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DOE Pursues SunShot Initiative to Achieve Cost Competitive Solar Energy by 2020

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U.S. Energy Secretary Steven Chu today announced additional details of the Department of Energy's "SunShot" initiative to reduce the total costs of photovoltaic solar energy systems by about 75% so that they are cost competitive at large scale with other forms of energy without subsidies before the end of the decade. By reducing the cost for utility scale installations by about 75% to roughly \$1 a watt—which would correspond to roughly 6 cents per kilowatt-hour—solar energy systems could be broadly deployed across the country.

This will increase American economic competitiveness and help the United States regain leadership in the global market for solar photovoltaics. As part of the SunShot initiative, Secretary Chu announced today that the Department of Energy is awarding \$27 million in projects to support the development, commercialization, and manufacturing of advanced solar energy technologies.

"America is in a world race to produce cost-effective, quality photovoltaics. The SunShot initiative will spur American innovations to reduce the costs of solar energy and re-establish U.S. global leadership in this growing industry," said Secretary Chu. "These efforts will boost our economic competitiveness, rebuild our manufacturing industry and help reach the President's goal of doubling our clean energy in the next 25 years."

The SunShot program builds on the legacy of President Kennedy's 1960s "moon shot" goal, which laid out a plan to regain the country's lead in the space race and land a man on the moon. The program will aggressively drive innovations in the ways that solar systems are conceived, designed, manufactured and installed.

In addition to investing in improvements in cell technologies and manufacturing, the SunShot initiative will also focus on steps to streamline and digitize local permitting processes that will reduce installation and permitting costs. To achieve the SunShot goal of reducing the total installed cost of large scale solar electricity by about 75%, DOE will be working closely with partners in government, industry, research laboratories, and academic institutions across the country.

SunShot will work to bring down the full cost of solar—including the costs of the solar cells and installation—by focusing on four main pillars:


- Technologies for solar cells and arrays that convert sunlight to energy
- Electronics that optimize the performance of the installation
- Improvements in the efficiency of solar manufacturing processes
- Installation, design and permitting for solar energy systems.

For more information and to follow the initiative's progress, visit the [SunShot Initiative website](#).

As part of the launch of the SunShot initiative, DOE is also announcing \$27 million in awards to nine new projects. This funding includes support for five projects that are receiving \$20 million to further develop U.S. supply chains for PV manufacturing. This includes support for companies across the solar energy supply chain, including U.S. material and tool suppliers and companies that are developing technologies that can be adopted directly into current manufacturing processes. [More information and a list of awardees is available.](#)

Additionally, DOE's National Renewable Energy Laboratory is investing \$7 million to fund the latest round of the successful PV Incubator program, which helps to shorten the commercialization timeline for promising emerging solar technologies. The companies work closely with DOE national laboratories to scale their

technologies and manufacturing processes and move the products from pre-commercial and prototype stage to pilot and full-scale manufacturing operations. [More information and a list of awardees is available.](#)

The SunShot initiative builds on the Department's significant research and development (R&D) efforts in solar energy over the past decade, conducted in partnership with American universities, national laboratories, and the private sector. In the last ten years, DOE has invested more than \$1 billion in solar energy research that has been leveraged with significant private industry funding to support more than \$2 billion in total solar R&D projects. This includes investments by DOE's Office of Science, Solar Energy Technologies Program, and ARPA-E, the Advanced Research Projects Agency-Energy. Innovations in both science and technology have driven the cost of solar down 60% since 1995, and have yielded a number of critical breakthroughs in solar PV performance and cost. A [fact sheet detailing some of the Department's past and current work in solar energy](#)  is available.

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