

Partnering Opportunity

Profile Status: Published

Research & Development Request

Battery recycling companies required for a H2020 project proposal Call “Next-Generation Batteries – LC-BAT-2-2019”.

Summary

Leading research team in electrochemistry from a Public Spanish University coordinates a H2020 project proposal (LC-BAT-2-2019) to develop and produce highly performing batteries: high round-trip energy efficiency, low cost, cheap & widely available raw materials. The consortium is already made up with 3 European energy storage companies and 3 specialised research organizations. They require 1 or 2 battery recycling companies to complete the partnership.

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Details

Description

A formed consortium requires one or two (not Spanish) companies active in the battery recycling sector to complete the partnership for a H2020 project (SaltPower), for the Call for Proposal “Next-Generation Batteries – LC-BAT-2-2019”.

The SaltPower project aims at developing, improving and producing highly performing innovative sodium metal batteries, using cheap starting materials. The technology has already achieved TRL4 level, and will reach TRL6 at the end of the project.

The initial partners in the consortium are

- 1 Spanish Public University (that will coordinate the project)
- 1 Spanish Technological Center

- 1 Italian Public Research Center
- 3 Companies from Austria, Denmark and Finland.

Some of the partners in the project have previous collaborative experience in the developing of these systems, as well as in other H2020 projects. The companies are industries producing batteries, battery components, and photovoltaic systems for stationary applications.

The consortium will be completed with the incorporation of 1 or 2 industrial partners (preferably from EU countries other than Spain), with experience and know-how in the field of the recovery and recycling of metals (Cu and Al, mainly) and salts (boron-containing) from batteries. This partner is also expected to lead the tasks related to the economic, environmental, safety and life cycle issues.

The project activities will focus on:

- A) Research for improved cell performance, including electrode materials, electrolytes, additives, cell geometries,...
- B) Battery life tests and analysis, including both shelf-life and cyclability.
- C) Improvement of battery fabrication procedures.
- D) Economical, environmental, safety and life cycle analysis, including recovery and recycling of battery materials such as metals and boron-containing salts.
- E) Building and testing of a battery pack demonstrator coupled to photovoltaic panels, and analysis of its performance under real conditions.

The estimated duration of the project is three years, with an estimated total budget of 4 Million Euros.

The technical coordination will be carried out by a leading senior research team in electrochemistry, with experience in 3 approved H2020 projects (one of them as coordinator) and 6 FP2-FP7 approved projects (one of them as coordinator).

The administrative management of the project will be coordinated by the international projects office of the Spanish Public University, which has participated in 185 transnational projects.

The deadline for submitting proposals for the call is 25/April/2019.

The deadline for the Expression of Interest about this co-operation proposal is 15/March/2019.

Advantages and Innovations

The project results will provide/facilitate the development and production of highly performing NaCl-based batteries, with high round-trip energy efficiency, low battery cost, using cheap, widely available raw materials, a significant progress from TRL4 to TRL6 or beyond.

Technical Specification or Expertise Sought

Experience and know-how in the field of the recovery and recycling of metals (Cu and Al, mainly) and salts (boron-containing) from batteries.

Stage of Development

Under development/lab tested

Comments Regarding Stage of Development

Proposal under development at an advanced stage of preparation.

IPR Status

Secret Know-how, Patents granted

Keywords

Technology

04001003 Storage of electricity, batteries

Market

03002 Batteries
06008 Energy Storage

NACE

C.27.2.0 Manufacture of batteries and accumulators
M.72.1.9 Other research and experimental development on natural sciences and engineering

Network Contact

Issuing Partner

ZACHODNIOPOMORSKI UNIWERSYTET TECHNOLOGICZNY W SZCZECINIE

Contact Person

Pawel Zebrowski

Phone Number

+48 91 449 43 64

Email

pzebrowski@zut.edu.pl

Open for EOI : **Yes**

Dissemination

Relevant Sector Groups

Environment
Intelligent Energy
Materials

Client

Type and Size of Organisation Behind the Profile

University

Year Established

1979

Already Engaged in Trans-National Cooperation

Yes

Languages Spoken

English
French
Spanish

Client Country

Spain

Partner Sought

Type and Role of Partner Sought

Type: Industry

Activity: materials recycling / battery recycling

Role: Recovery and recycling of metals and electrolyte salts from batteries. Economic, safety, environmental, and life cycle analyses.

Type and Size of Partner Sought

>500 MNE, 251-500, SME 51-250, >500

Type of Partnership Considered

Research cooperation agreement

Program - Call

Framework Program

H2020

Call title and identifier

Next-Generation Batteries – LC-BAT-2-2019 – Strengthening EU materials technologies for non-automotive energy storage.

Submission and evaluation scheme

RIA – 1 Stage

Anticipated Project Budget

EUR 4.5 Million

Coordinator Required

No

Deadline for EOI

15 Mar 2019

Deadline of the Call

25 Apr 2019

Project Duration

156 week(s)

Weblink to the Call

<https://ec.europa.eu/info/funding-tenders/opportunities/portal/screen/opportunities/topic-details/lc-bat-2-2019>

Project Title and Acronym

SaltPower – Salt based conversion batteries for superior electric energy storage.