## Complete HVAC & Partial Discharge Commissioning Testing of 66kV Off-Shore Cable



## **Project Objective**

Kinectrics was pleased to work with the Correll Group to deliver expert cable installation and power services for the Vesterhav Nord and Syd Offshore windfarms located in the Danish North Sea.

This was the first project of its kind to be undertaken using our innovative approach, methodology and equipment.

The two windfarms include more than 70 kilometers of four export and 37 inter-array cables. They are comprised of 42 Siemens Gamesa 8.4 MW turbines, with a total capacity of 344.4 MW.



## Project Scope:

Kinectrics and the Correll Group performed the offshore pull-ins and termination, as well as HVAC & Partial Discharger (PD) commissioning testing of 66KV export and inter-array submarine cables for Asso Group. The HVAC tests were performed in accordance with IEC 63026, while the distributed PD tests were performed according to CIGRE TB 728. The PD was monitored continuously at every Wind Turbine Generator (WTG) throughout the AC High Voltage test.

The team worked closely with Asso.subsea to deliver on the Vesterhav Project. With the support of Kinectrics, the first string has undergone high voltage testing and was delivered to Vattenfall, a multinational energy company.

## Value Added Results

We successfully completed the testing on all four strings.

The testing of 57 terminations (Nexans 66kV 909TB/G) and 3 x inline joints were installed at the beach landing site in October 2023. The export cable was then connected with the pre-installed land cables.

Once fully commissioned, the windfarms are forecasted to generate 1.57TWh of green power per year – enough to meet the energy needs of approximately 380,000 households in Denmark.







