Sustainable Infrastructure in the Department of Defense

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ODUSD(I&E)/EM
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# Sustainable Infrastructure in the Department of Defense

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Same as Report (SAR)

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Standard Form 298 (Rev. 8-98)
Prescribed by ANSI Std Z39-18
What is Sustainability ???

At the Federal level

- Vision: … create a clean energy economy to increase National prosperity, promote energy security, protect taxpayer interests, and safeguard our environment …

- Definition: … create/maintain conditions where humans and nature can exist in productive harmony, that permit fulfilling the social, economic, and other requirements of future generations

DoD definitions (note the mission focus!!!)

- DoD Dictionary (Joint Pub 1-02): Ability to maintain the necessary level and duration of operational activity to achieve military objectives

- Unified Facilities Criteria: Capacity to continue the mission without compromise … operate into the future without decline – either in the mission or the natural and man-made systems that support it

DoD sees a strong linkage between Sustainability and accomplishing our nation’s military objectives
Sustainability – Mission
The Linkup

- Sustainability enhances DoD operational capability
  - Energy conservation & renewable energy reduce grid dependency & promote energy security; secures warfighter reachback
  - Reduced installation operational costs increases funds available for direct mission needs

- Sustainability reduces DoD operational risk
  - Low fuel appetite = Fewer convoys
  - Fewer convoys = Less risk
  - Fully burdened cost of fuel
    - Includes cost to get fuel to fight; some estimates say $400/gal
    - Iraq, May ’08; 44 tanker trucks, 220Kgal lost to insurgent attacks
    - What about casualties???
Executive Order 13514

- Drives each Agency to build a Strategic Sustainability Performance Plan (SSPP)

- Agency Goals
  - Set scope 1 & 2 Greenhouse Gas (GHG) emission reduction target
  - Set scope 3 GHG emission reduction target
  - Accomplish comprehensive GHG emissions inventory
  - Advance regional and local integrated planning
  - Improve water efficiency and management
  - Promote pollution prevention and eliminate waste
  - Implement high performance sustainable buildings
  - Advance sustainable acquisition
  - Promote electronics stewardship
  - Sustain environmental management – EMS

Also in EO 13423
EO 13514 focuses on GHG emission reductions
- DoD Scope 1 & 2 target: 34% reduction by 2020

How will we get to 34% ???
- Reduce installation energy consumption 30% by FY15 (EISA reqmt), 37.5% by FY20
- Reduce transportation fuels use 18% by FY20
Reduce facility energy consumption 30% by FY15, 37.5% by FY20

- DoD Energy Intensity

Will the current level of investment in ECIP/ESPC/UESC be enough to get to 37.5% energy reduction by FY2020???
DoD Sustainable Infrastructure
Other Challenges

- 15% of existing DoD bldgs (>5kSF) conform to the Guiding Principles (GP’s) by FY15
  - DoD bldgs >5Ksf = 75,740;
    15% = 11,361 bldgs
  - Pushes whole bldg renovations; bldg must meet all GPs to be conformant
  - Not “standard,” entire bldg rarely renovated all at once; HVAC/electrical commonly left out
  - Meeting goal w/o SRM increase reduces flexibility for commanders

- EO directs continual progress to GP conformance for 100% of DoD bldgs
Must get immediate handle on training our “sustainability practitioners!”

- Our bldg maintainers should be as smart about sustainable systems as our engineers
- No good to build to the GP’s, LEED-Silver if our people can’t keep the systems at optimum efficiency
USD(AT&L) is the DoD Senior Sustainability Officer

USD(AT&L) set up Senior Sustainability Council; DUSD-level; first meeting was May 17th

DoD Strategic Sustainability Performance Plan (SSPP) describes how DoD will execute EO 13514 agency goals

- Success will require some level of budget transformation
- FY12 budget pretty much done
- OMB says – Tell us how much it will cost, we’ll help you find $$$

DoDI to follow and codify sustainability policy

SSPP review annually
DoD Sustainable Infrastructure
Action Plan

➢ DoD Sustainable Infrastructure Policy
  ♦ “50,000 foot level;” avoids major redirect to DoD Components; drives DoD to green building renovation and O&M (GP’s & LEED!!)
  ♦ Stands up Infrastructure Sustainability Council
  ♦ Dovetails with DoD SSPP goals

➢ Defense Sustainable Infrastructure Plan (DSIP)
  ♦ Fleshes out the Sustainable Infrastructure pieces of DoD SSPP
  ♦ To use Defense Installations Strategic Plan (DISP) as basis

➢ EXECUTE!!!
Federal Sustainability and the DoD

- Over 3M people (nation’s largest employer)
  - 1.3M active duty military
  - 684K civilian employees
  - 1.1M Guard/Reserve

- Operating in
  - All 50 States & 7 US territories
  - More than 160 countries

- US single largest energy user
  - ~0.9% of U.S. energy
  - ~80% of federal energy

- Lots of Buildings
  - 307K bldgs; ~75% of Fed bldgs
  - >2.2B SF; ~67% of Fed footprint
  - Replacement value >$720B; ~47% of Fed Govt repl value
  - ~1/3 of DoD bldgs >50 yrs old
  - By 2025, 2/3 of DoD bldgs will be >50 yrs old

- 28.6M acres
  - 593 installations & 5,579 sites
  - If DoD were a state, we’d be as large as …

The success of Federal sustainability efforts depend on DoD success!!!
Questions

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