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IVECO, FPT Industrial and VDL ETS to develop fuel cell electric heavy-duty trucks for European markets as part of the H2Haul project

Leading European heavy-duty vehicle manufacturers, fuel cell suppliers, and hydrogen refuelling infrastructure providers announce a collaboration to develop and test fleets of zero emission trucks and hydrogen refuelling stations.

Today a European consortium announced the launch of the H2Haul project in which major European manufacturers IVECO, FPT Industrial powertrain producer and VDL ETS will design, build, and test three new types of fuel cell electric heavy-duty trucks, including rigid and articulated vehicles up to 44 tonnes. Fuel cell systems for the vehicles will be produced in Europe by three different suppliers – ElringKlinger (DE), Hydrogenics (DE), and Powercell (SE) – and the project will make a significant contribution towards preparing the market for further deployment of the technology in the 2020s and contribute to the 2030 EU CO₂ reduction target attainment.

A total of 16 vehicles will be tested in real-world operations at sites in Belgium, France, Germany, and Switzerland. The innovative hydrogen refuelling stations to be deployed will offer rapid, high capacity fuelling and thus support the demonstration of how fuel cell trucks can operate as direct replacements for diesel vehicles, with the equivalent driving range and load capacity, but with zero emissions.

The project, coordinated by Element Energy, has been made possible by a grant of €12 million from the European Commission via the Fuel Cells and Hydrogen Joint Undertaking (FCH JU). The project consortium also includes the following organisations: Air Liquide, Eoly, H2 Energy, Hydrogen Europe, IRU Projects, THINKSTEP, WaterstofNet.

Marco Liccardo, Head of Medium and Heavy Trucks Global Product Line, commented: “We are very proud of being part of the ambitious H2Haul project supported by the European Commission. It is a strategic initiative for IVECO, as sustainability has long been a core value that has driven our 360-degree approach to alternative fuels and powertrain solutions. This project will play a key role in our strategy to further extend and enhance our offer of zero- and ultra-low emission vehicles, offering our customers – and their customers – a choice of technologies for their green fleets.”

Pierpaolo Biffali, Product Engineering Vice President of FPT Industrial said: “For FPT Industrial, the H2Haul project is strategic to lead the European zero-emission truck sector by developing the fuel cell electric vehicle as a viable solution for long-haul logistics, with direct access to urban areas. Thus offering a key contribution to decarbonize the commercial transportation and to improve air quality of European cities, together with hydrogen production by using renewable energy.

Menno Kleingeld, Managing Director of VDL Enabling Transport Solutions (VDL ETS), said: “Since the introduction of VDL’s first electric public transport bus in 2013 we have a strong focus on climate resilient electric heavy duty vehicles. Early on, VDL has already invested in the application of hydrogen as a sustainable energy source for long haul transport solutions. Being part of this European H2Haul consortium to further decarbonising the heavy duty vehicle market fits in our e-mobility strategy. Through H2Haul, VDL, together with respected partners, is intending to gain more insight into the economical applicability of hydrogen sustainable transport solutions for the heavy duty market. The hydrogen fuel cell system will be based on the modular construction method that VDL uses for its vehicles which means that the system can be easily integrated in other heavy duty applications. It is strategically important for the European transport manufacturing industries to come up with an economically resource efficient mass-deployable hydrogen system for the long haul heavy duty transport market which will reduce the dependency on fossil fuels.”

Ben Madden, Director of Element Energy, said: “There is a growing need for zero emission vehicles across all transport modes, and fuel cell electric trucks offer the potential to make a significant contribution to decarbonising the heavy goods vehicle (HGV) sector when refuelled with renewable hydrogen. The H2Haul project is strategically important as it brings together several leading suppliers who will develop and test the vehicles and infrastructure required for hydrogen-fuelled HGVs to become a mainstream choice for logistics providers seeking to reduce the environmental impact of their operations.”

Bart Biebuyck, Executive Director of the FCH JU, said: “At EU level heavy-duty vehicles account 27% of the road transport CO2 emissions; the need of introducing innovative powertrains based clean energy is obvious and urgent. The H2Haul project will play a key role in demonstrating how fuel cells and hydrogen are perfectly suited for decarbonising this transport segment, while supporting the European value chain leadership in this domain.”

Background Information

About the H2Haul project:

The H2Haul project (*Hydrogen fuel cell trucks for heavy-duty, zero emission logistics*) is a Fuel Cells and Hydrogen Joint Undertaking (FCH JU) grant funded (€12m) project deploying 16 zero emission fuel cell trucks in four demonstration sites. The project will run for five years from 2019 and is co-financed by the FCH 2 JU under the European Union - Horizon 2020 framework programme for research and innovation under the project number 826236.

The following organisations are participating in the H2Haul project: Air Liquide, Element Energy Limited, ElringKlinger, Eoly, FPT Industrial, H2 Energy Limited, Hydrogen Europe, Hydrogenics, IRU Projects, IVECO, Powercell Sweden, THINKSTEP, VDL Enabling Transport Solutions, WaterstofNet. The trucks will be operated by a German logistics company (for BMW Group logistics), Coop, Colruyt Group, Carrefour (Chabas and Perrenot), and Air Liquide. Website: <http://h2haul.eu/>

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 (RTD) 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 Hydrogen Europe and the research community represented by the research grouping Hydrogen Europe Research. Website: <http://www.fch.europa.eu/>

About Element Energy:

Element Energy Limited is a leading low carbon energy consultancy that provides services across a wide range of sectors: transport, power generation, energy networks, and the built environment. Element Energy has worked in the hydrogen and fuel cell sector for nearly two decades and has expertise in the initiation and coordination of innovative demonstration projects. Website: <http://www.element-energy.co.uk>

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