

International Partnership for Hydrogen and Fuel Cells in the Economy

Country Update Italy

Policy framework

- Funding schemes as consequence of the National Research Plan (PNR) still under definition and of the SEN, National Energy Strategy
- Funding volumes: share government / industry not yet defined , but usually it will be under the EU rules
- Road maps: Trying to define - once again – the National Platform on Hydrogen and Fuel cells technologies

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Industry Country Update Italy


EFESO - Environmentally Friendly Energy from Solid Oxide Fuel Cell
Merloni Termosanitari - 1-2.5 kW micro-CHP prototypes with SOFC
(planar and tubular technologies) (10.92 M€ funded)

2013 2007



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Industry

Current H2FC projects / activities

- a) 30kW PEM system in Lombardia
- b) 10 Panda in Lombardia driving on H2/CNG mixture
- c) Project Ingrid, largest EU hydrogen energy storage project (FP7)
- d) Several EU funded projects on H2 production from renewables, SOFC with syngas, Stack material development
- e) H2IT, Italian Hydrogen and Fuel Cell Association (www.h2it.org)

Future / planned H2FC projects:











- ThreEmotion: FC Bus project with locations in Lazio (5 Buses + H2 filling station), Paris, Rotterdam, Antwerp



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CHIC Project FCH JU Phase 1

Since September 2013 3 FCH buses are in service on line 84 in the centre of Milan

			
London	8 buses	Bolzano	5 buses
			
Milan	3 buses	Aargau	5 buses
			
Oslo	5 buses		



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fuel cells & hydrogen for sustainability

High VLO City Project

Since September 5 FC Buses in operation in San Remo



Riviera Transport SpA is the local PT operator in the province of Imperia with the addition of Arroscia, in the Liguria Region.

Riviera Transport operates 186 diesel buses; 19 of trolleybuses

7,500,000 km in public transport, over 1,500,000 in hire service; 12 mil passengers

Riviera Trasporti T purchased five 3rd generation A330 fuel cell (hybrid fuel cell-electric) by Van Hool SA.

The A330 is 13,15 meter 3 axle bus and shows fuel consumption less than 9 kg/100 km (iso 23 kg/100 km), the hybrid drive allowed the operating range to increase well over 350 km enough to complete a daily 18 hours city duty cycle thanks to the hybrid drive.

The Hydrogen is stored into 8 tanks, each containing 40 kg of H₂ at 350 bar

The Fuel cells produce 150 kW with variable tension 300-700 V.



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Two FC Minibuses produced and operated in Trento



Minibus in Piazza a Moena



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Market Update Country Update Italy

Save the date: Hydrogen and Fuel Cells: what opportunities for Italy ? Next Post

When: 13 December, 2013

The National Agency for New Technologies, Energy and Sustainable Economic Development (ENEA), the Federation of Scientific and Technical Associations (FAST), the Italian Association of Hydrogen and Fuel Cells (IACFC) and the University of Ferrara organized on December 13th 2013, in Rome the seminar **"Hydrogen and Fuel Cells: what opportunities for Italy?"** in the context of the 4th edition of the "European Fuel Cell Technology & Applications – Piero Luigi Corvone" (EFC13).

The aim of the seminar is on the one hand to illustrate the state of the art, the energy scenario and the future commitment of the Italian society about hydrogen and fuel cells technologies and the other to give a voice to the Italian industry and research institutions for conveying the exchange of views that highlight the needs of academic and business communities with regard to the energy and environmental goals set by the Italian system.

The event is free.
The agenda is being finalized and will be published as soon as possible on the internet site www.icit.org or www.fast.mi.it

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Posted on 23 September, 2013

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Power to Gas

Country Update Italy

Consortium

Engineering Ingegneria Informatica (coordinator)		Italy
McPhy Energy S.A.		France
Hydrogenics		Belgium
Tecnalia		Spain
RSE		Italy
Enel Distribuzione		Italy
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High-capacity hydrogen-based green-energy storage solutions for grid balancing

Energy storage is becoming a critical issue to balance and integrate larger shares of fluctuating renewable energy and improve power grid reliability and efficiency. Hydrogen energy storage represents a viable option to increase carbon-neutral energy supply due to its high energy density and reversibility, however its widespread adoption is yet to come until the actual concerns on safety and transformation costs will be solved.

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