



## Press release

1 July 2022

### GRTgaz started e-methane production at its Jupiter 1000 site

**GRTgaz has been using Jupiter 1000 to convert electricity produced from wind into renewable hydrogen for injection into the gas transport network since 2020. The demonstrator has now reached a new milestone: it has started producing e-methane – a synthetic gas produced from renewable hydrogen and recycled CO<sub>2</sub> – for injection into the GRTgaz network.**

Jupiter 1000 has had two key purposes since it was commissioned in 2020:

- convert renewable electricity into hydrogen as a way of storing energy and decarbonising gas infrastructure;
- testing “methanisation”, which involves mixing green hydrogen and recycled CO<sub>2</sub> in order to produce a synthetic gas.

Now that we have the first results of the hydrogen injection test campaigns, the demonstrator has commissioned a facility for testing “methanisation”.

This process involves making use of the CO<sub>2</sub> discharged by industrial sites: green hydrogen produced by the electrolysers reacts with CO<sub>2</sub> captured from the flue gases released by industrial sites. Synthetic methane is then generated that can be injected directly into the gas networks. This “e-methane” is used instead of natural gas. No new transport infrastructure needs to be built and on average, only half the amount of carbon dioxide is released into the atmosphere.

The “methaner” that makes this reaction possible was built by Khimod, with support from the CEA.

The CO<sub>2</sub> capture facility was installed by partner company Leroux&Lotz in order to extract CO<sub>2</sub> from flue gases produced by Asco Industries, a steel mill located close to Jupiter 1000.

Once it has been extracted and purified, this CO<sub>2</sub> is taken to the Jupiter 1000 site via a pipeline built by the *Grand Port Maritime de Marseille*.

*“The methaner has just been brought into service and has produced its very first cubic metres of synthetic gas; the line is expected to enter full operation in September 2022”,* says Sylvain Lemelletier, director of the RICE project, GRTgaz’s research and innovation centre.

#### Hydrogen injection campaigns across the GRTgaz network

The renewable hydrogen injection campaigns which began in 2020 are continuing. The two ALCALIN and PEM electrolysers have been tested and it has been confirmed that injecting hydrogen into the network does not affect industrial clients connected up to it. Performance test campaigns are still underway on both electrolysers, run by the CEA. Once these tests are over, the CNR will test its smart management process for the facility, which is designed to produce hydrogen at the most optimum times (particularly when electricity demand is low and renewable energy can be abundantly produced).

Photos of the site are available [here](#).

Information and videos about the project and its challenges are available at [www.jupiter1000.eu](http://www.jupiter1000.eu) and on Twitter at @Jupiter1000PtG

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GRTgaz is Europe's second-largest gas carrier, with 32,500 km of pipes and 640 TWh of gas transported. The company has 3000 employees and generated nearly €2.3 billion in turnover in 2020. GRTgaz has a mission statement: "Together, we enable an energy future that is safe, affordable and climate neutral". GRTgaz is an innovative company undergoing a major transformation to adapt its network to new ecological and digital challenges. It is committed to a 100% carbon-neutral French gas mix by 2050. It supports the hydrogen and renewable gas sectors (biomethane and gas from solid and liquid waste). GRTgaz carries out public service missions to guarantee the safety of gas transmission for its 945 clients (shippers, distributors, industrial companies, biomethane plants and producers). With its subsidiaries Elengy, the European leader in LNG terminal services, and GRTgaz Deutschland, operator of the MEGAL transmission network in Germany, GRTgaz plays a key role on the European gas infrastructure scene. The company exports its expertise internationally, in particular services developed by its research centre, RICE. Find us at <https://www.grtgaz.com/>, or on [Twitter](#), [LinkedIn](#), [Instagram](#) and [Facebook](#).

### A project supported by

