



On-shore wind energy projects – bat surveys

Renewable energy makes a valuable contribution towards the sustainable energy needs of the UK. However, it is increasingly recognised that turbines pose a threat to commuting and foraging bat species. It is vital that these threats are considered in the design and positioning of new wind energy sites.

MKA Ecology is experienced in carrying out bat survey work designed to assess the potential risks that wind energy developments pose to local bat populations.

Case study: Seven Trent Water

MKA Ecology was commissioned to undertake bat surveys as part of ecological assessments for five separate on-shore wind energy projects for Seven Trent Water.

The survey methodology was tailored for each site to ensure that site specific risks to bat species were addressed within the assessment. Generally the assessment methodology for each site comprised of a desk study, targeted manual bat activity surveys, roost assessments and a static “at height” survey.



One of the met-masts that a bat detector was attached to for ‘at height’ surveys.

The bat survey work was designed to comply with the current guidance regarding bats and wind turbines. The objectives of each study was to determine the species of bats that occur within, and adjacent to, the proposed wind energy site, species abundance and their distribution across the site. This data helps us identify the locations of important commuting and foraging habitat.

How bat species may use a particular site is known to vary at different times of the year. To allow for this seasonal variation the assessment was undertaken across the bat activity season.



A bat cave surveyed at a Sewage Treatment Works.

The most serious threat posed by wind energy is the risk of death through collision with turbine blades. MKA is one of the few consultancies capable of undertaking activity surveys at higher altitudes to ascertain whether bat activity is occurring at height within the vicinity of the proposed turbines.

The survey employs the use of an automated recording system, (an AnaBat SD1 frequency division bat detector) with microphone extension (AnaBat Hi-Mic), placed approximately 30m above ground level on a meteorological (met) mast.

The full suite of bat surveys allowed an informed impact assessment to be undertaken at each of the sites.