Technology Request

Solar filling station for e-bike batteries

Summary

A German company specialized in manufacturing of sustainable accommodation cubes is looking for a solar charging solution for e-bike batteries. The wooden cubes are destined for cycling tourists and equipped with solar panels but so far no solution has been found on how to transfer the solar energy to an e-bike battery charging station which should be also attached to the cube. An individual and above all wireless solution is sought.

Creation Date	05 November 2014
Last Update	10 November 2014
Expiration Date	10 November 2015
Reference	TRDE20141105001

Details

Description

A German company is manufacturing accommodation cubes which shall be installed along a transnational cycling route from Berlin to Copenhagen via Poland and Sweden. The purpose of the cubes as an overnight accommodation as well as a charging station for e-bike batteries.

A solar panel can be found on the roof of the cubes. Now the company seeks a solution on how to transfer the solar energy to an e-bike charging station that can be integrated in the cube.

The tourists are supposed to cycle for approximately 14 days using e-bikes. The batteries shall be charged in each overnight stop. The e-bikes should not be charged via cable but batteries should be provided fully charged. So basically the company is seeking a charging respectively "exchange battery" station. No tourist should cycle around with cables and they should not be forced to plug in their bike once they get to the cubes. The battery should be already there waiting for them fully charged.

The type of partnership depends on the stage of development of the product. If the product/technology is on the market already a license agreement or commercial agreement with technical assistance is sought. If ,however, some R&D elements are needed in order to adapt the technology to the cubes a research and development cooperation agreement is suitable as well.

Technical Specification or Expertise Sought

- some sort of charging unit is sought where empty batteries can be easily inserted
- a green/red light should show the charging status "fully charged" and "charging"

A tourist should be able to take a fully charged battery while leaving his empty one. The idea is to have a system where he can use a chip card for example in order to pay for this "exchange action". This chip card could be synchronized with an online account comprising the bank details of the respective tourist.

Maybe some sort of unit has to be adjusted first (based on the principle of post packing stations) in order to fit into the cubes. The following specifications have to be taken into consideration as well:

- plug-in system for batteries in order to fit into charging unit
- size of solar panel

Stage of Development

Already on the market

Comment Regarding IPR status

In that context the bicycle bags have to have a certain design as well in order to carry the batteries. On top of that the bags will be taken off and put on each day so consequently they should resemble a trolley of some sort. This question ,however, is optional and doesn't have to be part of the cooperation. The focus is on the combination of the solar panel and the e-bike battery charging unit.

Keywords

Technology

004001003	Storage of electricity, batteries
004005006	Solar/Thermal energy
011008	Sports and Leisure

Market

006014	Energy Storage
007001008	Other leisure and recreational products and services

NACE

I.55.9.0	Other accommodation

Dissemination

Send to Sector Group

Intelligent Energy

Restrict Dissemination to Specific Countries

Austria,Belgium,Bulgaria,Croatia,Denmark,Estonia,Finland,France,Greece,Hungary,Iceland,Ireland,Israel,Italy,Japan,Latvia,Lithuania,Luxembourg,Malta,Moldova,Netherlands,Norway,Poland,Portugal,Romania,Russia,Slovakia,Slovenia,Spain,Sweden,Switzerland,Tunisia,Turkey,Ukraine,UnitedKingdom,USA,

Client

Type and Size of Organisation Behind the Profile

Industry SME 11-49

Year Established

0

Already Engaged in Trans-National Cooperation

Yes

Langages Spoken

English
German
Polish

Client Country

Germany

Partner Sought

Type and Role of Partner Sought

- Type of partner sought:
SME, research institute

- Specific area of activity of the partner:
intelligent energy, e-bike manufacturer, energy storage manufacturer, e-mobility, e-storage

- Task to be performed by the partner sought:
combination of energy produced by solar panel with some sort of charging unit for e-bike batteries suitable for incorporation in cubes.

Type of Partnership Considered

License agreement
Commercial agreement with technical assistance
Technical cooperation agreement
Research cooperation agreement

Technology Request

Development of power flow control in renewable energy power conversion systems using saturable core technology.

Summary

An Italian company is looking for developers of power flow control in renewable energy power conversion systems. The aim of the company is to find a partner able to jointly develop the technology and increase the number of applications where this technology is used. The SME is interested in technical and research cooperation or in financial agreements.

Creation Date	08 July 2014
Last Update	10 November 2014
Expiration Date	10 November 2015
Reference	TRIT20140708002

Details

Description

An Italian SME active in the power conversion sector is working on the implementation of saturable reactor technology for efficient and cost effective active and reactive power control in power conversion systems, especially in the renewable energy sector.
The reason for this is that it will result in an efficient, simple and very robust system, important especially for applications with severe operating conditions and high maintenance costs.
For now the development is at a concept level, but extensive research has already been done regarding the use of this technology in the renewable energy sector and a few applications are already on the market. The Italian company wants to find a partner to jointly develop the technology and increase the number of applications where this technology is used. The SME is interested in technical and research cooperation or in financial agreement.

Technical Specification or Expertise Sought

Power range: 200W - 10kW
Grid_tied and off-grid inverters and power dc/dc converters for renewable energy conversion.

Stage of Development

Concept stage

IPR Status

Secret Know-how

Profile Origin

Private (in-house) research

Keywords

Technology

004002004	Generators, electric engines and power converters
004002013	Micro-generation and grid connection
004005005	Photovoltaics
004005010	Wind energy

Market

006005004	Wind energy
006005010	Other alternative energy
006005012	Solar/thermal energy
006005013	Distributed power and grid connection
006005014	Photovoltaics

NACE

C.27.9.0	Manufacture of other electrical equipment

Dissemination

Send to Sector Group

Intelligent Energy

Client

Type and Size of Organisation Behind the Profile

Industry SME <= 10

Year Established

0

Already Engaged in Trans-National Cooperation

No.

Langages Spoken

English
Dutch

French
Italian

Client Country

Italy

Partner Sought

Type and Role of Partner Sought

The SME is looking for industrial partners in order to develop the technology and to extend its fields of application.
The ideal partner should be interested in the development of this technology and should have a strong experience in this field.

Type of Partnership Considered

Financial agreement
Technical cooperation agreement
Research cooperation agreement