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ENERGY FOR THE WARFIGHTER:
The DoD Operational Energy Strategy

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The Context: Strategic Environment

- Homeland Defense
- Cyber Threats
- WMD Proliferation
- Current Conflicts
- Humanitarian Assistance
- Rising Powers
The Context: Global Energy Supply

Dynamic energy markets have geopolitical, fiscal, and strategic implications

Sources: BP Statistical Review Year-End 2004 and Energy Information Administration; Environmental Action; BP Statistical Review of World Energy June 2011 Reserves-to-production ratios
The Context: Global Energy Demand

Historical and Projected Oil Consumption (1980-2035)
(million barrels per day)

- United States
- China
- India

Projected Oil Consumption (2015-2035)
(percent growth)

- United States: 10%
- India: 47%
- China: 69%

The Context: DoD Fiscal Challenges

Department of Defense Topline
FY 2001 – FY 2016
(Current Dollars in Billions)

FY 2010 – FY 2016 Base Growth
Nominal Growth 2.5%
Real Growth 0.5%

$450B +?
Energy for a Globally Active Force

Defense Fuel Supply Sales By Country
(January-April 2011)

- Greenland
  - 4.6M Gallons
  - $14.1M

- Germany
  - 54.4M Gallons
  - $164.4M

- Spain
  - 40.6M Gallons
  - $123.1M

- Italy
  - 14.6M Gallons
  - $44.4M

- Kyrgyzstan
  - 41.6M Gallons
  - $126.1M

- Afghanistan
  - 76.2M Gallons
  - $231.4M

- Iraq
  - 94.5M Gallons
  - $285.7M

- Qatar
  - 93.1M Gallons
  - $282.2M

- UAE
  - 65.0M Gallons
  - $199.0M

- Japan
  - 55.9M Gallons
  - $169.2M

- Guam
  - 18.4M Gallons
  - $55.6M

Vessels Afloat
- 168.6M Gallons
- $510M

1,538,127,144 Gallons of Fuel in 4 months
Getting Fuel to the Fight: A Strategic Challenge
Getting Fuel to the Fight: A Tactical Challenge

Supply Convoys Backed Up at Pakistan’s Torkham Gate

Bundles of fuel dropped from a USAF C-17 over Afghanistan, December 2010
Iraq & Afghanistan – 3,000 Army personnel or contractors killed or wounded between FY03-07 in attacks on water and fuel convoys

Afghanistan – One Marine wounded for every 50 convoys in 2010
Strategic Guidance on Energy

- **2011 National Military Strategy**
  - “Joint Forces must become more expeditionary in nature and will require a smaller logistical footprint in part by reducing large fuel and energy demands.”

- **Quadrennial Defense Review**
  - “Energy security for the Department means having assured access to reliable supplies of energy and the ability to protect and deliver sufficient energy to meet operational needs.”

“Our military leaders recognize the security imperative of increasing the use of alternative fuels, decreasing energy use, reducing our reliance on imported oil, making ourselves more energy-efficient.”

President Obama, March 31, 2010
GOAL: to assure that U.S. armed forces will have the energy they require for 21st century military missions

- More Fight, Less Fuel
  Reduce Demand for Energy in Military Operations

- More Options, Less Risk
  Expand and Secure the Supply of Energy to Military Operations

- More Capability, Less Cost
  Build Energy Security into the Future Force

[Diagram showing the relationship between Capability, Risk, and Cost]
More Fight, Less Fuel: REDUCING DEMAND
More Options, Less Risk: INCREASING SUPPLY
More Capability, Less Cost: THE FUTURE FORCE

Integrated Defense Acquisition, Technology, and Logistics Life Cycle Management System

Joint Capabilities Integration & Development System (need-driven)

Oversight & Review

Contracting

Major Products

Logistics/Sustainment

Defense Acquisition System (event-driven)

Technical Solution Analysis Phase

Technology Development Phase

Engineering & Manufacturing Development Phase

Production & Deployment Phase

Operations & Support Phase

Material Solution Analysis Phase

Technology Development Phase

Engineering & Manufacturing Development Phase

System Capability & Manufacturing Analysis (option phase)

Low-Rate Initial Production

Production & Deployment Phase

Financial Management

Planning, Programming, Budgeting & Execution Process (annual-calendar driven)

Acquisition

Cost

Office of the Secretary of Defense

Military Departments and Defense Agencies

Management Support

Procurement

Operations & Support

Integrated Defense, Technology, and Logistics Life Cycle Management System

Following the Material Development Decision, the Milestone Decision Authority may authorize entry into the acquisition process at any point, consistent with phase-specific entrance criteria and selecting requirements.
Energy as a Strategic Advantage for the Warfighter

- Fewer casualties from moving and protecting fuel.
- Improved range, endurance, and reliability of forces and equipment.
- Deploying some combat forces and capabilities away from supply lines to operational missions.
- Lightening the logistics load and reducing the vulnerability of fuel supply lines.
- Strengthening DOD’s resilience to energy price and supply volatility and disruption.
- Posturing the future force for success by better aligning resources to tactical, operational, and strategic goals.
- Building partner nation capacity by sharing improved operational energy capabilities.
- Contribute to national energy security goals, such as reducing reliance on fossil fuels, cutting greenhouse gas emissions, and stimulating innovation in the civilian sector.

What Does Success Look Like?