

PRESS RELEASE

Equinor and Open Grid Europe present joint H2morrow project to support deep decarbonization of German industry

- **Hydrogen enables significant CO₂ reduction for German industry**
- **Gas infrastructure is key to a diverse hydrogen market across sectors**
- **H2morrow: paving the way for an efficient hydrogen ramp-up**
- **Next project phase launched**

[Berlin, October 08, 2019] Equinor and Open Grid Europe (OGE) presented their joint feasibility study “Potentials of Hydrogen for Decarbonization of German Industry” at a press conference in Berlin today. During the past year, the companies have evaluated the development of a complete hydrogen value chain.

Hydrogen enables significant CO₂ reduction for German industry

For the industry, it is a tremendous challenge to achieve the necessary CO₂ reductions without putting their competitive and economic position at risk. The use of hydrogen from decarbonized natural gas can offer a solution. With this energy source, significant CO₂ saving potentials can be realized in a relatively short-term. In addition, hydrogen from decarbonized natural gas can currently be produced at significantly lower costs being available at any time – compared to production of hydrogen from renewable resources.

Gas infrastructure is key to a diverse hydrogen market across sectors

“In order to meet our climate protection goals, it is absolutely crucial to develop paths for the deep decarbonization of all sectors. The industry sector lends itself particularly well for taking the first step. The challenge is to ensure security of supply and a feasible timetable for the companies involved when managing this transition. For this, the existing gas infrastructure will be key. Our study proves the technical feasibility of its conversion to hydrogen,” said Dr. Jörg Bergmann, Chairman of the Board of Open Grid Europe.

In order to meet the rapidly growing demand, all sources are needed: renewable hydrogen and hydrogen from decarbonized natural gas, domestic production as well as imports. The pilot project intends to stimulate a large-scale, diversified hydrogen market across sectors in Germany. Thanks to the reliable supply and swift development of the necessary infrastructure, hydrogen from decarbonized natural gas can make a decisive contribution to the success of renewable gases.

H2morrow: Paving the way for an efficient hydrogen ramp-up

Resulting from the companies’ cooperation is the pilot project H2morrow. “By 2030, industry and other customers in North Rhine-Westphalia are to be supplied with 8.6 terawatt hours per year of hydrogen from decarbonized natural gas. This is tantamount to supplying 450,000 average 4-person households with energy (electricity and gas),” emphasized Steinar Eikaas, Vice President Low Carbon Solutions, Equinor ASA.

The groundbreaking project sets new benchmarks for the German market: by reforming natural gas from Norway, hydrogen in large quantities can be produced at competitive costs. At the same time, a regulated hydrogen infrastructure can be made available by converting existing gas pipelines to pure hydrogen pipelines.

H2morrow can contribute to meeting Germany's climate targets. The CO₂ that is separated in the reforming process is captured and safely stored below the seabed in the Norwegian North Sea. This reduces the CO₂ footprint by 95 percent and could save 1.9 million tons of CO₂ emissions per year – equal to the annual CO₂ emissions of 680,000 mid-range cars.¹

Next project phase launched

"Not only Germany, but also the new EU Commission has set itself ambitious targets for rapid emission reductions. With H2morrow we can provide large quantities of low-carbon hydrogen in a cost-efficient and timely manner. Thus, H2morrow is an important beacon project for a high-performing hydrogen market. It is part of our strategy to develop sustainable solutions for the low-carbon future," says Stephen Bull, Senior Vice President Wind and Low Carbon Development, Equinor ASA.

In the next phase of the cooperation, which has just been launched, the project partners will refine the technical planning, enlist potential anchor customers and identify the specific location of the steam reformer.

¹ Source: www.welt.de, April 25, 2019: assuming 140g/km and a mileage of 20,000 km per year

The project partners

Equinor ASA

Equinor is an international energy company, Europe's second largest gas supplier and the largest operator of offshore gas and oil production facilities. A rapidly growing portfolio in the offshore wind and solar energy sectors marks Equinor's evolution to a broad energy company. Equinor's current offshore wind portfolio can supply more than one million European homes with renewable energy.

Open Grid Europe GmbH (OGE)

Open Grid Europe operates the largest transmission network in Germany with a length of around 12,000 km. The approximately 1,450 employees ensure safe, environmentally-friendly and customer-oriented gas transport. Through cooperation with European transmission system operators, OGE creates the conditions for cross-border gas transport and trade. As a customer- and service-oriented provider, the company actively supports the energy transition by continuously improving infrastructures and minimizing risks.

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