

RWE and innogy investigate production of green hydrogen in the Netherlands

- **Feasibility study for a 100 Megawatt power-to-hydrogen plant in Eemshaven linked to the Westereems Wind Farm**

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The energy groups RWE and innogy are jointly examining the large-scale production of green hydrogen in the Province of Groningen. As a first step, the companies are now starting a feasibility study to build an up to 100 MW hydrogen plant on the site of RWE's Eemshaven power station. This is close to innogy's Westereems Wind Farm, which will supply the green electricity. In this way, wind energy would be used to produce considerable volumes of green hydrogen.

"RWE and innogy focus on climate friendly technologies. The CO2 reduction targets in transport, heat supply and industry can only be achieved if the sector coupling is promoted and emission-free energy sources are used. We are convinced that green hydrogen will be an important component of a secured and clean energy supply for these sectors. This is why we start this project in line with similar projects in Germany like GET H2 in Lingen," explains Roger Miesen, Dutch CEO of RWE Generation SE.

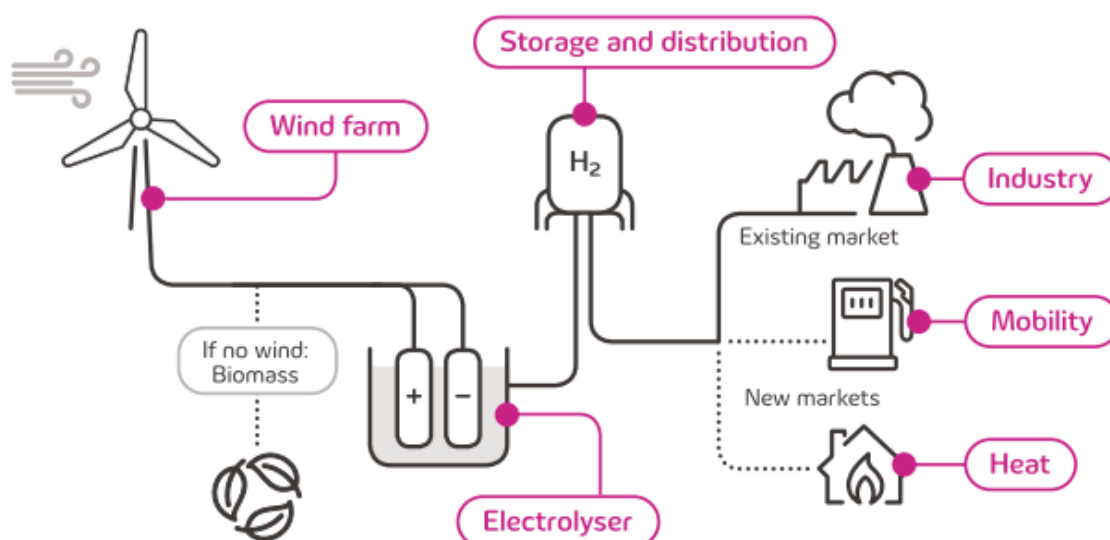
In the coming months, RWE and innogy will first work out the feasibility of the hydrogen plant itself, in collaboration with other partners in the chain and with the regional and national authorities. Currently, the processes still require research and development. In addition, the regulatory framework has to be adapted since under current regulation the technology is not competitive yet. The first findings will be expected in the autumn.

With its corporate strategy, RWE will clearly focus on renewables and storage-technologies in the future. With projects like this in Groningen or GET H2 in Lingen, the company is underpinning this strategy with concrete research and development ventures.

With 52 turbines, Westereems Wind Farm, which is located next to the Eemshaven power station, is currently one of the largest onshore wind farms (> 100 MW) in the Netherlands. "With the current Dutch offshore wind ambitions, conversion of large volumes of surplus wind power into a storable commodity like green hydrogen can be a cost effective solution for society, large energy consumers and other industrial users of hydrogen. As a major player in offshore and onshore wind we believe we can better start investigating power-to-hydrogen as one technical solution of power-to-X right now than waiting. Learning experiences are necessary therefore and our Westereems Wind Farm can provide a perfect fit for a large scale demonstration project," explains Hans Bunting, COO Renewables of innogy SE.

The Eemshaven power station in addition produces demineralised water that can be used for the conversion. In addition, electricity from biomass can also contribute to the production of green hydrogen when there is no wind. The combination makes it an interesting location for a hydrogen plant.

Hydrogen can play an important role in a successful energy transition. To make it green, electrolysis based on renewable energies is indispensable as it will be used to split up water to produce “green hydrogen”. As such, green hydrogen can help to reduce CO2 emissions well beyond the electricity sector. For energy-intensive industries like steel, chemicals or cement, green hydrogen will be an important step to decarbonise themselves. In addition to reduce CO2 emissions in industrial processes, hydrogen could become a sustainable fuel for the transport sector, or for residential heating in the region.



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RWE Generation SE

RWE Generation SE, located in Essen, Germany, is responsible for power generation on a gas, hard coal, hydropower and biomass basis within the RWE Group. The Company benefits from the combined expertise of around 2,800 employees in Germany, the United Kingdom, the Netherlands and Turkey. Together, they operate power stations with a total capacity of about 25 gigawatts. These reliably available and flexible capacities contribute to maintaining energy security in the pan-European grid with its steadily increasing, however volatile, input from renewable energy sources.

About innogy SE

innogy SE is a leading German energy company, with revenue of around €37 billion (2018) and around 43,000 employees. With its three business segments Renewables, Grid & Infrastructure and Retail, innogy addresses the requirements of a modern, decarbonised, decentralised and digital energy world. Its activities focus on its about 22 million customers, and on offering them innovative and sustainable products and services which enable them to use energy more efficiently and improve their quality of life. The key markets are Germany, the United Kingdom, the Netherlands and Belgium, as well as several countries in Central Eastern and South Eastern Europe, especially the Czech Republic, Hungary and Poland. In renewable power generation, the company is also active in other regions, e.g. Spain, Italy and the USA, with a total capacity of 4.0 gigawatts. As a leader of innovation in future-oriented fields like eMobility, we are represented in the international hot-spots of the technology industry such as Silicon Valley, Tel Aviv and Berlin. We combine the extensive expertise of our energy technicians and engineers with digital technology partners, from start-ups to major corporates.

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