

# GRID INTEGRATION AND POWER QUALITY

## Energy Assessment

### Type Testing & Technical Expertise

## Test Site Operation

Precise measurement and testing of all aspects of turbine performance, grid operation, stability and security are crucial to the success of your project.

**With our deep knowledge and experience, you'll have the answers you need to certify the quality of your project, shorten time to market and cut overall costs.**

We engage at multiple points in the process, from turbine manufacturers' R&D to on-site operation to the proper transfer of power onto the grid.

Does a turbine prototype meet grid codes established by governments and grid operators? Is the power acceptable in terms of harmonics, voltage stability, flickering and other essential elements of power quality? Will the grid operator be able to control output? How will the turbine respond to temporary voltage drops (LVRT and OVRT)?

We'll verify the answers to these questions, then report them in a way that will help you obtain certification and keep your project moving.

**Grid integration and power quality.**

**By any measure, you'll be in compliance with grid codes and prepared for any power output issues with windtest north-america.**



## WHY WINDTEST NORTH-AMERICA?

### Accredited Expertise

Most projects require measurement and testing by an organization with ISO/IEC 17025 accreditation. We have it.

### Experience

We've been working on power quality with manufacturers, certifiers, developers, and on-site operators and managers for more than 20 years, and on grid integration for more than a decade.

### Speed

Time to market is crucial; we'll help you keep it as short as possible.

### Flexibility & Responsiveness

We plan, install measurement hardware, collect data, evaluate it and report it to you. Sometimes new situations or requirements arise. Thanks to our specialists' abilities and our advanced technologies and equipment, we can adapt and respond quickly to your needs in each phase.



## Why windtest north-america?

### Technology and Equipment

We use the most advanced measurement and testing equipment, software and technologies in the industry. We also have two Low Voltage Ride Through (LVRT) containers and can quickly get one to your site.

### Consultative Partnership

We'll work closely with you through every step and provide accurate, precise information you can rely on. We're also a technical consultant, providing information and participating in discussions between OEMs, wind farm operators and grid operators.

### Customized Evaluations

We often customize measurements, tests and evaluations for special needs, like harmonic grid pre-load, harmonic power flow and flicker frequency analysis for R&D.



## Highly Qualified and Engaged

- Our parent company, windtest grevenbroich gmbh, Grevenbroich, Germany, is one of the few measurement organizations in the world that holds the MEASNET seal of conformity for grid integration and power quality measurement.
- Our specialists serve on national and international working committees like IEC61400 21 and the MEASNET Power Quality Expert Group.

### See How We Measure Up

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