It has been widely accepted that biomass will play a significant role in the future energy supply mix. As the only carbon based renewable energy resource it combines both abundant availability and storability.

Lignocellulosic feedstocks not only have a high potential for electricity production, but research has further paved the way for the production of liquid fuels and chemicals on an industrial scale.

The residues from such processes as well as other agricultural residues can be further utilized in thermal combustion processes, thereby maximizing the overall economy without competition with fuel or feed.

Keywords
- Thermal treatment center
- Biogenic fuels
- Thermal waste treatment
- Fuel conditioning
- Pellets and wood chips
- Thermal processes
- Thermochemical treatment
- Flue gas cleaning
- Filter technology and development
- Particulate matter

Target groups
- Energy industry
- Waste management and recycling industry
- Utility companies
- Communities
- Plant engineering
- Environmental technology
**Technical equipment**

- Grate furnace 440 kW\(_{\text{thermal}}\)
- Combined gas and solid furnace 200 kW\(_{\text{thermal}}\)
- Cyclone furnace 100 kW\(_{\text{thermal}}\)
- Grate furnace 100 kW\(_{\text{thermal}}\)
- Through furnace 35 kW\(_{\text{thermal}}\)
- Rotary furnace 5 kW\(_{\text{thermal}}\)
- Pyrolysis plant 100 kg/h throughput
- Pellet press
- Isokinetic dust measurement system
- Cascade impactors
- Online measurement system for raw and clean gases
- Fuel laboratory
- Drying cabinet up to max. 220 °C
- Emission control systems in accordance with the 17th Federal Emission Protection Ordinance (BImSchV)
- Electrostatic precipitator
- Active carbon filter
- Ceramic filter with sorbens injection
- Central Facility Control System
- High temperature heat storage (up to 1400 °C)
- Bulk good steam generator

**Our services**

- Incineration, gasification and pyrolysis experiments
- Online measurement for raw and clean gases
- Filter testing
- Ash analysis: determination of the loss on ignition and elemental composition
- Pelletising of test batches
- Fuel testing and conditioning
- Design and construction of pilot plants
- Evaluation and optimization of operation concepts
- Adaption of fuels and combustion techniques
- Studies and concepts for integrated heat recovery

**Your benefits**

- A highly competent and innovative partner in research and development
- Many years of experience in the use of alternative fuels
- Competitive advantages due to optimized fuel feed
- Risk-free and realistic testing of fuels

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1. *Steam generation based on Pebble-Heater technology.*
2. *Pilot tests with a 440 kW grate furnace.*