

Services

- Audit of suppliers
- Building consultancy
- Quality assurance
- Welding inspection
- Coating inspection
- Selection of material



Customer case

DONG Energy A/S

Ensuring the Foundation under the Danish Wind Power Industry

FORCE Technology assists DONG Energy in quality assuring wind turbine foundations.
Comprehensive consultancy in China and Germany.



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The success of renewable energy has given the wind turbines growing pains and sent them out in the open sea. As DONG Energy now constructs giant wind turbines in the open sea, it would be preferable that they remain functional for many years - therefore quality assurance of foundation steel and coating is crucial to DONG Energy. When they were to select a supplier of foundations for Walney 1 & 2 – two wind farms comprising 102 turbines in the Irish Sea - DONG Energy contacted FORCE Technology to get consulting services, as they had done previously.

Quality assurance in China

While the size of the turbines has

grown, the world has become smaller and the turbine foundations might therefore be produced in China as well as in our vicinity. Quality assurance of supplies has thus become even more important to all Danish manufacturers. One of the potential suppliers of the Walney wind farm foundations with whom we carried out an audit was thus located in Shanghai. However, the order for the foundations was placed with EEW in Rostock, Germany – whose subcontractor had had part of the steel structures manufactured in China!

Building consultancy

FORCE Technology often participates in wind turbine projects quite from

the start up of the project as we did at the Horns Reef II Offshore Wind Farm. After FORCE Technology had assisted DONG Energy by auditing and selecting a supplier for the Walney 1 – ensuring that the requirements for e.g. training, welding control and coating were met, DONG Energy also chose FORCE Technology as building consultant for foundations manufacturing. This also applies to the whole steel structure for the Walney 1 Farm Substation in which power from the turbines is collected and sent ashore.

Seal of approval

When steel structures are hammered more than 30 metres into the seabed and protrude 20 metres above the



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*Rasmus Miller, Foundation project manager
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water, certainty that the qualities of structures and paint are satisfactory is paramount. Such certainty requires knowhow and experience with materials, welding processes and NDT; competences that FORCE Technology possesses.

“We want to know that the product we deliver is satisfactory – therefore we chose FORCE Technology to quality assure our project. You provide our products with a seal of approval, and we know you from previous projects”, says Rasmus Miller, DONG Energy’s foundation project manager of the Walney Offshore Windfarm.

Progress creates value

And Rasmus Miller continues, “You provide building consultancy and reply to technical questions that our suppliers ask about steel, welding, paint and coating. For instance, they

may ask whether it is all right to change some technical specifications to another steel quality or paint system. We forward these questions directly to you, and you assess whether they can do it or not.

Ultimately, it means faster deliveries if the supplier is allowed to use another steel quality or another paint system. Your knowhow is therefore of great value to us as we can let the project proceed and simultaneously be sure of the proper quality.”

“Besides, we find it important to make problems visible as early as possible so that we can discuss them with our suppliers before they become too complex”, says Rasmus Miller.

Certainty of quality

“FORCE Technology acts as employer’s representative by ensuring cor-

rect weld quality, coating quality and documentation and by comparing with manuals specified by the supplier”, concludes DONG Energy’s Rasmus Miller.

“We take care that the builder knows for certain that supplier audits and subcontractor quality management systems are documented, and that manufacturing is inspected and correctly performed”, says FORCE Technology’s project manager Michael Ambye and continues: “This applies both when we provide advance consultancy on choice of supplier and on-going evaluations of the production”.



Further information

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