# Department of Defense Sustainable Procurement Policies and Supportive Initiatives

Mr. David Asiello
Environmental Readiness and Safety Directorate
ODUSD (Installations & Environment)

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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; and lessen DoD's environmental impact.
- Improving sustainable procurement practices throughout DoD facilities will:
  - enhance mission readiness while protecting human health and the environment
  - further incentivize the sustainable economy.

# 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 manufactured systems that support it.


Photo: SprayTec Coating Solutions, LLC

# Sustainability Executive Orders



- Executive Order 13514 represents a decisive move by the Obama Administration to instill sustainability into government operations

"As the largest consumer of energy in the U.S. economy, the Federal government can and should lead by example when it comes to creating innovative ways to reduce greenhouse gas emissions, increase energy efficiency, conserve water, reduce waste, and use environmentally - responsible products and technologies"

*Pres. Obama's Remarks on EO 13514, 5 October 2009*

# Relation of Sustainability to DoD Mission



## Energy and Reliance on Fossil Fuels

- Risk to forces delivering fuel
- Insecurity & volatility in supply & price
- Vulnerability of electrical grid

## Potable Water Resources

- Risk to forces delivering water
- Essential ingredient for military operations, human health
- Scarcity exacerbates tensions in regions prone to conflict
- Reliability can effect base operations and fielding choices

# Relation of Sustainability to DoD Mission



## Toxic and Hazardous Materials

- Harms the health of humans & ecosystems
- Impairs readiness
- Increases cleanup & handling costs
- Additional operational restrictions
- Hampers the continued availability of mission critical chemicals

## Vulnerability to Climate Change

- Can limit outdoor training
- Reduces fresh water supply
- Sea level rise affects infrastructure and diversity of training habitats
- Damages ecosystems
- Increases smog (ozone)
- Strains electricity supply
- Causes vector borne diseases
- Increases frequency & intensity of wildfires

# DoD and Sustainability



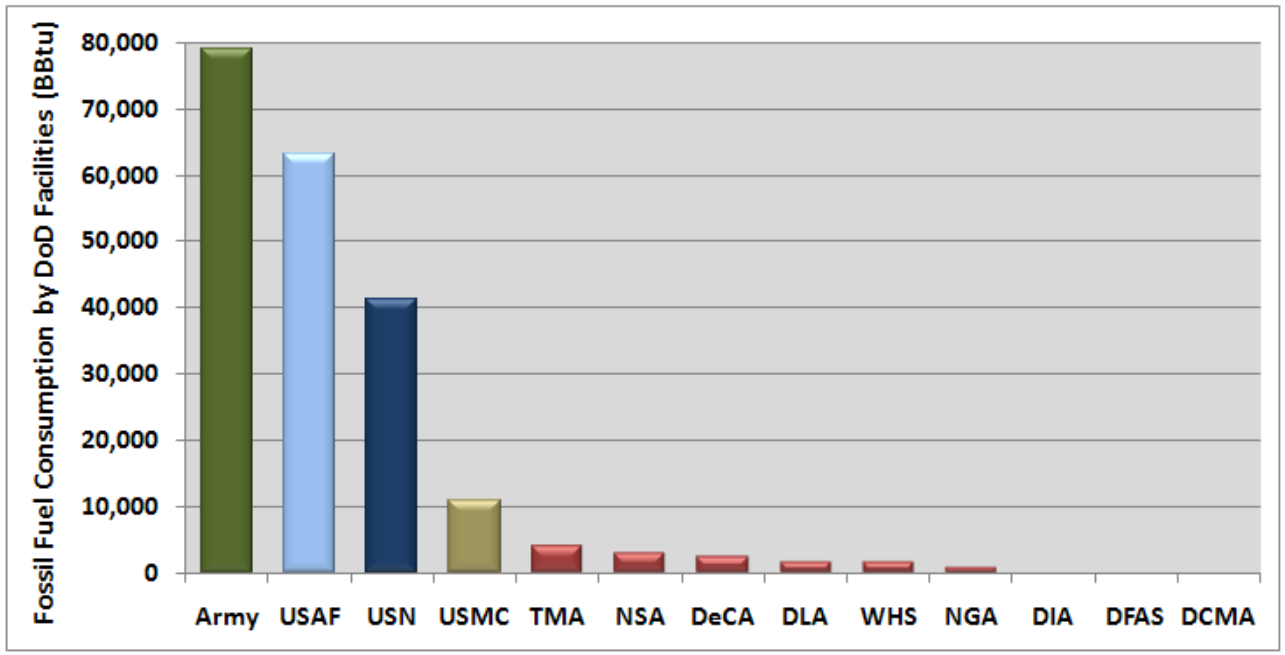
- DoD embraces sustainability as a means of improving the mission
- The DoD must plan for and act in a sustainable manner now in order to build an enduring future
- The Strategic Sustainability Performance Plan (SSPP) is a critical enabler in the performance of the DoD mission

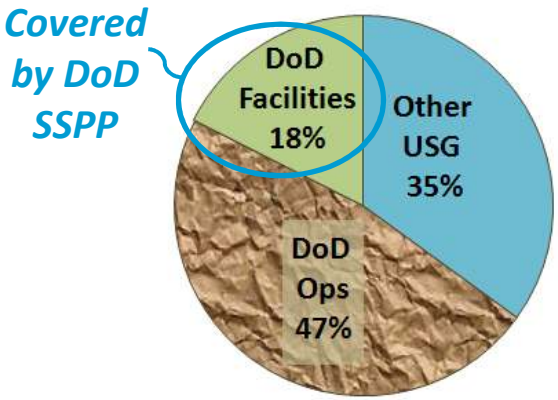
# Size and Scope of DoD



**31 DoD Components:** Military Departments + 28 others

- # Buildings (owned+ leased): > 300,658
- # Vehicles (non-tactical): >197,000
- # Locations (global): 5,000
- Fossil-Fuel Use (facilities): >200 Billion Btu



# DoD's Strategic Sustainability Performance Plan (SSPP)

Acquisition, Technology and Logistics

## Built on 4 Key Mission-Oriented Themes

# Sustainable Procurement Drivers



- **There are significant "Regulatory Drivers"**
  - Farm Security and Rural Investment Act (2002), Section 9002
  - Section 104 of the Energy Policy Act (EPAct) (2005)
  - Resource Conservation and Recovery Act, Section 6002
  - Federal Acquisition Regulation (FAR)/Defense Federal Acquisition Regulations Supplement (DFARS)
  - E.O. 13423, Strengthening Federal Environmental, Energy, and Transportation Management (2007)
  - E.O. 13514, Government Agencies and Employees, Environmental, Energy, and Economic Performance (2009)
- **But most importantly are the "Mission Drivers"…**
  - Can help effective operational performance
  - Can improve availability of mission-oriented products
  - Can reduce energy dependence - specifically on foreign oil
  - Can reduces life cycle cost

# DoD and Sustainable Procurement



- DoD has been a leader in sustainable procurement
  - The first agency to establish a Green Procurement Program (GPP) in 2004
  - The objective of the DoD GPP is to achieve 100% compliance with mandatory federal green procurement programs in all procurement transactions

Bridge made of recycled plastic

# Sub-Goal 7.1 — 95% of Procurement Conducted Sustainably



- 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 attribu
  - Water efficient products
  - Renewable energy sources
  - Sustainable building materials



# Advantages of Implementing Sustainable Procurement



- Protection of the environment and increased safety to personnel
- Improved mission performance/readiness
- Meeting green procurement goals
- Reporting Sustainable Procurement for DoD Sustainability Scorecard
- Savings to the Government over the life cycle of efficient/environmentally friendly products.




# Green Product Evaluation and Demonstration Program

George Handy, CTC/NDCEE

# NDCEE / DLA Green Product Evaluations

- Before green products are utilized by the DoD, their performance must be proven to meet Government needs and requirements. The NDCEE and DLA Aviation are identifying and evaluating green products as alternatives to existing petroleum based and non-green products

# NDCEE Mission

- Supporting sustainability and readiness through:
  - Research, development, and test efforts to identify available ESOHE alternatives
  - Demonstration, validation, and transition of technologies to defense installations, industrial activities, and private industry
  - Training that supports the fielding of new, validated technologies

## *A Message From the Executive Agent*

*""The NDCEE is a valuable resource to the DoD, as well as to other federal agencies, providing mission-driven solutions that reduce total ownership costs and fulfill environmental, safety, occupational health, and energy (ESOHE) requirements. As a force multiplier, the NDCEE identifies, researches, demonstrates, validates, and transitions emerging and existing technologies that address ESOHE challenges faced by the operational force, installation management, and training and acquisition programs. Its mission is well-aligned with net zero energy, water, and waste objectives. The NDCEE also strives to improve the health and safety of military and civilian personnel, ensuring readiness and further reducing costs. Prospective DoD and other federal client offices will find that the Army's partial underwriting of the NDCEE is an effective leveraging opportunity to research and validate high-impact ESOHE technology solutions."*

***Hershell "Hew" Wolfe, DASA-ESOH & NDCEE Executive Agent***

# DLA Aviation Hazardous Minimization and Green Products Branch

- Defense Logistics Agency (DLA) Aviation formed the Hazardous Minimization and Green Products Branch based at Defense Supply Center Richmond (DSCR) (established March 2009)
- Mission – Facilitate the increased availability and use of green products by DLA Aviation customers
- Primary Product Lines –
  - Federal Supply Classes:
    - 4235 – Hazardous Materials Spill Cleanup Equipment
    - 6810 - Chemicals
    - 6850 – Miscellaneous Chemical Specialties
    - 9150 – Oils, Greases: Cutting, Lubricating and Hydraulic
- Initiatives –
  - Green Products and Services
  - Hazardous Minimization
  - Continual Process Improvement

# Approach

- Identify biobased product manufacturers and collect technical product information for biobased product categories designated by the Federal BioPreferred Program relevant to products managed by DLA.
- Evaluate biobased product technical information versus the requirements of applicable Government specifications and identify products as potential alternatives to petroleum based and non-biobased products.
- Perform outreach to DoD facilities to identify currently used green products and to identify opportunities to evaluate green alternatives to the currently used non-green products.
- Perform tri-service demonstrations of green products at DoD facilities.

# Accomplishments and Results

| Biobased Product Item Category | Number of Products Evaluated | Number of Manufacturers Participating |
|---|---|---|
| Hydraulic Fluids | 80 | 19 |
| Diesel Fuel Additives | 11 | 7 |
| Penetrating Lubricants | 16 | 10 |
| Metalworking Fluids | 62 | 8 |
| Sorbents | 72 | 17 |
| Adhesive and Mastic Removers | 25 | 19 |
| Greases | 18 | 5 |
| Glass Cleaners | 11 | 11 |
| Firearm Lubricants | 8 | 2 |
| Chain, Cable, and Gear Lubricants | 33 | 13 |
| Corrosion Preventatives | 19 | 10 |
| Industrial and Multipurpose Cleaners | 114 | 40 |
| Parts Wash Solutions | 22 | 9 |
| Heat Transfer Fluids | 11 | 6 |
| Slideway Lubricants | 4 | 2 |
| Multipurpose Lubricants | 14 | 12 |

**Total of 520 products evaluated**

# Accomplishments

- NDCEE Tasks
  - Performed outreach to DoD facilities to determine current green product usage and identify potential areas to demonstrate alternatives to currently used non-green products.
  - Demonstration of biobased penetrating lubricants and biobased sorbents conducted at Ft. Jackson, Ft. Bragg, Ft. Meade, South Carolina Army National Guard (SCARNG), Joint Base Charleston (JBC), Marine Corps Recruit Depot (MCRD) Parris Island, Naval Hospital Beaufort (NHB) and the Pentagon.

Logistics Readiness Squadron
Joint Base Charleston

# Biobased Penetrating Lubricants Demonstrations

- Biobased penetrating lubricants were demonstrated at Fort Jackson, SCARNG, JBC, MCRD Parris Island, NHB and the Pentagon.
- Demonstration are in progress at Fort Bragg and Fort Meade.
- Products meet the requirements of A-A-50493.

TACOM, Fort Jackson

Naval Weapons Station, Joint Base Charleston

# Biobased Sorbent Demonstrations

- Biobased sorbent products from five manufacturers were demonstrated at Fort Jackson, SCARNG, JBC, MCRD Parris Island, NHB and the Pentagon.
- Demonstration are in progress at Fort Bragg and Fort Meade.

Wheeled Vehicle Mechanic School, Fort Jackson

Vehicle Maintenance -Logistics Readiness Squadron Joint Base Charleston

# Path Forward

- Continue to pursue new projects with Military Services and Agencies that will accelerate the identification of green substitutes and alternatives.
- Work with Services to facilitate the development of new National Stock Numbers (NSNs) for Green Alternatives
- Support Acquisition Policy and Cataloguing Communities in developing new processes and cataloging strategies.

National Defense Center for Energy and Environment

**DoD Executive Agent**

Office of the Assistant Secretary of the Army Installations, Energy and Environment

www.ndcee.ctc.com

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