

# Testing, inspection and certification for low-, medium- and high-voltage components

For power grid operators and utility companies the reliability of the power transmission and distribution equipment installed in their network is vital. Investments in grid renewal and extensions are costly; equipment needs to last for decades. On top of that, it is important to eliminate electrical failures, reduce power outages and increase the safety of people who work in critical environments.

A safe power grid, safe equipment and systems, adequate processes and trained employees are paramount. By working with an independent third party like DEKRA, manufacturers can prove that their products have been tested according to international standards, meet end-user specifications, and relevant safety regulations. At the same time, grid operators and utility companies can rely on our certificates, reports, and verification services to assure the required level of reliability and safety.

DEKRA makes sure that manufacturers comply with international standards, national deviations and end-user specifications to maintain a high level of safety and reliability. We offer you the complete scope of low, medium and high voltage testing for power transmission & distribution equipment.

### Wide range of services

Our services are applicable to equipment manufacturers, energy utility companies, grid operators and large-scale energy users.

#### Services:

- > Type testing
- > Supervised / witness testing
- > Product certification
- > Development testing
- > Factory acceptance tests
- > Factory audits
- > Product supervision
- > Quality assurance
- > Inspections
- > Certificates / reports review
- > Design of specifications
- > Cybersecurity

We believe testing should be done as close as possible to manufacturers and end users. We offer testing near your premises, for example in one of the DEKRA laboratories. Testing can also be performed under our supervision in your own laboratory or in one of our associated third-party laboratories.



#### Laboratory testing

Our experts carry out many different tests throughout our global network of laboratories. Those tests include:

- > Short circuit tests
- > Making and breaking tests
- > Short-time and peak withstand tests
- > Synthetic tests on high-voltage circuit breakers
- > Power arc tests
- > Dielectric tests
  - Lightning-impulse
  - Switching-impulse
  - Power frequency voltage tests
  - Heat cycle aging tests
  - RIV and Corona tests
  - Partial discharge measurements
- > Determination of sound level of any equipment
- > Temperature-rise tests
- > Mechanical tests, pollution and aging tests

#### Products we test

At DEKRA, we work to provide safety throughout the entire power value chain, from where power is generated and transmitted to the final distribution and user. Examples of products that we test:

- > Circuit breakers
- > Switchgear assemblies
- Capacitor banks
- > Cables & cable accessories
- > Transformers
- > Automation products
- > Busbar trunking systems

## Your benefits

- Expert knowledge of standards Our experts have profound knowledge of standards, supported by their active participation in consortia and standardization groups
- > Widely recognized certificates Our test certificates and test reports are widely recognized and accepted by grid operators, utility companies, end-users, governments, and more around the world
- > Flexible testing routes Instrumentation We offer flexible testing routes in our laboratories in Hungary, the United Arab Emirates, China and the Netherlands. In addition, our Dutch and China-based highvoltage inspection teams witness type testing at manufacturers' sites and/or third-party laboratories around the world, including in Europe, the Middle East, South Korea, China, Japan and the USA

### About DEKRA

DEKRA has been active in the field of safety for more than 90 years and is one of the world's leading expert organizations in testing, inspection and certification. Our qualified and independent experts work for safety on the road, at work and at home. Among other things, they test and certify consumer, industrial, automotive and ICT products, medical devices and equipment used in explosive atmospheres for worldwide markets. DEKRA's mission is to be the global partner for a safe world.

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