



Department of Defense Installations Energy

Making a Case for an Energy Security Strategy in an Energy-Climate Change Era

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Report Documentation Page

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What Is Needed?

- **A realistic energy vision for DoD and America**
 - Reduces demand, increases supply, enhances capabilities, fully supports climate change, enhances security, and changes culture
- **A comprehensive energy security strategy:**
 - Installations and operations
 - Goals and objectives
 - A tactical implementation plan
 - OPRs and OCRs
 - A challenging but realistic timeline
 - Metrics
 - Decision tools and real-time data
 - Partnerships (DoD + DoE + DoI + EPA + DoA + DoT + Industry)
 - Led by people w/vision, consensus builders & possess the courage to act
- **Supported by DoD leadership**
- **Supported with funding / resources to execute it!!!**



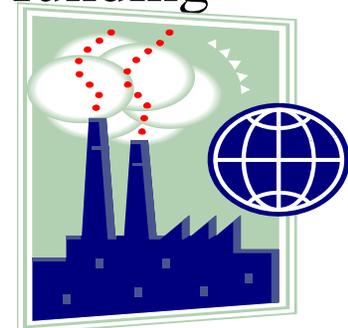


What are the elements of a strategy?

- Combining People and Programs:
 - Education and behavioral changes
 - Energy conservation / Water conservation
 - Energy efficiency (go beyond 30%)
 - Rapid expansion of renewable energy sources
 - Increasing alternative fuels
 - Reducing fossil fuel use
 - Greenhouse gas reductions
 - Increasing R&D funding and Test & Evaluation funding
 - Create more opportunities for new solutions
 - Creating eco-friendly “green” workforce
 - Demonstrating Global Leadership



Everywhere!



Creating an Energy Security and Climate Change Action Plan



Characteristics of Energy Security

- **Surety**
 - **Sufficiency**
 - **Survivable**
 - **Sustainable**
 - **Cyber Secure**
 - **Safely Operated**
 - **Storage**
 - **Standards**
 - **Scalable**
 - **Severable (Switch gear)**
 - **Smart Grid**
 - **System Controls/System Designs**
 - **Satisfies Risks**
 - **\$\$\$ - Cost Feasible**
- DoD Facilities energy security encompasses sufficiency, surety, and sustainability. Above all, energy security means having adequate power to conduct critical missions for the duration of that mission (sufficiency). Secondly, and leading to sufficiency, is ensuring resilient and redundant energy supplies that are accessible when needed (surety). Finally, the energy supplies must present the lowest life cycle cost, while considering all statutory and executive order requirements, as well as the impact to mission, community, and environment (sustainability).



Supporting Soldiers, Sailors, Marines and Airmen

Does this DoD definition of Energy Security make sense to you?



Energy Security

- How do we define and value Energy Security?
 - How does Energy Security fit into your energy equation?
 - Is Energy Security linked to Climate Change?
 - Do you know the costs of Energy Security in a low-carbon economy?
 - Is it an “insurance policy”?
 - Or is it a “capability” we can measure and establish value or worth?
 - Does it include sustainability and uses of renewable energy?
 - What are the environmental impacts and costs?
 - How is critical infrastructure addressed?
- These answers will lead us to a *decision matrix* and strategy for employment of renewable energy, partnerships, contracts, projects, and valuation of Energy Security in an integrated DoD approach that will show industry, state governments, other federal agencies, and the Congress, the purpose of our collective pursuit of energy security and the expansion of renewable energy and alternative fuels.

Requirement + Tech Solutions + \$\$\$ NRG Security = Value to Customers



Pricing Energy Security

- Determine local risks and the cost to DoD Assets / Capabilities
- Renewable energy costs vary by technology, location, availability, surety, existence of renewable portfolio standards, transmission infrastructure, etc.



- Compare with existing costs of conventional forms of energy
- Should consider base load power and storage
- Creates the potential for hundreds of energy security valuations
 - DoD has 534 major installations
- E-Security Policy considerations:
 - DRAFT: “Allow costs not to exceed 150% of current energy costs”
 - Rooted in sound life-cycle-cost economics and cost forecasting sources
 - Use all contract forms available to execute



An Energy and Climate Change Action Plan

- What is it?
 - A DoD Installations Energy Security Strategy and Implementation Plan
 - Establishing policy, goals, resources, reporting and programming guidance that complement White House, Congressional and National interests
 - Linking:
 - Defense Critical Infrastructure / Assets
 - Defense Installations Strategic Plans
 - Quadrennial Defense Report
 - Recommendations from the Defense Science Board 2008 Report
 - DoD Energy Security Strategic Plan (Draft 2009)
 - National Electric Grid knowledge (age, congestion, transmission, etc.)
 - DoD Renewable Energy Assessment
 - DOT/FAA jurisdiction for safe navigation
 - DOI/BLM interests in beneficial use, effective land mgmt and conservation
 - Military test and training national assets encroachments
 - Greenhouse Gas footprint and inventories
 - Technology successes from home-station to deployed installations
 - Sustaining Military Missions





MilDeps and Components

- The military departments have complementary energy strategic plans
- Components are developing their energy plans
- DoD Energy Security Strategy – In development
 - Led by OSD/DCMO
 - Lean, Six-Sigma project
 - Fast-track to deliver strategy by December 2009
 - Comprehensive blend of operational, installations, and future weapons systems development
 - Influenced by QDR, future force employment, basing, and future low-carbon economy



What is your definition of Energy Security?

Does the DoD approach towards Energy Security provide a framework for federal agencies and industry to create an energy security and climate change action plan that will make the United States the global “energy” leader and benefactor?





Plan Ahead

- For additional opportunities to discuss DoD and Federal energy issues, attend:



August 15-18, 2010 in Dallas, TX