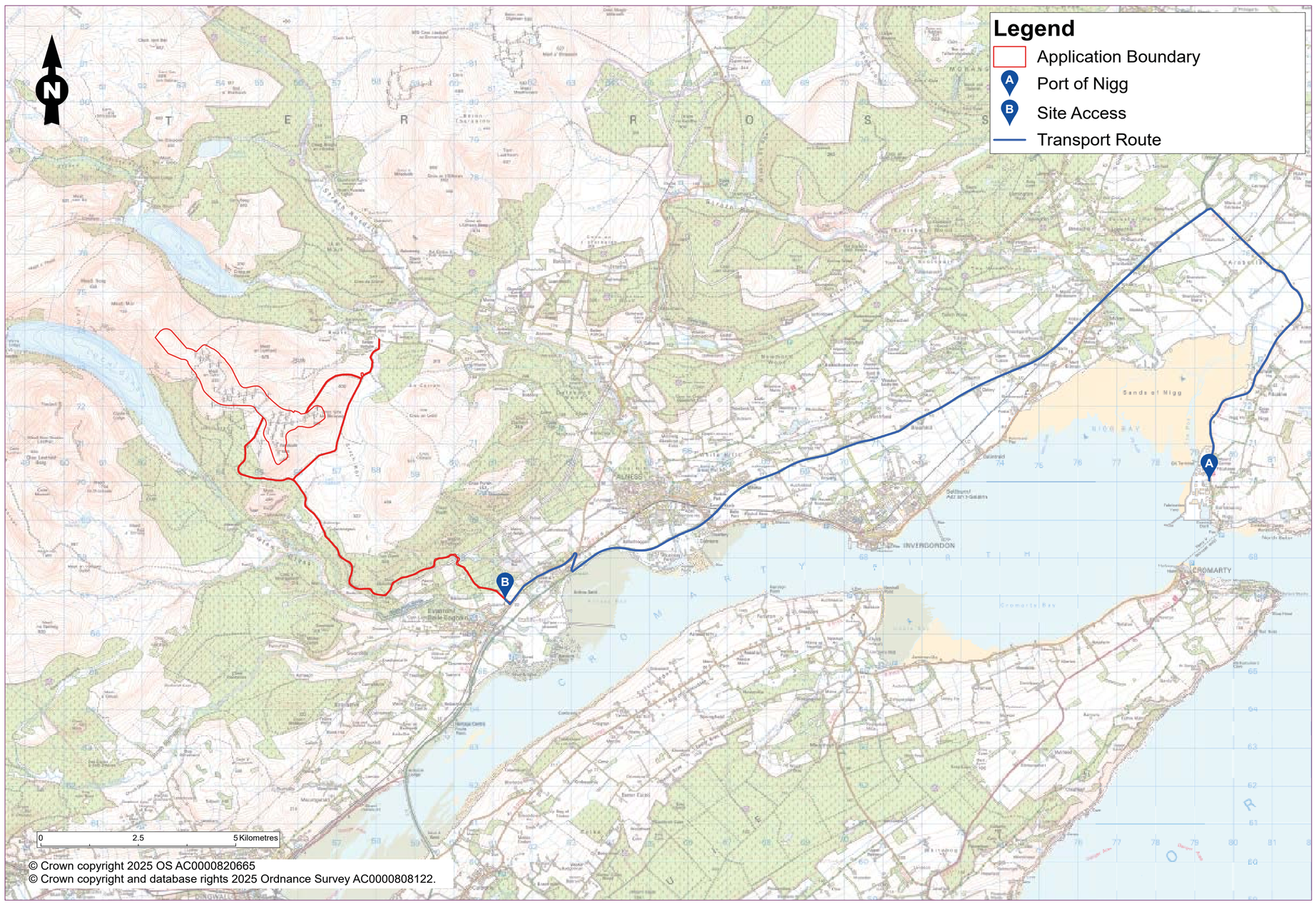
The Proposed Development



Construction Programme

Currently two alternative construction programmes are being considered in relation to the timescales for consent and the date of connection to the additional grid capacity required for the repowered development.

- **Scenario 1 (Single Phase Construction):** consenting timescales allows for construction of repowered development in timeframe which aligns to date of connection to existing and additional grid capacity - decommissioning of the existing turbines and construction of the repowered turbines and associated infrastructure is undertaken in the same construction phase.
- **Scenario 2 (Two Phase Construction):** consenting timescales allows for construction of part of the repowered development to connect to the existing grid connection with the remaining part constructed in a timeframe which aligns to date of connection to additional grid capacity. This represents a phased approach to construction which would likely involve two phases:
  - Phase 1: decommissioning of all existing turbines and construction of three of the repowered turbines and associated infrastructure, including access to the site to connect into the existing Novar 1 Wind Farm grid connection.
  - Phase 2: construction of the remaining six repowered turbines and associated infrastructure to connect into the additional grid connection.

Delivery of Turbines to Site

It is proposed that turbines will be delivered to site from Port of Nigg and transported along the A9 before accessing the site from the B817 via the junction to the existing wind farm.

An abnormal load assessment will be undertaken to include detailed swept path analysis along the access route to demonstrate that the turbine components can be delivered to the site and to identify any temporary road works which may be necessary.

Each turbine is likely to require between 11 and 13 abnormal loads to deliver the components to site. The components would be delivered on extendable trailers that would then be retracted to the size of a standard HGV for the return journey.

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The Proposed Development

Biodiversity Enhancement

Our aim is to ensure the repowered wind farm contributes to biodiversity by protecting and enhancing sensitive habitats and protected species in the area.
Site-specific habitat and biodiversity enhancement measures will form an integral part of the Proposed Development, with a particular focus on the opportunities that the site presents for peatland restoration.

Aviation Lighting

As the proposed turbines are over 150 m they will require aviation lighting. The aviation lighting scheme will be agreed with the Civil Aviation Authority (CAA), Ministry of Defence (MoD) and other relevant consultees. Consultation will aim to agree a reduced lighting scheme whereby not all turbines are fitted with visible lighting.

Nadara is committed to reviewing the feasibility of using an Aircraft Detection Lighting System (ADLS). This is a technology that activates lighting on wind turbines, only when an aircraft is nearby. It is an evolving approach in the UK, although it is widely implemented in Europe. Such a system would greatly reduce predicted lighting, including cumulative effects because triggering of lights would only happen when an aircraft is within close proximity to a turbine location.

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Environmental Impact Assessment

Ramboll has been appointed to carry out a detailed Environmental Impact Assessment (EIA) of the proposed repowering of the existing Novar 1 Wind Farm. The outcomes of the EIA will be reported in an EIA Report that will form part of the formal application for consent that will be submitted to Scottish Ministers.

The EIA process includes:

- Consultation with the local authority, local community councils, statutory and non-statutory organisations, and the public to identify specific concerns and issues.
- Determining the existing environmental conditions at and around the site by reviewing available data and conducting specialist field surveys.
- Refining the design of the repowered wind farm to avoid or mitigate potentially significant environmental effects, where possible.
- Assessing the potential impacts of the repowered wind farm on the surrounding environment.
- Developing mitigation solutions to reduce potentially significant effects, where these cannot otherwise be avoided.

A request for an EIA Scoping Opinion from Scottish Ministers was submitted in February 2025 and received in May 2025. The Scoping Opinion contained a view from Scottish Ministers, with input from relevant authorities, on the environmental issues that should be considered in the EIA.

Detailed studies for the following disciplines will be undertaken within the EIA:

- Landscape and Visual Amenity
- Cultural Heritage
- Biodiversity (Ecology and Ornithology)
- Soils/Peat
- Noise and Vibration
- Traffic, Transport and Access
- Aviation.

Standalone technical appendices will be prepared for socio-economics, the water environment and climate change to ensure that sufficient environmental information is included in the EIA Report.

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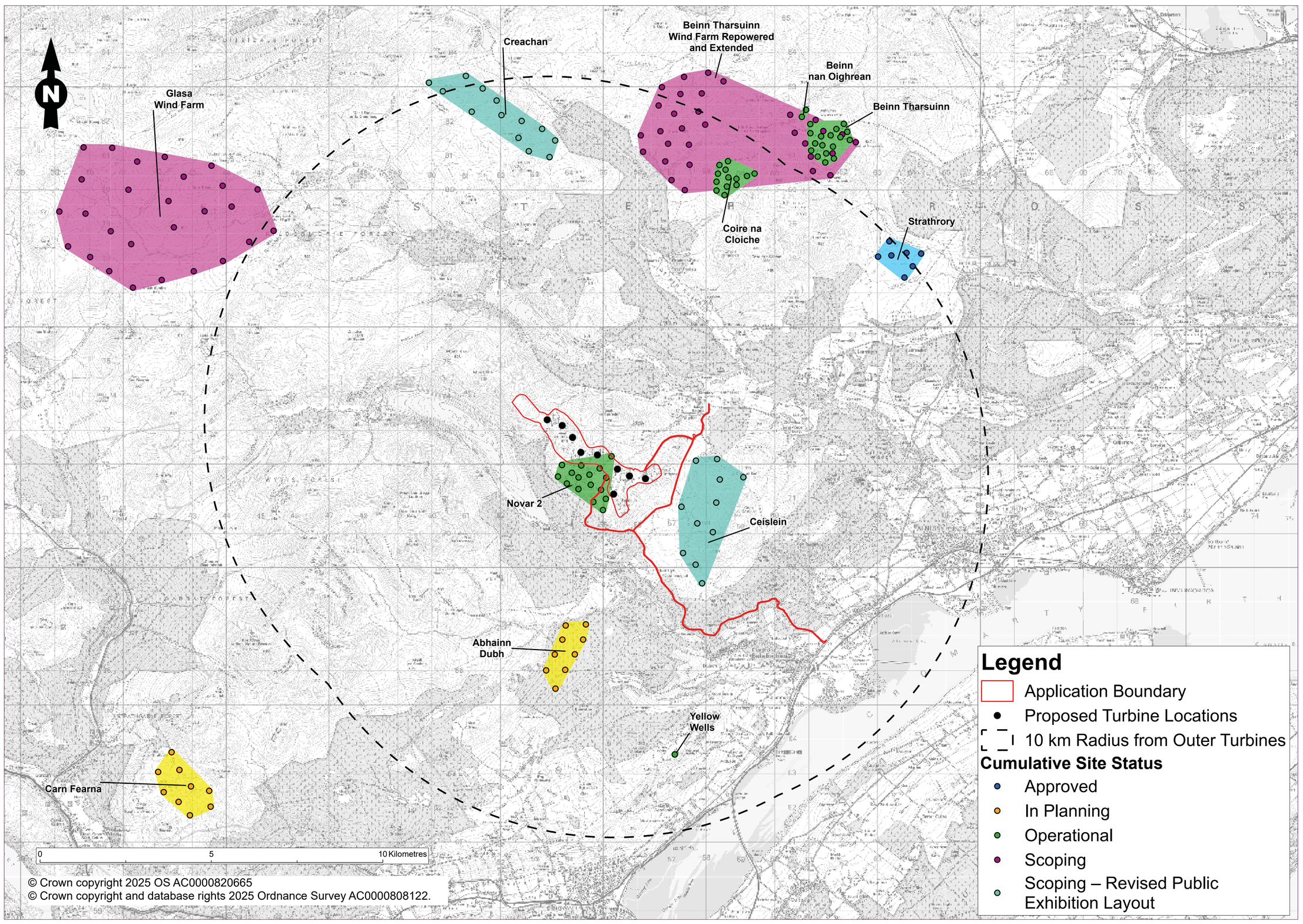
Landscape and Visual Impact Assessment (LVIA)

A Landscape and Visual Impact Assessment (LVIA) will establish the potential effects of the Proposed Development on the surrounding landscape and visual amenity.



The landscape element of the LVIA considers the effects of the Proposed Development on landscape character and special qualities of landscape classifications and designations, including key views from designated landscape areas.

The visual element of the LVIA examines the effect on views from settlements, residential properties, roads, recreational routes and tourist/visitor attractions.

The LVIA will include a night-time Aviation Lighting Impact Assessment and will take into account the cumulative effects of other existing, consented and proposed (i.e. Application Submitted) wind farm developments within the 35 km study area. The plan insert above shows the cumulative developments within 10km of the site.

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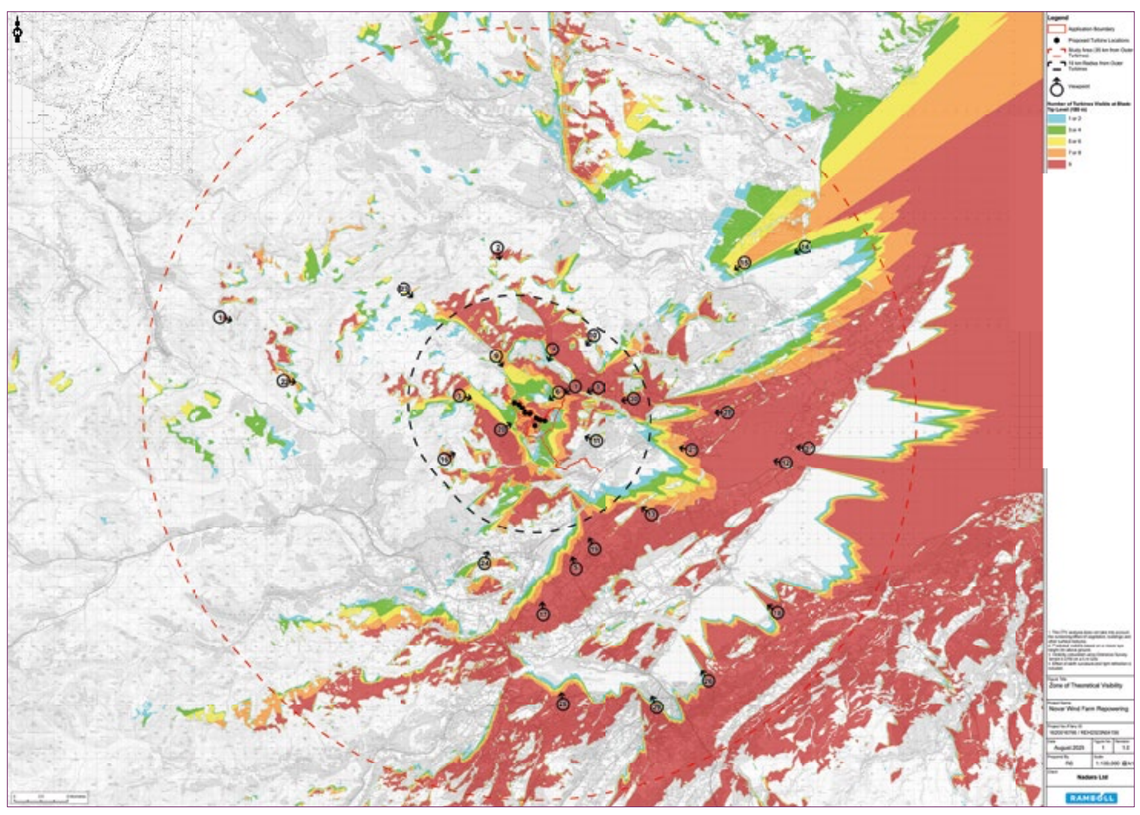
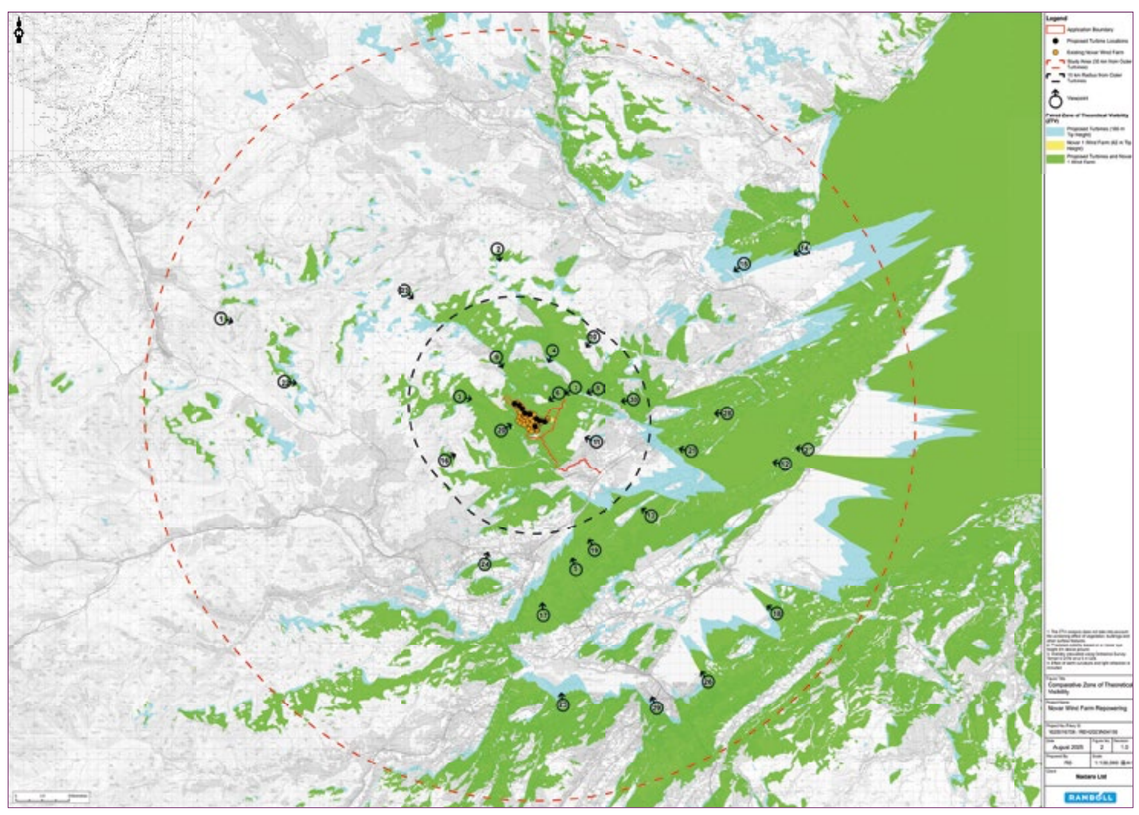
Landscape and Visual Impact Assessment (LVIA)

A zone of theoretical visibility (ZTV) is a computer-generated tool that establishes the likely extent of the visibility of a Proposed Development. The ZTV is initially used to identify areas of potential visibility and guide the selection and agreement of appropriate viewpoints for the LVIA.



Proposed Development ZTV



Comparative ZTV

The ZTV is based on bare earth terrain and does not take account of screening effect of ground cover features, such as woodland, vegetation and buildings, which can reduce the extent of actual visibility of wind turbines from some locations. It also does not consider the recessive nature of longer-distance views. In many cases, views are barely discernible to the human eye. The ZTV is presented across the surrounding study area, which is defined as a 35 km buffer from the outer turbines of the Proposed Development.

Two ZTVs have been prepared for this public exhibition:

- **Proposed Development ZTV** – representing the theoretical visibility of the repowered Novar 1 Wind Farm, indicating the number of turbines potentially visible (tip height).
- **Comparative ZTV** – representing the theoretical visibility of the existing Novar 1 Wind Farm and the repowered Novar 1 Wind Farm, identifying areas of potential additional visibility from the repowered scheme.

These ZTVs are available in hard copy to view at the public exhibition. Please speak to a member of the team to direct you to where these are located as part of our exhibition material.

Disclaimer: The ZTV represents a worst-case scenario as it does not take into account the screening effect of vegetation, buildings and other surface features.

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Visualisations

The LVIA will be supported by photomontages which provide a visual representation of the project from various agreed viewpoints. A selection of these viewpoints is provided on the following boards.

Viewpoint 5: A9 between Duncanston and Causeway (Existing view)

Viewpoint 5: A9 between Duncanston and Causeway (Photomontage)

Disclaimer: Visualisations are prepared to The Highland Council (THC) visualisation standards and are provided for exhibition purposes. Visualisations included in the EIA Report will be prepared to both NatureScot and THC visualisation standards.

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Visualisations

Viewpoint 8: Minor Road by Ardross Distillery (Existing view)

Viewpoint 8: Minor Road by Ardross Distillery (Photomontage)

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Visualisations

Viewpoint 9: Loch Morie (Existing view)

Viewpoint 9: Loch Morie (Photomontage)

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Visualisations

Viewpoint 11: Summit of Cnoc Fyrish (Existing view)

Viewpoint 11: Summit of Cnoc Fyrish (Photomontage)

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Visualisations

Viewpoint 21: A817 Invergordon (Existing view)

Viewpoint 21: A817 Invergordon (Photomontage)

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Visualisations

VP30: Ardross Community Hall Southwest Façade (Existing view)

VP30: Ardross Community Hall Southwest Façade (Photomontage)

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Project Timeline to Application Submission

Nadara will continue to engage with the local community and interested parties throughout the lifetime of the development, and in particular throughout the current assessment and application phase.

Jan 2025
Scoping Report submitted to Scottish Ministers

Feb 2025
First public consultation event and feedback received from the community

May 2025
Scoping Opinion received from Scottish Ministers

Jun–Aug 2025
Further environmental survey/assessment work and design development

Aug 2025
Second public exhibition event

Sep–Nov 2025
Preparation of Environmental Impact Assessment (EIA) Report

Dec 2025
Anticipated date of submission of S36 application and supporting EIA report to Scottish ministers via the Energy Consents Unit (ECU)

Next Steps?

The next step is to the finalise the environmental survey and assessment work. The results of this will be included in the EIA Report which will accompany the S36 application to Scottish ministers.

You can find out further information on the ECU planning portal **(www.energyconsents.scot)**, reference ECU00006087, or search Novar. Project updates are also provided on our project web site **www.novar1repowering.co.uk**

How to contact us

Telephone: **07900 917143**

Email: **jenny@jmccomms.co.uk**

Post: **Novar 1 Wind Farm Repowering**
c/o JMC Communications
32A Union Road
Inverness IV2 3JY

Online feedback form:

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The local community

We will work closely with local communities, businesses, and residents to ensure the repowering of Novar 1 Wind Farm brings real benefits to the local area while helping to meet national climate change and renewable energy targets and goals.

Business, employment and investment

We want to hear from businesses in the local area and across the Highlands who could be involved in the project if it receives approval and proceeds to construction.

Opportunities available include those for:

- An engineering, procurement and construction ('EPC') contractor.
- Construction material suppliers: concrete, aggregate and building materials.
- Electrical contractors: supply and installation of plant, cabling, earthing, etc.
- Plant and equipment hire contractors; excavation earthworks, cranage, welfare units, etc.
- Labour hire companies: engineers, plant operatives and general labourers.
- Local accommodation and catering services.
- Transport: taxis and minibuses for local labourers.

If you are a local company and would like to register your interest, please email:
jenny@jmccomms.co.uk

or fill in a registration form on:
www.novar1repowering.co.uk

Community benefit

At our wind farms we work with the local community to help us shape a community benefit package that best meets local needs and wishes.

If this project receives consent we will establish a community fund in partnership with local stakeholders. We look forward to hearing from local people throughout the consultation period about what they would like to see.

At several of our wind farms we also have co-operatives which enable people to buy a stake in their local wind farm. We are working closely with community ownership experts Energy4All to set up a new co-op structure to allow both communities and individuals to co-invest if the repowering of Novar 1 Wind Farm goes ahead.

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