



Case study WindMW GmbH



**Workforce Management Onshore and Offshore: WindMW
Manages Wind Farms With GS-Service and GS-Mobile**



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Workforce management onshore and offshore: WindMW manages offshore wind farms with GS-Service and GS-Mobile

Doing this job, you just have to be qualified. As a service technician maintaining offshore wind energy facilities, you'll need more than just being seaworthy or free from giddiness. Apart from knowledge about electronics, machine-engineering or hydraulics, certificates and additional qualifications like a clean bill of health, first aid- and climbing know-how as well as helicopter crash landing training etc. are essential. Operating the wind parks Meerwind Süd and Meerwind Ost, WindMW GmbH has deposited all information of 70 offshore technicians in the system – the workforce management system GS-Service, which went live on September 1, 2014 to manage the areas of engineering, personnel and maintenance.

The complexity of engineering and service tasks when building and operating offshore wind facilities can only be accounted for by an equally complex job profile for service technicians.

Spatially dispersed facilities need to be created and maintained, high wind velocities, heavy seas and salty air are a strain on technology and materials, be it day or night. This is also the case for the 80 wind energy facilities making up the wind parks Meerwind Süd and Meerwind Ost, 23 kilometers north of Heligoland. Beginning in 2014, the facilities are meant to generate a total output of 288MW, which correlates with supplying 360.000 households with power.

To ensure a consistent and interference-free operation and simultaneously realize management of this billion-euro-investment as cost efficient as possible, WindMW trusts GS-Service as an industry-proven workforc management solution.

Jens Behrens, Key User for Wind Farm Management Software at WindMW: "A solution is needed to ensure operations for the wind park because of the spatial distribution of locations. What really counts is a high and fast availability of information from and to the most important points. By using GS-Service, we hope to achieve the shortest possible reaction times when

performing maintenance tasks, which make up a not insignificant cost factor in the offshore area. Time is money, especially when it comes to weather dependency and ship costs."

Basically, being a subsequent system to the ERP, GS-Service by GreenGate integrates planning, documentation and surveillance functionalities as well as business economics applications into an information- and management system. Designed as a scalable client-/server-solution, the object-oriented software is based on a standard technology and runs on current Microsoft Windows operating systems. The advantage: GS-Service allows for cou-



pling with other systems via its open system architecture, which WindMW makes use of in versatile ways.

OPC connectivity, for example, is a cornerstone of IT-based maintenance strategy for WindMW. If the control room receives automatically generated event reports (turbines / transformer stations) or information from engineering and service systems, the SCADA system automatically notifies GS-Service, which then automatically generates the maintenance or repair order. Event notifications are then sent to Site Management by the control room, which issues the orders or decides how to perform maintenance or repair works, respectively.

Qualified service technicians – provided they have current certifications – are automatically available in GS-Service by coupling it with personnel management.

Jens Behrens: “By regularly querying

and verifying certifications and qualifications, which are necessary for both operating resources and personnel, we put in an increased effort concerning the generation of reminders to ensure that required certifications and qualifications are always at hand. Additionally, we have very high safety requirements for our offshore operations which are reflected by the definitions of our tasks and activities.”

Technicians are able to access GS-Mobile offshore via tablet PCs for choosing the appropriate measure in a maintenance operation. GS-Mobile is a mobile system for order documentation and feedback which allows for access of required master data, ensuring a consistent order feedback.

In addition to the implementation of modern ID-processes (RFID, barcode), it is possible to create a feedback of differentiated personnel work hours per order.



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GreenGate designed an interface for document- and information management via GS-Mobile. Available for tablet PCs, it stores all parts and components in detail, e.g. circuit diagrams. If technicians are servicing a rotor, for example, they can access corresponding circuit diagrams, as well as other object specifics.

GS-Mobile also opens up flexibility and room for maneuver with its interface for payroll accounting, so offshore operations can be accounted for precisely on an hourly or day-to-day basis. The mobile PCs register which operations technicians perform where (on-/offshore) as well as how much time they needed and directly transmit the information to payroll accounting.

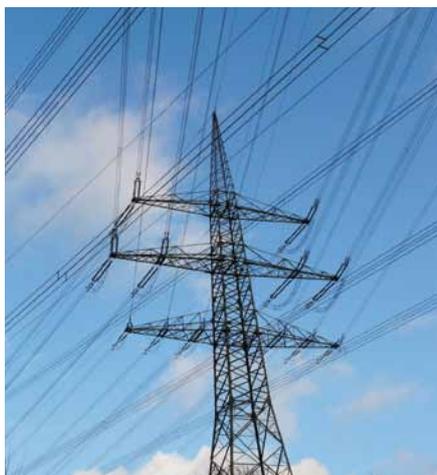
GreenGate implemented another interface for WindMW, connecting GS-Service with financial bookkeeping (FibuNet). When spare parts are ordered the process is transmitted directly to financial bookkeeping. After invoice receipt, the system automatically compares it with the order and payment is automatically triggered after verification.

Jens Behrens: "We receive positive responses after the first steps of work-



ing with GS-Service, because organization of processes and tasks can be performed relatively fast. However, extensive changes have been applied to the system to match our high requirements." But why did WindMW choose GreenGate in the first place from the pool of all available solutions? "It was essential for us that it is neither a web application nor a new development." Initial operations took four months "although we used a test system at first", Behrens says, "the installation by itself was relatively easy." The use of GS-Service and GS-Mobile is accompanied by GreenGate seminars for the individual areas. Workshops are scheduled in the field of programming, internal advanced training is done by WindMW's own Key Users.

Behrens on pragmatic handling on location: "GreenGate has provided the basics to our Key Users and is readily available for WindMW with advice and practical help. Support is always available when needed, though we also make use of the wiki to steady the basics."



WindMW GmbH based in Bremerhaven is a joint venture between Blackstone Energy Partners (80%) and Windland Energieerzeugung GmbH (20%) from Berlin.

The corporation operates the offshore wind parks Meerwind Süd and Meerwind Ost.

Roughly 135 professionals work for WindMW at their locations on Heligoland and in Bremerhaven.

Construction of the north-sea wind park 23 kilometers north of Heligoland began with the installation of the first monopile in September 2012 and was completed with the installation of the transformer station in March 2014. The park consists of a sum total of 80 wind energy facilities which produce an output of 3,6MW each, spread over an area of 42km². Generated power up to 288MW is injected into the grid via the transformer station.

The facilities are planted in rows and reach a height of 149m (rotor blade tips), meaning they are almost as high as the Cologne cathedral. 107km of cable have been laid within the park alone.



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