



# ENSURING GRID CODE COMPLIANCE

## Testing and Certification





## About Us

FGH is a **recognized pioneer of topics related to the energy of the future** – in close collaboration with its member companies, customers and partners. Since 1921, our declared aim has been to conduct **professional and scientific research on topics related to the future electrical power system**. Guided by our goal orientation, we transfer **scientific findings to the practice of engineering, creating a central knowledge base for the industry, operators and associations**. Our knowledge transfer activities are complemented by our practice-oriented training programs. Four fields of expertise form the comprehensive foundation of our work: electrical grids, power systems technologies, testing and certification and the FGH Academy.

Founded in 2004, our certification body is **worldwide's first accredited institution for the certification of the electrical characteristics of power generating units and plants**. Since then, the independent FGH certification body has become the **market leader in grid integration**. With our **accredited testing laboratory and the inspection body** we offer a **comprehensive package** for all questions concerning the connection and operation of electrical systems.

**Our certification body is accredited in accordance with**  
DIN EN ISO/IEC 17065

**Our testing laboratory is accredited in accordance with**  
DIN EN ISO/IEC 17025



## Our Focal Areas

Would you like proof of the **compliant behavior of your generating unit, electrical components or generating plant/storage system/electrolyzer** from an independent, accredited body? If so, we are the right partner for you! Our business partners benefit from our many years of experience and the highly qualified employees in our **accredited certification body, accredited testing laboratory** and our **inspection body**.



As an experienced partner, we supervise the project plans of our customers in all technologies – from wind power, photovoltaic systems and CHP to storage systems, electrolyzers and high-efficiency gas and steam power plants.

## Certification Body

Since the beginning of the energy transition and the associated success story of renewable energies, the number of decentralized generating plants – such as photovoltaic systems and wind farms – has increased steadily. To ensure grid stability and thus the security of supply, **grid connection certification for generating plants** has been established. A successful grid connection certification proves that generating units, plants or components can meet the required electrical characteristics and thus make their contribution to maintaining grid stability.

We support our business partners with **comprehensive certification services in all the relevant sectors**: Photovoltaics, wind energy, CHP, hydropower and storage systems on the unit, component and system levels. We actively help to design the grid connection rules. This ensures that we are always up to date.

Alongside the guidelines in the German market, we are accredited for **certification in accordance with numerous international grid codes**. Would you like to know which ones? If so, contact us!





## Testing Laboratory

Our **DIN EN ISO/IEC 17025 accredited testing laboratory** offers qualified conformity and type testing as well as comprehensive measurements determining electrical properties according to individual customer requirements.

Our offer is directed both to manufacturers of power generating units, storage systems and devices for protection and control technology as well as to project developers and operators of generating plants.

## Inspection Body

As a perfect complement, **our inspection body provides support at your generation plants and storage systems on site** – during commissioning and throughout the entire operating time!

## Individual Verification Procedure

The individual verification procedure is required for the grid connection of generation plants with non-type-tested generating units and storage systems, such as hydropower plants or high-capacity gas and steam power plants. We will be pleased to assist you with the necessary **measurement, certification and subsequent conformity monitoring**.



## Benefit from our Proven Expertise

### **Accredited proof of conformity in accordance with**

- VDE-AR-N 4105/4110/4120/4130 (GER)
- NTS, NTS SENP (ES), CEI 0-16 (IT), C10/11 (BE), Netcode elektriciteit, TOR Erzeuger (AT), Wymogi ogólnego stosowania (PL) etc.
- EN 50549 (EU)
- and many more

### **Accredited type testing/measurement in accordance with**

- FGW-TR3 and VDE 0124-100 (GER)
- EN 50549-10 (EU), CEI 0-16 (IT), NTS and NTS SENP (ESP), etc.
- Compliance monitoring/recurring inspections (testing of protection devices)
- Recurring determination of site quality after commissioning in accordance with FGW-TR10

# Our Portfolio

## Offers for plant operators and planners

- Plant certification and compliance studies in accordance with national and international rules
- Conformity statements
- Expert/court reports
- Harmonic measurements and evaluation
- Recurring determination of site quality for wind farms after commissioning in accordance with the EEG
- Individual verification procedure (ENV)

## Offers for manufacturers

Confirmation of prototype status, certification, type testing and measurement according to relevant guideline for

- Generating units
- Components (farm control units, protection relays, etc.)
- Storage systems
- Charging equipment for e-mobility, electrolyzers and other controllable systems
- Grid control units (OLTC, FACTS)

We also provide test equipment/test sites and support you with customized measuring campaigns.

**You have questions on our range of services?  
Please feel free to contact us!**

- International proof of conformity
- Training programs
- Individual measurements



# Advantages for our Members and Business Partners

- More than 100 years of expertise and experience in electrical energy supply and the energy industry
- More than 30 years of expertise in testing and inspecting for a reliable grid integration of renewable energies
- More than 15 years of accredited certification
- Finger on the pulse of the time through participation in all relevant committees for certification and grid connection (IEC, CLC, VDE/FNN/DKE, FGW, etc.)

## Contact

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