
DNVGL successfully performed verification campaign of DIABREZZA lidar for formal wind and energy yield assessment

Photos of DIABREZZA lidar (left), and DNV GL test site in Janneby Germany (right)

Concurrent DIABREZZA lidar and cup/vane wind measurements have been carried out in January 2017 at the DNV GL test site at Janneby, Germany to verify lidar wind data quality against a well-known high quality standard. The overall system availability of the lidar was 100%. The data coverage after quality filtering was in excess of 95%. The wind speeds correlated very well, showing a very low level of scatter and an excellent resemblance of lidar wind speeds to those of cups. All acceptance criteria as defined by NORSEWInD regarding wind speed and direction regressions and number of data points necessary were passed. The Janneby performance verification campaign indicates that the DIABREZZA lidar is able to reproduce cup anemometer wind speeds and wind vane directions at a very accurate and acceptable level.

DNV GL: International accredited register and classification society, structured by five business area including the energy industry. DNV-GL delivers world-renowned testing and advisory services to the energy value chain including renewables and energy efficiency. For the wind energy, DNV-GL has many experiences in evaluating wind lidars.

Mitsubishi Electric Corporation: The global leader in the manufacture of electrical and electronic equipment, including wind lidar. The DIABREZZA lidar has been released in 2013 and been validated by many third parties, concretely, DTU, Ecofys, Dong Energy, in addition to DNV GL. The DIABREZZA is shown in the web site (http://www.mitsubishielectric.com/bu/lidar/).