



# Hydrogen Europe: European Hydrogen & Fuel cell Project Database

## Project SOFT-PACT

### Solid Oxide Fuel Cell micro-CHP Field Trials

A consortium has been formed to validate solid oxide fuel cell (SOFC) micro CHP technology in a real market environment. The consortium consists of a utility company, a heating system manufacturer, a fuel cell company and a software company specialising in microgeneration control systems and virtual power plants. The project consists of two phases: Phase 1: Deployment of forty BlueGen™ 2 kWe SOFC generators with domestic hot water cylinders or thermal stores (Pathfinder systems). Subject to location a boiler upgrade may also be included Phase 2: To design, build and deploy sixty 1-2 kWe SOFC micro-CHP units based on current prototype test systems (integrated systems with condensing boilers) The SOFC Technology chosen has a very high electrical efficiency (initially 60% LHV) and low thermal output which allows for 24/7 operation throughout the year. Deployment of units will be in occupied residential locations with a small number also being installed in test homes to provide reference data with the existing tests of prototype units and as a baseline for the field trial systems. The field trial demonstration will last for 36 months and provide the following outputs 1.Power generation export to the grid from fully integrated Fuel Cell systems and fleet management 2.Systems capable of being integrated into a future Smart Grid 3.Component optimisation and supply chain development; 4.Installation and field support workforce training and capability build; 5.Systems capable of integrating into existing power and heat infrastructures; 6.Validation of the system efficiency, cost and lifetimes compared against JTI targets; 7.Identification of barriers or risks hindering full commercialisation; 8.Feedback to the RD&D activities on required mitigations 9.Environmental sustainability via life cycle analysis; 10.Promotion of the project to a wider audience and prospective customer via website, vase studies and marketing material

## Project Information

**Type of project :** Demonstration

**Timing :** 08/07/2011 > 07/10/2015

**Project website:** <http://www.soft-pact.eu/index.php/consortium/fch-ju>

**Project Budget :** 10.312.703 €

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## Funding

European Union through FCH JU: **Grant agreement 278804 - CORDIS link**

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## Project partners

**Coordinator :**

UNIPER TECHNOLOGIES LIMITED  
CERAMIC FUEL CELLS GMBH  
IDEAL BOILERS LIMITED  
HOMA SOFTWARE BV

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**Sub project(s)**

**Sub project 1**

**Country:** United Kingdom

**Address:**

Westwood Way CV4 8LG COVENTRY

**Sub project categories**

Demonstration

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Project Id: 1091

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