

Bosch Industriekessel and A.E.P. Thermal enter into a strategic partnership for electrode boilers

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- ▶ Bosch Industriekessel GmbH and A.E.P. Thermal Inc. combine their expertise in innovative power-to-heat technologies
- ▶ Electrification of industrial heat generation is a crucial component of the energy transition
- ▶ Development for larger power ranges targeting industrial applications, district heating, and grid stabilization

Gunzenhausen, Montreal – Bosch Industriekessel GmbH is entering into a strategic partnership with A.E.P. Thermal Inc., a specialist in medium-voltage electrode boilers. The aim of this cooperation is to combine the technological and market expertise of both partners and to further develop electrode boiler technology specifically tailored to the requirements and target markets of Bosch Industriekessel. The implementation of the first projects in Europe is already planned for 2026.

This cooperation marks a significant step in the decarbonization of process heat and district heating and strengthens the commitment of Bosch Industriekessel to future-oriented energy solutions. "The electrification of industrial heat generation is a crucial element for the energy transition," emphasizes Marc Heinrichsdorff, Managing Director of Bosch Industriekessel GmbH. "Together with A.E.P. Thermal, we can meet the growing demand for alternatives to fossil fuel-based heat and steam generators and actively shape the transformation to a sustainable energy landscape."

Bosch Industriekessel contributes its expertise in boiler system technology and customized solutions for process heat and district heating applications. A.E.P. Thermal provides in-depth electrode boiler know-how and over four decades of experience, with more than 4,000 megawatts of installed capacity in the field. "The values of Bosch Industriekessel and A.E.P. Thermal are closely linked – we share a common understanding of climate protection, innovation, quality, and

future-proofing. We are convinced that together we will further advance the market and create innovative solutions for sustainable heat generation," says Robert Presser, President of A.E.P. Thermal Inc.

According to the recent Agora study on the direct electrification of industrial process heat, conducted with Fraunhofer and DENEFF, process heat accounts for 47 percent of industrial energy demand and approximately three-quarters of industrial CO₂ emissions. The direct electrification of industrial heat using power-to-heat technologies is therefore crucial for decarbonization. The study highlights that in Germany alone, there is a technical potential to reduce the use of fossil fuels by 62 percent by 2035 and to cover 90 percent of the currently non-electrified energy demand.

Electrode boilers, as a power-to-heat solution, enable the intelligent integration of the electricity and heat sectors. They convert surplus green electricity directly and quickly into CO₂-free process heat (steam/hot water) with an efficiency of over 99 percent. They utilize the direct flow of electricity through the boiler water as a heating element. Their rapid adjustability makes them ideal for balancing power markets and grid stability. With power ranges of several megawatts, they are widely used in industry for process heat supply and district heating.

For Bosch Industriekessel, electrode technology is the perfect complement to its existing electric boiler portfolio in the power range up to 8.3 tons of steam per hour or 5.5 megawatts of heat. This new partnership will enable the company to cover even larger power ranges and a wider variety of applications in the future, meeting the growing market demand for future-proof and high-performance heating solutions.



Image_01:

Marc Heinrichsdorff (left), Managing Director of Bosch Industriekessel, and Robert Presser (right), President of A.E.P. Thermal, are combining the expertise of both companies with the aim of establishing innovative power-to-heat solutions for process heat and district heating generation.



Image_02:

Power-to-heat: A key technology for sustainable heat in industry, district heating plants, and for grid stabilization.

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Bosch Industriekessel GmbH, a company of the Bosch Home Comfort Group, has been developing and manufacturing project-specific heating and process heat systems for more than 150 years. In keeping with its “Invented for life” principle, Bosch Industriekessel creates future-proof energy systems. The steam and hot water boilers increase the energy efficiency in production, buildings and district heating grids – by means of sustainable energy use and the seamless integration of Industry 4.0 applications. CO₂-neutral heating and process heat solutions with hydrogen and electrification help pave the way to carbon-neutral heating. Around the world, Bosch Industriekessel customers are offered a universal product portfolio, as well as planning support, project management and after-sales services such as maintenance and 24/7 support – all from one source.

Additional information is available online at www.bosch-industrial.com

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