



SCOPE OF ACCREDITATION TO ISO/IEC 17025:2017

NATIONAL RENEWABLE ENERGY LABORATORY (NREL)
National Wind Technology Center (NWTC) Testing Group
15013 Denver West Parkway – MS RSF040
Golden, CO 80401
John Morris Phone: 303 275 4618

ACOUSTICS & VIBRATION

Valid To: November 30, 2020

Certificate Number: 1239.01

In recognition of the successful completion of the A2LA evaluation process, accreditation is granted to this laboratory to perform the following measurements on wind turbines:

Acoustics

Wind Turbine Noise Testing

Method

IEC 61400-11;
MEASNET *Acoustic Noise Measurement Procedure* version 2, Sept. 2005;
AWEA *Small Wind Turbine Performance and Safety Standard* version 9.1, sections 1, 2, 3, 4.3 4.4, 5, 6, and 7, 2009;

Electrical

Wind Turbine Power Performance Testing

IEC 61400-12¹;
IEC 61400-12-1;
MEASNET *Power Performance Measurement Procedure* version 5. Dec. 2009;
AWEA *Small Wind Turbine Performance and Safety Standard* version 9.1, sections 1, 2, 3, 4.3 4.4, 5, 6, and 7, 2009;

Wind Turbine Power Quality Testing

IEC 61400-21;
MEASNET *Power Quality Measurement Procedure* version 4, Oct. 2009
Gazette of India, October 15, 2013; Central Electricity Authority section B2

Structural

Wind Turbine Blade Testing	IEC 61400-23
Wind Turbine Mechanical Loads Testing	IEC 61400-13
Wind Turbine Safety and Function Testing	IEC 61400-22, 61400-2; <i>AWEA Small Wind Turbine Performance and Safety Standard</i> version 9.1, sections 1, 2, 3, 4.3 4.4, 5, 6, and 7, 2009;
Wind Turbine Duration Testing	IEC 61400-2; <i>AWEA Small Wind Turbine Performance and Safety Standard</i> version 9.1, sections 1, 2, 3, 4.3 4.4, 5, 6, and 7, 2009;
Marine Energy – Wave, Tidal and other water current converters – Part 100. Electricity producing wave energy converters – Power performance assessment	IEC/TS – 62600 - 100
Marine Energy – Wave, Tidal and other water current converters – Part 200. Electricity producing tidal energy converters – Power performance assessment	IEC/TS – 62600 - 200

NOTE: All testing may occur either at the NWTC site or in the field.

¹ This scope contains withdrawn specifications.





Accredited Laboratory

A2LA has accredited

NATIONAL RENEWABLE ENERGY LABORATORY (NREL)

Golden, CO

for technical competence in the field of

Acoustics and Vibration Testing

This laboratory is accredited in accordance with the recognized International Standard ISO/IEC 17025:2017 *General requirements for the competence of testing and calibration laboratories*. This accreditation demonstrates technical competence for a defined scope and the operation of a laboratory quality management system (refer to joint ISO-ILAC-IAF Communiqué dated April 2017).



Presented this 4th day of January 2019.

A handwritten signature in blue ink, appearing to be "A. M. ...", written over a horizontal line.

Senior Director, Accreditation Services
For the Accreditation Council
Certificate Number 1239.01
Valid to November 30, 2020

For the tests to which this accreditation applies, please refer to the laboratory's Acoustics and Vibration Scope of Accreditation.