Europe prepares to expand hydrogen refuelling infrastructure network and vehicle fleet

An ambitious multi-country, multi-partner project will demonstrate that hydrogen can support Europe's future transport demands

Brussels, 14 June 2016 – Today sees the launch of a second pan-European deployment of hydrogen refuelling infrastructure, and passenger and commercial fuel cell electric vehicles. The six-year H2ME 2 project brings together 37 partners from across Europe. It will include the deployment and operation of 1,230 fuel cell vehicles, the addition of 20 extra hydrogen-refuelling stations (HRS) to the European network and will test the ability of electrolyser-HRS to help balance the electrical grid. The project has been developed under the auspices of the Hydrogen Mobility Europe (H2ME) initiative and supported by the Fuel Cells and Hydrogen Joint Undertaking (FCH JU) with funding from the European Union Horizon 2020 programme.

The H2ME 2 project takes its name from Hydrogen Mobility Europe (H2ME), a collaboration between national H2 Mobility initiatives from across Europe which aims to coordinate European activities and helps support the early roll-out of hydrogen vehicles across Europe. The H2ME 2 project will complement and build on a first FCH JU-funded project developed by H2ME partners, H2ME 1 (www.H2ME.eu), which was announced in September 2015, with plans for 300 fuel cell vehicles and 29 HRS. Together, the H2ME projects will form the largest EU funded project for hydrogen mobility and FCEV deployment.

The €100 million H2ME 2 project, funded with a further €35 million grant from the FCH JU, will significantly expand the European hydrogen vehicles fleet and in so doing, aims to confirm the technical and commercial readiness of vehicles, fuelling stations and hydrogen production techniques. H2ME 2 will produce recommendations and identify any gaps that may prevent full commercialisation, as well as collating results to support future investments. Together the H2ME 1 and H2ME 2 projects demonstrate the breadth and depth of the commitment to hydrogen-fuelled road transport as a pan-European solution to the need to have viable, competitive, alternatives to fossil fuels.

"Today marks a significant day in the future of European transport," said Ben Madden, Director, Element Energy and project coordinator for H2ME 1 and H2ME 2. "Our aim has been to help bring the key businesses and public bodies investing in hydrogen mobility in Europe together to work on the common goal of making hydrogen-fuelled transport a reality in Europe."

Madden continued; “Hydrogen Mobility Europe will demonstrate the use of hydrogen in the hands of a wide range of vehicle drivers from across Europe all of whom value the long range, low carbon and low emission driving offered by the technology. Understanding these customers will allow the sector to plan for the accelerated deployment of this important technology.”

Commenting on the award of grant funding, Bart Biebuyck, Executive Director of the FCH JU said; “Fuel Cell and Hydrogen (FCH) technologies hold great promise as a means of enabling the transport sector to meet energy, environmental and economic challenges. Vehicles fuelled by hydrogen, a gas that can be produced from a range of renewable energy sources, offer a promising means by which to achieve strategic goals with minimal impact on the driver in terms of vehicle and refuelling functionality and convenience. The FCH JU is committed to addressing the remaining bottlenecks in market deployment of hydrogen fuelling technologies. We’re bringing together automotive and H2 infrastructure companies, as well as a significant number of European countries to set up an H2-friendly environment. The benefits of gathering public and private partners together in projects such as H2ME 1 and H2ME 2 are evident. The FCH JU is pleased to see H2ME 2 bringing together activities across eight European countries to address the deployment required to make hydrogen mobility truly ready to deliver against sustainability goals for Europe. We welcome the leadership shown by the industry and municipal partners under the H2ME banner and believe the two H2ME projects will play a key role in informing policy makers and the wider stakeholder community of the business case for fuel cells and hydrogen.”

Speaking on behalf of the French H2Mobility partners, Fabio Ferrari coordinator of the French consortium and CEO of Symbio FCell, said; “This second H2ME project extends the scope of the first project by adding additional hydrogen refuelling stations in new strategic locations. It will demonstrate the link between hydrogen production and services to the energy networks. New French hydrogen refuelling stations are currently planned in the Rhône-Alps Green Hydrogen Corridor, as well as in Bordeaux, Nancy, Nantes and Paris. The project will result in a large deployment of utility vehicle fleets. These fleets are made up of light vans, small trucks, as well as a taxi fleet of 60 full fuel cell powered vehicles in the Greater Paris Area.”

Nikolas Iwan, Managing Director of the Joint Venture H2 MOBILITY Deutschland GmbH & Co. KG and coordinator for the German activities under H2ME, said; “If Fuel Cell Cars are to become a well-established product and with them the use of hydrogen as a fuel, the availability of infrastructure for refuelling is key. It is very important that infrastructure companies and car-manufacturers exchange information, to minimise the risk and focus the expertise around standardisation and network planning to make the most out of the provided funds by governments. We very much appreciate the expanded efforts taken in H2ME 2 and welcome the new partners. With the next phase of the programme, we are taking the next big step towards a competitive hydrogen offer for private customers!”.

Anna Margret Korneliusdottir, from Icelandic New Energy, spokesperson for the partners from Denmark, Iceland, Norway and Sweden, said “The commitment of Scandinavian countries to harnessing renewable energy is well documented. Hydrogen has a key role to play in this commitment. With the support of the

Scandinavian Hydrogen Highway Partnership, the H2ME 2 project will add seven HRS to our network and more than 45 fuel cell vehicles, further demonstrating the reliability and environmental benefits of hydrogen and allowing transnational driving within the region."

Dr Rachel Smith, Executive Director, ITM Power UK Hydrogen infrastructure provider and lead for the UK activities within the H2ME 2 project said; "We are very excited about the role the project will play in deploying hydrogen refuelling infrastructure, passenger and commercial fuel cell electric vehicles in the UK and demonstrating the system benefits generated by using electrolytic hydrogen solutions in UK grid operations."

Patrice Pawiroredjo, Senior Project Manager at Stedin Diensten BV, speaking on behalf of Dutch coalition partners, said; "The potential for hydrogen to play a significant role in transitioning to renewable energy sources is now recognised. As part of a group of companies that includes a distribution system operator (DSO) we think electrolysis can provide flexibility in our power grid and support hydrogen mobility. We will be working closely with the Ministry of Infrastructure and Environment to engage all relevant stakeholders in deploying hydrogen fuel cell vehicles and developing new hydrogen refuelling stations."

About H2ME 2

This €100 million demonstration project is co-funded with €35 million from the Fuel Cells and Hydrogen Joint Undertaking (FCH JU), a public private partnership supporting fuel cell and hydrogen energy technologies in Europe.

Partners include project lead Element Energy, alongside AGA, Air Liquide Advanced Business, Air Liquide Advanced Technologies, AREVA H2GEN, Audi, BMW, Cenex, City of Copenhagen (Kobenhavns Kommune), Communaute Urbaine Du Grand Nancy, CNR, Daimler, EIFER, GNVERT, H2 Logic, H2 Mobility Deutschland, Honda, Hydrogene de France, HYOP, hySOLUTIONS, Icelandic New Energy Ltd, Intelligent Energy, Islenska Vetnisfelagid (H2 Iceland), ITM Power, McPhy Energy, Michelin, Netherlands Ministry of Infrastructure and the Environment (Ministerie Van Infrastrutuur en Milieu), Nissan, OPEN ENERGI, Renault, Renault Trucks, SEMITAN, Stedin, STEP, Symbio FCell, The Danish Partnership for Hydrogen and Fuel Cells (Partnerskab for brint of braensdels cellar), The University of Manchester.

About H2ME1

This €68 million demonstration project is co-funded with €32 million from the Fuel Cells and Hydrogen Joint Undertaking (FCH JU), a public private partnership supporting fuel cell and hydrogen energy technologies in Europe.

Partners include project lead Element Energy, alongside AGA, Air Liquide Advanced Business, Air Liquide Advanced Technologies, AREVA H2GEN, BMW, BOC, Cenex, Communauté d'Agglomération Sarreguemines Confluences, Daimler, Danish Hydrogen Fuel, EIFER, Falkenberg Energi, H2 Logic, H2 Mobility Deutschland, Honda, HYOP, Hyundai, Icelandic New Energy, Intelligent Energy, ITM Power, Linde AG, McPhy Energy, Nissan, OMV, Renault, Symbio FCell, WaterstofNet.

About the FCH JU

The Fuel Cells and Hydrogen Joint Undertaking (FCH JU) is a unique public private partnership supporting research, technological development and demonstration activities in fuel cell and hydrogen energy technologies in Europe. Its aim is to accelerate the market introduction of these technologies, realising their potential as an instrument in achieving a carbon-lean energy system.

The three members of the FCH JU are the European Commission, fuel cell and hydrogen industries represented by the NEW Industry Grouping and the research community represented by Research Grouping N.ERGHY.

The FCH JU awarded the H2ME 2 project under grant agreement number 700350 and the earlier H2ME 1 project under grant agreement number 671438.

About Element Energy

Element Energy is a leading low carbon energy consultancy working in a range of sectors including low carbon transport, low carbon buildings, renewable power generation, carbon capture and storage, energy networks, and energy storage. Element Energy works with a broad range of private and public sector clients to address challenges across the low carbon energy sector and has been instrumental in establishing and delivering many of the FCH JU projects in the transport sector.

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