

Göteborg Energi and Siemens Energy operate gas turbines on liquid biofuel at Rya CHP



CO₂ 100 % fossil free in the near future

PROJECT TYPE

HVO Operation



Fuel shift hybridization



Partnership



CO₂-savings



Fuel



Customer Challenge/Driver

By **2025**, all district heating in Gothenburg, Sweden, will be produced from **renewable** or recovered energy sources. **Flexible energy solutions** are needed to secure the region's power supply.



Portfolio Elements

3 x SGT-800 gas turbine in combined cycle with a steam turbine for electricity and district heating (**total efficiency 92,5%**)



Solution

- **Göteborg Energi** and **Siemens Energy** in long-term cooperation for **fossil-free cogeneration** (i.e. operation on cost-effective green fuels)
- Increased fuel flexibility by **development** of next generation **dual-fuel green** burners
- Use of additive manufacturing to speed up R&D process
- Successful operation verified on **Hydrotreated Vegetable Oil (HVO)** at **Rya CHP** in November 2021 supported by Swedish Energy Agency



Customer Benefit

- Capable to operate on **liquid green fuel**, enhancing fuel flexibility for fossil-free power and heat
- Demonstrates gas turbines as a viable option for **carbon-neutral backup** and **grid stabilization**
- Supports the **integration** of intermittent renewable sources like solar and wind, ensuring a **balanced** future energy system.

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