



Renewable Energy - Onshore Wind

Client: Peel Land & Property Group

Location: Frodsham - Cheshire

Project Overview

Frodsham Wind Farm is a nineteen-turbine 50.35MW, Wind Farm, located in Frodsham, Cheshire.

Atmos was initially the project ECoW through the construction phase and was retained to undertake post construction monitoring (PCM).

Key Challenges

An onerous planning condition, requiring turbines to be powered down at key times during the bat active season to avoid bat fatalities.

Access and health and safety issue to wet habitat for survey purposes such as reedbeds and areas of open water.

The site is home to Schedule 1 Marsh harriers that nested near to the wind turbines.

Our Solutions

Using data from the ultrasonic bat detectors, installed in each turbine, we established a clear picture of the bat species composition, how they used the site, when they were active and in which areas.

To further build evidence we used specially trained sniffer dogs to help build data on bat fatalities and compared this to other UK wind farms.

Scientific analysis of the data strongly suggested that the production downtime was overly excessive and a case was made to the Local Planning Authority (LPA) to reduce the curtailment that would not risk bats.

Finally, to overcome the accessibility issues in surveys of wet lands, drone aerial photography was used to enable us to accurately map the extent of reedbed habitats and the encroachment of scrub.

The Successful Outcome

The LPA agreed to reduce the level of curtailment, helping our client produce an extra 3000MWh annually.

The use of sniffer dogs vastly improved the robustness of the data. The dogs found 80% of bat carcasses whereas human efficiencies average around 25%.

Substantial cost savings were also made in survey costs, due to the efficiency of using sniffer dogs.

What our client said:

“As a result of the work Atmos have carried out, bringing together science with the data gathered from the wind farm, we have managed to reduce the amount of wind turbine down time by proving to the local planning authority that there would not be a detrimental effect on bats. This equates to an extra 3000MWh of green energy being produced per year.’

Michael Humphreys,
Operations Manager (Wind)
Peel Land & Property Group

Additional Project Information

Many of the planning conditions relating to PCM at Frodsham Wind Farm are typically found on wind farms around the UK. They include bird distribution monitoring for wintering birds, breeding birds and vantage point surveys.

At Atmos we understand the commercial drivers behind consentable development. By taking an innovative and pragmatic approach we were able to provide robust and defensible research around the science of how bats interact with wind farms. This gave the confidence to our client in putting their case to reduce production downtime to the LPA.

The use of sniffer dogs has been an integral part of the project. This is a fairly new concept and the approach has been approved by Natural England and recently been adopted by Scottish Natural Heritage, (SNH).

These specially trained dogs are trained to support survey work for a number of species such as Bats, Great Crested Newts, and bird carcass searches.

The surveys Atmos carry out each year at Frodsham Wind Farm are discussed with the Habitat Creation and Monitoring Group (HCMG). Based on these discussions a proactive habitat management has been agreed for the next 12 months.

Our Solutions

Atmos Consulting is uniquely placed to provide you with a comprehensive range of environmental and planning services across the full project life cycle. Chose from an integrated service approach or one of our specialist services to seamlessly feed into your project.

- Acoustics and Noise
- BREEAM Assessment
- Ecological Clerk of Works (ECoW)
- Ecology and Biodiversity
- Environmental Due Diligence
- Environmental Impact Assessment (EIA)
- GIS and Data Solutions
- Habitat Management and Restoration
- Hydrology and Hydrogeology
- Ornithology
- Site Feasibility and Scoping
- Soils and Peatland Management
- Stakeholder and Public consultation
- Visualisation and Mapping



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