



Project:	Camster Wind Farm: 50 MW, 25 turbines, located between Lybster and Watten in Caithness, Scottish Highlands
Client:	E.ON Climate and Renewables
Project Description:	Supporting the client through the development, preconstruction and construction phases as well as ongoing operational site management.
Services Provided:	<p>Development Phase</p> <p>Natural Power helped the Camster site to achieve planning consent in January 2009 by providing E.ON with consent management for outstanding objections from;</p> <ul style="list-style-type: none">→ SNH with regards potential hen harrier impact, a key barrier to consent→ SEPA with regards to impacts upon local water courses→ The Highland Council with regards to potential impact upon peat→ The Highland Council road department and local resident concerns with regards to the proposed construction access to the Camster wind farm site by establishing a revised access route to the wind farm site. <p>Camster sits within a commercial forestry plantation and, during the winter, is on the flight path for Hen Harriers on their way to hunting grounds to the north and south of the site. E.ON required to fell some trees in order to carry out wind resource analysis, which raised concerns from SNH that this would create a favourable hunting habitat for the Hen Harriers.</p> <p>Natural Power's Planning and Development and Ecological specialists worked with E.ON to develop a Habitat Management Plan (HMP), providing SNH with the confidence to lift their objection (based on potential hen harrier impacts).</p> <p>The HMP proposed management prescriptions, to be continually monitored through the life of the wind farm, to maintain the habitat of the wind farm site to limit the attractiveness to prey species and so limit the exposure of hunting raptors to collision risk.</p> <p>Pre-Construction Phase</p> <p>Pre-construction discharge of planning conditions began in 2009. Natural Power supported E.ON throughout the pre-construction and construction process, attending and playing a key role in public liaison group meetings and stakeholder liaison including landowners and public roads authority.</p> <p>Through negotiation with the Planning Authority (PA) and statutory bodies, forestry works were allowed to occur ahead of full planning condition discharge. This meant that construction works could commence through the Phase 2 bird breeding season, thus greatly improving the construction programme to meet the grid live date.</p> <p>Geotechnical site investigation identified a requirement for additional on-site borrow pits. Applications were submitted and consent was obtained at short notice, reducing impact on project timescales.</p> <p>Natural Power's Ecology team provided onsite environmental expertise and advice as Ecological Clerk of Works during pre-construction, forestry felling and construction phases.</p>

Parallel to discharging planning conditions and provision of Construction Design and Management co-ordination, Natural Power assisted E.ON with the procurement of forestry works and provided expertise regarding technical aspects of the turbine contract and the balance of plant procurement process including scope of works, site visits and tender clarification meetings, in conjunction with E.ON procurement.

Construction Phase

Natural Power engineers managed construction activities on behalf of E.ON including:

- the management of all forestry felling
- regular site visits, review and approval of the Construction Method Statement (CMS) with the Principal Contractor
- co-ordination and interface between the wind turbine manufacturer, BOP, District Network Operator (DNO), Forestry Commission, Forestry Contractor Civil and Electrical Contractor
- CDM co-ordination including review and collation of documents for the Health and Safety file and owner's engineer representative on site

In line with planning consent requirements, Natural Power's ecologists and hydrologists monitored environmental impacts, water quality and private water supplies throughout the construction period.

Following construction, the Scottish Environmental Protection Agency (SEPA) has recommended that Camster be recognised as an example of **good working practice for reinstatement on upland deep peat wind farm sites**.

Operational Phase

Through our dedicated team of local site managers, Natural Power has recently taken over operational site management for Camster wind farm on behalf of E.ON. This will include:

- compliance with industry best practice
- application of the wind turbine safety rules and High Voltage rules
- management of the HV network ensuring it is appropriately maintained and that suitable response is in place in the event of any outage
- ensuring effective liaison with a range of stakeholders from turbine maintenance contractors to land owners, local residents and grid companies

Natural Power will continue to monitor environmental impacts, water quality and private water supplies during the operational phase, minimising the impact to the wider environment from the wind farm site and providing E.ON with ongoing support and risk mitigation.

Dates and Duration of contract for Project:

2007 - ongoing (8 years)

Performance delivered, including strategic value to the client:

- Natural Power led Section 42 Planning Applications to microsite the wind farm track network and raise the consented tip height to ensure the minimising of deep peat excavation across the wind farm site. This led to added value in both the cost savings of earthworks and the environmental benefit of reduced excavated peat volumes.
- On behalf of the client, Natural Power led a local planning application to consent the use of a further 2 borrow pits within the site boundary for access track construction. This added value in reducing the cost of imported materials required for track construction and reducing the number of construction vehicles on the public highway during the busiest period of civil works.
- Natural Power's project management ensured the effective co-ordination and communication throughout the construction phase between all contractors, the DNO and landowners involved in the project and ensured client requirements were achieved.
- Natural Power Construction and Ecology teams worked together to ensure that bird breeding restrictions would not lead to the ceasing of all works on-site and gained the necessary approvals from the statutory bodies to allow a phased approach to keep the construction programme in line with DNO and turbine supplier key dates.