Hydrogen Europe:
European Hydrogen & Fuel cell Project Database

Project CLEARgen DEMO

The Integration and demonstration of Large Stationary Fuel Cell Systems for Distributed Generation

Certain industries, such as chemical production or petroleum refining have been identified as producing quantities of by-product hydrogen that can be used to produce clean, load-following power on a distributed basis, reducing reliance on fossil fuels. While the chemical production industry generally acknowledges the potential value of stationary fuel cell applications, the lack of multiple megawatt-scale European reference sites is a significant barrier to widespread adoption. The CLEARgen Demo proposal aims to address this need. DANTHERM (Denmark), supported by Ballard Power Systems (Canada), will make design improvements to the existing ClearGen(tm) system, building parts for a one-megawatt fuel cell system to meet the specific requirements of European customers. DANTHERM will also manage the project. HDF (France) will design installations, integrate, commission and operate the system at a demonstration site provided by AQUIPAC (France), validating and maintaining system performance over the duration of a two and a half year demonstration period. HDF will also realize all procedures for permitting, will prepare the site and will install facilities. JEMA (Spain) will be in charge of electrical integration of the fuel cell system to injecting electricity in the public grid. The CNRS-ICMCB (France) will be responsible for data analysis and dissemination of results. The total project duration is approximately sixty-five months. The objectives of the CLEARgen Demo Project are: 1) The development and construction of a large scale fuel cell system, purpose-built for the European market, 2) The validation of the technical and economic readiness of the fuel cell system at the megawatt scale, and 3) The field demonstration and development of megawatt scale system at a European chemical production plant. The demonstration site was chosen for the ability to provide a strong reference case so as to convince future operators of the relevance of large scale stationary fuel cell applications.

Project Information

Type of project : Demonstration
Timing : 01/05/2012 > 30/06/2020
Project website: http://www.cleargen.eu
Project Budget : 8.578.142 €

Funding

European Union through FCH JU: **Grant agreement 303458 - CORDIS link**

Project partners

Coordinator :
Ballard Power System Europe A/S (Previously Dantherm)
Partners :
CLEARgen DEMO
CNRS - Centre National de la Recherche Scientifique
Logan Energy
LINDE GAS MAGYARORSZAG ZARTKORUEN MUKODO RESZVENYTARSASAG
AQUIPAC SAS
JEMA ENERGY SA
BUDAPESTI MUSZAKI ES GAZDASAGTUDOMANYI EGYETEM

Sub project(s)

Sub project 1

Country: Denmark
Address:
MAJSMARKEN 1 9500 HOBRO
Sub project categories
Demonstration

Project Id: 932
This project datasheet was last updated on : 21.11.2017
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