



Hydrogen Europe: European Hydrogen & Fuel cell Project Database

Project DEMOSOFC

DEMOstration of large SOFC system fed with biogas from WWTP

Energy Context and EU position The “Europe 2020” strategy promotes the shift towards a resource-efficient, low-carbon economy to achieve sustainable growth. The European policies on energy and sustainability are thus contributing to the diversification of the primary energy mix and to the introduction of distributed power technologies with high efficiency and low carbon emissions. , From the point of view of energy policy, the European Strategic Energy Technology (SET) Plan for 2020 identifies Strategic Technologies Focus on the following priorities:

- Energy Efficiency: high efficiency conversion devices represent elements of a higher efficiency portfolio
- Renewable Energy: traditional RES (solar, wind, hydro) but also biogenous fuels (biogas, bio-syngas, bio-fuels) and new synthetic vectors (H₂, synthetic NG,...)
- Carbon capture and storage: mitigation of CO₂ emissions (related to efficient energy conversion devices, and improved adoption of RES fuels) and CO₂ recovery
- Smart Grid: large topic, in which several technologies are included (energy storage, ICT intelligence of the grid, prosumer....), among which the concept of distributed CHP plant gets an important role

DEMOSOFC objectives

1. DEMO and deep analysis of an innovative solution of distributed CHP system based on SOFC, with high interest in the industrial/commercial application representing the best solution in the sub-MW distributed CHP in terms of efficiency and emissions
2. DEMO of a distributed CHP system fed by a biogenous CO₂ neutral fuel: biogas from anaerobic digestion
3. DEMO in a real industrial installation
4. DEMO of the high achievements of such systems: electrical efficiency, thermal recovery, low emissions, plant integration, economic interest for best use of renewable fuels in a future of decreasing incentives
5. EXPLOITATION and BUSINESS analysis of replication of this type of innovative energy systems
6. DISSEMINATION of the high interest (energy and economic) of such systems

Project Information

Type of project : Demonstration

Timing : 01/09/2015 > 31/08/2020

Project website: <http://www.demosofc.eu>

Project Budget : 5.905.336 €

Funding

European Union through FCH JU: Grant agreement 671470 - [CORDIS link](#)

Project partners

Coordinator :

[Politecnico di Torino](#)

Partners :

[Convion Oy](#)

[Teknologian tutkimuskeskus VTT Oy](#)

Società Metropolitana Acque Torino S.p.A.

IMPERIAL COLLEGE OF SCIENCE TECHNOLOGY AND MEDICINE

Sub project(s)

Sub project 1

Country: Italy

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Sub project categories

Demonstration

Project Id: 944

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