

What is Antora thermal battery?

Antora's thermal battery turns cheap, clean energy into the standard that powers global industry. Charges with surplus clean electricity to deliver cost-effective, zero-emission energy at a predictable price. Multi-day storage delivers always-on heat and power for industrial operations where downtime is not an option.

Why is Antora building a low-cost thermal battery for grid-scale energy storage?

Antora Energy is building a low-cost thermal battery for grid-scale energy storage to meet the growing need for long-duration storage created by the global transition to renewables. Most chemical battery technologies, such as lithium-ion, can only store enough energy for a few hours of power. Antora's technology, however, can discharge for days.

How does Antora store energy?

Antora's energy storage technology, now in prototype form, is a "heat battery." It stores energy very cheaply in the form of carbon blocks, which are insulated to retain their high temperatures, up to 2,000 degrees Celsius. A special type of solar cell that can convert heat to electricity is used to draw off the power when needed.

How does Antora work?

Antora's thermophotovoltaic (TPV) technology converts light from the hot carbon blocks into electricity with no moving parts. This enables output of both electricity and heat at industrial scale. Antora's factory-made thermal batteries flexibly scale to match the energy needs of any industrial facility.

What can Antora do for your business?

They Could Also Help Spell the End of Fossil Fuels. LET'S TALK ABOUT WHAT ANTORA CAN DO FOR YOUR BUSINESS. Electrify industrial operations, predictably and profitably. Antora's American-made thermal batteries convert renewable energy into reliable heat & power.

How does Antora thermophotovoltaic (TPV) work?

Energy is discharged 24/7 as heat at the scale and temperatures that large industrial operations demand. Antora's thermophotovoltaic (TPV) technology converts light from the hot carbon blocks into electricity with no moving parts. This enables output of both electricity and heat at industrial scale.

Today, grid-scale storage relies on lithium-ion batteries, which are too expensive and short-lived to do the job. ... Antora is building an energy storage system with a cost of storage below \$10/kWh. The system stores heat in extremely cheap raw materials and converts it back to electricity with a high-efficiency thermophotovoltaic heat engine ...

Read how Antora's thermal batteries are scaling up to decarbonize industry today: <https://bit.ly/3HAUlf7>. The Coolest Thing in Climate Tech is a Super Hot Rock heatmap.news 3 ...

An Antora thermal battery leaving the factory Manufacturing at Scale From the very beginning, we've designed our American-made thermal batteries for rapid production and scale. We turned on our first thermal battery deployment in ...

World's First Thermal Battery Capable of Cost-Effectively Delivering Zero-Carbon Heat and Power . Sunnyvale, CA - Antora Energy, a leader in zero-carbon heat and power for the industrial sector, has launched its proven, ready-to-scale thermal battery. The company revealed that it has reached the highest temperature that has been demonstrated to ...

Leading Industrial Decarbonization Company Recognized for Landmark Thermal Battery Delivering Zero-Carbon Heat and Power . Sunnyvale, CA - Antora Energy, a leader in zero-carbon heat and power for the industrial sector, today announced its thermal battery has been named to TIME's annual list of the Best Inventions, which features ...

In the end, heating carbon blocks won for its impressive energy density, simplicity, low cost, and scalability. The energy density is on par with lithium-ion batteries at a few hundred kWh/m³ ...

Factory Marks Significant Milestone for Large-Scale Industrial Decarbonization and Domestic Manufacturing . Sunnyvale, CA - Antora Energy, a leader in zero-carbon heat and power for the industrial sector, has announced its first large-scale thermal battery manufacturing facility. Located in San Jose, California, the 50,000-square-foot manufacturing facility will be ...

CX-031653: Antora Energy, Inc. -- Deep Decarbonization Enabled by Scale-Up of Solid-State Heat Engines for Ultra-Low-Cost Thermal Batteries Funding will support the project's research, development, and scaling the pilot production of a combined heat and power (CHP) thermal battery which...

This week we spoke to Antora Energy, a thermal battery company which is currently building a world-first thermal energy storage system featuring thermophotovoltaic cells. Antora will buy excess renewable electricity from the grid to store it as heat in graphite blocks. This energy can be converted back to electricity via thermophotovoltaic solar cells, or ...

The funding follows some significant milestones achieved by Antora since the company announced its Series A funding in 2022. Over the past year, Antora introduced its commercial-scale thermal battery, a factory-built system that stores energy at temperatures hot enough to address "hard-to-decarbonize" sectors, such as cement and steel.

Thermal battery maker Antora Energy on Thursday said it has raised \$150 million in a funding round led by a tie-up between the world's biggest asset manager BlackRock and Singapore state ...

Today, we're proud to announce that Antora has been selected by ARPA-E for a \$14.5M award to accelerate

the launch of our combined heat and power thermal battery product. This funding unlocks ...

David Roberts. Back in March, I did a podcast on the possibility of using wind and solar electricity to decarbonize industrial heat, which represents fully a quarter of all human final energy consumption. The trick is to transform the variable energy from wind and solar into a steady, predictable stream of heat by using some form of heat battery.

Antora Energy, a company seeking to decarbonize industrial heat and power, announced it raised \$150 million in a Series B funding round. The round was led by Decarbonization Partners, a partnership between Blackrock and Temasek. The funds are expected to help Antora ramp up production of its factory-made thermal batteries.

ICYMI: CNBC featured Antora's technology on its Clean Start series. Watch Diana Olick detail how Antora's thermal batteries store low-cost renewable energy to unlock 24/7 industrial heat and ...

Assignee: Antora Energy, Inc. Inventors: Andrew Joseph Ponec, Justin Briggs, David Bierman, Sam Kortz ... Actuated heat engines can be utilized to discharge the solid-state thermal battery, converting the heat stored in the thermal storage medium into electricity. The heat engines are actuated in a manner that reduces thermal gradients in the ...

Web: <https://www.sailesindustrialmachinery.co.za>