

### Project Information:

|                         |                           |
|-------------------------|---------------------------|
| <b>Blackwell Role</b>   | Main Contractor           |
| <b>Form of Contract</b> | Fidic Yellow Book amended |
| <b>Contract Value</b>   | £1.6M                     |

### Blackwell Site Management:

|                           |                |
|---------------------------|----------------|
| <b>Project Manager:</b>   | Stephen Graham |
| <b>Quantity Surveyor:</b> | Simon Edwards  |



### Services Include:

**Civil Engineering**   Earthworks   Geotechnical   Remediation   **Electrical Works**



### Background:

The Burton Pidsea Wind Farm was the second contract undertaken by Blackwell for EnergieKontor, the first being the 9 turbine Witherwick Wind Farm project near Hornsea.

This Full Balance of Plant contract involved the construction of a 3 turbine wind farm with associated access tracks, civil and electrical infrastructure and offsite highway improvements in Lelley, Hull. The wind farm was built on a sloping, generally well drained site which was formerly used as arable land and all turbine foundations were piled - due to the underlying ground conditions being unsuitable for a gravity solution. Significant off-site improvement works were also required along the delivery route, to facilitate the delivery of turbine components into the site.



The site team adopted innovative lime and cement stabilisation techniques on the project to substantially reduce the volume of stone imported to form access tracks and crane hardstandings. This process involved mixing lime and cement into the existing subsoils to produce a stabilized mass, over which a nominal stone running surface was placed. This solution provided substantial benefits in respect of time, cost and reduced environmental impact and was undertaken using in-house resources.

Generating a total output of 10.2MW, the completed Burton Pidsea Wind Farm has been operational since 2013.



### Key Processes:

The main elements of the work included the following:

- The design and implementation of off-site enabling works to enable the transportation of turbine components to site.
- The design and construction of turbine foundations, turbine assembly areas and crane pads.
- The design and construction of site access tracks and watercourse crossings.
- The design and construction of a substation building.
- The design, supply, installation and commissioning of electrical interface between turbines and the grid connection point.
- The design, supply, installation and commissioning of the substation low voltage (LV) supply.
- The provision of telecom lines, both for construction use and permanent lines to the control building for supervisory and control data acquisition (SCADA) and all remote monitoring.
- The reinstatement and landscaping of the site, including vegetation replacement and reseedling.
- The design, supply and installation of SCADA cabling between the turbines and substation.