

An advanced engineering and technology partner transforming waste, biomass and complex industrial resources into resilient energy systems.

PUBLISHED FIGURES

1,000,000t+

Waste and residues processed through engineered conversion routes

500,000t+

CO2 avoided annually across supported energy systems

12+

Global projects delivered or supported by our engineers

FIGURES AS PUBLISHED ON TOKEF.PT – SUBJECT TO CLIENT VERIFICATION

SIX CAPABILITY AREAS

01 Energy & Thermal Conversion

Gasification, biomass energy, waste-to-energy and synthetic fuel pathways engineered around your feedstock.

Gasification of waste & residues · Biomass energy & CHP · Waste-to-Energy · Syngas applications

02 Engineering & EPC

From feasibility and FEED through basic and detail engineering to construction supervision and commissioning.

Feasibility & FEED studies · Basic & detail engineering · EPC tender management · Construction & surveying

03 Project Development

Technical, financial and commercial structuring that moves projects from concept to bankable reality.

Technical & financial feasibility · Business planning · Risk assessment & mitigation · Financial advisory & budget structuring

04 Laboratory & Fuel Analysis

Solid fuel characterization that grounds every design decision in measured material data.

Proximate analysis · Ultimate analysis · Calorific value (GCV/NCV) · Ash fusion & composition

05 Digital & Automation

Industrial AI, automation and simulation applied where they measurably improve plant performance.

Industrial automation systems · AI agents for industry · Predictive analytics · Computational simulation (CFD)

06 Sustainability & Emissions

Emissions control, energy recovery and circular-economy engineering with credible, auditable outcomes.

Emission control & monitoring · Energy recovery · Waste valorisation · Circular economy strategy

WORKING STANDARDS

ISO 9001:2015

Quality management systems

ISO 14001:2015

Environmental management

ASME BPE

Bioprocessing equipment

IEC 61508

Functional safety of E/E/PE systems

SELECTED REFERENCES

Industrial-Scale Biomass Gasification Plant

RADOTÍN, CZECH REPUBLIC · 15 MWth

A 15 MWth biomass gasification facility converting agricultural residues into process energy with 83% thermal efficiency.

Advanced Syngas Production Facility

PUERTOLLANO, SPAIN · 25,000 Nm³/h

A syngas production facility processing 25,000 Nm³/h from mixed waste residues with 78% carbon conversion.

AI-Powered Data Center Optimization

MULTI-SITE PROGRAMME · 35%

AI-driven automation across data center operations reducing energy consumption by 35% with 2M annual savings.

Renewable Energy Transition Programme

MULTI-YEAR PROGRAMME · 100% renewable

Strategic consulting and project management for a complete three-year transition to renewable energy supply.

DISCUSS A PROJECT

info@tokef.pt · <https://tokef.pt> — feasibility, FEED, owner's engineering and laboratory analysis.

Independent advice, vendor-neutral. Gasification and thermal conversion since 2017.