



Highlights of [GAO-10-104](#), a report to the Subcommittee on Readiness, Committee on Armed Services, House of Representatives

Why GAO Did This Study

The Department of Defense (DOD) consumes about 60 percent of all energy used at federal government facilities. To encourage an increased use of energy from renewable sources, such as solar and wind power, (1) the Energy Policy Act of 2005 (the 2005 Act) directs DOD to consume at least 3 percent of its total electricity from renewable resources starting in fiscal year 2007; (2) Executive Order 13423 (the 2007 Executive Order) directs that an amount equal to half of the statutorily required renewable energy be generated by sources placed into service in 1999 or later; and (3) the 2007 Defense Authorization Act directed that at least 25 percent of electricity consumed by DOD come from renewable sources in fiscal year 2025. GAO was asked to examine (1) DOD's progress toward these three key goals for consuming renewable energy in fiscal years 2007 and 2008, (2) challenges to DOD meeting those goals, and (3) DOD's plans to meet the goals. GAO reviewed relevant laws and DOD and Department of Energy (DOE) policy, plans, and data; interviewed agency officials; and visited DOD facilities.

What GAO Recommends

GAO makes 5 recommendations to DOD, including that DOD accurately report progress toward the goals and develop a long-term, DOD-wide plan to address challenges and meet goals. DOD concurred with 4 recommendations and partially concurred with 1, agreeing with its intent but stating that it is a service responsibility.

[View GAO-10-104 or key components.](#)
For more information, contact Mark Gaffigan at (202) 512-3168 or gaffiganm@gao.gov or Brian Lepore at (202) 512-4523 or leporeb@gao.gov.

DEFENSE INFRASTRUCTURE

DOD Needs to Take Actions to Address Challenges in Meeting Federal Renewable Energy Goals

What GAO Found

DOD has three key goals for its installations' consumption of renewable energy, contained in the 2005 Act, the 2007 Executive Order, and the fiscal year 2007 National Defense Authorization Act. DOD met the goals in the 2005 Act and 2007 Executive Order in fiscal year 2007. However, in fiscal year 2008, DOD fell just short of the 2005 Act goal. Moreover, in fiscal years 2007 and 2008, DOD overstated its progress toward the goal in the 2007 Defense Authorization Act, counting nonelectric renewable energy. In these 2 fiscal years, the 2007 Defense Authorization Act goal allowed only electric renewable energy to be counted. According to amendments in the fiscal year 2010 Defense Authorization Act—which became law in October 2009—DOD is now able to count nonelectric renewable energy toward this goal.

In fiscal years 2007 and 2008, when calculating progress toward the 2007 Defense Authorization Act goal, DOD included renewable electricity produced on DOD land, but not consumed by DOD. According to DOD, it has “facilitated production,” but has not “directly consumed” this electricity. It is unclear whether such renewable energy should be included in the Office of the Secretary of Defense's (OSD) calculations of progress toward this goal. Moreover, OSD has not published guidance clarifying key terms in the language of the goal. With such guidance specifying how the services are to implement this goal, DOD will have greater assurance that it can accurately assess progress toward the goal and accurately report on this progress to Congress.

DOD faces three key challenges in meeting the renewable energy goals. First, renewable energy projects may sometimes be incompatible with installations' need to use land for primary mission objectives. For example, wind turbines may conflict with aircraft operations during training. Second, renewable energy is often more expensive than nonrenewable energy. Therefore, using renewable energy can be at odds with DOD and DOE guidance that calls for DOD to invest in energy projects when cost-effective. In response, DOD plans to obtain additional funds by joining with private industry, such as local electric utilities, to develop renewable energy projects. Third, however, the use of those private sector approaches can be constrained by several factors. For example, energy produced by the projects may not count toward the renewable energy goals. By addressing these challenges, DOD would strengthen its ability to fully realize the potential of its renewable energy resources, improving its chances of meeting the goals in the most cost-effective way.

OSD has not developed a long-term, DOD-wide plan to help ensure that DOD meets the renewable energy goals. Such a plan that identifies and addresses key challenges, has strategies for coordinating the services' renewable energy activities, sets realistic performance measures for achieving the goals, and aligns DOD resources will better enable DOD to meet the renewable energy goals.