

AR24003 | AUMA APPLICATION REPORT



With retrofit measures in a biomass combined heat and power station, the AUMA Service considerably contributed to sustainable energy generation.

241 modern AUMA actuators now ensure the smooth generation of electricity and heat from renewable fuels in a Stockholm Exergi combined heat and power plant.

The combined heat and power plant was built in 1976 for fossil fuels. In order to continue working reliably in the future, the plant operated by Stockholm Exergi, the energy supplier of the Swedish capital, had to be modernized.

CLIMATE-NEUTRAL THROUGH AUTOMATION

This large-scale retrofit project will extend the service life of the combined heat and power plant by a further 20 years and meet Stockholm's growing demand for heating and electricity during the cold winter months. In the future, the plant will be able to generate 320 megawatts of renewable electricity. The upgrade will contribute to Stockholm's goal of becoming carbon neutral while ensuring an affordable and reliable power supply.

Mitsubishi Power Europe converted the boiler so that it can be operated with renewable fuels such as bio-oil; Bilfinger Life Science Automation GmbH was involved as an expert in plant engineering for biotechnological products.

AUMA Scandinavia received the order to automate 241 valves. AUMA's broad portfolio offered the perfect solution for every application: SA and SQ actuators with AC 01.2 actuator controls, sometimes combined with GST and GS gearboxes or LE linear units, as well as SAR and SARV modulating actuators for more stringent control requirements. AUMA service experts dismantled the old devices on site and installed and commissioned the new devices, some of which are equipped with redundant Profinet.

OPTIMISATION THROUGH PROFINET

The actuators are used to control all the processes in the combined heat and power plant, from the fuel supply, feed water and steam system to flue gas cleaning and feeding into the district heating network. The use of Profinet brings various advantages for the customer: high reliability thanks to integrated redundancy, the flexibility and scalability of the network topology, transparent access to data via standard web technologies, and detailed diagnostic options. Overall, AUMA actuators with Profinet help to improve the efficiency, reliability and safety of the CHP plant and reduce operating costs.



POWER

APPLICATION

Biomass cogeneration plant

AUMA SOLUTION

- > Retrofit | Replacement
- > SA and SQ actuators with intelligent AC 01.2 actuator controls
- > GST and GS gearboxes in various sizes
- > Profinet
- > Project management & on-site service

CUSTOMER BENEFITS

- > Greater system efficiency
- > Increased operational reliability and availability thanks to integrated Profinet redundancy
- > Project implementation from a single source

"The cooperation with AUMA was very positive. Everyone demonstrated professionalism and flexibility in dealing with any difficulties that arose. The communication and reporting were also really excellent."

Constantin Madalin
Site Manager,
Bilfinger Life Science Automation
GmbH

Project responsibility:
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