



Hydrogen Europe: European Hydrogen & Fuel cell Project Database

Project BIG HIT

Building Innovative Green Hydrogen systems in an Isolated Territory: a pilot for Europe

BIG HIT will create a replicable hydrogen territory in Orkney (Scotland) by implementing a fully integrated model of hydrogen production, storage, transportation and utilisation for heat, power and mobility. BIG HIT will absorb curtailed energy from two wind turbines and tidal turbines on the islands of Eday and Shapinsay, and use 1.5MW of PEM electrolysis to convert it into ~50 t pa of hydrogen. This will be used to heat two local schools, and transported by sea to Kirkwall in 5 hydrogen trailers, where it will be used to fuel a 75kW fuel cell (which will provide heat and power to the harbour buildings, a marina and 3 ferries when docked), and a refuelling station for a fleet of 10 fuel cell vehicles. The project employs a novel structure to manage the hydrogen trading, and dissemination that includes a follower territory and associations of over 1640 isolated territories.

Project Information

Type of project : Demonstration

Timing : 01/05/2016 > 30/04/2021

Project website: <http://https://www.bighit.eu/>

Project Budget : 7.246.102 €

Funding

European Union through FCH JU: Grant agreement 700092 - [CORDIS link](#)

Project partners

Coordinator :

[Aragon Hydrogen Foundation - Fundación para el Desarrollo de las Nuevas Tecnologías del Hidrógeno en Aragón](#)

Partners :

[DVGW - German Technical and Scientific Association for Gas and Water](#)

Symbio

ITM POWER (TRADING) LIMITED

ORKNEY ISLANDS COUNCIL

CALVERA MAQUINARIA E INSTALACIONES SL

SHAPINSAY DEVELOPMENT TRUST

COMMUNITY ENERGY SCOTLAND LIMITED

THE EUROPEAN MARINE ENERGY CENTRE LIMITED

THE SCOTTISH HYDROGEN AND FUEL CELL ASSOCIATION LTD

GIACOMINI SPA

MINISTRY FOR TRANSPORT AND INFRASTRUCTURE

Sub project(s)**Sub project 1**

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Sub project categories

Demonstration

Project Id: 918

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