Israel manufacturing energy storage

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The company said the manufacturing facility is the world"s first-ever TES gigafactory and that it will reach a full annual capacity of 4 GWh by the end of this year. "We"re Israeli — we"re building technologies that can reach up to 1,400 F in the middle of the desert — we know a thing or two about harnessing heat, and we"re ready to share that knowledge with the world," said its CEO, Avi Brenmiller.

“Brenmiller"s bGen TES system is an intelligent, scalable, and cost-effective solution that enables industrial- and utility-scale decarbonization by turning renewable electricity into clean steam, hot water, or hot air,” the company said in a statement. “This provides industrial factories and power plants critical reliability, protection from renewable intermittency and fluctuations in energy market prices, in addition to 24/7 access to electric heat.”

Brenmiller"s bGen system heat crushes rocks and then stores that thermal energy for minutes, hours, or days. The stored heat energy can be used to produce energy in the form of steam for electricity, water, or hot air for industrial applications. The bGen system is said to be low maintenance, with a lifespan of more than 30 years.

On behalf of Israeli Industrial Batteries, shareholder and non-executive Chairman, Ady Segal stated: "Following a long and stable business relationship with Sunlight and realizing the progress done in the last years in technology and products, we at IIB -a family company- decided to connect our future to a strong partner with very capable and trustworthy people and on a major growth trajectory. We believe that this partnership will be fruitful for both companies and their employees."

The bGen TES system is designed to enable industrial and utility-scale decarbonisation by turning renewable electricity into clean steam, hot water or hot air. This provides industrial factories and power plants with protection from renewable variability and fluctuations in energy market prices, as well as 24/7 access to electric heat.

The technology uses renewable energy resources, as well as waste heat, to heat crushed rocks to very high temperatures. This heat can then be stored for minutes, hours or even days before being used for industrial and

power generation processes. With a bGen module, customers can use electricity, biomass and waste heat to generate the clean steam, hot water and hot air they need to mould plastic, process food and beverages, produce paper, manufacture chemicals and pharmaceuticals or drive steam turbines without burning fossil fuels.

"We"re Israeli - we"re building technologies that can reach up to 1,400?F [760?C] in the middle of the desert - we know a thing or two about harnessing heat, and we"re ready to share that knowledge with the world," said Avi Brenmiller, Brenmiller Energy"s founder and CEO, in a press statement. "We believe our gigawatt-scale production capacity will allow us to meet growing demand for our solutions from industrial and utility customers."

Financed by the European Investment Bank (EIB) via a EUR7.5m ($8.2m) loan, Brenmiller"s TES gigafactory is equipped with advanced machinery and features a rooftop photovoltaic solar system to help power its operations with renewable energy.

"The need for energy independence throughout the EU is indisputable," said Thomas ?stros, the EIB vice-president responsible for energy. "Renewables alone, however, will not solve our energy or climate crisis. Long-duration energy storage is critical to back up renewable intermittency, decarbonise our electric grids and industrial factories and ensure a secure energy supply. We are pleased to have provided financing for Brenmiller"s gigafactory, which will manufacture thermal energy storage technologies that help the EU overcome today"s critical energy challenges."