European-wide field trials for residential fuel cell micro-CHP

Fact Sheet

Project Information

ENE.FIELD
Grant agreement ID: 303462

Status
Closed project

Start date
End date
1 September 2012
31 October 2017

Funded under
FP7-JTI

Overall budget
€ 54 542 494,38

EU contribution
€ 25 907 168,77

Coordinated by
THE EUROPEAN ASSOCIATION FOR THE PROMOTION OF COGENERATION VZW
Belgium

Objective

ene.field will deploy up to 1,000 residential fuel cell Combined Heat and Power (micro-CHP) installations, across 11 key Member States. It represents a step change in the volume of fuel cell micro-CHP (micro FC-CHP) deployment in Europe and a meaningful step towards commercialisation of the technology.
The programme brings together 9 mature European micro FC-CHP manufacturers into a common analysis framework to deliver trials across all of the available fuel cell CHP technologies. Fuel cell micro-CHP trials will be installed and actively monitored in dwellings across the range of European domestic heating markets, dwelling types and climatic zones, which will lead to an invaluable dataset on domestic energy consumption and micro-CHP applicability across Europe.
By learning the practicalities of installing and supporting a fleet of fuel cells with real
customers, ene.field partners will take the final step before they can begin commercial roll-out. An increase in volume deployment for the manufacturers involved will stimulate cost reduction of the technology by enabling a move from hand-built products towards serial production and tooling. The ene.field project also brings together over 29 utilities, housing providers and municipalities to bring the products to market and explore different business models for micro-CHP deployment.

The data produced by ene.field will be used to provide a fact base for micro FC-CHP, including a definitive environmental lifecycle assessment and cost assessment on a total cost of ownership basis.

To inform clear national strategies on micro-CHP within Member States, ene.field will establish the macro-economics and CO2 savings of the technologies in their target markets and make recommendations on the most appropriate policy mechanisms to support the commercialisation of domestic micro-CHP across Europe. Finally ene.field will assess the socio-economic barriers to widespread deployment of micro-CHP and disseminate clear position papers and advice for policy makers to encourage further roll out.

Fourth Amendment
Changes to the DOW in light of the fourth amendment include:
- Beneficiary GDF SUEZ has changed its legal name to ENGIE
- Descriptions of financial flows from partner manufacturers are added to the DOW as annexes;
- Considering the inclusion of new partners, units and budgets are accordingly reallocated:
  o for additional units and budget: Viessmann and SOLIDPower
  o for reduction of budget and number of units: RBZ, Dantherm, Hexis
- Due to a slow start in trial deployment, the deployment period for units will be extended until September 2016.

To protect the confidentiality of some of the information provided by the CHP suppliers in the project, this project description document has two sections. The first main section describes the overall intent of the project and summary information from each of the suppliers. The Addendum 1 is a selection of Letters of intent applying to the project for deployment of units from ene.field associates.

Fifth Amendment
Changes to the DOW in light of the fourth amendment include:
• Removal of special clause 5.1 reserving funds originally intended as a pre-payment to Ceres Power
• Allocation of additional pre-financing to Solid Power Spa
• Change of project coordinator named by COGEN Europe to Roberto Francia.
Programme(s)

Topic(s)

Call for proposal

FCH-JU-2011-1

Funding Scheme

JTI-CP-FCH - Joint Technology Initiatives - Collaborative Project (FCH)

Coordinator

THE EUROPEAN ASSOCIATION FOR THE PROMOTION OF COGENERATION VZW

Address
Kunstlaan 3/4/5
1210 Brussels
Belgium

Activity type
Other

EU contribution
€ 551 051,09

Contact the organisation

Administrative Contact
Hans Korteweg (Mr.)

Participants (28)

BAXI INNOTECH GMBH

Address
Germany

EU contribution
€ 324 980
<table>
<thead>
<tr>
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<th>Activity type</th>
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</thead>
<tbody>
<tr>
<td>Ausschlager Elbdeich 127 20539 Hamburg</td>
<td>Private for-profit entities (excluding Higher or Secondary Education Establishments)</td>
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<tr>
<td>Website [link]</td>
<td>Contact the organisation [link]</td>
</tr>
<tr>
<td>Administrative Contact</td>
<td>Michael Braun (Mr.)</td>
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</tbody>
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**BOSCH THERMOTECHNIK GMBH**

- **Germany**
- **EU contribution**: € 2 143 357

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<tr>
<td>Sophienstrasse 30-32 35576 Wetzlar</td>
<td>Private for-profit entities (excluding Higher or Secondary Education Establishments)</td>
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<tr>
<td>Website [link]</td>
<td>Contact the organisation [link]</td>
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<tr>
<td>Administrative Contact</td>
<td>Stefanie Felgentreu (Ms.)</td>
</tr>
</tbody>
</table>

**BALLARD POWER SYSTEMS EUROPE AS**

- **Denmark**
- **EU contribution**: € 660 000

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<td>Majsmarken 1 9500 Hobro</td>
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<tr>
<td>Website [link]</td>
<td>Contact the organisation [link]</td>
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<tr>
<td>Administrative Contact</td>
<td>Per Balslev (Dr.)</td>
</tr>
</tbody>
</table>

**ELCORE GMBH**

- **Germany**
- **EU contribution**: € 1 738 109
Riesaer Brennstoffzellentechnik GmbH
Germany
EU contribution
€ 730 344

Address
Industriestrasse A 11
01612 Glaubitz

Activity type
Private for-profit entities (excluding Higher or Secondary Education Establishments)

Website
Contact the organisation

Administrative Contact
André Ackermann (Mr.)

SOLIDPOWER SPA
Italy
EU contribution
€ 5 688 599

Address
Viale Trento 115/117
38017 Mezzolombardo Tn

Activity type
Private for-profit entities (excluding Higher or Secondary Education Establishments)

Contact the organisation

Administrative Contact
Alberto Ravagni (Dr.)

VAILLANT GMBH
Germany
EU contribution
€ 2 925 070
Address
Berghauser Strasse 40
42859 Remscheid

Activity type
Private for-profit entities (excluding Higher or Secondary Education Establishments)

Website
Contact the organisation

Administrative Contact
Christian Trostmann (Mr.)

---

DOLOMITI ENERGIA HOLDING SPA

Italy
EU contribution
€ 30 000

Address
Via Manzoni 24
38068 Rovereto Tn

Activity type
Private for-profit entities (excluding Higher or Secondary Education Establishments)

Website
Contact the organisation

Administrative Contact
Dario Alessandrini (Dr.)

---

BRITISH GAS TRADING LIMITED

United Kingdom
EU contribution
€ 212 391

Address
Millstream Maidenhead Road
SL45GD Windsor

Activity type
Private for-profit entities (excluding Higher or Secondary Education Establishments)

Website
Contact the organisation

Administrative Contact
Adrian Richardson (Mr.)

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ELEMENT ENERGY LIMITED

United Kingdom
EU contribution
€ 419 269
Address
Suite 1, Bishop Bateman
Court Thompson’s Lane
CB5 8AQ Cambridge

Activity type
Private for-profit entities
(excluding Higher or Secondary Education Establishments)

Website
Contact the organisation

Administrative Contact
Kate Harland (Ms.)

---

**ENGIE**

Country
France

EU contribution
€ 306 840

Address
1 Place Samuel De Champlain
92400 Courbevoie

Activity type
Private for-profit entities
(excluding Higher or Secondary Education Establishments)

Website
Contact the organisation

Administrative Contact
Stephane Hody (Mr.)

---

**ITHO DAALDEROP GROUP BV**

Country
Netherlands

EU contribution
€ 9 585

Address
Lingewei 2
4004 LL Tiel

Activity type
Private for-profit entities
(excluding Higher or Secondary Education Establishments)

Website
Contact the organisation

Administrative Contact
Wim B. Verbeek (Mr.)

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**HYDROGEN, FUEL CELLS AND ELECTRO-MOBILITY IN EUROPEAN REGIONS**

Country
Belgium

EU contribution
€ 84 934
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<tr>
<td>Avenue Des Arts 3-4-5 1210 Brussels</td>
<td>Other</td>
<td>Contact the organisation</td>
<td>Marieke Reijalt (Ms.)</td>
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<tr>
<td>South Kensington Campus Exhibition Road SW7 2AZ London</td>
<td>Higher or Secondary Education Establishments</td>
<td>Contact the organisation</td>
<td>Shaun Power (Mr.)</td>
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<tr>
<td>Retece 4 4220 Skofja Loka</td>
<td>Research Organisations</td>
<td>Contact the organisation</td>
<td>Gasper Benedik (Mr.)</td>
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<td>Contact the organisation</td>
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</table>
Establishments

Website

Contact the organisation

Administrative Contact

Alessandro Graizzaro (Dr.)

POLITECNICO DI TORINO

Italy

EU contribution

€ 115 701

Address

Corso Duca Degli Abruzzi 24
10129 Torino

Activity type

Higher or Secondary Education Establishments

Website

Contact the organisation

Administrative Contact

Massimo Santarelli (Prof.)

DBI - GASTECHNOLOGISCHES INSTITUT GGMBH FREIBERG

Germany

EU contribution

€ 460 805

Address

Halsbrucker Starsse 34
09599 Freiberg

Activity type

Research Organisations

Website

Contact the organisation

Administrative Contact

Bert Otto (Mr.)

THE ENERGY SAVING TRUST LIMITED

United Kingdom

EU contribution

€ 69 261

Address

30 North Colonnade Canary Wharf
E14 5GP London

Activity type

Other

Website

Contact the organisation

Administrative Contact

Jaryn Bradford (Mr.)
<table>
<thead>
<tr>
<th>Organisation Name</th>
<th>Country</th>
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<th>Address</th>
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<tr>
<td>GASWARME-INSTITUT ESSEN EV</td>
<td>Germany</td>
<td>€ 449 173</td>
<td>Hafenstrasse 101, 45356 Essen</td>
<td>Other</td>
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<tr>
<td>DANMARKS TEKNISKE UNIVERSITET</td>
<td>Denmark</td>
<td>€ 176 660</td>
<td>Anker Engelundsvej 1, Bygning 101 A, 2800 Kgs Lyngby</td>
<td>Higher or Secondary Education Establishments</td>
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<tr>
<td>EIFER EUROPÄISCHES INSTITUT FÜR ENERGIEFORSCHUNG EDF KIT EWIV</td>
<td>Germany</td>
<td>€ 94 510</td>
<td>Emmy Noether Strasse 11, 76131 Karlsruhe</td>
<td>Research Organisations</td>
</tr>
<tr>
<td>DONG ENERGY WIND POWER HOLDING AS</td>
<td>Denmark</td>
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Contact the organisation for more information.
HEXIS AG
Switzerland
€ 2 581 999,49
Address
Zum Park 5
8404 Winterthur
Activity type
Private for-profit entities (excluding Higher or Secondary Education Establishments)
Website
Contact the organisation
Administrative Contact
Rolf Clemens (Mr.)

DONG ENERGY OIL & GAS AS
Denmark
€ 40 285
Address
Kraftvaerksvej 53
7000 Frederica
Activity type
Private for-profit entities (excluding Higher or Secondary Education Establishments)
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Contact the organisation
Administrative Contact
Aksel Hauge Pedersen

SENERTEC KRAFT-WARME ENERGIESYSTEMEGMBH
Germany
€ 2 859 834
Address
Carl Zeiss Strasse 18
97424 Schweinfurt

Activity type
Private for-profit entities
(excluding Higher or Secondary Education Establishments)

Website
Contact the organisation

Administrative Contact
Maja Wulf

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vießmann werke gmbh & co kg

Germany

EU contribution
€ 2 438 204

Address
Viessmannstrasse 1
35108 Allendorf

Activity type
Private for-profit entities
(excluding Higher or Secondary Education Establishments)

Website
Contact the organisation

Administrative Contact
Volker Nerlich (Mr.)

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ceres power limited

United Kingdom

EU contribution
€ 597 209,19

Address
Foundry Lane Viking House
RH13 5PX Horsham

Activity type
Private for-profit entities
(excluding Higher or Secondary Education Establishments)

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Paul Cullen (Mr.)