KNOCKCRONAL WIND FARM

VIRTUAL EXHIBITION

Spring 2021

Statkraft

www.knockcronal.co.uk

Berry Burn Wind Farm, Moray, 29 turbines, 100m tip height

Contents

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Welcome

This exhibition is designed to share our plans for Knockcronal Wind Farm. We want to hear your views as we continue to shape the development during this phase.

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 17 countries, all working towards our low carbon future

→ Operating in the UK since 2006

→ Distributed over £2 million to communities near operating wind farms

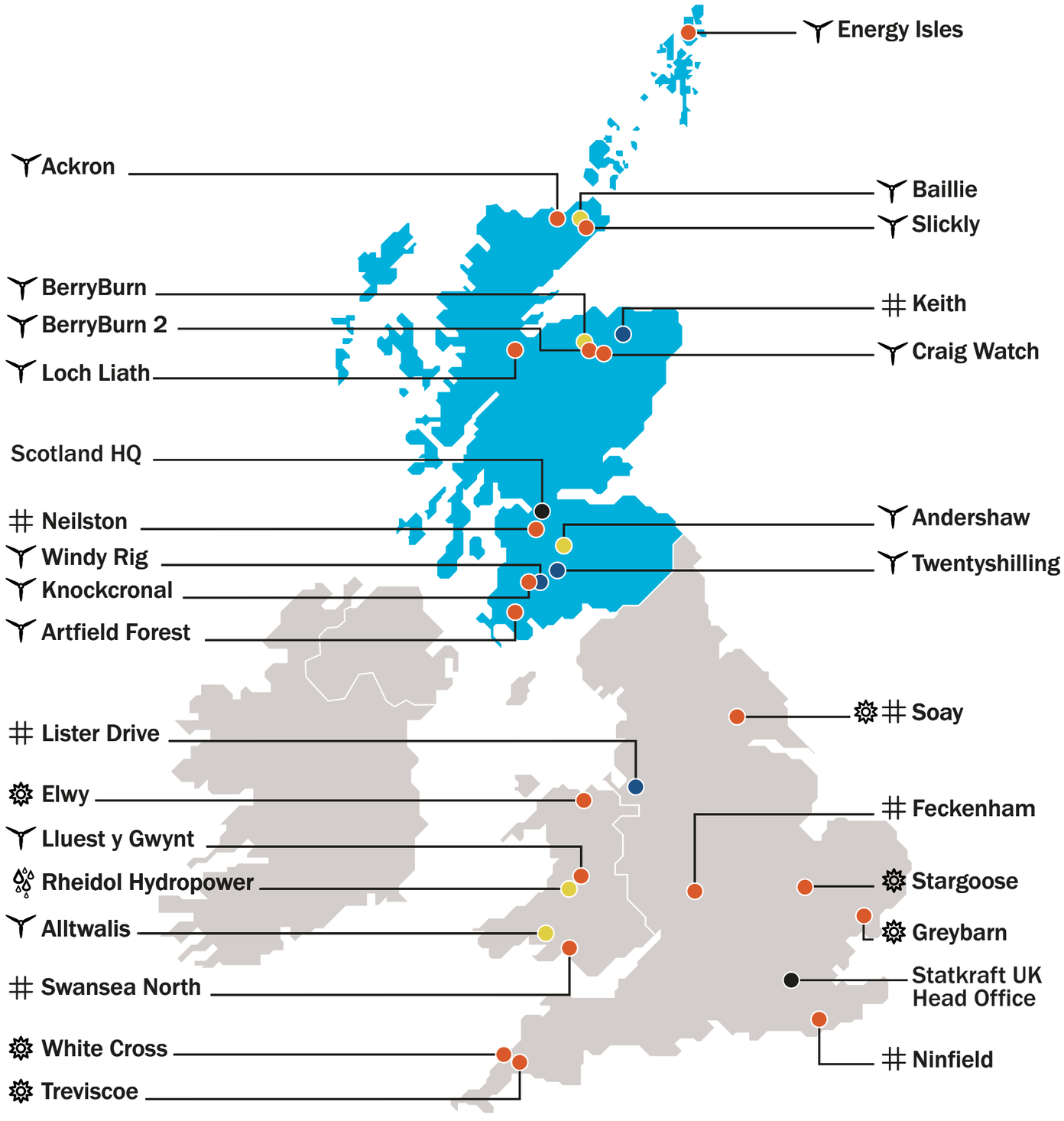
Andershaw Wind Farm, South Lanarkshire, 11 turbines, 140m tip height

Welcome

Statkraft in the UK

- → Scottish Head Office in Glasgow
- → Portfolio includes four wind farms, one hydro plant
- → Two wind farms in Dumfries & Galloway in construction
- → Over past 12 months expanded into solar development and electric vehicle charging points
- → Delivering grid stability services for National Grid in Moray and Liverpool

- Operational
- Construction
- Development
- Offices
- Wind
- Greener Grid Park™
- Hydro
- Solar



scottishrenewables

ayrshirechamber of commerce and industry

About Knockcronal Wind Farm

We believe this is an excellent site to contribute to Scotland's ambitions of reaching net zero emissions by 2045

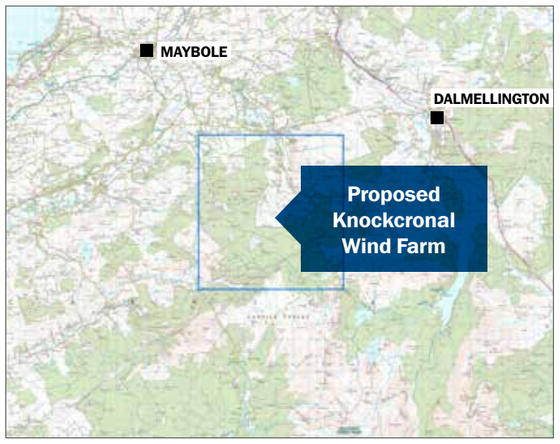
Key Facts:

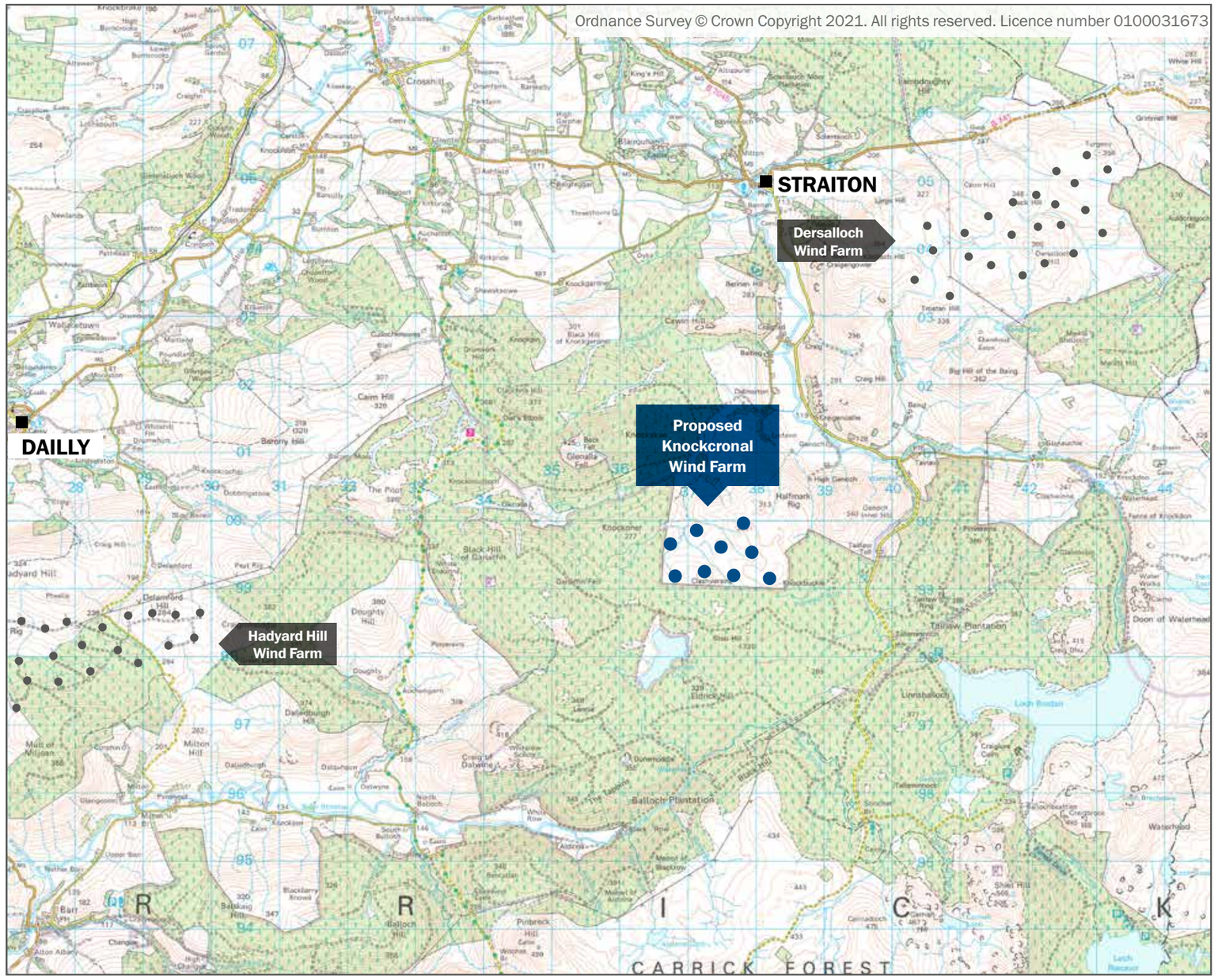
Number of Turbines: 9

Turbine Tip Height: Up to 200m

Community Fund: £250k estimated per year*

*Based on 50MW x £5k per MW of installed capacity. If consented, value of fund determined by actual installed capacity.





About Knockcronal Wind Farm

Why this site?

Good wind speeds based on 13 months of onsite monitoring

Development is approximately **5km from Straiton** and designed to be mindful of surrounding area with limited visibility from Straiton and no visibility expected from Dailly

Development would contribute towards **Scotland's decarbonisation targets**

There are **no national or internationally designated sites** within the site boundary

	No. of Turbines	Max Blade Tip Heights Up To	Installed Capacity (MW)	Estimated Generation (homes equivalent)	Community Fund (per year)
Knockcronal	9	200m	over 50	over 40,000 homes*	Estimated £250,000 per year**

* Based on 50MW of Installed Capacity, wind resource assessment and Scottish average household consumption of 3,393 kWh pa (BEIS Dec. 2020)

** Based on 50MW x £5k per MW of installed capacity. If consented, value of fund determined by actual installed capacity.

The Story So Far

The area was previously developed as Linfairn Wind Farm by Willowind Energy.

Knockcronal Wind Farm is a new and separate proposal managed by Statkraft, with no involvement from Willowind Energy. There are fewer proposed turbines and they are positioned further south than the Linfairn proposed turbines.

In December last year we requested the view of the Scottish Government and South Ayrshire Council on the level of study required (known as 'Scoping') to assess our 12 turbine Knockcronal Wind Farm proposal.

In March this year we received their views and comments from other stakeholders and communities (within a document known as a 'Scoping Opinion'). Following this feedback and additional site work undertaken the proposed development now consists of 9 turbines.

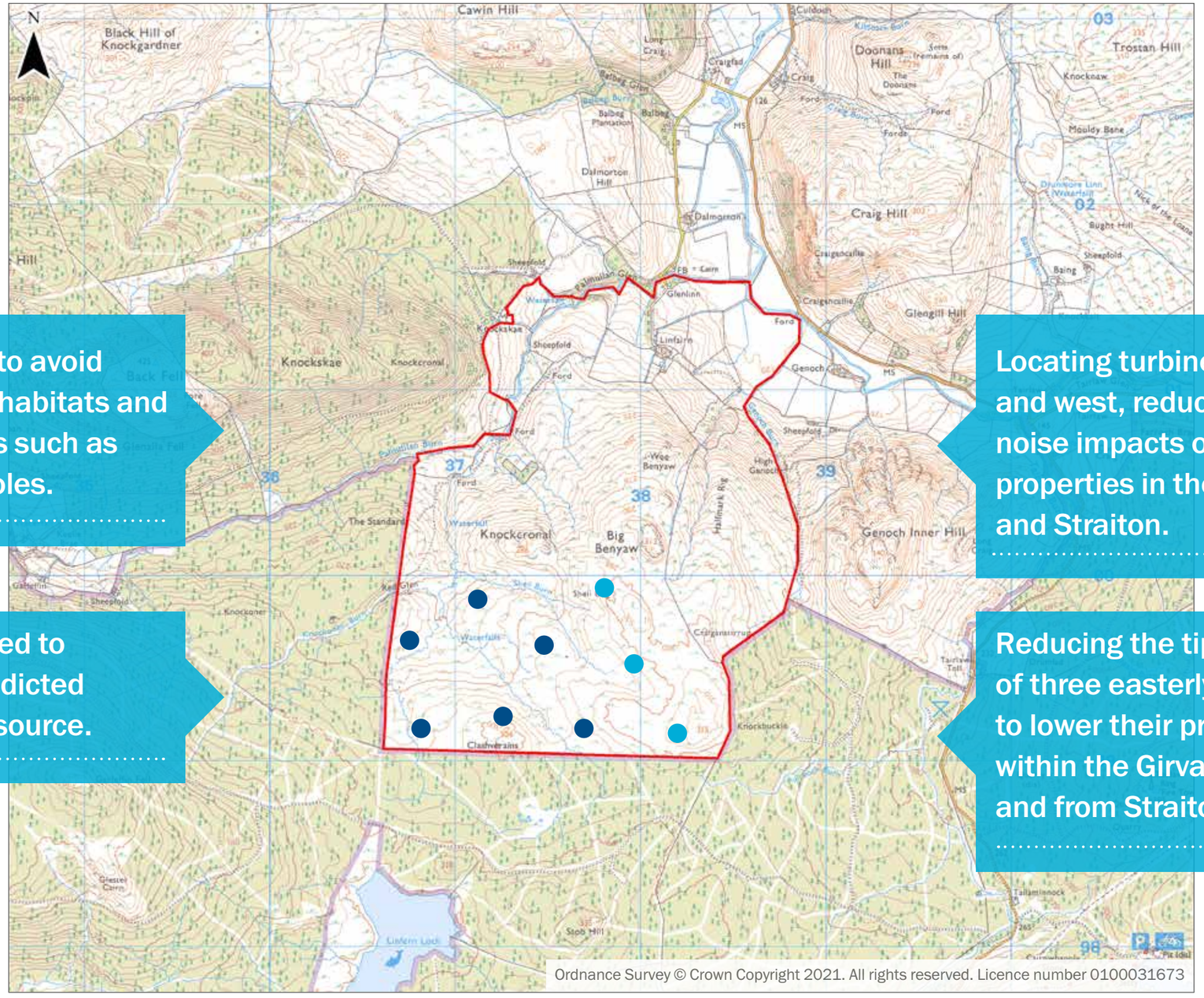
We believe this proposal strikes a good balance, maximising the electricity output of a site while carefully siting and designing the proposal to relate to the existing landscape

To date, we have carried out extensive surveys to gather data on the following:

- → **Wind resource**
- → **Noise**
- → **Landscape and Visual Impact**
- → **Traffic and transport**
- → **Birds**
- → **Carbon rich soils and priority peatland habitats**
- → **Cultural Heritage and Archaeology**
- → **Protected Species**

The Story So Far

How our studies and feedback has influenced this layout



Legend

- Turbine Development Area
- Proposed turbines 200m tip height
- Proposed turbines 180m tip height

Turbines located to avoid priority peatland habitats and protected species such as bats and water voles.

Turbines positioned to maximise the predicted available wind resource.

Locating turbines to the south and west, reducing visual and noise impacts on residential properties in the Girvan Valley and Straiton.

Reducing the tip heights of three easterly turbines to lower their prominence within the Girvan Valley and from Straiton.

Project Timeline

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

1. SITE SELECTION

(12 months)

Extensive research to identify suitable sites: 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 12 months)

We request the view of the Scottish Government and South Ayrshire 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.

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 into planning, we will host another consultation in line with Covid-19 advice.

3.SUBMIT APPLICATION & AWAIT DECISION

(12 months)

An application is submitted to the Scottish Government, accompanied by a comprehensive Environmental Report showing the results of all studies undertaken. This is publicly available information and will be available on the project website.

Interested parties and statutory consultees such as South Ayrshire Council can formally comment on the application.

4. CONSTRUCTION

(12 to 18 months)

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

Construction typically takes 12-18 months and planning conditions are used to manage elements of construction.

5. OPERATION

(30+ years)

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

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.

6. DECOMMISSION

(12 months)

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

Environmental Impact Assessment

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.

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 Ayrshire Council, NatureScot, Scottish Environment Protection Agency, Transport Scotland and Historic Environment Scotland.

Stream in the south of the site with wet banks containing large amounts of Sphagnum Fallax and Bogbean.

The results and findings will be detailed in the EIAR which is made public when we submit our planning application.
This report covers a range of areas including:

- → **Landscape and Visual Amenity**
- → **Ecology**
- → **Ornithology**
- → **Noise and Vibration**
- → **Hydrology, Hydrogeology and Geology (including peat)**
- → **Cultural Heritage**
- → **Traffic, Transport and Access**
- → **Socioeconomics**
- → **Aviation and Telecommunications**
- → **Forestry**
- → **Shadow Flicker**
- → **Climate**

Landscape and Visual Assessments

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 for the purpose of this exhibition. There will be more available to view through the planning process and when an application is submitted to planning.

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.

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.

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

These studies will pay particular regard to:

- → Effects on the landscape character of the context of the immediate area, as well as the character of the wider area.
- → Effects on the special qualities of landscape designations such as the Girvan Water Valley Local Landscape Area, and the Merrick Wild Land Area.
- → The amenity of residential properties near to the proposed development in the Girvan valley.
- → The design in relation to Dersalloch and other proposed wind farms in the area.
- → Effects associated with possible turbine lighting.

Cultural Heritage

The historic ‘Knockonner’ farmstead, falls within the development area of the proposed wind farm and with the exception of two linear features is predominantly avoided by the development.
The linear features overlap with the hardstanding for turbine 1. This is expected to cause an impact of minor significance to the character of the farmstead as a whole.

These linear features, which were old field banks, will be subject to an archaeological investigation and a watching brief during construction to document and record the features accordingly.

Consideration is also being given to providing signage or information boards about ‘Knockonner’ farmstead to be sited at an appropriate location of the ‘Old Road through Straiton’ Heritage Path.

The setting of heritage assets within the wider landscape will also be assessed as part of the EIA. Particular attention will be given to Straiton Conservation Area, Blairquhan and Kilkerran Inventory Gardens and Designed Landscapes and scheduled monuments.

Remains of field bank at proposed turbine 1 location.

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Ecology & Ornithology

Extensive surveys have been completed, including for habitats, birds, protected mammals and fisheries to inform the ongoing wind farm design process.

The project is carefully designed to minimise the potential for impacts on protected species and habitats.

For instance, the design of the project will seek to minimise the risk of bat collisions, by including buffers around woodland and watercourses.

The turbine development area comprises a mosaic of habitats including grasslands, wet heath and blanket bog. To minimise habitat loss the project will be designed to minimise land take wherever possible and the final design will seek to avoid sensitive habitats as far as possible.

Derelict cottage to the north-east of the proposed turbines with some potential for bat roosts.

Rock cliff with waterfall and plunge pool feature located to the north west of the proposed turbines.

Environmental Impact Assessment

Transport

Our 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.

A detailed review and plan showing how the longest and largest turbine components will be transported to the site will also be included in the EIAR. The report will outline all road works and measures required to ensure the safe and efficient access for the turbine deliveries.

Noise

A noise assessment will be undertaken for the site in line with Government guidance.

Background noise monitoring has been carried out at a number of representative properties surrounding the site to capture the existing noise levels. These survey locations were agreed with South Ayrshire Council. The background noise levels will be used to determine noise limits that the Proposed Development would have to operate within. These limits are also informed by South Ayrshire Council and government guidance (ETSU-R-97).

The noise assessment will also take into account other wind farms schemes in the area, including the operating Dersalloch.

The noise assessments and resulting noise limits will be used to ensure that, if consented, the future operational site would operate within levels considered acceptable under the ETSU-R-97 assessment method (Government Guidance).

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Climate Change

The Scottish Government has set a legally-binding target to achieve net-zero emissions by 2045. Developments such as Knockcronal 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 emissions savings of Knockcronal Wind Farm, a 'carbon balance' assessment will be undertaken for the wind farm using Scottish Government guidance.

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 principal, 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.

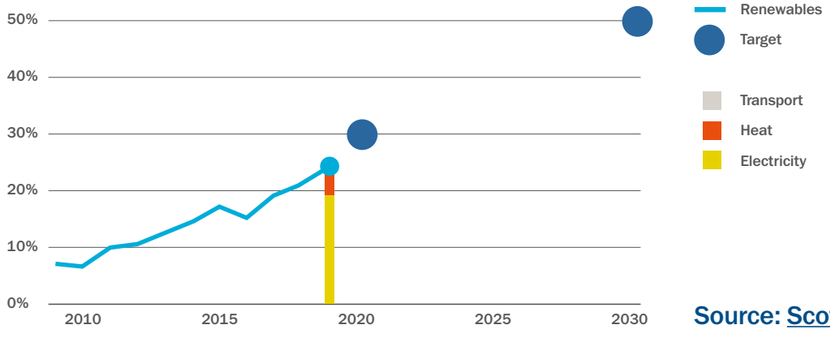
HOW IS SCOTLAND DOING?

It's great that Scotland now generates the equivalent of over 90% of its total electricity consumption by renewable energy. Reducing fossil fuel sources from heating and transport is essential to Scotland achieving net zero emissions by 2045, this project could contribute to that goal. Read more here.

www.bbc.co.uk/news/uk-scotland-51088089

Scotland's share of renewable energy (gross final consumption)

Scotland, 2009 - 2019



Source: Scottish Energy Statistics Hub

Local Benefits & Investment

We would like our wind farms to be considered a local asset and want to talk with you about how we can bring new investment to your community.

Windy Rig Wind Farm, Dumfries & Galloway.

"Windy Rig 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 in each of our project locations. Over £2 million has been generated from our UK projects to support local causes and innovative schemes.

Shared Ownership

Progress the opportunity, if there is local interest for local groups to have a financial interest in our project, with the support of organisations such as www.localenergy.scot/.

Local Investment

Work with local business groups such as the Chamber of Commerce to increase awareness of the opportunities in construction and operations.

Education & Enterprise

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

Wireless Broadband

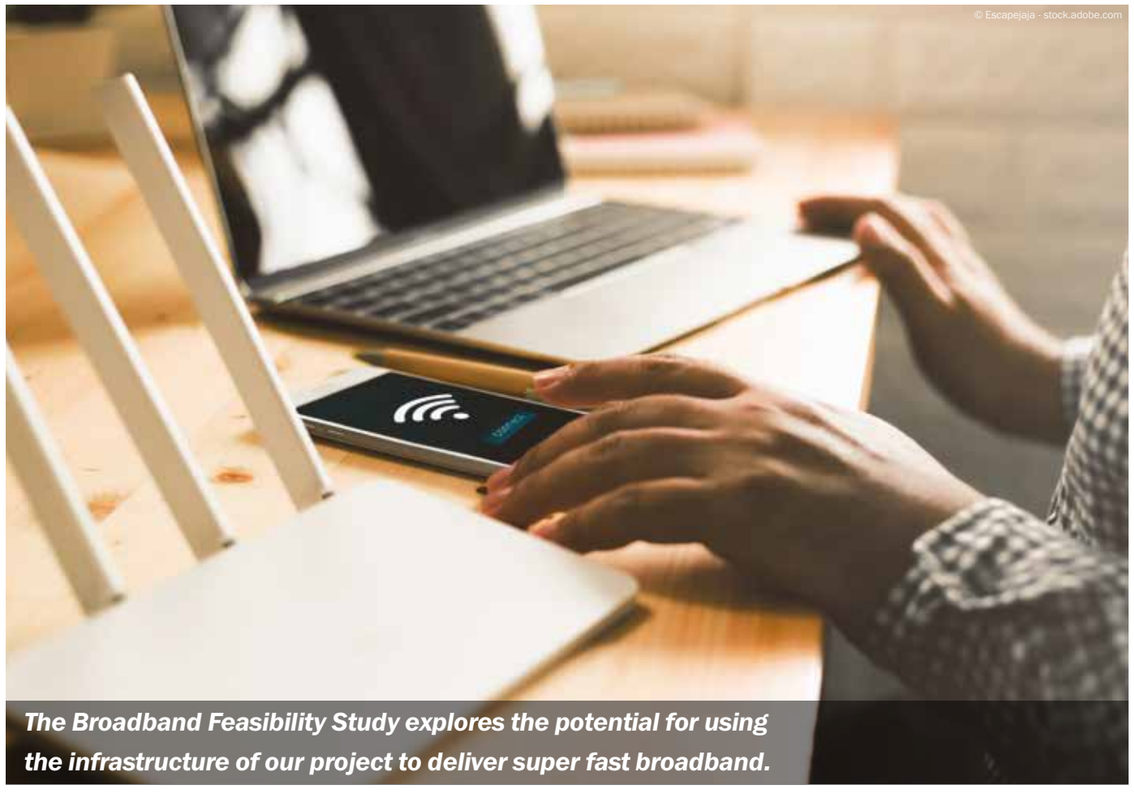
We invest in feasibility studies to identify potential for improved connection, and supporting communities developing their own broadband initiatives.

Broadband

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 will commission a feasibility study to investigate the potential at Knockcronal.



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 speeds for commercial and residential properties.** This could be partially or fully funded by the community benefit fund associated with our project.

NEXT STEPS

We would like to hear your views on the Broadband Feasibility Study and would like to continue a conversation with you as the project progresses.

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 are aiming to submit an application in late 2021. Before then, we will hold another public exhibition to share details of the final proposal.

We welcome your comments and feedback.
Please register your comments by completing a feedback form. In order for us to take your view into account as we progress the project, please comment by 25 June 2021.

When the project 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 Knockcronal Wind Farm Exhibition.

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

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

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