

# Joint press release

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**Press release by Siemens Energy and EnBW**

## Prospects for using hydrogen in gas power plants are becoming tangible

- The new equipment in EnBW's Stuttgart-Münster district heating power plant will be H<sub>2</sub>-ready for up to 100 percent hydrogen
- Siemens Energy is supplying cutting-edge turbine technology

EnBW and Siemens Energy are jointly driving the trend of using green hydrogen as a climate-friendly fuel in future power plants. One important pilot project is the EnBW district heating power plant in Stuttgart-Münster, Germany, where natural gas is expected to initially replace coal in approximately three years. All systems are constructed from the very beginning in such a way that the natural gas can be replaced with hydrogen as quickly and completely as possible. Two cutting-edge SGT-800 gas turbines from Siemens Energy are at the heart of the installation. The agreement on the overall package was sealed today in Stuttgart. The project in the Baden-Württemberg capital is thus taking on a pioneering role nationwide.

"The fuel switch from coal to gas in Münster is an important building-block that will allow us to continue to have sufficient power generating capacity in the coming years," EnBW Managing Board Member Georg Stamatelopoulos emphasized: "This is the only way we can support the expansion of renewable energy. Today's agreement shows that we're taking the next step very seriously. Over the medium term, we'll be replacing gas as a fossil fuel with hydrogen. We're already laying the groundwork today. This contributes to our goal of first significantly reducing our company's CO<sub>2</sub> emissions and then becoming climate-neutral by 2035."



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Siemens Energy Managing Board Member Tim Holt says, “Hydrogen-fired gas power plants have an important role to play in the future energy mix. Hydrogen makes it possible to store energy generated by wind and solar farms, to transport this energy, to convert it back into electricity, and to use it where it’s needed. Our H<sub>2</sub>-capable turbines give our customers the greatest possible flexibility when it comes to choosing their fuel while also protecting their investment.”

## **Switching to hydrogen should be as fast as possible**

The two new turbines each have an electrical output of 62 megawatts and a downstream waste heat recovery system. They are replacing the three coal-fired boilers that have been at the location until now. The project teams at both companies are also planning for hydrogen’s future beyond the gas turbines. “Pipelines, control systems, and boiler technology also have to be converted as quickly and easily as possible when green hydrogen is available,” EnBW engineer Diana van den Bergh explained. EnBW is looking at a timeframe of 10 to 12 years. In the agreements, Siemens Energy provides assurance that the new turbines will be able to process up to a 75 percent hydrogen admixture from the time they’re shipped in 2025, and the overall package is prepared to handle 100 percent hydrogen.

“We can’t yet reliably predict when green hydrogen will be available in sufficient quantity and at affordable prices,” EnBW Managing Board Member Georg Stamatelopoulos explained: “But the technology should be in place by that time. We’re not going to put the cart before the horse. Which, by the way, is the objective in all our fuel switch projects.”

The plans for the overall project in Münster are currently on schedule. Progress is already being made on building a new workshop building that will provide space for the actual construction site. Once all the approvals have been obtained, the work on the new systems could begin in the first quarter of 2023. Residual waste is and will remain the most important energy source in Münster. The city recycles approximately 450,000 metric tons of this waste every year and converts it into electricity and heat. Together with the new gas turbines, the location will continue to form the backbone of the power and district heating supply system in the central Neckar region, along with the power plants in Stuttgart-Gaisburg and Altbach/Deizisau. After the fuel switch in Münster and its sister project in Altbach, energy will no longer be generated from coal in the Stuttgart region starting in 2025/26.



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**Siemens Energy** is one of the world's leading energy technology companies. The company works with its customers and partners on energy systems for the future, thus supporting the transition to a more sustainable world. With its portfolio of products, solutions and services, Siemens Energy covers almost the entire energy value chain – from power generation and transmission to storage. The portfolio includes conventional and renewable energy technology, such as gas and steam turbines, hybrid power plants operated with hydrogen, and power generators and transformers. More than 50 percent of the portfolio has already been decarbonized. A majority stake in the listed company Siemens Gamesa Renewable Energy (SGRE) makes Siemens Energy a global market leader for renewable energies. An estimated one-sixth of the electricity generated worldwide is based on technologies from Siemens Energy. Siemens Energy employs around 92,000 people worldwide in more than 90 countries and generated revenue of €29 billion in fiscal year 2022.

[www.siemens-energy.com](http://www.siemens-energy.com)

With over 26,000 employees, **EnBW** is one of the largest energy companies in Germany and Europe. It supplies around 5.5 million customers with electricity, gas, water as well as services and products in the areas of infrastructure and energy. The expansion of renewable energies is a cornerstone of the growth strategy and a focus of investment. EnBW will invest around 4 billion euros in the further expansion of wind and solar energy by 2025. By the end of 2025, more than half of the generation portfolio is to consist of renewable energies. This is already having a noticeable effect on reducing CO<sub>2</sub> emissions, which EnBW aims to halve by 2030. The expansion of renewables is an important focus of EnBW's sustainability agenda on the way to the company's climate neutrality in 2035. [www.enbw.com](http://www.enbw.com)



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