



Hydrogen Storage and Infrastructure

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BULLETIN

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02 Dec 2019

Ofgem awards funding for H21 hydrogen project



- H21 has been awarded £6.8m funding from Ofgem to support a second phase of research and development of the programme
- H21 is an industry programme designed to support conversion of the UK gas networks to carry 100% hydrogen

H21 is led by Northern Gas Networks, and consists of Cadent, National Grid Gas Transmission, Wales and West Utilities and SGN.

The second phase of the project will begin in January 2020, with the project team also including members from Leeds Beckett University, DNV GL and HSE Bespoke Research and Consultancy. Simulation of network operations on a specially constructed network at DNV GL's base in Spadeadam, will be conducted as a part of the second phase. Part of the funding will be used for tests of operational and maintenance procedures on the gas network, paving the way for live network trials in the future.

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28 Nov 2019

Hydrogen pipeline for North West England to be designed by WSP



- WSP is set to lead the design for hydrogen pipeline in the North West of England and North East of Wales
- Part of the roadmap to help the country achieve net-zero greenhouse gas emissions by 2050

The pipeline will be a part of the HyNet project in UK. Hydrogen production plants will be connected with storage facilities in Cheshire and future users of clean hydrogen across the region using the pipeline.

The goal of the project is to reduce emissions from industry, homes and transport across the North West. WSP will be the design partner for the project being developed by Progressive Energy in partnership with Cadent Gas.

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Expert says

“Hydrogen is quickly going to become a crucial element of clean energy supply in the UK and we need to embrace all opportunities to make the most of its potential to change the way we generate, distribute and consume energy. Designing infrastructure which is future ready and will support the UK’s Net Zero 2050 target is truly exciting.” - Ben Clarke, Head of Gas Networks, WSP



18 Dec 2019

€3.5m boost for Hydrogenious LOHC Technologies



- Hydrogenious LOHC Technologies had secured a further €3.5m investment from the Winkelmann Group in additions to its previous €17m investment from a consortium of companies, including companies such as Royal Vopak, Mitsubishi Corporation, Covestro and AP Ventures

Hydrogenious LOHC Technologies is looking to accelerate scaling and commercialization of the innovative LOHC hydrogen storage technology, which will be expedited with the expertise of the new partners and the strong financial foundation.

The Winkelmann Group is a global company active in the field of metal forming with customers from the automotive, aviation and heating industries.

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17 Dec 2019

Launch of 100% hydrogen BRT in Pau in the south of France



- Pau transport operator SPL STAP (Société de Transport de l'Agglomération Paloise) has launched 100% hydrogen bus rapid transit (BRT) service, Febus in Pau
- Keolis is providing technical assistance for operation of the eight Fébus hydrogen BRTs

Components enabling the operation of the hydrogen buses include a hydrogen station, a maintenance workshop and a trained workforce. One hundred employees were trained in the new rolling stock. The vehicles are built by Belgian manufacturer Van Hool and electricity is produced on-board using a hydrogen fuel cell.

Another highlight of the BRT is its route which runs 85% of the time on 6 kilometer long dedicated lanes unaffected by other traffic, and a priority system at crossroads, thus resulting in reduced travel time.

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Expert says

“Hydrogen will be a fuel for mobility as well as a source of heat and power. The technology of Hydrogenious LOHC Technologies enables hydrogen transport and storage using existing infrastructure and can therefore make an important contribution to the establishment of a hydrogen as a source of energy” – Heinrich Winkelmann, Co-owner and CEO, Winkelmann Group

SPOTLIGHT

SUISO FRONTIER

This vessel is being developed to provide a means of transporting liquefied hydrogen at 1/800 of its original gas-state volume at a temperature of -253°C , safely and in large quantities over long distances by sea.

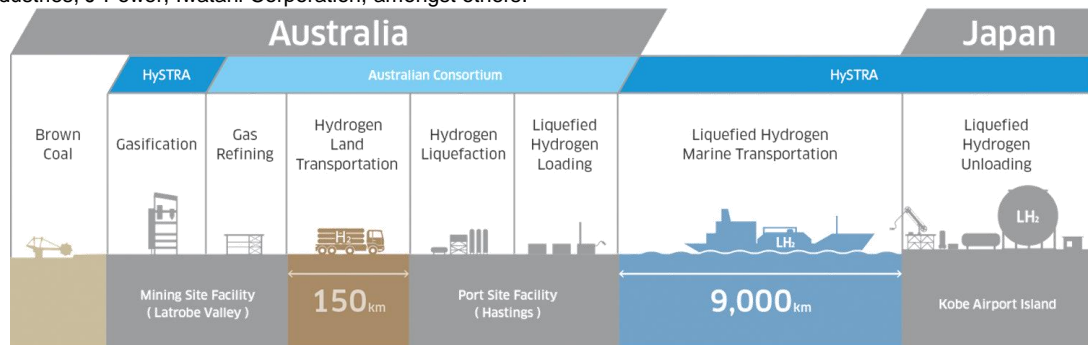
Kawasaki plans to install a 1,250 m³ vacuum-insulated, double-shell-structure liquefied hydrogen storage tank, currently being manufactured at Harima Works.

Once complete, the vessel will be used for technology demonstration testing aimed at the establishment of an international hydrogen energy supply chain. Liquefied hydrogen produced in Australia will be shipped to Japan.

Hydrogen Storage and Infrastructure Liquid hydrogen carrier ship – Japan

World's first liquid hydrogen carrier ship launched by Kawasaki Heavy Industries Ltd

Suiso Frontier, world's first liquid hydrogen carrier ship was launched by Kawasaki Heavy Industries Ltd at the Kobe Works yard in Japan. The ship will be used for shipping fuel from Australia to Japan and demonstrate technology to establish an international hydrogen energy supply chain. Construction of the vessel is expected to be completed by late 2020. Trial shipments are to begin before March 2021. The vessel is a critical part of Hydrogen Energy Supply Chain (HESC) Pilot Project, the largest hydrogen demonstration project in the world. The HESC Pilot Project is being developed by a consortium of energy and infrastructure companies, including Kawasaki Heavy Industries, J-Power, Iwatani Corporation, amongst others.



Specifications of Carrier

Length overall	116.0 m	Propulsion system	Diesel electric propulsion
Length between perpendiculars	109.0 m	Sea speed	Approx. 13.0 kn
Molded breadth	19.0 m	Capacity	25 persons
Molded depth	10.6 m	Country of registration	Japan
Molded draft	4.5 m	Ship owner	HySTRA

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