

EVERYWH₂ERE

MAKING HYDROGEN AFFORDABLE TO SUSTAINABLY OPERATE EVERYWHERE IN EUROPEAN CITIES



Project ID:	779606
PRD 2023:	Panel 4 – H2 end uses – stationary applications
Call topic:	FCH-02-10-2017: Transportable FC gensets for temporary power supply in urban applications
Project total costs:	EUR 6 827 124.45
Clean H₂ JU max. contribution:	EUR 4 999 945.76
Project period:	2.1.2018–31.10.2023
Coordinator:	RINA Consulting SpA, Italy
Beneficiaries:	Acciona Construcción SA, Delta1 gUG (Haftungsbeschränkt), FRIEM SpA, Fundación para el Desarrollo de las Nuevas Tecnologías del Hidrógeno en Aragón, Genport SRL – Spin Off del Politecnico di Milano, ICLEI European Secretariat GmbH (ICLEI Europasekretariat GmbH), Iren Energia SpA, Iren Smart Solutions SpA, Iren SpA, Linde Gas Italia SRL, Mahytec SARL, Parco Scientifico Tecnologico per l'Ambiente SpA, PowerCell Sweden AB, Swiss Hydrogen SA, Teknologian tutkimuskeskus VTT Oy, THT Control Oy

<http://www.everywh2ere.eu/>

QUANTITATIVE TARGETS AND STATUS

Target source	Parameter	Unit	Target	Achieved to date by the project	Target achieved?
Project's own objectives	Levelised cost of energy of the genset (identification of replication market with contractual costs ± 10 % of those of current power supply solutions)	€/kWh	1.1	N/A	⚙️
	Noise emission of the full genset (not only the FC SuSy)	dB	< 65	60	✓
	Future manufacturing CAPEX (of the system)	€/kW	5 500	6 850	⚙️

PROJECT AND OBJECTIVES

EVERYWH₂ERE will integrate the previously demonstrated robust proton-exchange membrane fuel cell stacks and the low-weight, intrinsically safe pressurised-hydrogen technologies into easy-to-install, easy-to-transport, fuel-cell-based transportable gensets. Eight fuel cell 'plug and play' gensets fitted in containers will be produced and tested through a pan-European demonstration campaign in a demonstration-to-market approach. The prototypes will be tested at construction sites, music festivals and urban public events across Europe, demonstrating their flexibility and increased lifetimes.

NON-QUANTITATIVE OBJECTIVES

EVERYWH₂ERE aims to support the development of a regulatory framework for transportable hydrogen-fuelled systems.

PROGRESS AND MAIN ACHIEVEMENTS

- The first two fuel-cell-based transportable gensets (1 × 25 kW and 1 × 100 kW) and related hydrogen storage bundles have been validated.
- The assessments of conformity for the 110 kW and 25 kW gensets have been completed (declaration of conformity).
- The 100-01 genset has been demonstrated at the Acciona construction site (San Sebastian, Spain) and at Aragón MotorLand. Preliminary activities for the cold-ironing demonstration in the Port of Tenerife are being carried out.

- The 025-01 genset was demonstrated at the 2023 Hydrogen Energy Summit & Expo, in Bologna. Further demonstrations are being designed for use in Rome (lighting of a historical monument during a public event) and Genoa (electricity supply during a public event associated with The Ocean Race grand finale).
- Commissioning of the 100-02, 025-02, 100-03 and 025-03 gensets is ongoing, with their release expected at the start of spring 2023 for the second batch and the end of spring 2023 for the third batch, ready for the summer demonstration campaign.
- The second stakeholder workshop was planned for 23 March 2023.

FUTURE STEPS AND PLANS

- The definition of the final exploitation plan is ongoing. This includes the assignment of the gensets to technical partners after the end of the project, the identification of responsibilities for maintenance and support during operation, and potential involvement in follow-up funded projects.
- The summer demonstration campaign will be clustered in order to reduce transportation and its related costs, not least because of the energy crisis.