

NEWS

EU report suggests the use of gas infrastructure for renewable fuels and the implementation of Power-to-Gas technologies

Green gases and Power-to-Gas are key elements for a viable and sustainable energy mix of the future. This concludes a [report released in February 2018 by the Dutch consultancy Trinomics](#), who carried out the research on behalf of the Progressive Alliance of Socialists and Democrats of the EU parliament. One major finding particularly addresses the heart of STORE&GO: Power-to-Gas technologies – so the authors – are essential due to their capacity to balance the electric power system and to convert power into hydrogen or synthetic methane. The implementation of Power-to-Gas should therefore be supported to ease the development of variable renewable energy sources and to decarbonise energy supply.

The research is based on the assumption that climate targets and energy policies of the European Union (EU) are having a strong impact on fossil fuels including natural gas. In response to the Paris agreement on climate change, signed by 195 countries in 2015, the EU set up ambitious goals for 2020 and 2030. By 2050 greenhouse gas emissions should be drastically reduced. A low carbon future evidently will change the present energy mix.

The risk of overcapacity of fossil fuels can only be prevented, if the right measures are taken. Therefore, the impact on energy markets has to be measured. Demand forecasts should be updated and as precise as possible.

The report of Trinomics analyses possible changes in natural gas demand and future needs for infrastructure, and compares different scenarios for gas consumption by 2030 and beyond. In addition, the possible evolution of EU domestic gas production, imports of liquefied natural gas (LNG) and pipeline gas are highlighted.

Concerning the natural gas market, results indicate that demand will decrease as of 2025. Domestic gas production and more diversified gas imports will be sufficient to cover future EU natural gas demand. Major new investments in infrastructure will thus not be required. Given a substantial decrease of demand by 2030, gas infrastructure – either existing or under construction – might be even at risk of becoming redundant and ending up as stranded assets in the second half of this century. Thus, EU funding of gas infrastructure projects should be carefully evaluated and reconsidered in order to avoid overcapacity.

Trinomics analysts have two suggestions for the European gas network: On the one hand, decommissioned pipelines and depleted natural gas fields could be used for transporting and storing carbon dioxide (CO₂). However, there is no guarantee that this option is economically feasible and its potential might be limited.

On the other hand, natural gas infrastructure could integrate green fuels. Renewable energy sources alone or in combination with climate-friendly Power-to-Gas technologies already produce renewable gases such as biomethane, synthetic methane or hydrogen. They, in turn, can be stored in and transported through the gas network. To make this happen in the near future, grid operators must create the technical and economic conditions for grid connections and access. Policy makers though should take adequate measures to stimulate supply of and demand for green gases.

That is exactly where STORE&GO starts: The project looks into the question of how to store power in form of gas and how to make the production of renewable gases economically viable on an industrial scale. In three pilot plants in Germany, Italy and Switzerland, a methanation process transforms hydrogen from Power-to-Gas into synthetic methane. The pilots are fully installed by the end of 2018 and first results are expected by 2019.

About STORE&GO

The international project STORE&GO was launched in 2016 as part of Horizon 2020, the European Union's research and innovation program. The research focuses on the production of renewable gases via methanation and their storage on an industrial scale for the purpose of enabling cost-effective operations. In addition to technological issues, economic and legal concerns are addressed. Research is carried out using three different power-to-gas concepts at three sites in Germany (Falkenhagen, Brandenburg), Italy (Troia, Apulia) and Switzerland (Solothurn). The project consortium is comprised of 27 partners from six European countries among them DVGW. The STORE&GO project is scheduled to run for a period of four years (2016-2020) with a total budget of approx. 28 million euros, of which the EU will fund approx. 18 million euros.

http://cordis.europa.eu/project/rcn/200559_en.html

<https://www.storeandgo.info>

Funded by:



Co-funded by
the European Union
under grand agreement
no. 691797



Schweizerische Eidgenossenschaft
Confédération suisse
Confederazione Svizzera
Confederaziun svizra

Under contract number 15.0333

Contact details:

Daniel Stähr

Technical Manager

Deutscher Verein des Gas- und Wasserfaches e.V. (DVGW)

Josef-Wirmer-Straße 1-3

53123 Bonn

T +49 228 9188-710

M +49 172 4698-205

Staehr@dvgw.de

<http://www.dvgw.de>

Stefanie Schwarz

Scientific Communication / Media relations & public affairs

Deutscher Verein des Gas- und Wasserfaches e.V. (DVGW)

Robert-Koch-Platz 4

10115 Berlin

M + 49 (0)162 138 6935

schwarz@dvgw.de

<http://www.dvgw.de>