

Press release

First industrial-scale Battolyser® installed at RWE's Magnum power plant

- **Battolyser is an integrated battery electrolyser system**
- **The battery can store electricity and return it to the grid**
- **The electrolyser produces hydrogen for industrial applications**

Geertruidenberg, 03 May 2023

Battolyser Systems today announced that the first industrial-scale Battolyser system has been installed at RWE's Magnum power plant. The installation is an important milestone for Dutch technology, contributing to a sustainable energy supply.

RWE's Magnum power plant is one of the largest power plants in the Netherlands and will use the hydrogen produced by the Battolyser system to cool its generators. The technology that has been installed is the latest generation Battolyser. The cells are designed for systems with electrolyser capacity of 1 to 5 megawatts and as many megawatt hours of energy storage capacity. The realisation of the project was made possible thanks to a grant from the Wadden Fund and consortium partners Vattenfall, Ørsted, Yara, BASF and Pronton Ventures. RWE joined the consortium when the power plant was acquired from Vattenfall.

Marinus Tabak, Head of Central Asset Management at RWE: "It was a logical choice for us to invest in the first industrial-scale Battolyser system together with our consortium partners. We are increasingly investing in renewable energy sources and consider hydrogen an essential link in the energy transition. The technology of the Battolyser system enables a sustainable and more efficient energy system. In this way, we can reduce dependency on fossil fuels and accelerate the transition to a more sustainable and efficient energy supply."

Battery and electrolyser in one device

A Battolyser is a combination of battery and hydrogen generator (electrolyser) in one device. As a result, the system has the functionality of both an electrolyser and a battery. Once the battery functionality of the system is charged, the system can use the excess electricity to split water into hydrogen and oxygen. That hydrogen can be used for industrial applications, for example, to reduce greenhouse gas emissions. When there are shortages on the grid, a Battolyser can also feed the stored electricity back to the grid, making the hydrogen produced greener and cheaper at the same time.

RWE

Mattijs Slee, CEO at Battolyser Systems: "RWE is an important partner for us. Thanks to the installation, we have been able to prove in real life that the unique functionalities of the Battolyser system are safe and can be implemented on an industrial scale."

The setup at RWE will be used to simulate long-term volatile price scenarios. While electricity prices remain low, the Battolyser will continue to charge and produce hydrogen but when prices rise, the Battolyser will immediately stop producing hydrogen and sell the stored electricity.

RWE investing heavily in hydrogen

Both alone and with renowned partners from industry and science, RWE is forging ahead with the ramp-up of the hydrogen economy in Europe through more than [30 projects along the entire value chain](#). As part of the GET H2 project, for example, the company intends to build its first industrial-scale electrolyser for producing green hydrogen at its Lingen site. Besides this, RWE is planning to build a hydrogen storage facility in Gronau-Epe – also as part of GET H2.

In addition to producing hydrogen at its own plants, RWE is ready to build and operate hydrogen-ready gas-fired power plants with a combined capacity of around three gigawatts – once the necessary legal and regulatory frameworks are in place.

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Battolyser Systems

Battolyser Systems is a Dutch technology company and the inventor of world's first switchable battery electrolyser. The company was founded in 2018 as a spin-off from Delft University of Technology and is based in the Netherlands. Battolyser Systems has received funding from the Dutch government, as well as private investors. The Battolyser is a combination of a battery and a hydrogen generator (electrolyser) in one device. The Battolyser works by using excess electricity to split water into hydrogen and oxygen. The electricity generated can be fed back to the grid when there are shortages. This makes the hydrogen produced greener and cheaper. In addition, the system fully complies with all current and future green European hydrogen legislation. The Battolyser has many possible applications, including balancing the electricity grid and producing truly green and cheap hydrogen. The technology has the potential to significantly reduce dependence on fossil fuels and make renewable energy more practical and efficient. The company is currently developing a mass production plant that will be operational in the first half of 2025. More information about Battolyser can be found at: www.battolysersystems.com.

RWE

RWE is leading the way to a green energy world. With an extensive investment and growth strategy, the company will expand its powerful, green generation capacity to 50 gigawatts internationally by 2030. RWE is investing more than €50 billion gross for this purpose in this decade. The portfolio is based on offshore and onshore wind, solar, hydro plants, hydrogen, batteries, biomass, and gas. RWE Supply & Trading provides tailored energy solutions for large customers. RWE has locations in the attractive markets of Europe, North America, and the Asia-Pacific region. The company wants to phase out coal by 2030. RWE employs around 19,000 people worldwide and has a clear target: to get to net zero by 2040. On its way there, the company has set itself ambitious targets for all activities that cause greenhouse gas emissions. The Science Based Targets initiative has confirmed that these emission reduction targets are in line with the Paris Agreement. Very much in the spirit of the company's purpose: Our energy for a sustainable life.

Forward-looking statements

This press release contains forward-looking statements. These statements reflect the current views, expectations and assumptions of management, and are based on information currently available to management. Forward-looking statements do not guarantee the occurrence of future results and developments and are subject to known and unknown risks and uncertainties. Actual future results and developments may deviate materially from the expectations and assumptions expressed in this document due to various factors. These factors primarily include changes in the general economic and competitive environment. Furthermore,



developments on financial markets and changes in currency exchange rates as well as changes in national and international laws, in particular in respect of fiscal regulation, and other factors influence the company's future results and developments. Neither the company nor any of its affiliates undertakes to update the statements contained in this press release.

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