APPIN WIND FARM

PUBLIC EXHIBITION

26 February -
27 February 2025

Statkraft

www.appinwindfarm.co.uk

Twentyshilling Hill Wind Farm, Dumfries and Galloway. 9 turbines, 140m tip height

Contents

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Welcome

We want to thank you for sharing your views with us since our first exhibition in Autumn 2022. At this exhibition we are discussing how our plans have changed and we are keen to hear your feedback ahead of our submission expected in late spring 2025.

About Statkraft

→ The largest generator of renewable energy in Europe

→ A state owned utility, with origins in Norwegian hydropower over 125 years ago

→ Over 7,000 employees in over 20 countries, all working towards our low carbon future

→ Operating in the UK since 2006

Twentyshilling Hill Wind Farm, Dumfries and Galloway, 9 turbines, 140m tip height

Welcome

Statkraft in the UK

→ Scottish Head Office in Glasgow

→ Own or operate six wind farms, across the UK and have six wind farms preparing for construction

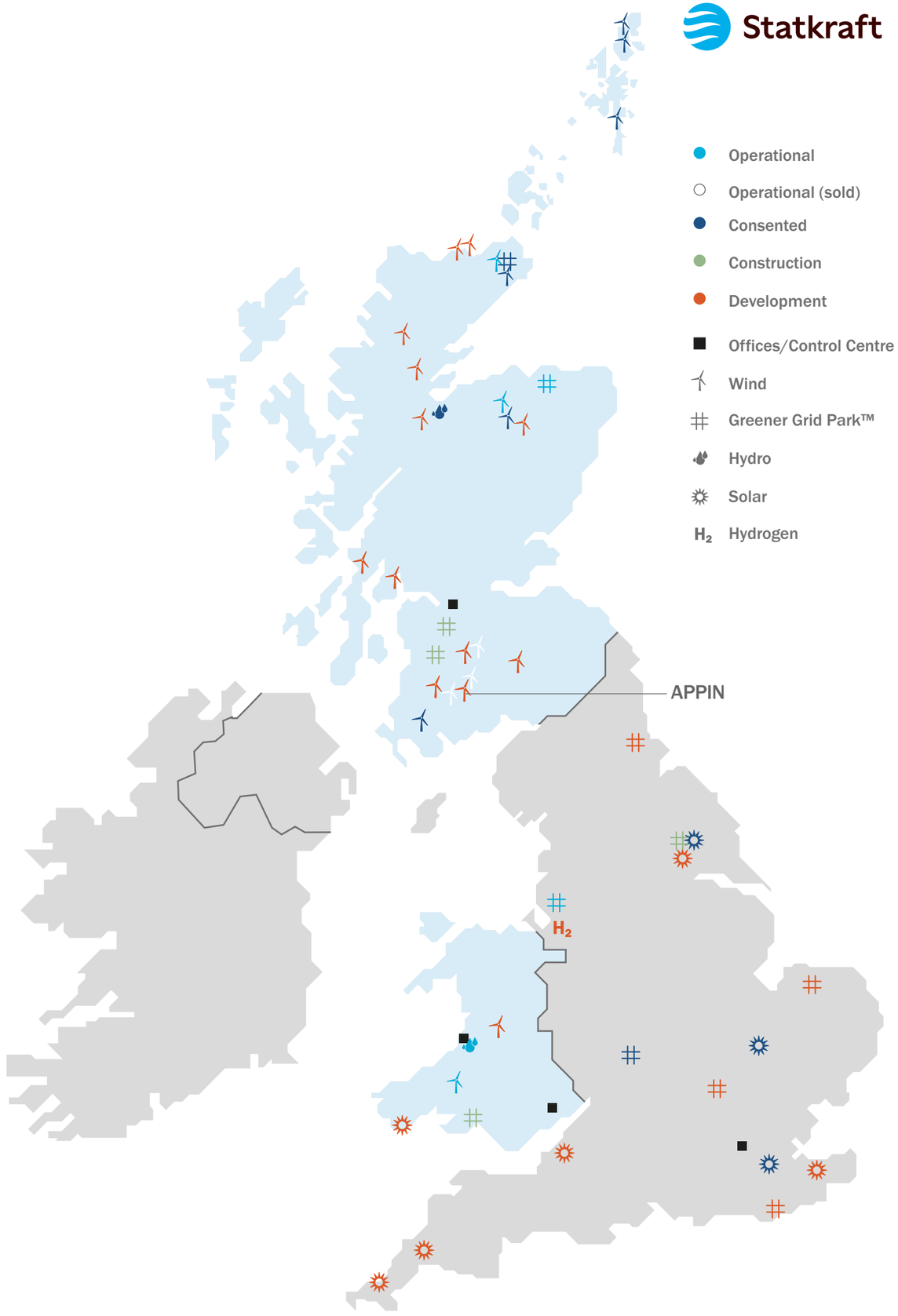
→ Completed the construction of Windy Rig and Twentyshilling Wind Farms in Dumfries and Galloway, which we now operate

→ Distributed over £4.5 million to local projects near our UK wind farms

→ Delivering grid stability services for National Grid ESO in Moray and Liverpool

DUMFRIES & GALLOWAY CHAMBER OF COMMERCE

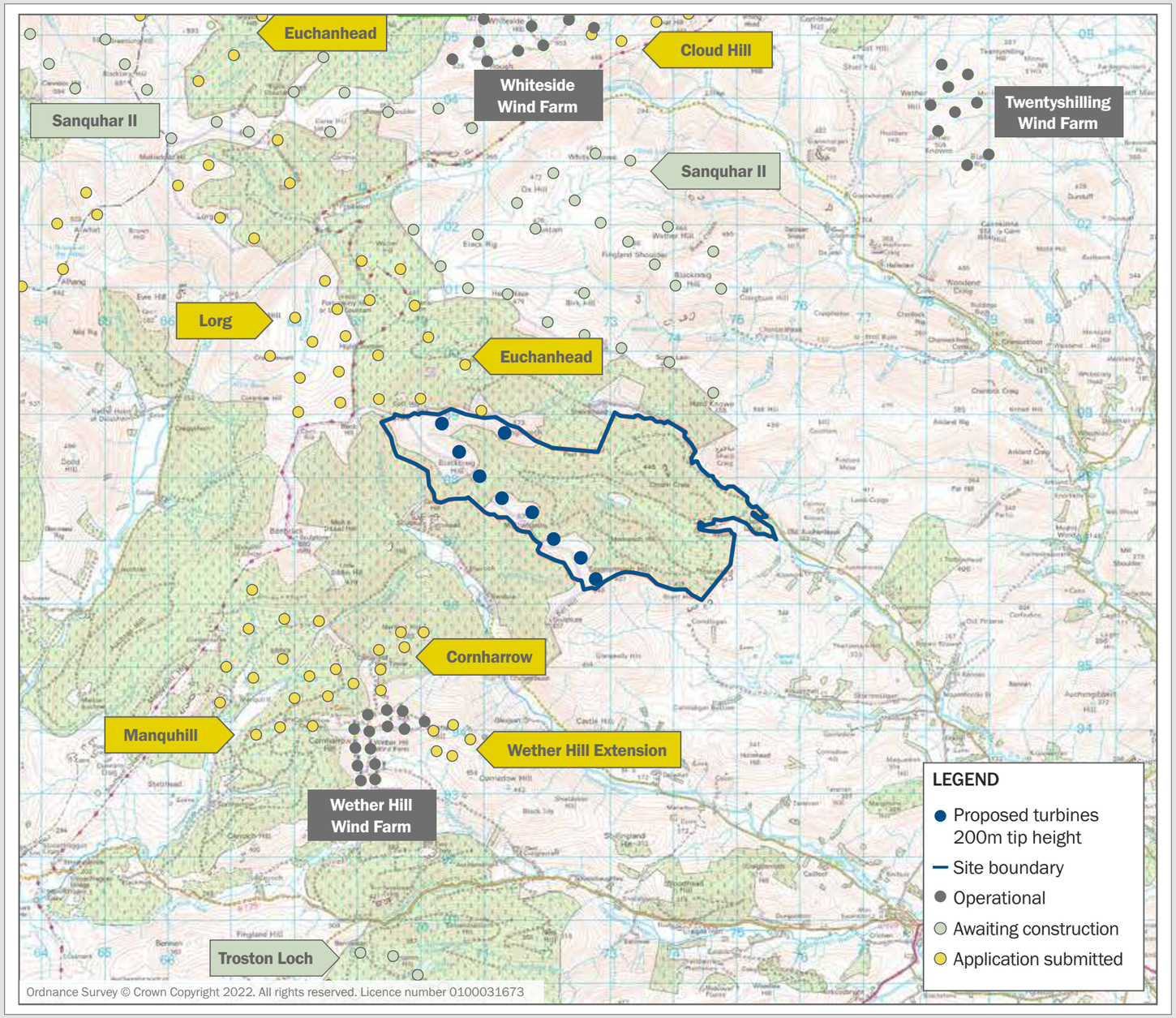
scottishrenewables



About Appin Wind Farm

The Appin Wind Farm site will contribute to Scotland's ambitions of reaching net zero emissions by 2045.

The wind farm is located approximately 12.5km west of Thornhill, 6.5km north west of Tynron and 6km north west of Moniaive.



Appin Wind Farm Key Facts:

9

Up to 9 wind turbines proposed

£5,000

Per MW installed per year for a Community Fund

As recommended by Scottish Government

A maximum height to blade tip

200m

Exciting new opportunity to talk about shared ownership and local suppliers

Local Suppliers are encouraged to register their details with us on our website. Scan the QR code to find out more

About Appin Wind Farm

Why this site?

→ Strong wind resource

→ No nationally or internationally designated sites within the site boundary

→ Compatible with existing land use

→ Suitable ground conditions with limited areas of deep peat

→ Will contribute towards Scotland's decarbonisation targets

→ Site characterised by suitable ground conditions with some areas of shallow peat

Twentyshilling Hill Wind Farm, Dumfries and Galloway, 9 turbines, 140m tip height

The current proposal reduced the number of turbines from 17 to 9 and all tip heights of up to 230m reduced to 200m.

We will continue to engage and update the community before submitting our application, expected to be in late spring 2025.

	No. of Turbines	Max Blade Tip Heights	Expected Installed Capacity (MW)	Estimated Generation (homes equivalent)	Community Fund (per year)
Appin Wind Farm	9	Up to 200m (1)	Over 60 MW (section 36 consent application)	Over 45,000 Homes per year (1)	Minimum £300,000 per year (2)

(1) Based on 64.8 MW Installed Capacity, wind resource assessment and average Scottish consumption of 3,078kWH pa (DESNZ, 2024). Candidate turbine still tbc'd.

(2) Community Benefit Fund based on 60 MW x £5k per MW of installed capacity. If consented, value of fund determined by actual installed capacity. Candidate turbine still tbc'd.

The Story So Far

This is the current wind farm design. Further minor revisions may be made ahead of being submitted to the Scottish Government Energy Consents Unit in late spring 2025.

LEGEND

- Appin Site Boundary
- Turbine locations
- Track Centrelines (New)
- Track Centrelines (Upgraded)
- Proposed Hardstanding
- Substation
- Construction Compound 2
- Construction Compound SS
- Borrow Pit 1
- Borrow Pit 2
- Borrow Pit 3

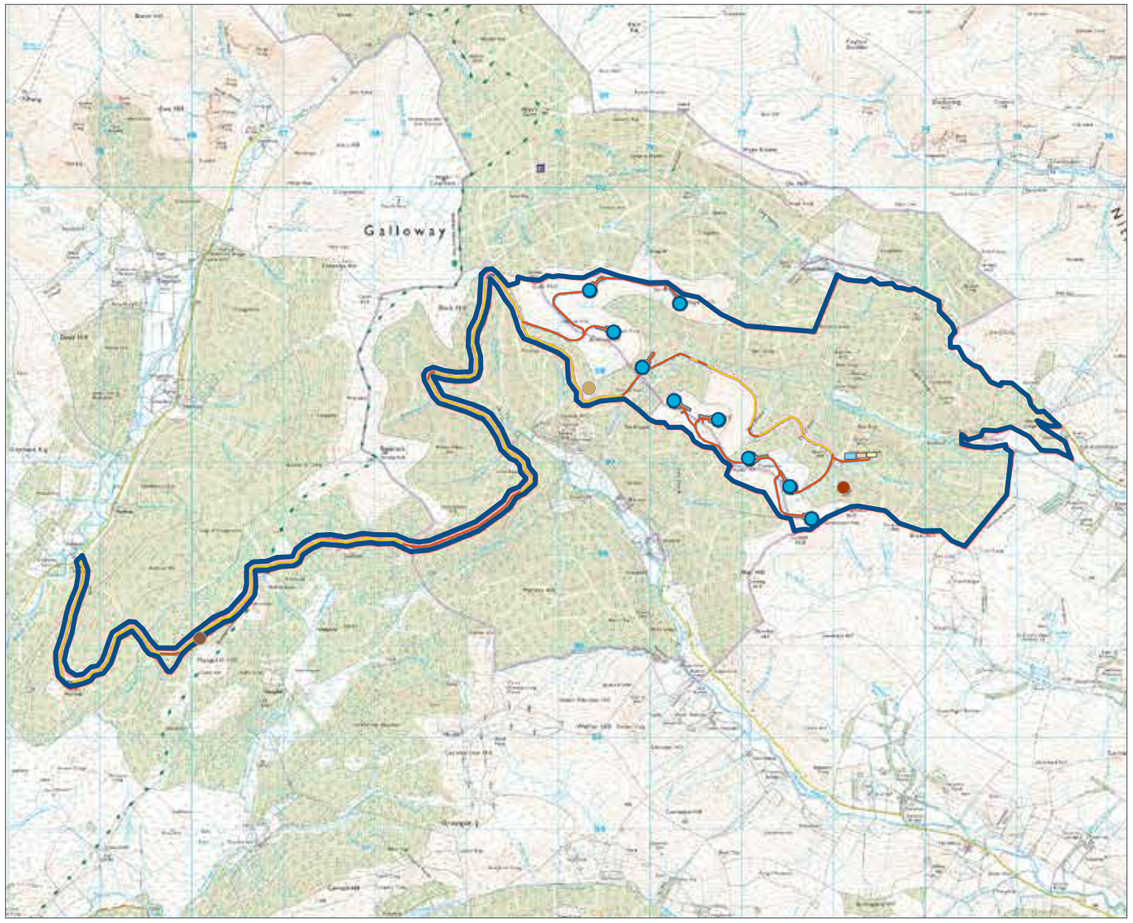
In June 2022 we undertook consultation with community councils and stakeholders. The proposal has since then been reduced to 9 turbines and tip heights down to 200m.

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

Repositioned turbines to increase distance from residential properties and minimise impact on bog habitats.

Turbines removed for landscape, visual and noise considerations and proximity to watercourses.

Positioned turbines to maximise the predicted available wind resource.



Site designed to minimise construction footprint i.e. upgrading existing access tracks.

Use on site resources to minimise impacts on local roads during construction such as borrow pits.

Reduced tip heights of all turbines.

Project Timeline

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

1. SITE SELECTION & SUITABILITY

(12 months)

Extensive research to identify site suitability: positive indicators include good wind speed and minimal environmental and technical constraints.

No public engagement is carried out during this time because the site may not pass the criteria required for being suitable for development.

2. PRE-PLANNING

(12 to 24 months)

We request the view of the Scottish Government and Dumfries and Galloway Council on the level of study required (known as “Scoping”).

Scoping is sent to local and neighbouring Community Councils and consultees such as NatureScot, SEPA and Historic Environment Scotland.

Two rounds of exhibitions have taken place to discuss the design and its changes with the local community. We expect our application to be submitted in late spring 2025.

3. SUBMIT APPLICATION & AWAIT DECISION

(18 months)

An application for Section 36 consent is submitted to the Scottish Government, accompanied by a comprehensive Environmental Impact Assessment (EIA) Report showing the results of all studies undertaken. This is publicly available information and will be available on the project and Energy Consents Unit website.

Interested parties and consultees such as Dumfries and Galloway Council and Community Councils hosting and neighbouring the proposal can formally comment on the application and the EIA Report.

4. CONSTRUCTION

(12 to 24 months)

If Appin is approved, construction begins at least one year after consent.

Construction typically takes 12–24 months and planning conditions are used to manage elements of construction, including the provision of a Construction Environmental Management Plan, are used to manage elements of construction.

5. OPERATION

(Up to 50 years)

The turbines are managed from a regionally based maintenance team, and operations are controlled by detailed planning conditions.

We are committed to community benefit and shared ownership opportunities.

A community fund is active throughout the operational lifetime of the project for a range of community initiatives.

6. DECOMMISSION

(12 months)

At the end of the planning period, turbines are removed. A financial bond or guarantee is put in place before construction starts, to cover the decommissioning cost.

Environmental Impact Assessment

The process of gathering robust environmental data is vital to designing a wind farm which balances technical, environmental and commercial considerations. Surveys and assessments are undertaken by a team of specialist consultants to identify, assess and present any significant environmental effects of the Proposed Development and allow us to avoid, or minimise effects.

This information is incorporated into an Environmental Impact Assessment (EIA) Report and will be publicly available when an application is submitted to planning.

As part of designing and assessing this wind farm, additional consultation has been undertaken by specialist environmental consultants with a number of consultees including Dumfries and Galloway Council, NatureScot, Scottish Environment Protection Agency and Historic Environment Scotland.

Photo taken from Bail Hill looking across to the proposed location of Appin Wind Farm.

The EIA Report will cover a range of topics including:

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

Landscape and Visual Assessments

What will the project look like?

For this exhibition we have recreated the visualisations showing how the wind turbines could look from the local viewpoints shared at our 1st exhibition.

We have finalised and agreed with Dumfries and Galloway Council and NatureScot the viewpoint locations for assessement.

Visualisation of all agreed viewpoints will be available when we submit our application.

As the proposed turbines are over 150m, a night time assessment will also be included from several viewpoints which have been agreed with consultees. Where possible we will aim to minimse the night time lighting scheme required for the wind farm.

We pay particular regard to:

→ Effects on the landscape character of the site's immediate area, as well as the character of the wider area.

→ The amenity of residential properties near to the Proposed Development and in the surrounding area.

→ Other viewpoints, such as within settlements, commuter routes, walking routes and local areas of interest.

→ Visual effects associated with visible night time turbine lighting.

Predicted Viewpoint 4: Shinnelhead

Ecology & Ornithology

The site has no national ecological or ornithological designations. Surveys conducted from September 2020 until October 2024 have examined the site's habitats, including watercourses, and the presence of birds, mammals, and fish. These surveys, guided by NatureScot, have informed the latest design of the Appin Wind Farm.

Ornithology surveys recorded no breeding of protected species on-site, but noted breeding species like curlew, snipe, and barn owl in the surrounding area. Ecology surveys have influenced the site layout to avoid the most ecologically valuable habitats, such as isolated bogs, flush habitats, broad-leaved semi-natural woodland, notable mammal signs, and potential bat roosts.

Biodiversity enhancement measures are being explored, including the enhancement of woodland habitats, possible creation of waterbodies, and improvement of open grassland, bog, and flush habitats.

Appin Wind Farm will work closely with BugLife to provide biodiversity enhancement measures for invertebrates across the site.

Geology, Hydrology, Hydrogeology & Peat

Desk and field-based surveys have been undertaken to determine the underlying geology of the site, establish the presence and depth of peat, identify watercourses and water features, and locate private and public water supplies that need to be avoided. Hydrology specialists have reviewed private water supplies, contacting local residents to understand their locations and catchments. Based on this information, proposed turbines and infrastructure will be located outside the catchment areas for the surveyed private water supplies.

Careful design of the wind farm aims to minimise impacts on the water environment, including buffers around watercourses and avoiding new watercourse crossings where possible. If required, suitable watercourse crossings will be designed. Initial peat probing surveys indicated depths of less than 0.5m, with some isolated areas of deeper peat at the main hilltops and a plateau area north of the Magmallach Burn. Deeper peat was avoided during initial design iterations.

A targeted Phase 2 peat survey focused on areas proposed for turbines and associated infrastructure, ensuring that new sections of access track and other infrastructure minimise impacts on peat. A Peat Management Plan will ensure the appropriate management and re-use of any excavated peat during construction.

Cultural Heritage

The cultural heritage assessment is being undertaken in-line with Historic Environment Scotland (HES) guidance. Desk-based and field-based surveys have been undertaken in order to investigate archaeological and cultural heritage assets within the site and surrounding area.

There are no designated heritage assets within the site, however, there are a number of non-designated heritage assets. These largely represent post-medieval agricultural practices and comprise sheepfolds/shelters and location of former farmsteads.

The information gathered from the surveys as well in inputs provided by HES and the Dumfries and Galloway Council, have informed the design of the wind farm and associated infrastructure. This has been done to avoid, where possible, any direct physical impacts on identified assets within the site and to reduce the impact of setting change on the cultural significance of heritage assets within the wider landscape.

Noise

Background noise monitoring has been carried out at representative locations around the site between August and October 2022. The background noise levels have been used to help determine the noise limits that the wind farm would have to operate within.

Data from this monitoring has also fed into the design and siting of the wind farm by accounting for any potential noise impacts. The Noise Assessment is in accordance with the current best practice guidance and standards. The noise assessment considers the potential effects of construction works and operation of the proposed wind farm on nearby residential properties. The assessment takes into account other wind farm schemes which are operating or in development in the area.

The noise limits are informed by Government guidance (ETSU-R-97). If consented, the future operational site would operate within levels considered acceptable under these guidelines.

Traffic & Transport

It is proposed that the transport route to the site would be from the existing public road network, with access taken via an upgraded forest access junction. Existing forestry access tracks would then be used wherever possible to access the turbine locations.

A Transport Assessment (TA) will consider the impacts of increased traffic volumes expected on local roads during construction and how this impact can be minimised. Likely measures may include a Wear and Tear Agreement with Dumfries and Galloway Council, the provision of a Construction Traffic Management Plan and an Abnormal Load Transport Management Plan.

The assessment of route(s) for the vehicles delivering the turbine components (Abnormal Indivisible Loads) will be undertaken to identify any physical improvement measures that may be required to facilitate the safe and efficient delivery to the site. This will also include traffic management measures to reduce delays and inconvenience where possible. Full details of the proposed road improvement measures and the site access junction will be published in the EIA Report.

Forestry

The site predominantly consists of plantation forestry with some grassland around the periphery. To accommodate turbines and associated infrastructure, some felling of commercial coniferous plantation areas will be necessary. However, the project will be designed to minimize the loss of woodland area and fit within the current forestry management plans as much as possible. To mitigate the impact of felling, compensatory planting will be proposed as part of the plans.

Construction of Twentyshilling Hill Wind Farm, Dumfries and Galloway. 9 turbines, 140m tip height

Climate Change

The Scottish Government has set a legally binding target to achieve net-zero emissions by 2045. Developments such as Appin 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.

To quantify the anticipated emissions savings of Appin Wind Farm a "carbon payback period" will be calculated using Scottish Government guidance.

"We need more renewable energy, but why here?"

This is one of the most common questions we are asked when we propose a wind farm. This is a very understandable question, and the answer goes beyond the fact that Scotland has one of the strongest wind speeds in Europe. We were pleased to be able to answer this question with the detail it deserves during a webinar hosted by the news website FutureNetZero. You may be surprised to know that our analysis shows less than 10% of land in Scotland is suitable for development of onshore wind.

RICHARD MARDON,
Head of Business & Project Development, Statkraft UK

Richard takes us behind the scenes of the development process, with a step by step guide on the challenges faced in finding the best sites to maximise Scotland's excellent natural wind resource.

Since 2002 Richard has worked exclusively in onshore wind in the UK, and has had oversight of the development, construction and operation of several completed Scottish wind projects.

Andershaw Wind Farm, South Lanarkshire. 11 turbines

Statkraft

What is “Net Zero”?

Credit: www.nationalgrid.com/stories/energy-explained

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

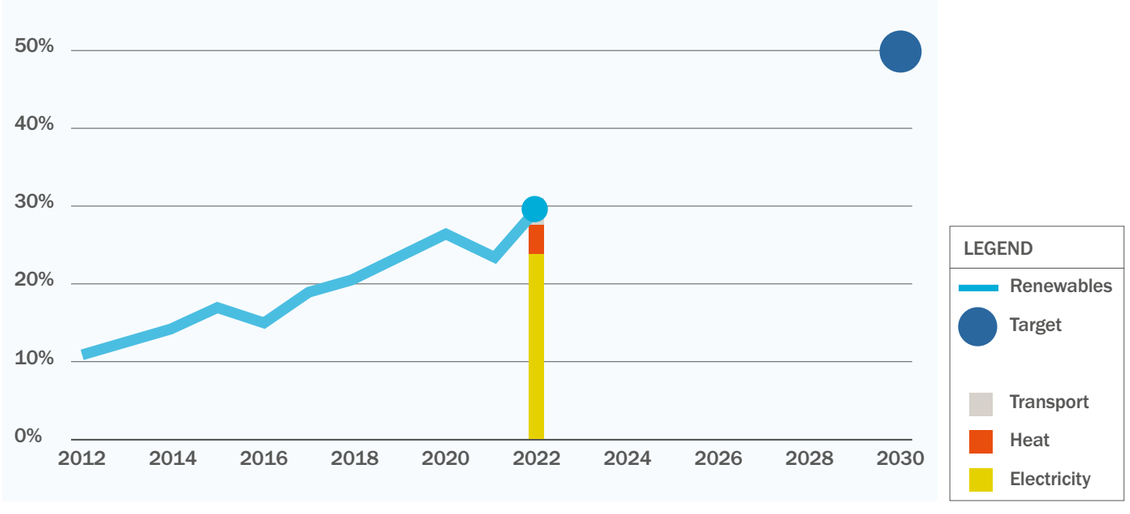
“Think about it like a bath – turn on the taps and you add more water, pull out the plug and water flows out. The amount of water in the bath depends on both the input from the taps and the output via the plughole. To keep the amount of water in the bath at the same level, you need to make sure that 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, 2012 - 2022



Source: Scottish Energy Statistics Hub

Local Benefits & Investment

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

" Windy Rig Wind Farm is another valuable contract for GTR. We are just one of several local businesses who are directly benefiting from the many wind farm developments within this area. This can only be a good thing for both local businesses and the local economy especially during the current pandemic."

Tanya Russell, Director, GTR Contracts Ltd

Statkraft completed the construction of Windy Rig and Twentyshilling Hill Wind Farms in Dumfries and Galloway.

Community Benefit Fund

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

We are a member of the Chamber of Commerce and will work with them to increase awareness of the opportunities in construction and operations. We have successfully used local contractors on our construction projects in Dumfries and Galloway.

Register your interest by scanning the QR Code:

Education & Enterprise

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

Your Views are Important to Us

We hope to submit a planning application early in late spring 2025. All the application documents will be publicly available.

We welcome your comments and feedback as our proposal develops. Please register your comments by completing a feedback form by 21 March 2025

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 Appin Wind Farm Exhibition.

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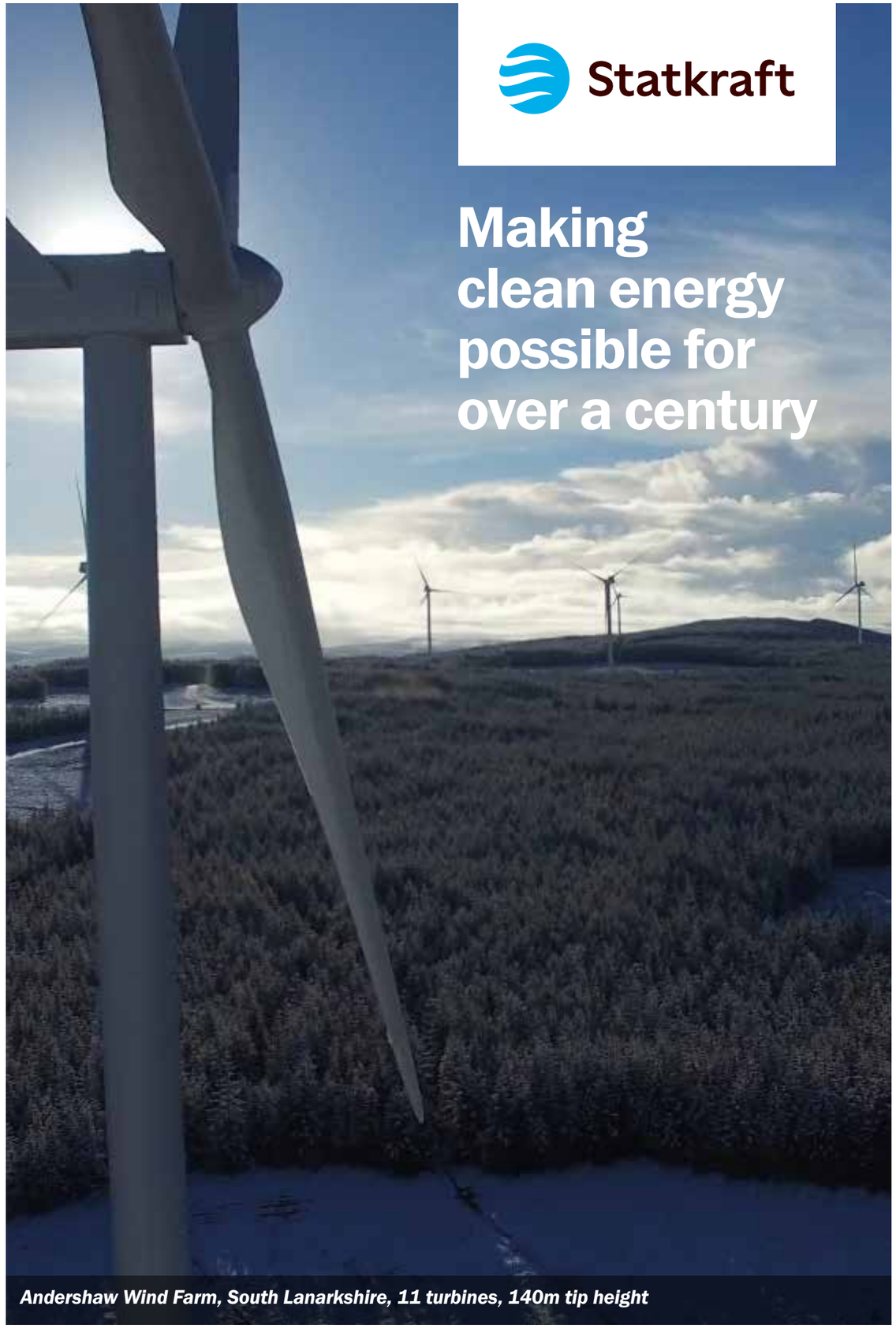
We would like to keep you updated as our plans progress:

	Complete the online feedback form
	Register for updates: www.appinwindfarm.co.uk
	0800 772 0668 (local call rate applies)
	Freepost Statkraft (no stamp or further address details required)
	UKProjects@statkraft.com

Your notes and comments:



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

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