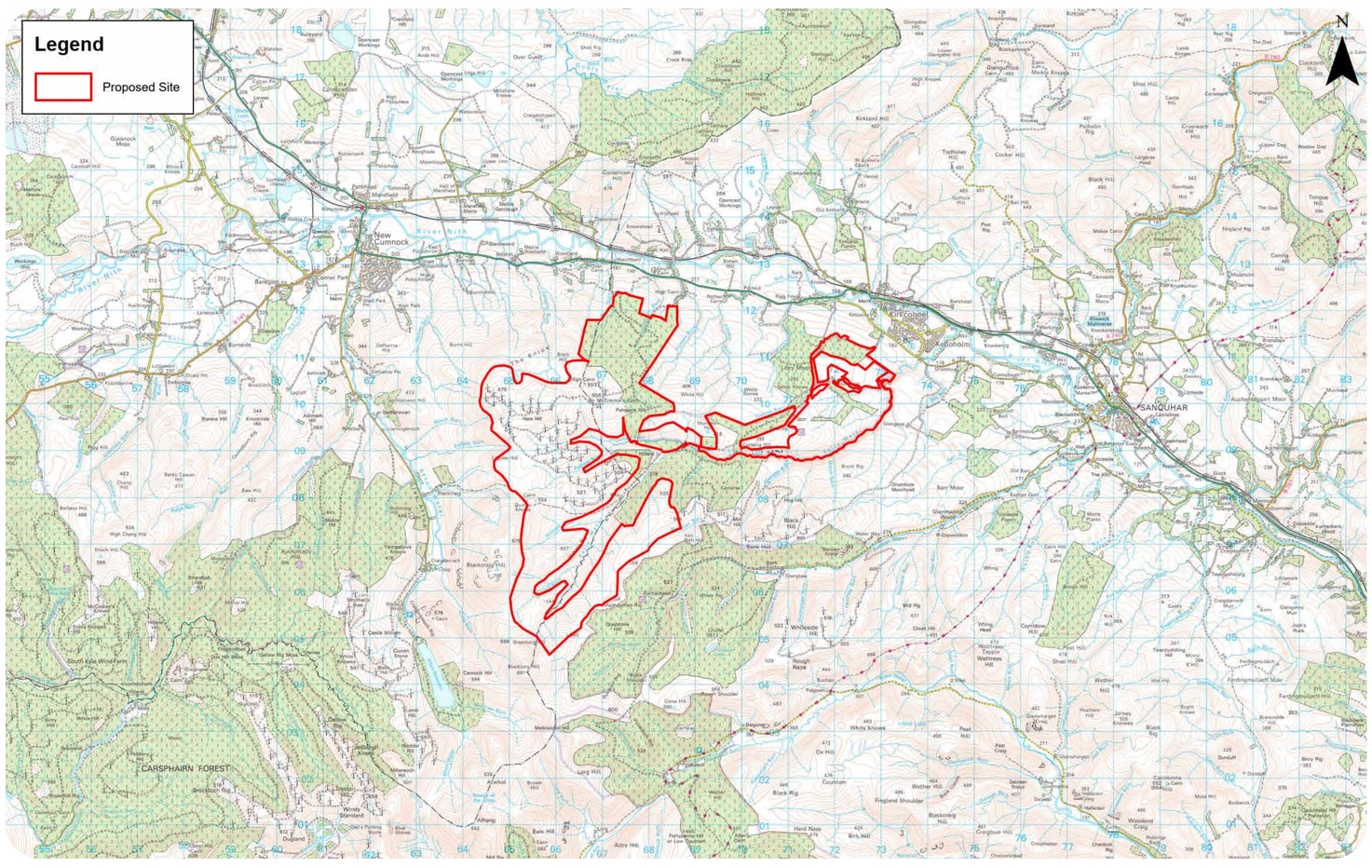
ScottishPower

Welcome to the Hare Hill Windfarm Repowering Public Exhibition

Hare Hill Windfarm Repowering is a ScottishPower Renewables (SPR) Project

SPR is part of the ScottishPower group of companies operating in the UK under Iberdrola, one of the world's largest integrated utility companies and a world leader in wind energy. ScottishPower now only produces 100% green electricity. Its focus is on wind energy, smart grids and driving the change to a cleaner, electric future.

At SPR, we are committed to developing renewable energy responsibly. We strive to be a good neighbour in all aspects of our work and are committed to Dumfries and Galloway, East Ayrshire and the surrounding area, and to maximising the opportunities for local communities to benefit from our projects. We aim to find the best balance of constraints; to conform that no impact from our developments is unacceptable; and to demonstrate that the benefits of our projects are real value, wide-reaching and shared with the community.



Hare Hill Repower - Proposed Turbine Layout

Visit our Website

Learn more about Repowering

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Community Benefit and History in the Region

ScottishPower Renewables has been working alongside communities across the UK for nearly two decades and has to date contributed more than £60 million in benefit funds to support initiatives and projects for those communities local to our windfarm sites. Over £15.5 million of community benefit has been used to support valuable community led initiatives and projects in Dumfries and Galloway. In excess of £11.5 million has been invested into communities in East Ayrshire. Repowering Hare Hill Windfarm and Hare Hill Extension will further increase community benefit funds available to neighbouring communities within Dumfries and Galloway and East Ayrshire.

Operational since 1999, our Hare Hill site is one of Scotland's oldest Windfarms and SPR has been a neighbour for many years, generating cleaner power and providing socio-economic benefits to local communities in Dumfries and Galloway and East Ayrshire. We own and operate Killgallioch, Harestanes, Ewe Hill and Wether Hill windfarms in Dumfries and Galloway, and several others in the wider Ayrshire region. 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, cinemas 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.

£60m

of community benefit UK wide

£15.5m

of community benefit to date in Dumfries and Galloway

£11.5m

of community benefit to date in East Ayrshire

The Site - Hare Hill Windfarm

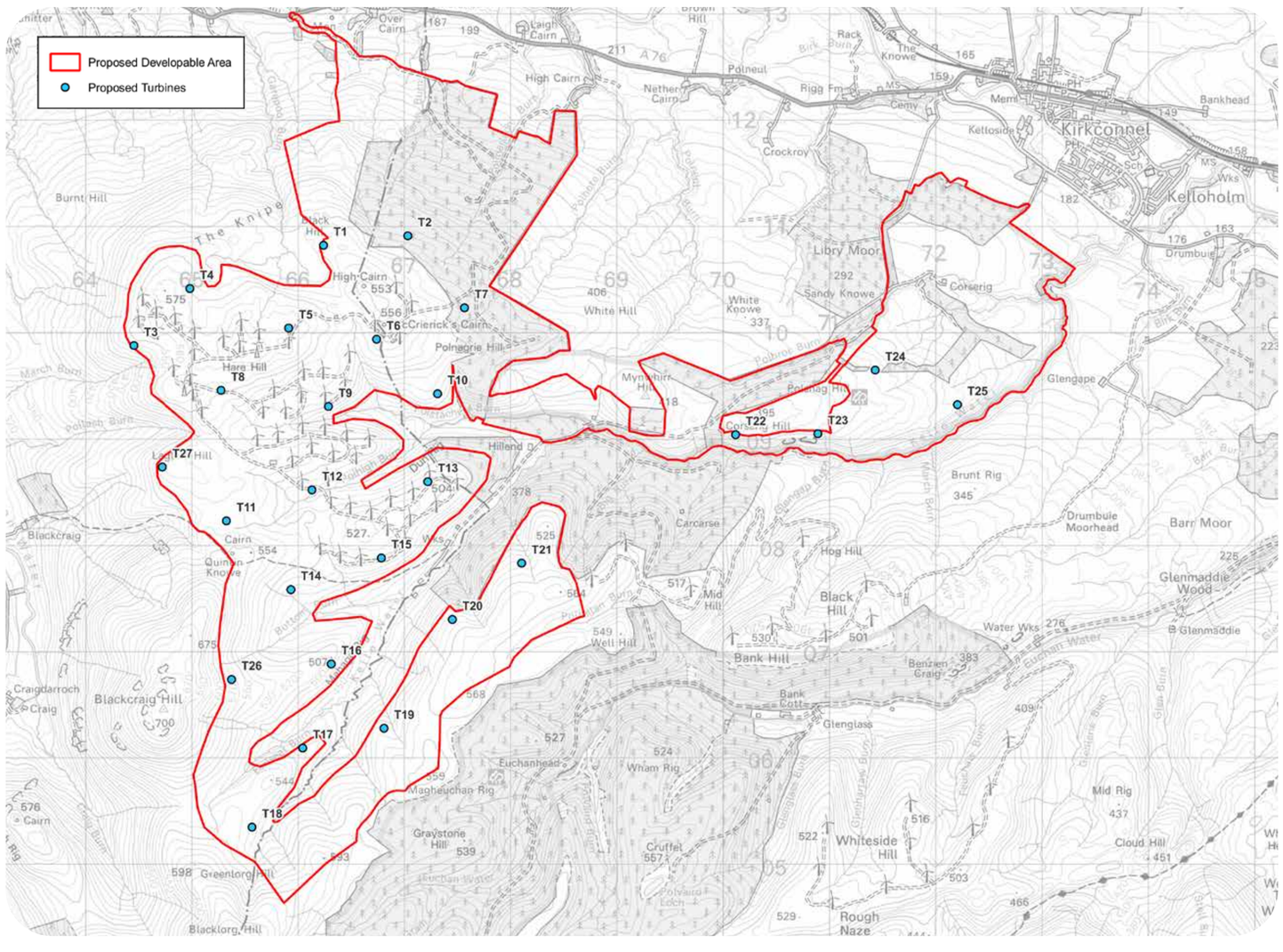
The Hare Hill Windfarm Repowering project is located on the border of East Ayrshire and Dumfries and Galloway, 4 km Southeast of New Cumnock, at the site of our Hare Hill windfarm and Hare Hill Windfarm Extension sites.

The Proposed Development

Currently, Hare Hill and Hare Hill Extension have a combined total of 55 turbines, generating 43.2 megawatts across the two sites. The Proposed Development will consist of fewer wind turbines, approximately 27, with blade tip heights of up to 250 metres.

November 2023 Scoping Layout

Maximises the energy production whilst considering environmental constraints known from public data resources and desktop study.



Hare Hill Repower - Proposed Turbine Layout

Development Process

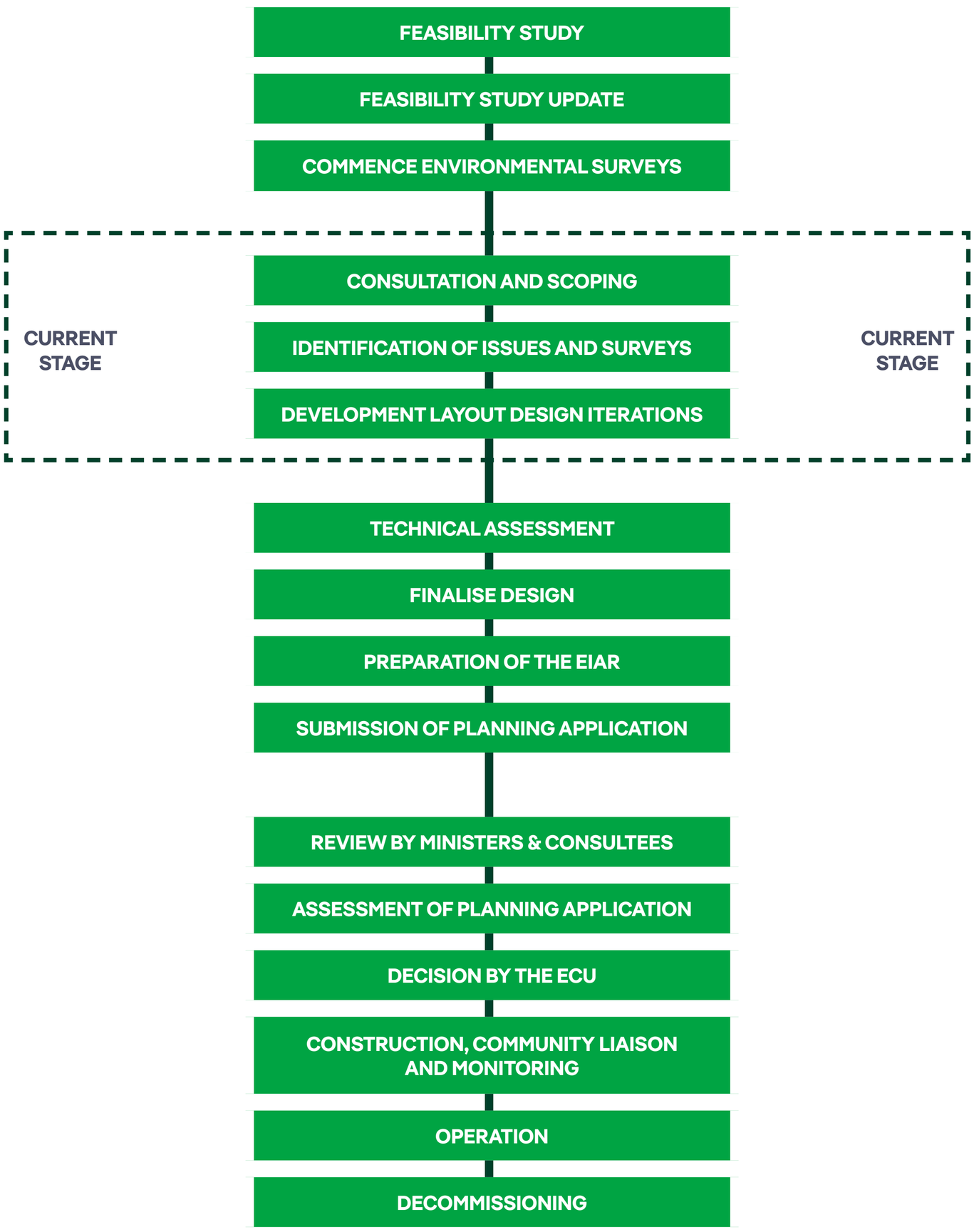
A Scoping Report was submitted to the Scottish Government Energy Consents Unit (ECU) in November 2023.

This described our draft proposal and invited the views of consultees on the scope of the Environmental Impact Assessment (EIA).

Once the scoping opinion has been received it will determine the scope of the EIA currently being drafted. This will be presented in an Environmental Impact Assessment Report to accompany the application for consent to the ECU.

The EIAR will consider:

- Landscape and visual matters
- Ecology
- Ornithology
- Hydrology, Geology and Hydrogeology
- Cultural heritage
- Traffic and Transport
- Aviation and existing infrastructure
- Noise
- Forestry
- Socioeconomics
- Telecommunication



Environmental Considerations

The following environmental considerations will be assessed and documented, forming a part of an Environmental Impact Assessment Report. This approach ensures a thorough examination and reporting of the environmental implications of the Proposed Development are considered, and will confirm the impacts of the construction, operation and decommissioning of the Proposed Development align with regulatory standards and best practices.

Ecology and Biodiversity Net Gain (BNG)

This assessment considers the local flora and fauna present within the site. Habitat and protected mammals surveys will be undertaken within the site boundary which include badger, otter and water vole. The assessment will include recommendations for mitigation and. Measures for biodiversity enhancement and net gain in line with National Planning Framework 4 (NPF4) and standard guidance.

Bat activity surveys were undertaken in 2023, and in 2024 a suite of carcass surveys will be undertaken on the existing operational turbines to identify whether there is currently any impact on bat species.

Hydrological, Geological and Hydrogeological

This assessment will consider the hydrological, geological and hydrogeological characteristics of the Proposed Development and help inform appropriate mitigation proposals. Field surveys will be carried out to inform baseline conditions, such as watercourse assessments, peat depth and condition surveys and private water supply surveys. A 'water environment' map will be produced to provide the basis for describing the current water regime. This map will also provide form the basis for identifying potential impacts and helping to instruct the specification of appropriate mitigation.

An impact assessment would be undertaken to assess the potential effects of the Proposed Development on receptors to draw conclusions on the significance of the effects.

Ornithology

This assessment will assess the potential effects of the Proposed Development on features of ornithological interest during both its construction and operational phases.

There are no statutory International/European or national designated sites for ornithological features located within the site.

Potential adverse impacts on ornithological receptors will be avoided or minimised where possible through the design process. Where significant adverse effects are predicted through the impact assessment process, appropriate mitigation measures will be prescribed to either avoid these or reduce them to an acceptable (not significant) level.

Where necessary, a habitat management plan and breeding bird protection plan will be developed to ensure that all reasonable precautions are taken to protect and enhance conditions for ornithological features of interest within the Proposed Development Site during both construction and operation.

Aviation

The Aviation section will assess the potential effects of the Proposed Development on civil and military aerodromes, airspace and radars. The aviation assessment will include radar line of sight modelling and will identify and examine in greater detail sensitive aviation and radar receptors. Consultation will also be undertaken with relevant aviation stakeholders.

Forestry

A forestry baseline would be compiled from a desk-based assessment and field surveys. A Development Forest Plan would be prepared incorporate the windfarm infrastructure into the forest structure. The proposal would identify the extent of any net loss of woodland area. A Development Felling Plan will be prepared to show which woodlands are to be felled for construction of the development by considering existing crops; silvicultural constraints; site conditions; baseline Forest Plans and landowner objectives; windfarm requirements; any other constraints identified during the EIA process; and any mitigation proposals. In addition, a Development Restocking Plan would detail the timing, location and species to be replanted following construction felling. Restocking options would include delayed restocking; revised species; and / or stocking densities. Following completion of the Development Forest Plan the changes in the woodlands would be analysed and described. The effects of the development forestry proposals would be assessed by the other relevant disciplines.

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Environmental Considerations

Traffic and Transport

The objective of the Traffic and Transport assessment is to assess the impact of the proposed Development, Hare Hill Repower, on the public road network, by means of a Traffic Impact Assessment. This will be supplemented by an Access Route Assessment for delivery of the wind turbine Abnormal Indivisible Loads and a preliminary Traffic Management Plan. This will consider the impact of the traffic volumes and the transport network during the construction period, operational phase and decommissioning phase of the proposed development.

Cultural Heritage

The assessment will cover on-site impacts identified through desk-based research, and verified by field su–rvey, and off-site impacts on the settings of heritage assets in the surrounding area.

The baseline character and sensitivity of heritage assets within the site will be described and avoided where necessary.

Heritage assets in the wider landscape with settings sensitive to change will be identified and efforts will be made to avoid or reduce potentially adverse effects on their cultural significance.

Consultation will be maintained with statutory consultees throughout the EIA process.

Mitigation measures will be outlined which will ensure direct or indirect impacts on sensitive assets within the site are dealt with appropriately, to the satisfaction of both East Ayrshire Council and Dumfries and Galloway Council.

Design

The engineering team will use Infraworks software to locate the candidate turbine and the crane pad in positions that will allow construction that is compliant with the manufacturer's hardstanding and track specifications, with minimal cut and fill, and takes into consideration the identified environmental and performance constraints. Where appropriate, existing infrastructure will be incorporated into the design. The quantities of aggregate required for construction will be estimated for use in borrow pit design, transportation assessment and carbon balance calculations.

Socioeconomics

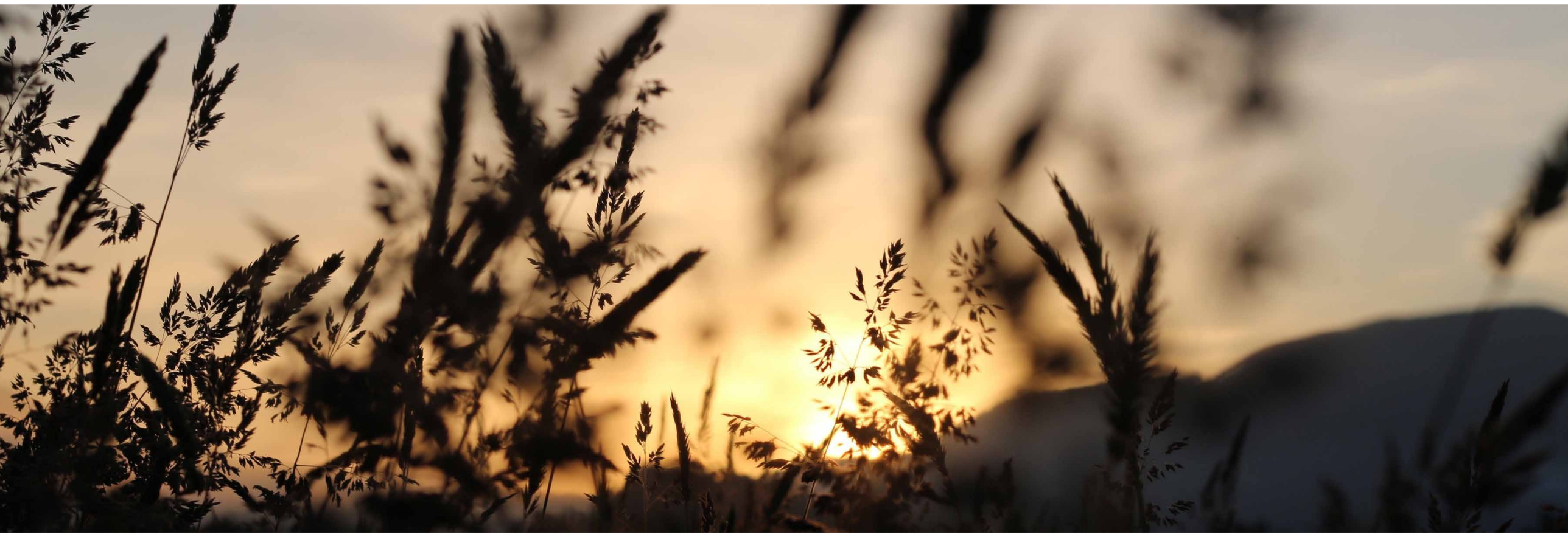
The assessment will consider the potential socioeconomic impacts that could arise from the Proposed Development. It will provide a baseline socio-economic context outlining population levels, employment statistics, and relevant economic data at the local, regional, and national level. The assessment will estimate the economic impact generated during the development, construction, and operational phases, providing estimates on the number of jobs and the Gross Value Added that could be generated. The assessment will also propose measures and actions that could be taken to maximise local economic benefits and consider the impacts of proposed community benefit funding.

Noise

This assessment will assess the noise emitted during the construction and operation period of the windfarm. The level of noise emitted sources and the distance from those sources to the receiver locations are the main factors determining noise at receptor locations.

Construction noise will be assessed based on a potential construction programme and by assuming the Proposed Development is constructed using standard and good practice methods. Noise levels will be calculated for receiver locations closest to the areas of work and compared with guideline values. The construction assessment would consider increased levels of noise due to construction traffic traveling to and from the Proposed Development on public roads. Construction noise, by its very nature, tends to be temporary and highly variable and much less likely to cause adverse effects, with a focus on management such as restriction of working hours.

Noise from operation of the wind turbines on the Proposed Development will be compared with limits derived from the existing noise environment following the method stipulated in guidance. Predicted noise levels will take full account of the potential combination of the noise from the Proposed Development when operating with other nearby wind energy schemes.



Landscape and Visual Impact

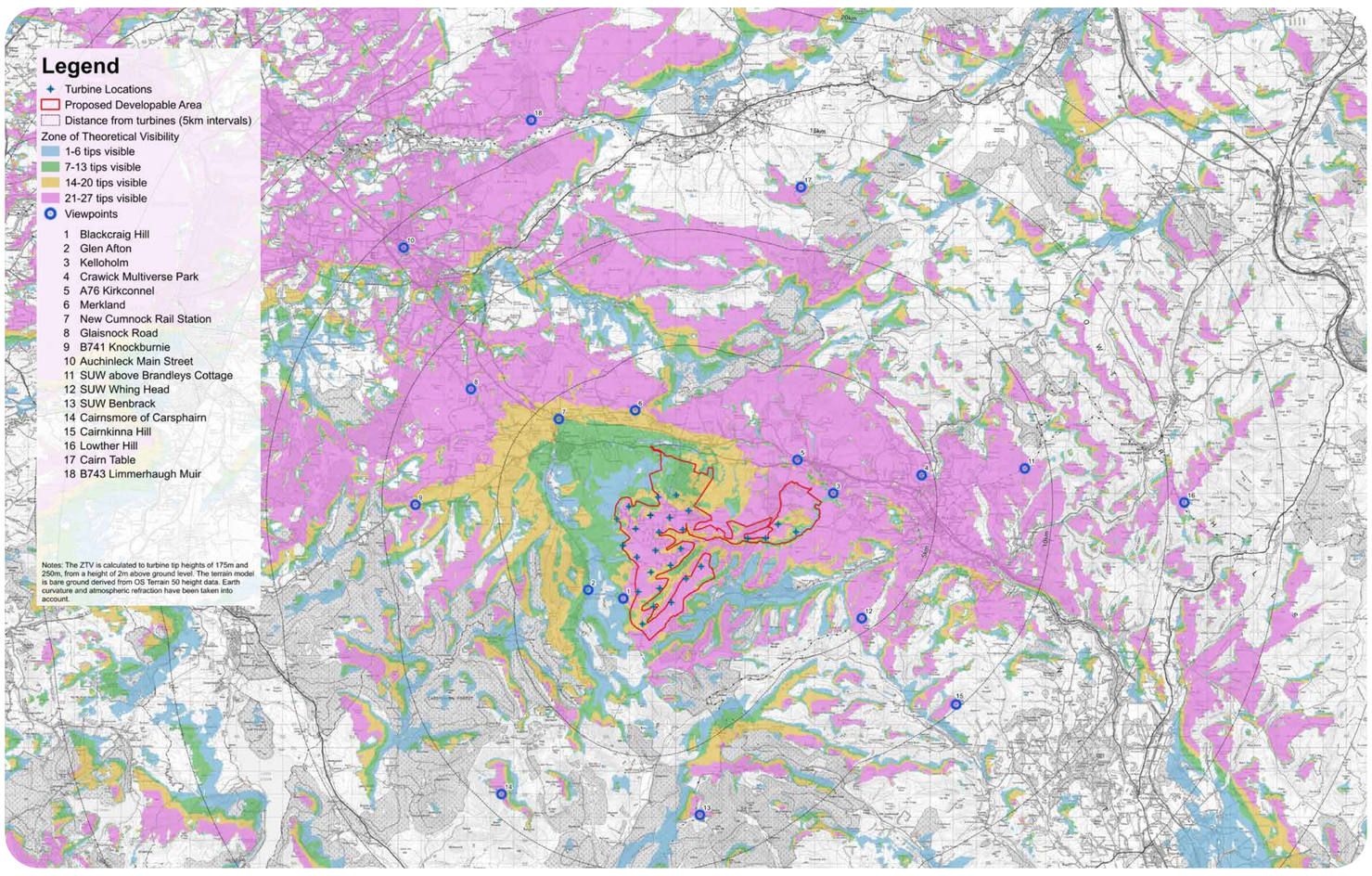
A Landscape and Visual Impact Assessment (LVIA) will establish the potential effects of Hare Hill Repower on the surrounding landscape and visual amenity.

The study area will extend to 45 km from the outermost turbines.

The Landscape Architect will be providing design advice on landscape and visual matters and undertaking the LVIA for the Proposed Development.

The LVIA will include:

- An assessment of cumulative effects;
- Effect of aviation lighting; and
- Effects on the visual aspects of residential amenity for properties within 2km of the Proposed Development.
- Fieldwork will include visits to the site and the wider area more generally to assess potential effects– on views, landscape character areas and designated landscapes.



Zone of Theoretical Visibility

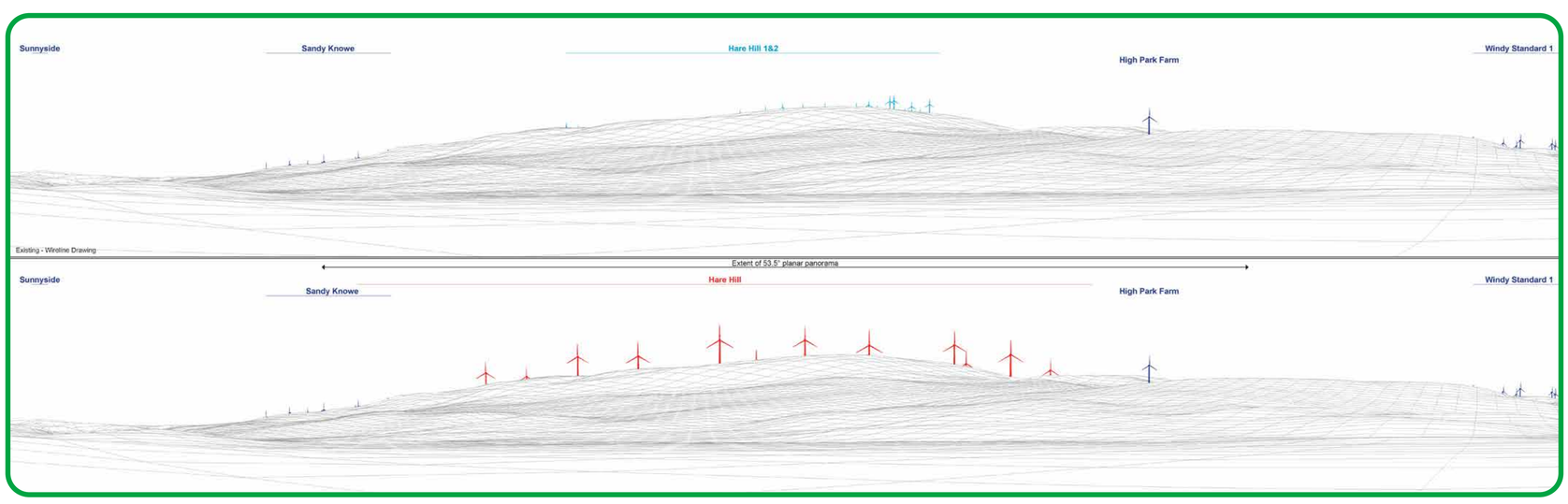
The Zone of Theoretical Visibility (ZTV) diagram for the Proposed Development (above) indicates the number of turbines theoretically visible from any location within the 45 km study area.

Landscape and Visual Impact

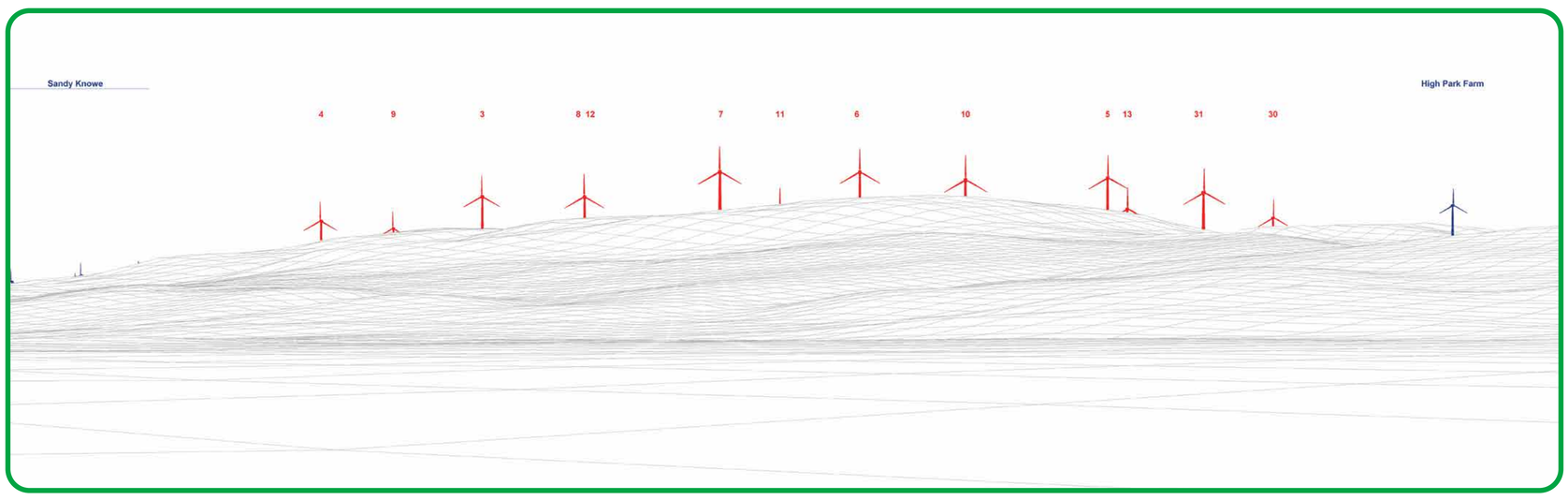
From a visual perspective computer generated wireline views are used to refine the layout of the turbines. Viewpoints will be agreed with consultees to represent key local and distant views through the scoping process.

A photomontage is developed by rendering a wireline view of the turbines onto a photograph. The photographs are comprised of several images taken from the same viewpoint and stitched together to minimise distortion. The figures included in this display show the photomontage development process.

Comparison of current baseline photograph to Hare Hill Repower Wireline



Comparison of existing baseline to Hare Hill Repower Wireline



Hare Hill Repower Wireline

Hare Hill Repower Photomontage