WOODTRICITY is a biomass-powered mCHP that produces the electricity and hot water needed for the home. It uses thermoelectric technology and the innovation consists of a mechanism based on pulsating heat that makes conventional and inexpensive thermoelectric generators improve their effective efficiency by a factor of 4 (from 1.25% to 5%). This system opens the doors to a new business opportunity, as it is the first mCHP system that meets the necessary indicators to generate sufficient market penetration: cheap and green energy production.

TECHNOLOGY DESCRIPTION

The innovation consists of a mechanism based on pulsating heat that improves the efficiency of the thermoelectric generator and reduces the cost of energy produced in comparison with other systems such as ORC or Stirling.

APPLICATION AND TARGET MARKET

The technology can be applied to heat and power generation for buildings without energy or isolated homes. In terms of the target market, the company is looking for industrial partners in the biomass-heating segment with products similar to the market, customers interested in proof of concept and other entities interested in transforming heat or waste into electricity.

COMPETITIVE ADVANTAGES

- Improves the efficiency of conventional thermoelectric generators.
- Reduces the cost of energy produced in relation to other systems
- Low initial investment and short repayment time.

TIME-TO-MARKET

2 anys, TRL 5

BUSINESS OFFER

Development in cooperation with an external company

RESEARCH GROUP

Research group in Fluid, Energy and Environmental Engineering - GREFEMA

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