



# WEST ANDERSHAW WIND FARM

VIRTUAL EXHIBITION

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9 August – 27 August 2021



Berry Burn Wind Farm, Moray. 100m tip height

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**This consultation is designed to share our early stage plans for West Andershaw Wind Farm. We want to hear your views as we continue to shape the development during this phase.**  
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## About Statkraft

- The largest generator of renewable energy in Europe
- A state owned utility, with origins in Norwegian hydropower 125 years ago
- 4,500 employees in 18 countries, all working towards our low carbon future
- Operating in the UK since 2006
- Distributed over £2 million to communities near operating wind farms, including nearly £500,000 from the operational Andershaw Wind Farm.

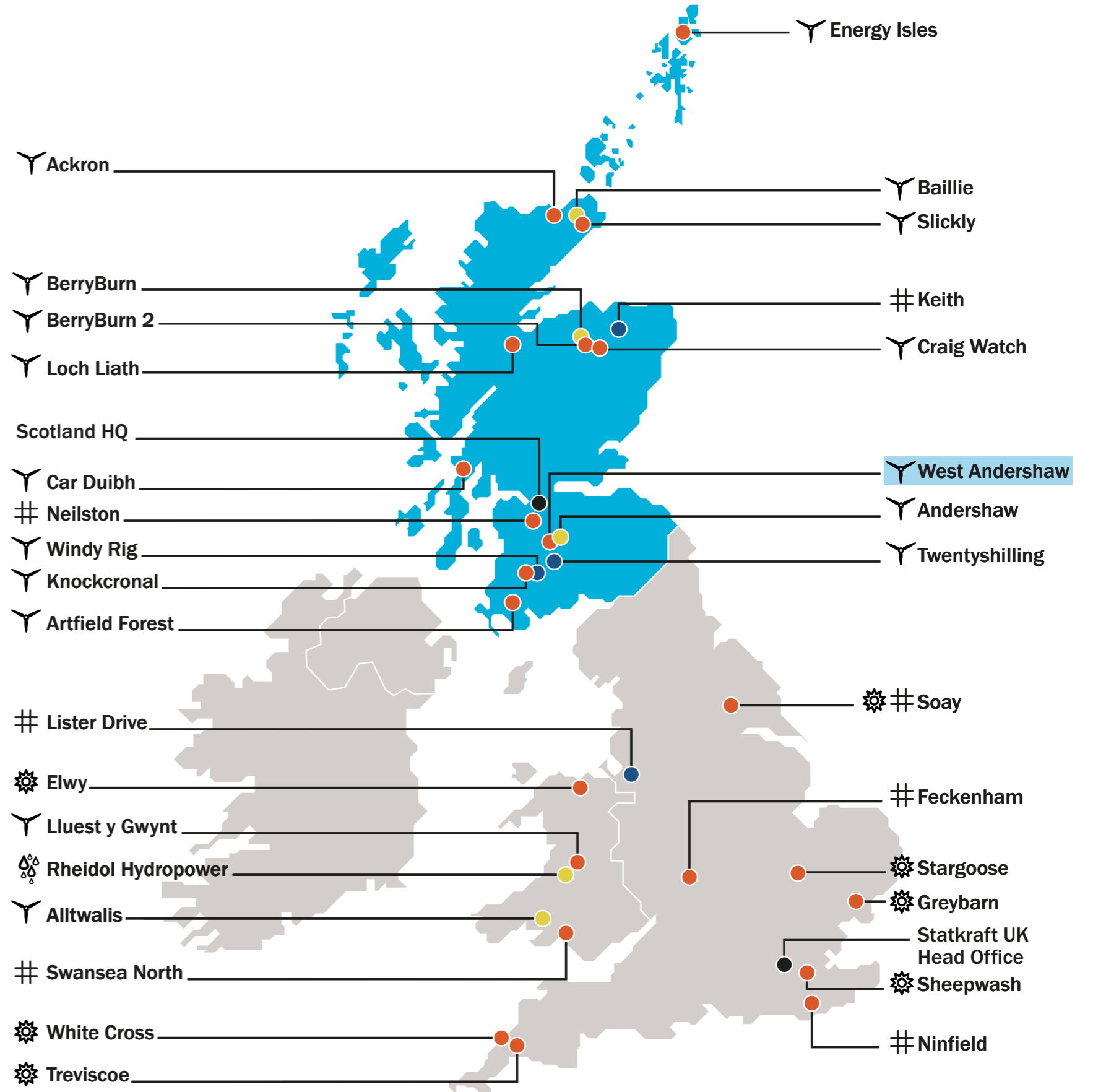


*Andershaw Wind Farm, South Lanarkshire, 11 turbines, 140m tip height. Middle Muir Wind Farm turbines are also seen in this image.*

## Statkraft in the UK

- Scottish Head Office in Glasgow
- Operational portfolio includes four wind farms, including Andershaw Wind Farm and one hydro plant
- Two wind farms in Dumfries & Galloway in construction
- Recent expansion into solar development and electric vehicle charging points
- Over 700MW in development
- Delivering grid stability services for National Grid in Moray and Liverpool

- Operational
- Construction
- Development
- Offices
- Y Wind
- # Greener Grid Park™
- ⚡ Hydro
- ☀ Solar



# About West Andershaw Wind Farm

This is an excellent site, west of the existing operational Andershaw Wind Farm, to contribute to Scotland's ambitions of reaching net zero emissions by 2045.

The nearest turbine is approximately 3.3km south of Glespin, 4km west of Crawfordjohn, and 4.9km south of Douglas.

## West Andershaw Key Facts:

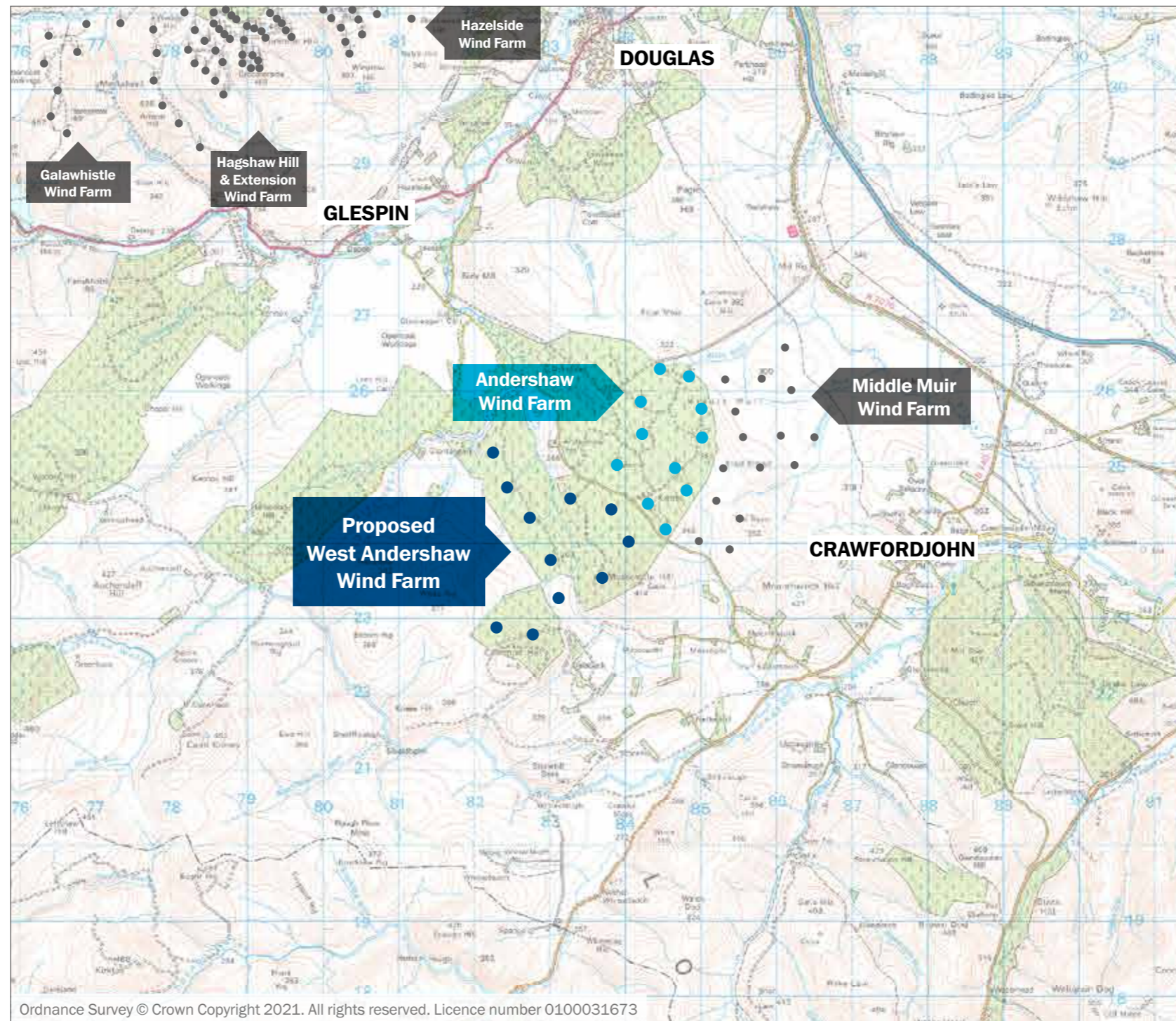
**11** Up to 11 wind turbines proposed

**£5,000** Per MW installed per year for a Community Fund

A maximum height to blade tip  
**250m**

Exciting new opportunity to talk about shared ownership and local suppliers

Potential for improved broadband provision



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## Why this site?

- Proven good wind speeds
- Extending operational wind farms is considered **good design practice** using existing infrastructure where possible to minimise construction
- Designed to reflect **topography** and fit alongside Andershaw Wind Farm
- No nationally or internationally designated sites within the site boundary
- The site will **contribute towards Scotland's decarbonisation targets**



	No. of Turbines	Max Blade Tip Heights	Expected Installed Capacity (MW)	Estimated Generation (homes equivalent)	Community Fund (per year)
<b>West Andershaw</b>	Up to <b>11</b>	Up to <b>250m</b>	Over <b>50 MW</b> <small>(section 36 planning application)</small>	Over <b>47,700</b> Homes per year <sup>(1)</sup>	Estimated <b>£250,000</b> per year <sup>(2)</sup>

(1) Based on 50 MW Installed Capacity, wind resource assessment and average Scottish domestic consumption of 3,393kWh pa (BEIS Dec. 2020). Candidate turbine still tbc'd.  
 (2) CBF based on 50MW x £5k per MW of installed capacity. If consented, value of fund determined by actual installed capacity. Candidate turbine still tbc'd.

Andershaw Wind Farm is owned and operated by Statkraft. We have been involved since 2014 after the development gained consent, originally as part of a joint venture, before becoming the sole owner.

- Andershaw construction began in 2016, becoming fully operational in 2017
- Two full-time Statkraft employees are based on site to manage operations
- Glasgow-based MacArthur Green assist us to deliver our Forestry and Habitat Management Plan for the site
- To date over £1.6 million in business rates has been paid to South Lanarkshire Council
- 20 projects have been allocated nearly £260,000 of funding from the Community Benefit Fund administered by South Lanarkshire Council

Over £200,000 of current community funds are still to be allocated. To find out how to apply [click here](#).



Photo: Rob Thomson

Crawfordjohn Heritage Venue Museum, which showcases the social history and heritage of the local area received £25,655 from Andershaw Wind Farm through the SLC Renewable Energy Fund. This contribution, along with other funders, helped the community run facility achieve their £128,273 project funding goal to carry out environmental improvement works and install photo-voltaic solar panels and battery storage at the venue.

	No. of Turbines	Blade Tip Height	Installed Capacity (MW)	Estimated Generation (homes equivalent)	Community Fund (per year)	Community Fund contribution to date
<b>Andershaw</b>	<b>11</b>	<b>140m</b>	<b>36.3 MW</b>	Around <b>32,000</b> <sup>(1)</sup>	<b>£90,750</b> <sup>(2)</sup> per year index linked	<b>£487,404</b>

(1) Based on 36.3MW, wind resource assessment and average Scottish domestic consumption of 3,393kWh pa (BEIS Dec. 2020).

(2) Equivalent to £2,500 per MW of Installed Capacity pa.

Our studies show there is potential to extend to the west of the existing site, by up to 11 turbines.

In May 2021 we requested the view of the Scottish Government, South Lanarkshire Council, other statutory consultees and community councils on the level of study required (known as ‘Scoping’) to assess our West Andershaw Wind Farm proposal.

We received the views and comments from these groups (within a document known as a ‘Scoping Opinion’) on 2nd August 2021. We are currently reviewing their feedback.

The purpose of this exhibition is to gather the views of the wider community to help shape and inform the West Andershaw Proposal.







We will design the proposal to strike a **good balance between maximising the electricity output** of the site while carefully relating to the existing context and landscape.

To date, we are in the process of carrying out extensive surveys to gather data on the following:

- **Landscape and Visual Amenity**
- **Ecology**
- **Ornithology**
- **Forestry**
- **Geology, Hydrology, Hydrogeology and Peat**
- **Cultural Heritage**
- **Noise**
- **Shadow Flicker**
- **Traffic and Transport**
- **Climate Change**
- **Land Use, Socioeconomics and Tourism**
- **Aviation and Telecommunications**



Throughout the process Statkraft continuously engages with the local community and stakeholders about the emerging project.

1. SITE SELECTION	2. PRE-PLANNING	3. SUBMIT APPLICATION & AWAIT DECISION	4. CONSTRUCTION	5. OPERATION	6. DECOMMISSION
<p>(12 months)</p> <p>Extensive research to identify suitable sites: positive indicators include good wind speed and minimal environmental and technical constraints.</p> <p>No public engagement is carried out during this time because the site may not pass the criteria required for being suitable for development.</p> 	<p>(6 to 12 months)</p> <p>We request the view of the Scottish Government and South Lanarkshire Council on the level of study required (known as “Scoping”).</p> <p>Scoping is sent to local and neighbouring Community Councils and consultees such as NatureScot, SEPA and Historic Environment Scotland.</p> <p>There are likely to be further changes to the layout as studies continue and feedback from communities and residents is received. Before the final layout is submitted, we will host another consultation in line with Covid-19 advice.</p> 	<p>(12 months)</p> <p>An application is submitted to the Scottish Government, accompanied by a comprehensive Environmental Impact Assessment Report showing the results of all studies undertaken. This is publicly available information and will be available on the project website.</p> <p>Interested parties and consultees such as South Lanarkshire Council and Community Councils can formally comment on the application.</p> 	<p>(12 to 24 months)</p> <p>If West Andershaw is approved, construction begins at least one year after consent.</p> <p>Construction typically takes 12–24 months and planning conditions are used to manage elements of construction.</p> 	<p>(Up to 50 years)</p> <p>The turbines are managed from a regionally based maintenance team, and operations are controlled by detailed planning conditions.</p> <p>We are committed to community benefit and shared ownership opportunities. A community fund is active throughout the lifetime of the project for worthwhile community initiatives.</p> 	<p>(12 months)</p> <p>At the end of the planning period, turbines are removed. A financial bond or guarantee is put in place before construction starts, to cover this cost.</p> 

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The process of gathering good environmental data on a site is vital to designing a good wind farm, including turbine locations, access roads and other infrastructure. This is carried out by specialist environmental and technical consultants.

This information is incorporated into an Environmental Impact Assessment Report (EIAR) and will be available on the project website at the time an application is submitted to planning.

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As part of designing this wind farm, advice and guidance has been sought from a range of regulatory and voluntary bodies including, but not limited to, South Lanarkshire Council, NatureScot, Scottish Environment Protection Agency, Transport Scotland and Historic Environment Scotland.



*Steep gully, with narrow fast flowing stream. Banks mosaic of bracken, acid grassland and dry heath*

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This report covers a range of areas including:

- Landscape and Visual Amenity
- Ecology
- Ornithology
- Forestry
- Geology, Hydrology, Hydrogeology and Peat
- Cultural Heritage
- Noise
- Shadow Flicker
- Traffic and Transport
- Climate Change
- Land Use, Socioeconomics and Tourism
- Aviation and Telecommunications

The results and findings will be detailed in the EIAR which is made public when we submit our planning application.

## What will the project look like?

As part of our studies, we have created images showing how the wind turbines could look from several locations in the surrounding area.

We are working with South Lanarkshire Council and NatureScot to finalise the viewpoint locations. This means the viewpoint locations may change slightly between now and when we submit a planning application.

The finalised viewpoint locations will be available at our second exhibition.

As developers, our challenge is to find the right balance between maximising the electricity output of a site and carefully siting and designing the proposal to relate to the existing landscape, including other wind developments.

Our studies will include a detailed assessment of the proposed development within a 45km study area. The studies will include the proposed development on its own, as well as in the context of the operational wind farm and other existing, consented and proposed wind farm developments.

**One of our key design objectives will be creating a wind farm which is appropriate for and takes into account the existing landscape character and visual features of the surrounding area.**



### These studies will pay particular regard to:

- Effects on the landscape character of the immediate area, as well as the character of the wider area.
- Effects on the special qualities of landscape designations such as the Leadhills and Lowther Hills Special Landscape Area, and the Douglas Valley Special Landscape Area.
- The amenity of residential properties near to the proposed development and in the surrounding area.
- The design in relation to the operational Andershaw wind farm and other proposed wind farms in the area.
- Effects associated with possible turbine lighting.

## Ecology, Ornithology & Forestry



Extensive surveys have been completed, including for habitats, protected mammals, fisheries and two years of birds surveys as recommended by NatureScot Guidance, to inform the ongoing wind farm design process.

The project, which sits next to the Muirkirk and North Lowther Uplands Special Protection Area, will be carefully designed to minimise the potential for impacts on protected species and habitats. For instance, minimise the risk of bat collisions, by including buffers around woodland edges and watercourses.

The site itself consists predominantly of coniferous plantation forestry with open grassland habitats and a small area of blanket bog. To minimise habitat loss the project, where possible, will be designed to use existing infrastructure and minimise land take and woodland felling for the new infrastructure.

Finally, as felling is required for the development the EIAR will have an assessment of the proposed changes to the woodland structure. This will include a proposed felling, restocking and details of any appropriate compensatory planting plan in compliance with Scottish Government's Control of Woodland Removal Policy.

## Geology, Hydrology, Hydrogeology & Peat



Desk and field-based assessments are being undertaken to establish the baseline geological and hydrological conditions across the site. This will determine the underlying bedrock, groundwater and surface water catchments, and identify private water supplies in the area.

These studies help us identify areas which will be avoided such as Private Water Catchments or abstractions, and be protected during construction and operation of the wind farm. The studies also help us minimise impacts where possible through the careful design of the proposed development, such as including 50m protective buffers around watercourses such as the Glespin Burn, and by designing appropriate watercourse crossings.

Detailed peat probing surveys have been undertaken across the site to identify any areas of peat and determine peat depth and condition. To date our studies show no areas of deep peat on site.

## Cultural Heritage



An archaeological and cultural heritage assessment will be undertaken in line with Historic Environment Scotland (HES) guidance. Heritage assets within the site will be identified through consultation, desk-based research of historical environment records and a walkover survey of the site. Any potential for direct impacts on identified assets will be minimised as far as possible through the design process.

Designated assets, including Scheduled Monuments, Listed Buildings, and Gardens and Designed Landscapes have been identified within a 10km study area from the site. The visibility of the proposed development from these identified assets will be considered through the project design and the impact on their settings assessed through the provision of representative visualisations in the EIA Report.

## Noise



A noise assessment will be undertaken for the site in line with Government guidance. The noise assessment will consider the potential effects of construction and operation of the proposed wind farm on nearby residential properties taking into account other wind farms schemes in the area, including the operational Andershaw wind farm.

Background noise monitoring will be carried out at representative properties surrounding the site to capture existing noise levels. These survey locations will be agreed with local residents and South Lanarkshire Council. The background noise levels help determine the noise limits that the Proposed Development would have to operate within. These limits are informed by South Lanarkshire Council and Government guidance (ETSU-R-97).

If consented, the future operational site would operate within levels considered acceptable under the ETSU-R-97 assessment method (Government guidance).

## Shadow Flicker



Shadow flicker is the effect caused by the passing of the turbine blades in front of the sun, which can cause a flickering effect during certain times of the day and under certain weather conditions.

A shadow flicker assessment is undertaken for wind farm developments where properties fall within the defined study area; ten times the rotor diameter and 130 degrees either side of north from each proposed turbine.

The purpose of the study is to assess the likelihood of shadow flicker occurring at residential properties within this area.

The impacts of shadow flicker can be greatly reduced or removed entirely through various methods. If any potential significant effects are identified at residential properties in this assessment, our project team would be happy to discuss these mitigation options with them directly.

## Traffic & Transport



A transport assessment will consider the impacts on local roads during construction using existing road use as a base level.

Existing traffic flows will be compared to the traffic flows expected to occur during the peak of construction activity to assess construction traffic impacts.

Where the assessment shows that improvement and mitigation measures are required, these will be set out in the EIAR. Likely measures could include the provision of a Construction Traffic Management Plan, local road improvements and a Wear and Tear Agreement to protect local roads from surface deterioration and to ensure that the roads are returned to the same condition they were in before construction commenced.

All road works and measures required to ensure the safe and efficient access for the turbine deliveries will be published in the EIAR.

We plan to use the same transport routes used by other projects in the area.

## Climate Change



The Scottish Government has set a legally binding target to achieve net-zero emissions by 2045. Developments such as West Andershaw Wind Farm are key to meeting this target. Whilst Scotland has continued to make good progress in reducing its greenhouse gas emissions, the need for low carbon energy supplies is paramount if Scotland is to achieve this net zero target.

By 2030, The Scottish Energy Strategy calls for 50% of ‘all energy’ to come from renewables. It emphasises that onshore wind is now one of the cheapest forms of electricity and will therefore continue to play an important role in this.

A carbon balance assessment will quantify the anticipated emissions savings of West Andershaw Wind Farm using Scottish Government guidance. A “carbon payback period” will be calculated, demonstrating how long it will take for the carbon emissions saved by the development’s renewable electricity generation to exceed the carbon generated for its development.

### What is “Net Zero”?

Credit: [www.nationalgrid.com/stories/energy-explained](http://www.nationalgrid.com/stories/energy-explained)

**Net zero means achieving a balance between the greenhouse gases put into the atmosphere and those taken out.**

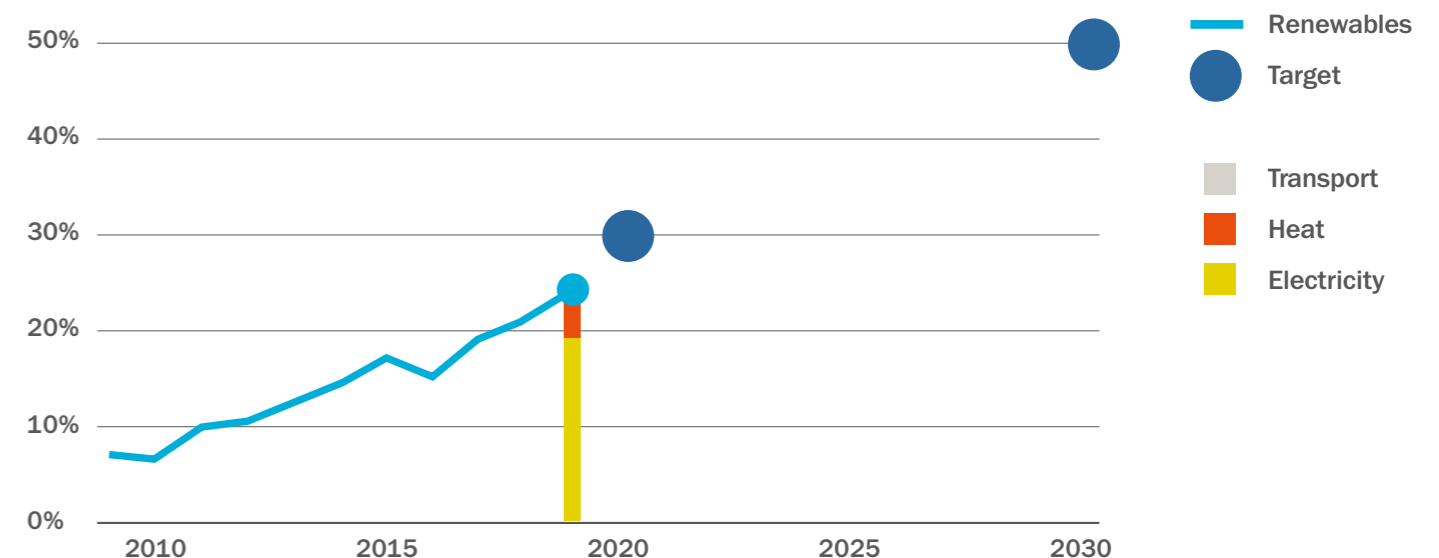
“Think about it like a bath – turn on the taps and you add more water, pull out the plug and water flows out. The amount of water in the bath depends on both the input from the taps and the output via the plughole. To keep the amount of water in the bath at the same level, you need to make sure that the input and output are balanced.

Reaching net zero applies the same principle, requiring us to balance the amount of greenhouse gases we emit with the amount we remove. When what we add is no more than what we take away we reach net zero. This state is also referred to as carbon neutral; although zero emissions and zero carbon are slightly different, as they usually mean that no emissions were produced in the first place.”

### HOW IS SCOTLAND DOING?

#### Scotland’s share of renewable energy (gross final consumption)

Scotland, 2009 - 2019



Source: [Scottish Energy Statistics Hub](http://Scottish Energy Statistics Hub)

We want our wind farms to bring benefits to the local area. We have several new initiatives that will be available for West Andershaw Wind Farm that we want to talk to you about.



Broadleaf planting areas at Andershaw Wind Farm. Photo credit: Jason Mackay at MacArthur Green.

“Since 2016, MacArthur Green’s experienced team of specialists have been carrying out ecological, ornithological and hydrological monitoring works for Andershaw Wind Farm’s Forestry and Habitat Management Plan (FHMP). The FHMP aims to reinstate and enhance blanket bog habitat, and provide a diverse woodland mix including broadleaved woodland to enhance floral and faunal species diversity. Through ongoing monitoring, we have found that these habitats are now developing well, and are helping to increase biodiversity of the site.”

Nicola Goodship PhD MCIEEM, Senior Ornithologist, MacArthur Green

## Community Benefit Fund

Committed to setting up a Community Benefit Fund for West Andershaw of £5,000 per MW installed per year. We are keen to work with communities to deliver a fund that can meet local community priorities.

## Shared Ownership

Progress the opportunity, if there is interest for local groups to have a financial interest in our project, with the support of organisations such as [Local Energy Scotland](#).

## Local Investment

Work with local business groups to increase awareness of the opportunities in construction and operations. We have successfully used local contractors on our construction projects in Dumfries and Galloway.

## Education & Enterprise

We welcome ideas on how our project can support local education and employment opportunities and boost local businesses.

## Broadband

Invest in a feasibility study to identify potential for improved connection, and support communities to develop their own broadband initiatives.



We are always exploring ways in which we can provide positive benefits to local communities near our projects.

We are often asked by people if we can help deliver faster broadband, or even get them connected in the first place.

With this in mind, we have started commissioning feasibility studies to investigate the potential for our projects that are in development and plan to do this for West Andershaw too.



The Broadband Feasibility Study explores the potential for using the infrastructure of our project to deliver super fast broadband.

## Our study will find out:

### FEASIBILITY

We require a **reliable broadband service** to operate our wind turbines and the study explores the potential for **improving local infrastructure** as the wind farm is connected.

### FIBRE & FIXED WIRELESS

Fibre is the optimal connection, but fixed wireless broadband also offers opportunities to connect some locations that can be difficult or costly to reach.

### A BENEFIT

Potential to provide **improved internet connection for commercial and residential properties.**

### NEXT STEPS

We would like to hear your views on the Broadband Feasibility Study. If you would like to be kept **up to date** on the Broadband Feasibility Study please contact us and **register on the website for updates.**

# Your Views are Important to Us

We hope to submit a planning application early in 2022. Before then we will hold another public exhibition to share details of the final proposal.

We welcome your comments and feedback as our proposal develops. Please register your comments by completing a feedback form [by 17 September 2021](#).

As the project progresses, we will continue to engage with local stakeholders and communities.

Comments made to Statkraft are not representations to the consenting authority. If an application is submitted there will be an opportunity for you to submit a formal response to the Scottish Government at that time.

[Thank you for attending the West Andershaw Wind Farm Exhibition.](#)

We would like to keep you updated as our plans progress:



[Click here to complete the online feedback](#)



Register for updates:  
[www.westandershaw.co.uk](http://www.westandershaw.co.uk)



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*Andershaw Wind Farm, South Lanarkshire, 11 turbines, 140m tip height*