

The Caltech Space Solar Power Demonstration One Mission, 2022 IEEE International Conference on Wireless for Space and Extreme Environments (WiSEE). (DOLCE) for the space solar power project demonstration mission. AIAA SciTechForum. January 3, 2022, San Diego, CA. AIAA 2022-1266. DOI: 10.2514/6.2022-1266.

The Project. Overview Vision Our Story. Milestones Team RESEARCH. Photovoltaics Ultralight Structures We seek to advance the state of the art with respect to specific power (power output per mass) of future space solar technologies by leveraging emerging materials, novel photonic structures, and advanced fabrication methods.

Three Engineering and Applied Science professors have joined forces to work with Northrop Grumman Corporation on the largest sponsored research project from industry that Caltech has undertaken in recent history. The project is called the Space Solar Power Initiative (SSPI), and the co-investigators are applied physicist and materials scientist Harry Atwater, ???





One year ago, Caltech's Space Solar Power Demonstrator (SSPD-1) launched into space to demonstrate and test three technological innovations that are among those necessary to make space solar power a reality. 2023, aboard a Momentus Vigoride spacecraft as part of the Caltech Space Solar Power Project (SSPP), led by professors Harry Atwater

Through the Space-based Solar Power Project (SSPP), a team of Caltech researchers is working to deploy a constellation of modular spacecraft that collect sunlight, transform it into electricity, then wirelessly transmit that electricity wherever it is needed???including to places that currently have no access to reliable power.



If its initial experiments are successful, arrays similar to Caltech's Space Solar Power Demonstrator (SSPD) could one day beam essentially endless renewable energy back to Earth via microwave





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UPDATE: The Transporter-6 mission successfully launched at 6:55 a.m. PT on January 3. In January 2023, the Caltech Space Solar Power Project (SSPP) is poised to launch into orbit a prototype, dubbed the Space Solar Power Demonstrator (SSPD), which will test several key components of an ambitious plan to harvest solar power in space and beam the ???



Caltech's space solar power project completes inaugural space mission. Caltech's Space Solar Power Demonstrator (SSPD-1) was launched into space one year ago. Published: Jan 18, 2024 07:16 AM EST.





A space solar power prototype that was launched into orbit in January is operational and has demonstrated its ability to wirelessly transmit power in space and to beam detectable power to Earth for the first time.

SSPD-1 represents a major milestone in a project that has been underway for more than a decade, garnering international attention as a tangible and high-profile step forward for a technology being pursued by multiple ???



SSPD-1 represents a major milestone in a project that has been underway for more than a decade, garnering international attention as a tangible and high-profile step forward for a technology being pursued by multiple nations. It was launched on January 3, 2023, aboard a Momentus Vigoride spacecraft as part of the Caltech Space Solar Power





A sponsored research agreement with Northrop Grumman Corporation will provide Caltech up to \$17.5 million over three years for the development of the Space Solar Power Initiative (SSPI), to enable a space-based solar power system.

Wireless power transfer was demonstrated by MAPLE, one of three key technologies being tested by the Space Solar Power Demonstrator (SSPD-1), the first space-borne prototype from Caltech's Space Solar Power Project ???



The Space Solar Power Project at Caltech (https://) invites applications for postdoctoral fellowships in space solar power science and technology and related fields. This program aims to advance the rapidly growing field of space solar power and is seeking exceptional young scientists and engineers with excellent









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In January 2023, the Caltech Space Solar Power Project (SSPP) is poised to launch into orbit a prototype, dubbed the Space Solar Power Demonstrator (SSPD), which will test several key components of an ambitious plan to harvest solar power in space and beam the energy back to Earth. [Caltech story]



SSPP aims to develop a PV cell with an efficiency level of 25 percent that is 100 times less expensive (\$100 per square meter), 40 times lighter (0.05 kilograms per square meter), and with a specific power 33 times greater ???





Bren Professor of Electrical Engineering and Medical Engineering; Co-Director, Space-Based Solar Power Project. Professor Sergio Pellegrino . Joyce and Kent Kresa Professor of Aeronautics and Professor of Civil Engineering; Jet Propulsion Laboratory Senior Research Scientist; Co-Director, Space-Based Solar Power Project

The spaceborne testbed demonstrated the ability to beam power wirelessly in space; it measured the efficiency, durability, and function of a variety of different types of solar cells in space; and gave a real-world trial of the ???

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SSPD-1 is the first spaceborne prototype from Caltech's Space Solar Power Project (SSPP). [Caltech story] On a cool, clear evening in May 2023, Caltech electrical engineer Ali Hajimiri and four members of his lab gathered on the roof of the Gordon and Betty Moore Laboratory of Engineering to await a signal from the heavens. In preparation