OFFICE OF THE ASSISTANT SECRETARY OF THE ARMY
(INSTALLATIONS & ENVIRONMENT)

ARMY ENERGY SECURITY

SURETY SUPPLY SUFFICIENCY SURVIVABILITY SUSTAINABILITY

Energy Security in a Global Context

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Caveat: Comments are those of the presenter and do not necessarily reflect official Army policy

ARMY UNIVERSE (as of 30 Sep 09)

Land Acreage
- United States 13,506,291
- Europe 139,981
- Asia 21,405
- Other Overseas 15,309

Roads (paved and unpaved)
- 59,286 Miles

Paved Area (excluding roads)
- 423 Million square yards

Railroads
- 2,522 Miles

Family Housing Units
- Owned 18,721
- Leased 8,544
- Privatized 86,092
- Conveyed 79,477

Barracks
Adequate Spaces
- Permanent Party 150K/167K
- Training 51K/115K
- ORTC 112K/253K

Plant Replacement Value
- $296B

Army Installations
- IMCOM 74
- Army Reserves 4
- National Guard 47
- AMC 30
- SMDC 1
- MEDCOM 2
- DLA 5
- TOTAL 163

Army Demographics
58% married
8.9% dual military
6.7% single parents
854,112 family members

Environmental Clean-up Remaining
(Installation Restoration Program & Military Munitions Response Program)
- Active Sites 1,327
- BRAC Sites 318
- Formerly Used Defense Sites 1,953

Army End-Strength
- Active 549,015
- USAR 205,297
- ARNG 358,391
- Civilians 245,248
- Retired 838,927

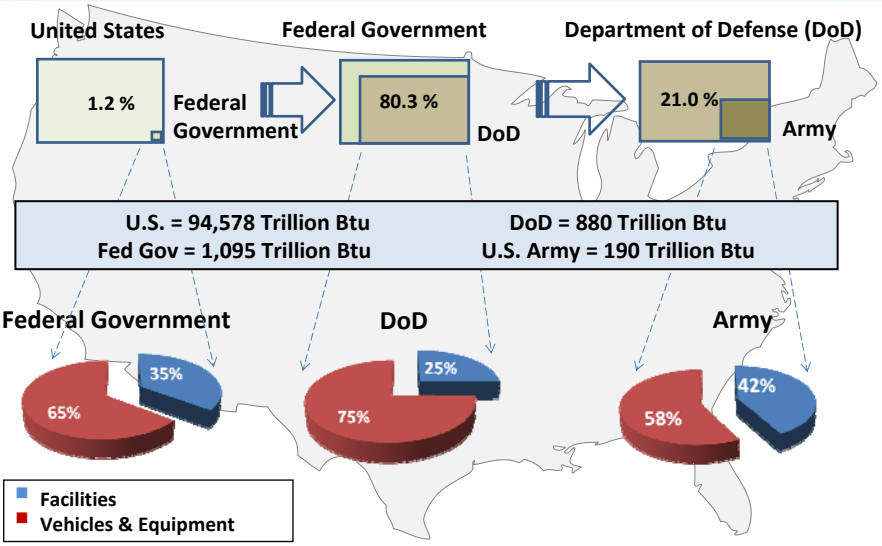
Airfield
- 145 Fixed Wing
- 738 Heliports

Buildings
(Million square feet)
- United States 796
- Europe 117
- Asia 34
- Other 7

Utilities
Electric, gas, water and sewer
- 68,613 Miles

FY09 Installation Management Resources = $28B
(Including $3B -American Recovery and Reinvestment Act Funding (ARRA))

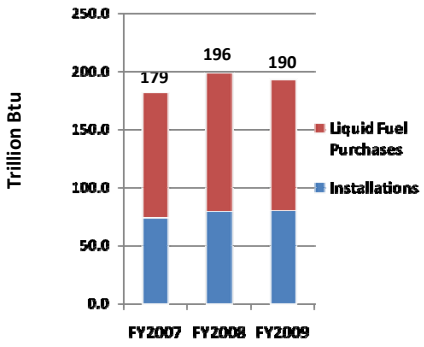
U.S. Army Energy Consumption, 2009



Source: Energy Information Agency, *Monthly Energy Review, May 2009;* Agency Annual Energy Management Data Reports (Preliminary 2009)

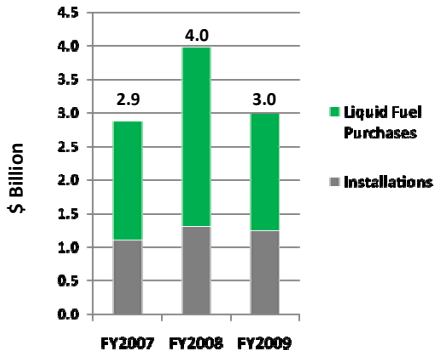
ARMY ENERGY CONSUMPTION & COST

Consumption & Fuel Purchases



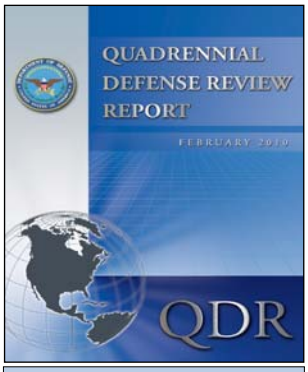
FY 2008 – FY 2009 Trillion Btu
Decrease = 3%

Cost



FY 2008 – FY 2009 Cost
Decrease = 25%

QDR, FEB 2010

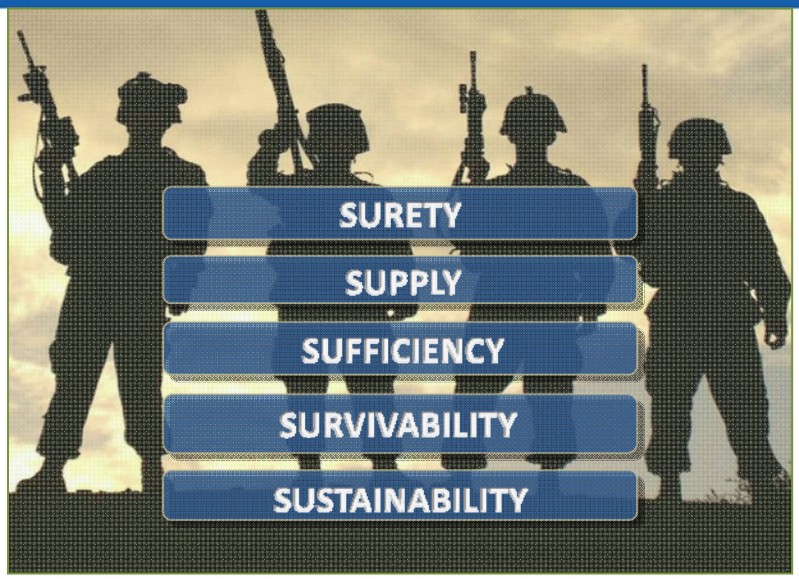


Focused on four specific issues where reform is imperative:
- security assistance
- defense acquisition
- defense industrial base
- **energy security** and climate change

Energy Security – *"assured access to reliable supplies of energy and the ability to protect and deliver sufficient energy to meet operational needs"*
- DoD will
  - conduct a coordinated energy assessment
  - prioritize critical assets
  - promote investments in energy efficiency
  - ensure that critical installations are adequately prepared for prolonged outages caused by natural disasters, accidents, or attacks
- Balance energy production and transmission to preserve test and training ranges and operating areas needed to maintain readiness

*"**Energy efficiency** can serve as a force multiplier, because it increases the range and endurance of forces in the field and can reduce the number of combat forces diverted to protect energy supply lines…"*

ENERGY SECURITY



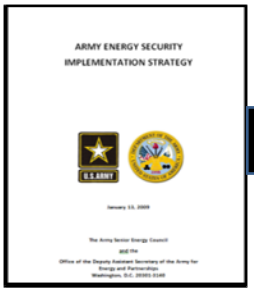
ARMY ENERGY SECURITY IMPLEMENTATION STRATEGY

Legislation
- EPAct 2005
- EISA 2007
- NDAA 2007

Executive Order
- EO 13423

OSD Policy
- DODI 4170.11, DOD Managers Handbook

Army Policy
- Army Regulation 420-1
- Army Energy & Water Campaign Plan



Army Senior Energy Council

Energy Security Goals (ESGs)

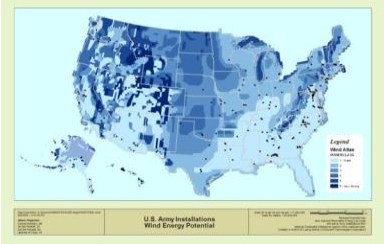
1. Reduce Energy Consumption
2. Increase Energy Efficiency Across Platforms and Facilities
3. Increase Use of Renewable / Alternative Energy
4. Assure Access to Sufficient Energy Supplies
5. Reduce Adverse Impacts on the Environment

SURETY SUPPLY SUFFICIENCY SURVIVABILITY SUSTAINABILITY

Renewable Energy Potential

SOLAR

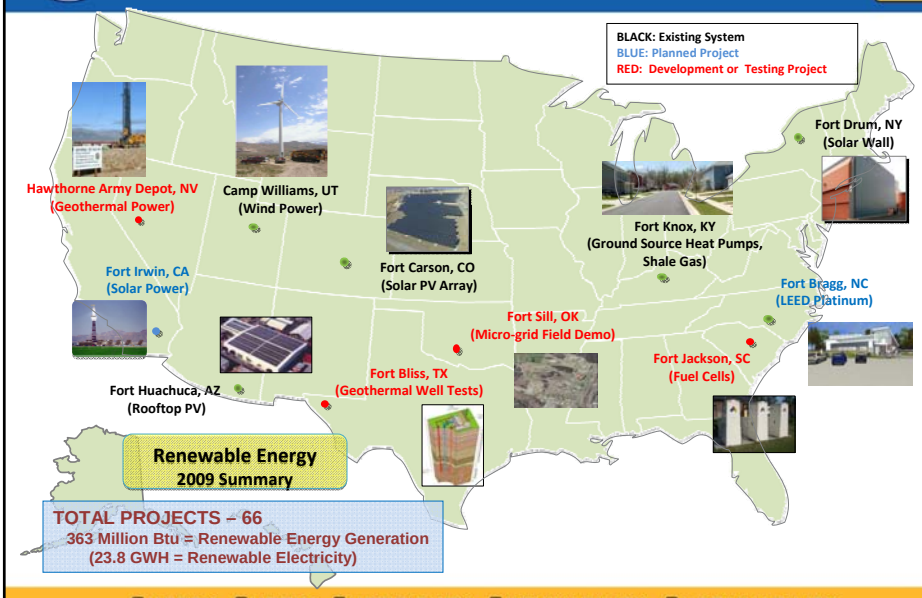
GEOTHERMAL



WIND

BIOMASS

Example Energy Security Projects & Funding Source



Deployed Operations – "Beans, Bullets and BTUs"

The Challenge

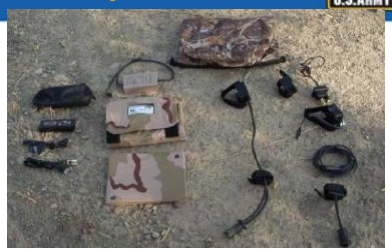
- Fuel logistics, management and protection are key for contingency operations

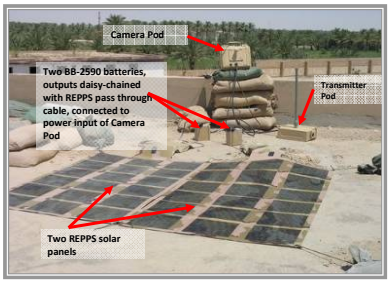
Key Energy Opportunities

- Distributed Generation
- Tactical Grid Management
- Renewable/Alternative Power
- Lightweight, Flexible, Structural, or Integrated Solar
- Alternative Fuels
- Standardized Deployable Kits
- High Efficiency Systems
- Leveraging Local Opportunities

Rucksack Enhanced Portable Power System (REPPS)

- Provides device power or battery recharging capability from solar, AC, Military Batteries, NATO plug, and Cigarette adapter.
- Provides continuous power for unattended ground sensors (UGS) and surveillance cameras.





Soldier Feedback:
"I wanted to thank you again for everything. The camera system [using a REPPS system for 24 hour operation] has been a huge success thus far and I believe has saved lives by keeping our soldiers out of harms way."
SPC Fiorino, David G.

Renewable Energy – Extend Mission Times, Lighten Soldier Loads, Reduce Logistics, Lower Costs

Conclusion

A New Energy for America's Expeditionary Army

- The ***Army is answering and leading*** the call to the nation "to face one of the great challenges of our time: confronting our dependence on foreign oil, addressing the moral, economic, and environmental challenge of global climate change, and building a clean energy future that benefits all Americans."
- ***Leveraging the inter-agency process*** to lead in the transformation of the ways we produce and use energy for the sake of our environment, our economy, and our security.
- Continue to ***lead by example in using public and private cooperation*** to meet our nation's security needs.

Thank You


Surety
Sufficiency
Survivability
Supply
Sustainability