

A Hydrogen CHP for a H₂ Pioneer

APEX ENERGY IS ALL ABOUT GREEN HYDROGEN



At APEX Energy Teterow GmbH in Rostock-Laage, Germany, an agentor 404c H₂ from 2G Energy with an electrical output of 115 kW (129 kW thermal) was commissioned in April 2020 as a plug-and-play container solution. According to the industrial requirements of APEX, the CHP system serves for self-sufficiency.

Hydrogen is the driving power behind a zero-emission future. The combined generation of power and heat in the H₂ CHP is an important component in this equation.

Matthias Hehmann | CEO
APEX Energy Teterow GmbH

At its location in Rostock-Laage within view of the airport, APEX Energy operates the hydrogen power center for Northern Germany. Together with a local partner, Europe's largest grid-connected hydrogen plant was put into operation in 2020 to supply the entire location with CO₂-neutral energy. Mathias Hehmann, CEO of APEX Energy Teterow GmbH, regards hydrogen CHPs as an important cornerstone for an environmentally-friendly supply of power for the future: "As a full-service specialist, we deliver tailor-made system solutions designed for the energy of tomorrow. For industry and commerce, housing associations, for the intermediate storage of balancing energy, mobility solutions or for the connection of remote locations – hydrogen is the driving power behind a zero-emission future. The combined generation of power and heat in the H₂ CHP is an important component in this equation."

Electricity and heat for own use – from hydrogen

APEX Energy uses the CHP for the generation of power and heat for its own consumption at its location in Rostock-Laage. APEXIS energy storage units are produced in the factory. Hydrogen, which is produced using an electrolyzer, is required to operate these units. The hydrogen is generated based on power from photovoltaic and wind energy plants. APEXIS storage units are designed as modular

systems and offer safe and comfortable power storage at a location selected by the customer. The standard system is designed for 60 bar pressure and features market-leading permeability and patented connection technology.

At its opening in June 2020, the expansion phase of the APEX hydrogen plant in Rostock-Laage has an electrolysis capacity of 2 MW, its own hydrogen storage system, a combustion cell with an electrical output of 100 kW and a 115 kW H₂ combined power and heat plant as well as a battery storage unit with 1 MWh capacity. The plant concept is made complete with a hydrogen filling station.



APEX GROUP

WB Power Services Ltd

agenitor 404 H₂
Hydrogen
115 kW electrical
129 kW thermal
Container solution