

Case Study, Viking Link Temporary Wellpoint Dewatering

August, 2022

–

Client: National Grid

Principle Contractor: Balfour Beatty

Project Overview

Viking Link is 1400 Mw high voltage current electric link between the British transmission systems connecting at Bicker Fen and Jutland, Denmark.

The project involved the construction of a convertor station in each country, with the installation of 760km submarine and underground cables enabling electricity exchange between Great Britain and Denmark.

Project Specifications

Construction of twin cable ducts and joint bays running through low lying fen land throughout Lincolnshire.

Joint bays would be constructed every 1000m and the cable would be pulled from joint bay to joint bay through the cable ducting and jointed.

National Grid insisted that the ground condition was dry due to in pipe ducting being laid on and surrounded by CBS.

Being fen land meant the highwater table - and only having a permit to pump 20,000 litres per day across the whole work site - would cause problems for the duct installation team and delay the programme.

Solution

With all this in mind, Alba Dewatering designed a dewatering system that would allow the ducting contractor to meet their programme schedule with the difficult site conditions.

The groundwater control systems were designed to abstract the water and be used for recharge because of the low discharge pumping permits that

the Principle Contractor had put in place with the aid and advice of various Environmental agencies.

Alba Dewatering installed the proposed system, the efficacy of which was then demonstrated to the Environmental agencies for approval, which was achieved. Following this, Alba Dewatering were asked if there was any way to increase the production to allow a second duct laying crew to get in front of the programme.

A third installation crew and more equipment was deployed to make the installation of the dewatering and drawdown of the water table more efficient.

Over the course of the project, Alba Dewatering was totally self-sufficient, providing all machinery fuels and welfare to achieve completion six weeks ahead of schedule.

Images











