

# Sustainable Acquisition

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**T**he Department of Defense (DoD) has the continuous mandate to provide national security by supporting the warfighter's mission success and providing the forces necessary to prevent war. To accomplish this mission, the DoD requires several essential resources, including energy, land, air, and water. Changes caused by the post-Cold War international power structure and shifting global economies have increased the competition for these resources worldwide. This global competition has increased their value exponentially. To ensure these resources are readily available, the DoD has focused more attention on sustainability.

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## Sustainable Acquisition

Sustainability allows DoD to plan for and maintain resources necessary to operate in the future without decline. The Office of Federal Procurement Policy defines sustainable acquisition as “acquiring goods and services in order to create and maintain conditions under which humans and nature can exist in productive harmony, and that permits fulfilling the social, economic, and other requirements of present and future gen-

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## DoD Policy

The DoD’s Strategic Sustainability Performance Plan (SSPP) was implemented by the Under Secretary of Defense for Acquisition, Technology and Logistics (USD[AT&L]). This plan addresses the government’s sustainability performance expectations and establishes a path in which DoD can promote sustainability while executing its mission. The SSPP was developed in accordance with Executive Order 13514, “Federal Leadership in Environmental, Energy, and Economic Performance.”

Executive Order 13514 was signed by President Barack Obama on Oct. 5, 2009. The goal was to institute a strategy toward sustainability in the federal government and to make reduction of greenhouse gas emissions a priority for federal agencies. In addition to reducing greenhouse gas emissions, the order implemented policy requiring federal agencies to increase energy efficiency, conserve and protect water resources, and eliminate waste and pollution.

## Energy Efficiency and Greenhouse Gas Limits

A major global challenge to sustainability is the availability of energy and the associated increase in production of greenhouse gas emissions. Greenhouse gas emissions are those that absorb and emit infrared radiation into the world’s atmosphere. This causes heat to be trapped in the atmosphere and is an escalating worldwide issue contributing to global warming. Scientists believe humans play a major part in the increase of greenhouse gas pollution. A majority of these gases are produced through the human use of energy resources such as petroleum byproducts and electricity. DoD is concerned about global warming because it can adversely affect the weather, sea levels, and land erosion. These changes would then im-

Several greenhouse gases that humans release into the atmosphere include carbon dioxide, nitrous oxide, and methane. Carbon dioxide is the primary greenhouse gas released by humans. It is released through the burning of solid waste, wood, and fossil fuels. Nitrous oxide also is released by hu-

mans through various fertilizers and industrial processes or when solid waste or fossil fuels are burned. Finally, methane is typically produced in landfills, coal mines, and farms. It is released when organic waste decomposes and during the production of fossil fuels.

Executive Order 13514 asked the chair of the Council on Environmental Quality (CEQ Chair) and the director of the Office of Management and Budget (OMB Director) to establish a federal target for reducing greenhouse gas pollution. In 2010, these targets were established. President Obama declared the federal government would reduce direct greenhouse gas emissions, such as those from building energy use, by 28 percent and indirect greenhouse gas emissions, such as those from business travel and employee commuting, by 23 percent within a decade. This plan will be implemented by requiring federal agencies to execute targets and goals in an annual sustainability plan. Agencies will report on the status toward meeting these goals, and they will be monitored through agency greenhouse gas inventories. If the targeted percentages are reached, the federal government could save approximately \$11 billion in energy costs.

## Water Conservation and Protection

A second major global challenge to sustainability is the assurance of an adequate supply of fresh water. Fresh water is an essential resource necessary for military operations, drinking, hygiene, medical care, and food preparation. The availability of fresh water continuously declines with changes in climate and human usage. DoD is concerned with protecting and maintaining drinking water sources and protecting the ecological and biological integrity of the country’s wetlands and waterways. Sustaining the country’s water resources is vital to preserving human health, the environment, and the economy. To guarantee availability for future generations, the withdrawal of fresh water from an ecosystem should not surpass its natural replacement rate. DoD has addressed this issue by implementing water conservation procedures. Water

conservation includes practices that reduce or enhance the beneficial use of water.

Executive Order 13514 requires federal agencies to reduce their potable water intensity each year by 2 percent through fiscal year 2020. In addition, the order requires agencies to reduce nonpotable water usage for industrial, landscaping, and agricultural purposes 2 percent annually through FY2020.

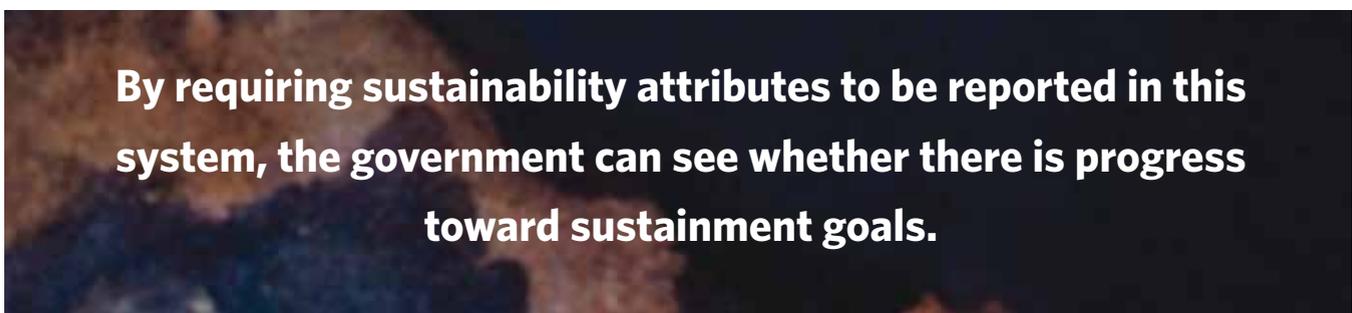
### **Pollution and Hazardous Waste Prevention**

A third and final major global challenge to sustainability is pollution and hazardous waste prevention. The DoD relies on many chemicals in its operations. However, relying on these chemicals poses environmental and health risks. The DoD is committed to protecting Americans and U.S. readiness by reducing and properly managing the use of high-risk chemicals and wastes. Properly managing these chemicals protects the vital resources of land, air, and water; reducing these chemicals decreases environmental concerns and DoD costs associated with their use.

### **DoD Sustainable Acquisition**

In addition to requiring federal agencies to implement sustainability plans, DoD has begun addressing sustainable acquisition in government contracts. Federal Acquisition Regulation (FAR) Part 23.1 addresses the policy on sustainable acquisition. It states that, "Federal agencies shall advance sustainable acquisition by ensuring that 95 percent of new contract actions for the supply of products and for the acquisition of services . . . require that the products are energy efficient . . . water-efficient, bio-based, environmentally preferable . . . non-ozone depleting, or made with recovered materials." There are several clauses DoD requires in applicable government contracts, including FAR 52.223-15, Energy-Efficiency in Energy Consuming Products; FAR 52.223-10, Waste Reduction Program; FAR 52.223-11, Ozone-Depleting Substances; and FAR 52.223-5, Pollution Prevention and Right-To-Know Information.

In October 2011, DoD also created policy providing that sustainability attributes shall be reported to the Federal Procure-



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DoD is looking for ways to reduce its use of hazardous chemicals. In 2008, the department released the Toxic and Hazardous Chemicals Reduction Plan which addresses the selection, management, use, and disposal of chemicals. This plan requires DoD to evaluate the environmental, safety, and occupational health of chemical usage.

In addition to controlling hazardous waste, DoD is providing measures to manage nontoxic types of pollution that contribute to global warming. One such chemical that is not toxic but has 23,000 times more global warming potential than carbon dioxide is sulfur hexafluoride. Sulfur hexafluoride is used in DoD's Airborne Warning and Control System radar systems. DoD is researching ways to reduce, capture, and recycle sulfur hexafluoride. DoD also is looking for alternatives to this chemical.

Executive Order 13514 requires federal agencies to promote pollution and hazardous waste material prevention. It states that agencies shall deter 50 percent of nonhazardous solid waste by FY2015. It also states that printing paper usage shall be reduced by 30 percent. Further, it requires a reduction in the quantity of toxic and hazardous materials and requires agencies to increase usage of acceptable alternative chemicals.

ment Data System (FPDS). FPDS is a reporting system that collects data on contract awards. These data are provided to the president, Congress, the Government Accountability Office (GAO), federal executive agencies, and the general public. These data measure and assess the effect of federal contracting on the nation's economy. By requiring sustainability attributes to be reported in this system, the government can see whether progress is made toward sustainment goals.

### **Conclusion**

Sustainability of the essential resources of energy, land, air, and water is critical to the nation's security. The government has begun looking more deeply into energy efficiency and greenhouse gas pollution prevention, water conservation and protection, and pollution and hazardous waste management. DoD has established goals for reducing usage of vital resources through the its SSPP and Executive Order 13514. By implementing new policies and procedures to protect resources, DoD will address current and emerging mission needs in order to meet future challenges. 

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