



The Solar America Initiative

In Focus: The Building Industry

Solar Energy—An Advantage for the Building Industry

Solar energy systems for buildings—photovoltaics (PV) and solar water heating—are highly reliable and easy to install. Numerous reputable companies supply the systems and warranty the solar components for 20–25 years. Today's building-integrated solar energy systems also combine aesthetics with function. For example, PV shingles and slates serve the dual purpose of protecting the roof and generating electricity while providing a traditional roofing look. Today's solar products are vastly improved over the products of the past.

Solar technologies can provide a significant advantage to the building industry by:

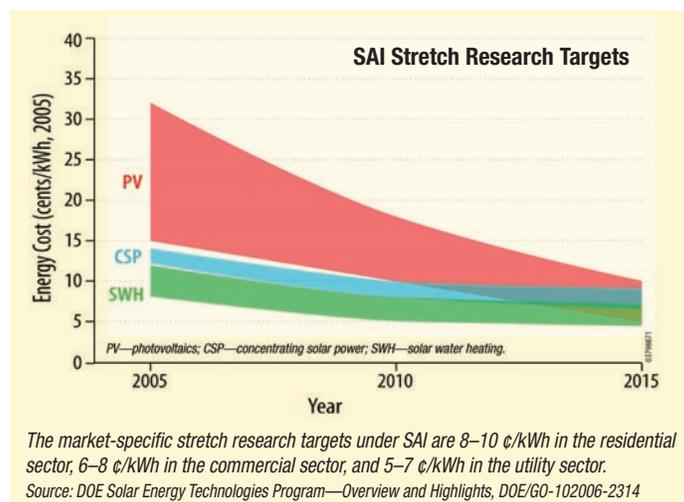
- Providing a competitive edge against competitors who do not offer solar
- Adding a new source of revenue through the sale of solar technologies

A growing number of homebuyers and commercial building owners will pay a premium to be “green.” The increasing number of solar tax incentives at the Federal, state, and local levels creates additional demand for solar technologies.

Because the building industry often makes the key decisions about including solar technology in building designs, its participation is crucial to solar energy's success. The potential for solar energy on buildings is enormous. Today, there is enough residential and commercial rooftop space to site more than 500 GW of PV capacity, equivalent to placing 4-kW PV systems on more than 125 million homes. Current U.S. electric capacity is about 1,000 GW.

The Solar America Initiative

The U.S. Department of Energy (DOE) Solar America Initiative (SAI) was created in January 2006 as part of the President's Advanced Energy Initiative. The SAI's goal is to make solar energy cost competitive by 2015. This will benefit the nation by broadening electricity supply options, reducing fossil fuel dependence, and improving the environment. DOE will achieve the goals of the SAI through partnerships and strategic alliances with industry participants, universities, Federal agencies, states, utilities, the building industry, and other non-governmental agencies. SAI activities fall into two major categories: Technology Pathway Partnerships and Market Transformation.



United Solar Ovonic PV shingles (top) and Atlantis Energy Systems SUNSLATES (bottom) install easily and provide roof protection as well as electricity. PIX 04566, PIX 09336

Technology Pathway Partnerships

Technology Pathway Partnerships focus on research and development (R&D) of PV component and system designs, including low-cost approaches to manufacturing. Industry will lead R&D teams composed of one or more companies, universities, national laboratories, and non-governmental organizations. The emphasis is on developing solar technologies with the greatest potential for cost competitiveness in the period leading up to 2015.

Market Transformation

Market Transformation focuses on non-R&D activities that:

- Provide technical, regulatory, institutional, financial, and educational solutions to market barriers
- Accelerate demand for new solar technologies, primarily through technical assistance



Market Transformation activities will be performed in collaboration with key stakeholders who are committed to the SAI mission and who will benefit from the expansion of PV electricity generation. DOE recognizes the building industry as a critical partner in this effort.

SAI Market Transformation Activities Related to the Building Industry

The SAI is an integrated effort, addressing the needs and contributions of many stakeholders. DOE is in the process of forming working groups to consider critical codes and standards and interconnectivity issues as well as a national voluntary standard for PV module performance. DOE will seek building industry participation in these efforts. For direct support, members of the building industry can apply for assistance with large solar installations as part of the Solar America Showcases activity.

Solar America Showcases

The Solar America Showcases activity aims to accelerate demand for solar technologies through large-scale (greater than 100 kW), high-visibility, replicable solar projects such as residential subdivisions, shopping centers, office buildings, and “big box” retail locations. DOE is interested in products that use novel solar technologies and/or novel applications for solar. DOE will provide technical assistance to selected projects, including assistance with solar technology, marketing and finance, architecture and construction, and project management. Installations can be PV, concentrating solar power, or solar water heating applications.



Large-scale residential PV installations could qualify for DOE technical assistance as part of the Solar America Showcases activity. PIX 09759

Funding Opportunities

Some SAI Market Transformation funding opportunities were issued in October 2006 and are scheduled to be awarded in early 2007, pending Congressional appropriations. For more information see www.eere.energy.gov/solar/solar_america/market_transformation.html. New solicitations will be issued annually. To access all DOE funding opportunities, visit the DOE IIPS Web site at <https://e-center.doe.gov> and the grants.gov Web site at www.grants.gov.

For More Information

To learn more about the SAI, visit www.eere.energy.gov/solar/solar_america. Contact your local utility or solar association (see www.seia.org) for information on training and certification opportunities. Also visit the following Web sites for more useful information:

DOE Solar Energy Technologies Program	www.eere.energy.gov/solar
DOE Building Technologies Program	www.eere.energy.gov/buildings
Interstate Renewable Energy Council	www.irecusa.org
North American Board of Certified Energy Practitioners	www.nabcep.org
Solar Electric Power Association	www.solarelectricpower.org
Solar Energy Industries Association (SEIA)	www.seia.org
SEIA Federal Tax Credit Guide	www.seia.org/manualdownload.php



U.S. Department of Energy Energy Efficiency and Renewable Energy

Bringing you a prosperous future where energy is clean, abundant, reliable, and affordable

A Strong Energy Portfolio for a Strong America

Energy efficiency and clean, renewable energy will mean a stronger economy, a cleaner environment, and greater energy independence for America. Working with a wide array of state, community, industry, and university partners, the U.S. Department of Energy's Office of Energy Efficiency and Renewable Energy invests in a diverse portfolio of energy technologies.

For more information contact:
EERE Information Center
1-877-EERE-INF (1-877-337-3463)
www.eere.energy.gov

Prepared by the
National Renewable Energy Laboratory,
a DOE national laboratory

DOE/GO-102007-2389
January 2007

Printed with a renewable-source ink on paper containing at least 50% wastepaper, including 20% post consumer waste.