

A presentation by  
**Richard Andres**  
for the  
2009 Topical Symposium:  
***America's Security Role in a Changing World***  
***A Global Strategic Assessment***  
Hosted by:  
The Institute for National Strategic Studies  
of  
The National Defense University  
7-8 April, 2009



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.

# Report Documentation Page

*Form Approved*  
*OMB No. 0704-0188*

Public reporting burden for the collection of information is estimated to average 1 hour per response, including the time for reviewing instructions, searching existing data sources, gathering and maintaining the data needed, and completing and reviewing the collection of information. Send comments regarding this burden estimate or any other aspect of this collection of information, including suggestions for reducing this burden, to Washington Headquarters Services, Directorate for Information Operations and Reports, 1215 Jefferson Davis Highway, Suite 1204, Arlington VA 22202-4302. Respondents should be aware that notwithstanding any other provision of law, no person shall be subject to a penalty for failing to comply with a collection of information if it does not display a currently valid OMB control number.

1. REPORT DATE <b>APR 2009</b>	2. REPORT TYPE	3. DATES COVERED <b>00-00-2009 to 00-00-2009</b>			
4. TITLE AND SUBTITLE <b>Global Energy Insecurity &amp; The Department of Defense</b>		5a. CONTRACT NUMBER			
		5b. GRANT NUMBER			
		5c. PROGRAM ELEMENT NUMBER			
6. AUTHOR(S)		5d. PROJECT NUMBER			
		5e. TASK NUMBER			
		5f. WORK UNIT NUMBER			
7. PERFORMING ORGANIZATION NAME(S) AND ADDRESS(ES) <b>National Defense University, Institute for National Strategic Studies, 300 5th Avenue SW, Washington, DC, 20319</b>		8. PERFORMING ORGANIZATION REPORT NUMBER			
9. SPONSORING/MONITORING AGENCY NAME(S) AND ADDRESS(ES)		10. SPONSOR/MONITOR'S ACRONYM(S)			
		11. SPONSOR/MONITOR'S REPORT NUMBER(S)			
12. DISTRIBUTION/AVAILABILITY STATEMENT <b>Approved for public release; distribution unlimited</b>					
13. SUPPLEMENTARY NOTES <b>2009 Topical Symposium: America's Security Role in a Changing World A Global Strategic Assessment, 7-8 Apr 2009, Fort Lesley J. McNair, Washington, DC</b>					
14. ABSTRACT					
15. SUBJECT TERMS					
16. SECURITY CLASSIFICATION OF:			17. LIMITATION OF ABSTRACT <b>Same as Report (SAR)</b>	18. NUMBER OF PAGES <b>10</b>	19a. NAME OF RESPONSIBLE PERSON
a. REPORT <b>unclassified</b>	b. ABSTRACT <b>unclassified</b>	c. THIS PAGE <b>unclassified</b>			



National Defense University – Institute for National Strategic Studies



# Global Energy Insecurity & The Department of Defense

**Richard Andres**  
**National Defense University**  
**Institute for National Strategic Studies**  
[AndresR2@ndu.edu](mailto:AndresR2@ndu.edu)



# Widespread feeling that our energy system is in a state of crisis

“Solving our energy crisis will be one of the great projects of this generation”  
*Barrack Obama*

“We now know that fossil fuel emissions, by retaining heat within the atmosphere, threaten disastrous changes in climate” John McCain

“There's an energy tsunami coming, and when you see it coming you better get on top of the wave, or you're going to get crushed by it” James Jones

Russia’s “temptation to use energy resources for political coercion” Robert Gates

“The future of the United States, will be threatened if nothing is done to seek solutions to the nation's energy crunch” George Bush

**Why all this concern about energy?**

# There are three simultaneous crises

## 1. Global warming crisis

- Ecological catastrophe
- Diplomatic nightmare

## 2. High/Unstable Prices

- High prices at the pump
- Unstable investment
- Trillions to dictators
- Prices forecast to rise

## 3. Strategic conflict crisis

- Petro-dictatorships
- Russian energy blackmail



**Why are these different crises hitting at the same time?**



# Solutions to one crisis mobilizes opposition from those concerned about the others...

Climate Change	High/Unstable Prices	Strategic Conflict
Raise the price of carbon	Lower the price of fuel	Ensure secure supply
Create clean energy infrastructure	Create efficient energy infrastructure	Expensive liquid NG infrastructure
Develop clean alternative liquid fuels	Develop cheap alternative liquid fuels	Develop plentiful alternative liquid fuels
Reduce demand	Reduce demand	Reduce demand
Push China on climate change	Make deals with petro-dictators	Form alliances vs. Russia

**But conflicting crisis solutions only explain part of the problem**



# A big part of the problem is that Washington is simply moribund...

**NIMBY**

**Interest politics**

**Power plays**

**Pork**

**Ideological science**

**Outdated fears**

**We are stuck and need innovative new solutions**



## Perhaps the biggest problem is that creating new markets is tough

- Large scale innovation has high startup costs and is financially risky
  - Asking industry to take the lead would be like asking AT&T in 1940 to invent rockets so that one day it could use communication satellites
- *“If I had asked people what they wanted, they would have said faster horses.” Henry Ford*

*Congress, labs, think tanks, and interest groups are working on this but let's talk about the Department of Defense*



## The military has often played a role in finding solutions to big problems

- It is able to overcome startup costs and risk too large for private industry

The Manhattan Project	→	Nuclear energy
Atlas Rocket Project	→	Commercial space
ARPANET	→	Internet
Military computing	→	Personal computers

*What is the Department of Defense doing about energy?*



## Each of the services has an energy strategy

### Goals and projects include:

- Technologies and practices to reduce energy use
- Placing renewable energy generation on bases
- Developing alternative liquid fuels
- Creating “green” cultures

*DOD's energy efforts may end up being some the most effective solutions to the energy crises*



National Defense University – Institute for National Strategic Studies

