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YOUR DIGITAL TRANSFORMATION SPECIALIST

IN WIND AND WEATHER GLOBAL TECH I OFFSHORE WIND GMBH

Global Tech I Offshore Wind GmbH operates a far-offshore wind farm in the North Sea about 130 km from the coast. 80 wind turbines of the 5 MW class are erected here on the 41 km² area. The park has a rated output of 400 MW and has its own park-internal offshore transformer station. Around 40 people cover the 2-week shift operation at the wind farm. These include service technicians for the wind turbines and about ten Global Tech I employees who are responsible for the operation and maintenance of the platform.

Offshore wind turbines and the transformer station are exposed to harsh North Sea environmental conditions such as salty air and water, wetness, currents and strong swells. However, trouble-free operation is crucial for the economic viability of the offshore wind farm. Thus, in addition to regular maintenance, short response times for service interventions are the absolute aspiration of the operators in order to minimise possible downtimes.

„Maximo offers us a customised solution for our specific situation. The system enables us to display a complete life cycle of the individual assets and to plan and document maintenance work in a traceable and audit-proof manner.“

Sebastian Duty - Head of Operational Excellence



Industry

Energy & Utilities

Employees

Ca. 100

Headquarters

Hamburg

Challenge

Introduction of an integrated EAM system for the complete mapping of the entire Plant structure of the offshore wind farm.

Solution

IBM Maximo
Insight Control Panel

Benefits

- > Improving cost transparency
- > Improvement of staff planning
- > Evaluation of faults



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CHALLENGE

In order to provide qualified support for the planning, execution and documentation of the maintenance of the facilities, an enterprise asset management system is indispensable. In the construction phase, Global Tech I worked with a very compact maintenance system that fulfilled the minimum requirements.

Therefore, for the operational phase, the company was looking for a powerful maintenance management system that could support as many business processes as possible, even beyond the core EAM functionality, that could fully map the wind farm's asset structure and that enabled the audit-proof integration of documents by connecting a document management system.

SOLUTION

Global Tech I opted for IBM Maximo in conjunction with the modules of the Insight Control Panel as well as the data migration tool of the RODIAS GmbH. This combination allows the flexible mapping of the wind farm's plant structures, offers the stability of a standard IBM solution and reduces the customisation effort by covering many use cases in the standard product. RODIAS supported the configuration and adaptation of the Maximo system and a mobile solution, the conceptual design and implementation of the interfaces, as well as the data migration.

The system is used by various user groups. These include the maintenance crew in the wind farm and at the substation, as well as the operations control centre and the specialist departments at the company headquarters in Hamburg. The system is in use without interruption.

The EAM system has interfaces to the ERP system Microsoft Dynamics NAV and the document management system ELO. The interface to the ERP system ensures that material planning, material requisition and material consumption messages can be recorded in Maximo. The interface to the document management system enables uniform document storage and ensures the availability of all documentation on plants and processes.

The maintenance crew in the wind farm and at the transformer station uses the mobile solution Insight Mobile. Work processes such as carrying out rounds, order releases and storage/relocation were mapped. These work steps are documented directly in the Maximo and Dynamics NAV systems; subsequent recording is no longer necessary. The special feature of the mobile solution is that work processes from two different systems were combined in one mobile solution.

BENEFITS

The new EAM system increases transparency at Global Tech I by enabling the evaluation of maintenance costs and malfunctions. In addition, documentation suitable for use by the authorities can be created, which proves the relevant maintenance for the stability of the facilities. Flexible work planning of tasks is made possible, which can be adapted to weather conditions.

The tracking of all safety-critical installations is guaranteed. The solution enables maintenance to be planned in advance to the day with regard to material consumption in order to avoid expensive subsequent deliveries via helicopter. In addition, order execution by the offshore team is coordinated with order planning onshore.

RODIAS is a medium-sized IT service company specialising in systems for the maintenance of complex technical facilities and buildings. With an agile approach and innovative approaches, we realise Industry 4.0 solutions for our customers based on current software technologies.

As part of ROBUR, RODIAS offers even more: Almost 3,000 colleagues work worldwide in the industry segments wind, water, energy, industrials and process industry. As a competent partner to our customers, we create integrated solutions from planning and realisation to installation, operation and maintenance to relocation and dismantling.