

RADAR SURVEYS TO INCREASE EFFICIENCY ON BERWICK BANK WIND FARM

ACTEON

UTEC

GEO-SERVICES

PROJECT OVERVIEW

UTEC, the lead brand for Acteon's Geo-services segment, was commissioned by SSE Renewables to undertake topographical and ground-penetrating radar surveys for the cable landfall areas of the Seagreen Windfarm (now Berwick Bank) which is being established in the Firth of Forth.

THE CHALLENGE

The work comprised two cable landfall areas on either side of Torness Nuclear Power Station near Dunbar covering an area of over 310 hectares of greenfield site, over 5km of minor roads and a 1.5km section of the A1 which required traffic management.

The customer stipulated an extremely tight project timeline with multiple gates for deliverables.

CUSTOMER GOAL

The customer needed to capture the data within a tight timeframe as efficiently as possible. Accurate data was required for them to optimise the planning and design for the new land-based infrastructure required to meet the needs of the wind farm output.

OUR SOLUTION AND ITS COMMERCIAL BENEFITS TO THE PROJECT

Market-leading services and integrated solutions

- A combination of aerial and ground survey techniques were utilised to capture the data as efficiently as possible.

Work at scale with a proven track record for delivery

- Our experienced personnel are fully engaged with our customer's long-term challenges, reducing risk through the project cycle and providing solutions that reduce project expenditure including using the latest UAV LIDAR technologies which reduced the time on site for this project.

Optimise the project to increase commercial value

- We analysed the available data and reviewed any subsequent assumptions; we then undertook studies to improve project understanding and develop more efficient solutions.

Digital technology and data to enhance our expertise

- We used the latest Ground Penetrating Radar (GPR) and Electromagnetic Locators (EML) available on the market.
- The UAV Survey provided aerial photographs of the site and a LIDAR point cloud of the ground surface. This was combined with survey data captured by Total Station and GPS sensors as well as the underground data set supplied by GPR and Radio Detection techniques.

PRODUCTS USED

- UAV Survey
- Total Station and GPS sensors



“We are pleased to be working with UTEC, a local supplier. The combination of aerial and ground survey techniques will provide the Berwick Bank Wind Farm Project team with a wealth of data that will be used for optimising the planning and design for the new land-based infrastructure required to meet the needs of the wind farm output.”

Pamela Phillips, Berwick Bank Wind Farm Project Manager at SSE Renewables