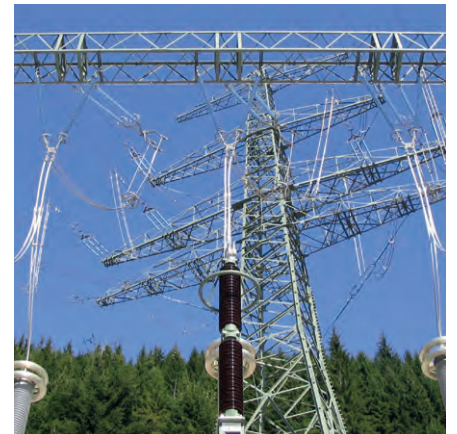
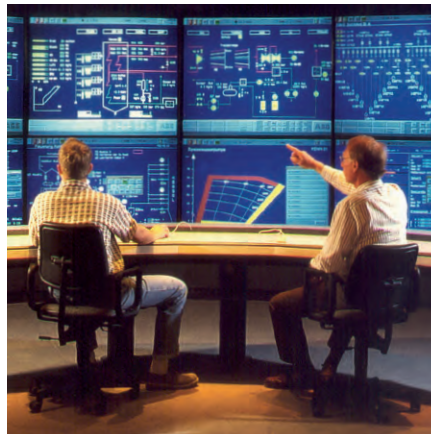
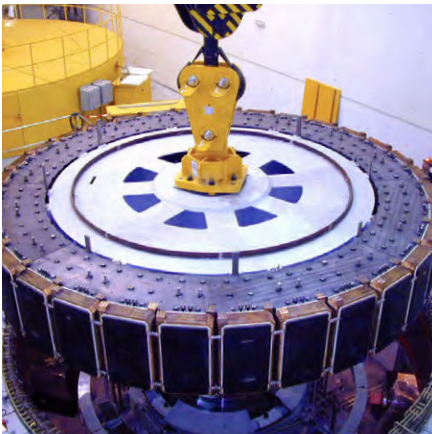


ELECTRICAL ENGINEERING

Shaping our world



Electrical Engineering

As a company of consulting engineers, Lahmeyer International offers a wide range of planning, management and consulting services, primarily for complex infrastructure projects.

Fields of Activity

- Energy
- Hydropower and Water Resources
- Water Supply and Wastewater Management as well as
- Building and Transportation sectors

Engineering Expertise

With origins dating back to 1890, Lahmeyer International was founded in 1966 and since then has developed into one of the leading international engineering companies with projects in 165 countries.

This experience allows us to offer our clients technically and economically optimised solutions and the guarantee of successful project execution from design and planning to approval and realisation.

Lahmeyer's Ranking World-wide

Lahmeyer International has continuously been ranked among the world's top engineering firms in our fields of business (see „Engineering News Record“).

Electrical Engineering

At Lahmeyer, we have a large team of electrical experts. This allows us to provide consulting services for all electrical systems within our fields of expertise, including:

- Thermal Power Plants
- Hydropower Plants
- Renewable Energy Systems
- Transmission and Distribution Facilities
- Water Supply and Wastewater Treatment Plants
- Industrial Plants
- Transportation Infrastructure

Multidisciplinary Teams

Successful solutions to complex technical tasks require global competence and interdisciplinary collaboration. Lahmeyer is one of the few companies world-wide that can offer the whole spectrum of expertise from its own professional staff with engineers, scientists and economic experts from 30 different specialist fields.

Technical Expertise and Project Management Competence

It is our conviction and approach that our experts provide both strong technical know-how and project management experience.

Services

The spectrum of services covers the entire lifetime of a plant and ranges from pre-feasibility studies, to conceptual planning and detailed design to tendering, assistance during project implementation and advice on operation and maintenance as well as rehabilitation.

All from one Partner

We provide experts for all electrical plant systems:

- Electrical power equipment
- Automation & control
- Communication, information and security systems

Electrical Network Studies

Lahmeyer International uses an extensive portfolio of advanced software packages that enable our experts to analyse network behaviour and carry out steady state, transient and dynamic network calculations thereby optimising power systems correspondingly.

Rehabilitation Studies

Based on long-term experience, Lahmeyer developed effective methodologies and tools to assess the condition of a plant to determine the optimised rehabilitation measures.

Lahmeyer Services



Transmission and Distribution

We offer consulting services throughout all project phases for all transmission and distribution assets including substations and their interconnections by overhead lines or cables as well as the control and monitoring of the same.

- Transmission and distribution networks
- Regional grids and rural electrification (microgrids)
- High-voltage transmission (HVAC / HVDC)
- Substations and transformers
- Overhead lines (OHL)
- Underground cables
- Smart grids / digital substations
- Load dispatch centres (SCADA / DMS / EMS / NA)
- Substation protection, control and monitoring
- Advanced Metering Systems (AMS)
- Battery Energy Storage Systems (BESS)
- Utility telecommunication
- Network planning and power system analysis



132 kV GIS Hall, U.A.E.

Electrical Power Systems

We provide engineering services for the complete electrical equipment of power plants and substations as well as industrial plants and transportation facilities.

- Generators, motors
- Power electronics (converters, AC- and DC-excitation)
- Generator bus ducts and integrated devices
- Transformers
- HV-, MV-, LV-switchgear
- Emergency power supply and uninterrupted power supply
- Electrical protection systems
- Cabling, cable routes and cable management
- Earthing, overvoltage and lightning protection, electromagnetic compatibility
- Lighting and small power installations



Pumped-Storage Hydropower Plant Vianden, Luxembourg

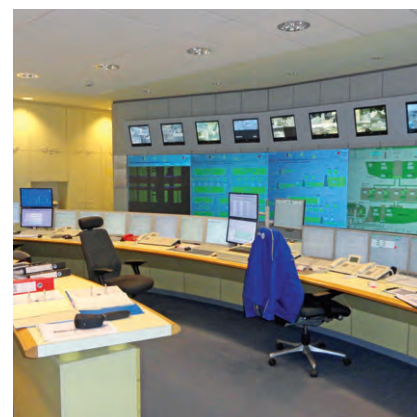
Automation and IT

Our services also cover the complete control and automation equipment required for the operation of modern facilities.

- Control systems
- PLC automation
- Instrumentation and measurement
- IT-networks
- Control rooms
- IT-consulting for utilities
- IT and ICS cyber security
- ISMS (ISO 27000)

Communication and Security Systems

- Fire alarm systems
- Loudspeaker systems
- Video systems (CCTV)
- Radio systems
- Telecommunication systems
- Intrusion detection and alarm systems
- Access control systems



Hydropower Plant Goldisthal, Germany

Lahmeyer – A Company of Tractebel

At the helm of the Energy Transition, Tractebel provides a full range of engineering and consulting services throughout the life cycle of its clients' projects, including design and project management. As one of the world's largest engineering consultancy companies and with more than 150 years of experience, it's our mission to actively shape the world of tomorrow. With about 4,500 experts and offices in 33 countries, we are able to offer our customers multidisciplinary solutions in energy, water and infrastructure.

Since December 2014, Lahmeyer belongs to Tractebel and thus is part of the international ENGIE group headquartered in Paris. Tractebel, which is based in Brussels, and Lahmeyer, which is based in Bad Vilbel near Frankfurt, cooperate on numerous international projects and keep growing closer as one company.

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