CARN FEARNA WIND FARM

PUBLIC EXHIBITION

21 November –
23 November 2023

Statkraft

www.carn-fearna.co.uk

Baillie Wind Farm, Thurso. 21 turbines, 110m tip height

Contents

Statkraft

Welcome

We are pleased to share our emerging plans for the proposed Carn Fearna Wind Farm near Garve. We want to hear your views to help us shape the development of this project.

About Statkraft

→ The largest generator of renewable energy in Europe

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

→ Operating in the UK since 2006

→ More than 50 staff working across Scotland

→ Distributed over £4 million to communities near operating wind farms

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 and one hydro plant

→ Constructed Windy Rig and Twentyshilling Hill Wind Farms in Dumfries and Galloway, which we now operate

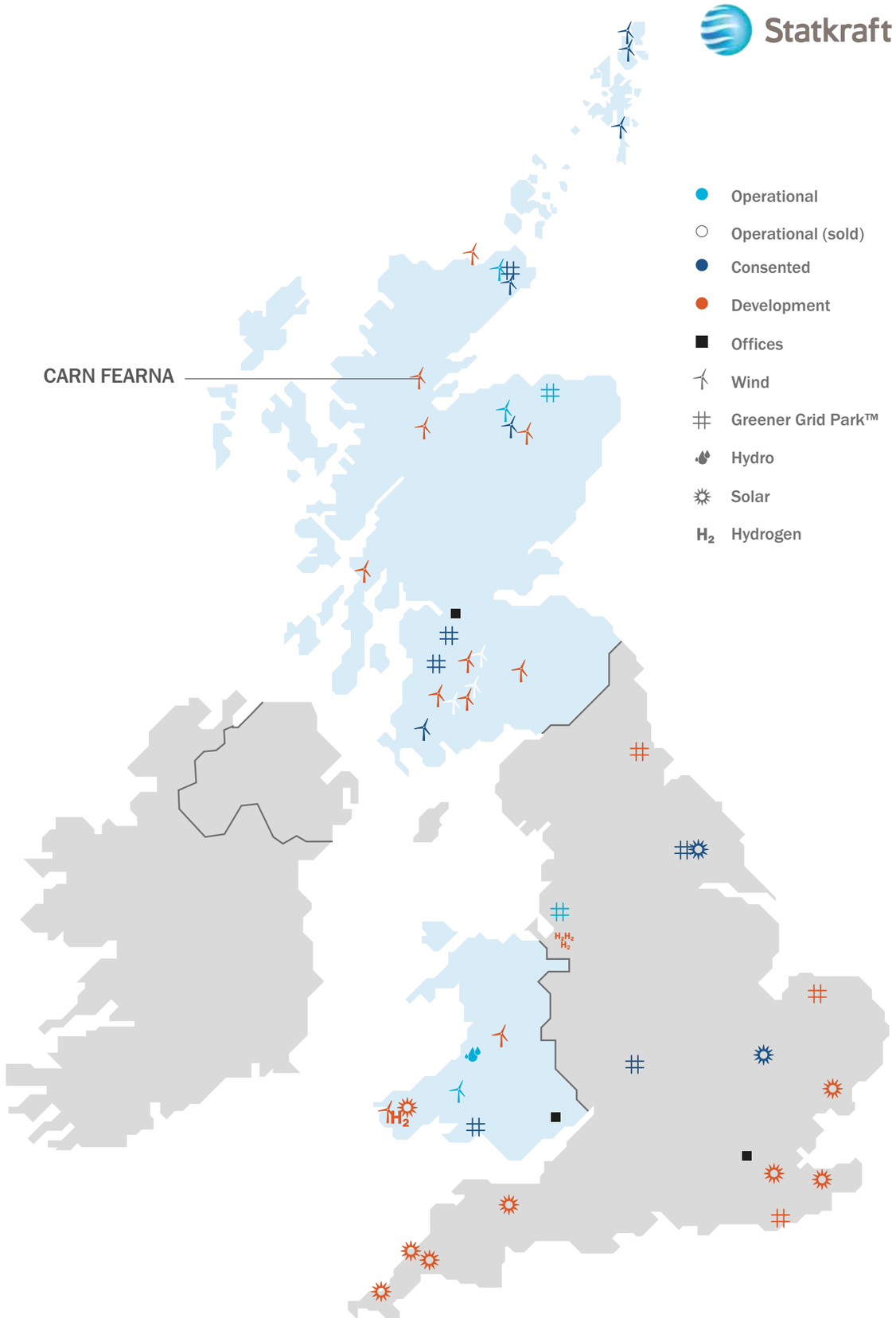
→ Over 700MW in development

→ Six projects operating or in development in the Highlands

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

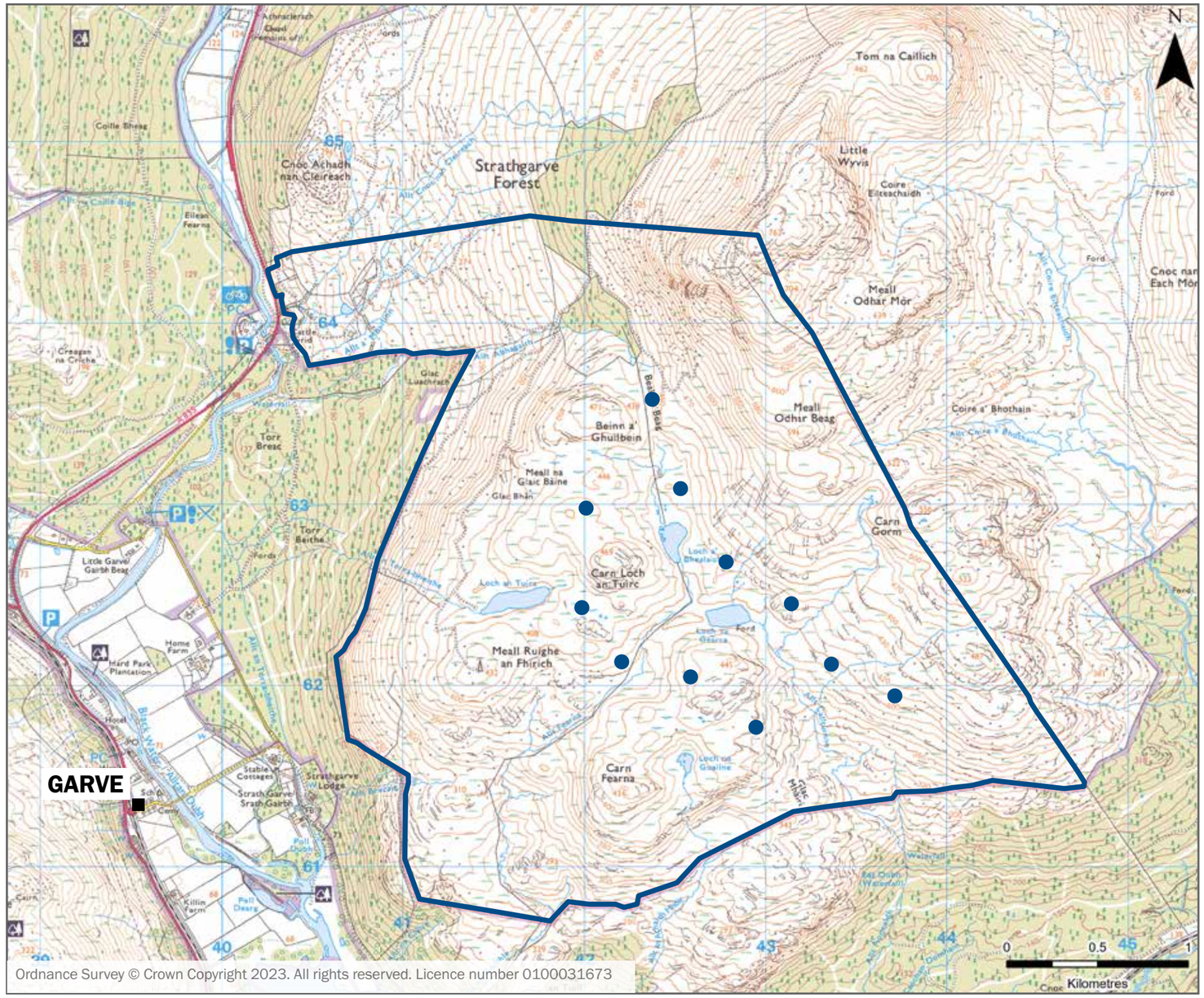
inverness CHAMBER OF COMMERCE

scottishrenewables



About Carn Fearna Wind Farm

This is an excellent site to contribute to Scotland's energy security and ambitions of reaching net zero emissions by 2045.



Carn Fearna Wind Farm is located 1.5km north east of Garve and 7.7km north-west of Strathpeffer.

LEGEND

- Proposed turbines up to 200m tip height
- Site boundary

Carn Fearna Wind Farm Key Facts:

11 Up to 11 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

Broadband feasibility survey provided for the community

Exciting new opportunity to talk about **shared ownership**

About Carn Fearna Wind Farm

Why this site?

→ Excellent wind resource

→ Good access to the proposed site using existing tracks and roads

→ Suitable connection to the national grid secured

→ Suitable ground conditions with limited areas of deep peat

→ Will contribute towards Scotland's decarbonisation targets

Berry Burn Wind Farm, Forres in Moray. 29 turbines, 110m tip height

	No. of Turbines	Max Blade Tip Heights	Expected Installed Capacity(1) (MW)	Estimated Generation (homes equivalent)	Community Fund (per year)
Carn Fearna Wind Farm	Up to **11**	Up to **200m**	Up to **73MW** (Section 36 consent application)	**60,000** Homes per year (2)	Minimum **£363,000** per year (3)

(1) Excluding potential Battery Energy Storage System elements
(2) Based on 11 x 6.6MW turbines, local wind resource assessment and average Scottish domestic consumption of 3,295kWh pa (DESNZ Dec. 2022).
(3) Based on 72.6MW x £5k per MW of installed capacity. If consented, value of fund determined by actual installed capacity.

Project Timeline

We will continue to engage with the local community and organisations as our plans develop.

1. SITE SELECTION & SUITABILITY

(12 to 48 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

(6 to 18 months)

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

A Scoping Report is sent to local and neighbouring Community Councils and consultees such as NatureScot, SEPA and Historic Environment Scotland as part of a request a Scoping Opinion.

There are likely to be further changes to the layout as studies continue and feedback from communities and residents is received. Public exhibitions will provide an opportunity for the community to meet the project team and discuss the design and view the proposals before they are finalised for submission.

3. SUBMIT APPLICATION & AWAIT DECISION

(12 to 24 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.

Members of the public and consultees such as The Highland Council and local Community Councils can formally comment on the application and the EIA Report.

4. CONSTRUCTION

(12 to 24 months)

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

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

5. OPERATION

(Up to 40 years)

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

We are committed to delivering a community benefit fund and shared ownership opportunities. A community fund is active throughout the operational lifetime of the project.

6. DECOMMISSION

(12 months)

At the end of the planning period, the 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 baseline data on a site is vital to designing a wind farm.

Our specialist environmental and technical consultants will gather a range of data in and around the proposed site. This information is incorporated into an Environmental Impact Assessment (EIA) Report which will be publicly available when an application is submitted to Scottish Ministers for determination.

As part of designing and assessing the suitability of this site for a wind farm, consultation is undertaken with a number of consultees including The Highland Council, NatureScot, Scottish Environment Protection Agency (SEPA) and Historic Environment Scotland (HES).

View from Meall Odhar Beag towards the existing telecoms mast at Meall Ruighe an Fhirich

The EIA Report will cover a range of topics including:

- → **Landscape and Visual Amenity**
- → **Ecology and Ornithology**
- → **Cultural Heritage**
- → **Forestry**
- → **Geology, Hydrogeology, Hydrology and Soils**
- → **Noise**
- → **Traffic and Transport**
- → **Climate Change**
- → **Land Use, Socioeconomics and Tourism**

Landscape and Visual Assessment

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 The Highland Council (THC) and NatureScot to finalise the viewpoint locations for assessment. This means the viewpoint locations may change slightly between now and when we submit a Section 36 application.

A selection of the finalised viewpoint locations will be available to view at a second exhibition, before submission.

As developers, our challenge is to find the right balance between maximising the electricity output of a site and carefully siting and designing the development to relate to the existing landscape, including other wind developments. Since submitting our Scoping Application in Summer 2023, we have reduced the number of turbines following initial feedback.

Our studies will include an appropriate landscape and visual assessment and will consider the proposed development on its own, as well as in the context of other existing, consented and proposed wind farm developments.

The assessment 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 up to 45km, such as Ben Wyvis Special Landscape Area, Glen Strathfarrar National Scenic Area and Rhidorroch – Beinn Dearg – Ben Wyvis Wild Land Area.

→ The residential visual amenity of nearby residential properties (within approximately 2km).

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

→ Visual effects associated with visible night-time turbine lighting.

Environmental Impact Assessment

Ecology, Ornithology & Forestry

A range of desk studies and field surveys are underway to assess ecology and ornithology data and the characteristics of the site and its surroundings. These surveys will be used to assess any potential effects the Proposed Development may have on species and habitats, allowing us to minimise those potential effects and to identify the most suitable mitigation and enhancement measures.

Detailed ornithology desk studies extend a minimum 2km from the site for notable, rare, or protected bird species, and up to 10km for eagles. In addition, statutory designated sites with ornithology/ecology interests up to 10km away are considered, extending to 20km for migratory geese. The site lies partly within the Strathpeffer wildcat priority area and we will be consulting with the Saving Wildcats organisation.

As part of the project design, we will recommend a variety of ecological mitigation and enhancement measures that would be delivered as part of the project - these are discussed with NatureScot and other relevant consultees.

The EIA Report will include an Outline Habitat Management Plan which illustrates proposed ecological mitigation in greater detail – this will be publicly available within the EIA Report after any application is submitted.

We have identified a small area of woodland within the site and are considering how this can be integrated into the design to minimise loss and prevent fragmentation of the remaining woodlands.

Some areas of woodland may require to be felled for the construction and operation of the project. If this is the case, we will assess any changes to the woodland structure using the UK Forestry Standard, the results of which will be publicly available within the EIA Report with any application.
It is standard practice for any tree loss to be replaced. Our application would include details of replacement planting and enhancement measures to ensure a net biodiversity gain.

Environmental Impact Assessment

Geology, Hydrology & Peat

Detailed desk studies and field surveys are currently being undertaken. These include work to assess the main surface waters, identify drainage patterns, highlight areas vulnerable to erosion or sediment deposition, anticipate any pollution risks, understand site geomorphology and to measure peat depth.

Following completion of the surveys, an impact assessment will be undertaken to calculate and estimate the potential effects as a result of the construction and operation of a wind farm development on the site.

We expect several rounds of modifications and revisions to the design, to avoid or minimise potential effects where possible (for example minimising the number of watercourse crossings).

All of our work will be informed by best practice guidance to minimise and mitigate any risks and impacts associated with construction and operation. Issues considered include flood risk, impacts on surface and groundwater flow paths, pollution, and good management of peat soils that could be implemented and/or re-establishing existing degraded peat. The design will seek to avoid areas of deep peat where possible.

Carn Fearna from Meall Ruighe an Fhirich

Environmental Impact Assessment

Cultural Heritage

Specialist independent consultants are undertaking studies of archaeological and cultural heritage features within the site and surrounding area, in accordance with Historic Environment Scotland (HES) guidance.

The information gathered will be used to inform the project design to avoid or minimise any direct (i.e. disturbance during construction) or indirect impacts (i.e. impacts on the setting of heritage assets), where possible.

No statutory cultural heritage features have been identified within the project site.

In addition, the potential impact of the wind farm on cultural heritage sites within a 10km radius will be assessed. This includes producing visuals showing how the turbines could look from certain locations. These locations will be agreed with HES and will be publicly available within the EIA Report.

Noise

A noise assessment will be undertaken in accordance with the current best practice guidance and standards. The noise assessment will consider the potential effects of construction works, construction and maintenance traffic and operation of the proposal on nearby residential properties. The assessment will take into account other wind farm schemes operating or within the planning system in the surrounding area.

We may need to record background noise levels as part of our assessment. These background noise levels will be used to determine the noise limits that the wind farm would have to operate within.

These limits are informed by Government guidance. If consented, the future operational wind farm, would operate within levels considered acceptable under these guidelines. This would be enforced by a planning condition applied by The Highland Council. We welcome the opportunity to discuss this in more detail with residents of nearby properties.

Environmental Impact Assessment

Access, Traffic and Transport

Turbine components are planned to be transported to site from Invergordon using the A9 and A835. Within the site, we will seek to use existing roads and tracks as much as possible. A new access to these is proposed near Black Water Falls, north-east of Garve. A Route Survey Report has been prepared to identify the potential issues along this route, identifying any locations of concern and highlighting any remedial works required.

As part of the EIA, an assessment will be undertaken to determine the impacts from construction traffic on the delivery route, including the villages of Contin and Garve and individual residences outside the villages. The assessment will include an abridged construction works programme, details of vehicle types and sizes to be used during the construction phase, and an estimate of the number of trips anticipated to be generated.

Mitigation measures to alleviate the known local traffic issues arising from the construction traffic will be identified (for example a Construction Traffic Management Plan), with the aim of reducing the impact on local communities.

Land-Use, Socioeconomics and Tourism

An assessment of the potential economic effects of the wind farm will be undertaken and will set out the expected job creation, economic value and benefit to the local and wider economy through the different stages of the development life cycle.

It will assess all potential positive and negative impacts for the development including regional and local communities, as well as tourists, tourism related businesses and other recreational groups where appropriate. We welcome your ideas on how we can maximise the economic benefits our project could bring.

Environmental Impact Assessment

Climate Change

Unprecedented heat, flooding and wildfires experienced across the globe this year will continue to increase if we do not reduce our carbon emissions.

The Scottish Government has set a legally binding target to achieve net-zero emissions by 2045, a goal supported by The Highland Council. Developments such as Carn Fearna Wind Farm are key to meeting this target, reducing reliance on gas and coal fired power stations, increasing domestic energy security and helping to meet the energy demands as we electrify transport and heating.

By 2030, The Scottish Energy Strategy calls for 50% of ‘all energy’ to come from renewables. To meet this target we need to plan, build and begin operation of 6.6GW of renewable energy projects by the end of the decade, a significant increase on the 13.4GW of projects already operating across Scotland. Onshore wind is one of the cheapest ways to help achieve this ambitious target, and will play an important role in meeting energy targets beyond this.

Baillie Wind Farm, Thurso. 21 turbines, 110m tip height

We will assess and report on how long it will take for clean, renewable energy generated by the wind farm to off-set the carbon emitted during its construction, referred to as the proposal’s “carbon payback period”. This is typically a fraction of the wind farm’s overall lifespan.

Environmental Impact Assessment

“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.

[You can watch the full webinar here.]

RICHARD MARDON, VP 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.

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.

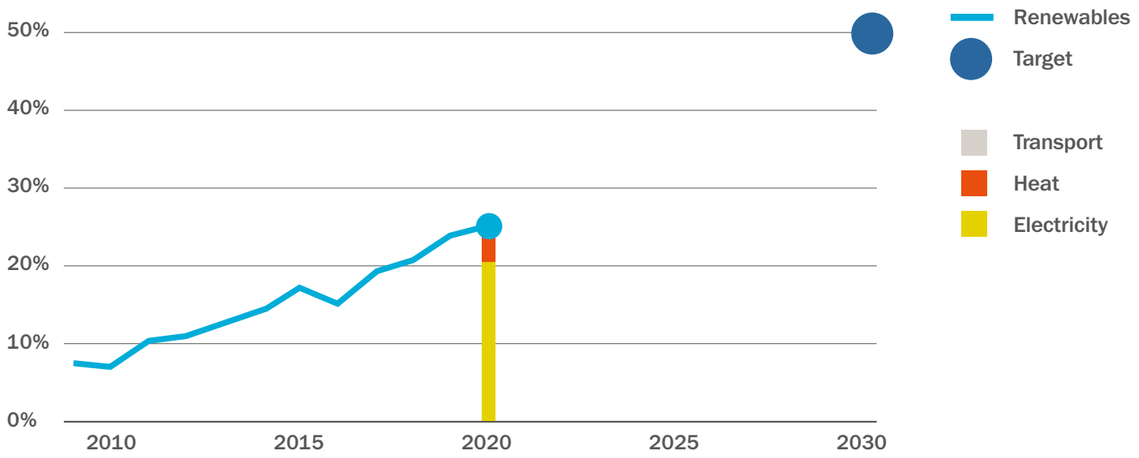
“Think about it like a bath – turn on the taps and you add more water, pull out the plug and water flows out. The amount of water in the bath depends on both the input from the taps and the output via the plughole. To keep the amount of water in the bath at the same level, you need to make sure that 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, 2009 - 2020



Source: [Scottish Energy Statistics Hub]

Local Benefits & Investment

We want our projects to bring benefits to the local area. We have several initiatives that will be available for Carn Fearna Wind Farm that we want to discuss with you.

" 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

Community Benefit Fund

We are committed to setting up a Community Benefit Fund 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

If there is interest locally, we will progress the opportunity for community ownership, with the support of organisations such as Local Energy Scotland.

Local Investment

We will work with local business groups to increase awareness of the opportunities in construction and operations. We're interested in hearing for all types of local suppliers, from catering and accommodation to equipment suppliers and electrical engineers.

Broadband Study

We are often asked if we can help communities with connectivity issues. We will fund a study into how broadband in the area can be improved, and the potential for how our project can play a part.

Your Views are Important to Us

We hope to submit a planning application in the second half of 2024. We commit to holding another public exhibition at that time, to share the final design of the project and how feedback has been incorporated.

We welcome your comments and feedback as our proposal develops. Please register your comments by completing a feedback form online at Carn-Fearna.co.uk. 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 Carn Fearna Wind Farm Exhibition.

Statkraft

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

Click here to complete the online feedback form

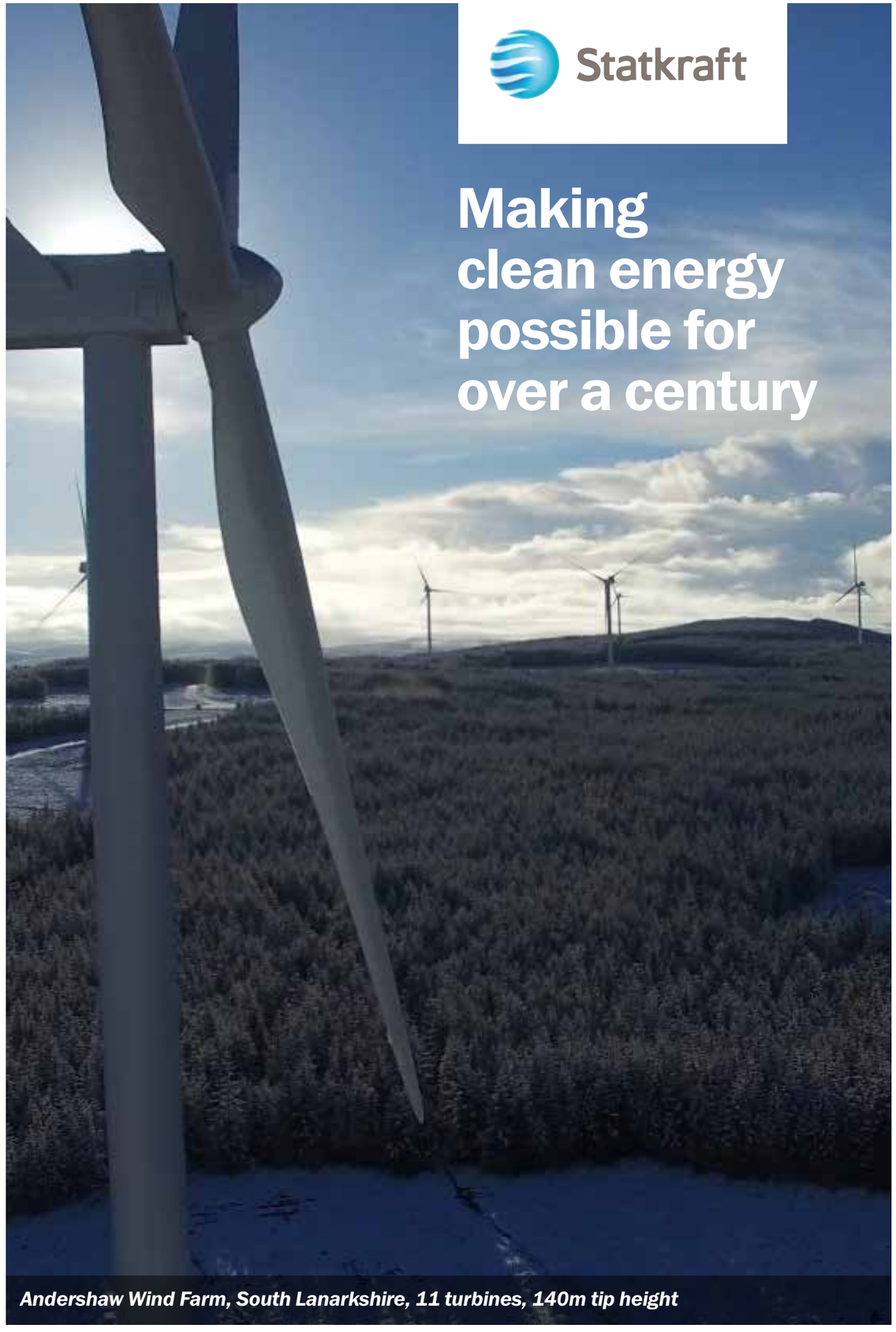
Register for updates:
www.carn-fearna.co.uk

0800 772 0668

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

Statkraft

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For more information about Carn Fearna Wind Farm
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Statkraft is a proud partner of SolarAid, helping to provide access to clean energy for the most vulnerable across Africa.
