



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, 2024

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 and marine devices:

Test Technology:

Test Method(s) ^{1,2}:

Acoustics

Wind Turbine Noise Testing

IEC 61400-11 Editions 3.0 & 3.1;
MEASNET *Acoustic Noise Measurement Procedure*;
AWEA *Small Wind Turbine Performance and Safety Standard* version 9.1, 2009, Sections 1, 2, 3, 4.3, 4.4, 5, 6, and 7

Electrical

Wind Turbine Power Performance Testing

IEC 61400-12-1 Editions 1.0 & 2.0;
MEASNET *Power Performance Measurement Procedure*;
AWEA *Small Wind Turbine Performance and Safety Standard* version 9.1, 2009, Sections 1, 2, 3, 4.3, 4.4, 5, 6, and 7

Wind Turbine Power Quality Testing

IEC 61400-21 Edition 2.0;
IEC 61400-21-1 Edition 1.0
MEASNET *Power Quality Measurement Procedure 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

Test Technology:**Test Method(s)^{1,2}:**

Wind Turbine Duration Testing

IEC 61400-2;
AWEA Small Wind Turbine Performance and Safety Standard version 9.1, 2009, Sections 1, 2, 3, 4.3, 4.4, 5, 6, and 7

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

Marine Energy – Wave, tidal, and other water current converters – Part 30: Electrical power quality requirements

IEC/TS-62600-30

Marine Energy – Wave, tidal, and other water current converters – Part 3: Measurement of mechanical loads

IEC/TS-62600-3

¹ All testing may occur either at the NWTC site or in the field.

² When the date, edition, version, etc. is not identified in the scope of accreditation, laboratories may use the version that immediately precedes the current version for a period of one year from the date of publication of the standard measurement method, per part C., Section 1 of A2LA *R101 - General Requirements- Accreditation of ISO-IEC 17025 Laboratories*.



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 14th day of November 2022.

A blue ink signature of Mr. Trace McInturff, written over a horizontal line.

Mr. Trace McInturff, Vice President, Accreditation Services
For the Accreditation Council
Certificate Number 1239.01
Valid to November 30, 2024

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