

Italian new green generator using atmospheric air pressure looking for industrial production partners

Summary

Profile type	Company's country	POD reference
Technology offer	Italy	TOIT20231024022
Profile status	Type of partnership	Targeted countries
PUBLISHED	Commercial agreement with technical assistance Investment agreement	• World
Contact Person	Term of validity	Last update
Noriko MITA	23 Nov 2023 22 Nov 2024	23 Nov 2023

General Information

Short summary

An Italian company has developed and patented a green generator operating from one renewable source (atmospheric air pressure) and non-polluting. The invention provides energy at a low cost, 24h a day, where installed. The Italian SME is looking for industrial production partners in Europe, USA and Japan, with experience in the automotive, household appliances or energy industry production under investment agreement or commercial agreement with technical assistance.

Full description

An Italian SME, expert in the automotive industry and motor engineering, is very active since 2000 in the energy field and in research & development for cogeneration and power generation technology via a dedicated in-house department that designs and implements innovative systems using renewable sources.

The company has developed and patented internationally a new generator working with the wind flow, generated inside the machine itself, which creates a mini-controlled "tornado" within a sheet metal or reinforced plastic casing. The invention is a "green generator", operating from a renewable source: atmospheric air pressure, and not polluting. Kinetic energy is used to activate the rotor, connected to the alternator which generates electric energy. The generator is composed of two main parts (vessels): the first vessel transforms atmospheric air pressure into an energized air flux (kinetic energy) through a chamber of induction; the second vessel transforms the obtained air flux into mechanical energy.

Compared to the state of the art of the technology, the company's generator is not dependent on external conditions (sun, wind etc.) and does not produce polluting emissions into air or ground, due to the absence of combustion and toxic substances. The construction architecture is also simplified, allowing easier production at the industrial level: the generator is composed of fewer parts, thus enhancing industrial construction simplicity on the model of the automotive industry.

The generator can work at a greater power for about 8660 hours/year while requiring less than 160 hours/year of maintenance. Another strong point is the reduced diameter of the rotor (causing related technological, security problems as well as environmental, acoustic, and visual impact).

The invention is useful to any public or private actors (industry, hotels, business parks etc.) needing energy from renewable sources, at a low cost, 24h a day, wishing to diversify their activity in an up and coming alternative energy generation field, with this invention currently without competitors.

The Italian company is looking for industrial production partners in Europe, USA and Japan. Ideal partners are willing to diversify their activity by producing and selling the green generator and have experience in the automotive, household appliances production (or similar) or in the wind energy industry; energy management and power transmission; commercial generators manufacturing; cogeneration industry.

Partnership types sought are investment agreement or commercial agreement with technical assistance. Industrial partners from relevant sectors would receive a production license for power family and territory (different Countries); they would produce the generator at large with technical assistance from the Italian company.

The company is also interested in investment from industrial partners.

Advantages and innovations

The patented invention, compared to what is currently available on the market:

- is less expensive
- is greener: no polluting emissions into the atmosphere or into the ground (no internal combustion, no use of toxic substances)
- is not dependent on the sun or any weather conditions
- is easy to construct and produce industrially
- is easier to maintain (no need to operate at significant heights) thus improving security and safety for technicians
- can be started and stopped at will
- does not need transmission reduction
- is smaller but has a higher power
- works at room temperature
- can operate indoor and obviously outdoor
- can be installed adjacent to end-user or user groups
- performs operations at ground level
- is much silent and has a reduced visual impact.

Technical specification or expertise sought

Stage of development

Available for demonstration

IPR Status

IPR granted

Sustainable Development goals

- **Goal 7: Affordable and Clean Energy**
- **Goal 9: Industry, Innovation and Infrastructure**

Partner Sought

Expected role of the partner

Type of partner sought: Industry (SME, large and multinational companies) in Europe, USA and Japan.

Field of activity of the partner:

- automotive industry (as this "in series" production is particularly effective given how the green generator is conceived) also with a focus on hybrid and fully electric vehicle production
- household appliances production (or similar)
- wind energy industry
- energy management and power transmission
- commercial generators manufacturing

- cogeneration industry.

Expertise and qualities:

- willing to diversify its activity by producing and selling the innovative generator
- industrial experience
- a research & development office and interest in the technical aspect of the invention.

Role: producing and selling the innovative generator in a field practically without competitors. For all cooperation types, the Italian SME will support partners in technology transfer behind the process and adaptation of the invention to set up the production line.

Partners from all the activity fields above mentioned would:

- become licensees of the patented invention to produce and sell the generator under license agreement
- set up the production of the generator and manufacture it under commercial agreement with technical assistance.

Type of partnership

Commercial agreement with technical assistance

Investment agreement

Type and size of the partner

• **SME 50 - 249**

• **Big company**

Dissemination

Technology keywords

- **04002005 - Generators, electric engines and power converters**
- **04005008 - Wind energy**
- **004002008 - Turbines, fluid machinery, combined heat and power**
- **10002013 - Clean Production / Green Technologies**

Targeted countries

- **World**

Market keywords

- **06003008 - Other alternative energy**
- **06003003 - Wind energy**
- **006005006 - Co-generation**
- **08003006 - Power transmission equipment (including generators & motors)**
- **06003001 - Solar/thermal energy**

Sector groups involved

- **Renewable Energy**
- **Energy-Intensive Industries**

Media

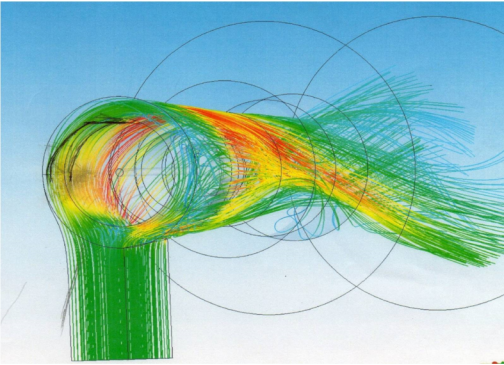
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