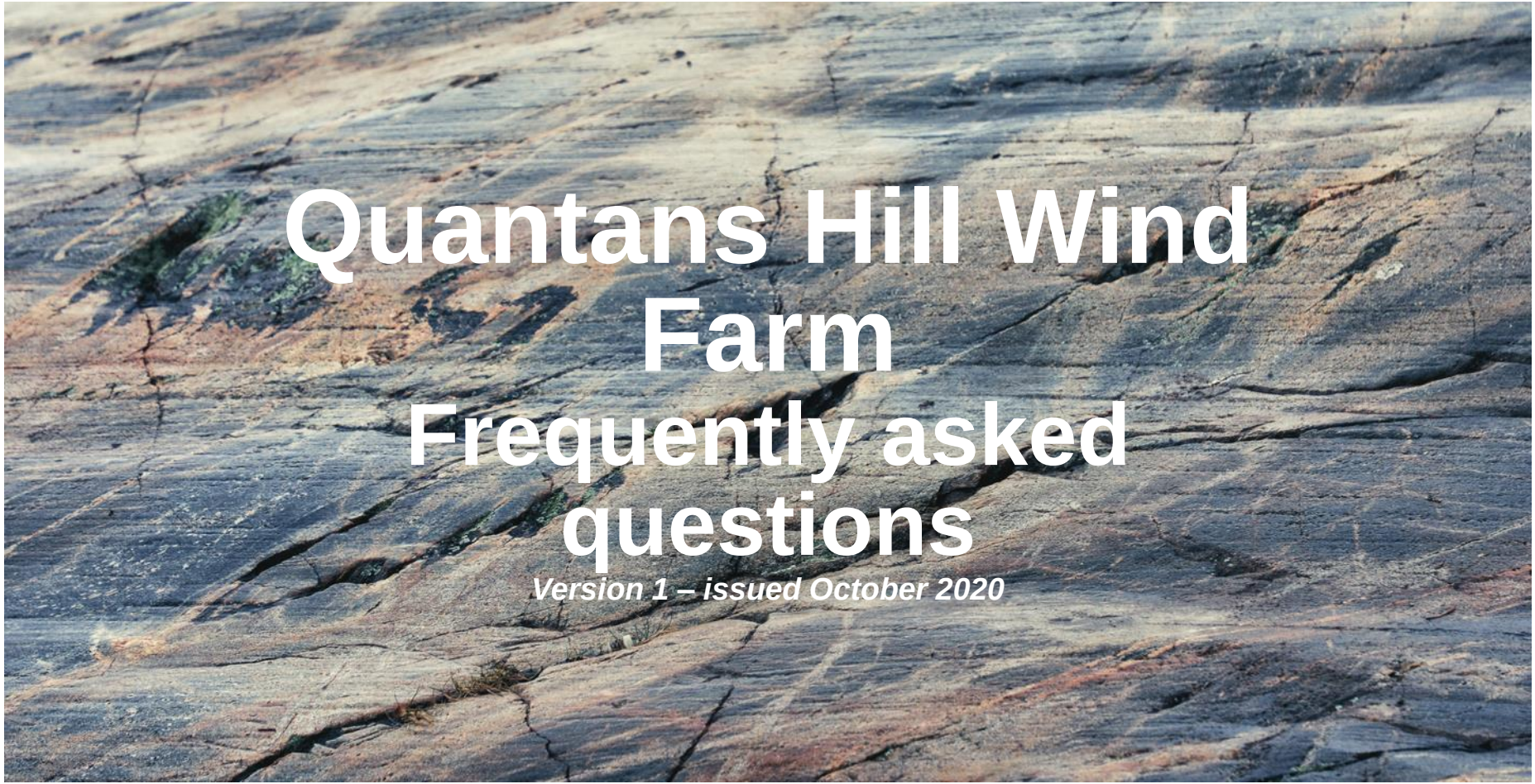


Quantans Hill Wind Farm
Frequently asked questions

Version 1 – issued October 2020

About the project and developer

Quantans Hill wind farm (1)

Q: Where is Quantans Hill wind farm?

Quantans Hill is a proposed wind farm in Dumfries and Galloway. The site is around 2km east of Carsphairn, on land that is currently upland grazing, although also subject to separate forestry planting applications. You can view a map of the proposed site here.

The project takes its name from a hill in the centre of the site.

Q: What is being proposed?

The proposals for Quantans Hill Wind Farm are an early stage and represent the scheme at its greatest possible extent of 21 wind turbines, up to 250m tip height, plus battery storage and related infrastructure. You can view the proposed layout map here.

Based on our calculations, this proposed configuration of taller turbines will enable the best possible use of the sites excellent natural wind resource, generating enough renewable electricity to power around 110,000 homes annually and, in turn, generating a community investment windfall for the local area worth up to an equivalent value of around £163,000 every year for the lifetime of the wind farm.

Quantans Hill wind farm (2)

Q: What stage are the plans at?

The proposals for Quantans Hill are at an early stage with the design very much in its first iteration. This is based on around three years of research, assessing the potential of the location and how the excellent wind resource can be harnessed efficiently and sympathetically to the landscape and topography.

We are now seeking initial feedback and undertaking detailed impact assessments, all of which will input to the next stage of the scheme design.

Q: Will the proposal change?

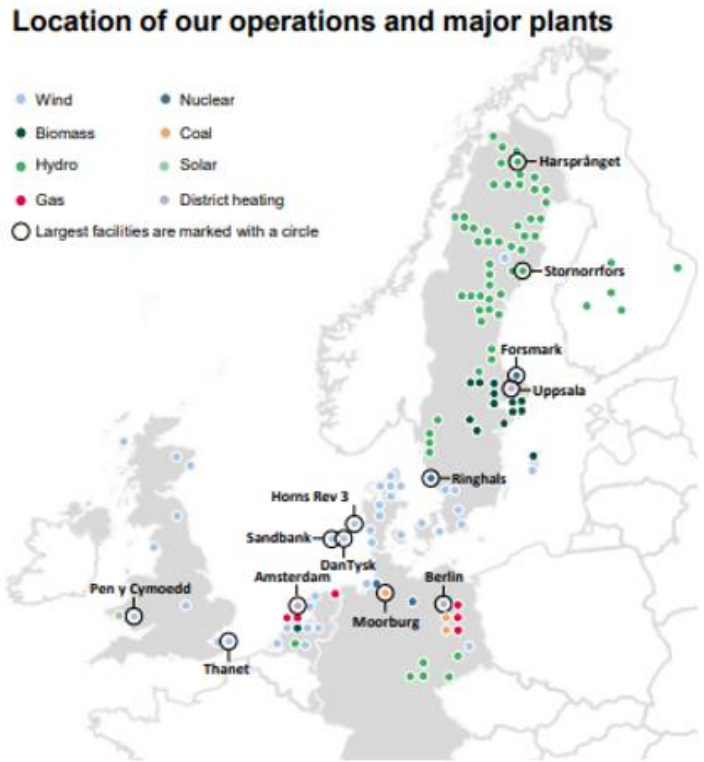
Almost certainly. However, as the proposals submitted to scoping represent the greatest possible extent of Vattenfall's plans for Quantans Hill Wind Farm, the scheme could get smaller but not any larger. For example, the turbines could be under – but not over – 250m in height. There may also be fewer than the 21 turbines presented at scoping.

We are now in the process of conducting detailed impact assessments and gathering local feedback. This will enable us to scrutinise the plans and adapt them accordingly.

Who is Vattenfall?

Basic facts

- One of Europe’s largest producers of electricity and heat.
- 100% owned by the Swedish state.
- Main products: electricity, heat, gas, and energy services.
- Main markets: Sweden, Germany, the Netherlands, Denmark, and the UK.
- Almost 20,000 employees.
- Founded in Sweden in 1909 as Kungliga Vattenfallsstyrelsen (‘the Royal Waterfall Board’)



What is Vattenfall's experience in the UK?

Vattenfall – over a decade in the UK

- Entered the UK market in 2008.
- Since then, we have invested over £3.5 billion in the UK energy system.
- 1GW of wind in operation, enough to power nearly 1 million British homes.
- District heating and electricity networks business launched in 2018.
- In Scotland, we have operational and development projects at:
    - South Kyle, Dumfries and Galloway
    - Whiteneuk, Dumfries and Galloway
    - Quantans Hill, Dumfries and Galloway
    - Aberdeen Offshore Wind Farm
    - Edinbane, Skye
    - Clashindarroch I & II, Aberdeenshire
    - Aultmore, Moray
    - Ourack, Moray
    - District heating: Shawfair, Midlothian

Landscape and visual impact

Q: How will the wind farm affect the landscape, and will it be visible from my home?

Vattenfall recognises the wide range of opinions people may have on the visual impact of wind farms. For some, they are problematic and unwelcome. For others, they are welcome additions and a positive symbol of the changes we need to make to combat climate change. Others simply don't have an opinion. Points of view – literally and figuratively – on wind farms are many and varied.

Taking all of these views into consideration is important in finding the right balance and we use landscape topography wherever possible to inform our wind farm design. Vattenfall will also conduct a detailed landscape impact assessment as part of our planning application.

To assist with this, and to help local people understand how the wind farm may look from numerous points across the area, we have produced a virtual 3D model, 'drivethroughs' of local routes, vantage point representations and Zone of Theoretical Visibility (ZTV) maps. We also have the capability to provide bespoke 3D modelled viewpoints from particular addresses in the near vicinity of the wind farm. We will need to show interested people what this looks like virtually and we would be happy to book a 1:1 session with anyone interested in seeing this.

Local residents (1)

Q: What impact will there be in terms of noise or shadow flicker?

Wind farms individually and cumulatively face strict planning requirements about the amount of noise they can generate during their operational periods, and this will be an important aspect of the scoping now being undertaken as part of the Environmental Impact Assessment for Quantans Hill. In this regard, Vattenfall's proposals will be limited by current planning restrictions and guidance.

As with noise, the possibility of shadow flicker at nearby properties will be 'designed out' of the wind farm through careful turbine location relative to properties. Where turbines cannot be moved, mitigations exist to prevent shadow flicker causing annoyance, for example by stopping certain turbines turning when the risk of shadow flicker is high.

Local residents (2)

Q: Will local property values be affected?

There are a variety of studies about the impact of wind farms on house prices. One of the largest studies is by the Centre of Economics and Business Research (2014) which analysed 82,000 property transactions within a 5km radius of wind farms in England and Wales,
and concluded that house prices followed broader trends identifiable within the relevant county.

Q: Will there be aviation lighting?

Yes, all structures in the UK over 150m require aviation lights as part of international regulations. The impact of aviation lighting on the night sky will be a particular focus of our environmental impact assessment. Aviation lighting effects can be minimised in a number of ways, including through reductions in the number of turbines with lights.

By its nature, aviation lighting is designed to be seen by aircraft passing at height and is therefore much less visible to those close by and at ground level. We will work hard to present a realistic depiction of aviation lighting which we believe will reassure local people.

Local residents (3)

Q: Aren't there enough wind farms locally already?

If Scotland, the UK, and the rest of the world is to achieve carbon emissions targets, more renewable energy sources will be required everywhere. Onshore wind remains is the cheapest ways to generate renewable electricity, and Quantans Hill Wind Farm would mark a significant step closer to achieving a fossil-free future. In addition, as our society moves away from fossil fuels to heat our homes and fuel transport, we will all need to consume more electricity.

Dumfries and Galloway is abundant in wind resource and remains highly attractive to wind developers. Ensuring such developments benefit not only the climate but the local area is, we believe, the responsibility of developers, and that's why Vattenfall is committed to working with communities and agencies to deliver tangible benefits for those who live, work and visit in the local area. We are working hard to deliver this at South Kyle, a 50-turbine wind farm now being constructed north of Carpshairn.

We believe if Vattenfall does not take forward this development, someone else will. We want to present the best case to the community that we are responsible partners committed to bringing a range of real, positive benefits to the region and should therefore be the area's 'developer of choice'.

Local residents (4)

Q: Will local water supplies be impacted?

We are aware of the Scottish Water assets within the broader wind farm site boundary supplying the village of Carsphairn. Protecting the integrity of this infrastructure will be of upmost importance in the design and construction of the wind farm. Excavations close to public and private water supplies are strictly regulated. We will liaise with the water authorities and regulators through the planning process of the wind farm.

Ecology and ornithology (1)

Q: How will Quantans Hill protect and enhance the local environment and natural habitats?

Vattenfall is committed to protecting the natural environment around our wind farms. As part of our assessment of Quantans Hill, we have spent several years surveying the site across the seasons to understand what birds, bats, protected mammals, fish, and plants live here.
Like any form of development, wind farms can affect the wildlife around them.

There are a number of ways we address potential adverse environmental impacts:

- *Through site design, for example the size, number, and location of turbines*
- *Through mitigation during operations, for example managing habitats onsite to encourage wildlife to visit parts of the site where there are no, or fewer, turbines*
- *Through compensation, for example creating new habitats to replicate or improve habitats affected by the location of infrastructure*

In addition, through their habitat management plans, wind farms are one of the driving forces in British uplands for habitat improvement. For example, our Pen y Cymoedd wind farm in Wales is a key part of one of the country's largest peatland restoration projects benefitting a wide range of rare species such as nightjar.

Wind in the energy mix (1)

Q: Aren't wind farms unreliable?

There is nearly 14GW of onshore wind operational in the UK today. There is around 8GW of offshore wind. Onshore wind is the dominant form of renewable generation in the UK system and generated 29TWh of electricity in 2017. That's equivalent to the annual demand of over 7.5 million British homes.

There are times when wind output is low and that is why a balanced energy mix is important. However, it is a misconception that wind is frequently unavailable during times of high demand. The windiest time of year (winter) coincides with points of highest electricity demand. For example, during the 2018 'Beast from the East', wind power was Britain's dominant energy source and on 2 March 2018, wind provided 36% of Britain's power, compared to gas (20%), nuclear (18%), and coal (13%).

Wind in the energy mix (2)

Q: Aren't you just doing this to secure public subsidy?

Though in the past onshore wind was subsidised by the Government, subsidies were ended in 2016. Consistent financial support for onshore wind has been a huge policy success, so much so that onshore wind is now the cheapest way to generate power, bar none.

Any future 'contract for difference' auctions (Government low-carbon power support mechanism) available for onshore wind is very likely to see the billpayer 'paid back' by the onshore wind sector in exchange for revenue certainty – a 'win-win' for industry and the public. It has been estimated that additional onshore wind operating under the 'contract for difference' scheme in the 2020s will actually lower household bills by replacing older, more expensive polluting power plants.

Q: Aren't you just doing this to secure 'constraint payments'?

Constraint payments are available to all power producers when the electricity grid has insufficient capacity to transport generation. Any income received as 'constraint payments' are a very small part of a wind farm's revenue. Constraint payments are forecast to decline significantly following the commissioning of a major new subsea power cable from Scotland to England (the 'Western Link')

Traffic and transport

Q: How will traffic access the site?

Should our proposals proceed and achieve consent, it will be some years before Quantans Hill Wind Farm would be built. We anticipate that this would commence no earlier than 2025. Prior to that, on site activity will be very limited to environmental studies with light passenger vehicles.

When building a wind farm, Vattenfall is committed to working with local communities, authorities and contractors to both minimise disruption and maximise opportunities. Turbine delivery routes are being explored. However, the most likely route will be from Glasgow south along the M77 towards Kilmarnock, the A77 towards Ayr, and then the A713 towards the site.

The impact on local road users will be explored as part of the wind farm's planning application and conditions will be agreed with the relevant authorities regarding traffic movements should we be granted consent, such as limiting the number and timings of site deliveries. Whilst some disruption is inevitable, Vattenfall will try to keep this to a minimum. Some road users may also note an improvement in road condition and quality after the development, including improved surfacing, road widening, and more passing places, especially on roads close to the site.


Socio-economic issues

Socio-economics (I)

Q: Will the wind farm create jobs?

More than 70% of Vattenfall's onshore wind expenditure in the UK is with British businesses. There are a range of opportunities from very local small businesses to multi-national companies. Typical opportunities for British businesses cover everything from civil and electrical engineering, environmental studies, plant and equipment hire through to communications, security, and cleaning. In the longer term, the wind farm will require technicians to operate and maintain the facility on a daily basis over its lifetime.

Q: Will local heritage be protected?

Yes. Protecting heritage assets is an important factor in our development of proposals for Quantans Hill Wind Farm. The scheme design will be adapted to accommodate archaeological and heritage assets on site and in the wider vicinity.

Where impacts are unavoidable, it is of course an opportunity to responsibly excavate and learn more about the lives of our ancestors.

Socio-economics (2)

Q: How will the wind farm impact tourism?

The importance of tourism to the local economy cannot be underestimated, and Vattenfall appreciates that some people may be concerned about the potential impact of Quantans Hill Wind Farm.

Whilst individual opinions vary, there have been a number of studies which show no relationship between wind farms and tourism. For example, a 2017 study by BiGGAR Economics showed that between 2009 and 2015, onshore wind increased by 121% in Scotland whilst over the same period the number of people employed in tourism rose by 15%. This includes areas with higher proportions of onshore wind than other parts of Scotland.

Studies for the Scottish Government have also found that 64% of tourists polled either had positive or no feelings towards wind farm development. In addition, a 2012 Visit Scotland survey of tourist attitudes found that 80% of UK respondents said their decision on where to go would not be affected by a wind farm.

We do, however, appreciate concerns about tourism and are committed to exploring how the proposed wind farm can support the area's tourism aspirations and actively supporting local accommodation providers should construction go ahead.

Community investment

Community investment (I)

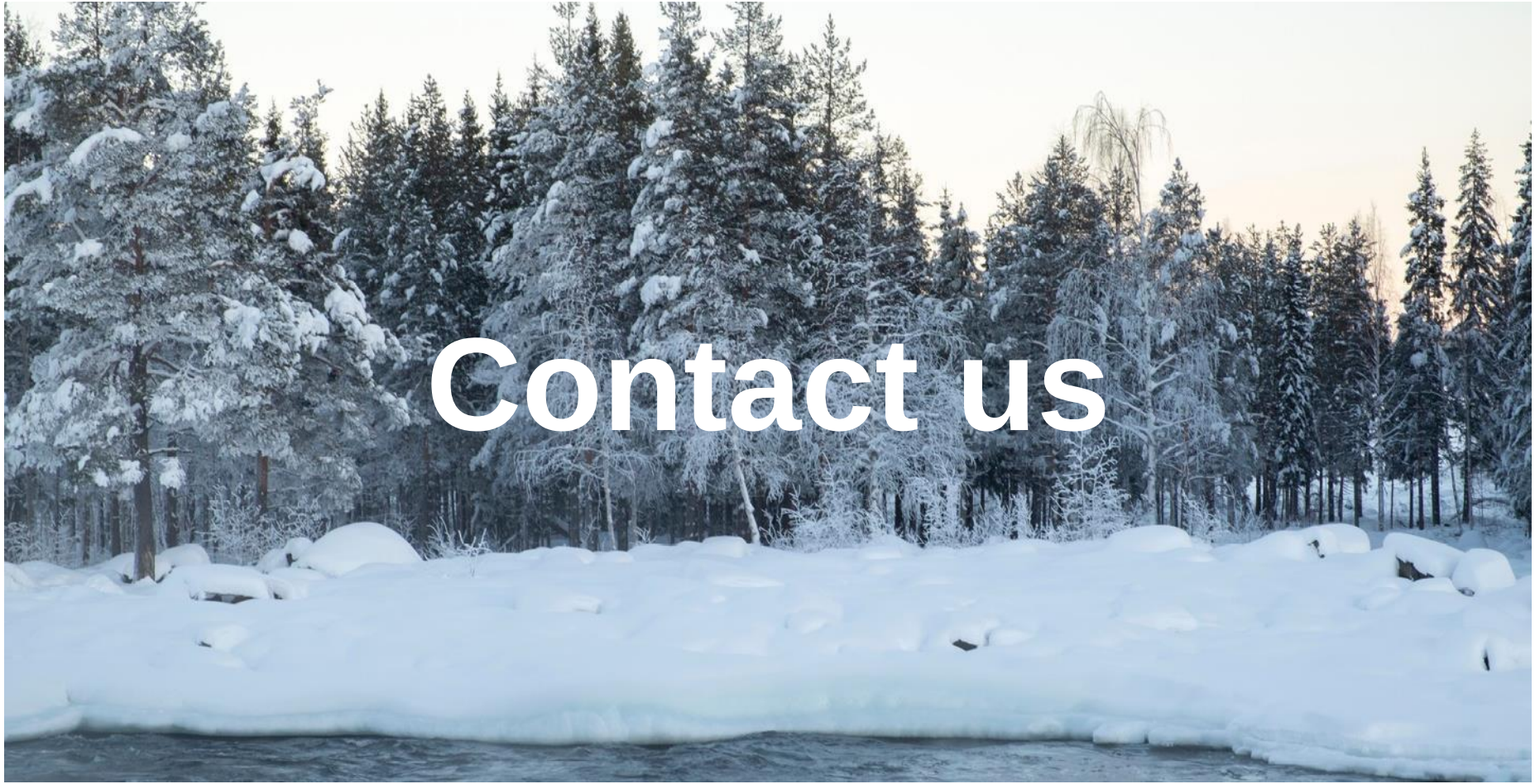
Q: How will community benefits be delivered?

If approved, Quantans Hill Wind Farm could bring many benefits to local communities, including community investment worth equivalent of up to c.£630,000 each year at the scheme's greatest extent, or £18.9 million over the lifetime of the development.

The local communities will have the final say over how this investment is used. This could be as a traditional Community Benefit Fund supporting annual grants to local projects. Or, the investment could be used to tackle specific challenges facing local communities.

Q: Will shared ownership be offered?

Yes. Vattenfall will offer local communities the opportunity to acquire an interest in Quantans Hill Wind Farm, subject to their being sufficient interest. We would be pleased to discuss this option further with interested groups and individuals.



Contact us (1)

Q: How can I get in touch with the team.

Please email Matt and Carol at QuantansHill.Windfarm@Vattenfall.com or call us on 01563 595 044.

Q: How are you engaging with the local community?

Vattenfall is engaging with local communities by post, email, phone and through digital means.

Q: What impact will Covid have on your plans for engaging with the community?

Vattenfall takes Covid precautions extremely seriously. Safety and wellbeing are paramount both for our own teams and for local communities, and for that reason traditional face-to-face engagement events and meetings are currently on hold. This remains under regular review and we hope to resume face-to-face engagement as soon as possible. In the meantime, we will be engaging digitally or over the phone.

Q: Where can I find out more?

Please visit the Quantans Hill project webpage here.