

Why GAO Did This Study

DOD is the largest consumer of energy in the federal government, spending about \$3.8 billion on facilities' energy at more than 500 permanent military installations throughout the world in fiscal year 2010. The House Armed Services Committee directed GAO to review issues related to financing approaches for renewable energy projects on military installations. GAO (1) determined the approaches that military services are using to finance renewable energy projects and the factors the services consider in selecting an approach, (2) assessed the extent to which the services have established methods to obtain good value and advantageous contract terms and manage risks of financing approaches for renewable energy projects, and (3) identified the extent to which the services developed guidance, training, and other resources to assist officials in selecting and implementing financing approaches.

GAO reviewed applicable legal authorities, guidance, and project information from selected projects and interviewed officials from the Office of the Secretary of Defense, military services, 10 selected installations, and the Department of Energy.

What GAO Recommends

GAO recommends that DOD issue comprehensive guidance to ensure key analyses are completed and available-financing approaches are fully considered. GAO also recommends that DOD develop a formalized communications process to share best practices on financing renewable energy projects among installations. DOD generally concurred with GAO's recommendations.

View [GAO-12-401](#). For more information, contact Brian J. Lepore at (202) 512-4523 or leporeb@gao.gov or Frank Rusco at (202) 512-3841 or ruscof@gao.gov.

RENEWABLE ENERGY PROJECT FINANCING

Improved Guidance and Information Sharing Needed for DOD Project-Level Officials

What GAO Found

To finance renewable energy projects, the military services use up-front appropriations, such as operation and maintenance funds, and alternative-financing approaches that generally rely on private capital, such as arranging financing and implementing a project with a private developer or utility. The military services have funded about 85 percent of nearly 600 projects that were in design, under construction, or operating in fiscal year 2011 with up-front appropriations, but financed 8 of the 9 large-scale projects and 19 of the 57 medium-scale projects with alternative financing. Several factors affect the military services' use of financing approaches, including perceived benefits and drawbacks such as how long it takes to obtain funding.

The military services have established methods to help ensure good value and advantageous contract terms and to manage the risks of the various financing approaches, but the services have not issued comprehensive guidance on how and when to prepare analyses for renewable energy projects. For example, headquarters and installation officials said that military services use business case or other cost analyses to help maximize benefits and mitigate drawbacks of the selected financing approach. However, GAO found examples of installations' not developing cost analyses or not analyzing different financing approaches for projects, as well as uncertainty about how to account for some benefits in the analyses, because the military services generally do not have guidance to ensure that business case analyses are completed and that analyses fully consider the costs and benefits of different financing approaches. As a result of not having processes and comprehensive guidance in place, the military services cannot ensure that decision makers select the financing approach that maximizes benefits and mitigates drawbacks or risks of available financing approaches.

The Department of Defense (DOD) and other agencies have made available guidance, training, and other resources to assist officials in selecting certain financing approaches for renewable energy projects, but some guidance on the approaches is inconsistent and information sharing at the installation level is ad hoc and not formalized. DOD, the Department of Energy, and the military services have developed an increasing amount of guidance on the available financing approaches; however, GAO found instances where different interpretations of some guidance affected the approaches the services used because DOD has not issued overarching guidance on using these approaches. As a result, the military services may not be taking full advantage of the various approaches available to finance projects to meet renewable energy goals. Additionally, DOD personnel were generally satisfied with training they received on the financing approaches, but DOD does not have a formalized process to share information and best practices on the approaches among project-level officials across the military services at the installation level. As a result, DOD cannot ensure that officials responsible for selecting a financing approach have timely access on an ongoing basis to information on approaches that their counterparts from other services have used and their experiences with those approaches. Such information could assist the officials in selecting a financing approach that maximizes the benefits and minimizes the drawbacks or risks of that approach.