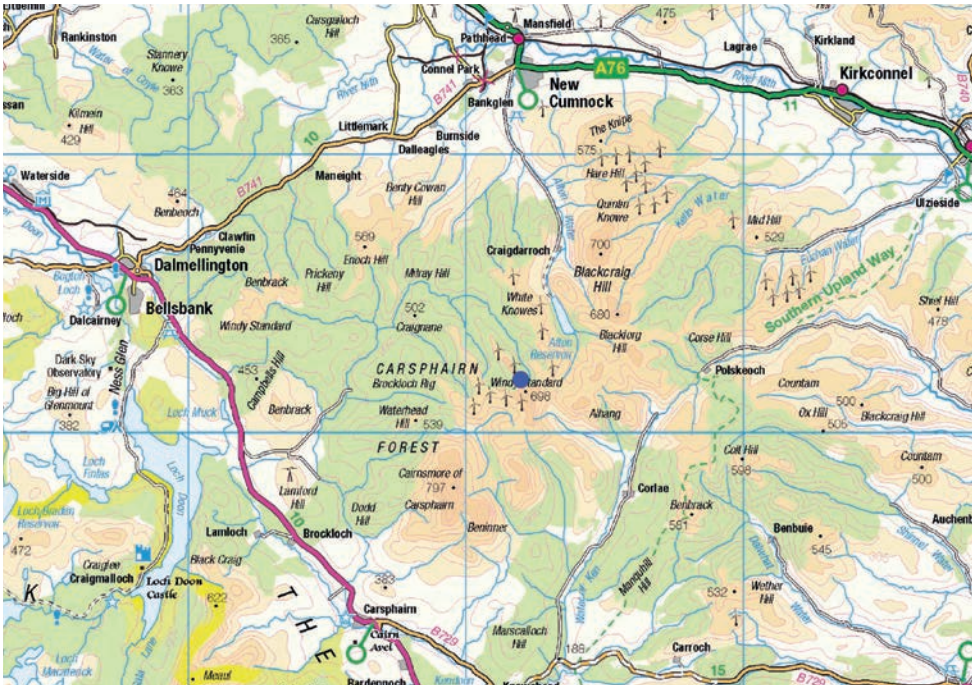
Fred. Olsen Renewables

Windy Standard 1 Wind Farm Exhibition

November 2021



Welcome

Welcome to our public consultation about the proposed repower of Windy Standard 1 Wind Farm, located 8km North East of Carsphairn and 10km south of New Cumnock.

We would like to start a conversation about how we can develop a project that will help to support:

- The local economy
- The local community
- Scotland and the UK's net zero aspirations.

We hope that these materials provide you with useful information and allow us to start a conversation about the project.

We welcome your feedback and opinions. Please complete a feedback form, or contact the team to discuss the plans further.

e communities@fredolsen.co.uk
t 07435 763 900
w www.windystandardwindfarm.co.uk

About Fred. Olsen Renewables

Fred. Olsen Renewables is one of the leading independent renewable power producers in the UK. Our operational UK wind farm portfolio comprises a total generating capacity of approximately 529.7 MW and we have an extensive pipeline of projects coming forward.

We have been involved in the operation of Windy Standard Wind Farm since the 1990's. With over twenty-five years' experience in consenting, developing and operating wind farms, we are one of very few developers that take a project all the way from initiation and development, through to operation and ultimately decommissioning.

By being involved in every aspect of a wind farm's lifecycle, we are not only experts in developing successful projects, we are good neighbours.

Our proposals

Windy Standard Wind Farm currently consists of three developments.

Windy Standard 1 has been operating for over 25 years. The project consists of 36 turbines with a tip height of 53.5 m and provides 21.6 MW.

Windy Standard 2 was consented in 2007 and operational since 2017 this consists of 30 turbines with tip heights up to 120m and provides 61.5 MW.

Windy Standard 3 which was consented in 2021. This consists of 20 turbines and is expected to be completed in 2024.

Windy Standard 1 Repower

We are exploring opportunities to replace the existing Windy Standard 1 turbines with new, larger, modern turbines that utilise the latest technology.

Our repowering proposals would:

- Reduce the number of turbines
- Increase the generating capacity
- Share existing infrastructure – including tracks and grid connection

Having undertaken a range of consultation, we would like to provide an update on:

- How we have listened to feedback
- How our plans have changed
- The opportunities that our plans present

Following our first exhibition in June 2021 we have revised our proposals, removing one turbine and associated infrastructure.

The plans now consist of:

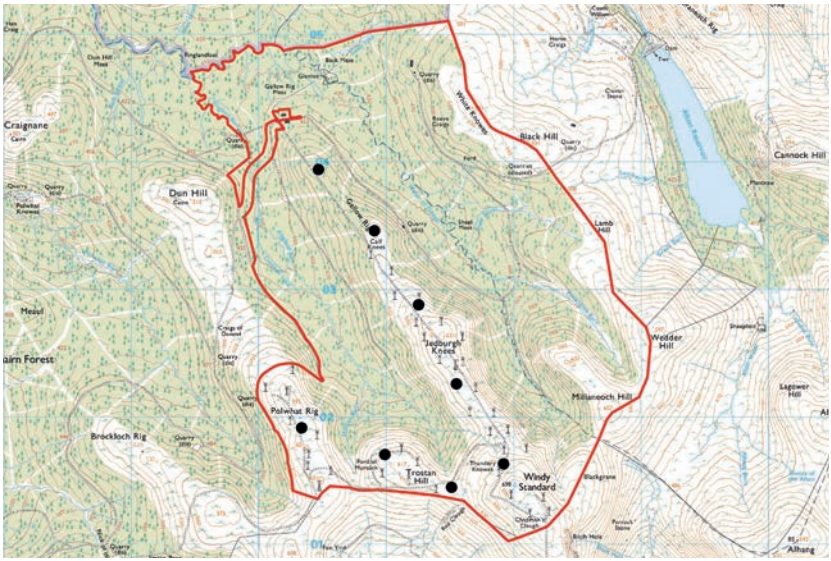
- 8 wind turbines, with a tip height of up to 200m
- Up to approximately 10MW of Battery Storage
- Turbine foundations and hardstandings
- External transformer housing
- Onsite substation and control building
- Underground electricity cables between the turbines
- Access tracks
- Crane pads
- Anemometry mast

Layout and Design Process

In order to determine the final location of the wind turbines many factors have been, and continue to be, considered. This includes:

- Wind resource
- Engineering constraints
- Visual impact
- Impact on sensitive habitats
- Proximity to areas of ecological interest
- Location of heritage assets
- Telecommunication infrastructure

The layout in the plan below shows the locations of the proposed 8 turbines. The layout we will submit to the Energy Consents Unit (ECU) of the Scottish Government is still in the process of being finalised and could be amended to address any further environmental and technical information gathered as part of the ongoing assessment and consultation process.



Development Process

We submitted a scoping report to the Scottish Government Energy Consents Unit (ECU) in August 2021.

This described our draft proposal and invited the views of consultees on the scope of the Environmental Impact Assessment (EIA).

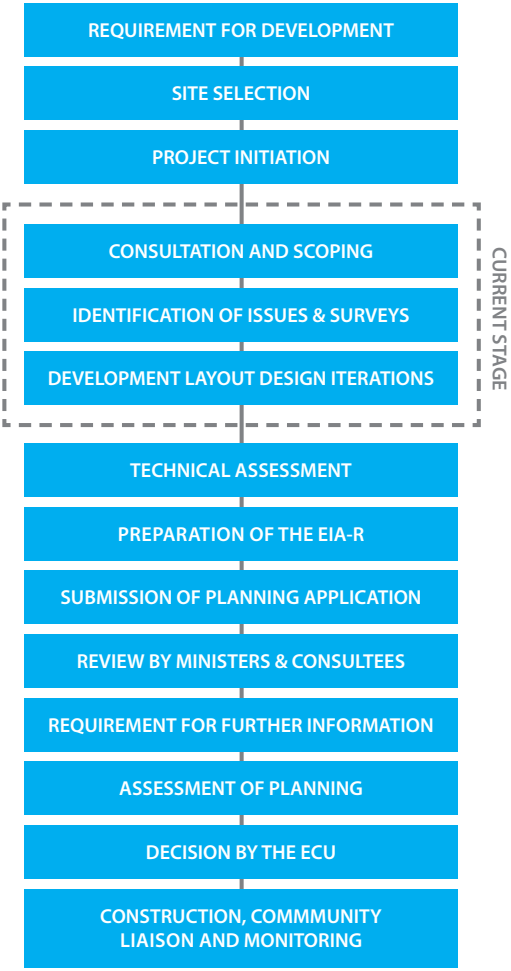
The feedback that we received has determined the scope of the EIA with further consultations still ongoing.

Baseline surveys and assessment are continuing for the proposed development. These surveys will inform the final layout of the site ensuring that it minimises effects on the local environment. We will then evaluate and present the any potential significant effects of the proposed development within the EIA Report . The EIA Report will accompany the planning application to the Scottish Government.

The EIA Report will consider:

- Ornithology
- Ecology
- Landscape and visual matters
- Noise
- Geology, hydrology and hydrogeology
- Cultural heritage and archaeology
- Access and traffic
- Socio-economics, tourism and recreation
- Telecommunications
- Aviation

Our Development Process



Environmental Impact Assessment

An Environmental Impact Assessment (EIA) is being undertaken to identify and assess the potential significant environmental effects of the proposed development. The information gathered through the EIA process will help to shape the design and layout of the proposed development and required mitigation measures

This includes, amongst others:

Ornithology

The wind farm has been subject to survey work and monitoring throughout the 25 years since it became operational. In line with guidance the assessment for repowering Windy Standard 1 has been based on relevant survey work conducted for the adjacent wind farms, plus additional specific surveys for raptor and black grouse within the proposed development area conducted in 2020. Carcass searches with trained dogs and handlers were also undertaken in 2020 on the existing turbines present at Windy Standard 1.

The ornithological assessment has identified that there is a typical bird assemblage associated with upland moorland and forest habitat in this region of Scotland. The dedicated surveys identified potential for breeding goshawk within the plantation woodland in the surveyed area. Other raptor species recorded using the site for foraging and commuting were hen harrier, red kite and osprey. None of these species showed evidence of breeding within the survey area. Specialist searches did not recover the carcasses of any target bird species.

The current layout has taken any sensitive ornithological areas into consideration to minimize any disruption to bird species during the construction and operation of the proposed development.

Ecology

Windy Standard 1 forms part of the Windy Standard Complex which has been subject to survey work and monitoring for different phases throughout the 25 years since the original Windy Standard I became operational. As such, Windy Standard 1 has been extensively covered by various walkover surveys and there is an excellent understanding of the area and the species present to provide ecological context for the proposal.

Bat surveys were conducted in 2020 following updated guidance[1], comprising of static acoustic detector surveys and carcass searches with trained dogs and handlers. Given the existing knowledge of the site, no additional protected mammals surveys have been undertaken and following the implementation of appropriate mitigation, no impacts are anticipated on mammal species known to be present (including badger, red squirrel, pine marten, otter and fish).

Additional habitat surveys have been undertaken in both 2020 and 2021 to identify

[1]SNH. 2019. Bats and onshore wind turbines: survey, assessment and mitigation. Version January 2019

any sensitive habitats within an appropriate buffer of the proposed works, revealing that the predominant habitats found at the site is acid grassland with small areas of wet and dried modified bog. As a result, the habitats and locations of those species noted have been considered within the latest development layout, appropriate stand-offs have been put in place so as to reduce or remove any impacts.

Cultural Heritage

The cultural heritage assessment considers the archaeological and cultural heritage assets within the proposed re-powering site, and in the wider area according to potential impacts. The assessment comprises a review of data sources which include the Dumfries and Galloway Council Historic Environment Record, Historic Environment Scotland records, historical mapping and any available LiDAR data. In addition, a detailed walkover survey across the entire site, and visits to local designated sites such as scheduled monuments and listed buildings with the potential to be indirectly impacted by the proposed development will be undertaken.

The baseline records for the proposed re-powering site include the known possible route of a Roman road. Walkover surveys undertaken for the Windy Standard extensions have identified other cultural heritage assets such as clearance cairns and field boundaries, and it is possible that the walkover survey of this proposed development will reveal previously unrecorded assets of a similar kind. Historic map evidence indicates that the site was undeveloped and largely consisted of open moorland. The site includes areas of peat: the assessment will include a review of the peat survey data to identify whether any of the peat deposits have the potential to preserve paleoenvironmental remains. If present, these could have the potential to provide information on past environments in and around the site.

Throughout the design process close consideration is given to any potential impacts upon cultural heritage assets: turbines and associated infrastructure elements have been located away from known cultural heritage assets within the site, and data from the walkover survey will feed into the on-going design process. Consultation is ongoing with stakeholders to discuss the potential visual effect of the proposed re-powering on assets outwith the site; care will be taken, to identify and assess the potential to avoid adversely affecting an asset's setting and thereby the ability to understand and appreciate the asset in its wider context.

Hydrology, Hydrogeology and Peat

This assessment considers the hydrological, geological and hydrogeological characteristics of the proposed development site, and helps to inform appropriate mitigation proposals. A desk-based study has been undertaken in order to establish the baseline conditions underlying the proposed development area supported by a site survey to measure the range of peat depths across the site.

In terms of spatial coverage, the recorded depths along the ridge line between Gallow Rig, Jedburgh Knees and Wind Standard are consistently less than 0.5 m. The peat begins to deepen away from the ridge summits to depths ranging from 1 m – 2.5 m, and within the valleys of the Water of Deugh and Fingland Burn. The existing land use is a combination of mature commercial forestry with the upper summits, along the ridge line, dominated by the existing Windy Standard Wind Farm and open moorland. The existing land use has significantly altered the condition of the peatland habitat. Hydrological processes across the proposed development have also been altered but reached a new equilibrium because of the commercial forestry.

The turbine layout has taken into consideration the habitats and watercourse across the site and looked to keep outwith any areas of deep peat and away from watercourses.

Aviation and Telecommunications

Assessments and consultation has been undertaken to assess whether the turbines could adversely affect the operation of commercial and military aviation interests and infrastructure. Detailed consultation is ongoing with aviation and telecommunication organisations to ensure that the final development layout has no impact on telecommunications, airport or military operations or that viable mitigation measures are agreed with the relevant authority.

Socioeconomics and Tourism

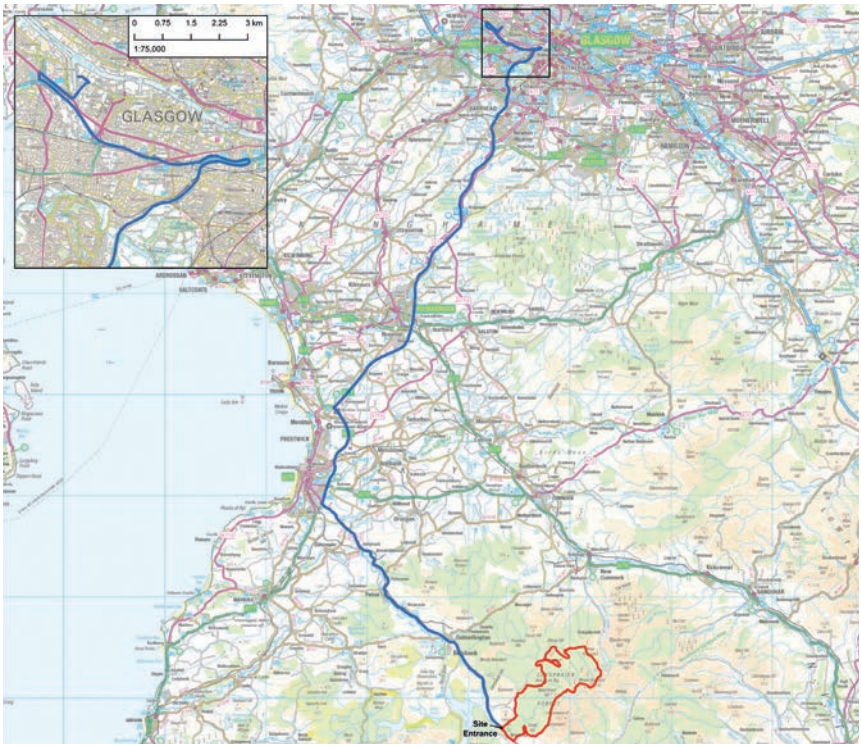
Predicted socioeconomic benefits of the proposed development will be outlined within the EIA Report. This will include the potential benefits on local, regional and national levels during the construction and operational periods of the proposed development. The tourism assessment will consider the drivers of tourism in the locality and whether there is any potential for effects associated with the proposed development that could lead to changes in tourist behaviour and so the tourism economy.

Noise and Vibration

This assessment will consider the effects of both construction and operational noise on nearby sensitive residential receptors, including in combination with other nearby wind farms. Background noise monitoring has been carried out at a number of residential properties and locations in the vicinity of the proposed site and in consultation with Dumfries and Galloway Council. The predicted noise levels during construction and operation of the wind farm will be modelled and compared against the measured background noise levels and will be set so that they do not breach the agreed limits set by the local authority.

Traffic and Transport

This assessment considers the impact on traffic volumes and the transport network during the construction period, operational phase and decommissioning phase of the proposed development. The initial route review and the site visit has identified that turbines can be transported from King George V Dock Glasgow, via the M8/M77 and A77, to the site access off the A713.



Landscape and Visual Amenity

Once the design layout has been finalised, a full Landscape and Visual Impact Assessment (LVIA) of the proposed development will be carried out to consider effects on:

- **Landscape fabric** - changes to the physical form of the landscape and its elements
- **Landscape character** - changes in the key characteristics and qualities of the landscape as a result of the development
- **Visual amenity** - changes in the appearance of the landscape as a result of development

The proposed development will be analysed to identify elements with the potential to cause a significant effect on landscape and visual amenity. This will involve analysing the theoretical visibility of the development to 45 km, with detailed assessment focussing on a proportionate extent where significant effects might occur. Cumulative landscape and visual impact assessment will initially consider a 60 km radius from the site with detailed assessment focussing on a 20 km study area where potential significant effects might occur.

Community Benefit

To date, Windy Standard Wind Farm has provided over £500,000 to communities surrounding the wind farm through their community benefit funds.

If consented, the repower of Windy Standard 1 Wind Farm will provide over £7.5m throughout the lifespan of the project.

We believe that the repower of Windy Standard 1 Wind Farm can continue to support the local economy and presents many opportunities.

We want to work closely with the communities surrounding Windy Standard 1 Wind Farm to ensure that the community benefit can be utilised to strategically address identified local challenges such as housing stock and energy consumption, in addition to recreation, tourism and ecology.

To date, the existing Windy Standard community benefit fund has supported a range of projects. This includes:

- Further Educational Grants
- Vocational Support
- Hall refurbishment
- Property investment

The community benefit commitments for the repower of Windy Standard 1 Wind Farm are in line with the 2017 Scottish Energy Strategy, which strongly supports the provision of community benefits for renewable energy projects.

We want to hear your views on how the wind farm can continue to support your community and meet local aspirations. Get in touch **communities@fredolsen.co.uk**

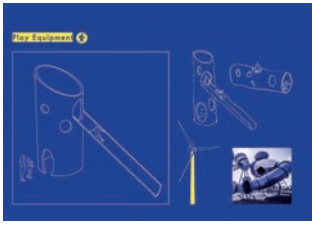
Repurposing Windy Standard 1 Wind Farm Turbines

The repowering of Windy Standard 1 will result in the removal of 36 turbines from site.

This provides the opportunity to consider how we re-use and recycle the materials that we are removing from site as part of the decommissioning process.

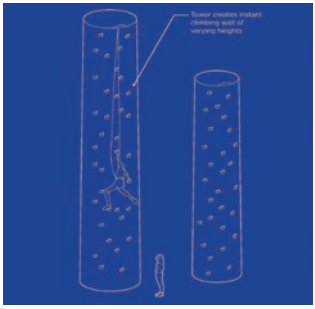
We want to work with the local community and key stakeholders to explore how we can repurpose Windy Standard 1 Wind Farm and bring forward a unique concept for the area – focussing on sustainability and creativity.

We have some very early stage conceptual ideas for repurposing the decommissioned turbines which we hope to discuss in further detail. Whilst these are at the very early conceptual stage, ideas for repurposing the decommissioned turbines include:

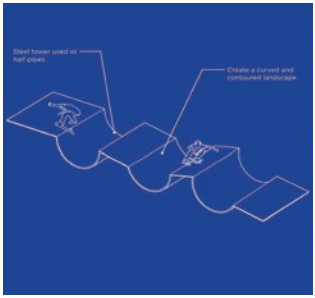


Playparks

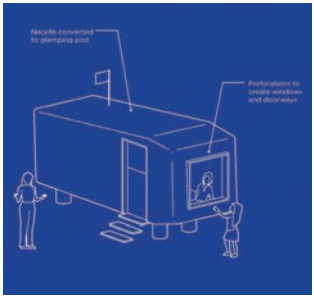
Wildlife hides



Climbing wall



Skate park



Glamping pods

We want to hear your views and ideas on how we can repurpose Windy Standard 1 Wind Farm and truly support a circular economy. Get in touch **communities@fredolsen.co.uk**

Supply Chain

We are pleased that our projects have managed to employ a range of local services – helping to maximise the local economic opportunities of our projects.

If our application is successful we will look to local businesses to provide services to the proposed development. Services that we have employed include:

- Local accommodation
- Plant hire
- Caterers

If you, or your company, are able to provide any of these services, and more, please get in touch by emailing **suppliers@fredolsen.co.uk**.

Dumfries and Galloway Chamber of Commerce

In order to support our efforts in engaging local businesses throughout the development, construction, operation and decommissioning of our projects, we recently joined Dumfries and Galloway Chamber of Commerce. We hope that this partnership will help to bolster our efforts to employ local skills.

Natural Power

Natural Power began working with Fred. Olsen Renewables to deliver Windy Standard over 25 years ago and has played a pivotal role in many of our operational projects in Scotland. Since beginning work on Windy Standard Wind Farm, the economic benefits it has contributed to the region has been many, including:

- Natural Power employs 120 people within the South of Scotland. As it attracts a high number of professionals and technical specialists, the average salary equates to £40,000, contributing more than £4,800,000 per annum to the region.
- Natural Power has 104 South of Scotland based suppliers on its approved list, ensuring that as much money made in the region stays in the region as possible.

Why Wind Farms?

A substantial amount of carbon emissions come from energy used across power, heating and transport.

Renewable energy such as wind power, does not emit greenhouse gases into the atmosphere.

Therefore, by using renewable energy technologies like wind turbines, solar panels and hydro we are reducing carbon emissions created by traditional energy consumption.

Wind power, as the most advanced renewable technology available at a large scale, has a vital role to play in achieving our zero-carbon electricity system.

By bringing more wind turbines forward in Scotland, we are:

- Reducing our reliance on fossil fuels
- Improving energy security by reducing imports
- Meeting government targets
- Tackling climate change

Wind power has a carbon footprint:

99% less than coal-fired power plans

98% less than natural gas

75% less than solar

Wind Farms and Climate Change

What is Climate Change?

Climate is the average weather we experience over many years. The rapid climate change we are now seeing is caused by humans using oil, gas and coal for their homes, factories and transport.

Average global temperatures have risen by more than 1°C since the 1850s.

We are already seeing the negative impact of climate change. Unless action is taken, temperatures will continue to rise and we will experience catastrophic impacts.

The impact of Climate Change?

Environment

We are already witnessing changes to our environment such as the melting of ice caps and glaciers with low lying and coastal cities at particular risk of flooding.

Climate change is expected to worsen the frequency, intensity, and impacts of some types of extreme weather events. For example, increases in temperatures have resulted in a greater risk of wildfires like those recently seen in the USA and Australia.

People

Climate change is affecting people in far-reaching ways. Things that we all depend upon and value — water, energy, wildlife, agriculture, ecosystems, and human health — are experiencing the effects of a changing climate.

These extreme weather events (floods, storms and wild fires) will become more common and intense, threatening lives and livelihoods.

Nature

There is already evidence that animals, birds and plants are being affected by climate change in both their distribution and behaviour.

Changes are happening so fast that many species do not have time to adapt to the loss of habitats or food and will soon become extinct.

For example, the loss of sea ice has already seen large reductions in the numbers of Polar Bear species whilst increasing sea temperatures has dramatically impacted coral reefs – a vital habitat for many sea creatures.

Impact in the UK

Changes to the climate are also being felt in the UK.

Our winters are becoming warmer and wetter resulting in increased flooding. Whilst our summers will become hotter and drier meaning the likelihood of droughts will increase.

People, nature, and infrastructure are already vulnerable to a range of climate impacts today and these will only increase in the coming years as the climate continues to change.

Proposed Timeline

Repower Preparation

We are exploring opportunities to replace the existing Windy Standard 1 turbines with new, modern turbines that utilise the latest technology.

Consenting

We want to apply to the Scottish Government for consent by Winter 2021. Ahead of then we will undertake a range of public consultation and seek to gather as much feedback as possible.

The application will be supported by an Environmental Impact Assessment (EIA) report that will show the results of all studies undertaken. The EIA report will be publicly available. Interested parties can formally comment on the application.

Construction

12-18 months

If approved, construction usually begins one year after consent.

Construction can take between 12 and 18 months, and planning conditions will be used to manage certain elements of construction.

Operation

35 years

The community fund will be active throughout the lifetime of the wind farm to support local projects.

Decommissioning

12 months

A decommissioning plan will form part of the application.

At the end of the operational period, turbines are removed and the site restored.

A financial bond will be put in place to cover the cost of decommissioning. Alternatively we will explore options to repower the site.

Next steps

We will be holding a public exhibition, launching in November. We will continue our consultation prior to submitting an application in Winter 2021. The full suite of application documents will be made publicly available at this time.

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