

# SITE ASSESSMENT

#### Energy Assessment

Type Testing & Technical Expertise

**Test Site Operation** 

Exactly how much power is your wind farm going to produce over the 20-year lifespan of the turbines? That's the bottom line for investors and lending institutions that can finance your project.

## You need precision, experience and reliability to provide the assurances they require. You need windtest north-america.

We've calculated or verified projections for more than 90 developers through hundreds of site assessments around the world. Over more than 20 years, our site assessment work has included 4,600 megawatts of installed capacity. We know how to gather the data you need – both through on-site measurements and from independent third-party sources – to calculate annual and lifetime energy outputs to the tightest margins.

That means you get the most accurate long-term projection possible, and your investors and lenders get the confidence they need to put financing on the table.

Precision in yield reporting.

## By any measure, you'll be ready to prove your project's value with windtest north-america.



## WHY WINDTEST NORTH-AMERICA?

#### **Accredited Expertise**

We offer accredited services in accordance with ISO/IEC 17025, and we adhere to the latest national and international standards.

#### Advanced

We use the latest processes and technologies, including CFD software (O.F. Wind, WindSim) and proven software tools such as WAsP and WindPRO, in gathering and evaluating site-specific data.

#### Engaged

Our specialists are members of several leading national and international working committees like IEC and the MEASNET Site Assessment Expert Group.

#### Experienced

Twenty years. More than 90 developers and 700 sites. Thousands of megawatts of installed capacity. With windtest north-america, you always get the highest level of quality and site assessment expertise.



### **Proven Process**

We calculate the energy output you can expect with a specific turbine at a specific location over its average lifecycle of 20 years.

The windtest north-america assessment encompasses variables such as prevailing wind conditions and speeds, topography, ground levels (orography), surface roughness, obstacles on the site, weather conditions, information collected over many years by independent third-parties such as MERRA, NCAR and ConWx, wind farm design and the number of turbines to be installed.

To evaluate all of those parameters, we review your existing data and recommend a test program that includes advanced measurement masts on site. Ideally, measurements should be taken for 12 months. Less than

a year can suffice in some circumstances, but only if we determine a shorter measurement period will not compromise our quality standards.

Once that step is complete, we begin calculating annual energy production and long-term output based on the turbines' projected generation capabilities.

In addition to annual and lifecycle energy production, our reports identify important parameters for investors and lenders such as occurrence probabilities, individual and total uncertainties and losses (grid, maintenance, ice, sound or bat related reductions, etc.).





#### See How We Measure Up

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