

## Environmental Impact Assessment

### What is an Environmental Impact Assessment?

Before we build MarramWind, we need to consider the effects it might have on the environment and community. To do this, we will be completing an EIA that will be presented within two EIA Reports (one for onshore infrastructure and one for offshore infrastructure). The EIA will help us understand any potential environmental effects our project might have, and how we can minimise them. This could involve things like adjusting the layout of the windfarm or using quieter construction methods.

### Approach to assessments

The EIA guides the entire project, from design to the decommissioning of MarramWind. By studying the environment, we can understand how the project could interact with communities, wildlife and ecosystems and how we can reduce or eliminate any potential effects.

<b>Offshore marine and wildlife habitats</b>	We have undertaken various offshore surveys to understand local marine wildlife and habitats, including two years of digital aerial surveys to help identify potential risks to wildlife, and geophysical and geotechnical surveys to understand the seabed. We will undertake noise assessments and data analysis on fish, shellfish, marine mammal and bird species. Modelling will be undertaken to identify changes to sea currents and waves from the windfarm. Good practice measures will be followed to minimise potential effects on water quality during construction.
<b>Fisheries</b>	We are carefully assessing potential effects on commercial fishing activities using data analysis and engagement with key fishery organisations through our dedicated Fisheries Liaison Officers. A range of data sources are being analysed, including fishing catches, spatial vessel monitoring systems and surveillance to characterise local fishing activities. We are assessing potential losses or displacement of fishing grounds and activities due to the windfarm and its construction. A Fisheries Management and Mitigation Strategy will be prepared as part of the EIA.
<b>Shipping and navigation</b>	We are conducting a Navigational Risk Assessment to identify sea hazards for all users, including commercial, fishing, and recreational. We are actively involving vessel operators to gather their input.
<b>Onshore wildlife and habitats</b>	Ecological surveys and data collection are being undertaken where onshore infrastructure may be sited. This includes habitat mapping and protected species surveys (e.g. otter, water vole, badger), bat roost checks and riverine fish habitat surveys. A second year of wintering geese and swan surveys has commenced, which will establish their distribution within the wider project area. Survey work is ongoing including further bat and protected species surveys, breeding bird and vegetation surveys.
<b>Onshore water environment</b>	We are examining onshore water environments, e.g. rivers and reservoirs and assessing potential effects from the project on water quality, water resources, aquatic habitats and potential flood risk. We are engaging with Aberdeenshire Council and SEPA to understand the water environment. Environmental mitigation measures, e.g. mitigation by design and good practices will be explored to mitigate potential effects.
<b>Cultural heritage</b>	The project has identified onshore and offshore local heritage sites and sites of national importance, such as scheduled monuments, listed buildings and archaeological assets. Desk-based research, surveys and site visits will be undertaken to gather information. Where it is not possible to avoid effects from the project, we will explore appropriate mitigation measures with Historic Environment Scotland and Aberdeenshire Council. Any archaeological discoveries will be documented and reported.
<b>Landscape and visual</b>	We have consulted with NatureScot and Aberdeenshire Council to gather data on the local landscape and visual aspects of the area. This information informs the design of onshore project elements to protect the landscape and local visual amenity. The wind turbines will be approximately 75km at their nearest point from the coast and so will be barely visible from the shore. For the onshore infrastructure, we will implement specific environmental and design measures for the onshore infrastructure to minimise potential effects and enhance the landscape, where feasible. The cables will be installed underground.
<b>Traffic and transport</b>	We will work with Transport Scotland and Aberdeenshire Council to assess and develop measures to mitigate any short-term effects on the road network. Management and mitigation plans will be developed and will include a commitment to working with other contractors to manage the effects of multiple sites being developed at the same time. The plans will also include enforcement of any restrictions on timings of deliveries to minimise the effect on people, wildlife, and buildings located nearby the proposed construction access route.  The operation, maintenance and decommissioning of MarramWind is not expected to have any noticeable long-term effects on the local road network.
<b>Air quality</b>	Air quality in the area is generally very good, with long-standing monitoring undertaken by Aberdeenshire Council. Potential effects on air quality could arise from temporary construction activities, construction traffic and dust along the cable route and excavation points, but these will be short-term with mitigation measures implemented through a Construction Environment Management Plan.
<b>Greenhouse gases and climate change</b>	We are considering how to design and plan MarramWind to be resilient to climate change using data to understand how changes in weather conditions due to climate change can affect construction, operation and decommissioning.  Some greenhouse gas emissions will be emitted during construction and installation of the infrastructure, as well as maintenance and decommissioning of the project. A full project life cycle assessment of greenhouse gas emissions will be undertaken to identify appropriate mitigation measures, which will be reported within a carbon assessment.

