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Smart use of renewable gas to meet climate targets can save Europe €140 billion per year

- Study published today by the Gas for Climate initiative sets out plan to meet Paris Agreement target in a cost-effective way
- Study sets out a vision for net zero greenhouse gas emissions in the EU by 2050
- Renewable gas used in existing infrastructure can be combined with renewable electricity to limit the cost of the energy transition

Renewable gas used in existing gas infrastructure could play an important role in reducing Europe's greenhouse gas emissions to net-zero by mid-century, according to a study published today by the Gas for Climate initiative. Such a reduction is needed to comply with the Paris Agreement to keep global warming well below 2°C, avoiding dangerous levels of climate change.

Initiated mid-2017, the Gas for Climate group consists of seven leading European gas transport companies (Enagás, Fluxys Belgium, Gasunie, GRTgaz, Open Grid Europe, Snam and TIGF) and two renewable gas industry associations (European Biogas Association and Consorzio Italiano Biogas). Gas for Climate is committed to achieve net zero greenhouse gas emissions in the EU by 2050 and the group commissioned Ecofys, a Navigant company, to prepare a study into the future role of gas in a net-zero emissions energy system.

Their study shows that it is possible to scale up renewable gas production between now and 2050 to more than 120 billion cubic metres annually, including both renewable hydrogen and biomethane. The biomethane potential is based on an early and conservative scenario on the sustainable use of European biomass potential. Using this renewable gas in existing gas infrastructure for the heating of buildings, to produce dispatchable electricity as a complement to wind and solar, and to fuel heavy transport, could save about €140 billion annually by 2050 compared to a future energy system without any gas.

The CEOs of the nine Gas for Climate members (Marco Alverà, Snam, Marcelino Oreja Arburúa, Enagás, Dr. Jörg Bergmann, Open Grid Europe, Pascal De Buck, Fluxys Belgium, Han Fennema, Gasunie, Piero Gattoni, Consorzio Italiano Biogas, Dominique Mockly, TIGF, Jan Štambaský, European Biogas Association, Thierry Trouvé, GRTgaz) jointly declared:

"We are committed to achieve net zero greenhouse gas emissions in the EU by 2050 to meet the Paris Agreement target. Renewable gas used in existing gas infrastructure can play an important role in this.

"We want to facilitate a large scale-up of EU produced renewable hydrogen and biomethane that is transported, stored and distributed through existing gas infrastructure to be used in our energy system in a smart combination with renewable electricity. This will help Europe to meet the Paris Agreement target at the lowest possible costs while enhancing Europe's energy security."





Notes for Editors

Gas for Climate was initiated in 2017 to analyse and create awareness about the role of renewable and low carbon gas in the future energy system in full compliance with the Paris Agreement target to limit global temperature increase to well below 2 degrees Celsius. To this end, the entire economy has to become (net) zero carbon by mid-century.

Ecofys has analysed that if a quarter of current gas demand is produced from sustainable renewable sources by 2050, this can achieve €138 billion of cost savings each year by 2050 across the EU compared to a 'no gas' scenario. These savings mainly result from avoiding electricity peak demand, associated generation capacity and the cost of building and running this capacity. There are also substantial savings on insulation costs for buildings to accommodate full-electric heat pumps, which require the highest possible levels of insulation.

Renewable gas is all gas produced from renewable sources. This includes biomethane in the form of upgraded biogas produced by anaerobic digestion of agricultural biomass and other organic wastes, biomethane produced from thermal gasification of woody residues, hydrogen produced from renewable electricity, and synthetic methane produced from renewable hydrogen.

The Gas for Climate consortium thinks that by 2050 any natural gas being used in the EU energy system in addition to renewable gas should be low carbon gas. Low carbon gas is natural gas that is used without releasing greenhouse gasses into the atmosphere. This is possible by combining the combustion of natural gas with carbon capture and storage (CCS) or carbon capture and utilisation (CCU). CCS can be applied in regions where it is technically feasible and politically and socially accepted. CCU can avoid emission if CO₂ is permanently stored in products.

The study can be accessed via: www.gasforclimate2050.eu



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About Consorzio Italiano Biogas

CIB aggregates and represents the agricultural biogas and biomethane value chain in Italy. Formed in March 2006, CIB provides information to its members to improve, optimize and innovate biogas production processes, fostering greener and efficient low carbon farming practices through its flagship initiative *Biogasdoneright®*.

CIB brings together farmers that run biogas plants, industrial companies that supply equipment and technology, companies operating in the fields of agriculture, consultancy, mechanization and transports; research centers and agricultural associations that supply data and promote anaerobic digestion in agriculture. CIB is also a founding member of EBA -the European Biogas Association. For more information, go to <u>www.consorziobiogas.it</u>

About Enagás

Enagás is an international midstream gas company with infrastructures in 8 countries: Spain, Mexico, Chile, Peru, Greece, Italy, Albania and Sweden. With almost a 50-year history, Enagás has more than 12,000 km of gas pipelines and 8 LNG terminals. It is certified as an independent TSO (Transmission System Operator) by the European Union and a listed company on the Spanish stock market, Ibex 35.

In Spain, Enagás has developed the key infrastructures for the Spanish Gas System, transforming it into an indicator for security and diversification of supply. The company is the main carrier of natural gas in Spain and also the Technical System Manager. Enagás is also a benchmark in sustainability. Read more about <u>Enagás</u>.



About European Biogas Association

Founded in February 2009, EBA is the leading European association in the field of biogas and biomethane production covering the anaerobic digestion and gasification industries. Committed to the active promotion of the deployment of sustainable biogas and biomethane production and use throughout Europe, EBA has created a wide network of established national organisations, scientific institutes and companies. In 2018, the association counted more than 90 members from all over Europe and has established co-operation with biogas associations from outside Europe. <u>http://european-biogas.eu/</u>

About Fluxys Belgium

Fluxys Belgium is the independent operator of the natural gas transmission and storage infrastructure in Belgium. Through its subsidiary Fluxys LNG, the company also operates the Zeebrugge liquefied natural gas (LNG) terminal. Fluxys Belgium is a subsidiary of Fluxys, the Belgium-based independent gas infrastructure group active across Europe. <u>www.fluxys.com/belgium</u>

About Gasunie

Gasunie is a European gas infrastructure company. The company provides the transport of natural gas and green gas via its subsidiaries Gasunie Transport Services B.V. (GTS) in the Netherlands and Gasunie Deutschland in Germany. The company also offers other services in the gas infrastructure field, including gas storage and LNG. Gasunie commits itself to accelerating the energy transition and to the realization of a climate neutral energy supply. www.gasunie.nl

About GRTgaz

GRTgaz is a world expert in gas transmission networks and systems and a leading European gas transmission system operator. In France, GRTgaz owns and operates 32,410 km of buried pipes and 26 compression stations used to ship gas between suppliers and consumers. GRTgaz is committed to ensuring security of supply to consumers, connecting territories and communities with great care for the environment. GRTgaz delivers innovative and accessible solutions to accelerate and secure a successful energy transition by connecting the energies of tomorrow, driving the growth of renewables and new uses for gas while fostering synergy between electricity and gas systems. www.grtgaz.com

About Open Grid Europe

With a gas transmission system spanning 12,000 kilometers, Open Grid Europe, seated in Essen, is one of the largest transmission system operators in Germany. Two thirds of natural gas consumed in Germany flows through our pipeline system, comprising about 100 compressor units and about 1100 exit points. All over the country, our approximately 1,450 staff ensure safe, environmentally-friendly and customer-oriented gas transmission. We also offer the technical and commercial services to go with it, and we provide commercial, technical and IT services for other companies on the basis of third-party arrangements. Moreover, we actively support the European gas market and work together with the European distribution network operators to create the prerequisites for transnational gas transportation and trading. For more information about the company, go to www.open-grid-europe.com

About Snam

Snam is Europe's largest natural gas infrastructure company and one of Italy's largest companies by market capitalization. Snam manages 40,000 km of gas pipelines in Europe (32,500 in Italy), 11 storage sites (9 in Italy) for an overall capacity of 19 billion cubic metres (16.5 in Italy). Snam is also active in regasification, it operates one LNG terminal and owns a stake in Italy's largest regasification plant. Founded in 1941 as Società Nazionale Metanodotti, Snam now operates in Italy and, through its affiliates, in Austria (TAG and GCA), France (TIGF) and United Kingdom



(Interconnector UK). It is also a leading shareholder of TAP. In recent years Snam has increased its role on the international energy scene and is developing several new projects such as the promotion of natural gas for transports (CNG and LNG) and biomethane. It has also recently set up the Snam Global Solutions business unit to leverage its extensive and long-established know-how in the construction, operation and management of gas infrastructure in Italy and Europe, providing it to other operators on a global level. Snam listed on the FTSE MIB index of the Italian Stock Exchange in 2001 and is included in the most important sustainability indexes worldwide. <u>http://www.snam.it/</u>

About TIGF

TIGF has a network of more than 5,000 km of pipelines and two underground storage facilities, representing 16% and 24% of national capacity respectively. TIGF (Transport et Infrastructures Gaz France) is a major player in energy and has been located in South-West France for over 70 years. As part of its public-service obligations, TIGF transports natural gas to more than 400 delivery stations in the most secure, cost-effective, and reliable conditions. TIGF enjoys a strategic position in Europe, where it provides interconnections that guarantee security of supply. TIGF is aware of the vital role of natural gas in the energy transition. TIGF wants to help accelerate the green revolution through increasing involvement in biomethane, natural gas for vehicles, and Power to Gas. www.tigf.fr