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## Partner search

Date (25-09-20)

- (\*) Indicate numbers of relevant topics for Green Deal call:

LC-GD-4.1 : Building and renovating in an energy and resource efficient way

- Quick description of the project

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- (\*) Do you intend to apply as ? :

Coordinator: No

Participant: Yes

(\*) Either Description of the expertise requested (up to 1000 characters) - specify which points of the "expected impact" of the call you are targeting

-

Or Description of the expertise proposed (up to 1000 characters) - specify which points of the "expected impact" of the call you are targeting

CEA is offering the service of integrating TOTEM building as a demonstration site and CEA's expertise related to energy management.

TOTEM consists in a RT2012 fully operational building (400m<sup>2</sup>, office type), three EV charging stations and electric vehicles. Aside from classical equipment ensuring internal comfort and a healthy environment, the site houses several energy devices in order to reach the target of energy self-sufficiency. It is equipped with 66kWp of photovoltaic solar panels, a 550kWh Li-ion battery and a storage capacity of 100kg hydrogen at 200 bar. The whole infrastructure is managed thanks to a unique SCADA system addressing both building and energy management systems via 1200 variables. Energy management strategies can be adapted, i.e. achieving strict energy autonomy (solar power production derating, operating in islanding mode) ; interacting with users for both rooms and vehicles occupancy planning ; interacting with the district thanks to district emulation .

**Key words : demonstration site, energy management, sustainable energy, off-grid, hydrogen.**

### Organisation information

Organisation and country:

CEA, France

Type of organisation:

Enterprise  SME  Academic  Research institute  Public Body  Other: Association

Former participation in FP European projects?

Yes  No

Web address:

<http://www.cea.fr/>

Description of the organisation:

The French Alternative Energies and Atomic Energy Commission (CEA) is a key player in research, development and innovation in four main areas: defence and security, low carbon energies (nuclear and



renewable energies), technological research for industry, fundamental research in the physical sciences and life sciences. Drawing on its widely acknowledged expertise, the CEA actively participates in collaborative projects with a large number of academic and industrial partners.

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**(\*) –Mandatory**