

DoD Executive Agent

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

Sustainable Procurement for Military Installations

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The NDCEE is operated by:  *Concurrent Technologies Corporation*

Technology Transition – Supporting DoD Readiness, Sustainability, and the Warfighter

BLUF

- 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
- The goal of this project is to:
 - increase Tri-Service procurement of green alternatives
 - raise awareness of DoD's Green Procurement Program (GPP) and Strategic Sustainability Performance Plan (SSPP)
 - assist DoD in identifying ways to improve tracking and reporting of sustainable procurements at the installation level.

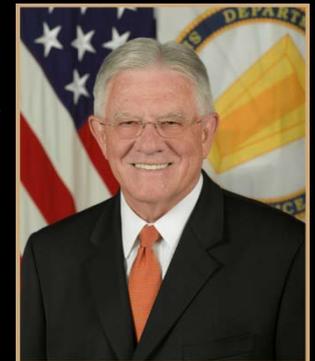
NDCEE Mission

- 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.”

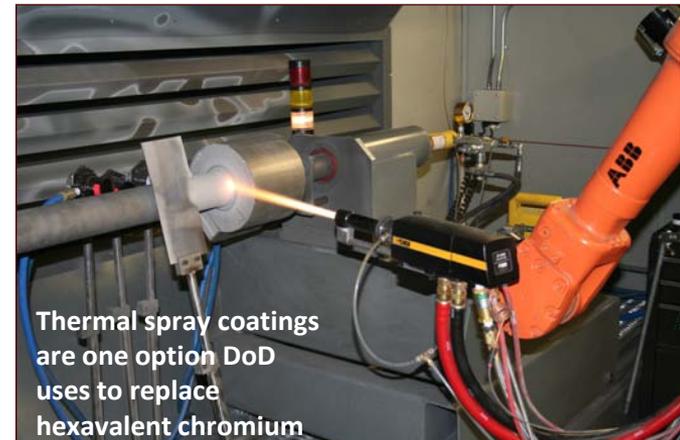
**Hershell
“Hew” Wolfe,
DASA-ESOH
& NDCEE
Executive
Agent**



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.



Thermal spray coatings are one option DoD uses to replace hexavalent chromium

Photo: SprayTec Coating Solutions, LLC

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



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



Sustainability Executive Orders

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



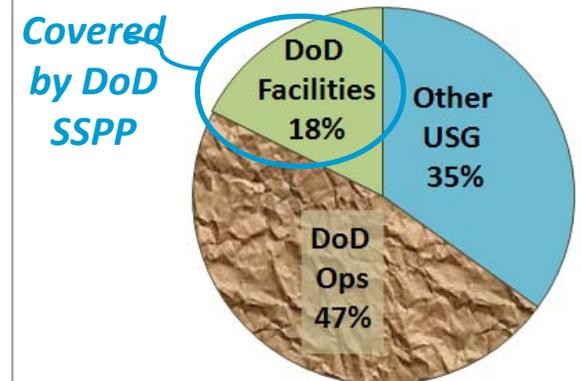
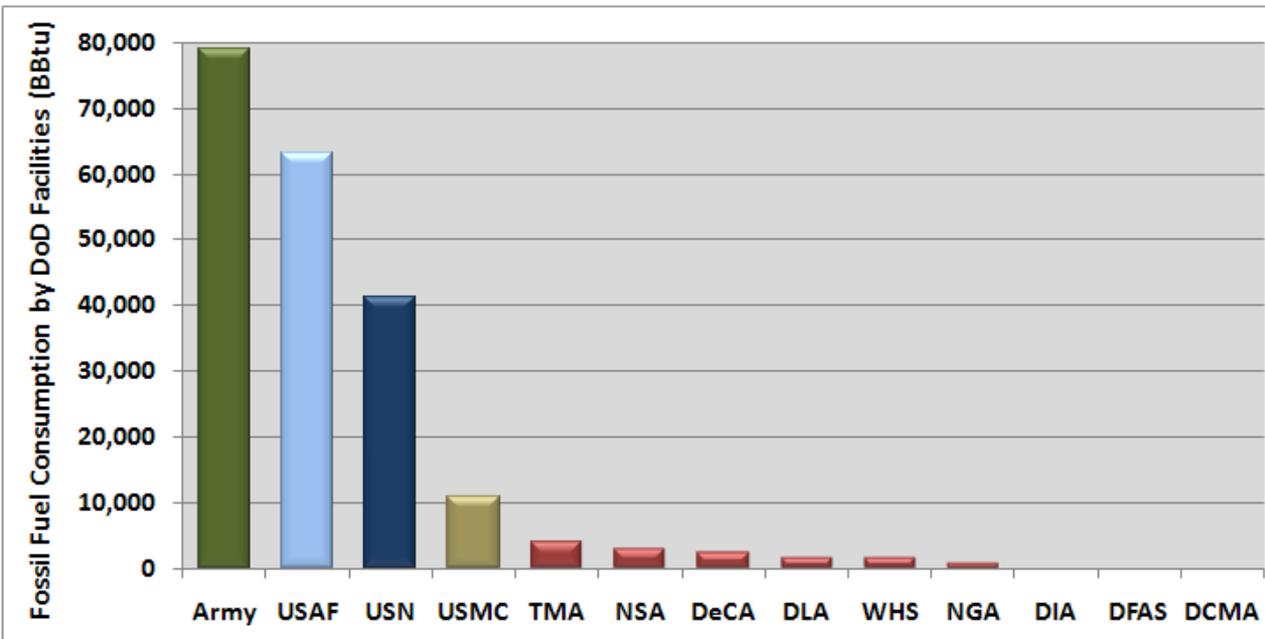
"As the largest consumer of energy in the U.S. economy, **the Federal government can and should lead by example** when it comes to **creating innovative ways** to reduce greenhouse gas emissions, increase energy efficiency, conserve water, reduce waste, and use environmentally - responsible products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

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

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)

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 (EPAAct) (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 attributes
 - 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.



NDCEE Task: Site Survey

- A Site Survey will be developed to collect information on:
 - Installations current 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
- Potential survey participants may include:
 - Installation Environmental Personnel
 - Supply and Procurement Personnel
 - Higher headquarters, regional, and installation level offices and organizations responsible for sustainable procurement
 - Product end users to include installation maintenance and repair facilities (public works, motor pools, etc.)

NDCEE Task: Regional Pilot Demonstrations

- Based on information collected in surveys and site visits sustainable product need areas will be identified for regional pilot demonstrations.
 - Identify target performance requirements
 - Identify and evaluate alternative sustainable green products versus target requirements
 - Demonstrate products in an operational environment



National Defense Center for
Energy and Environment



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www.ndcee.ctc.com

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