

Environmental Impact Assessment (EIA) considerations

Site selection

The wind resource, site accessibility, topography, proximity to housing, local ecology and wildlife, waterbodies, peatland, cultural heritage assets and grid connectivity are some of the key considerations for the site selection and then layout design of a proposal like Torfichen Wind Farm.

Since the site selection, the Scottish Government published the National Planning Framework 4 (NPF4) in February 2023 which provides the national spatial strategy for Scotland. Policy 11 asserts support for onshore wind farms outside of National Parks and National Scenic Areas. Torfichen is outwith such national landscape designations.

Environmental Impact Assessment (EIA)

Environmental Impact Assessments (EIAs) are a compulsory part of the planning and consenting process for wind farms. The purpose of an EIA is to investigate and mitigate any potential effects of a development on the natural, physical and human environment.

Over the last couple of years, RES has undertaken a wide range of technical studies and environmental surveys on the site, including:

- Acoustics
- Archaeology and Cultural Heritage
- Hydrology, Hydrogeology and Geology
- Landscape and Visual
- Ornithology and Ecology
- Traffic and Transport

The findings from the site studies are written up in a comprehensive Environmental Impact Assessment Report (EIAR) which the Scottish Ministers will take into account when deciding whether or not to grant consent for the proposal.

Landscape and visual

Our landscape architects have undertaken extensive assessment work to inform the design development and turbine layout. Key changes (since the scoping design) include the reduction in turbine numbers from 19 to 18 and the movement of each wind turbine location to varying degrees to refine the design and minimise impacts wherever possible.

The photomontages and wireline visualisations presented at this exhibition have been prepared to NatureScot guidance and help to give an impression of what the proposal could look like from different viewpoints in the area.

We are looking to achieve a design that strikes an acceptable balance between the visibility of the proposal and its ability to generate significant amounts of renewable energy. Ultimately, the acceptability of this design will be assessed by the determining authority in relation to current energy policy and planning requirements having considered feedback from consultees as well as representations by members of the community and wider public.

Residential visual amenity

The Residential Visual Amenity Assessment (RVAA) is an important component of the wider Landscape and Visual Impact Assessment which is undertaken as part of the EIA. Following feedback through the Scoping process and public consultation we have been working carefully on the layout design to minimise potential impacts of the proposal on residential amenity by increasing the separation distance from wind turbines to settlements and residential properties.

Private water supplies

RES has collected Private Water Supply (PWS) data from Midlothian Council to establish the PWS source locations and source types in order to inform the PWS assessment that will be presented in the EIAR. The findings of the assessment will inform what further work would be required, if any, which may include baseline monitoring of relevant PWS, before, during and after construction. Any work associated with PWS post consent will be enforced through planning condition and subject to agreement with Midlothian Council.

Peat

Peat depth surveys and assessments have been undertaken. Peat is not uniform across the site and deeper peat is being avoided.

Typically, wind farms pay back the carbon within 1-3 years and operate carbon free thereafter. A carbon balance assessment will be provided in the EIAR. This will also be supported by a Peat Management Plan and an outline Habitat Management Plan.

Cultural heritage

Whilst there are no designated heritage assets within the site boundary area there are many non-designated and designated heritage assets in the surrounding 5km study area. The updated layout design lessens the potential effect upon the setting of such assets.

The Cultural Heritage chapter of the Environmental Impact Assessment Report (EIAR) will provide assessment of the impacts of the development on heritage assets identified and agreed in consultation with Historic Environment Scotland.

Ecology and Ornithology

Protecting and minimising any potential direct or indirect impacts on local wildlife and their habitats is of utmost importance and we take this responsibility seriously. A wide range of ecological and ornithological studies have been undertaken as part of the Environmental Impact Assessment work.

We are also in consultation with relevant consultees, including Midlothian Council, NatureScot, RSPB Scotland, and the Forth District Salmon Fishery Board with regard to designated sites, protected areas and protected species.

We are also developing an outline Habitat Management Plan for the site.