Press Release

TÜV SÜD at Husum Wind 2021 24 August 2021

From safe life extension to modelling extreme wind speeds

Munich / Husum. TÜV SÜD demonstrates how to further optimise the use of wind energy at Husum Wind from 14 to 17 September 2021. The service provider's presence at the trade fair will focus on safe life extension for wind turbines, TÜV SÜD Inspect for the management and evaluation of inspection results, and the certification of wind-energy converters for regions with tropical cyclones. (Hall 2, Stand 2C46)

When the design life of a wind-energy converter (WEC) approaches its end, the operating company must decide whether to dismantle, modernise or continue to operate the WEC. TÜV SÜD's lifetime extension services for WECs verify whether safe continued operation of a WEC or wind farm is possible. The services are known under the product name of BPW, which stands for *Bewertung und Prüfung über den Weiterbetrieb von WEA,* the German equivalent of assessment and verification of the continued operation of WECs. "BPW assesses the loads and stresses to which a WEC has been exposed in its previous service life", says Florian Weber, Team Lead Site Assessment at TÜV SÜD Industrie Service GmbH. To do this, experts rely on computer simulations that examine both the design of the WEC and the conditions at its installation site. On top of this, the wind-energy experts inspect the WEC on site to assess its state of repair. BPW assessment provides operators with a detailed report about the state of repair of their WECs. Transparently outlining the risks and opportunities involved in continued operation, this report establishes a sound basis for decision-making.

TÜV SÜD Inspect – effective tool for managers

TÜV SÜD Inspect is a convenient vendor-independent solution for test-report management and dedicated test-result evaluation. “All test reports are stored on a server in an audit-proof manner and can be used in targeted evaluation in TÜV SÜD Inspect”, explains Tim Krampe, Team Lead Inspections at the Wind Service Centre of TÜV SÜD Industrie Service. The user-friendly graphical user interface gives managers a fast overview of their complete portfolio of turbines and other installations, enabling filtering and sorting for specific criteria such as wind farms, WEC types and year of inspection. From this overview screen, users can directly access the underlying reports as PDFs which include specific information about defects and the assemblies affected by them. TÜV SÜD Inspect is thus a particularly effective and professional instrument for medium-sized and large-scale operating companies of wind energy turbines and their managers, enabling them to keep a close eye on their turbines' state of repair and supporting targeted control of maintenance measures. Secure access to TÜV SÜD's audit-proof server is effected via a login code, QR code or master identification.

Modelling of extreme wind speeds – suitability of WECs for regions hit by tropical storms

As a crucial prerequisite for the expansion of offshore wind energy in regions with tropical cyclones, wind-energy converters must be able to withstand the extreme climate conditions. TÜV SÜD has developed a computer model, enabling simulation of the impacts of such extreme wind situations on wind turbines. The model is based on the IEC 61400 international standard, which defines the requirements for the use of wind-energy converters. Using their computer model, the TÜV SÜD experts can simulate wind conditions in areas hit by tropical cyclones and verify that wind energy converters are suitable for use in these regions. TÜV SÜD documents suitability in the appropriate type approval, which is generally a prerequisite for the licensing of a WEC and is additionally requested by international investors.

Wind-energy services from TÜV SÜD

TÜV SÜD looks back on a long and successful track record in the certification of both onshore and offshore wind farms, wind turbines and their components. The international testing and certification organisation supports planners, manufacturers, contractors, investors and owners and also provides assistance with risk analyses, occupational health and safety concepts and quality assurance during construction. Other core fields of activity include quality assurance in component manufacturing, and periodic testing and inspection throughout the service life of the wind turbines.
https://www.tuvsud.com/wind-power.

Note for editorial staff: The press release and the high-resolution photo can be found at https://www.tuvsud.com/newsroom.

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Founded in 1866 as a steam boiler inspection association, the TÜV SÜD Group has evolved into a global enterprise. More than 25,000 employees work at over 1.000 locations in about 50 countries to continually improve technology, systems and expertise. They contribute significantly to making technical innovations such as Industry 4.0, autonomous driving and renewable energy safe and reliable. www.tuvsud.com