

Energy Assessment

*Type Testing +
Technical Expertise*

Due Diligence

Test Site Operator

Type Testing + Technical Expertise

References

windtest grevenbroich gmbh

Company Profile

More than 18 years of experience in an industry that is only little older. Since 1996, windtest grevenbroich gmbh (wtg) provides predominantly manufacturers, planners and operators, but also authorities, the finance sector and private individuals, first-class services in the areas of planning, development, optimisation, quality assurance and consulting in the technological and economic advancement of wind energy – both on the domestic market and abroad.

Innovations and optimisation measures for turbines, PV systems, components, CHPs, combustion engines or complete wind and PV farm configurations in relation to grid requirements are assessed in every detail, measured and planned by more than 35 experts – either on the company-owned, one of the worldwide largest test field for inland wind turbines in Grevenbroich, or locally at the customer's sites. Thus wtg makes a considerable contribution to the improvement of the technology and efficiency, the acceptance and the export opportunities of wind energy farms.

The measurements and expert reports of wtg-specialists provide customers with the very certainty they need for planning and implementation of wind energy projects. After all, reliability is our highest principle. We are also involved in numerous national and international bodies, ensuring that our staffs always have their fingers on the "pulse of time". On the other hand, their work results frequently affect statements, standards, or the legislation.



windtest grevenbroich gmbh

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The shareholders of the windtest grevenbroich gmbh are:

- 25,0 % Federal state of North-Rhine-Westphalia (NRW),
represented by NRW BANK
- 37,5 % RWE Innogy GmbH (utility)
- 12,5 % District of Neuss (authority)
- 12,5 % City of Grevenbroich (authority)
- 12,5 % ee energy engineers GmbH (TUEV Nord group).

The diversified shareholder structure (utility operator, private company, municipalities) guarantees the independence of our services.



Test site Grevenbroich

Our Quality References

- **Operator** of an **onshore test site** for inland wind turbines in Germany
- Exclusive partner for all measurement services for the largest **onshore test site in Europe** in the Netherlands
- DAKKS accredited according to **IEC 17025**, signed the Multilateral Agreement (MAL)
- **Independent** (referring to the shareholder structure of windtest grevenbroich gmbh)
- Full Member and Chairwoman of **MEASNET** Group (international organization)
- Member of **EWEA** (European Wind Energy Association)
- Member of **AWEA** (American Wind Energy Association)
- Member of committee for standardisation **FGW** (national organization)
- Member of working Committee Noise Emission (national organization)
- Member of working Committee Renewable Energies / Wind energy **VGB Powertech** (international organization)
- Member of Windgutachterbeirat und Sachverständigenbeirat des Bundesverband Windenergie e.V. **BWE** (national organization)
- Named Measuring Body for Sound Measurements according to §26 of the German Immission Control Law (**BImSchG**) (national organization)
- Partnerships or common projects with **universities in Brazil, Germany, South Korea** (International)

Fatigue Load Measurements

Since 1996 wtg realized more than 70 prototype testing measurement projects world-wide for turbines ranging from 1kW to 3 MW nominal output.

These type testing measurements are not only limited to standard measurements according to the major guidelines, but are also adapted to customers internal research requirements.



Our experts in the field

Our Projects (extract)

Numerous prototype measurements, in divers European countries (e. g. test field Germany, all over Germany, Italy, Netherlands, Poland, Scandinavia) and also on international level (e.g. India, South Korea, USA).

Our Clients (extract)

From all over the world

- ATS B.V.
- DeWind
- Directtech
- enbreeze
- Eviag
- GE Wind Energy
- Lagerwey
- Leitwind
- NEG Micon
- NEG Rotors
- Nordex
- ReGen Powertech
- Senvion
- Suzlon
- Tacke
- Tozzi
- Vensys
- Vestas
- WinWind
- Zollern

Specialized measurements on components of wind turbines and other industrial equipment

Additionally to the certification measurements of wind turbines, wtg has performed other specialized measurements over the last years. Both, turbine manufacturers as well as component manufacturers are asking for our services.

wtg provides experts from divers areas under one roof. These are:

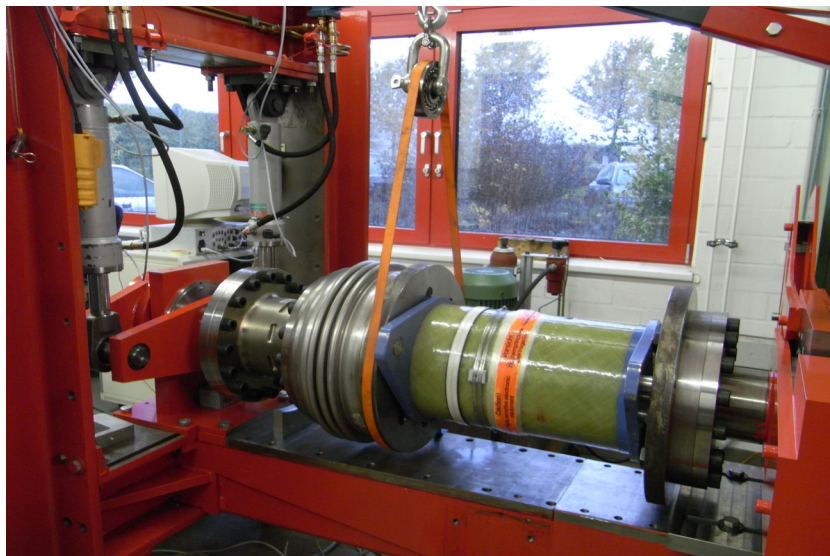
- Acoustics
- Mechanical vibration
- Load measurements
- Electrical engineering
- Meteorology

We are very flexible and can handle various metrological and physical tasks inhouse due to the close internal colaboration and short distances.



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Torsion test at a test bench

Specialized measurements on components:

- Rotor blade bolts
- Tower screw connections
- Movement of foundations
- Tower damping systems
- Mechanical tension at cast parts e.g. rotor hub
- Measurements of vibration
- Shifting of gear boxes
- Peculiar pressure-based 3-D wind sensors for wind turbines
- Analysis of measurement data according to the customers internal requirements
- Test benches (gearbox, generator, etc.)
- Finite Elements Method (FEM) model validation
- Thermal distribution inside the wind turbine

Contact

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