



WINTERSHALL DEA AND VNG JOINTLY INVEST IN HYDROGEN PILOT **PROJECT**

- Cooperation agreement on climate-friendly 'turquoise' hydrogen production signed
- Joint investment in methane pyrolysis pilot project
- Cooperation follows recent investment in European hydrogen start-up HiiROC

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Kassel/Leipzig. Wintershall Dea and VNG AG will cooperate more closely in the field of hydrogen in the future, and are planning to build a facility to produce climate-friendly 'turquoise' hydrogen as a first step. The two German based energy companies have signed a cooperation agreement to this effect.

The thermal methane pyrolysis process used by HiiROC, in which both companies recently invested, is to be used and further developed for a specific application together with the facility manufacturer. According to current plans, the pilot facility will go into operation in 2023 and have a nominal capacity of 400 kg of hydrogen per day (equivalent to an annual energy output of almost 5 GWh). This will make the facility the first of its kind to produce so-called turquoise hydrogen in Germany. The companies are already in talks with potential customers for the produced hydrogen, and about a possible location in eastern Germany.

In the methane pyrolysis process, the natural gas is split into hydrogen and solid carbon at high temperatures. The hydrogen can then be used as a decarbonised energy

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source. The solid carbon, on the other hand, can be used as a valuable raw material in industry, for example in road or building construction.

"In order to achieve German and European climate targets by 2050, it's necessary to rapidly establish a functioning hydrogen market. We want to be part of the solution and are investing in future-focused projects," says Hugo Dijkgraaf, Chief Technology Officer at Wintershall Dea, Europe's leading independent gas and oil company. Both project partners see great potential in the production of hydrogen through methane pyrolysis. "This cooperation with VNG will help realise the technology's potential and establish a hydrogen market, because markets don't happen by themselves. They have to be built and organised — technology neutral," says Dijkgraaf. VNG has extensive experience of the entire natural gas value chain and in particular access to end users. This makes the Leipzig-based company an invaluable partner for Wintershall Dea in this area.

"In order to advance hydrogen as an energy source and establish it as an integral part of the energy mix, strong partnerships are needed, between companies as well as between industry and politics. It is a great development for us that we are now working more closely with a leading international player like Wintershall Dea," adds Hans-Joachim Polk, Member of the Executive Board for Infrastructure/Technology at VNG. Wintershall Dea and VNG want to actively support the energy transition and have already anchored the topics of hydrogen and decarbonisation in their long-term corporate strategies.





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The two companies have already invested in start-up HiiROC

Wintershall Dea and VNG are already involved in various hydrogen projects. As part of their co-operation, the two companies have already made an initial investment in a technology partner, HiiROC. Based in Hull in England, this European start-up has further developed methane pyrolysis technology, to accelerate cost-effective and climate-friendly hydrogen production.

About Wintershall Dea

Wintershall Dea is Europe's leading independent natural gas and oil company with more than 120 years of experience as an operator and project partner along the entire E&P value chain. The company with German roots and headquarters in Kassel and Hamburg explores for and produces gas and oil in 13 countries worldwide in an efficient and responsible manner. With activities in Europe, Russia, Latin America and the MENA region (Middle East & North Africa), Wintershall Dea has a global upstream portfolio and, with its participation in natural gas transport, is also active in the midstream business. *More in our Annual Report*.

As a European gas and oil company, we support the EU's 2050 carbon neutrality target. As our contribution we have set ourselves ambitious targets: We want to be net zero across our entire upstream operations – both operated and non-operated – by 2030. This includes Scope 1 (direct) and Scope 2 (indirect) greenhouse gas emissions on an equity share basis. In addition Wintershall Dea will bring methane emissions intensity below 0.1 per cent by 2025 and maintain zero routine flaring of associated gas in its operations. The climate goals are to be achieved through portfolio optimization, emissions reduction through more energy efficiency, investments in nature-based compensation solutions and in future technologies such as hydrogen and CCS. **You can find more about this in our Sustainability Report.**

Wintershall Dea was formed from the merger of Wintershall Holding GmbH and DEA Deutsche Erdoel AG, in 2019. Today, the company employs around 2,500 people worldwide from over 60 nations.





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About VNG AG

VNG is a group of companies active throughout Europe with over 20 subsidiaries, a broad, sustainable portfolio of gas and infrastructure services and over 60 years of experience in the energy market. The corporation, headquartered in Leipzig, Germany, has approximately 1,200 employees and generated billed revenue of approximately 10.5 billion euros in the 2019 financial year. Along the gas value chain, VNG focuses on four business areas: Trading & Sales, Transport, Storage and Biogas. On the basis of its core competency in the field of natural gas, VNG is increasingly focusing on new fields of business such as green gases and digital infrastructures in line with its VNG 2030+ strategy.

In the field of green gases, VNG is pursuing ambitious plans for hydrogen. For example, together with other partners the company is developing the Bad Lauchstädt Energy Park in southern Saxony-Anhalt. The aim is to convert renewable electricity from a new wind farm into hydrogen, by means of a large-scale electrolysis plant with a capacity of up to 30 megawatts (MW); and then to supply the hydrogen to the chemical industry via a 20-kilometre-long natural gas pipeline. In addition, the green hydrogen produced is to be temporarily stored in a specially equipped, almost 180-metre-high salt cavern at the site of an existing natural gas storage facility.

More information: www.vng.de.