Asset Management
for High Voltage Cable Systems
up to 500 kV
Brugg Cables Services

The Brugg Cables Services consists of a team of engineers, project managers and technicians. Our team has longterm experience in all facets of the industry. We are customer oriented and interested in a life-cycle partnership, which gives our clients the confidence that the results represent their interests. We offer comprehensive services packages: Engineering Services, Asset Management, Emergency Repair, Testing Services.

We routinely work with all stakeholders including field staff, engineers, non-technical senior management, board of directors, regulators, litigators, and the public. All of this combined with our proficient skills in technical writing results in readable reports that are easy to follow and apply.

Our clients include distribution cooperatives, generation and transmission cooperatives, investor-owned utilities, municipal utilities, public utility districts, and industry associations.

Asset Management is our solution to support our customers over the whole lifecycle of high voltage assets.
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**Reasons**
- Longer lifetimes to increase revenue
- Improved performance
- Reduction of accidents and failures

**Targets**
- Performance improvement
- Prevention of accidents and failure
- Analysis of status quo
- Reliability of your assets over the whole lifecycle

**Advantages**
- Unique Brugg Cables Asset Management advantages are
  - Solutions for all cable and accessories types
  - Transition joints, to connect partly destroyed oil cable circuits with XLPE cables
  - Solution for all life stages, beginning with engineering and finishing with disassembling

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**CABLE SYSTEM ANALYSIS**

Brugg Cables service portfolio comprises various cable circuit measurements. Below you can see a few of them:

- High voltage test
- Thermography
- $\tan \delta$-measurement
- ......

*Example*

Thermographical measurements are predestined to determine overheat on cable circuits, especially on outdoor sealing ends and terminations.

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**MEASUREMENTS OF THERMAL INFLUENCES**

**Thermal resistivity**

Measuring of ground helps to prevent the impact through water and extremes of cold and heat to high voltage cable circuits, especially to the insulation of cables, joints and terminations.

**Electrical resistivity**

Insufficient distances between high voltage cables and circuits lead to interferences, which can damage or destroy high voltage cable circuits.

*Example*

Before the installation of new constructions, the influences of these on cable lines must be checked, so that the optimum performance can be guaranteed.
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ASSET MANAGEMENT

Our engineer experts are able to conduct different calculations with our specific software. Subsequent are the most common of various calculation possibilities listed:

- Ampacity
- Magnetic field
- Induced voltages
- Hydraulic oil pressure calculations
- ...

Example:
The calculation of induced voltages and the possible installation of grounding systems enables the protection of man and the environment.

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BRUGG ACADEMY

Brugg Academy provides theoretical and practical courses for your engineers, specialists, and assemblers.

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MATERIAL EXAMINATIONS

Material examination are an efficient indicator to determine the condition of high voltage cable circuits. To name only a few of Brugg Cables material examination portfolio:

- Oil analysis
- Paper analysis
- Load analysis
- Lead analysis
- ...

Example:
Continuous oil analysis allows to predict the lifetime of cable circuits.
Providing full service consulting for power utilities

For experts by experts
Please find more details on the courses currently offered in the online documentation www.bruggcables.com/academy.

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