



Bicker Fen 400kV Substation

ScrewFast helical piles & steel grillages

📍 Donington, Lincolnshire



Project Background

Our client, Linxon, secured the programme to deliver extension work for the National Grid Bicker Fen 400 kV substation, to facilitate its connection with the Viking Link interconnector.

The interconnector and the substation works, which are due for completion in October 2022, will allow Britain and Denmark to make more effective use of renewable energy sources, increasing access to clean green energy and improving the security of electricity supplies for both countries.

Client Challenge

During the early contractor involvement phase, our team worked closely with Linxon to design and manufacture bespoke helical piles for the job.

During the planning phase, significant attention was given to the restricted access areas and clients specific sequencing requirements.

ScrewFast Solutions

Following the design phase, the four-person ScrewFast operation team installed 411 helical piles and 131 steel grillages.

The foundations will go on to support several substation structures including:

- Circuit Breaker
- Current Transformer
- Capacity Voltage Transformer
- Earth Switch
- Rotary Disconnectors
- Pantograph Disconnectors
- Surge Arrestors
- Voltage Transformers
- Cable Sealing Ends
- Single and three Phase Post Insulators

Works also included one sacrificial and four working pile tests in accordance with ICE SPERW.

Key Data

Helical Piles: **411 installed**

Steel Grillages: **131 installed**

Fast Installation: **70-day programme**

Teamwork: **Representatives from Linxon remarked on the teamwork shown by the ScrewFast team**

Safety: **Zero safety issues on site**

Project stats

Client: **Linxon**

Date: **Spring 2022**

Rig/Kit: **A 13 tonne and 21 tonne excavator**

