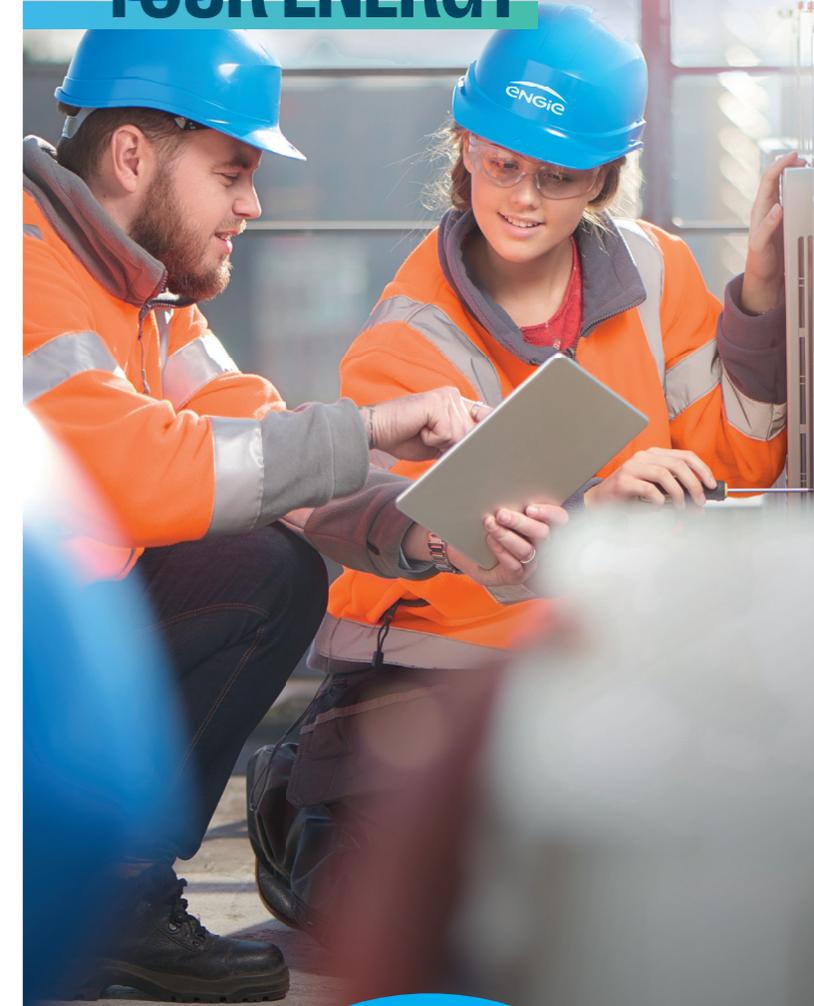


ENGIE – throughout Germany at your side

Balance of Plants (BoP) Pipelines, Valves, tanks

Boiler plants and steam generator technology

POWER SOLUTIONS GLADBECK OUR SOLUTIONS MAKE MORE OF YOUR ENERGY



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Building Technologies

Subsidiary Power Solutions

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Maintenance and new construction of

- Piping (HP, MD, LP)
- Piping systems

Detail engineering

- 3D planning
- Calculation and pipeline statics
- Isometric and support planning

Procurement (Pipes, fittings, steel construction, brackets, components, armatures) and **Prefabrication** including inductive bending

Assembly service

- Site management, QA, welding supervision, HSE
- Main trades; including scaffolding, PWHT, zFP
- Secondary trades; for example insulation, trace heating, pipe bridges

Documentation & manufacturer in the sense of the PED

Services

- Damage analysis, consulting, welding engineering development
- Bracket service (various makes)

Execution of maintenance and service orders in:

- Waste, hazardous waste, biomass incineration
- Conventional power plants with Gas, oil and coal fired steam generators

Engineering

- Detailed engineering incl. possibly necessary optimization
- Design and recalculation of boiler components
- Procurement, assembly and overall documentation
- Project management with coordination of all project interfaces
- Assembly studies
- Welding technology, quality assurance, HSSE

Prefabrication & Delivery

Pressure component components membrane walls, collectors, superheaters, evaporators, Eco heating surfaces.

Execution of maintenance and service orders in:

- Disassembly & assembly of boiler pressure components
- Maintenance work on gratings, refuse tasks, burners and ash removal
- Hand & automatic cladding (nickel-based materials)



Medium and low voltage switchgear



Energy projects

- Transformers
- Medium and low voltage installations
- Electrical protection technology and voltage regulation
- DC voltage technology (inverters, rectifiers, DC voltage distributions and battery systems)
- Cabling systems
- Retrofit measures

Service & maintenance including troubleshooting

- MV and LV switchgear; including switching devices
- Electrical protection technology & voltage regulation

Services

- Delivery, conversion, assembly, commissioning and documentation

Substations and infrastructure



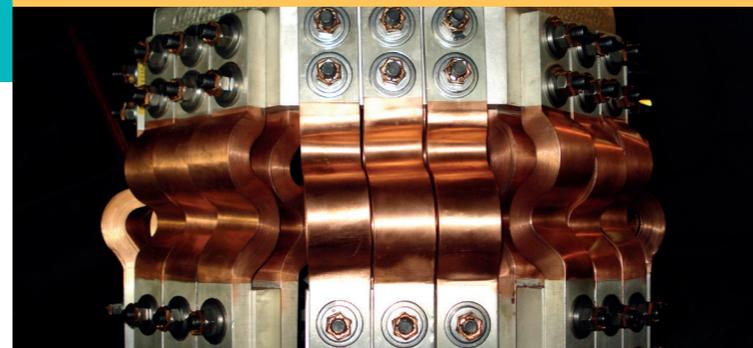
New build projects and enlargements from network distribution stations and substations in the high and extra-high voltage range from 110 to 380 kilovolts

Supply and installation of primary equipment including steel structures, stranding, piping and equipment installation

Mounting and connection of secondary equipment and ancillary facilities

Medium-voltage cable installations as well as commissioning support for extra-high, high, medium and low-voltage systems, transformers and cabling systems of various makes

High current connections and Electrical large components



High current connections, Generator IPB (isolated phase busbar) and periphery

- Assessment including thermography and inspection
- Technical advice, maintenance recommendations costing, budgeting
- Sighting and sealing of leaks
- Adjustment and revision work on all types of busbar systems and associated high current connections up to 1.400 megawatts
- Maintenance, repair and adjustment of cooling and ventilation systems; including accessories and short-circuiting devices
- Back/reverse engineering

Power transformers

- Revision work and diagnostic measurements
- Transformer exchange

I&C technology



Projects. Extensions, maintenance, service and troubleshooting with tasks in the field of measurement and EMSR technology; including planning, delivery, installation, commissioning and documentation

Processing of all control system components

from the sensor via the control or automation system to the actuator

- Inspection work and quality assurance; including safety-related plant parts and components
- Process analytical measurements
- Emission measurement technology and evaluation systems
- Special measurement solutions
- Measurement and billing systems of non-electrical process variables
- Design and detail engineering with CAD systems

We support our customers in the transition to climate neutrality through energy-efficient solutions and the use and expansion of renewable energies. ENGIE Germany is one of Germany's leading specialists for plant construction, plant and process technology, facility management, energy management, power generation, energy supply and mobility concepts as well as industrial refrigeration technology. Nationwide, 4,650 employees work at 50 branches at ENGIE Germany.

