



# Sustainable Procurement Support and Green Product Demonstrations at DoD Installations

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# Background and Objective



- All Services within the Department of Defense (DoD) are required to improve their sustainable procurement performance
  - Comply with federal regulations, Executive Orders (EOs) and directives
  - Reduce dependency on foreign oil; reduce supply vulnerabilities.
- Improving sustainable procurement practices throughout DoD facilities will:
  - Enhance mission readiness while protecting human health and the environment
  - Generate savings over the life cycle of green/sustainable products.
  - Expand market for green products



# Sustainability Overview



DoD vision: Adopt sustainable practices and incorporate sustainability into decision-making to better ensure the ability to operate into the future without decline – either in the *mission* or in the natural and manmade systems that support it.

- The DoD must plan for and act in a sustainable manner now in order to build an enduring future of the DoD mission
- The Strategic Sustainability Performance Plan (SSPP) is a critical enabler in the performance of the DoD mission




[www.denix.osd.mil/sustainability/](http://www.denix.osd.mil/sustainability/)

# SSPP 2012 Objectives and Goals



**OBJECTIVE 1**  
*Continued Availability of Critical Resources*

- **Goal 1 – Use of Fossil Fuels Reduced**
- Goal 2 – Water Resources Management Improved



**OBJECTIVE 2**  
*DoD Readiness Maintained in the Face of Climate Change*

- Goal 3 – Scope 1 & Scope 2 GHG Emissions Reduced 34% by 2020, relative to FY08  
Scope 3 GHGs reduced 13.5% by 2020, relative to FY08



**OBJECTIVE 3**  
*Minimize Waste and Pollution*

- **Goal 4 – Solid Waste Minimized and Optimally Managed**
- **Goal 5 – Chemicals of Environmental Concern Minimized**



**OBJECTIVE 4**  
*Decisions and Practices Built on Sustainability & Community*

- **Goal 6 – Sustainability Practices Become the Norm**

## Sub-Goal 6.1 — 95% of Procurement Conducted Sustainably

September 24-26, 2012 • Marriott Wardman Park • Washington, DC  
[www.GreenGov2012.org](http://www.GreenGov2012.org)



### ■ Sustainable Procurement Components:

- Recycled content products
- Energy Star® and energy-efficient products
- Alternative fuel vehicles/alternative fuels
- Biobased products
- Non-Ozone Depleting Substances (ODSs)
- Environmentally Preferable Products (EPP)
- Low or non-toxic or hazardous chemicals
- Electronics with environmentally preferable attributes
- Water efficient products
- Renewable energy sources
- Sustainable building materials





# Installation Sustainability Survey



- DoD developed a Site Survey to collect information on:
  - Installations sustainable product usage, purchasing methodologies and reporting practices
  - Potential needs for sustainable alternatives to non-green products
  - Local successes and lessons learned in sustainable procurement
- Survey participants include:
  - Installation Environmental, Supply and Procurement Personnel
  - Product end users to include installation maintenance and repair facilities (public works, motor pools, etc.)
- Based on information collected in surveys, sustainable product need areas will be identified for regional pilot demonstrations.

# DLA Green Product Evaluations and Demonstrations

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- This program identifies and evaluates green products as alternatives to existing non-green products
- Before green products are used by the DoD, their performance must meet or exceed current “brown” product performance.
- Collect and evaluate green product technical information versus applicable Government specifications and end users requirements
- Perform tri-service demonstrations of sustainable / green products at DoD facilities.

# Biobased Penetrating Lubricant Demonstrations

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- Demonstrated products meet the requirements of Commercial Item Description (CID) A-A-50493. CID was revised to add Class A – Biobased
- Demonstrated products meet the USDA BioPreferred minimum biobased content of 68%
- Biobased products are a biodegradable alternative to petroleum based total loss lubricants
- New “green” National Stock Numbers (NSNs) have been established for biobased penetrating lubricants



TACOM, Fort Jackson

Product Size	NSN
11 oz. Aerosol Can	9150-01-591-4274
12 oz. Spray Bottle	9150-01-598-9606
1 Gallon	9150-01-591-4247
55 Gal Drum	9150-01-591-4281



Naval Weapons Station, Joint Base Charleston



# Biobased Sorbent Demonstration



- Demonstrated biobased sorbents performed better than clay based sorbents.
  - Increased efficacy – less residue, faster absorption
  - Higher absorption ratio – less sorbent product required
  - Less waste generation – reduces waste disposal costs
  - Biodegradable and bio-remediation of absorbed hydrocarbons – composting or biopile application
  - High fuel (BTU) value - potential for waste-to-energy
- Participants preferred the performance of biobased sorbents to clay sorbents
- Based on demonstration feedback, one manufacturer redesigned their product to meet the needs of installation personnel.
- Biobased sorbents have been implemented at several installations.



Exercise Support Division  
MCAGCC 29 Palms



Logistics Readiness Squadron  
Joint Base Charleston

# Compostable Food Service Ware



- Disposable food service ware and food waste are a significant percentage of the solid waste stream at DoD installations.
  - Due to food waste contamination, the recycle rate of food service ware products is low (<8%).
  - Several municipalities are prohibiting the use of polystyrene foam and non-compostable food service ware.
- The implementation of biobased compostable food service ware will allow DoD installations to compost disposable food service ware and food waste, diverting a significant waste stream.
- Joint Base Lewis McChord (JBLM) and NAS Whidbey Island (NASWI) were chosen as demonstration sites.
  - JBLM demonstration sites: Olympic Dining Facility and Madigan Army Medical Center
  - NASWI demonstration sites: NASWI Galley, Navy Exchange, and Morale, Welfare, and Recreation (MWR) food service.
- Working with DLA, food service ware requirements were identified, alternative biobased compostable food service ware items have been selected, and demonstration planning is underway.



# Biobased Hydraulic Fluid Demo



- The implementation of biobased hydraulic fluid can reduce dependency on petroleum-based products and lessen the environmental impact of hydraulic fluid spills.
- MCMWTC Bridgeport was chosen as a demonstration site due to the availability of demonstration equipment, wide operational temperature range, and environmentally sensitive location. MCMWTC Bridgeport is located in the Humboldt-Toiyabe National Forest.
- Heavy equipment identified for the demonstration includes wheel loaders, motor graders, TRAMs, bulldozers, backhoes, dump trucks, and Sno-Cats.
- Original Equipment Manufacturers determined performance requirements for alternative biobased hydraulic fluids.
- Biobased hydraulic fluid manufacturers identified candidate fluids for demonstration.
- Biobased hydraulic fluids will be demonstrated in equipment for approximately one year to determine performance through the climate cycle.

# Path Forward



- Pursue new projects with Military Services that will accelerate the identification of sustainable substitutes and alternatives.
- Continue the identification, evaluation and demonstration of sustainable alternatives at DoD installations.
- Work with Services to facilitate the development of new National Stock Numbers (NSNs) for Green Alternatives



[www.aviation.dla.mil/ExternalWeb/UserWeb/aviationengineering/BUY\\_GREEN/](http://www.aviation.dla.mil/ExternalWeb/UserWeb/aviationengineering/BUY_GREEN/)

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