

Solar Energy

The mission of the Solar Energy Program (Solar Program) is to conduct research, development, demonstration, and deployment activities to accelerate widespread commercialization of clean solar energy technologies, which will lower greenhouse gas emissions, provide a clean and secure domestic source of energy, and create green jobs.

The United States is the world's largest consumer of electricity, and at the same time has the largest solar resource of any industrialized country. Developing technologies that can reliably and affordably harvest this resource will greatly enhance national energy security while reducing the threat of global warming and create U.S. jobs. To accomplish this mission, the Solar Program invests in two basic types of solar technologies – photovoltaics (PV) which convert the sun's energy directly into electricity, and concentrating solar power (CSP) technologies which concentrate the sun's rays and produce electricity from the resulting thermal energy. The proposed FY 2010 investments complement funds provided by the American Recovery and Reinvestment Act that enhance development of next generation solar technologies, accelerate development of critical path technologies in support of the program's goal of making electricity generated from solar competitive with conventional grid electricity by 2015, and address market barriers.

FY 2010 Budget Request (Non-Comparable, or as Appropriated, Structure) Solar Energy			
Activity	Funding (\$ in thousands)		
	FY 2008 Approp.	FY 2009 Approp.	FY 2010 Request
Photovoltaic Energy Systems	136,744	145,000	149,470
Concentrating Solar Power	27,617	30,000	78,420
Solar Heating and Cooling Systems	1,959	–	–
Systems Integration	–	–	29,660
Market Transformation	–	–	27,450
Solar Electricity Energy Innovation Hub	–	–	35,000
TOTAL	166,320	175,000	320,000

The Fiscal Year 2010 budget request for Solar Energy is \$320.0 million, which is an increase of \$145.0 million over the FY 2009 appropriation. The proposed structure change consists of four subprograms - two technologies based, PV & CSP, and two crosscutting, Systems Integration and Market Transformation. It preserves the technology distinction between two fundamentally different ways of producing solar power, while providing two distinct crosscutting areas that increase the effectiveness in addressing needs common to the entire solar technology portfolio.

Targeting improved performance and reliability with reduced cost, the Solar Program partners with industry, universities and National Laboratories to focus its research, development, demonstration, and deployment activities in five subprograms: Photovoltaics R&D, Concentrating Solar Power, Systems Integration, Market Transformation, and the Solar Electricity Energy Innovation Hub.