



Lees Hill Renewable Energy Park

EXHIBITION BROCHURE
October 2022





Welcome

Welcome to our public exhibition about our proposals to develop Lees Hill Renewable Energy Park, which is located to the south of the Lammermuir Hills, approximately 5km west of Duns.

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 ambitions

We hope that these materials provide you with useful information. We welcome your feedback and opinions. Please complete a feedback form or contact the team to discuss the plans further.



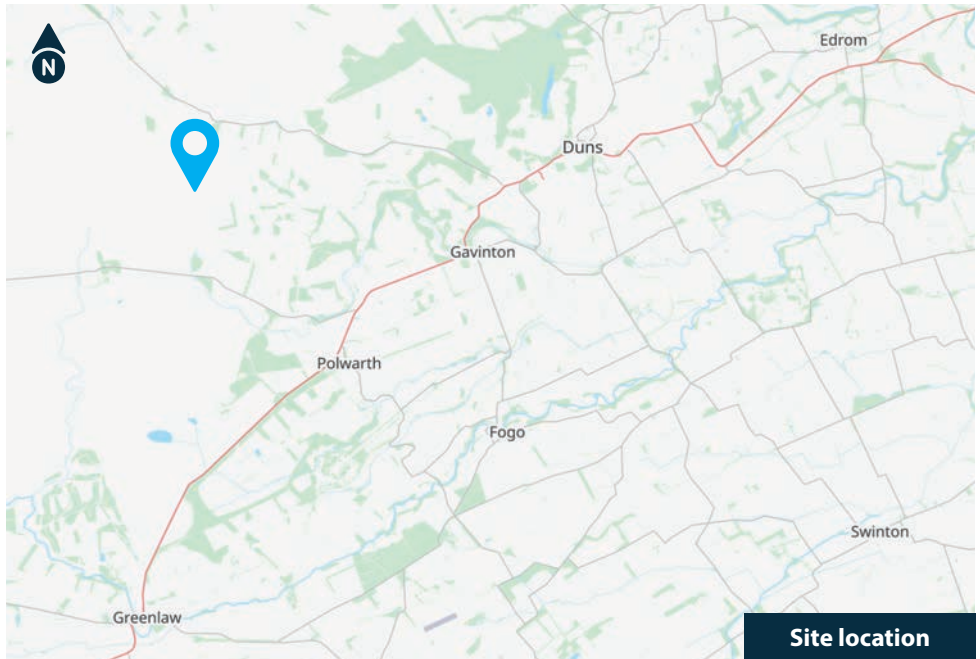
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About Fred. Olsen Renewables

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

With over twenty-five years' experience in consenting, developing and operating wind farms, we are one of the very few developers that take a project all the way from initiation and development, through to operation and ultimately decommissioning.

We have substantial experience in the Scottish Borders, our project Crystal Rig Wind Farm has been operational since 2003 and has delivered a range of benefits locally.

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

Our Proposal

We have been exploring the potential to develop Lees Hill Renewable Energy Park for over four years. Our plans are still at a very early stage, and we hope to gather initial feedback that will, alongside the results of the technical assessments, inform the final design of Lees Hill Renewable Energy Park. This will be subject to further discussion and consultation locally.

We hope this exhibition will:

- Outline our proposals for the site
- Detail the opportunities that Lees Hill Renewable Energy Park will present locally
- Help us to understand local priorities and answer your questions

At this stage, the main components of the proposed development are:

- Up to 7 wind turbines with a height of up to 200m to tip
- Turbine foundations and hardstandings
- A battery storage facility (up to 60 MW)
- Ground-mounted solar photovoltaic (PV) panels (up to 60 MW)
- A network of new and upgraded access tracks
- An anemometry mast for wind monitoring
- An onsite substation and control building
- Temporary construction compounds, laydown areas and car parking



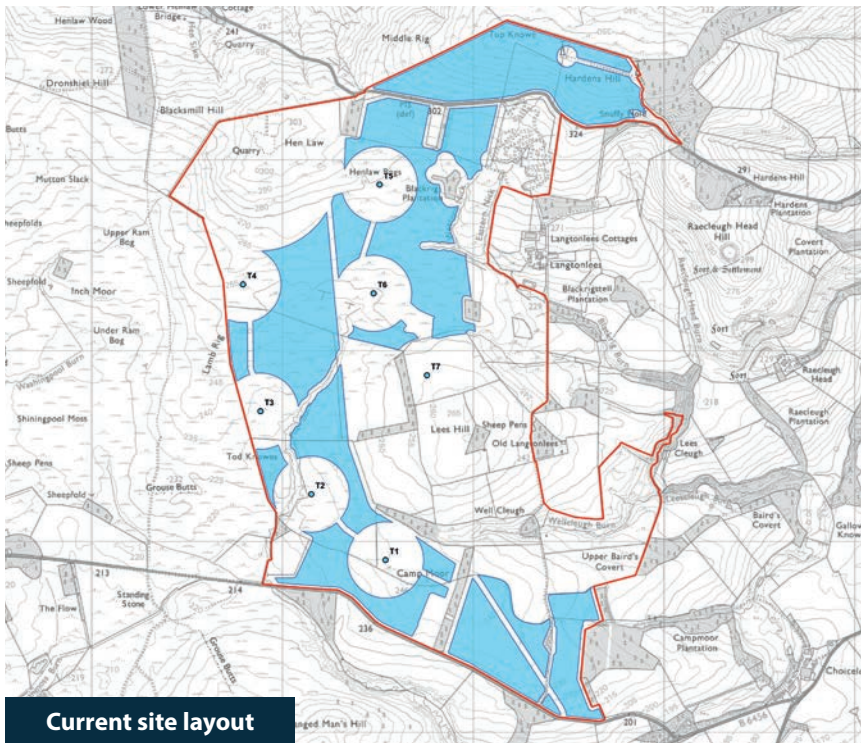
Layout and Design Process

Many factors will determine the final layout of Lees Hill Renewable Energy Park, and the location of turbines, solar panels and battery storage. This includes:

- Visual impact
- Impact on sensitive habitats
- Proximity to areas of ecological interest
- Wind resource
- Engineering constraints
- Community comments
- Neighbouring properties

Some of these issues will not be fully identified until the technical assessments are finished. This means that the layout you see today may be different from the layout submitted with the application for consent.

We will ensure that the local community and key stakeholders are consulted throughout the development of our proposal and on the final layout.



Development Process

We are currently undertaking the scoping and consultation of our development process for the proposed development.

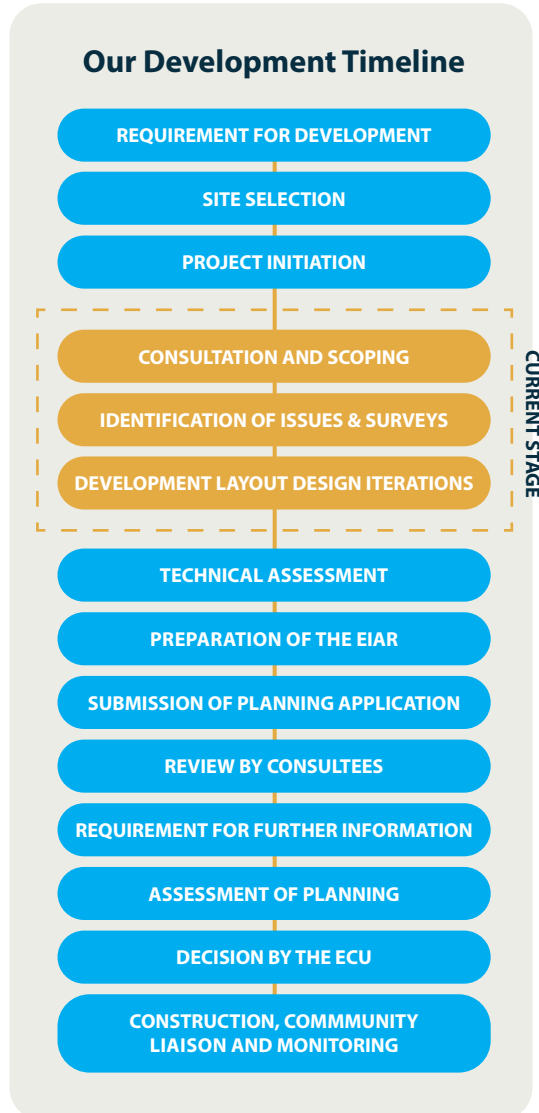
We submitted a Scoping Report to the Scottish Government Energy Consents Unit (ECU) in July 2022. This described our draft proposal and invited the views of consultees on the scope of the Environmental Impact Assessment (EIA).

The Scoping Opinion that we receive will determine the scope of the EIA.

Baseline surveys are ongoing 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 effects of the project in the Environmental Impact Assessment Report (EIAR). The EIAR will accompany the application for consent to the ECU.

The EIAR will consider:

- Ornithology
- Ecology
- Landscape and visual
- Noise
- Hydrology, geology and hydrogeology
- Cultural heritage
- Access, traffic and transport
- Socioeconomics, recreation and tourism
- Telecommunications
- Aviation
- Existing infrastructure
- Climate change





Environmental Impact Assessment

Environmental Considerations

An Environmental Impact Assessment (EIA) is being undertaken to identify and assess the potential significant environmental effects of the proposal. 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

This assessment considers any potential effect on local bird assemblages. Extensive ornithology surveys have been completed and, dependent on scoping responses from consultees, no further surveys are proposed.

Ecology

This assessment considers the local flora and fauna, except for birds which are assessed separately. Habitat and protected species surveys have been undertaken within the site which include bats, water vole, otter, badger, red squirrel, and pine marten. Depending on scoping responses from consultees, no further surveys are proposed to support the planning application.

Cultural Heritage

This assessment considers the cultural heritage assets near the site and helps to inform the design of the proposal and appropriate mitigation techniques.

Careful consideration will be given to any potential impacts upon cultural heritage assets, such as the cairn on the south western summit of Hen Law.

Hydrology, Geology and Hydrogeology

This assessment considers the hydrological, geological and hydrogeological characteristics of the proposed development site, and helps to inform appropriate mitigation proposals, if they are required.

There are some mapped areas of peat on the site and whilst considering other constraints, the layout will be designed to avoid deep peat as far as possible.

Aviation and Existing Infrastructure

This assessment will consider the potential effects of the proposed development on civil and military aviation interests. Telecommunications operations will also be considered.

Socioeconomics, Recreation and Tourism

Predicted socioeconomic, recreational and tourism effects of the proposed development will be outlined within the Environmental Impact Assessment Report (EIAR). This includes benefits on local, regional and national levels during the construction and operational periods of the proposed development.

Noise

This assessment will consider the effects of both construction and operational noise on nearby sensitive receptors, including in combination with other nearby wind farms. No perceptible ground-borne vibration is expected from the operation of the proposed development.

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 has identified that turbine component deliveries will come from the Rosyth Dockyard to site via the

B981, M90, M8, A720, A68, A697, and B6456. However, a number of options are currently being investigated for final site access and will be assessed as part of the EIA.

Climate Change

Wind farms have the potential to make savings on greenhouse gas emissions compared to electricity that is generated using fossil fuels.

We will assess the magnitude of greenhouse gas emissions of the proposed development throughout its lifetime, including assessing the potential impacts on peat, and the period of time it takes to payback for those carbon emissions compared with a scenario where there is no development.





Landscape and Visual Impact

Once the design layout has been finalised, a full Landscape and Visual Impact Assessment (LVIA) of the proposed development will be carried out. This will 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
- **Visual amenity** – changes in the appearance of the landscape

The proposed development will be analysed to identify elements with the potential to cause an effect on the landscape within the specified study area.

Photomontages and ZTV

The images presented at this exhibition have been prepared to illustrate the visual impact of the proposed draft wind turbine layout from four viewpoint locations. Photomontages from each of these viewpoints have had wind turbines added using computer generated software.

We are at the early stages of our design for the solar and battery storage elements of this project and are still undergoing assessment to ensure an appropriate layout is designed. Therefore, a photomontage has not been included for the solar and battery storage elements at this exhibition.

These photomontages will be available and subject to consultation ahead of an application submission.

A preliminary Zone of Theoretical Visibility (ZTV) diagram has been generated for the proposed development that indicates the number of turbines and solar panels theoretically visible from any location within the study area.

This means that from those areas that are coloured you may be able to see the proposed development. The different colours let you know how many wind turbines you may be able to see.

The ZTV does not consider trees and buildings. These can often screen views so that fewer or no turbines/solar panels are actually visible. The ZTV gives an initial idea of those areas from which you may be able to see the proposed development. This is checked by landscape architects during site visits.



Why a Renewable Energy Park?

We are proposing to bring forward a Renewable Energy Park that combines three technologies:



Wind turbines



Solar panels



Battery storage

By integrating these power sources, we can secure a more consistent energy supply.

It also allows us to come forward with an efficient development that will maximise the energy generated at the park - creating the first of its kind in the Scottish Borders.



Benefits of a Renewable Energy Park

- Allowing for the installation of a single grid connection which will enable us to use the full grid connection capacity more – increasing the overall production
- The storage will also allow the opportunity to store excess electricity to transport to the grid when the parks output is low
- Provides the opportunity to showcase the relationship between renewable technologies working together to solve Scotland's climate crisis



Renewable Energy and Climate Change

What is Climate Change?

Climate is the average weather we experience over many years, climate change is the change we are seeing in these averages conditions. 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. 2015, 2016, 2017, 2018, 2019 and 2020 were the hottest years ever recorded. Scotland, and the rest of the world is in the midst of a global climate emergency.

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 such, with worsening droughts, greater sea level rise and mass extinction of species. We all have a role to play.

The Impact of Climate Change

Environment

We are seeing 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.

Why Renewable Energy?

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.

By bringing forward more renewable energy in Scotland, we are:



Reducing our reliance on fossil fuels



Improving energy security by reducing imports



Meeting Scottish and UK Government targets



Tackling climate change



Community Benefit

We believe that there are many opportunities for local residents to benefit from Lees Hill Renewable Energy Park.

The project is unique in that it will deliver different renewable technologies alongside each other. We are proposing that the development will deliver community benefit equating to:



**£5,000 PER MW OF
INSTALLED CAPACITY**



**£500 PER MW OF
INSTALLED CAPACITY**

This has the potential to provide over £7m throughout the lifetime of the project.

We want to work closely with the communities surrounding the proposed development to ensure that the community benefit fund is structured to be able to address local and regional needs, meeting challenges such as:

- ✓ Fuel poverty
- ✓ Energy efficiency
- ✓ Housing stock
- ✓ Recreation
- ✓ Connectivity
- ✓ Tourism

Our experience

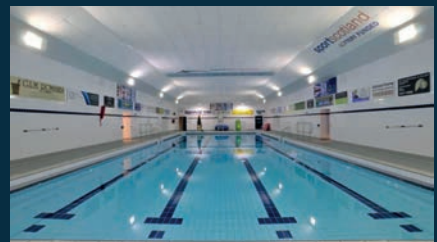
We believe that our wind farms can be an asset to the local area, supporting the local economy and helping to meet local aspirations. Each year Fred. Olsen Renewables provides over £600,000 to eligible communities surrounding our wind farms, amounting to more than £6m to date.

Duns Swimming Pool

Crystal Rig Wind Farm

The community benefit funds from Crystal Rig Wind Farm have helped many local children master the important life skill of swimming. The funding provides children with access to free swimming lessons from birth. In addition, all local residents benefit from subsidised pool membership. Helping to build confidence in the water, provide a social outlet and keep kids active.

This initiative has also helped to support Duns Swimming Pool, a local charity, allowing it to reinvest in the facilities and provide a valuable service.



Supply Chain

We always seek to employ local services during the construction and operation of our wind farms. If you, or your company, would like to register your services please contact suppliers@fredolsen.co.uk.

To support our efforts in engaging local businesses, we are members of the Scottish Borders Chamber of Commerce. We hope to work alongside the Chamber to engage businesses as our plans progress.

£296

million of contracts signed with Scottish businesses



203

Construction jobs
(Full Time Equivalent)



2,031

Construction Job Years
(Per Year Equivalent)



64

Operational & Maintenance Employment
(Per Time Equivalent)

£6.3

million funding for the local community throughout the lifespan of our wind farms



£37

million contribution to Scottish GVA



Proposed Timeline

Site Selection

There were proposals for a wind farm at the site in 2015 by a different developer. Fred. Olsen Renewables has been exploring the potential to develop a project here since 2018.

Research has been ongoing and shows good wind speeds and minimal constraints on site.



Planning

We hope to apply to the Scottish Government for consent in 2023.

Ahead of then we will undertake a range of public consultation exercises and seek to gather as much feedback as possible.

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



Decommissioning

12 months

A decommissioning plan will form part of the application.

At the end of the operational period the site will be restored. A financial bond will be put in place to cover the cost of decommissioning.

Alternatively, there is the opportunity to explore repowering the project with new, modern technology. This would be subject to further community consultation.



Operation

35 years

We will be applying for permission to operate Lees Hill Renewable Energy Park for 35 years. The community fund will be active through this period.



Construction

12 – 18 months

If approved, we would look to commence construction approximately one year after consent.

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

Next steps

We hope that you will be able to attend our events in October. If you have any questions, please do not hesitate to get in touch.

Feedback

Thank you for taking the time to consider our proposals.

Please do not hesitate to get in touch should you have any questions and complete a feedback form.



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