



**POWER RANGE :**

**0,5 to 10 MW th**  
**200 kW to 1,5 MWeI**

**LAND USE :**

From **300 m<sup>2</sup>**

**HOUSING APPLICATIONS :**

**250 to 5000**  
households heated by a Mini Green Plant.

**100 to 750**  
households supplied with electricity

**FINANCIAL APPROACH :**

Electricity sold by MGP  
**100€ to 150€ / MWh**

Thermal energy sold by MGP  
**50 to 80€ / MWh**

Cost of gas at the end of 2022  
**100€ / MWh**

Cost of a plant  
**1M€ / MWth**

**WASTE :**

**1 000 to 20 000 T/year**

Waste grain size up to **100mm**

Moisture content up to **55%**

*We seek to make the world cleaner and more sustainable by recycling local waste into low-carbon energy, and enabling our customers to become energy self-sufficient and reduce their environmental footprint*



**OUR POWER PLANTS INSTALLED**

<b>2015</b> Biomass power plant for electricity production Hyères, France Demonstrator Power: 550 kWth Fuel: green and wood waste	<b>2017</b> Biomass power plant for the production of electricity and heat Client: Waste manufacturer Thermal power: 2.5 MW Electrical power: 200 kW Fuel: wood fraction of green waste	<b>2018</b> Biomass power plant for the production of electricity and heat Welsphool, UK Agricultural contractor Thermal power: 750 kW Electrical power: 65 kW Fuel: woody fraction of green waste, agricultural residues	<b>2020</b> Biomass power plant for heat production combined with a dryer Finistère, France Client: Private company Power: 750 kWth Fuel: shredded stumps, green waste leftover Dried material: wood chips, algae



Company with a mission

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December 2022



**LOCAL LOW CARBON ENERGY**

**AN ALTERNATIVE TO FOSSIL FUELS**



**A WORD FROM THE PRESIDENT :**

*"The world is now engaged in a great movement of ecological and energy transition. The time for large power plants fueled by fossil fuels is over. It has become urgent to develop all renewable resources in a logic of complementarity and circularity. Governments are supporting this industry-led movement by introducing carbon taxes and subsidies to encourage the development of renewable energy. Enabling our customers to convert waste into energy locally is the mission we set ourselves at Mini Green Power. We are constantly innovating to achieve this goal and meet this mission. Today, we are proud to offer our customers small, automated power plants that will produce tomorrow's energy."*

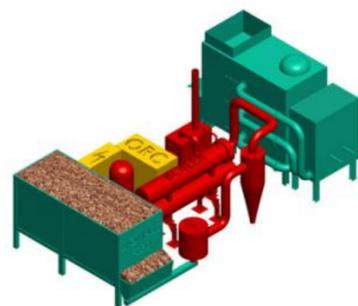


**Jean Riondel,**  
Co-founder and president of Mini Green Power

## A CONTEXT OF ENERGY AND ENVIRONMENTAL CRISIS

Environmental issues, the evolution of legislation, a significant increase in energy and waste treatment costs make the transition to renewable energies more and more relevant for industry and local communities.

## OUR TECHNOLOGY : THE MINI GREEN POWER PLANT®



### An innovative and modular solution

Mini Green Power offers modular, dismantable, autonomous and remotely controllable "Mini Green Power Plants"®. Plants are installed as close as possible to energy consumers, in a logic of short circuits.

### A unique staged combustion technology, remotely controllable:



Biomass, fed from the feeder tank by conveyors, is converted into syngas in the gasifier. This gas is burned in an afterburner tube connected to a recovery boiler. This process has many energy applications.

A control system, developed in-house, enables extensive automation of the plants and their optimization thanks to a big data solution with data history.

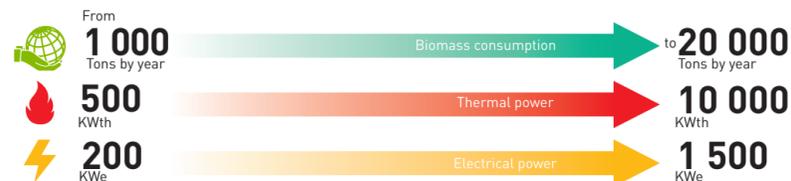
### Dryers to recover a wider range of waste

Mini Green Power also produces patented dryers which valorize the heat produced by the mini power plants. These dryers can dry a wide variety of products (wood chips, agricultural products, CSR, sludge).



### A reduced power range

The plants are positioned on a range 0.5 to 10 MWth enabling fuel sourcing in a short circuit.



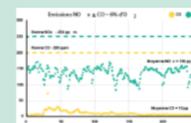
## MINI GREEN POWER DIFFERENTIATING ADVANTAGES

Choosing Mini Green Power means adopting an ecological solution while controlling your energy bill.

### Decarbonized energy production :

> Power plants which provide best emission levels with low dust, low NOx and low CO levels

The residence time of gases at high temperatures guarantees the removal of volatile organic compounds and tars and thus minimizes boiler fouling.



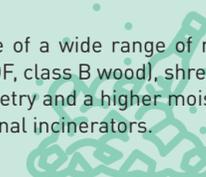
> A short circuit production, thanks to the choice of a technology based on a reduced power range, enabling fuel sourcing in a short circuit (within 50 km).



> Continuous renewable energy production, as an alternative to polluting and expensive fossil fuels

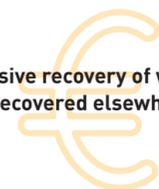


> The use of a wide range of residues (biomass waste, RDF, class B wood), shredded with a larger granulometry and a higher moisture content than conventional incinerators.



### An energy cost controlled by several factors:

Extensive recovery of waste not recovered elsewhere.



Standardization of plant modules



Full automation of operations with a control system developed in-house



Segregated and automated ash collection to optimize their disposal



Plants modularity enabling dismantling and relocation



For the end user, guaranteed lower kWh prices in the long run compared to conventional biomass plants.



### BIOMASSE RANGE

The only automated biomass plant that consumes green waste and/or wood waste



### CSR RANGE

The only competitive solution in the power range 4MWth - 6MWth (7MW, PCI)

## 3 PROPOSALS TO AIM FOR LOW-CARBON ENERGY AUTONOMY



### Green thermal power plants for the benefit of:

- > Collective heat networks
- > Industrial steam generation, thermal oil, hot water, hot air
- > Dryers

### ANNUAL OPERATION UP TO 8,000H/YEAR



### Power plants enabling :

- > Continuous power generation on demand
- > Resale on the grid or self-consumption
- > 20% electrical efficiency (ORC turbine or steam turbine)
- > Cogeneration production with an efficiency > 80%.

### GOOD RELIABILITY OF THE TECHNOLOGY WITH ANNUAL OPERATIONS OF 8,000H



### Dryers, to reduce the mass of wet waste:

- > Products: green waste, CSR, agricultural products, sludge, algae, ...
- > Inlet: waste moisture content up to 80%
- > Outlet: on request down to less than 10%
- > Product flow rates: up to 15m<sup>3</sup>/h
- > Thermal power: 300kWth to 1600kWth
- > Possibility to have several drying lines in parallel

### THE MOST VERSATILE DRYERS ON THE MARKET, WITH THE SMALLEST FOOTPRINT



MINI GREEN POWER TEAMS SUPPORT YOU IN DEVELOPING YOUR ENERGY TRANSITION PROJECTS IN ALL THEIR DIMENSIONS

## OUR MISSION

Contribute to the environmental and energy transition by developing innovative technologies which turn non-recovered waste into clean energy

## OUR TARGET AREA

- > Manufacturers generating waste or using energy
- > Local communities

## OUR VALUES

Living authenticity, aiming for excellence

## OUR COMMITMENT

Enable our customers to gain energy autonomy and reduce their environmental footprint.