Power curve measurement with Spinner Anemometer according to IEC 61400-12-2

In wind industry power performance measurements on site is an increasing challenge due to the larger and larger rotors. An IEC standard on power performance verification with nacelle anemometry, IEC61400-12-2 [1], has been developed and was published 2013. However, nacelle anemometry has a number of drawbacks that makes use of the standard with respect to nacelle anemometry difficult to apply in the field [3] [4]. An option in the standard is to use spinner anemometry, a type of wind sensor that measures wind speed on the spinner in front of the rotor. The report is based on spinner anemometer measurements from two adjacent wind turbines and a met-mast. Due to the site layout, it is possible with the met-mast to measure the power curve of both turbines.

The report also presents a method for evaluation of uncertainty related to the spinner anemometer.

General information
Publication status: Published
Organisations: Department of Wind Energy, Test and Measurements
Contributors: Demurtas, G.
Number of pages: 66
Publication date: 2015

Publication information
Publisher: DTU Wind Energy
Original language: English
(DTU Wind Energy I; No. 0440).
Keywords: DTU Wind Energy I-0440, DTU Wind Energy I-440, DTU Wind Energy Report I-0440

Bibliographical note
This is an internal report and therefore not available for download.
Source: PublicationPreSubmission
Source ID: 118576705
Research output: Book/Report › Report – Annual report year: 2015 › Research