

# THE LIFE OF A WIND FARM



## BUILDING AND OPERATING A WIND FARM

If planning consent is granted, construction can begin. Construction typically takes 12-18 months, with activities carefully programmed to minimise disruption for local people. One of the first things we do on a site is to prepare the access tracks, which will allow the turbines to be delivered, erected and serviced. We may also need to fell some forestry on site. The wind turbines stand on concrete foundations; these give the turbines a firm base on which to stand for the 25 year life of the wind farm. The top of the concrete foundation lies up to one metre below the normal ground surface and is filled in with soil, so the land right up to the base of the turbine tower can be used.

The wind turbines are delivered in parts and assembled on site using a crane. The blades, towers and nacelles are transported to the site on special heavy goods vehicles with a police escort. The nacelles are the box-like structures at the top of the tower which house the gear box and generator. These enable the movement of the blades. Once operational, a wind farm provides renewable electricity to the national grid network.

Decommissioning is a much less onerous task than construction. Most of the infrastructure is removed from site including the turbines and the substation. If it is deemed better for the environment, turbine foundations can be left in the ground and covered over. The aim would be to return the site as close as possible to its original state in line with best practice guidance.

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Construction at Hill of Towie Wind Farm, Moray, Scotland

Turbines: Siemens, 2.3 MW, height to tip of 100 metres

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