New breakthrough in solar thermal power generation

Overview

University of Rochester researchers have developed a way to make solar thermoelectric generators (STEGs) 15 times more powerful, potentially closing the efficiency gap with conventional solar panels and opening new possibilities for renewable energy. By enhancing heat absorption and dissipation. But there's a different kind of solar power generator known as a STEG, and researchers have just figured out a way to improve its efficiency by a factor of 15. STEG stands for solar thermoelectric generator. The device works through a simple principle known as the Seebeck effect in which a. New, high-efficiency STEGs were engineered with three strategies: black metal technology on the hot side, covering the black metal with a piece of plastic to make a mini greenhouse, and laser-etched heat sinks on the cold side. Credit: University of Rochester / J. 6% efficiency represent a 57% improvement over traditional silicon panels, marking the most significant solar technology advancement in decades and positioning solar as the dominant renewable energy source.

New breakthrough in solar thermal power generation

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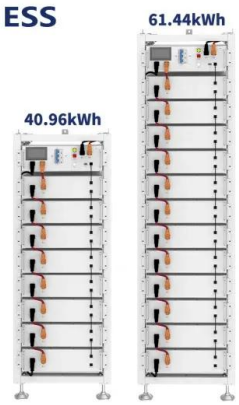

[Scientists supercharge solar power 15x with black metal tech]

Researchers engineered a solar thermoelectric generator 15 times more efficient than current state-of-the-art devices. A Rochester team engineered a new type of solar thermoelectric

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[Breakthrough boosts solar thermoelectric generator efficiency](#)

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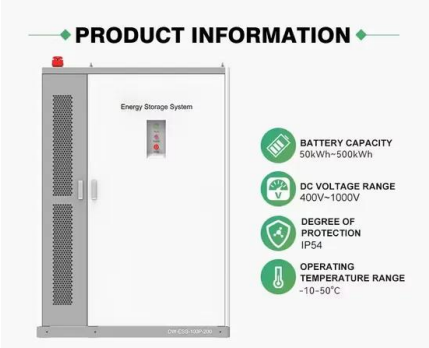

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