GENERAL DESCRIPTION

TOP MAINTAINED, COMPLETE 10 MW_e GAS-FIRED COMBINED HEAT AND POWER PLANT COMPRISING OF 5 INDIVIDUAL UNITS
AVAILABLE FOR RE-LOCATION

Type:
Gas-fired Engine-driven
Combined Heat and Power Plant

One of five turbine engines

Location:
Western Europe
at former operation sites

These five separate combined heat and power plant units have been commissioned in 2011 and 2012 and are designed for base-load or medium-load operations with electricity feed-in into the 50 Hz public grid.

The units are capable of highly flexible power generation with a wide spread in generation capacity and a short start-up time.

Total thermal output is almost 50 MWth with maximum temperature of 120 °C at a pressure maximum of 16 bar.

The power plants are designed for highly efficient operation with an electrical efficiency of 42.5% and a thermal efficiency of 47.2%.

The operator has decided to mothball and preserve the units due to a general change in district heat supply. Due to its moderate use (with approx. 35,000 or more operating hours) and its continuous supervision and maintenance, all units are still in excellent condition.

These combined heat and power plants are still fully operational, well preserved and are offered as a package or as single, complete units.

Offering

item / type / layout	five gas fired combined heat and power plants of each 2 MWe gross capacity with all necessary auxiliary systems three of these five units were commissioned in 2011 and two in 2012

typical usage	typical use of this power plant is the generation of electricity and district heating at full and partial-load, with natural gas power plant can be operated 100% with either fuel type
special features	high efficiency, very good preserved and fully operational, well maintained, in overall top condition, generous technical design reserves so far extremely high availability, technically monitored top condition, experts for operation and maintenance on site still available, all operating permits maintained and all legal requirements fully met three of five units can also run on methane gas
status	Suspended and ready to start at any time – not yet decommissioned; technically preserved in its entirety; full corrosion protection in place at least until mid-2026 regular test runs take place, ready to start at any time, ongoing maintenance has been continuously monitored by experts since March 2026
availability for dismantling	any time ready, subject to sales contract
sales prices	EUR 1.149.000 Euro (1,339,000USD) for all five units (installed as is) alternatively: EUR 249.000 per unit (USD 289,000 each) for a single 2 MW unit; to be sold as it is and where it is; in total five units available; full corrosion protection in place until mid-2026

Key Figures

main fuel type	Natural gas <u>and / or</u> methane gas Three of five units can run on natural and methane gas, two units only run on natural gas
electrical output	10 MW_e gross
thermal output	maximum heat capacity of 12 MW_{th}

efficiency	For three of five units: electrical efficiency of 41.0% thermal efficiency of 49.7% for two of five units: electrical efficiency of 42.5% thermal efficiency of 47.2%
grid connection	10 kV each, customer station next to the plant
plant size	Each power plant located in 15m x 10m x 7m container with 31m high chimney
year of commissioning / year of last retrofits	2011 - commissioned (three of five units) 2012 - commissioned (two of five units)
major upgrades / events	most recent major overhauls / upgrades: CHP 1: turbocharger (2022), genolager (2023), cylinder liners (2020) CHP 2: turbocharger (2022), camshaft (2024) CHP 3: generator fan (2023), cylinder liners (2020) CHP 4: turbocharger (2023), gear coupling (2023), Valve breakage and complete engine overhaul (2023), oil cooler (2023) CHP 5: turbo charger (2022), Feedwater circulation pump (2021), oil cooler (2021), partial overhaul (2021)

Operating Figures

max. generation capacity	10 MWe gross (all five units in total)
type of cooling	air cooling

Technical Figures of Main Components

Each of these power plant units for sale comprise a 2 MW gas engine, a 10,5 kV generator, a 0,63 MVA low-voltage transformer (only one per unit) and the entire components of the control and communication system.

Gas engine (each)	• 2 MW, Caterpillar, type G 3520 C • with an existing preparation for decoupling around 2,5 MW thermal power
Generator (each)	• Caterpillar type SR4B HV • Rated power: 2500 kVA • Rated voltage: 10,5 kV • Rated current 137,5 A
auxiliary transformers	• 1x 0,63 MVA low-voltage transformer, 10 -> 0,4 kV; dry-type
control and communication system	• superior control system via freelance

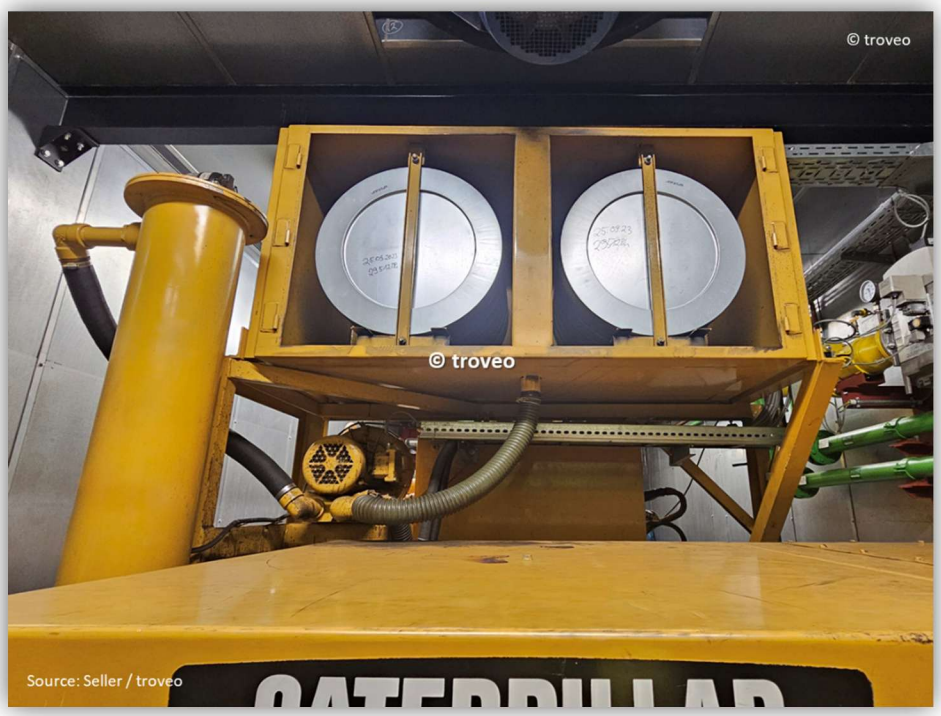
Additional Information

documentation	• the entire documentation is available in multiple versions on site; the operating documentation is largely digitised; as-built documentation of the control and process engineering is available; the records of all revisions, test runs and the operating manuals are available; also, the entire quality documentation is available •
marketing service fee	• will be paid by the seller
dismantling of unit	• costs shall be borne by buyer • technical assistance by seller negotiable

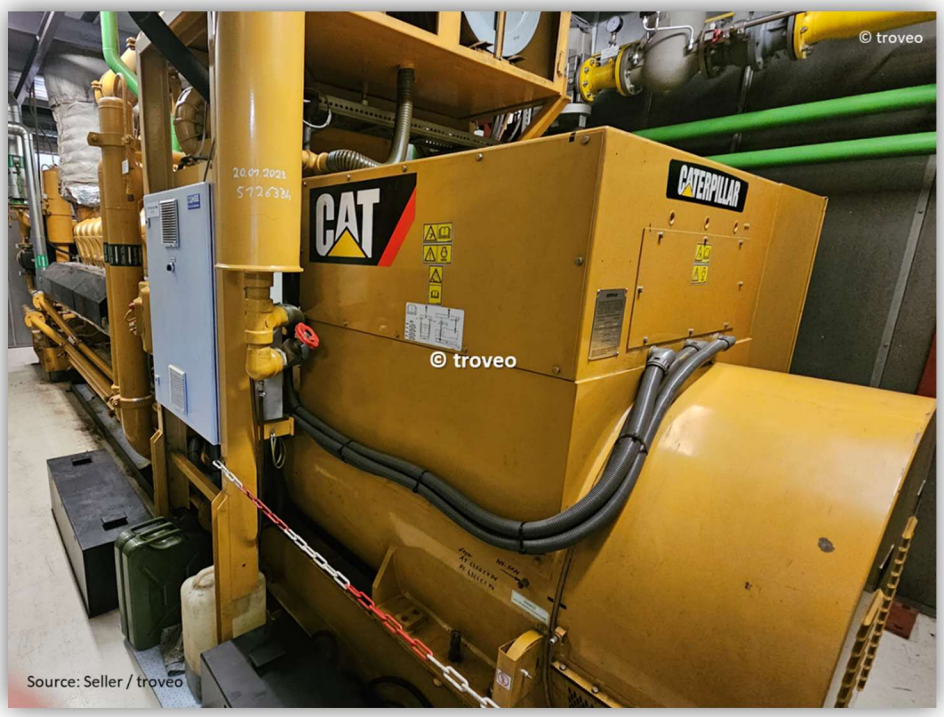
Impressions

engine – side view

engine – details



engine – filters



power generator

Control system

Disclaimer:

Although the statements and technical information contained herein are believed to be materially accurate, no representation or warranty is given as to the accuracy of any of the information provided.

Contact:

troveo – used power plants and second-hand equipment
e-mail team@troveo.de (preferred)
phone +49 201 75 998 521
fax +49 201 75 998 529