DTU Wind and Energy Systems

Lidar testing services

Accredited calibrations and tailored tests

Many wind energy applications require accurate and traceable wind measurements. These contribute to improving the economic performance of wind power assets by lowering the wind resource uncertainty and increasing investor trust.
Lidars, as remote sensing wind measurement devices, are frequently used in wind measurement projects. Calibrations are essential to characterize lidar accuracy and lidar measurement uncertainty, with results that are traceable according to international standards. The cornerstone of repeatable lidar calibrations is the comparison with a set of high-quality and continuously checked reference instruments, which we have at our test stations Høvsøre and Østerild.
DTU is a pioneer in developing calibration methods for more than a decade, very actively contributing to international measurement standards (IEC 61400-12 and 61400-50 series).
Our calibrations are quality-accredited to ISO 17025 by the Danish accreditation body DANAK, a member of ILAC - the International Laboratory Accreditation Cooperation.

- Accredited ground-based lidar (and sodar) calibrations at Test Center Østerild, with up to seven reference heights between 40m and 244m.
- Accredited nacelle lidar calibrations at Test Center Høvsøre, with measurement range of either 220m or 385m.
- Tailored scanning lidar tests, short- or long-range, with different possible configurations: single line-of-sight, arc-scan or dual-doppler.

For more information contact Jesper G. Hansen, jgrha@dtu.dk, at the Testing and Calibration Section