



10 MW (3 x 3,36 MW) Rolls Royce Natural Gas Engines 50 Hz (CHP)

1. General

The offered co-generation unit is located in Italy and is, due to changed operation requests, in standby mode and can be started on request at load condition. The plant was operated for power generation and hot water production for the nearby industry. Due to the new political/economical conditions the owner decided to deinvest the plant. The entire equipment is for sale and ready for relocation and is being supplied dismantled, cleaned and seaworthy packed.

The plant is:

- o well maintained (by OEM) and in very good condition
- o relatively new
- o completely equipped for fast re-installation
- o available now for immediate shipping





2. Plant Description and Scope of Supply

The CHP can be operated in pure electricity or in co-generation mode. It has been commercially operated from 2000 until 2009. Inspected/serviced in 2008 and stand-by since January 2010. The plant can easily be modified into a pure electricity production plant (just disconnect the heat exchangers for hot water production).

The plant consists of the following main components:

- 3 units Ulstein/Rolls Royce diesel engines with auxiliaries
- 3 generators Leroy Somer
- 3 plate heat exchangers for hot water production
- 4 water/water coolers (1 stand-by)
- 4 cooling water pumps (1 stand-by)
- 2 start-up compressors
- 1 instrument air compressor with dryer and vessel
- complete control equipment Siemens
- complete electrical equipment
- main transformer 6/132 kV
- HV switchyard 132 kV
- lube oil tank, lube oil coolers, lube oil pumps
- gas inlet shut-off valve (no reducing station required)
- monorails/hoists for service purposes
- suction ducts incl filters and discharge ducts with stacks



3. Performance Data



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|---|----------------------------------|
| ○ engine type | Rolls Royce KVGS-18G3 |
| ○ turbo charger type | ABB TPS-57D-VTG |
| ○ brushless generator type | Leroy Somer LSA56BM65 |
| ○ rated output | 3 x 3.36 MWe, 4 MWth |
| ○ generator output | 6 kV, 4.2 MVA, $\cos \phi = 0.8$ |
| ○ rated speed (rpm) | 1'000 RPM, 50 Hz |
| ○ specific consumption | 8'235 kJ/kWh |
| ○ exhaust massflow | 22'60 kg/h |
| ○ exhaust temperature | 445 °C (495 °C after cylinder) |
| ○ heat dissipation lube oil cooler | 1'705 MJ/h |
| ○ heat dissipation water coolers | 1'895 MJ/h |
| ○ heat dissipation jacket water coolers | 5'530 MJ/h |
| ○ heat dissipation ventilation | 975 MJ/h |
- (performance data acc to ISO 3046 & 8528-1, running on gas LHV = 36 MJ/Nm³)

4. Operational Data

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|--------------------------------|-----------------------------------|
| ○ Year of first operation | Jan 2000 |
| ○ Stand-by since | Oct 2010 |
| ○ Since then | regular turning and short runs |
| ○ Last inspection/service made | Nov/Dec 2008 @ approx 34'000 OH's |
| ○ Next inspection/service due | @ approx 45'000 OH's |
| ○ total operating hours #1/2/3 | 37'168 / 37'283 / 37'497 |



5. General Sales Conditions

Reex is an innovative company and experienced in project development and power plant engineering and ready to provide the services to implement the project according to your needs and as an independent contractor (incl engineering and planning as well as dismantling, packing, transport, installation and commissioning) based on the terms and conditions to be set out separately.

Please note that all equipment offered is subject to prior sales and at conditions 'as it is and where it is'. Location will be released and inspections can be done after submission of LOI and BCL. Price negotiations solely with buyers having proven funds.

