Summary description of project context and objectives

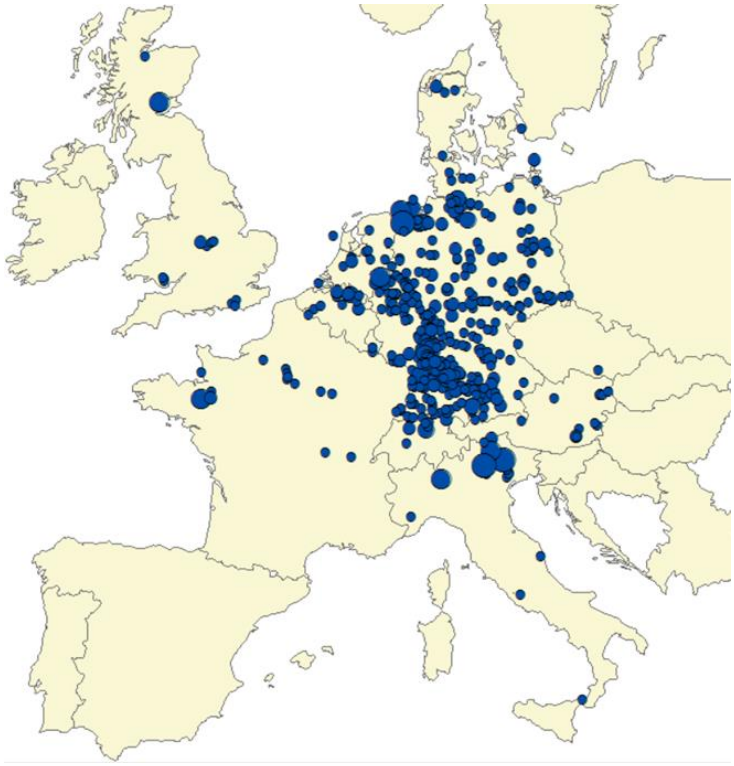
Ene.field will deploy up to 900 residential fuel cell Combined Heat and Power (micro-CHP) installations across different Member States, bringing ten European micro FC-CHP manufacturers into a common analysis framework to deliver trials across all major micro FC-CHP technologies. This represents a change in the volume of fuel cell micro-CHP deployment in Europe and a meaningful step towards commercialising the technology.

The objectives of this project are to promote practical learning and demonstrate the market potential, segmentation, cost and environmental benefits of micro FC-CHP while developing market-oriented product specifications and harmonised codes and standards. Additionally, ene.field seeks to set up a more mature supply chain, ready for the deployment of micro FC-CHP in different Member States, and to provide evidence based on cost and environmental analysis that can be used to accelerate policy support from governments from regional and national and market adoption by several channels.

Description of work performed and main results

Deployment of units

The ene.field project is moving forward with the full support of project partners; the field trials that started in September 2013 continued at a higher pace in P4: Between September 2015 and September 2016, the ramping up of the rate of installations has continued with 679 units installed as of the end of August 2016, or 77% of the total number of units. The installations have taken place in 10 countries: Germany, Italy, France, Belgium, Switzerland, the Netherlands, the UK, Denmark, Luxembourg, and Austria)



Systems installed with the support of ene.field

Data collection and analysis

The data communication procedures for the trial partners and data collection processes have been established and the data information is flowing and is being gathered for both standard and detailed monitoring, to then be anonymised to perform intense technical analysis. The installation surveys with end users and installers are also gathering, storing and anonymising data from the different units to be analysed in the project.

A preliminary version of the "Non-economic barriers to large-scale market uptake of fuel cell based micro-CHP technology" report was delivered in April 2016, containing findings within technical performance barriers, consumer and installation barriers, policies and politics, and regulations, codes & standards. The final version of the report is expected in December 2016, where there should be a reasonable amount of data available from the post-installation end-user survey, to further analyse consumer barriers.

Dissemination

In this fourth year of the project, new initiatives were taken to reinvigorate the project's communications output, to disseminate the outcomes of the project and to encourage both utilities and regions to get involved. The communications activities were comprised by several press releases, newsflashes and presentations in major events and different articles on magazines.

A series of events called "ene.field national workshops" was launched in June 2016 with the Italian workshop being organized as part of the POWER-GEN Europe Conference, and alongside with the COGEN Europe Recognition Awards. Similar events are planned in 2016 and 2017 in Belgium, the Netherlands, France, Germany, Austria, and Switzerland.

All dissemination materials are available at www.enefield.eu

Project management

The consortium met for the third time at the annual project meeting and general assembly in September 2015, with the aim to review the project results and collect recommendations. New partners were welcomed and new initiatives to streamline reporting and amendment processes were discussed.

A meeting with the advisory board was set up in November 2015. The meeting links ene.field to the fuel cell activities in the USA DOE and the Fuel Cell Commercialization Conference of Japan (FCCJ) which each have a representative on the advisory panel.

Expected final results and potential impacts

ene.field is the largest European demonstration of fuel cell micro-CHP to date. The project's fourth year has seen all partners adjust their channels to market; make appropriate resource adjustments and increase deployment of units. It is expected that the project will be able to deploy nearly 900 units by the end of the project.

The data collected from the units will enable the consortium to finalise the database of energy demand profile and to prepare a report on technical performance of all mCHP units in the trial. The last year of the project will bring an updated report on the non-economic barriers to mass uptake of the technology.

Findings will be shared with stakeholders at the ene.field national workshops to be organized in the countries where deployments take place. These events are intended to create visibility for the technology and aimed at informing participants about the ene.field project findings and the potential of fuel cell micro-CHP (FC micro-CHP) technologies for the energy transition at national level. The dissemination activities will culminate in the final dissemination event in June 2017, in Brussels.

Project public website address: www.enefield.eu