

What is heliogen concentrating solar thermal technology?

Concentrating sunlight on demand. Heliogen's modular solution is designed to replace the use of fossil fuels in demanding operations. By combining AI-controlled concentrating solar thermal technology with long-duration thermal energy storage, Heliogen can provide dispatchable renewable energy for heat and energy-intensive operations.

What does heliogen do?

About Heliogen Heliogen is a renewable energy technology company focused on decarbonizing industry and empowering a sustainable civilization. The company's concentrating solar energy and thermal storage systems aim to deliver carbon-free heat, steam, power, or green hydrogen at scale to support round-the-clock industrial operations.

What is heliogen solar energy?

Heliogen's AI-enabled concentrated solar energy system is designed to create carbon-free steam, electricity, and heat from abundant and renewable sunlight. When combined with Bloom's proprietary solid oxide, high-temperature electrolyzer, hydrogen can be produced 45 percent more efficiently than low-temperature PEM and alkaline electrolyzers.

What is heliogen's next-generation concentrated solar solution?

Heliogen's next-generation concentrated solar solution combines precise mirrors and long-duration thermal storage with proven technologies like solar PV, AI and computer vision to advance clean energy deployment.

1. Computer-guided mirrors reflect sunlight to the receiver

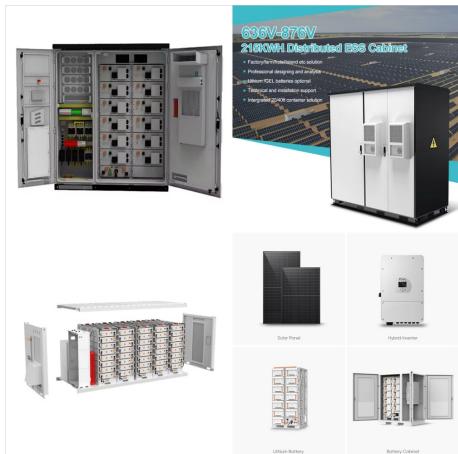
How can Heliogen transform a business?

Heliogen's clean energy solutions can transform your operations with our AI-powered concentrating solar thermal technology. This technology takes advantage of the abundance of solar energy to deliver carbon-free steam or power on demand. Heliogen is focused on making clean energy more accessible and economical than fossil fuels.

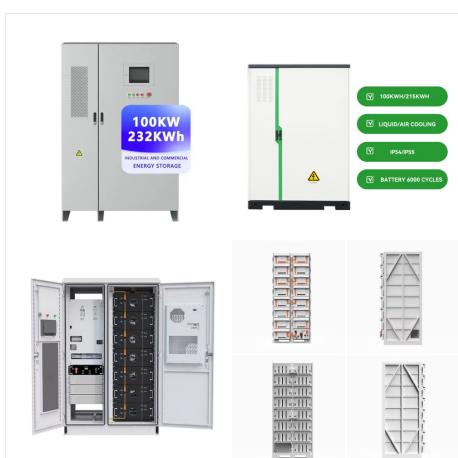
Does heliogen need solar?

For now, Heliogen is squarely focused on solar. One problem with solar is that the sun doesn't always shine, yet industrial companies like cement makers have a constant need for heat. Heliogen said it would

solve that issue by relying on storage systems that can hold the solar energy for rainy days.



PASADENA, Calif., March 28, 2022 a?? Heliogen, Inc. (NYSE: HLGN), a leading provider of AI-enabled concentrated solar energy, and Woodside Energy (USA) Inc., a wholly-owned subsidiary of leading Australian energy producer Woodside Petroleum Ltd (ASX: WPL), today announced a project agreement (the "Project Agreement") for the commercial



About Heliogen. Heliogen is a renewable energy technology company focused on decarbonizing industry and empowering a sustainable civilization. The company's concentrating solar energy and thermal storage systems aim to deliver carbon-free heat, steam, power, or green hydrogen at scale to support round-the-clock industrial operations.



PASADENA, Calif. and SAN JOSE, Calif., July 22, 2021 a?? Heliogen and Bloom Energy (NYSE: BE) today announced plans to produce green hydrogen using only concentrated solar power and water, further accelerating the world's progress toward a zero-carbon future.. By combining near 24/7 carbon-free power and steam, generated by Heliogen's Sunlight Refinery a?|



Heliogen's revenue was driven primarily by continued execution on its engineering, procurement and construction of a new 5 MWe concentrated solar energy facility to be built in Mojave, California and engineering services performed during the period. Heliogen's Adjusted EBITDA was \$(14.9) million for the first quarter 2024.



PASADENA, CA, March 28, 2023 a?? Heliogen, Inc. ("Heliogen") (NYSE: HLGN), a leading provider of AI-enabled concentrating solar energy technology, today provided its fourth quarter and full year 2022 financial and operational results. Recent Highlights Full-Year 2022 Highlights Executive Commentary "Our journey in 2022 was marked by many significant strides forward but also a?|



"The large and ambitious scope of this DOE award adds momentum to deployment of Heliogen's breakthrough AI-enabled, modular concentrated solar solution for carbon-free energy at scale." The



Heliogen has demonstrated the effectiveness of its proprietary control system at Sandia National Laboratories' National Solar Thermal Test Facility (NSTTF). The project, funded by the Department of Energy's (DOE) Technology Commercialization Fund, marks a leap forward in concentrating solar energy and provides third-party validation data essential to Heliogen's a?|



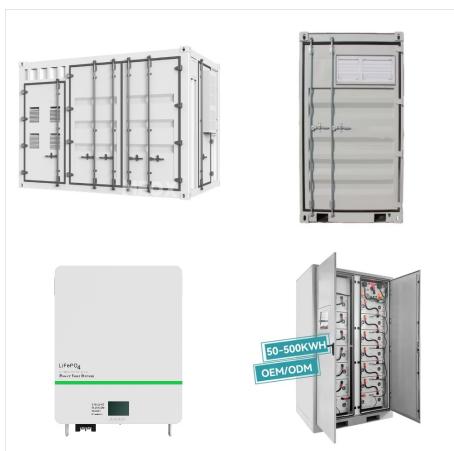
Heliogen turns night into day with advanced energy storage systems allowing you to use stored solar energy when you need it most, reducing reliance on the grid and lowering energy bills. With Heliogen, you gain energy independence, a secure supply and the satisfaction of contributing to a greener planet by cutting CO2 emissions.



PASADENA, Calif. a?? Heliogen, Inc. ("Heliogen" or the "Company") (NYSE: HLGN), a leading provider of AI-enabled concentrated solar energy, today announced that the United States Bureau of Land Management has awarded the Company the exclusive right to lease land in the Brenda Solar Energy Zone (SEZ). Heliogen intends to develop a green hydrogen facility a?|



. LONDON and PASADENA, Calif. a?? International mining and metals company Rio Tinto and renewable energy technology company Heliogen today announced an agreement to explore the deployment of Heliogen's breakthrough solar technology at Rio Tinto's borates mine in Boron, California. Under a Memorandum of Understanding, Heliogen will deploy its a?|



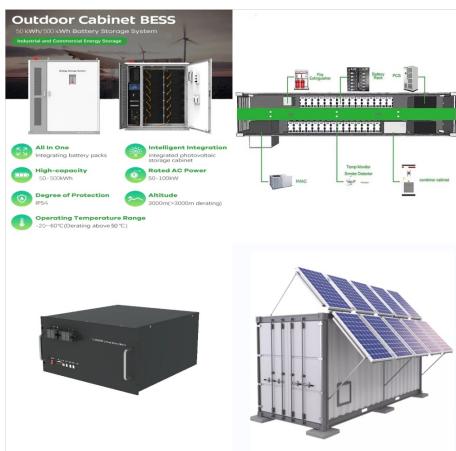
Two funding rounds accelerate global deployment of Heliogen's breakthrough AI-assisted concentrated solar thermal technology. PASADENA, Calif., June 15, 2021 a?? Heliogen, the renewable energy technology company unlocking the power of sunlight to replace fossil fuels, today announced that it has raised \$108 million in two funding rounds to accelerate the global a?|



The Solar Energy Technologies Office Fiscal Year 2021 Photovoltaics and Concentrating Solar-Thermal Power Funding Program funds research and development projects that advance PV and CSP to help eliminate carbon dioxide emissions from the energy sector. Project Summary: Dimensional Energy is partnering with Heliogen to design, develop, and



Initiative to demonstrate technology and produce jet fuel reserves for commercially viable carbon neutral flight. PASADENA, Calif., and ITHACA, N.Y., August 8, 2022 a?? Heliogen, Inc. (NYSE: HLGN), a leading provider of AI-enabled concentrated solar energy technology, today announced it has entered into a letter of intent ("LOI") with Dimensional Energy, a sustainable a?|



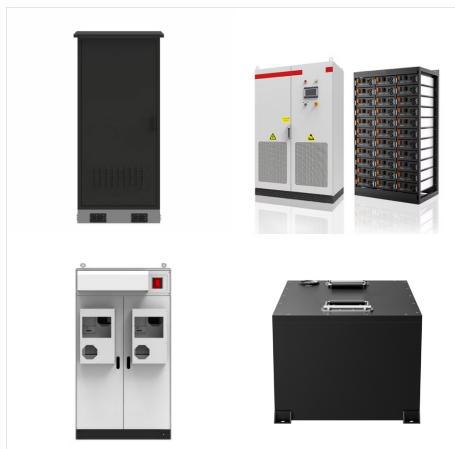
Heliogen's next-generation concentrated solar solution combines precise mirrors and long-duration thermal storage with proven technologies like solar PV, AI and computer vision to advance clean energy deployment. How it Works.



Heliogen's breakthrough technology is a modular, turnkey, AI-enabled concentrated solar energy system that aims to deliver clean energy with nearly 24/7 availability. The facility will utilize advanced computer vision software that precisely aligns an array of mirrors to reflect sunlight to a single target on the top of a solar tower, thereby



About Heliogen. Heliogen is a renewable energy technology company focused on decarbonizing industry and empowering a sustainable civilization. The company's concentrating solar energy and



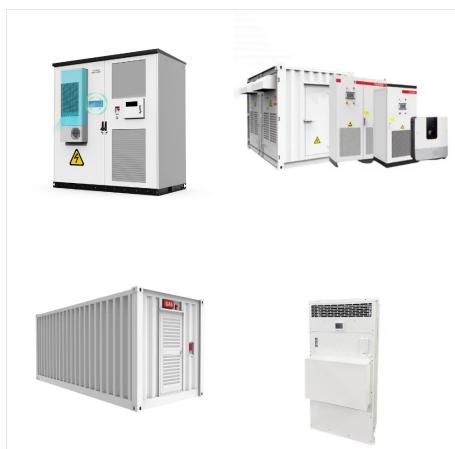
PASADENA, Calif. a?? Heliogen, Inc.. ("Heliogen") (OTCQX: HLGN), a leading provider of AI-enabled concentrating solar energy technology, today announced a joint development agreement with Omanor, a real estate developer of logistics & energy infrastructure assets, a nd provider of permitting and off-take services for renewable energy projects in the a?|



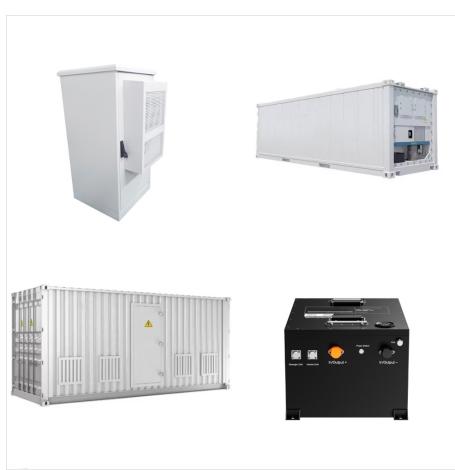
Heliogen previously announced a \$4.1 million award granted from the Department of Energy for R& D into pathways for commercial implementation of a solar thermal calciner. About Heliogen. Heliogen is a renewable energy technology company focused on decarbonizing industry and empowering a sustainable civilization.



Heliogen plans to set up a Hybrid Renewable Energy facility in Brenda, Arizona. The SolarEnergy Zone provides ideal conditions for concentrated solar installations, allowing Heliogen to produce low-cost, carbon-free power to meet a?|



PASADENA, Calif., December 05, 2023--Heliogen, Inc. ("Heliogen") (OTCQX: HLGN), a leading provider of AI-enabled concentrating solar energy technology, has demonstrated the effectiveness of its



PASADENA, Calif., December 05, 2023--Heliogen, Inc. ("Heliogen") (OTCQX: HLGN), a leading provider of AI-enabled concentrating solar energy technology, has demonstrated the a?|



Heliogen, the clean energy company that is transforming sunlight to create and replace fuels, today announced its launch and that it has a?? for the first time commercially a?? concentrated solar energy to exceed temperatures greater than 1,000 degrees Celsius. At that temperature, Heliogen can replace the use of fossil fuels in critical



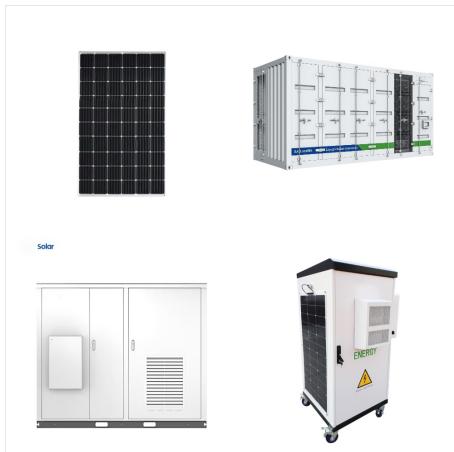
PASADENA, Calif., December 22, 2021 a?? Heliogen, Inc. ("Heliogen"), a leading provider of AI-enabled, modular concentrated solar energy systems, today announced plans to collaborate with CarbonCapture Inc. ("CarbonCapture") to develop sustainably-powered direct air capture (DAC) facilities. As part of the relationship, the companies intend to kick off front-end engineering for a?!



PASADENA, Calif. and SAN JOSE, Calif., November 16, 2021 a?? Heliogen, Inc. and Bloom Energy Corporation (NYSE: BE) today announced the generation of green hydrogen by integrating the companies" technologies a?? Heliogen's concentrated solar energy system and the Bloom Electrolyzer. The successful demonstration in Lancaster, California



Guidance. PASADENA, CA, May 23, 2022 a?? Heliogen, Inc. ("Heliogen") (NYSE: HLGN), a leading provider of AI-enabled concentrated solar energy technology, today provided its first quarter 2022 financial and operational results and reaffirmed its previously announced guidance for 2022.. First Quarter 2022 Highlights. Signed full project a?|



. "Heliogen's Sunlight Refinerya?c, which will cost-effectively deliver 24/7 carbon-free energy in the form of heat, electricity, or hydrogen fuels at scale for the first time in history, was designed for use by a spectrum of industries, including steel," said Heliogen chief executive and founder Bill Gross. (USD 1.0 = EUR 0.821)