

A group of energy operators and associations to develop the first midstream methane emissions testing project in Europe

- 13 European Gas Infrastructure Operators and Gas Associations have successfully tested 11 different technologies to quantify methane emissions last week in a site in operation in Belgium
- The results of this project will contribute to achieve the target of the 'Global Methane Pledge' and to obtain the 'OGMP 2.0 gold standard', a voluntary initiative coordinated by the United Nations Environment Program (UNEP)
- The initiative aims at increasing the knowledge on the reconciliation process, a key step to improve accuracy of methane emissions estimations in the gas sector

May 27, 2022. A group of 13 European Gas Infrastructure Operators and Gas Associations have launched an innovative project under the umbrella of The European Gas Research Group (GERG), to test different technologies to quantify methane emissions last week in Zelzate, Belgium.

The tests successfully took place in a compression station operated by the Belgian Gas Transmission System Operator (TSO) Fluxys, assessing top-down methodologies for the quantification of methane emissions. This initiative follows a first testing in a controlled environment in Spain in October 2021.

The project is coordinated by the Spanish TSO Enagás and supported by Bureau Veritas, as field coordinator, with the participation of European Gas Infrastructure Operators and Gas Associations: Engie, Gassco, Gasunie, GERG, Medgaz, National Grid Gas Transmission, Open Grid Europe, Snam, Storengy, Sedigas, Synergrid and Uniper.

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A delegation of the European Commission visited the site during the tests to find out about the activities of the project and the different technologies involved. The project is in line with the objective of the European Commission to improve quantification and reduce methane emissions in the energy sector and represent an opportunity to continue paving the way towards climate neutrality.

New Top-Down Technologies and the reconciliation process

The top-down or site level approach can provide comprehensive information about emissions at a site or in a region, whilst bottom-up approach focuses on individual sources and equipment. The combination of both approaches for the quantification of methane emissions in a site is defined as reconciliation. This project seeks to provide participants further knowledge on how to use and reconcile both approaches, a key step to continue improving accuracy of methane emissions estimations in the gas sector.

For the tests, bottom-up quantification with most accurate source level technology was performed simultaneously to the measurements of 11 different cutting-edge technologies, combining different types of sensors and quantification methodologies, including bottom-up (source level), site level and continuous monitoring approaches. Technologies involved have been selected according to the results of a previous GERG project lead by Enagas, where the accuracy of different technologies was assessed thanks to the performing of blind tests with controlled releases.

An independent analysis of the results will be carried out by scientists associated to the Utrecht University, in the Netherlands. A set of recommendations on how the reconciliation process may be applied will also be developed.

The project counts with an advisory board to validate the scope and test program and to check the results. This board is composed by experts on this matter recognized at international level from Authorities and Institutions, Academia, Industry and Civil Society organisations.

The next phase of this project will be focusing on the implementation of tests in LNG regasification terminals, underground gas storages and other compressor stations in different European countries, to continue the definition of the reconciliation process.

About the gas infrastructure operators and gas associations:

Enagás is a European Transmission System Operator with 50 years' experience in the development, operation and maintenance of energy infrastructures, operating in eight countries. The company has more than 12,000 kilometres of gas pipelines, three strategic storage facilities and nine regasification terminals. In Spain, it is the main natural gas transporter and the Technical Manager of the Gas System. The company has committed to be carbon neutral by 2040 and to developing projects promoting renewable gases –hydrogen and biomethane–, sustainable mobility and energy efficiency, among other areas.

ENGIE is a global reference in low-carbon energy and services. Together with our 101,500 employees (excluding EQUANS), our customers, partners and stakeholders, we are committed to accelerate the transition towards a carbon neutral world, through reduced energy consumption and more environmentally-friendly solutions. Inspired by our purpose ("raison d'être"), we reconcile economic performance with a positive impact on people and the planet, building on our key businesses (gas, renewable energy, services) to offer competitive solutions to our customers. Turnover in 2021: €57.9 billion. The Group is listed on the Paris and Brussels stock exchanges (ENGI) and is represented in the main financial indices (CAC 40, Euronext 100, FTSE Eurotop 100, MSCI Europe) and non-financial indices (DJSI World, DJSI Europe, Euronext Vigeo Eiris - Eurozone 120/ Europe 120/ France 20, MSCI EMU ESG screened, MSCI EUROPE ESG Universal Select, Stoxx Europe 600 ESG, and Stoxx Global 1800 ESG).

Gassco is the independent system operator (ISO) for the integrated system for transporting gas from the Norwegian continental shelf to other European countries. This gas transport system consists of 9000 km of subsea pipelines, gas processing plants, offshore riser platforms and receiving terminals in the UK, France, Belgium and Germany. Gassco's operatorship confers overall responsibility for running the infrastructure on behalf of the owners to ensure safe and efficiently gas transport to millions of people. Gassco is also the architect for developing new gas infrastructure on the Norwegian continental shelf.

Gasunie is a European energy-infrastructure company. Gasunie's network is one of the largest high-pressure pipeline networks in Europe, comprising over 17,000 kilometres of pipeline in the Netherlands and northern Germany. Gasunie provides natural and green gas transport services through its subsidiaries, Gasunie Transport Services B.V. (GTS) in the Netherlands and Gasunie Deutschland in Germany. With its cross-border gas infrastructure and services, Gasunie facilitates TTF, which has become the leading European gas trading point. Gasunie also provides other gas infrastructure services, including gas storage and LNG. Gasunie wants to help accelerate the transition to a CO₂-neutral energy supply and believes that gas-related innovations, for instance in the form of renewable gases such as hydrogen and green gas, can make an important contribution. Both existing and new gas infrastructure play a key role here. Gasunie also plays an active part in the development of other energy infrastructure to support the energy transition, such as district heating grids.

GERG, the European Gas Research Group, is an international association established in 1961 and based in Brussels that focuses on five strategic areas: hydrogen, biomethane, methane emissions, LNG, and infrastructure and end-use. GERG members deliver collaborative projects that maximise the value of gas research carried out in Europe. The Group provides a forum for discussion, technological exchange and information dissemination. Committees of technical experts, drawn from our member organisations, meet on a regular basis to exchange ideas, establish collaboration and monitor GERG projects. The Group also strives to raise awareness about the importance of gas R&D in Europe's energy transition, by communicating our findings towards European officials and the wider public.

Medgaz is a Transmission System Operator in charge of operating the direct gas pipeline Algeria-Europe via Spain. Medgaz started the activity on April 2011, with a capacity of 8 BCM/year of natural gas and without interruption since then. Medgaz operates the system comprising a compression station in Beni-Saf, Algeria, an offshore pipeline from Almeria to Spain and a reception terminal in Almería. The marine pipeline technical data is: 210km, 24 inches and

maximum depth of 2.165m. Medgaz, respectful of the environment, is applying best practices and looking for technical and procedure improvements to help to preserve our surroundings.

National Grid Gas Transmission owns and operates the gas National Transmission System in Great Britain, with day-to-day responsibility for balancing supply and demand. Our network comprises approximately 7,630 kilometres (4,750 miles) of high-pressure pipe, 23 compressor stations and more than 600 above-ground installations. Today, natural gas keeps 85 per cent of the UK's 28 million homes warm and comfortable, generates electricity and fuels industrial and manufacturing processes. We aim to serve customers well and efficiently, supporting the communities in which we operate and making possible the energy systems of the future.

Open Grid Europe (OGE) is one of Europe's leading transmission system operators. With our approximately 12,000 kilometers of pipeline network, we transport gas throughout Germany and, due to our geographical location, we are the link for gas flows in the European internal market. Our approximately 1,450 employees stand for security of supply. We make our network available to all market participants in a non-discriminatory, market-oriented and transparent manner. We shape energy supply. Today and in the energy mix of the future. For more information on the company, visit www.oge.net.

Snam is one of the world's leading energy infrastructure operators and ranks among Italy's largest listed companies, by market capitalization. Through its international footprint, Snam operates in Albania (AGSCo), Austria (TAG, GCA), France (Teréga), Greece (DESFA), Italy, UAE (ADNOC Gas Pipelines) and UK (Interconnector UK) and has started activities in China and India. Snam is also one of the leading shareholders in TAP (Trans Adriatic Pipeline). The Group has the largest natural gas transportation network (over 41,000 km including international assets) and storage capacity (approx. 20 bcm including international assets) among its European peers and is also a leading player in regasification, through the LNG terminal in Panigaglia (GNL Italia) and its stakes in the Livorno (OLT) and Rovigo (Adriatic LNG) terminals in Italy and in the Revithoussa (DESFA) terminal in Greece. Snam also invests in energy transition businesses: biomethane, energy efficiency, sustainable mobility and hydrogen. The company also operates in forestation and is committed to achieving carbon neutrality (Scope 1 and Scope 2 CO₂ eq emissions) by 2040.

Storengy, an ENGIE subsidiary, is one of the world leaders in underground natural gas storage. Drawing on 60 years of experience, Storengy designs, develops and operates storage facilities and offers its customers innovative products. The company owns 21 natural gas storage sites with a total capacity of 136 TWh in France, Germany and the United Kingdom. Storengy is positioned today as a key player in the development of geothermal energy (heat/cold production and power generation), as well as innovative production and storage solutions for renewable gas (biomethane, hydrogen, synthetic methane).

Sedigas is the association representing the Spanish companies involved in the transmission, distribution and retail sale of gas. It aims to strengthen the role of gas in a sustainable energy mix promoting the development of renewable gases, while encouraging competitiveness and enhancing security of supply.

Synergrid is the federation of electricity and gas system operators in Belgium. As an exchange platform, the federation primarily represents the interests of its members towards the public authorities and other bodies, promotes the core activities of its members aimed at efficient and secure network management and provides high quality services to the network users. Synergrid is the sector's reference in the field of standardization and technical regulations, but also in social matters, by ensuring coordination on sectoral social issues.

Uniper is a leading international energy company, has around 11,500 employees, and operates in more than 40 countries. The company plans for its power generation business in Europe to be carbon-neutral by 2035. Uniper's roughly 33 GW of installed generation capacity make it one of the world's largest electricity producers. The company's core activities include power generation in Europe and Russia as well as global energy trading and a broad gas portfolio, which makes Uniper one of Europe's leading gas companies. In addition, Uniper is a reliable partner for communities, municipal utilities, and industrial enterprises for planning and implementing innovative, lower-carbon solutions on their decarbonization journey. Uniper is a hydrogen pioneer, is active worldwide along the entire hydrogen value chain, and is conducting projects to make hydrogen a mainstay of the energy supply. The company is based in Düsseldorf and is one of Germany's largest publicly listed energy supply companies. Together with its main shareholder Fortum, Uniper is also Europe's third-largest producer of zero-carbon energy. All expertise in underground gas storage is pooled in Uniper Energy Storage that operates natural gas storage facilities in Germany, Austria and the UK with a working gas capacity of over 7.5 billion cubic meters and makes a key contribution to security of supply.

Press Release



Logo of the company hosting the tests:

