

- A personnel bridge connection between the FEP and turbine tower;
- Construction of an onshore crane pad on the FEP; and
- Construction of an onshore Control compound.

In addition to the above components of the operational facility, the construction phase will involve:

- Construction of four lay down areas for the blades, tower, jacket, and nacelle.

Further infrastructure is associated with the Development, however consent for these installations has/will be applied for under separate applications and consenting regimes as detailed below. This is to permit the phased installation of these project elements, and to comply with the consents process for the various legislative regimes which apply to applications in a near shore environment. Details of these infrastructure and associated consents are:

- Erection of a single onshore wind monitoring mast. The mast will not exceed 110 m in height and will be installed for a maximum period of 6 years. A consent for the installation of this mast has been made to Fife Council under the Town and Country Planning (Scotland) Act 1997 (as amended);
- Erection of a single offshore temporary wind monitoring mast, not exceeding 110 m in height from the MSL. This mast will be installed for a period of 3 months and will be removed prior to construction of the demonstration turbine facility. Two applications for Marine Licenses to install this mast have been made to Marine Scotland under the Marine (Scotland) Act 2010. One relates to the preparation of the sea bed and one to the installation of the met mast;
- The demonstration turbine will be connected to the grid via an underground cable which will connect to an existing substation. The application for the grid connection will be made to the Distribution Network Operator (DNO), Scottish Power Energy Networks; and
- An application has been made to Fife Council under the Town and Country Planning (Scotland) Act 1997 (as amended) for the other onshore infrastructure required in connection with the turbine installation and on-going maintenance.

The demonstration turbine is similar in appearance to the offshore turbines currently in use with a matt pale grey finish and lighting and marking requirements taken into account. It would be of variable speed, varying according to the wind with the gearbox located within the nacelle on a tubular steel tower.

The turbine will sit on a steel jacket which will be piled into the sea bed. Access to the demonstration turbine would be via a personnel bridge which will provide permanent access between shore and platform which forms part of the jacket structure. The bridge would require piling at the FEP side along with a pile cap and concrete pier. Intermediate support will require piling which would be done below the MHWS. The underside of the bridge would also transfer electricity cables from turbine to shore which would be appropriately insulated.

In order to ensure that all mitigation measures outlined within this ES are carried out on site, contractors would be provided with the following documents which must be adhered to throughout the construction process:

- Pollution/Spill Prevention Plan, relevant environmental procedures and method statements;
- Noise management plan;
- Planning conditions; and
- Other requirements of statutory bodies.

Site safety and emergency procedures will also be required during the construction, operation and decommissioning of the Development.

The Development would be operational for 5 years. In the event successful testing of a turbine is completed this turbine would be removed and a further turbine may be installed on the existing base. Only one turbine will be installed at any one time and the base will remain in position. All turbines will be removed after 5 years of operation.