



# Department of Navy Energy Opportunities and Strategy

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# Why Energy Matters to Us



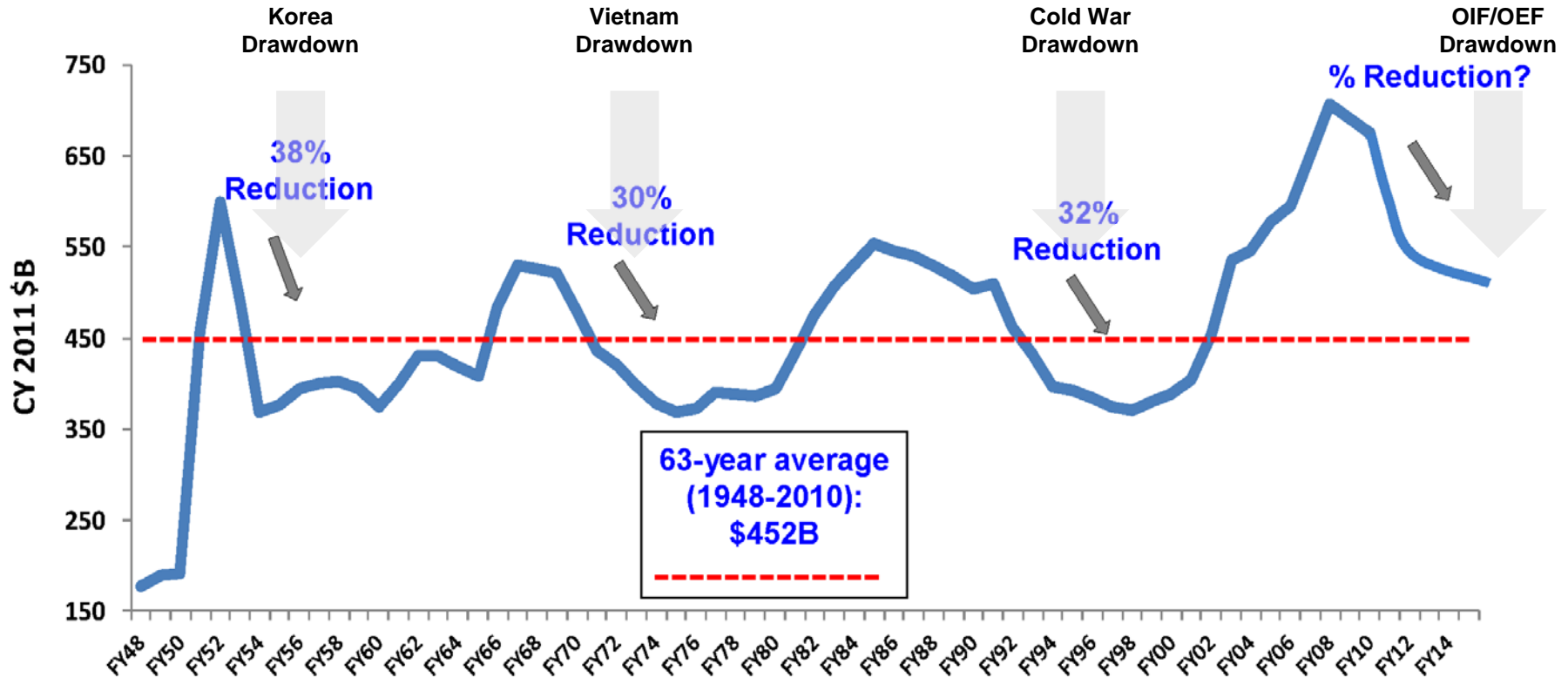
- **Our Mission accomplishment is highly and increasingly Energy dependent**
  - DoN mission requires mobility to project force and uses complex C4I equipment
  - Ships/Aircraft/Tactical vehicles/generators require large quantities of fuel
  - 75% of the total Navy energy requirement is operational and 60% of that is for liquid petroleum based fuels
- **Navy spends \$4B/yr for Energy**
  - \$1B for shore Energy
- **Numerous laws, regulations, mandates**
  - SECNAV Energy goals
- **We are stewards of tax \$ and of the environment**
- **Diverse installations/missions**
  - 100 bases around the world
  - Aviation, Surface, Subs, Ground
  - Training, RDT&E, Community Support
- **Secure, reliable Energy supplies are essential**
  - Long logistic trains are high risk
  - **Electric grid is vulnerable**

“Part of what frustrates a young Sailor is that he’s really wedded to gas. When I was a commander, I had a sign put over the console of every one of my air controllers that simply said, ‘think gas.’ You can’t operate in that environment with those types of machines and not always have your mind on that source of energy and power. We have to be able to look at ways to extend the capability, the capacity, the duration of the machines that we operate.”

— ADM Gary Roughead, Chief of Naval Operations

“We are a nation at war, and our Marines and Sailors in combat are our number one priority. Energy efficiency will increase our combat effectiveness and save lives.” — General J.F. Amos, Commandant of the Marine Corps

# Department of Defense Funding Trends



- We are entering a period of fiscal austerity and geostrategic uncertainty
  - There is one certainty: ready naval forces, forward deployed, will be required
- We cannot "hollow out" our forces by failing to pay for the parts, maintenance, & expertise they need
- Leaders at all levels must embrace a culture of judiciousness that maximizes the return on all our resources

– Admiral Greenert, Chief of Naval Operations, October 11, 2011

# Why Facilities Energy Matters



- **Significant Cost**

- ✓ FY10: Total DoD \$15.2B, up from \$13.4B in FY09
- ✓ 74% is operational with 81% of that for Jet Fuel
- ✓ FY10: **\$4.0B** for facilities (26% of DoD energy costs)

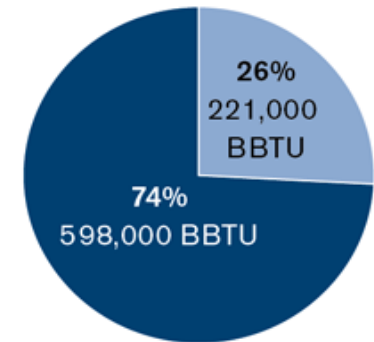
- **\$1/barrel** increase in fuel = **\$31 million** annual bill to DoN (Secretary of the Navy, October 2011)

- ✓ In Q3 of FY11 price to DON increased \$38/barrel ~ \$300 million of unplanned quarterly budget increase in FY11

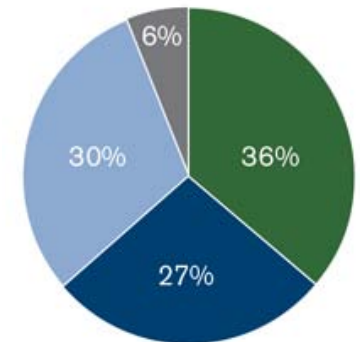
- **Mission Assurance/Energy Security**

- ✓ DoD's reliance on a fragile commercial electricity grid places continuity of critical missions at serious and growing **risk**<sup>1</sup>

*"Without improving our energy security, we are not merely standing still as a military or as a nation, we are falling behind," Chairman Joint Chiefs of Staff General Martin Dempsey, October 18, 2011*



■ Facilities Energy  
■ Operational Energy



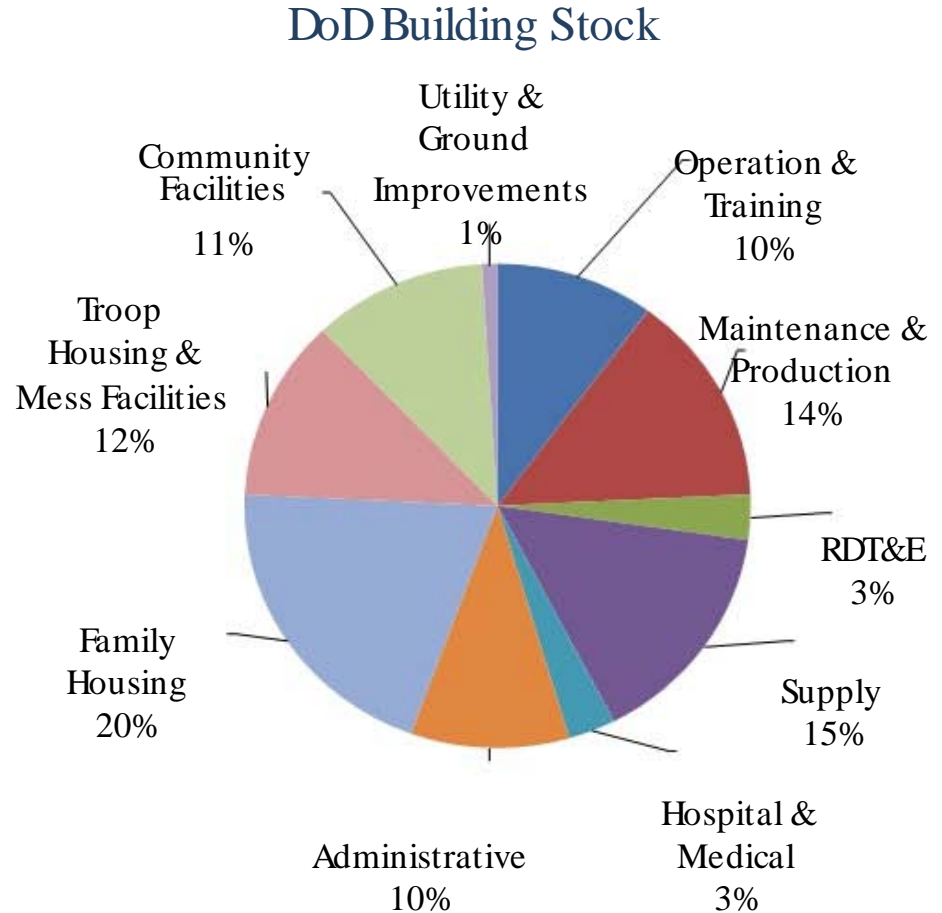
■ Army  
■ Department of Navy  
■ Air Force  
■ Other DoD Agencies

# Why Facilities Energy Matters

## DoD Built Infrastructure



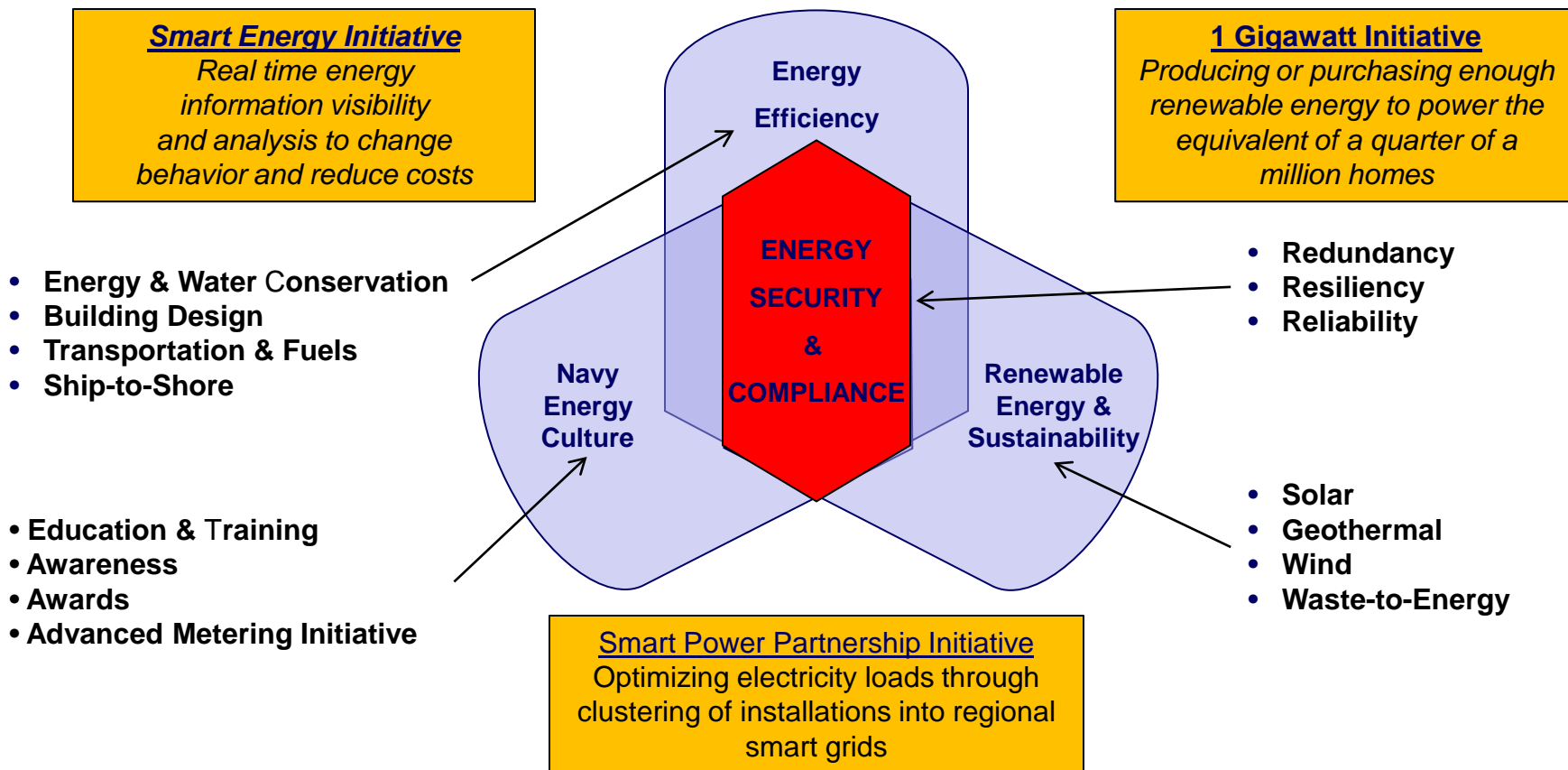
- 539,000 Facilities (buildings and structures)
  - 307,295 buildings
    - 2.2 billion square feet
- Comparisons
  - GSA: 1,500 government buildings
    - 176 million square feet
  - Wal-Mart US: 4,200 buildings
    - 687 million square feet



# Navy Shore Energy Strategy



## Achieving Energy Security and Compliance Through:



*“Changing the way we get and use energy is a priority for the Department because energy security is critical to our national security.”*  
- Secretary of Navy, Ray Mabus, January 2012

# DoN Energy: A Strategic Imperative



The "Green Hornet" -- F/A-18F Super Hornet

