

Wind Measurement Campaigns / LiDAR

Renewables



Remote sensing technologies offer efficient and convenient wind measurement campaigns. One significant advantage of the LiDAR technology is its ability to measure wind conditions at heights of up to 300 m. For LiDAR measurements no building permits are required and are thus fastly implemented. The off-grid power supply operates autonomously on site with PV Panels and fuel cells.

Typically, a wind measurement campaign should span 12 months to capture the full range of seasonal effects at the site. However, if additional information regarding the wind conditions is available, such as measurement masts or operating wind turbines, the campaign duration can be shortened. This allows for height extrapolation to encompass the complete wind profile and horizontal extrapolation to cover the entire wind farm area.

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At TÜV NORD, our experts carefully select the installation location in consultation with the customer. We consider the requirements outlined in applicable guidelines (e.g. TG6) and the specific wind farm site to determine the optimal measuring position.

To ensure the reliability of our measurements, we conduct data monitoring at least twice a week. This regular monitoring allows us to promptly detect system failures or implausible values.

In addition to providing monthly measurement reports, TÜV NORD excels in delivering comprehensive wind potential evaluations and full bankable AEP reports, including the German "Standortgütenachweis" (site quality proof).

Our accreditation by DAkkS according to DIN EN ISO/IEC 17025:2018 states our compliance with all the necessary requirements for conducting LiDAR wind measurements and bankable wind energy assessments.