

ADEME



## Power to Gas: McPhy Energy – a key player in the GRHYD<sup>(1)</sup> programme

*La Motte-Fanjas, January 31<sup>st</sup> 2014* – The GRHYD programme, which uses hydrogen to link electricity and natural gas management, kicked off on January 30<sup>th</sup> in Dunkirk, France.

McPhy Energy, a company specialized in hydrogen-based solutions for industrial and energy, is one of the key players in the GRHYD programme launched on January 30<sup>th</sup> in Dunkirk during the 15<sup>th</sup> annual French Energy Conference.

McPhy Energy's exclusive solid state hydrogen storage technology positions the company at the heart of the Power to Gas programme. This initiative aims at converting surplus electricity produced by renewable energy sources – which could be wasted – into hydrogen, to store it and to inject it on demand into the natural gas network.

GDF Suez leads the GRHYD pilot programme. A partnership comprising McPhy Energy, the Dunkirk Metropolitan Authority, GrDF, GNVERT, Cofely Ineo, CEA, INERIS, CETIAT, AREVA SE, CETH<sub>2</sub> and STDE will implement it.

McPhy Energy's hydrogen storage equipment will regulate the quantity of hydrogen produced from wind power to be injected into the natural gas network.

During the next four years, the Dunkirk urban community GRHYD pilot programme will assess the technical and economic relevance of Power to Gas in two specific markets:

- **Housing**, by injecting varying proportions of hydrogen into the natural gas distribution network to meet the needs of 200 housing units in a new residential neighborhood, and
- **Transportation**, providing Hythane<sup>®</sup>, a mix of 20% of hydrogen and 80% of natural gas, to around 50 buses that run on natural gas.

GRHYD's use of hydrogen to link electrical energy and natural gas management responds to European Directive 2009/28/EC. France must show a 23% share of

renewable energies in its gross final energy consumption by 2020. As part of the Investissements d'Avenir (forward-looking investments in France's National Loan Programme), the GRHYD project was retained in ADEME's (National Environment and Energy Conservation Agency) call for proposals on hydrogen and fuel cells.

The programme's projected budget, which includes ADEME financing, represents €14.9 million of which €1.82 million will be funded by McPhy Energy.

*"Our exclusive solid state Hydrogen storage technology offers an innovative solution to the Power to Gas industry. We are pleased to prove the safety and flexibility our equipment provides in connecting electric and natural gas energy management thanks to hydrogen. This project is a major step forward to ensure France's energy future,"* declared Pascal Mauberger, Chief Executive Officer of McPhy Energy.

### About McPhy Energy

McPhy Energy, a leading developer of hydrogen-based solutions for industrial and energy storage was founded at La Motte Fanjas (Drôme) in France in 2008. The company draws on its exclusive technique for storing hydrogen in solid form and its years of experience in producing hydrogen through water electrolysis to design and manufacture flexible storage and production equipment.

McPhy Energy markets easy-to-use, environmentally-friendly solutions combining unique safety features and energy independence to over 1,000 clients in the renewable energy, mobility and industry sectors.

The group has three production sites in France, Germany and Italy and an R&D laboratory in France. As a fast expanding company, McPhy Energy counts several top-ranking companies (Sofinnova Partners, Bpifrance, Gimv, Amundi, Emertec, Areva) among its shareholders.

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