

# Press release

Munich, November 19, 2020

## Gas turbines from Siemens Energy are providing Leipzig with a climate neutral power supply

- Stadtwerke Leipzig receives two cutting-edge gas turbine packages
- New district heating power plant has a fuel efficiency of 93 percent
- Goal to operate with up to 100 percent hydrogen in the long term

Siemens Energy is supplying two cutting-edge gas turbine packages for the Leipzig Süd district heating power plant in Germany. The new plant will contribute to the decarbonization of the power supply in two ways: First, the investment will make Stadtwerke Leipzig independent of district heat from the Lippendorf lignite-fired power plant. Secondly, the plant is expected to operate with 30 to 50 percent green hydrogen only a few years after start of commercial operation. The long-term goal is to operate the facility with 100 percent hydrogen. Commissioning is scheduled for the end of 2022.

The new gas power plant with combined heat and power technology will be built on Stadtwerke Leipzig's existing site on Bornaische Strasse and produce electricity and district heat for the city. It will have an electrical capacity of approximately 125 megawatts (MW) and a thermal capacity of around 163 MW. The plant's maximum fuel efficiency will be 93 percent, thanks to the district heat production.

The order from Stadtwerke Leipzig covers the supply of two SGT-800 gas turbines, each with a maximum efficiency of 41 percent. The turbines are expected to be fired with natural gas, starting in late 2022, and be successively converted to the combustion of ever greater proportions of hydrogen. The long-term goal is to operate the plant with 100 percent green hydrogen, which

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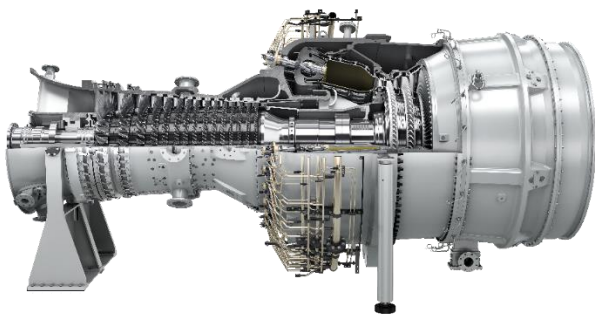
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can be produced from wind or solar energy by electrolysis. This will permit completely CO<sub>2</sub>-free and climate-neutral plant operation.

“By investing in a new cutting-edge district heating power plant, we’re not only ensuring that the City of Leipzig will be supplied with electricity and heat in the coming decades,” said Karsten Rogall, Managing Director of Stadtwerke Leipzig. “We are also getting ready to actively pursue decarbonization. The ability to flexibly increase the share of hydrogen in the fuel is an excellent prerequisite for a sustainable and reliable power supply for Leipzig.”

“Our SGT-800 not only achieves the lowest emissions in its class, it is also outstanding with its high fuel flexibility and lower lifecycle costs,” said Karim Amin, Executive Vice President of Generation at Siemens Energy. “We’re pleased to be working with Stadtwerke Leipzig to further promote the transition towards a new level of decarbonized energy mix in Germany.”

Siemens Energy will provide two SGT-800 gas turbine packages, including two SGen-100A generators. The scope of supply includes a SIESTART battery solution, which ensures that the plant can perform a black start. As a result, the power plant can start up on its own without an external power supply in the unlikely event of a widespread blackout. Siemens Energy will also install and commission the equipment.



Siemens Energy has the long-term target to increase the hydrogen firing capability of its SGT-800 gas turbine up to 100 percent.

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