Hydrogen Europe:
European Hydrogen & Fuel cell Project Database

Project HyTransit

European Hydrogen Transit Buses in Scotland

Hydrogen buses have the potential to play a significant role in expanding the use of hydrogen in the transport sector. To date, however hydrogen bus demonstrations have been focussed on urban buses only, leaving other public transit applications completely unaddressed. In addition, only a limited number of European regions have had the chance to trial hydrogen bus technology, which means the technology is relatively unknown to the majority of European bus operators. HyTransit will trial a fleet of six hybrid fuel cell buses in daily fleet services, together with one state of the art hydrogen refuelling station in Aberdeen (Scotland) for over three years. This project is designed to contribute to the commercialisation of hydrogen buses in Europe by: • Bringing together an industrial consortium from across Europe to deliver the project, including buses from Van Hool (Belgium) and state of the art refuelling technology from BOC (UK). • Develop six A330 hybrid fuel cell buses specifically modified for long sub-urban routes. • Generating new Intellectual Property for Europe by developing the concept design for the world's first hybrid fuel cell coach for long-route transit applications. • Exposing the six buses to real world operation with exactly the same service requirements as diesel buses, with 14 hours and 270km per day operation. • A state of the art hydrogen refuelling station will be constructed to serve the bus fleet. The station will be based on ionic compressors, configured to allow a refuelling speed of up to 120 grams per second. The station will house an electrolyser system for on-site hydrogen production. • Taking the first step for a large-scale rollout of hydrogen buses in Scotland. The next logical step after this project is Scottish Government support for the deployment of a minimum of 50 buses. This project will be the first step to realising this vision for Scotland. The overall project objective is to prove that a hybrid fuel cell bus is capable of meeting the operational performance of an equivalent diesel bus on demanding UK routes (including urban and inter-urban driving), whilst considerably exceeding its environmental performance. This will be achieved by bringing together a primarily industrial consortium from five member states to develop, deploy and then monitor the buses in day to day service, with an overarching aim to demonstrate an operational availability for the buses equivalent to diesel (over 90%). The project will also address the main commercial barrier to the technology (namely bus capital cost) by deploying state of the art components, which will reduce the unit cost of the bus to below 1.1 million euros for the first time. Results of the project will be widely disseminated to the general public. In addition, a more targeted approach will be adopted towards the key stakeholders who will be responsible for decisions on the next steps towards commercialisation of the technology.

Project Information

Type of project : Demonstration
Timing : 01/01/2013 > 31/12/2018
Project website: http://aberdeeninvestlivevisit.co.uk/Invest/Aberdeens-Economy/City-Projects/H2-...
Project Budget : 17.769.854 €

Funding

European Union through FCH JU: **Grant agreement 303467** - **CORDIS link**

Project partners

Coordinator :
BOC LIMITED
Partners :
Van Hool NV
Ballard Power System Europe A/S (Previously Dantherm)
ABERDEEN CITY COUNCIL*
STAGECOACH BUS HOLDINGS LIMITED
HYDROGEN, FUEL CELLS AND ELECTRO-MOBILITY IN EUROPEAN REGIONS
PLANET PLANUNGSGRUPPE ENERGIE UND TECHNIK GBR
ELEMENT ENERGY LIMITED

Sub project(s)

Sub project 1

Country: United Kingdom
Address:
PRIESTLEY ROAD 10 GU2 7XY WINDLESHAM
Sub project categories
Demonstration

Project Id: 1017
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