Thermovoltaic Biomass Dryer

BASE has developed Cogen'Air, the first Thermovoltaic solar panel, capable of producing electricity and heat simultaneously. While a conventional solar panel converts only about 15 to 20% of the solar energy received into electricity, Cogen'Air produces 10% more electricity and 3 times more heat, for a total efficiency of more than 60%. This Thermovoltaic panel is therefore 4 times more efficient than a conventional solar panel. BASE designs and markets heat and electricity production solutions for agricultural drying activities and biomass drying activities. It also markets solutions for the energy efficiency of buildings: heating support, electricity and domestic hot water production. The main objectives are: - Provide innovative and cost-effective solar solutions to contribute to a sustainable society. - Guarantee a drying quality superior to that of open-air drying and allow the production of a fuel with constant characteristics specific to the needs of boilers. - Improve the value of wood by preserving the resource in particular. - Reduce stocks and the mass to be transported. - Achieve a higher PCI, reduce wood consumption, increase boiler life - Generate income from photovoltaic production. The dryers designed with Cogen'Air Thermovoltaic technology ensure a homogeneous and fast drying of the wood energy. The control system allows the dryer to operate optimally, based on numerous temperature and humidity sensors. These dryers make it possible to recycle wood waste and give it a second life. One of the BASE dryers is intended, for example, for the recovery and drying of crushed strains, dry chips that will then be marketed in supermarkets as firelighters. This product from the Cogen'Air drying process has a high PCI and is ideal for boilers. The electricity is resold and provides additional income to the operator.

DETAILS

ORIGIN OF WOOD

Deconstruction work

TYPE OF WOOD

Stemwood

KIND OF WOOD CONCERNED

Woody biomass, waste

IMPACT ON ENVIRONMENT & BIODIVERSITY

No impact: solar panels are installed at the wood energy processing site

INCOME EFFECT

Reduction of logistics costs

EXPLOITATION POTENTIAL

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HUB

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ECONOMIC IMPACT

Additional income from photovoltaic energy production

SPECIFIC KNOWLEDGE NEEDED

NA

MOBILIZATION POTENTIAL

Technological innovation to increase the profitability of wood energy

SUSTAINABILITY POTENTIAL - VALUE

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EASE OF IMPLEMENTATION

Easy

EASE OF IMPLEMENTATION - EVALUATION

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KEY PREREQUISITES

NA

TYPE OF EVENT WHERE THIS BPI HAS BEEN FEATURED

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JOB EFFECT

NA

COSTS OF IMPLEMENTATION (EURO - €)

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MORE DETAILS

CHALLENGE ADDRESSED

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DOMAIN

Harvesting, infrastructure, logistics

TYPE OF SOLUTION

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KEYWORDS

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DIGITAL SOLUTION

No

INNOVATION

Yes

COUNTRY OF ORIGIN

France

SCALE OF APPLICATION

Regional/sub-national

START AND END YEAR

2009 -

CONTACT DATA

OWNER OR AUTHOR

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REFERENCES AND RESOURCES

MAIN WEBSITE

http://www.base-innovation.com

RESOURCES

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PROJECT WEBSITE

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PROJECT REFERENCE

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PROJECT UNDER WHICH THIS FACTSHEET HAS BEEN CREATED

Rosewood

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Link to Rosewood 4.0

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