Blair Hill Wind Farm Proposal

PROJECT UPDATE – DECEMBER 2023

Capable of generating clean, green electricity for the equivalent of approximately 150,000 homes[1] annually

Around £6 million inward investment in the form of jobs, employment and the use of local services

Providing a community benefit package equivalent to £5,000 per MW aligned with the local communities' priorities

Saving an estimated 11 million[2] tonnes of CO_2 over the lifetime of the project

RES distributed the first in a series of project newsletters in September 2023, to around 4000 local properties, to introduce the Blair Hill Wind Farm proposal and provide further information on the public exhibitions held in October 2023.

In our second newsletter in the series, we are pleased to give an update on the proposal and also provide further information in response to common questions and concerns raised at the consultation events.

Keeping you Informed

We were pleased to speak to around 400 attendees at public exhibitions we held in Newton Stewart and Wigtown and would like to thank everyone for attending and for showing an interest in the project. All feedback we received will be considered as the project design is refined.

We know that local people can make a valuable contribution to the proposals by offering their local knowledge and raising issues that may not have been considered and we're committed to keeping you informed.

We will shortly be establishing a Community Liaison Group (CLG) whose members will include locally elected representatives plus representatives from local community groups, local businesses and other stakeholders. The key objectives of the CLG are to provide a forum for discussion and the exchange of information and to create and maintain effective and constructive channels of communication between RES and the local community. If you are a local group representing the community and would like to be considered for membership of the CLG, please get in touch at **blairhill.windfarm@res-group.com**.

We will hold second public exhibitions in Spring 2024, ahead of submitting any planning application, to present an updated design for the Blair Hill Wind Farm proposal. We will also refer to the written feedback received from the October 2023 exhibitions and explain any changes made to the design in response to the feedback.

A Power for Good

Onshore wind farms contribute to Net Zero carbon emission reduction targets, enable more energy to be generated domestically improving security of supply, and are the cheapest form of new electricity generation[3] alongside other renewable technologies. This makes wind farms, like Blair Hill, not just good for the environment but also for the consumer.

A tailored community benefits package to support the local area and help to secure long-term economic, social and environmental benefits would be delivered if the project is consented. The community fund is not linked to profit but a set sum equivalent to £5,000 per MW and would be index-linked. Some of the ideas received to date include biodiversity initiatives,

(cont'd on page 2)

1 The homes figure has been calculated by taking the predicted annual electricity generation of the site (based on RES assessments Blair Hill has a predicted capacity factor of 42.8%)and dividing this by the annual average electricity figures from the Department of Business, Energy and Industrial Strategy (BEIS) showing that the annual UK average domestic household consumption is 3,509 kWh (Dec 2022).

2 RES uses DESNZ's "all non-renewable fuels" emissions statistic of 424 tonnes of carbon dioxide per GWh of electricity supplied in the Digest of UK Energy Statistics (July 2023) Table 5.14 ("Estimated carbon dioxide emissions from electricity supplied"). Carbon reduction is calculated by multiplying the total amount of electricity generated by the wind farm per year by the number of tonnes of carbon which fossil fuels would have produced to generate the same amount of electricity.

3 https://www.businessgreen.com/news/4122038/wake-opponents-net-zero-government-predicts-gas-power-times-expensive-renewables-2025

RES also work with communities local to our projects during the development phase providing sponsorship towards community initiatives and events. We are delighted to have recently supported two local organisations.

The incredible fundraising efforts of the Newton Stewart Christmas Light Group, supported by individuals, businesses and sponsors, has seen the group raise a fantastic amount of money towards a new light display for the town. RES were pleased to contribute to this worthy initiative with a donation of £2,000.

A £2,000 donation from RES enabled Cree Valley Development Trust's activities at the Winter Wonderland in aid of Newton Stewart Community Fire Station, to be provided free of charge to the community. We hope everyone who attended had a great day.

a local apprenticeship scheme, home insulation grants, funding for community facilities like the Newton Stewart cinema and a walkway to Garlies Castle. We welcome further ideas for local benefits and priority projects that you would like to see supported or delivered in your community from Blair Hill Wind Farm, should it receive consent.

RES is committed to using local contractors in all aspects of the project. If you're a local business interested in getting involved in onshore wind then please contact us.

The Development

Based on our initial studies, the wind farm would comprise up to 22 turbines, each with a maximum height of 250m, resulting in an overall site generating capacity of 145MW. If consented, Blair Hill would be capable of generating clean, low-cost renewable electricity for around 150,000 homes each year.

A Scoping Opinion was received from Scottish Government's Energy Consents Unit (ECU) in November 2023 and this is available to view at **https://www.blairhill-windfarm.co.uk/about-the-project**/and also on the ECU website (Ref: number: ECU00004878)

We continue to undertake a wide range of further environmental surveys and detailed studies, to build our understanding of the site, in addition to considering the consultation feedback received from the public exhibitions as well as key consultees. This will shape and refine the wind farm design over the coming months.

The following sections address some of the common questions and concerns raised during our initial consultation.

Landscape and Visual

Our preliminary design is for 22 turbines up to 250m in height although this is subject to change and will be informed by the ongoing Landscape and Visual Impact Assessment (LVIA).

For the public exhibitions, landscape architects at LDA Design Consulting Ltd (LDA) produced a small number of visualisations based on the preliminary layout from some of the proposed viewpoint locations, produced in accordance with NatureScot's Visualisation of Wind Farms Best Practice[4]. The visualisations depicted the turbines at 250m, not at any other height.

We have received feedback from a range of consultees, including local residents and community councils, on the original 19 viewpoints proposed within the Scoping Report. We are now using this feedback and working with LDA on the updated viewpoints to be included with the LVIA.

At our second round of public exhibitions, to be held in Spring 2024, we will present updated visualisations, based on the updated design, as well as a 3D model so people may see what the wind farm would look like from chosen locations.

Ecology and Ornithology

Comprehensive studies are still in progress to identify any potentially significant effects of the proposed wind farm on the local ecology and, where applicable, identify mitigation measures to avoid or reduce potential effects.

There are currently a range of pressures being exerted on Scotland's natural environment, including the direct impacts of human induced climate change - the recent State of Nature Report[5] suggests there has been a 15% decline in average species abundance in Scotland across closely monitored wildlife since 1994 – and the Blair Hill proposal provides an opportunity to deliver a biodiversity net gain on the site. A Biodiversity Enhancement Management Plan will be developed for the operational phase and agreed with consultees, to mitigate or enhance habitat for important ornithological and ecological features and to provide wider biodiversity improvements.

Flooding

Following assessment of desk-based resources, it was noted that river and surface water flooding risk is present at the River Cree tributaries located within the site (Washing Burn and Cordorcan Burn). As part of the design of the wind farm, infrastructure will be kept a minimum of 50m from watercourses, except where required for a watercourse crossing.

Any potential flood risk will be assessed as part of the application and in accordance with the scoping responses from SEPA and their Flood Risk Standing Advice. To further reduce flood risk across the site, existing tracks will be utilised as far as practicable.

4 https://www.nature.scot/doc/visual-representation-wind-farms-guidance
5 https://stateofnature.org.uk/countries/scotland/
6 https://www.sepa.org.uk/media/534740/sepa-flood-risk-standing-advice-for-planning-authorities-and-developers.pdf

Peat

An initial peat depth survey was undertaken across the site in October 2023 to understand the nature of peat on the site. Peat is not uniform across the site and siting of infrastructure will be located in areas to minimise disturbance of peat.

As the wind farm design is refined and finalised, a final detailed peat survey will be conducted at the proposed turbine and infrastructure locations to complete our peat data. This will identify any areas of peatland habitat which would be sensitive to direct or indirect changes as a result of the proposed wind farm. Best practice construction methods will be used throughout to ensure minimal disruption and we will seek to undertake restoration and enhancement measures.

Private Water supply

In order to identify and protect private water supplies, hydrologists at ITPEnergised have undertaken consultation with Dumfries and Galloway Council, who have provided the location of properties with a registered private water supply within 2km of Blair Hill along with other information they hold about the supply.

The hydrologists also ground-truth this information with site-walkover surveys and follow-up with local residents where necessary, in order to ensure that people's private water supply locations have been identified, and that our data is as robust as possible.

Properties within 2km of Blair Hill with a registered private water supply, will receive a separate letter with a call for information.

The call for information invites local residents who have private water supplies linked to Blair Hill to get in touch with ITPEnergised, with details of their private water supplies so that we can ensure all supplies are checked.

Grid Infrastructure

RES has requested a grid connection for Blair Hill Wind Farm from the grid Transmission Owner (TO), in this case Scottish Power Transmission.

The TO is responsible for maintaining and investing in the grid in the south of Scotland. This includes designing connections for Transmission grid applications, such as that for the Blair Hill proposal, and submitting the grid route applications for these connections.

As such, the grid route is subject to a separate application from the wind farm – and will be submitted as a separate Section 37 application under the Electricity Act by the TO once they have finalised their design. There will be a consultation period in which details of the route and method will be available for the public to provide comment to the TO as part of the application process.

To enable Blair Hill Wind Farm to connect to the National Grid, the expected infrastructure will comprise one 132kV overhead wood pole line.

Recreation

During construction of any infrastructure project the developer has a responsibility to ensure that the public is kept safe from any construction activity on the site. This inevitably means that access to some parts of the wind farm site would be temporarily restricted in the interests of public safety during construction of the project, but this will be temporary in nature. Once the wind farm is up and running the statutory Scottish 'right to roam' (Land Reform [Scotland] Act 2003) will apply and the public will have full access to the site for activities like walking, cycling and horse-riding.

We are considering opportunities to enhance the current recreational access facilities on the site and welcome feedback from the community on ways this can be achieved.

Tourism

It has been consistently found that wind farms do not impact tourism. The BIGGAR Economics Report Wind Farms and Tourism Trends in Scotland (2021[7]), found that while the capacity of wind farms had more than quadrupled over the study period, employment in tourism related sectors had increased by more than 20%. It found no relationship between tourism employment and wind farm development, at the level of the Scottish economy, across local authorities nor in the locality of wind farm sites.

Galloway National Park Bid

We understand the importance of the campaign to create the Galloway National Park to the local community.

Guidance[8] published by the Scottish Government in October 2023 in relation to nominations for national park status states:

> **"All areas of Scotland are eligible to submit nominations to become a new National Park (including those that have current or potential onshore wind developments). To ensure any National Park addresses the climate emergency and supports progressive development, we will develop new bespoke planning policy on onshore wind to be applied in new National Parks. This means that a new National Park will be treated differently to existing National Parks with respect to NPF4 policy for onshore wind."**

The Blair Hill wind farm proposal would not affect the potential for the area to be designated as a National Park.

7 https:// https://biggareconomics.co.uk/wp-content/uploads/2021/11/BiGGAR-Economics-Wind-Farms-and-Tourism-2021.pdf
8 https://www.gov.scot/publications/new-national-parks-nominations-guidance-appraisal-framework/

Impact on Health

Whilst multiple, peer reviewed and independent studies have shown there is no connection between wind turbines and negative health effects, it is still a matter we take seriously. One of the most common concerns relates to low-frequency noise commonly known as infrasound.

Low frequency noise is not audible or perceptible to humans as it occurs at similar levels to pre-existing background levels. Multiple organisations and studies from around the world, including the World Health Organisation, indicate that there is no evidence that any infrasound/low frequency noise from wind turbines directly causes health impacts or can otherwise impact on the amenity of those living or working near wind turbines.

Need for the Development

Concerns were raised over Scotland's level of electricity generation in relation to current demand. It is important to note, carbon reduction is required across all sectors, including heat, transport and industrial processes, which are currently heavily reliant on fossil fuels. It is forecast that Scotland's peak demand for electricity will at least double within the next twenty years as a result [9]. This will require a substantial increase in installed capacity across all renewable technologies, including onshore wind.

There are significant grid infrastructure development plans in place that will build out throughout the second half of this decade that will allow for a far higher output of electricity generation from wind and other renewables in Scotland and reduce our reliance on expensive gas back up.

Until the grid network is fit for purpose, National Grid will pay all sources of electricity generation (including nuclear and gas) to switch off (this is known as constraint costs) as the most efficient option to balance supply and demand.

Carbon payback

Harnessing of wind for the generation of electricity may rely on a renewable source of energy, but it must also prove to be sustainable. A typical modern wind turbine's carbon payback time ranges from 1 to 3 years, equating to between 1% and 4% of the wind turbine's lifetime. A modern wind turbine would be expected to return at least 20 times the energy invested in it as renewable electricity. The final carbon calculation for the Blair Hill proposal will be undertaken once the design has

been finalised and captured in the final Environmental Impact Assessment Report which will accompany the planning application.

Wind farm recycling

While about 90% of turbines are easily recyclable, turbine blades are not widely recyclable yet. The industry recognises this and extensive work is underway to establish a circular economy. There is research underway into producing a 100% recyclable turbine blade and a recent pilot project in Northern Ireland has developed a scalable method to recycle 100% of turbine blades, ensuring that valuable resources are turned into new products that can substitute materials such as virgin plastics, steel, and concrete instead of simply going to waste.

There are also options for blade re-purposing. Blade material is incredibly strong and when in a suitable condition, it can be repurposed for new structures. This reduces landfill, retains embodied carbon in the material, reduces the need for virgin material and creates skilled jobs.

Whilst there are a finite number of other structures which could be constructed from blade material, there is also potential to refurbish blades for use as second-hand blades.

9 National Grid's Future Energy Scenarios

About RES

As a British family-owned firm, RES has a proud history in Scotland where we have developed and/or built 21 wind farms to date, with a total generation capacity of c.600MW.

RES is committed to improving everyday life and long-term futures. We are driven by our vision to create a future where everyone has access to affordable zero-carbon energy.

For more information about RES, visit **www.res-group.com**

res power for good

For more information: blairhill-windfarm.co.uk www.blairhill-windfarm.co.uk