



DON JUHASZ PE, CEM
CHIEF Energy & Utilities Policy
Office of Assistant Chief of Staff
for Installation Management





Behind the Wheel: Management Focus

Challenges To Managing The Future

- World population growing: 2006 = 6.5 Billion, by 2030 estimate is 7.9 Billion
- World oil demand up since 2000: Up 7 million barrels per day (mbd), 2 mbd increase in China, 1.4 mbd increase in India.
- Hurricanes Katrina and Rita shut down 27% of US oil refining capacity, production is still off 400,000 barrels per day.
- US oil imports increasing: 33% in 1973, 58% in 2006, current rate will require 70% by 2020.
- In 1973 North America consumed twice as much oil as Asia.
 In 2005 Asian consumption exceeded that in North America
- US oil consumption up: 20.7 mbd in 2004, 21.1 mbd in 2006.





Behind the Wheel: Management Focus

- Energy and Water is a \$1 BILLION Army program.
- Commodity prices are rising at an alarming rate
 - up 17% this winter per DOE Energy Information Administration
- Army Energy use is increasing, up 1.3 % over the last two years.
- In recent years, the Army has under funded the Utilities Services Account, forced cash flow FY04 of \$100M; FY05 \$215M
- No investment flexibility for energy improvements.

LOOMING FUEL CRUNCH + RISING PRICES +
INCREASING USE + NO ARMY INVESTMENT PROGRAM IN
UTILITIES MODERNIZATION

= RECIPE FOR DISASTER



Why an Energy Strategy?

EPACT 2005 requires a 2%/yr reduction from 2006 to 2015 using on 2003 baseline Baseline EPACT 05

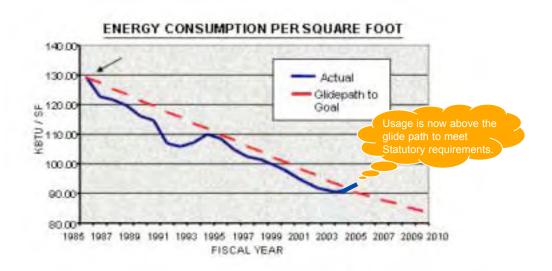
We expect 2005 energy consumption figures will show the Army increased energy use in FY 04 and FY 05. Despite this recent trend, overall we have reduced energy use by 28.8% since 1985.

Current trend caused by:

✓ Mobilization/ OPTEMPO

✓ Increased operations at
Reserve and Nat'l Guard
facilities

✓ Increased use of energy
inefficient facilities







Behind the Wheel: Management Focus

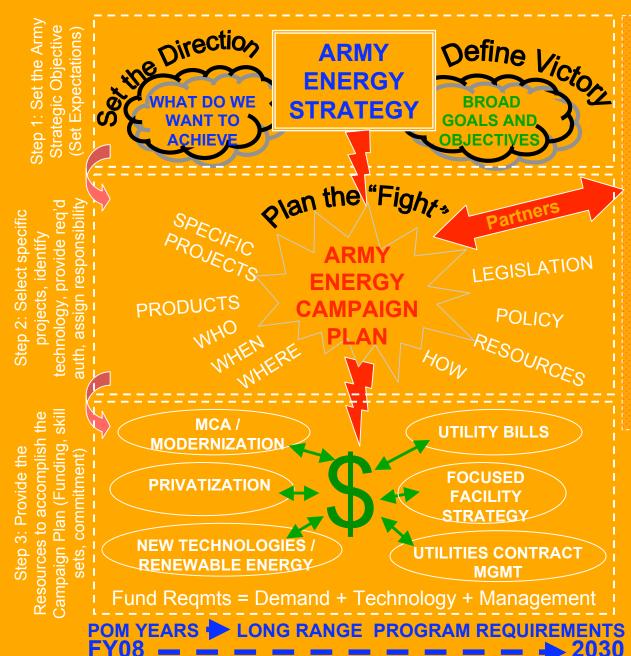
Army Energy Strategy for Installations

Approved by the SecArmy and Chief of Staff of the Army – 8 Jun 05

Establishes vision of Army Energy Program built on five initiatives:

- ✓ Eliminate energy waste in existing facilities;
- ✓ Increase energy efficiency in renovation and new construction;
- ✓ Reduce dependence on fossil fuels;
- ✓ Conserve water resources; and
- ✓ Improve energy security.

Next Step: Implement -- "Army Energy and Water Campaign Plan"



INVOLVE ALL STAKEHOLDERS

G-3 / OPMG – Priorities/Security

ACA/ASA(ALT) – Acquisition

USACE – Power Procurement

ABO/ASA(FM) - Resources

IMA – Installations

MACOMs – Major consumers

OSD – Overarching DoD Policy

Other Services – Shared solutions, consistent approach

DOE – Federal Energy Goals / ESPC / Federal Energy Vision

PVT INDUSTRY – Suppliers / Providers / Technology Experts







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- Initiative 1: Eliminate energy inefficiencies that waste natural and financial resources, and do so in a manner that does not adversely impact comfort and quality of the facilities in which Soldiers, families, civilians and contractors work and live.
 - Establish and gain POM support for energy initiatives & projects
 - Establish energy use accountability in the chain of command
 - Provide Full Time trained energy staff at installation level
 - Revamp energy rewards and recognition programs
 - Foster sustainable buildings approach
 - Develop installation energy management plans
 - Develop a recapitalization program for Army-owned utility systems
 - Develop information management systems and controls





- Initiative 2: Increase the use of energy technologies in construction and major renovation projects that provide the greatest costeffectiveness, energy efficiency, and support the Army's environmental objectives.
 - Set energy performance criteria for new & renovated projects
 & develop energy-based Army Standard Designs
 - Improve energy monitoring to meet goals of EPACT 2005
 - Enforce & change policy & law to require energy savings to be retained and used for energy programs at the installation
 - Reduce utility costs through minimized price volatility & utility procurements
 - Institute peak load management practices
 - Incorporate Sustainable Design and Development Standards using LEED
 - Develop formal guide for installation energy assessments





- Initiative 3: Increase use of clean, renewable energy to reduce dependence on fossil fuels and to optimize environmental benefits and sustainability.
 - Use renewable energy resources when life-cycle cost effective
 - Increase use of renewable energy through investment in technical advancements
 - Reduce fossil fuel usage by:
 - Expanded use of alternative fueled vehicles
 - Increased use of alternative methods of space and hot water heating
 - Modernize central heating & cooling energy systems





- Initiative 4: Reduce water use to conserve water resources for drinking and domestic purposes.
 - Reduce water storage and distribution system losses
 - Reduce domestic water consumption by employing innovative methodologies and technologies (boilers, cooling towers, ETC)
 - Use increased efficiency plumbing fixtures
 - Alternative irrigation techniques (non-potable water) & zero landscaping
 - Reclaim and recycle water including rainwater and condensate





- Initiative 5: Provide for the security and reliability of our energy and water systems in order to provide dependable utility service.
 - Develop viable energy security plans and water vulnerability assessments that are incorporated into force protection plans
 - Insure that privatized utility systems meet reliability and security criteria
 - <u>Diversify energy portfolio, to include</u> <u>distributed generation, particularly at critical</u> mission facilities





Behind the Wheel: Management Focus Provides the road map for ensuring Army Energy and Water is available, safe, reliable, and secure though the next 25 years.

- ✓ Provides the way ahead for leveraging policy, programs, resources and other investment programs to meet all Army energy and water goals.
- ✓ Provides detailed plans, identifies metrics, lead agents and other resources needed to execute the strategy.
- ✓ Provides the year-by-year investment plan, proposes projects and systems, ties in all energy users and policy proponents (e.g., security, privatization, procurement, technology, construction, and environmental concerns.





Behind the Wheel: Management Focus





Contact Information



Behind the Wheel: Management Focus Don Juhasz, PE, CEM Chief, Utilities and Energy 703-601-0374 don.juhasz@hqda.army.mil

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