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Windgas Haßfurt

First power-to-gas plant in Germany in 2016

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Brief description

Windgas Haßfurt GmbH & Co. KG, owned by partners Greenpeace Energy eG and Städtische Betriebe Haßfurt GmbH, operates a SILYZER 200 PEM electrolyzer from Siemens. This system has a rated electric capacity of 1.25 megawatts, and is used to stabilize the local Haßfurt power network. To do this, it draws excess electricity from wind and solar plants from the power network, and provides frequency stabilization from the available primary and secondary operating reserve.

“There is a good feeling about generating and storing a gas primary energy source on-site at a regional level from renewable generation plants. And there are no CO₂ emissions from hydrogen combustion!”

Norbert Zösch, CEO, Stadtwerk Haßfurt

1.25 MW

Product: SILYZER 200

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Use case

Windgas Haßfurt GmbH & Co. KG demonstrates the use of hydrogen thanks to excess energy from wind power. The hydrogen is fed into the general gas network as a climate-neutral gas, and is intended for combustion in residential, commercial, and industrial buildings.



Industry

Hydrogen is added to natural gas for a malthouse, which uses it as fuel in its block central cogeneration station.



Energy

Green hydrogen is fed into the local gas network.

Challenge

Use of excess wind power

- Installation and integration into an existing setting at Stadtwerk Haßfurt GmbH
- Supply of a complete solution (water processing, drying, storage and feeding into the gas network)
- Remote control of plants harmonized with electricity costs

Solution

Installation of PEM electrolysis

- Operation of a SILYZER 200
- Highly dynamic power consumption
- State-of-the-art process control technology based on SIMATIC PCS 7

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