

Siemens signs cooperation agreement in Sweden to test renewable fuels

- **Cooperation aims to test renewable fuels at the Rya CHP plant located in the energy port of Gothenburg**
- **First phase with Göteborg Energi is to validate 3D-printed burners at the Rya plant**

By 2030, the ambition is that all district heating in Gothenburg, Sweden, will be produced by renewable or recovered energy sources. With this in mind Göteborg Energi and Siemens have come together in a cooperation agreement with the aim of testing state-of-the-art gas turbine technology that enables the operation of renewable fuels in the Rya combined heat and power (CHP) plant, which is today powered by natural gas.

As a first step an SGT-800 test turbine has been installed at the Rya combined heat and power plant (CHP) for the validation of 3D printed burners which would then allow for testing of different fossil-free fuels in the plant. The production of gas turbine burners using additive manufacturing (AM) makes a decisive contribution to accelerating the research and development process for new technologies that contribute to a greener energy supply.

Recently, the AM team within Siemens Gas & Power initiated the development of a new accelerated validation process for new technologies and components and now this process is already working in the Rya CHP plant. The special test engine is installed at the plant to support new developments.

"The Rya CHP plant plays an important role in Gothenburg's electricity supply," said Alf Engqvist, CEO of Göteborg Energi. "Working together with Siemens we want to explore the possibilities for the conversion of both electric power and heat production as pieces of the puzzle in our work for fossil-free energy independence."

There is global demand for new climate-smart solutions and Siemens' technology and solutions are addressing this need. For example, converting a coal power plant into a modern gas-fired combined cycle power plant, such as the Rya CHP plant in Gothenburg, can reduce carbon dioxide emissions by about two-thirds. By co-burning natural gas with an increasing share of hydrogen or biofuel, emissions can then be further reduced gradually.

"In our collaboration with Göteborg Energi we see the possibility to verify the viability of several different renewable fuels, such as hydrogen, on a larger scale, first in Sweden and then in other parts of the world," said Thorbjørn Fors, CEO Siemens Distributed Generation and Oil & Gas Services Business. "With this cooperation, Göteborg Energi and the Rya CHP plant are driving innovation toward new solutions and green power together with us.

"Our goal is to run the SGT-600, -700 and -800 gas turbine combustors 100 percent fossil free, for example with hydrogen, in the near future," continued Fors. "This is a unique cooperation between Siemens and a customer that can demonstrate the varied possibilities for sustainable and cost-effective fuels as our industry and societies look to reduce carbon emissions around the world."

The Rya combined cycle power plant was delivered turnkey by Siemens 2006 and includes three SGT-800 gas turbines.

This press release and a photo are available at: <https://sie.ag/2PhuRle>

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