



Hydrogen Europe: European Hydrogen & Fuel cell Project Database

Project FITUP

Fuel cell field test demonstration of economic and environmental viability for portable generators, backup and UPS power system applications

A total of 19 market-ready fuel cell systems from 2 suppliers (ElectroPS, FutureE) will be installed as UPS/ backup power sources in selected sites across the EU. Real-world customers from the telecommunications and hotel industry will utilize these fuel cell-based systems, with power levels in the 1-10kW range, in their sites. These units will demonstrate a level of technical performance (start-up time, reliability, durability, number of cycles) that qualifies them for market entry, thereby accelerating the commercialisation of this technology in Europe and elsewhere. The demonstration project will involve the benchmarking of units from both fuel cell suppliers according to a test protocol to be developed within the project. It will employ this test protocol to conduct extensive tests in field trials in sites selected by final users in Italy, Switzerland and Turkey. The performance will be logged and analysed to draw conclusions regarding commercial viability and degree to which they meet customer requirements, as well as suggesting areas for improvement. A lifecycle cost analysis using data from the project will be carried out to determine economic value proposition over incumbent technologies such as batteries or diesel generators. The system producers use the results to obtain valuable first hand feedback from customers, optimise their systems as needed, and demonstrate commercial viability. On the other hand, final users from the telecommunications and hotel industry will experience first-hand the advantages of fuel cells for their applications under real world conditions. The optimisation potential is expected from the production process itself, from the installation of a significant amount of fuel cell systems and from the testing. The project will also develop a certification procedure valid in the EU27 under the lead of TÜV Süd.

Project Information

Type of project : Demonstration

Timing : 01/11/2010 > 30/04/2014

Project website: <http://fitup.engr.bilgi.edu.tr/>

Project Budget : 5.289.901 €

Funding

European Union through FCH JU: Grant agreement 256766 - [CORDIS link](#)

Project partners

Coordinator :

ELECTRO POWER SYSTEMS

HELIOCENTRIS FUEL CELL SOLUTIONS GMBH

PARCO SCIENTIFICO E TECNOLOGICO PER L'AMBIENTE - ENVIRONMENT PARK SPA

FACHHOCHSCHULE ZENTRALSCHWEIZ - HOCHSCHULE LUZERN

UNITED NATIONS INDUSTRIAL DEVELOPMENT ORGANIZATION

JRC - JOINT RESEARCH CENTRE- EUROPEAN COMMISSION

TUV SUD INDUSTRIE SERVICE GmbH

Swisscom (Schweiz) AG

WIND TELECOMUNICAZIONI SPA

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Sub project(s)

Sub project 1

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Sub project categories

Demonstration

Project Id: 969

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