



SIKA AT WORK

ISHIKARI BAY NEW PORT OFFSHORE WIND FARM, HOKKAIDO PREFECTURE, JAPAN

OFFSHORE CONTRACTING SERVICES
SUPPLY OF GROUT MATERIALS
WIND TURBINE GENERATOR INSTALLATION
EQUIPMENT RENTAL

BUILDING TRUST



ISHIKARI BAY NEW PORT OFFSHORE WIND FARM



PROJECT DESCRIPTION

The Ishikari Bay New Port Offshore Wind Farm is – as of May 2024 – Japan's largest commercial offshore wind farm at 112MW. The project uses the 8MW typhoon and seismic certified SG 8.0-167 DD offshore wind turbine from Siemens Gamesa. It is the first project in Japan to use 8MW turbines. Due to limited electrical transmission capacity to Honshu, and Hokkaido's relatively small, mainly rural, population, the local Transmission System Operator requires that all major renewable generators directly connect projects to a Battery Energy Storage System (BESS), and so the Ishikari Bay project is paired to a 100MW/180MWh BESS.

Project name: Ishikari Bay New Port Offshore Wind Farm
Location: Hokkaido prefecture, Japan
Year: 2022
Key market: Offshore Wind
Product: SikaGrout®-9500

PROJECT REQUIREMENTS

Nippon Steel Engineering were responsible for the design and installation of the jacket foundations for wind turbine generators (WTG) components. In close collaboration with our local team at Pozzolith Solutions, Sika delivered grouting materials, equipment rental and provided offshore supervision for the local grouting crew. This was Sika's first offshore grouting project in Japan.



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SIKA SOLUTIONS

New, innovative proprietary offshore grouting equipment was mobilized to the project, which achieved an average output of more than 22MT per hour and 24MT at top pumping speed. The grouting operation, troubleshooting, and maintenance was monitored closely by Sika as part of the contract and for internal Grouting Field Record documentation. Facilitated by Bond Engineering personnel, Sika was involved in the installation of fourteen wind turbine generators (WTG). The WTGs were installed on 4-legged jacket foundations and driven into the seabed by piles. The team used Sika's containerized batch mixing grouting spreads with a capacity of 3 MT (2 x 1.5MT bags) per mix and applied SikaGrout®-9500 ultra-high strength grout for offshore wind turbine foundations.

CUSTOMER BENEFITS

- SAT/FAT trials of the equipment, provision of CPT-25-02 grouting spread, offshore supervision, technical support, and troubleshooting during the grouting operation
- Project completed successfully with zero personnel or environmental incidents

UHPC, or ultra high-performance concrete and composites, are our business. We develop and produce UHPC products and we offer UHPC based solutions for multiple industries including the renewable, civil construction, ports, offshore, and energy industries. We have documented the technical performance of our UHPC products through a large test program at MPA (Germany) which included creep and fatigue testing. We have also carried out large-scale trials at low (European conditions) and high temperatures (tropical conditions) to demonstrate the performance of our materials under severe weather conditions. Our SikaGrout® Premix Grouts are a portfolio of ultra high performance concrete and composites with ten times the strength and durability of ordinary cement products.

PROJECT PARTICIPANTS

Project owner: JERA & Green Power Investment
 Contractor: Bond Engineering
 Nippon Steel Engineering

Any product name or reference reflects the Sika product name at the time of creation of this document and may differ from the product name or reference during past events.

Our most current General Sales Conditions shall apply. Please consult the most current local Product Data Sheet prior to any use.



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