

A presentation from the 2009 Topical Symposium:

***Energy Security: A Global Challenge***

Hosted by:  
The Institute for National Strategic Studies  
of  
The National Defense University

29-30 September 2009

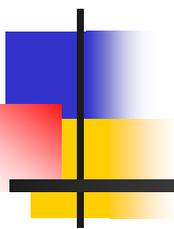
By  
**PAUL BOLLINGER**

**INSS**



INSTITUTE FOR NATIONAL  
STRATEGIC STUDIES

Papers presented at NDU Symposia reflect original research by members of NDU as well as other scholars and specialists in national security affairs from this country and abroad. The opinions, conclusions, and recommendations expressed or implied within are those of the authors and do not necessarily reflect the views of the Department of Defense or any other agency of the Federal Government.



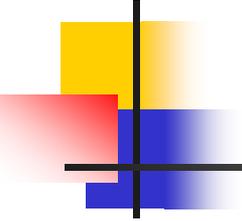
***“No Energy Security...  
without a Fight”***

---

Paul Bollinger

Vice President Strategic Energy Programs

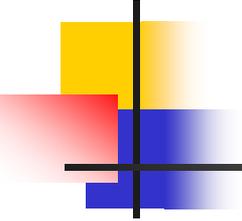
SAIC



# Energy Security Drivers

---

- Defense Science Board Report *“More Fight – Less Fuel”* February 2008 (2001 Report)
- Air Force Senior Focus Group on Energy 07
- Army Senior Energy Council 08
- Navy Executive Energy Steering Committee 08
- Marine Corps Energy Initiative 09

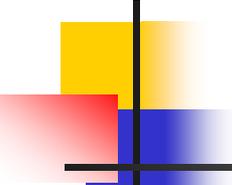


# Energy Goals for Military

---

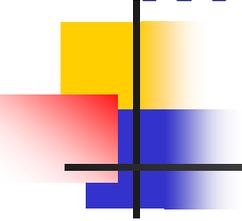
- Reduce Consumption
- Increase Efficiency
- Expand use of alternative and renewable energy
- Ensure critical mission capability 24/7/365
- Create a culture of energy awareness

# Federal Energy Mandates



<u>Directive Issues</u>	<u>Energy Performance Target</u>	<u>Source</u>
Installations Energy	Reduce by 3%/year from FY08-15 30% energy reduction by 2015	EO 13423/EISA 2007
Electricity from Renewable Sources	Must be 3% by FY05-09; 5% by FY10-12; and, 7.5% by FY12+	EPAct 2005
Fossil Fuel Use in new/renovated buildings	Reduce 55% by 2010; 100% by 2030	EISA 2007
Hot water in new/renovated buildings solar power	At least 30% of hot water demand from solar hot water heating by 2015	EISA 2007
Non-Petroleum Fueled Vehicles	Increase annually by 10% until 100%	EO13423
Energy Metering	Meter electricity by Oct. 2012; and, Meter natural gas/steam by Oct 2016	EPAct 05/EISA 07

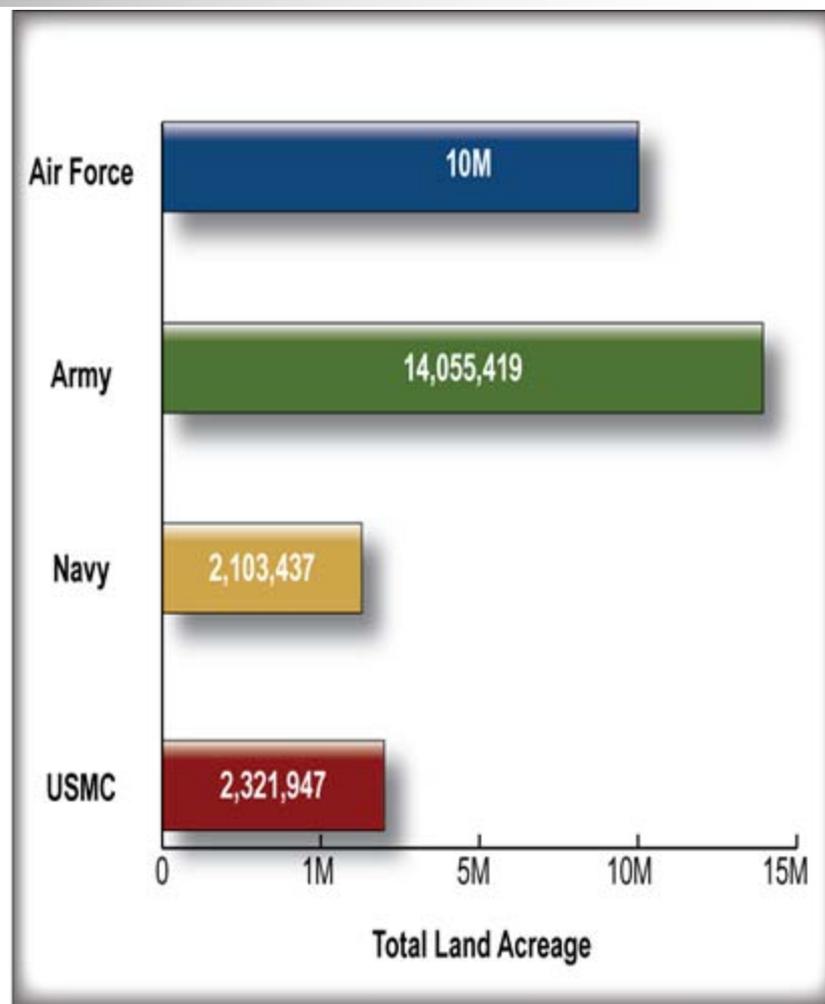
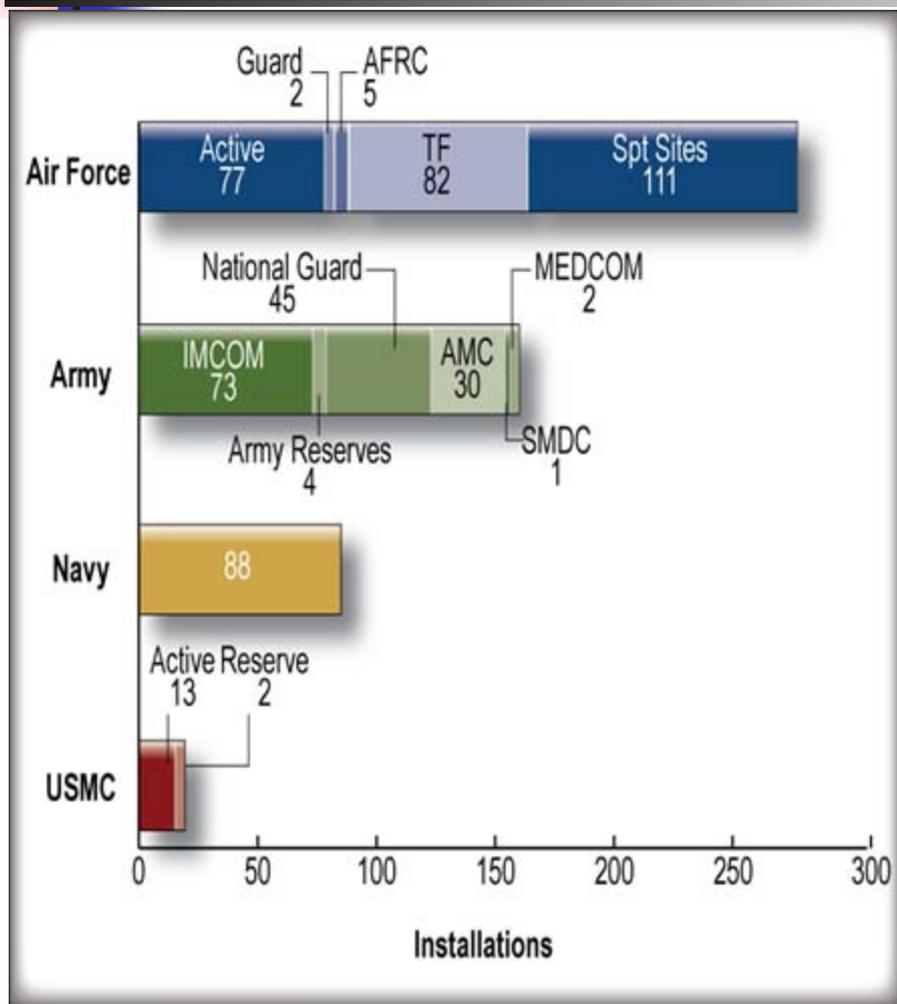
# Major Projects Today & Future



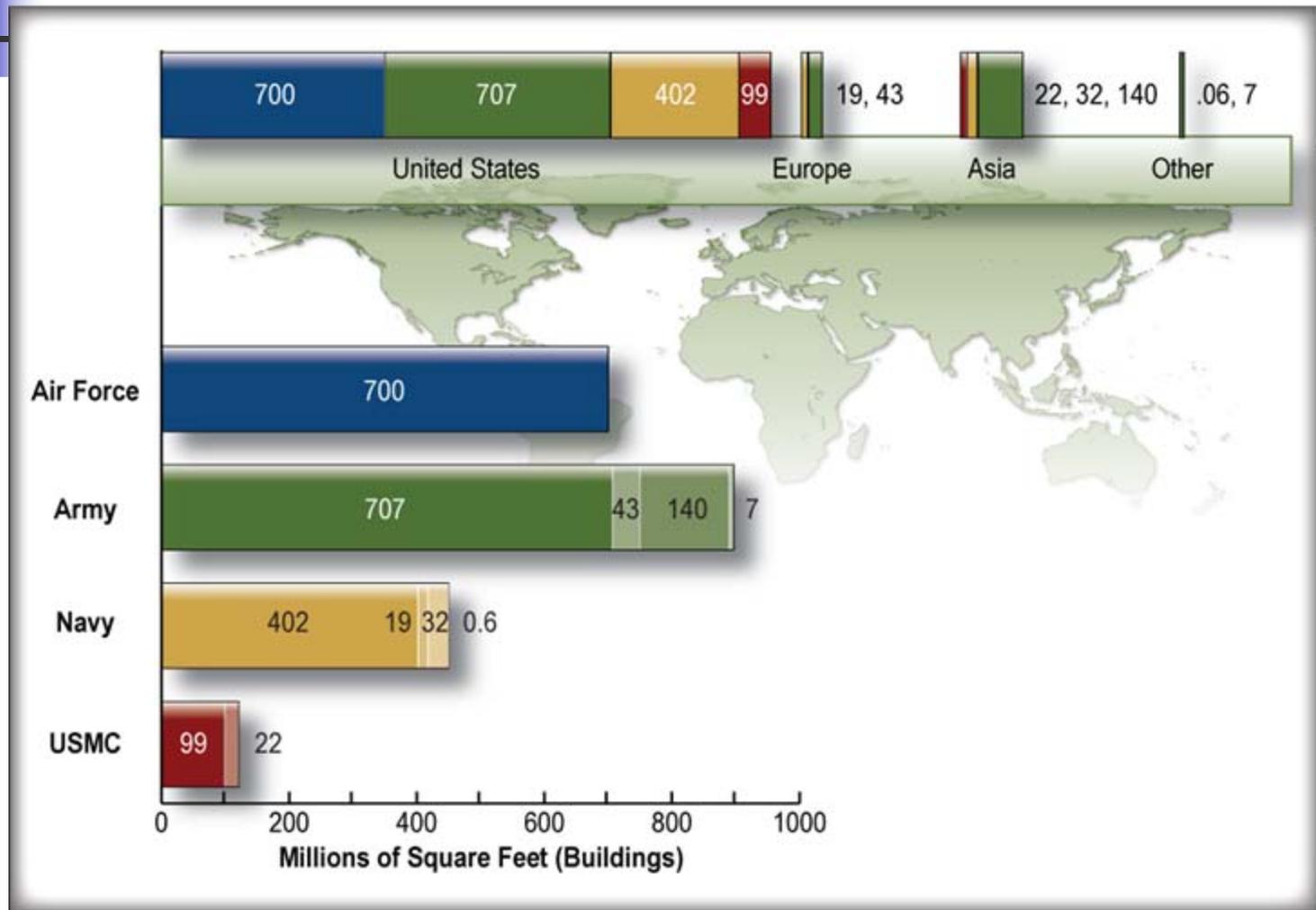
---

- 1987 Navy NWS China Lake – 200Mw
- 2007 Air Force Nellis AFB – 14.2Mw
- 2009 Army Ft. Irwin – 500Mw
- 2010 Army Hawthorne Depot – 30Mw
- 2010 Marines In-Theatre Programs - ??
- 2010 Air Force Edwards AFB – 300Mw
  
- Non-Infrastructure
  - Air Force, Navy and Army fleet certification on alternative fuels by 2011

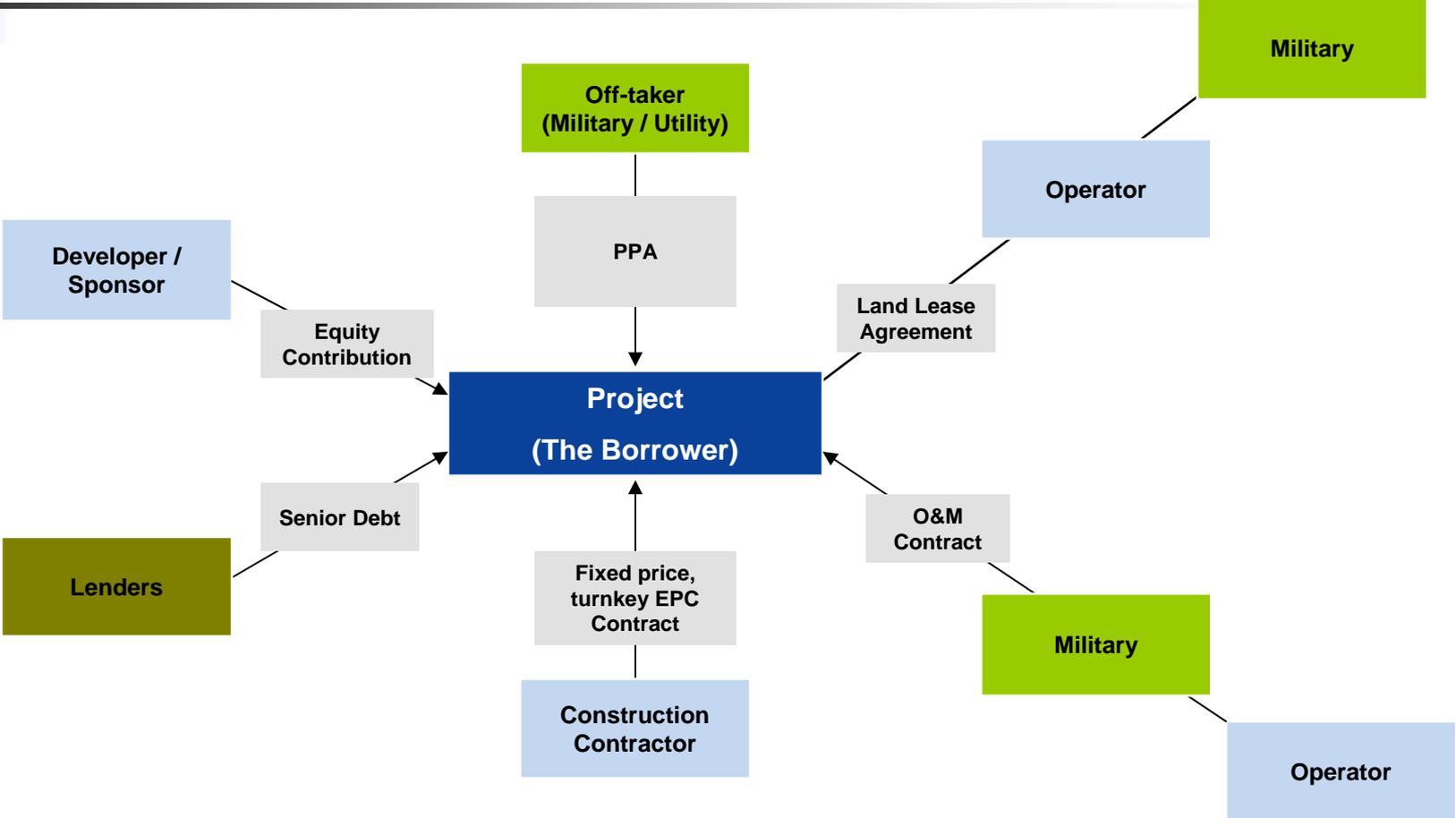
# Installations and Land

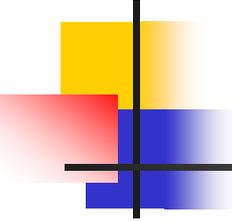


# Buildings (millions of square feet)



# Energy Project structure





# Major Challenges

---

- Financial Markets
- Regulatory Markets
- Transmission & Distribution
- OMB Scoring of Projects
- Enterprise Approach by Services
  - Align Policy, Programs, People & Budget

# Thank You!

*"Don't feed the monster"*



*We've tamed some very scary energy problems.*

**SAIC**  
From Science to Solutions

For information, visit [www.saic.com/monster](http://www.saic.com/monster)