

ORC heating power plant Empfingen (D)

DETAILS & TECHNICAL INFORMATION

installed capacity:	12.5 MW (8.2 MW _{th} /1.7 MW _{el})
amount of heat generated:	51,300 MWh _{th} /year
amount of eco-electricity generated:	10,600 MWh _{el} /year
fuel used:	NAWARO fuel, in accordance with German renewable energy legislation, EEG (wood cut from the landscape)
flue consumption:	128,000 loose cubic metres per year (biomass)
CO ₂ reduction:	21,790 ton/year
fuel gas purification	fabric filter system

DISTRIBUTION & GENERATION

energy production:

continual furnace, combustion chamber with air staging (primary measures to reduce No_x), thermal oil boiler including thermal oil economizer, exhaust gas purification via multicyclone and fabric filter

fuel feed:

Underground area with push rod holding, automatic crane system for fuel manipulation, cross push rod with hydraulic insertion

electricity generation system

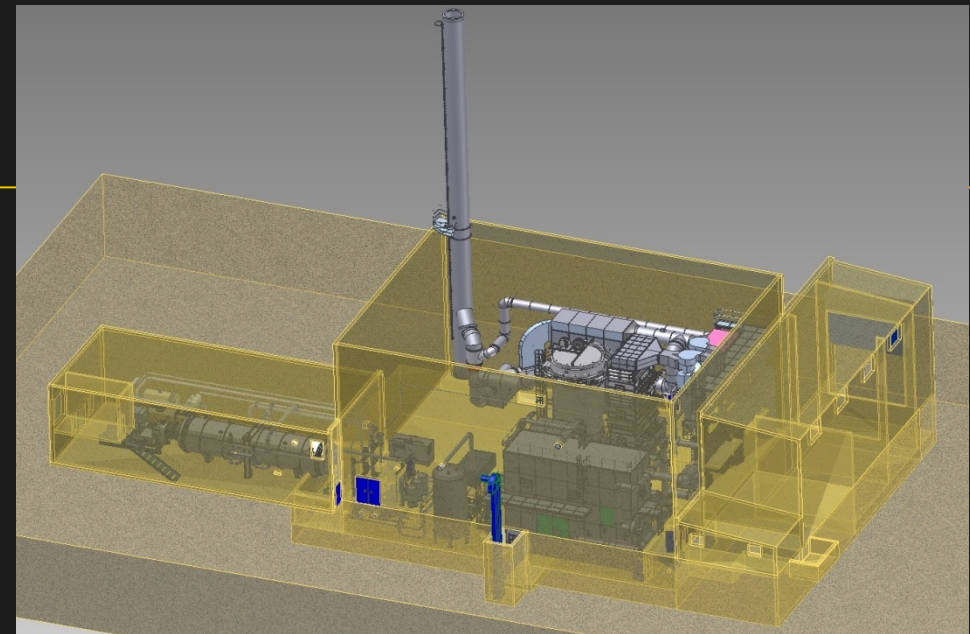
ORC turbine module, 2,5 MVA transformer (0.69 kV/20 kV)

heat extraction process

135m DN250 buried steel pipe for heat exchange process

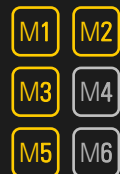
PROJECT & DETAILS

investment costs:	€ 8.0 million
planning time frame:	2012
implementation:	2012
putting into operation:	2012



MODULES & SERVICES

CONSULTING ⇒ EVALUATION ⇒ PRE-STUDY ⇒ OVERALL ENGINEERING



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