

## Why GAO Did This Study

The United States has abundant solar energy resources and solar, along with wind, offers the greatest energy and power potential among all currently available domestic renewable resources. In February 2012, GAO reported that 23 federal agencies had implemented nearly 700 renewable energy initiatives in fiscal year 2010—including initiatives that supported solar energy technologies ([GAO-12-260](#)). The existence of such initiatives at multiple agencies raised questions about the potential for duplication, which can occur when multiple initiatives support the same technology advancement activities and technologies, direct funding to the same recipients, and have the same goals.

GAO was asked to identify (1) solar-related initiatives supported by federal agencies in fiscal years 2010 and 2011 and key characteristics of those initiatives and (2) the extent of fragmentation, overlap, and duplication, if any, of federal solar-related initiatives, as well as the extent of any coordination among these initiatives. GAO reviewed its previous work and interviewed officials at each of the agencies identified as having federal solar initiatives active in fiscal years 2010 and 2011. GAO developed a questionnaire and administered it to officials involved in each initiative to collect information on: initiative goals, technology advancement activities, funding obligations, number of projects, and coordination activities.

This report contains no recommendations. In response to the draft report, USDA generally agreed with the findings, while the other agencies had no comments.

View [GAO-12-843](#). For more information, contact Frank Rusco at (202) 512-3841 or [ruscof@gao.gov](mailto:ruscof@gao.gov).

## SOLAR ENERGY

### Federal Initiatives Overlap but Take Measures to Avoid Duplication

## What GAO Found

Sixty-five solar-related initiatives with a variety of key characteristics were supported by six federal agencies (see table). Over half of these 65 initiatives supported solar projects exclusively; the remaining initiatives supported solar and other renewable energy technologies. The 65 initiatives exhibited a variety of key characteristics, including multiple technology advancement activities ranging from basic research to commercialization by providing funding to various types of recipients including universities, industry, and federal laboratories and researchers, primarily through grants and contracts. Agency officials reported that they obligated about \$2.6 billion for the solar projects in these initiatives in fiscal years 2010 and 2011, an amount higher than in previous years, in part, because of additional funding from the 2009 American Recovery and Reinvestment Act.

**Number of Federal Initiatives That Supported Solar Energy Technology in Fiscal Years 2010 and 2011, by Agency and Total Obligations**

Agency	Number of solar initiatives	Total obligations
Department of Energy (DOE)	20	\$2,342,765,827
Department of Defense (DOD)	27	154,637,296
National Science Foundation (NSF)	7	48,761,556
National Aeronautics and Space Administration (NASA)	7	34,818,345
U.S. Department of Agriculture (USDA)	3	577,247
Environmental Protection Agency (EPA)	1	200,000
<b>Total</b>	<b>65</b>	<b>\$2,581,760,271</b>

Source: GAO analysis of agency-provided data.

The 65 solar-related initiatives are fragmented across six agencies and overlap to some degree in their key characteristics, but most agency officials reported coordination efforts to avoid duplication. The initiatives are fragmented in that they are implemented by various offices across the six agencies and address the same broad areas of national need. However, the agencies tailor their initiatives to meet their specific missions, such as DOD's energy security mission and NASA's space exploration mission. Many of the initiatives overlapped with at least one other initiative in the technology advancement activity, technology type, funding recipient, or goal. However, GAO found no clear instances of duplicative initiatives. Furthermore, officials at 57 of the 65 initiatives (88 percent) indicated that they coordinated in some way with other solar-related initiatives, including both within their own agencies and with other agencies. Such coordination may reduce the risk of duplication. Moreover, 59 of the 65 initiatives (91 percent) require applicants to disclose other federal sources of funding on their applications to help ensure that they do not receive duplicative funding.