



ENERGY EFFICIENCY

Starts with the Acquisition Process

The Issue

In fiscal year 2007, the Department of Defense (DoD) spent \$12.6 billion on energy. Energy's emergence as a vulnerability in battle and its rising costs have led to three efforts to better identify the problem and formulate solutions: 1) In 2008, the Defense Science Board issued a report that provided recommendations on how the DoD could improve its energy management; 2) DoD's Energy Strategy Task Force is developing a strategic plan to address DoD energy risks; and 3) The Deputy Under Secretary of Defense for Acquisition and Technology (DUSD (A&T)) Systems and Software Engineering Directorate is overseeing changes in the acquisition process that will more accurately value energy efficiency in future systems.

The issue of DoD energy consumption also tops the agendas of Congress and the President. Congress stated in the 2007 National Defense Authorization Act, "DoD policy shall be to improve the fuel efficiency of weapons platforms." Further, the President recently endorsed energy as one of DoD's top 25 transformational priorities.

The Acquisition Community's Impact

The acquisition community's business processes directly affect energy consumption in DoD. The current process either does not consider fuel, or considers only the commodity price. However, moving fuel into and around the theater of combat imposes significant operational burdens and vulnerabilities, drives force structure toward support at the expense of combat operations, and increases costs for delivery and logistics. Neither current requirements or acquisition processes accurately explore trade-off opportunities using fuel as an independent variable. This prevents an end-to-end view of fuel utilization and distorts platform design choices, consequently preventing DoD from achieving maximum combat benefit for its logistics effort.

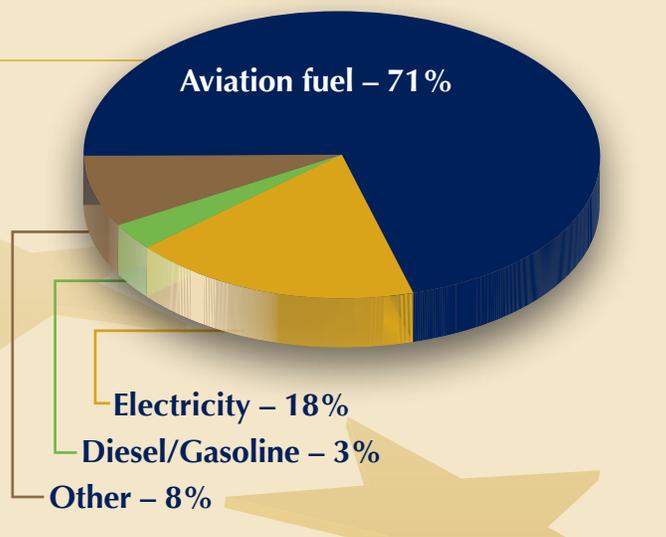
Findings

Studies evaluating DoD's energy use have been conducted by the Institute for Defense Analyses, the Defense Science Board Energy Security Task Force and JASON (an independent scientific advisory group). All three studies suggest that for DoD energy inefficiency is a significant liability, a constraint on operations and a force-protection challenge. More specifically, all three studies led to two consistent conclusions:

1 By reducing energy demand, we provide operational forces greater flexibility and reduce their dependency on logistics infrastructure.

2 DoD's current requirements and acquisition processes undervalue technologies with the potential to improve energy efficiency.

ENERGY CONSUMPTION IN DoD



Recommendations for Reform

The key to energy reform in DoD's acquisition community is correctly valuing fuel and its delivery and protection costs throughout the lifecycle of a system or operation. In April 2007, the Under Secretary of Defense for Acquisition, Technology and Logistics issued a policy memorandum establishing three pilot programs to develop guidelines for incorporating the "fully burdened cost of fuel" into acquisition analyses. In a companion effort, the Joint Requirements Oversight Council established an energy-related key performance parameter, which the Joint Staff is developing. Together, these two efforts will make the operational and cost consequences of heavy fuel burden, a factor in key decisions that create fuel demand.

