



# A clean heat and power supplier for Böblingen

Words: Anika Emmerich | Pictures: MTU

Tags/Keywords

Two new combined heat and power stations equipped with two MTU Onsite Energy 20V 4000 L33 generator sets, each producing 1,999 kW of electricity and 2,245 kW of useable thermal energy, are to go into service this year at the municipal works company in the town of Böblingen, near Stuttgart. One of the 2-megawatt CHP stations is to supply Böblingen's H130 Technology Park with environmentally-friendly heat and cooling power. This will render the park's current fossil-fuel boilers more or less surplus to requirements and boost CO<sub>2</sub> efficiency by around 25,000 metric tons. The amount of heat which this CHP plant will cover equates to the amount used by the municipal works company's 760 smallest district heating customers. "This project is a prime example of how we are using a sustainable local authority infrastructure in Böblingen to really help protect the climate," said Wolfgang Lützner, Mayor of Böblingen.

## Gensets to ship in 2018

The generator sets are to be shipped from Augsburg to Böblingen during the course of 2018 and will be taken into service following installation. The thermal energy generated by the CHP stations will be used to provide heat to the locality via the district heating network. The electricity output will be fed into the municipal grid. The two systems will be looked after by MTU under long-term service agreements. "We're using attractive energy models to impress commercial customers at the same time as doing something in Böblingen to protect the climate," said Gerd Hertle, CEO of Böblingen Municipal Works Company. As the Municipal Works Company stated in a press release, it has 1,870 district heating users – mainly domestic consumers. This is set to change: "This reference project is going to help us convince other similar commercial customers," added Hertle. Both projects were planned by consulting engineers Schuler GmbH in nearby Bietigheim-Bissingen.

## Exhaust gases treated by built-in selective catalytic reduction (SCR) unit

As well as the two CHP gensets with their 400 volt generators, the orders also include the electrical switchgear, heat exchangers, pumps and system pipework at both locations, plus the exhaust gas cleaning systems with their SCR-type catalytic converters. "These keep exhaust emissions within the limits of 100 mg/Nm<sup>3</sup> of NO<sub>x</sub>, 100 mg/Nm<sup>3</sup> of CO and 20 mg/Nm<sup>3</sup> of formaldehyde set by the Technical Instructions on Air Quality Control which are expected to come into force in 2018," explained Peter Grüner, who is responsible for sales of natural-gas-powered engine systems in Germany. The TIAQC requirements are intended to protect against detrimental impact on the environment, affecting both people and the environment. The Instructions stipulate that the airborne pollutants given off by a system to be approved are not allowed to exceed certain levels.

Since the maiden installation of a Series 4000 20V gas engine at the Weimar Municipal Works Company back in 2009, MTU Onsite Energy has now sold 90 gensets with this cylinder configuration in Germany, most of them already in service. "This combination of a low level of capital investment, modest

maintenance costs and high levels of efficiency make this a winning proposition for our customers,” said Grüner.

