

# EKOGEN

## SMALL-SCALE CHP FROM BIOMASS



### Advantages

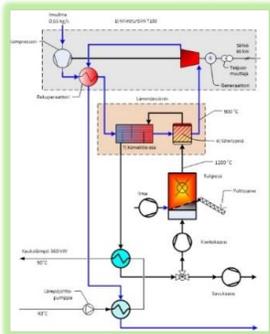
- ✓ Local biomass fuels
- ✓ Suitable for rural and urban environments
- ✓ Promotes local business, operators and labor
- ✓ High efficiency
- ✓ Economically viable operation
- ✓ Simple and reliable technology
- ✓ Ready-made structure, fast erection at site, and relocatable
- ✓ Easy operation, minimal maintenance cost
- ✓ Low emissions, no waste water problems
- ✓ Grid connection or island mode operation

### Typical applications

- Residential, industrial and commercial buildings
- Communities of 100...200 houses/unit
- Small industries, e.g. sawmills, greenhouses and food industry
- Agricultural farms
- Green communities

### Technology overview

- Small, independent power unit producing 600...800 MWh electricity and 2500...3500 MWh heat or cooling.
- Direct combustion of wood fuel.
- Hydraulic stoker burner.
- High temperature heat exchanger.
- High speed air turbine 100 kW<sub>e</sub>
- Heat production in water boiler 400 kW<sub>th</sub>
- Cooling production in absorption pump (optional).
- Process steam production (optional).
- Fully automated and remote controlled.
- Turn-key delivery.
- Best Available Technology (BAT).



Fuels	Consumption	
	m <sup>3</sup> /day	m <sup>3</sup> /a (6000-8000 h/a)
Wood pellets	5	1400...1700
Wood chips	20	5000...7000
Forest residue	20	5000...7000

### Economical overview

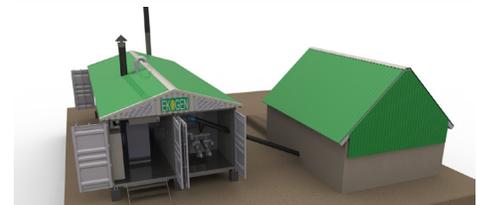
- Savings in energy costs 10-60 %
- Payback period 4-10 years
- Availability >99 %
- Full remote control available
- Maintenance costs < 2 %/a
- Competitive cost level

### Service offering

- Development of energy production.
- Optimization of techno-economical feasibility.
- Selection of best options based on power, heat and cooling demand.
- Reduction of emissions.
- Improvement of profitability .
- Development of business models (fuel supply chain, operation and maintenance, information and automation systems).
- Assistance in permitting, site selection, construction and application of subsidies.



### References



### Contact information

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