

EIA considerations

Hydrology and hydrogeology

The proposal has the potential to cause changes to the baseline hydrological and hydrogeological conditions on the site and to the receiving water environment so the EIA process has sought to identify sensitive water environment features; assessing potential impacts and proposing mitigation where required.

A number of studies and assessments have been carried out to map the groundwater dependent terrestrial ecosystems (GWDTE), groundwater, water supplies and surface water features, and other potential water environment receptors.

The mapping of private water supplies forms a key part of the hydro and hydrogeological work; further consultation has been undertaken to identify the complete water supply infrastructure in the vicinity of the proposed development. A Private Water Supply Risk Assessment will also be developed to accompany the planning application. Any construction work close to water supplies is strictly regulated but please talk to our team if you have any concerns or questions regarding your private water supply.

Should any significant impacts be identified as part of the EIA process, appropriate mitigation will be proposed. Mitigation seeks, first, to avoid adverse impacts and, where impacts are unavoidable, to reduce the significance of residual effect to an acceptable level. It also seeks enhancement and compensation, where possible, to provide the best practicable outcome.

Peat

Initial peat depth surveys and assessments were undertaken across the site to inform the early site layout. This work has been carried out in accordance with current Scottish Government and NatureScot good practice guidance on wind farm construction.

Phase 2 peat depth surveys have been completed, allowing us to create our infrastructure layout including the site tracks, hardstandings and substation, avoiding as far as possible peat deeper than 1m.

Shadow flicker

Shadow flicker is a phenomenon where, under certain circumstances of geographical position and time of day, the sun may pass behind the rotors of a wind turbine and cast a shadow over neighbouring properties. When the blades rotate, the shadow flicks on and off. It only occurs inside buildings, such as where the flicker appears through a narrow window opening. Shadow flicker can be easily modelled and the Killean Wind Farm proposal is being designed in a way that will minimise any potential for shadow flicker. Shadow flicker can be mitigated in a number of ways, including shadow detection technology on relevant turbines to create a shutdown timetable, if necessary.

