



PRESS RELEASE

Gas transmission: Hydrogen successfully tested in compressor prime mover

- **Demonstration/Test:** Fuel gas containing up to 25 percent hydrogen was successfully tested on a low emissions Titan 130 SoLoNOx gas turbine driving a gas compressor
- **Location:** Compressor station on the MEGAL gas pipeline system in Waidhaus (Bavaria)
- **Project partners:** GRTgaz Deutschland, Open Grid Europe (OGE) and Solar® Turbines

Essen/Waidhaus, 23 February 2023 – GRTgaz Deutschland, OGE and Solar Turbines have successfully tested a low emissions Titan 130 SoLoNOx Solar gas turbine as a prime mover on a natural gas compressor using hydrogen blending rates of up to 25 percent. These gas turbines are usually powered by natural gas taken from the pipeline system.

For this project, the transmission system operators, GRTgaz Deutschland and OGE, have teamed up with Solar Turbines, an American gas turbine manufacturer and wholly owned subsidiary of Caterpillar Inc. The tests took place at the MEGAL compressor station in Waidhaus (Bavaria). MEGAL is owned by Open Grid Europe (51 percent) and GRTgaz Deutschland (49 percent).

Nicolas Delaporte, Managing Director of GRTgaz Deutschland said, "This test is a good example of working collaboratively across national borders to tackle and solve important issues in the energy industry. In the spirit of international partnership, I am convinced that we will continue to write MEGAL's success story."

Preparations for the project started two years ago when a mobile blending plant the size of a 40-foot ISO shipping container and a temporary hydrogen supply, were set up for the tests. The entire configuration was acceptance tested by an independent expert in accordance with the rules and regulations applicable to public energy supply and approved for operation. For these tests, it was crucial not to compromise the safety and availability of the compressor station.

Using only green hydrogen, the gas turbine was extensively tested with various H₂ blending rates under different loads. Emissions and turbine performance were measured, demonstrating the turbine's ability to operate with the same available power while meeting the required emission levels.

The demonstration, which lasted for more than six weeks, operated on the H2 blend for more than 200 hours. The ability of the gas turbine to safely start on the fuel blend was also demonstrated.

Dr. Thomas Hübener, a member of OGE's board of management, put the results into context, "The project shows the desire and ability to expand and realize the hydrogen economy. But to do this, we now need the right legal and regulatory framework to accelerate Germany's hydrogen economy supported by a strong financing model."

About GRTgaz Deutschland

GRTgaz Deutschland operates an approximately 1,200 kilometer transmission system that transports gas through southern Germany. Our network links the gas infrastructure of the Federal Republic with the network of our parent company in France, as well as those of the Czech Republic and Austria. In addition to ensuring transparent network access, our work contributes to a secure energy supply in Germany and in Europe. Together with other European network operators, we are involved in the development of a transport infrastructure for hydrogen and green gases, enabling success in the energy transition and in decarbonization of the energy industry.

For more information about the company, go to www.grtgaz-deutschland.de.

About OGE

OGE is one of Europe's leading gas transmission system operators. With our pipeline network spanning approximately 12,000 kilometres, we transport gas throughout Germany. Our geographic location makes us the central link for gas flows across the European single market. 1,450 OGE employees ensure the security of supply. We make our network available to all market participants in a transparent and non-discriminatory way in line with market needs. We enable energy supply. Today and in the energy mix of the future.

For more information about the company, go to www.oge.net.

About Solar Turbines

Solar Turbines is a global leader in providing energy solutions that help businesses, governments and public institutions find the perfect balance between affordable, available, and reduced carbon energy.

Ready to power with agile, affordable solutions that turns clean-burning natural gas into sustainable, cost-effective power –our innovative energy solutions support multiple industries, including Energy, Industrial, Renewable, Institutional, Commercial and Marine.

Solar Turbines is one of the world's leading manufacturers of industrial gas turbines, with more than 16,000 installed in 100 countries with service available for every unit.

For more information about the company, go to www.solarturbines.com

Press contacts:

GRTgaz Deutschland:

Kaitlynn Buchbaum

Kaitlynn.buchbaum@grtgaz-deutschland.de

+49 176 274-3431

OGE:

Andreas Lehmann

andreas.lehmann@oge.net

+49 201 3642-12513

Solar Turbines:

Tiffany Yarling

Yarling_tiffany_b@solarturbines.com