

# WIND FARM SURVEY CASE STUDY

KaarbonTech Surveying was commissioned to produce an aerial survey of land designated for a new wind farm. Our client is a unique company who generate and supply green energy to all parts the UK.

The survey was used as part of a more detailed planning application than traditionally used. UAV becomes an essential tool by surveying the whole site in a very short space of time. When compared with traditional surveying methods time, cost and the added benefit of up to date aerial imagery are all key points for choosing UAV. Energy companies want their spending minimised for the planning process as often applications are rejected.

The survey was to be flown using our lightweight eBee UAV. They chose the UAV because it would provide them with the high-resolution ortho-rectified single image. Additionally, KaarbonTech supplied contours and spot-heights of the area. A Topographical drawing can also be produced in house from the data which would be useful for the construction planning should the application be accepted.

KaarbonTech are licensed by the CAA to perform aerial surveys within the UK. On receiving the instruction, an online survey was performed to check the area for obstacles and for landing and take-off points. The airspace was also checked to ascertain the airspace classification and whether permission would need to be gained in order to fly.

After arriving and completing our on-site survey, five flights of 30-40 minutes were performed.

Once back at base, the data was processed achieving a final imagery resolution of 3.5cm GSD over the two square km site. Our GIS team used the elevation data to create contours and spot-heights. This whole data set was then packaged in the agreed formats and delivered to the client.

The UAV is a very versatile tool. From wind farms to music festivals, KaarbonTech have been undertaking a vast variety of aerial surveys for many different industry sectors. If you think your survey can benefit from a UAV survey, contact us today.



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