

Energy America's Centauri Division Partners with NASA for Advanced Selenium Interlayer Technology

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[Energy America](#), a global leader in solar energy solutions, is thrilled to announce remarkable progress in its collaboration with [NASA](#) to develop advanced selenium interlayer technology for next-generation solar cells. This groundbreaking partnership is spearheaded by Centauri, Energy America's dedicated research and development division, and aims to redefine the possibilities of solar energy for terrestrial and space applications.

The project focuses on incorporating a selenium interlayer into the design of multijunction solar cells. The innovative approach has achieved an extraordinary 20% increase in efficiency by seamlessly enabling light transmission from the top multijunction cell to the silicon-based bottom cell. The selenium interlayer eliminates the need for traditional lattice matching, making the cells more cost-effective, robust, and versatile compared to current technologies.

"Energy America is committed to pioneering solutions that meet the growing demand for high-performance and sustainable energy technologies," said Jack Stone CEO, Energy America. "Our collaboration with NASA accelerates our vision of delivering innovative products that transform how solar energy is harnessed and utilized globally."

Key Features of Selenium Interlayer Technology

Breakthrough Efficiency: A 20% increase in overall efficiency compared to traditional photovoltaic cells.

Cost-Effective Design: Reduced complexity by eliminating the need for lattice matching.

Versatility Across Applications: Ideal for vehicles, solar roof tiles, large-scale power plants, and smart grid systems.

Space-Ready Performance: Engineered for resilience in extreme environments, perfect for space exploration and long-term missions.

About Centauri

Centauri, Energy America's research and development arm, is renowned for its focus on climate-resilient, sustainable, and high-efficiency solar energy solutions. From terrestrial climates to the rigors of space, Centauri's innovative designs have set industry benchmarks. By integrating NASA's expertise and leveraging its state-of-the-art laboratories, Centauri aims to create breakthrough technologies that address the most pressing energy challenges of the future.

As the think tank of Energy America, Centauri has consistently pushed the boundaries of solar technology, with recent advancements including climate-specific solar modules and next-generation cell technologies that adapt to varying environmental conditions worldwide. The development of selenium interlayer technology is another testament to Centauri's dedication to innovation.

About NASA's Role

For decades, NASA has been synonymous with technological innovation, particularly in fields that intersect with space exploration and Earth-based applications. By joining forces with Centauri, NASA brings its unparalleled expertise in material science and photovoltaic research to the collaboration. Together, NASA and Energy America aim to engineer solar cells that are not only superior in efficiency but also capable of enduring the extreme conditions of space and the dynamic demands of terrestrial power grids.

“Collaborating with Energy America on this project demonstrates NASA's commitment to expanding renewable energy solutions for use in space and on Earth,” said Dennis J. Dannemiller, Technology Manager. “These advancements will have a profound impact on solar technology and its role in sustainability.”

Broader Impacts and Applications

The selenium interlayer technology represents a leap forward for industries beyond energy, including aerospace, transportation, and infrastructure. By integrating this technology into its solar module lineup, Energy America envisions expanding the scope of solar energy applications, from powering advanced space missions to enhancing the efficiency of residential solar installations.

This breakthrough positions Energy America as a leader in delivering cutting-edge energy solutions that address the global need for sustainable and renewable energy sources. With the first line of selenium interlayer-enhanced solar cells expected to be available within the next 12 months, Energy America is set to redefine industry standards.

About Energy America

Energy America is a USA-based solar module manufacturer with a global production capacity of 15GW. Leveraging cutting-edge NASA-backed technology, Energy America develops innovative, climate-resilient solar energy solutions for residential, commercial, and utility markets. The company's mission is to create sustainable energy solutions that empower communities worldwide, combining advanced R&D, premium materials, and a commitment to environmental stewardship.

With an extensive portfolio ranging from high-efficiency solar modules to large-scale energy storage solutions, Energy America continues to lead the charge in advancing renewable energy technologies that meet the diverse needs of global markets.

Jennifer Collins (Corporate Relations)
ENERGY AMERICA LLC
+1 650-332-8102
[email us here](#)

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