

BIOMASS COGENERATION FOR ECODISTRICT

A BIOMASS POWER PLANT

Plant Integrating an ORC module supplied by Enertime can produce simultaneously electricity and heat.

Located in the heart of an eco-district, it ensures energy self-sufficiency developing sustainably and efficiently the biomass resource local, with more than 75% overall efficiency.

PERFECTLY INTEGRATED

Biomass ORC Power Plant of Enertime is designed for installation at the heart of our cities. Covering only 500 m² of land (boiler, ORC and biomass storage) it present no industrial risk because the quantities of biomass stored on site is low. Superheated water boiler operates at low pressure. The ORC, of simple and modular design, uses an organic fluid that is non-flammable and non-toxic.

ECOLOGICAL

Biomass resource is by essence renewable and environmentally friendly. Fumes from the boiler, the only releases in the environment, are treated by very efficient flue gas treatment systems, using best available technologies.

EFFICIENT

Its small size allows for a much better performance compared to steam power plants of higher capacity. It inject electricity into the grid at low or medium voltage at no loss and no additional charge for the network because of its proximity to consumers. The overall performance of the plant is higher than 75%.

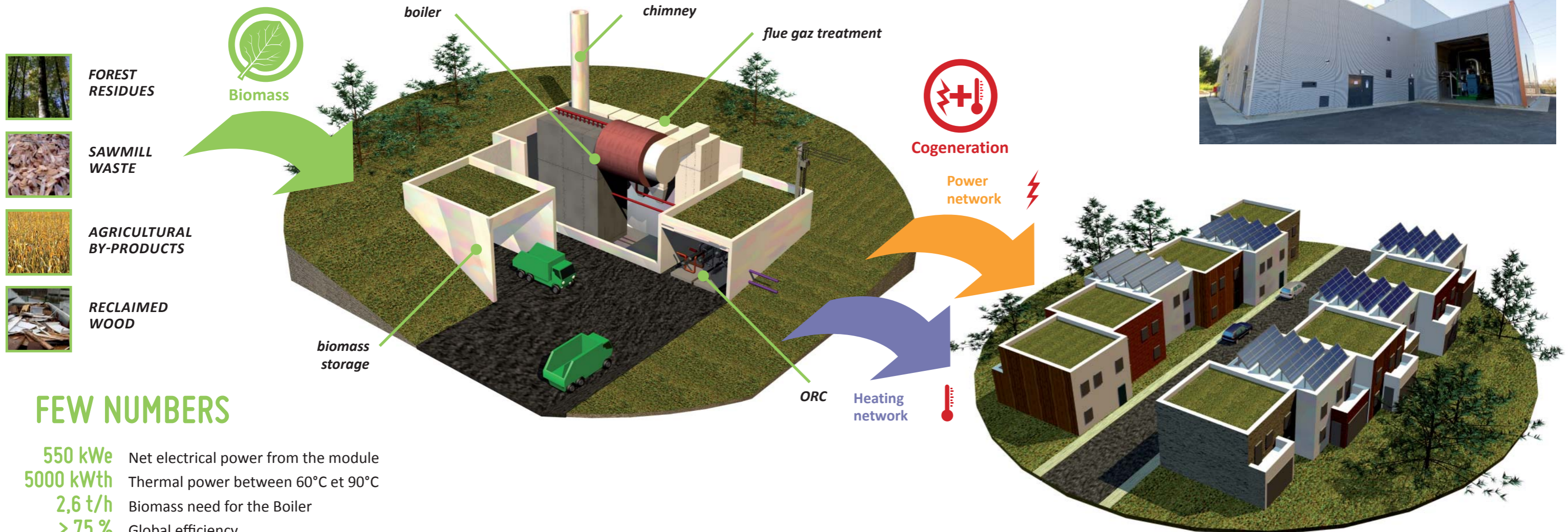
SUSTAINABLE

By creating local jobs, reducing the length of the supply chain and developing with a high efficiency the primary energy of biomass, small biomass cogeneration plants constitute a real solution for sustainable territorial development.

A REAL EXAMPLE THE ECO-DISTRICT OF PORT-MARIANNE IN MONTPELLIER

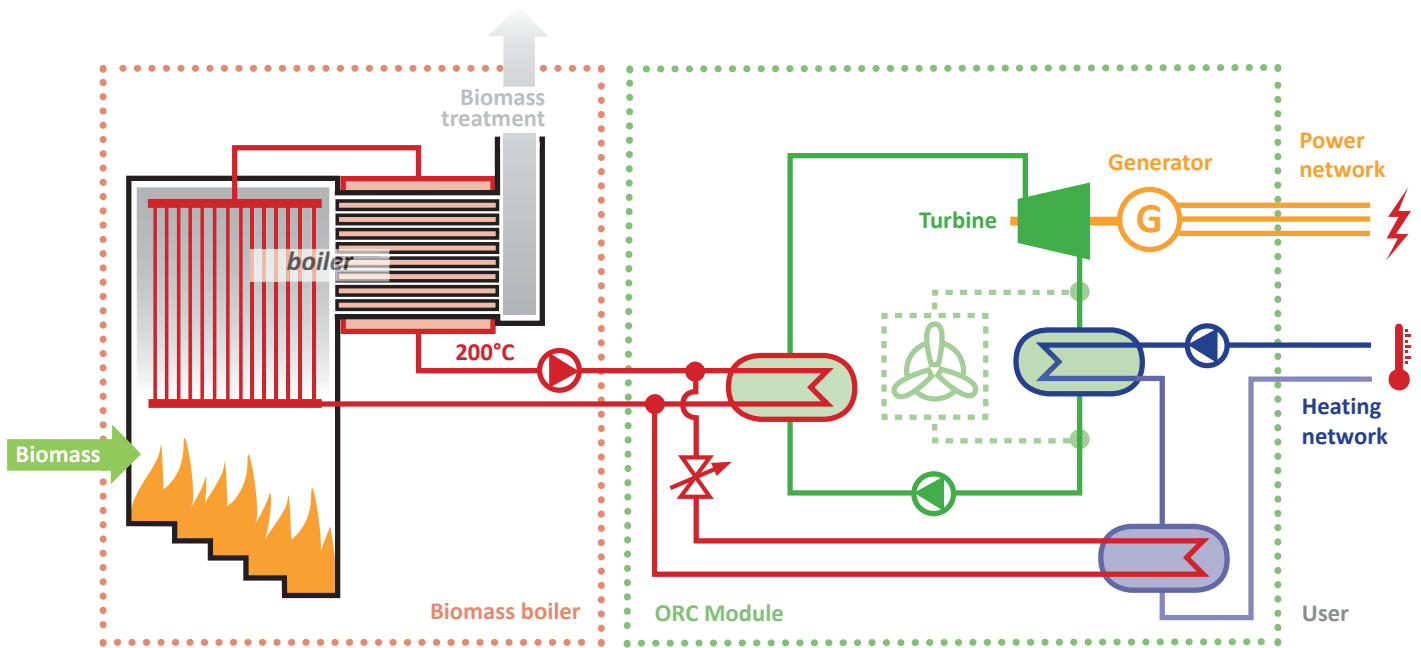
The tri-generation power plant of the SERM Cy in Montpellier meets all the energy needs of an urban district. It simultaneously produces three energies: heat, cold, and renewable electricity from waste wood from sawmills in the Cevennes Region. It serves 5 200 housing and 300 000 m² of offices, shops and public facilities.

Please contact us for the visit of the installation ↓



FEW NUMBERS

- 550 kWe** Net electrical power from the module
- 5000 kWth** Thermal power between 60°C et 90°C
- 2,6 t/h** Biomass need for the Boiler
- > 75 %** Global efficiency
- 20 years** Life span of the module



THE ORC



An ORC module or Organic Rankine Cycle module is a thermodynamic machine which converts heat into electricity with a turbine powered by a close-circuit low pressure non-flammable, non-toxic, organic fluid.

Proven since decades, the ORC technology is particularly suitable to low temperature (< 300°C) within small and medium production (200 kW up to 1 MW) units: at Eco district scale.

ENERTIME, GREEN ENERGY HARVESTER

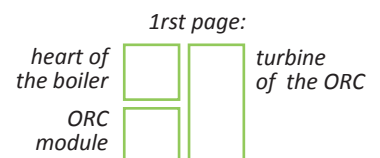
Enertime offers innovative energy solutions based on thermodynamics for energy efficiency and the production of heat and electricity from renewable resources. Enertime designs, develops and implements

Organic Rankine Cycle (ORC) modules and high temperature heat pumps for decentralized production of renewable electricity or CO₂-free electricity from wasted heat.



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