



Power and heat from waste

economical | environmentally friendly | safe

Your project will benefit from the decades of experience that **STEAG Energy Services (SES)** has gained along the entire value chain - from waste treatment to operation management.

We live the responsible use of energy and love demanding challenges.

We are also a pioneer, technology leader and competent problem solver in the field of thermal waste treatment - worldwide. Our experience is based on

STEAG's numerous own projects and on our contributions to customers' plants. Whatever your requirements are, we make them ours. From concept to design, implementation and operational management through to performance optimization, in each task our specialists will add value.



Effective support for operational management



Immediate experience from plant operation



Innovative engineering for future-oriented electricity and heat provision

Waste is a valuable resource

Relevance of thermal waste treatment is growing worldwide. The energy contained in waste is increasingly being used to generate both, electricity and heat (combined heat and power generation). Suitable fuels are e.g. household waste and waste from commercial and industrial customers, either as primary fuels or as processed substitute fuels (RDF) or secondary fuels (SDF), both, in solid or liquid form and as gases. Each fraction, each composition requires the conscientious and individual consideration of all aspects, such as environmental compatibility, safety, economic efficiency and service life. In general, the availability of the plant and, consequently, the reliability of disposal are of paramount importance. Assuming this view SES accompanies your project from the perspective of an owner/investor.

Planning and design: flexible solutions for maximum efficiency

We design thermal plants for waste utilization and work entirely supplier-independent and solution-oriented, always keeping an eye on the profitability and viability of the business model. Through innovative engineering, we also ensure that the capacity of your plant is set for increasing quantities of waste and thus is state-of-the-art, ensuring that even under changing conditions, a future-oriented generation of electricity and heat can be ensured. The case study is STEAG's thermal waste treatment plant in Lauta (Saxony) with a throughput of 225,000 t/a of household waste servicing more than 1 million inhabitants. SES accompanied the entire project life-cycle

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from concept to planning, tendering, contract award and approval planning through to construction, commissioning and handover to the operator.

Effective combustion control & process optimization

Every waste treatment plant can be optimized by applying sound expert knowledge and the use of our advanced software tools with regard to maximum throughput and highest availability. SES provides powerful IT solutions for the design, operational support and optimization of operation and maintenance: starting from the simulation of thermodynamic processes, continuous process quality and condition monitoring and flexible maintenance planning and control up to the optimization of the furnace temperature profile and combustion control as the high-sophisticated excellence. Among others, MVV Umwelt GmbH, one of the leading German partners for energy from waste and biomass, relies on STEAG's process quality and condition monitoring in particular focusing Predictive Maintenance in the optimization of its 13 plants.

Safe and efficient operation of waste incineration plants

Qualified operational management and structured and predictive maintenance ensure the long-term success of investments in thermal waste treatment plants. We provide our services in the Operation & Maintenance (O&M) of thermal energy plants with internationally experienced teams. The contribution may range from advisory support for the existing plant management up to the fully responsible assumption of operational management and maintenance (including full staff), ultimately to holistic asset management. Rational of this experience derives from the daily operation of the STEAG's waste-to-energy plants (225,000 t/a and 270,000 t/a respectively) as well as from our third party O&M contracts with international partners, amounting to approx. 10,000 MW.