

- HEAT RECOVERY
- BIOMASS
- PRIMARY FUELS
- SOLID RESIDUES
- LIQUID & GASEOUS RESIDUES

## GAS POWER PLANT EMSLAND LINGEN, GERMANY



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<b>Energy Source</b>	Natural Gas GT-Exhaust Gas
<b>GT-Exhaust Gas Flow each</b>	168.6 kg/s
<b>GT-Exhaust Gas Temperature</b>	429 °C
<b>GT-Electric Output</b>	2 x 2 GT a 58 MW
<b>Steam Capacity HD</b>	2 x 1140 t/h
<b>Steam Temperature HD</b>	535 °C
<b>Steam Pressure HD</b>	186.7 bar
<b>Feed Water Temperature</b>	271.3 °C
<b>FG Temp. Boiler Outlet</b>	190 °C
<b>Thermal Capacity of Firing System DE</b>	2 x 814.3 MW
<b>Type of Boiler</b>	Benson Type
<b>Year of Recommissioning</b>	2012

### THE TASK

At its Emsland location in Lingen, RWE Power AG operates two natural gas-fired combined cycle units with an output of 410 MW. A further power plant unit was constructed as a combined gas and steam plant with an electric output of about 875 MW and started commercial operation in August 2009. Due to the advanced age of the existing upstream gas turbines in the combined cycle units they were replaced by new gas turbines and the existing plant was modernised with further measures. Standardkessel Baumgarte received an order for the detailed design, the preparation of the necessary tender documents for the component-wise award of sub-contracts for the work lots as well as technical support for the project up to commissioning.

### THE SOLUTION

After exact process engineering design as well as the preparation of the tender documents, Standardkessel Baumgarte was able to award sub-contracts for the job lots component-wise to appropriately highly qualified suppliers. With project management, construction and commissioning management as well as supplier support, it was possible to lead the project successfully up to commissioning.

### SCOPE OF SUPPLY

(Process-engineering Design and Supplier Management)

- 4 Gas Turbines
- Transformers
- By-pass Stacks
- Supplementary Air Fan
- Waste-gas Dampers for Switchover in By-pass Operation
- Process Control Equipment
- Electrical Equipment
- Necessary Construction Measures such as Laying of Foundations, Supporting, Building and Enclosure

### SEVICES

- Obtaining of Approvals / Licences and Liaising with Authorities
- Design Engineering
- Project Management
- Erection Management
- Commissioning Management