



Welcome to the Green Knowes Windfarm Repowering Public Information Event

The Proposed Development

ScottishPower Renewables (SPR) is proposing a renewable energy development, the repowering of our operational Green Knowes Windfarm site. Green Knowes Windfarm is located approximately 4.1 km south of Auchterarder and 11.4 km north-west of Kinross in the Perth and Kinross Council (P&KC) area.

Currently, Green Knowes Windfarm hosts 18 turbines, with a tip height of 95 metres (m) and has a generating capacity of up to 27 megawatts (MW). The proposed repowering development is anticipated to consist of fewer wind turbines, approximately 14, with blade tip heights ranging between 180 m and 200 m. The installed generating capacity of the repower is anticipated to exceed 50 MW but be less than 100 MW.

Contact Us



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Greenknowesrepowering@scottishpower.com



Write to us at:
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ScottishPower HQ, 320 St Vincent Street,
Glasgow, G2 5AD

After you have viewed the information displays introducing Green Knowes Windfarm Repowering, we invite you to complete a short questionnaire before you leave and we welcome any questions or feedback you may have. Our team can also be contacted at any time using the above contact details.

Indicative Layout

An indicative turbine layout has been developed to support the scoping of the Environmental Impact Assessment (EIA) requirements for proposed repowering of Green Knowes Windfarm. The layout has been designed to maximise energy generation potential whilst considering the environmental constraints that are known from the windfarm's existing operations, public data resources, and early-stage desktop studies.

To inform the design, a meteorological mast was installed onsite in October 2025 to capture wind speed and directional data. In addition, ecological surveys have been ongoing since Spring 2025 - ornithological and bat surveys as well as wider habitat surveys and peat probing. These surveys, alongside our ongoing technical studies and continuous stakeholder engagement will provide essential input into refining the design and turbine layout to ensure that all considerations are integrated into the design.

The indicative layout will continue to be refined through the EIA process as we gather feedback and further information and data. As the design advances, another public information event will be held to present the updated proposals to the public.



Visit our project website





Green Knowes Windfarm Repowering is a ScottishPower Renewables (SPR) Project

About Us

ScottishPower Renewables (UK) Limited (SPR), is part of the ScottishPower group of companies operating in the UK under the Iberdrola Group, one of the world's largest integrated utility companies and a world leader in wind energy. ScottishPower now only produces 100% green electricity – focusing on wind energy, smart grids and driving the change to a cleaner, electric future. The company has committed to investing over £18 million every working day to make this happen and is committed to speeding up the transition to cleaner energy generation, electrifying transport and improving air quality to deliver a better future, quicker for everyone.

SPR is at the forefront of the development of the renewables industry through pioneering ideas, forward thinking and outstanding innovation, and already has over 40 operational wind farms managed from its world-leading Control Centre at Whitelee Windfarm, near Glasgow. SPR stands as a distinguished innovator, industry leader, and environmental investor. As one of the largest privately funded peatland restoration entities in the UK, SPR has successfully restored over 1,000 hectares (ha) of peatland, with the capacity to sequester approximately 3.6 million tonnes of carbon dioxide.



Find out more about SPR





Community Benefit and History in the Region

As a responsible developer and operator of renewable energy schemes, SPR believes the benefits of our projects should be shared with the communities in which we work.

During the operation of our onshore renewable energy developments, we create and support community benefit funds, empowering communities to control how this money is spent to best serve the needs of their local area. To date, SPR's operational onshore windfarms have contributed over £75 million to communities across the United Kingdom, including Auchterarder and District Community Trust. As of 2025, Green Knowes Windfarm has contributed £269,450 in community benefits. These contributions have helped to fund projects such as the Sandy Gunn Memorial Garden, Auchterarder Community Sports and Recreation Cycle Without Age and the Merry-Go-Round Playgroup.

As part of this repowering project, SPR will work with the local communities to distribute the community benefit fund amongst neighbouring communities.

Community benefit funds have led to the delivery of a diverse range of projects, which include environmental improvements, educational programmes, heritage projects, the purchase of community transport vehicles, provision of life saving defibrillators, investment in energy efficiency measures within community buildings, and much more.

With the development of these sites nearby, SPR is continuing the history of working positively with local communities in the region. The flexible approach adopted by SPR has empowered local communities to decide what the community benefit is spent on. This has resulted in a fantastic diversity of projects being delivered from improving local amenities, including town halls, community owned assets and local youth clubs, to supporting work experience places, educational workshops and much more. We are also keen to create employment opportunities during the construction and operation of our windfarms that can be delivered locally to benefit those who live near our sites.



Find out more about how we engage
with our communities





Planning Application Process

We are at the pre-application stage and have undertaken consultations (pre-application discussions) with Perth and Kinross Council and other statutory consultees on a range of planning and environmental considerations.

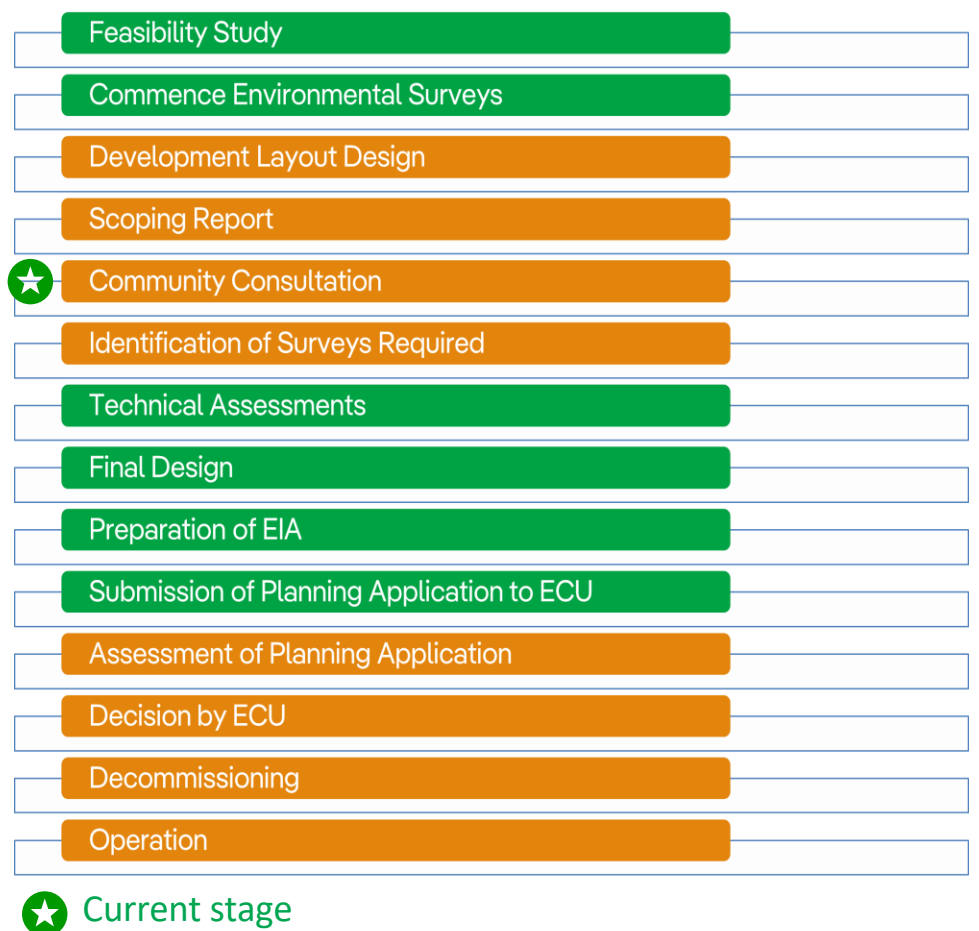
We are also carrying out pre-application community consultation events, including this event, to update local communities on the project and seek feedback.

In March 2026, a scoping report for the Environmental Impact Assessment (EIA) of the Green Knowes Repowering Project was submitted to the Scottish Government's Energy Consents Unit (ECU). As part of the EIA process, this scoping report outlines our proposed approach and seeks agreement with consultees on the scope of the assessment.

As the EIA progresses, the layout and design of the proposed development will continue to evolve, accounting for environmental considerations and feedback from stakeholders.

The results of the EIA will be presented in a full EIA Report document, which will be submitted as part of the application for consent to the ECU for consideration by consultees.

We are aiming to submit the planning application, including the EIA Report, in summer 2027. Upon receipt of the planning application, the ECU will start the formal planning application determination process. Prior to submission of the planning application, further public information events will be held to explain how the project has evolved during the EIA and consultation.



Environmental Considerations

The following key considerations will be assessed by third-party experts during the Environmental Impact Assessment (EIA) process and findings documented in the full EIA Report. This will ensure a thorough examination of the environmental effects of the Proposed Development and its alignment with regulatory standards and best practices.

Peat, Hydrology and Hydrogeology

This assessment will consider the Proposed Development's potential impact on peat, hydrology and hydrogeology. Field surveys will be carried out to confirm baseline conditions, such as peat depth, watercourses, Groundwater Dependent Terrestrial Ecosystems, private water supplies and the presence of any other sensitive receptors.

Likely potential significant effects arising from the Proposed Development on identified sensitive receptors will then be assessed. Where necessary, measures to avoid or minimise adverse effects will be incorporated into the project's design and layout. Any remaining effects after these mitigation measures have been applied, known as residual effects, will also be evaluated to determine their significance.

Ecology

The ecological assessment will consider potential significant effects associated with ecology (habitats and non-avian animal species) arising from the construction and operation of the Proposed Development. A number of surveys will be undertaken to inform the assessment which include habitat surveys, protected mammals, bat surveys and aquatic surveys.

Infrastructure from the existing operational Green Knowes Windfarm that would not be required for the proposed development, would be decommissioned and the land restored. In addition, SPR will seek to offset any habitat loss resulting from construction activities through the creation and/ or restoration of appropriate habitats, supported by a biodiversity enhancement scheme.

Noise

The noise impact assessment will consider the potentially significant effects of noise during the site preparation, construction and operation phases of the proposed development. It will predict how much noise may be experienced by nearby homes and other noise-sensitive locations, and whether these levels meet established noise limits.

The assessment of noise from decommissioning and construction activities will identify any periods when noise levels may exceed standard guidelines, taking into account the rural character of the area. The aim is to determine whether specific noise management measures are needed, and if so, what types of measures would be appropriate to keep noise within acceptable levels.

For operational noise from turbines, predicted noise levels will be calculated and compared with noise limits set by recognised standards and guidance such as ETSU-R-97. The assessment will also consider the guidance contained within the Institute of Acoustics' document 'A good practice guide to the application of ETSU-R-97 for the assessment and rating of wind turbine noise', which is the current industry standard. The assessment and any necessary mitigation measures will also consider other planned and existing windfarms near the site to predict the potential combined levels of noise.



Environmental Considerations (cont.)

Ornithology

Ornithology surveys have been ongoing at the site since April 2025. The data gathered, along with historical and publicly available information, will be used to assess the potential effects of the proposed development on features of ornithological interest.

Typical features of ornithological interest are:

- designated sites, such as Special Protection Areas, Ramsar sites, Site of Special Scientific Interest; and national and international protected species.

The assessment of potential effects to ornithology features will include consideration of:

- collision risk;
- disturbance of species; and
- loss of habitat.

If significant effects are predicted, mitigation measures will be proposed. These may include adjusting the location of infrastructure, restricting certain construction activities during sensitive time periods, enhancing habitats, and/or implementing long-term management plans.

An assessment of any residual effects will also be carried out, and the overall findings will inform any Habitats Regulations Assessment, if required.

Cultural Heritage

The cultural heritage assessment will consider the potential effects resulting from the proposed development on archaeology and cultural heritage assets. During construction, potential effects may include direct physical disturbance to previously unknown buried archaeological remains. The operational phase effects will be those that have direct impact upon the setting of regionally important monuments, such as the Down Hill, John's Hill or Ben Efray forts, as well as Garden and Designed Landscape and Listed Buildings of the Gleneagles Hotel and Golf Courses.

The assessment process will include a review of existing records; consultation with key authorities such as Historic Environment Scotland (HES), site walkover surveys, and viewpoint analysis. It will be carried out in accordance with local development plans and HES guidance.

Site Access and Traffic

Access, traffic and vehicle movement will be assessed to quantify the impact of the proposed development on the public road network and to assess the significance of any associated effects such as:

- disruption to road access;
- vehicle delays; and
- hazards from large loads.

The assessment will guide traffic management planning requirements for the Proposed Development.

Landscape and Visual Amenity

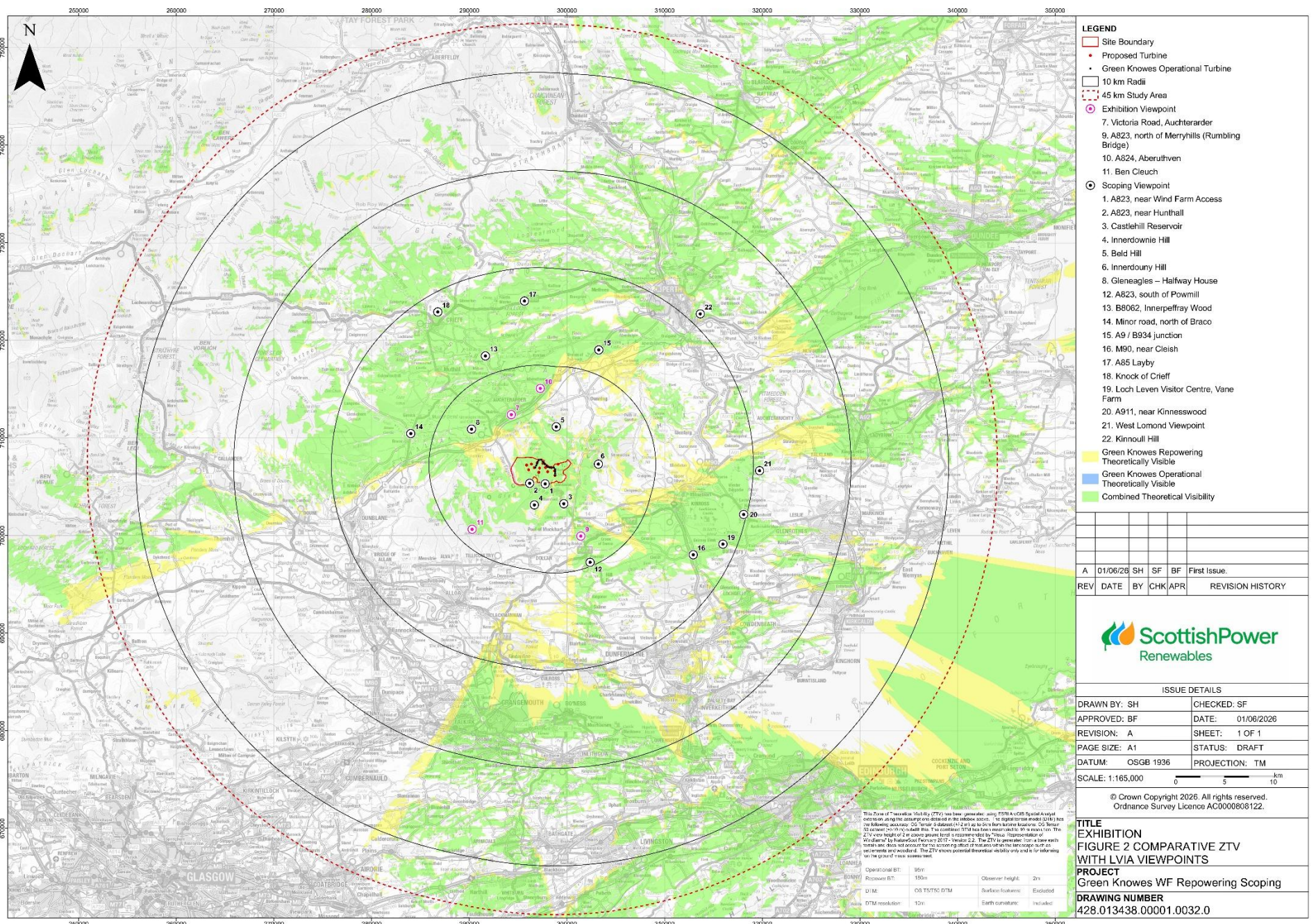
A landscape and visual impact assessment (LVIA) will identify and record the potential significant effects that the Proposed Development may have on physical elements of the landscape character, landscape areas that have been designated for their scenic or landscape-related qualities, and views from various locations such as settlements, transportation routes and other sensitive locations.

The landscape architect will be providing layout and design advice on landscape and visual matters and undertaking the LVIA for the proposed development.

The LVIA will include assessment of the following:

- Landscape character and designations within 20 km of the proposed development;
- Visual effects from representative viewpoints selected to illustrate the views from recreational routes, locations and residential areas;
- Effects on views from properties within 2 km and settlements within 15 km of the proposed development;
- Views from vehicles using the local and main road networks;
- Visual effects associated with aviation warning lighting on the new turbines; and
- Cumulative effects when considered alongside other existing and proposed developments.

Fieldwork will include visits to the site and the wider area more generally to assess potential effects views, landscape character areas and designated landscapes.





What is Repowering?

As a long-standing renewables developer, we're on the cusp of full circle moments at our oldest windfarms as the turbines come to the end of their operational life.

The legacy those projects leave goes way beyond the power they've generated over the years. We've been able to create local jobs and support our sector's supply chain, to drive positive economic contribution at a local and national level, have been

a part of exploring the latest technological advances and approaches and all whilst working closely with the communities we operate in and around.

But the exciting part is that even when the turbines on some of our sites approach their original operational lifespan, that's not the end. We have so many fantastic opportunities to do even more with them via life extension works and by repowering our windfarm sites.

What are the benefits?

- Increased electricity generation = increased security of supply
- Building & maintaining new assets = jobs and supply chain opportunities
- More generation from windfarm = more community benefit funding to share
- New technologies available = increased efficiency – sometimes up to 10x the capacity of the original windfarm, with fewer turbines
- Repowered site = further investment in ecology and the local environment
- Old assets = sustainable resources for research & training, recycling and restoration into assets like bus shelters and other re-usable components



Visit a SPR Repowering case study





Baseline photograph

View flat at a comfortable arm's length



Photomontage: Proposed Repowering Development

View flat at a comfortable arm's length

OS reference: 297270 E 715069 N
 Eye level: 38.5 m AOD
 Direction of view: 181°
 Nearest repower turbine: 7.63 km
 Nearest operational turbine: 7.32 km

Horizontal field of view: 53.5° (planar projection)
 Principal distance: 812.5 mm
 Paper size: 841 x 297 mm (half A1)
 Correct printed image size: 820 x 260 mm

Camera: Canon EOS 6D Mark II
 Lens: Canon EF 50mm f/1.4
 Camera height: 1.5 m
 Date and time: 15.05.2026 08:16

Turbine Tip Height: 180m
 Turbine Hub Height: 105m
 Turbine Rotor Diameter: 150m

Viewpoint 10: A824, Aberuthven



Baseline photograph

View flat at a comfortable arm's length



Photomontage: Proposed Repowering Development

View flat at a comfortable arm's length

OS reference: 290272 E 700639 N
 Eye level: 721.8 m AOD
 Direction of view: 49°
 Nearest repower turbine: 8.42 km
 Nearest operational turbine: 9.07 km

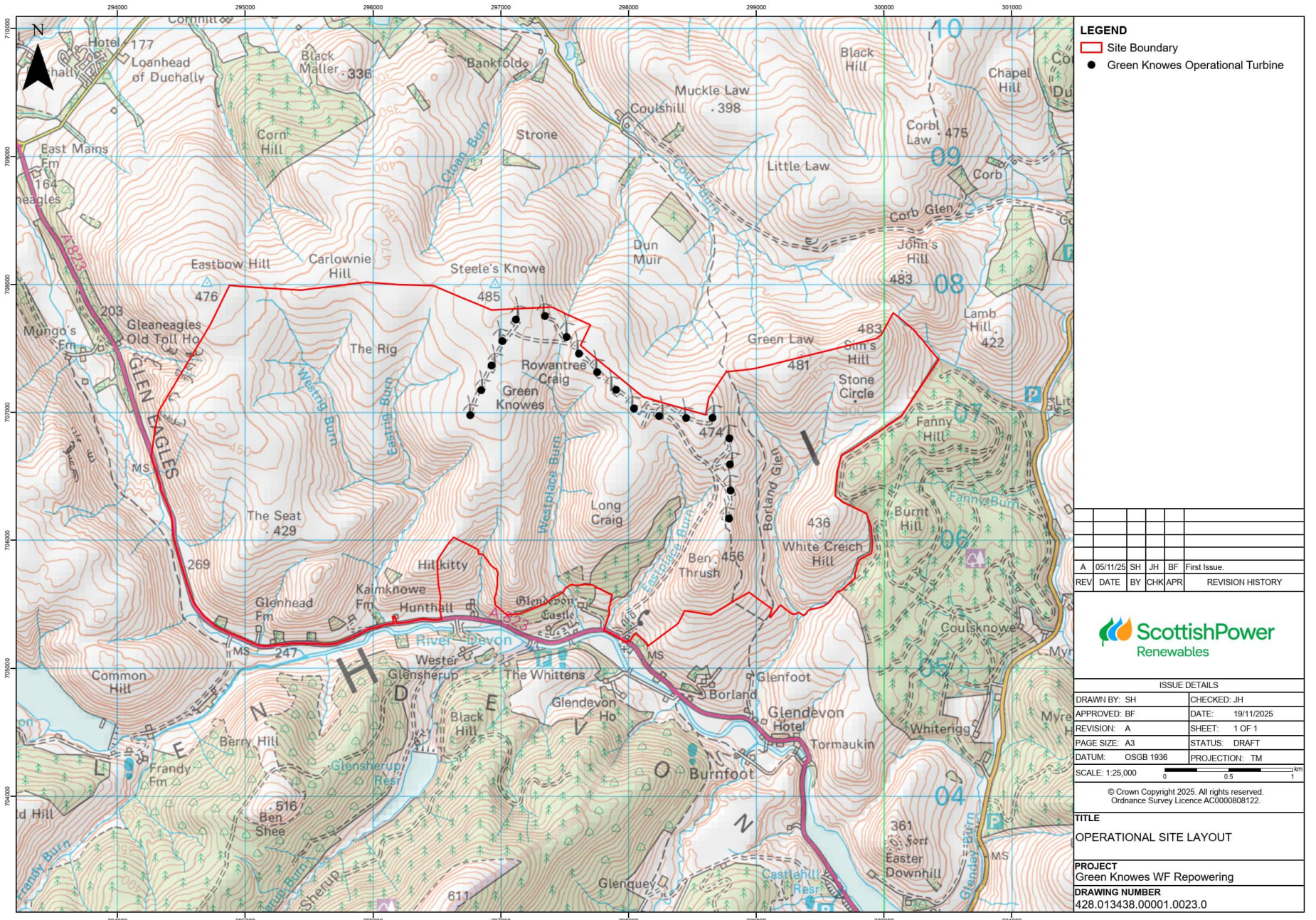
Horizontal field of view: 53.5° (planar projection)
 Principal distance: 812.5 mm
 Paper size: 841 x 297 mm (half A1)
 Correct printed image size: 820 x 260 mm

Camera: Canon EOS 6D Mark II
 Lens: Canon EF 50mm f/1.4
 Camera height: 1.5 m
 Date and time: 15.05.2026 15:38

Turbine Tip Height: 180m
 Turbine Hub Height: 105m
 Turbine Rotor Diameter: 150m

Viewpoint 11: Ben Cleuch

Operational Green Knowes Layout



Proposed Turbine Layout – Scoping Submission

