



REDUCE ENERGY COSTS AND TRANSFORM YOUR BUSINESS WITH CO₂-FRIENDLY BIOMASS POWER PLANTS!

Sustainable syngas solutions | Spanner Re² GmbH



OUR MISSION

>>RETHINK ENERGY

Spanner Re² GmbH

- Our credo is to **Rethink energy**, and we are committed to CO₂-friendly energy solutions
- For **more than 20 years**, we have been **manufacturing biomass power plants**, that produce **CO₂-neutral or CO₂-negative** energy*

*depending on the fuel you used



[Link Website](#)

A dark blue rectangular box containing a small green square at the top left and the text 'YOUR CHALLENGE' in large, bold, light blue capital letters.

**YOUR
CHALLENGE**

RISING ENERGY COSTS & FOSSIL DEPENDENCE

- High energy costs?
- Large CO₂ footprint?
- Dependence on fossil fuels?
- Unstable energy supply?
- Your energy demand varies?
- You have wood or residual materials from your business that are not profitable?



OUR SOLUTION

DECENTRALISED ENERGY SYSTEMS ARE THE SOLUTION YOU NEED



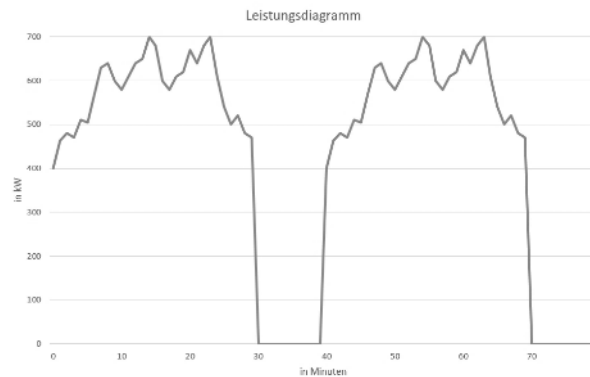
- Convert **biomass & residual** materials into **electricity + heat or syngas**
- CO₂-neutral, cost-effective technology
- **Scalable** from 35 kW electric / 500 kW gas **up to multiple megawatts**



SCALABLE TECHNOLOGY FOR VARIOUS NEEDS

Proven 1,100 times over

- Good partial capacity
- Flexible in operation (50-100% power) & in the range of input materials
- Environmentally friendly & future-proof





WHAT IS SYNTHESIS GAS?



Synthesis gas or syngas for short is a gas mixture consisting mainly of carbon monoxide (CO) and hydrogen (H₂) that is produced in our energy plants from waste or biomass.

If only wood chips are used in the system, it is also known as **wood gas**.



WASTE TO ENERGY

FUEL FOR BIOMASS POWER PLANTS

We produce synthesis gas from a wide range of waste materials, including

- roadside greenery
- waste wood or residues from wood processing
- forestry thinnings
- MDF and chipboards
- plastics



Our technology allows **up to 50% of plastic waste** to be used as fuel in our plants, along with wood chips, **to produce a high-quality synthesis gas.**



Waste wood or residual fractions from wood processing



Nut shells

WASTE TO ENERGY



Roadside greenery



Pallets / Fruit boxes



Plastic waste



chipboard or MDF remnants



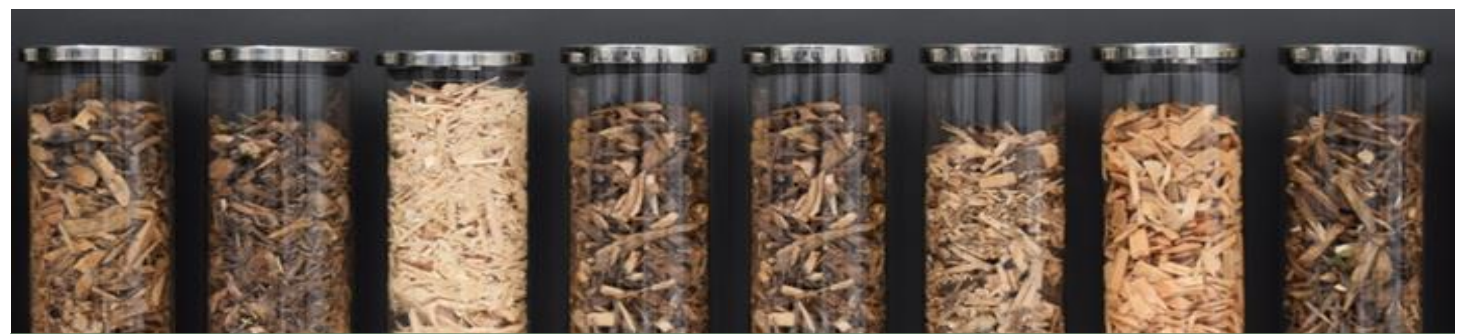
Pellets



Forest residues wood



Kernels



Wood chips



REPLACING NATURAL GAS WITH SYNGAS

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**TRANSFORM
YOUR
BUSINESS**



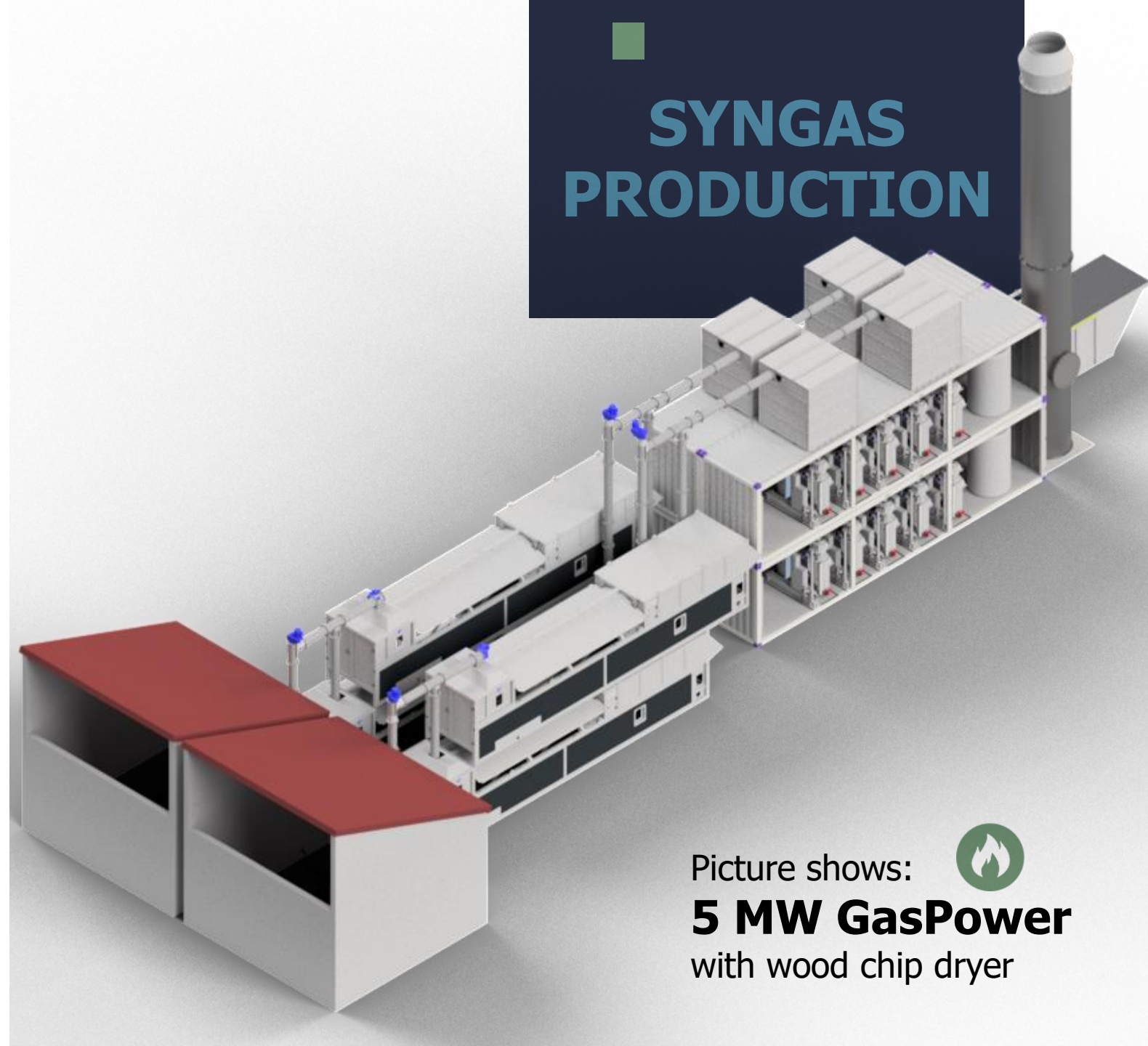
Applications:

- Thermal Oil Processes
- Brickworks
- Corrugated Cardboard Manufacturer,
- Steam processes
- Galvanizing plants
- Post-combustion plants
- Ceramic works...



GENERATING SYNGAS WITH RE² ENERGY PLANT

- **Scalable** from 210 kW gas up to **multiple megawatts**
- Sustainable and **cost savings alternative to natural gas**
- Instead of fossil fuels, value added stays in the region



Picture shows:



5 MW GasPower
with wood chip dryer

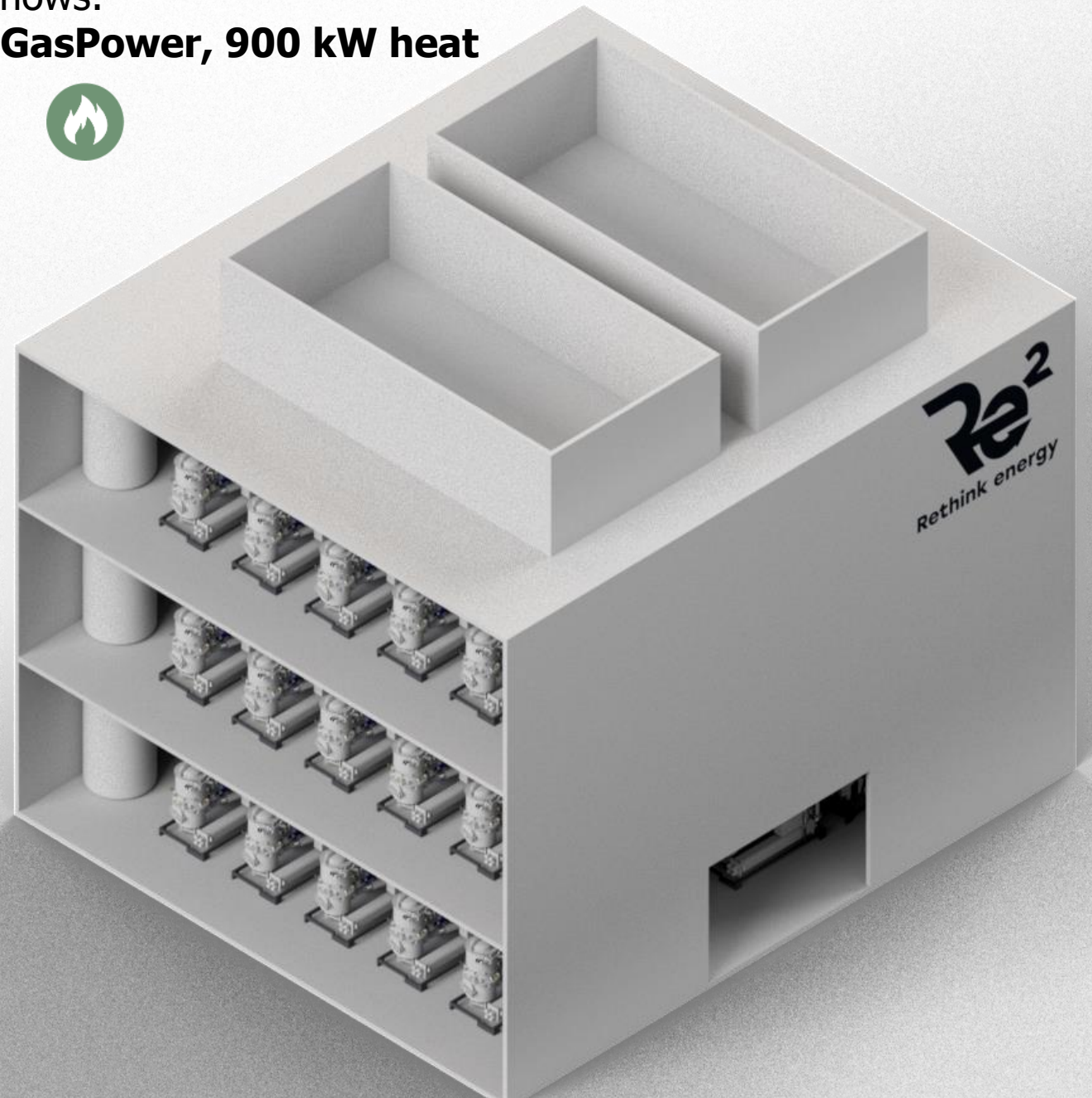


EXAMPLE: SYNGAS POWER PLANT

15 MW SynGas +
900 kW heat

Space requirements:
only 12 m x 12 m

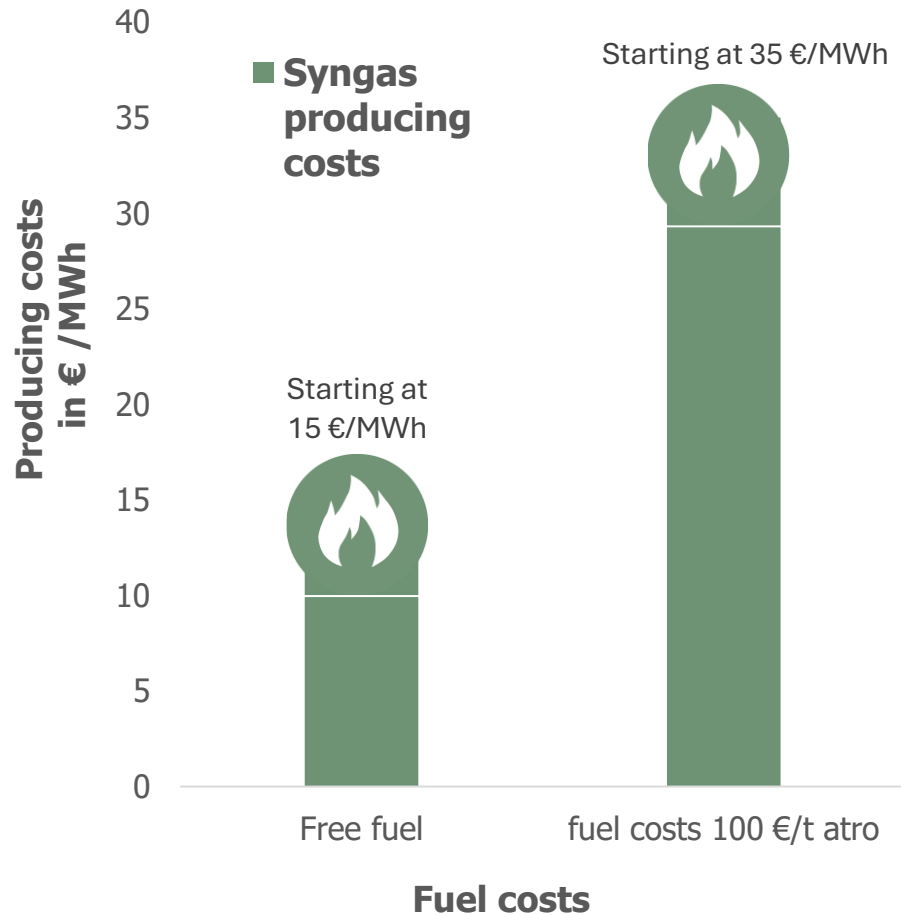
Picture shows:
15 MW GasPower, 900 kW heat





COST OF PRODUCING SYNGAS DEPENDING ON THE COST OF FUEL USED

COSTS OF PRODUCING



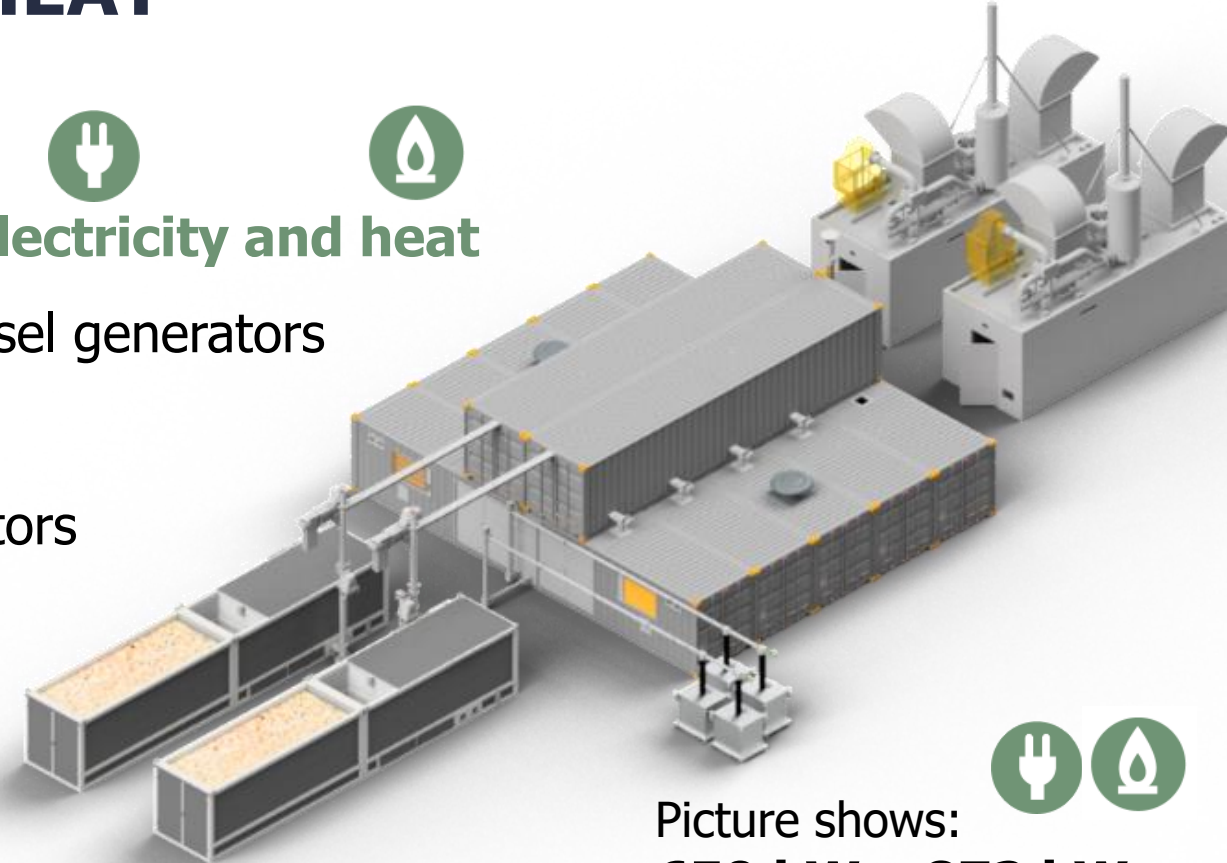
This requires a **long system runtime** and **constant energy demand** throughout the year.



**ELECTRICITY
+ HEAT**

ALSO POSSIBLE: GENERATING ELECTRICITY + HEAT WITH RE² ENERGY PLANT

- Convert **biomass & residual** materials into **electricity and heat**
- Sustainable and cost savings alternative to diesel generators
- **Scalable** from 35 kW_{el} **up to multiple MW**
- Can be **combined** with existing diesel generators or other renewables such as **PV and storage**
- Value added stays **in the region**

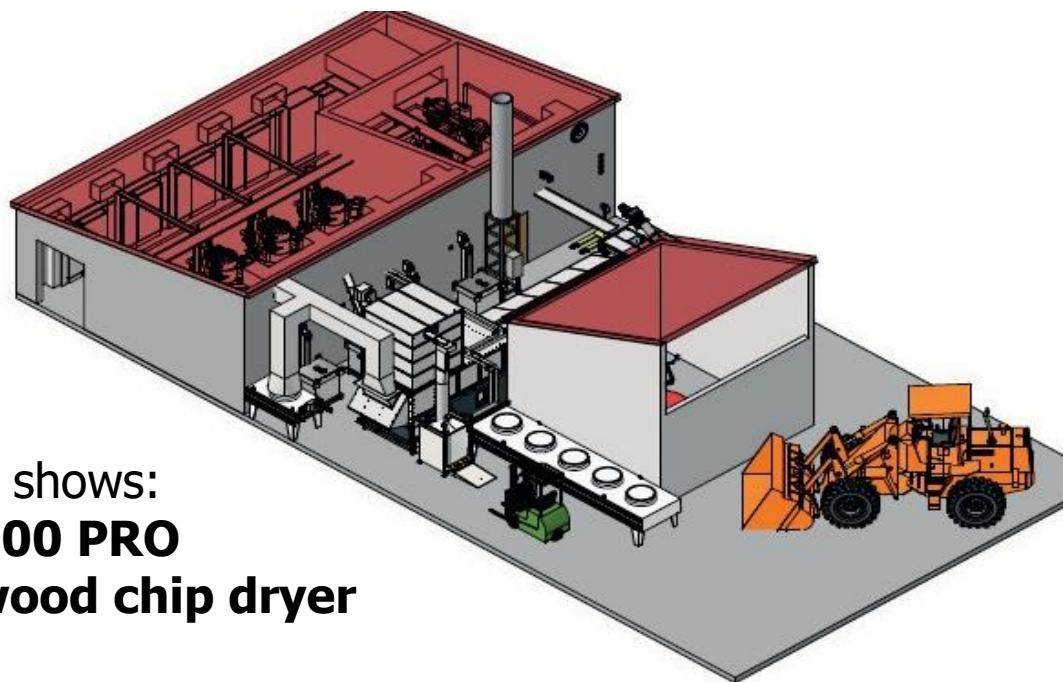


Picture shows:
650 kW_{el}, 872 kW_{th}
Incl. wood chip dryer



EXAMPLE: HKA 300 PRO

325 kW electricity + 479 kW heat



Picture shows:
HKA 300 PRO
incl. wood chip dryer





EXPERTISE OF OVER 20 YEARS

Spanner Re² GmbH

- With **more than 1,100 systems installed globally**, we are the leading manufacturer in the industry of decentralised biomass and residue gasification
- Our systems are designed to allow you to **service and maintain them yourself**
- **Transform your business** and become energy independent with our systems!



CONTACT US

Contact form



SCAN ME

Contact form Spanner Re²



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