

SunShot Incubator 7

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Awardee Name	City	State	Proposed Award Amount	Brief Project Description
AmberWave, Inc.	Salem	NH	DOE funds: \$1,000,000 Cost share: \$250,000 Total budget: \$1,250,000	AmberWave has developed a robust ultra-thin mono-crystalline silicon (Si) technology on flexible steel carriers, reducing silicon usage by more than 90% compared to mainstream wafer-based silicon photovoltaics (PV). Under this SunShot award, AmberWave is integrating this technology with the proven high performance solar cell designs developed at the University of New South Wales, which has demonstrated the world-leading 25% efficient silicon solar cell.
Bandgap Engineering	Woburn	MA	DOE funds: \$1,000,000 Cost share: \$1,000,000 Total budget: \$2,000,000	Bandgap is working to increase solar cell efficiencies by about 10% by integrating Si nanowire cells into standard processing, which increases power density and reduces costs. In this project, Bandgap aims to provide nanowire coated wafers to cell manufacturers and cooperatively develop the fully integrated manufacturing process.
Enki Technology	San Jose	CA	DOE funds: \$1,500,000 Cost share: \$1,811,723 Total budget: \$3,311,723	Enki Technology is working to improve PV module efficiencies and reduce the levelized cost of energy (LCOE) through development of low-cost anti-reflective and anti-soiling coatings.
Infinite Invention, LLC.	Philadelphia	PA	DOE funds: \$386,462 Cost share: \$96,616 Total budget: \$483,078	The "Solar Socket" is a device that adds sockets for plugging in solar PV systems between the electric meter and meter case. It streamlines the installation process by cutting wiring costs, scheduling headaches, and site inspection time while also allowing homeowners to swap in new technologies as they emerge.
Princeton Power Systems	Lawrenceville	NJ	DOE funds: \$1,000,000 Cost share: \$318,700 Total budget: \$1,318,700	Princeton Power Systems (PPS) is developing a inverter that regulates DC power from PV strings to 13.8kV AC without a grid side transformer. The inverter includes control algorithms to provide consistent power flow from the solar installation as well as grid support functions and advanced communications. This product represents a major step toward achieving the DOE goal of \$0.10/W for power electronics costs with innovative transformer, switching bridge, and software control technologies.
Qado Energy, Inc.	Summit	NJ	DOE funds: \$500,000 Cost share: \$333,625 Total budget: \$833,625	Qado is working to provide utilities and distributed generation developers a new decision support platform that enables them to quickly assess the technical impacts and commercial benefits of deploying distributed energy resources onto the grid.
QBotix, Inc.	Menlo Park	CA	DOE funds: \$972,874 Cost share: \$395,841 Total budget: \$1,368,715	QBotix is pioneering the use of robotics in the operation of solar power plants to reduce LCOE by 20%. The system enables 50% cost reduction in dual-axis tracking, high system reliability, detailed power plant level data, and is compatible with all PV panels.

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REhnu Inc.	Tucson	AZ	DOE funds: \$1,000,000 Cost share: \$1,489,909 Total budget: \$2,489,909	REhnu is transitioning a new concentrating photovoltaics (CPV) technology, already proven in a University of Arizona prototype, to a low-cost form ready for commercial production. The technology uses large glass dish reflectors, each with a compact array of CPV cells at its focus, making it economical to build systems with an extended 40-year lifetime and maintaining high power output by swapping in new cells as multi-junction technology improves.
Seeo	Hayward	CA	DOE funds: \$317,536 Cost share: \$79,384 Total budget: \$396,920	Seeo, in partnership with SunEdison, is developing an Energy Storage System (ESS) that pairs the breakthrough lifetime of Seeo's solid-state battery with a set of control analytics designed to optimize performance when operated alongside solar. This program combines a field demonstration with an evaluation of how financing mechanisms such as power purchase agreements (PPAs) and leases can be employed to accelerate adoption of distributed PV with advanced energy storage.
Stion	San Jose	CA	DOE funds: \$2,000,000 Cost share: \$2,000,047 Total budget: \$4,000,047	Stion has developed a disruptive technology based on a tandem copper indium gallium diselenide (CIGS) module that uses a revolutionary thin-film design to enable broader and more effective harvesting of available light. The tandem module, which utilizes mechanically stacked top and bottom modules to avoid the design and manufacturing challenges associated with multi-junction monolithic integration, enables 18% efficiency on full-size CIGS modules.