

# **FRAMING A US ENERGY POLICY: Myths vs. Reality; Can Conflicting Interests Be Reconciled?**

**Presentation by  
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*New Haven*  
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# ENERGY POLICY WISH LIST

- *Recognize and promote the development of America's abundant fossil and renewable energy resources in an environmentally and economically responsible manner.*
- *Reduce American dependence on imported oil, thereby reducing the hundreds of billions of dollars that are presently flowing overseas.*



# ENERGY POLICY WISH LIST

- *Stimulate the transition from fossil to renewable energy resources; but do so, on a timeline that recognizes the importance of fossil fuels, the immense capital investment in existing fossil fuel infrastructure and employment; and the sheer physical and economic challenges of making the transition.*



# ENERGY POLICY WISH LIST

- *Reduce the nation's greenhouse gas emissions in a manner that does not adversely impact the nation's vital industries;*
- *create new domestic jobs;*
- *strengthen our economy;*
- *Enhance national security.*



# ENERGY POLICY: THE CHALLENGES

- *Educating the public and policy makers*
  - *Balancing interests of all stakeholders*
  - *Fossil vs “green” energy resources*
  - *Access to mineral lands vs. conservation*
  - *Economic growth & jobs vs. climate impact*
  - *Resources vs. environmental concern*
  - *Actual vs. perceived environmental impacts*
  - *Economic impact of regulation*
  - *National Security*
  - *Polarization and paralysis in Washington*
- 

# Reality #1

**We live in a Global Economy  
....and must plan our energy  
policies accordingly!**



# THE PROBLEM !



# DEMAND - ASIA ENTERS THE CONSUMER AGE





# Night Energy Use Early 1970's

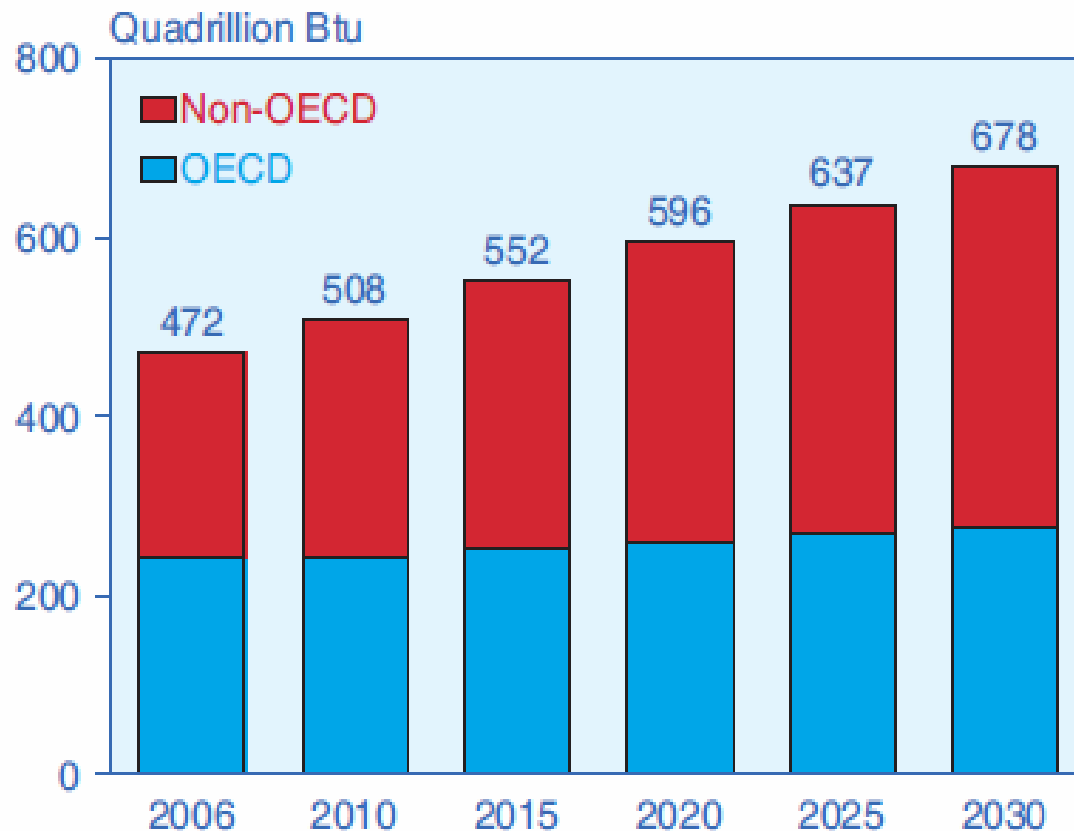


# Night Energy Use 2005



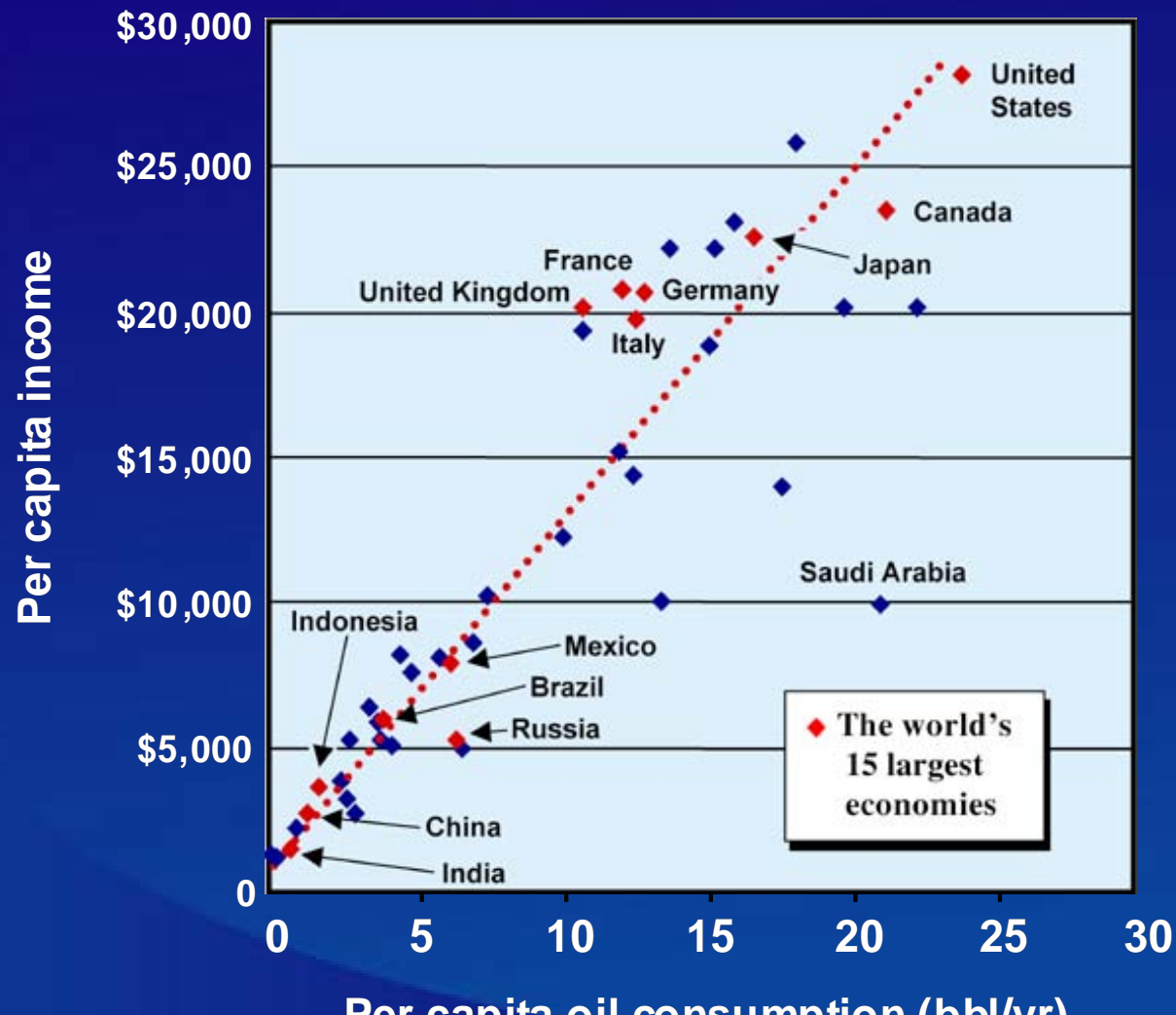
# GLOBAL ENERGY GROWTH

Figure 1. World Marketed Energy Consumption, 2006-2030



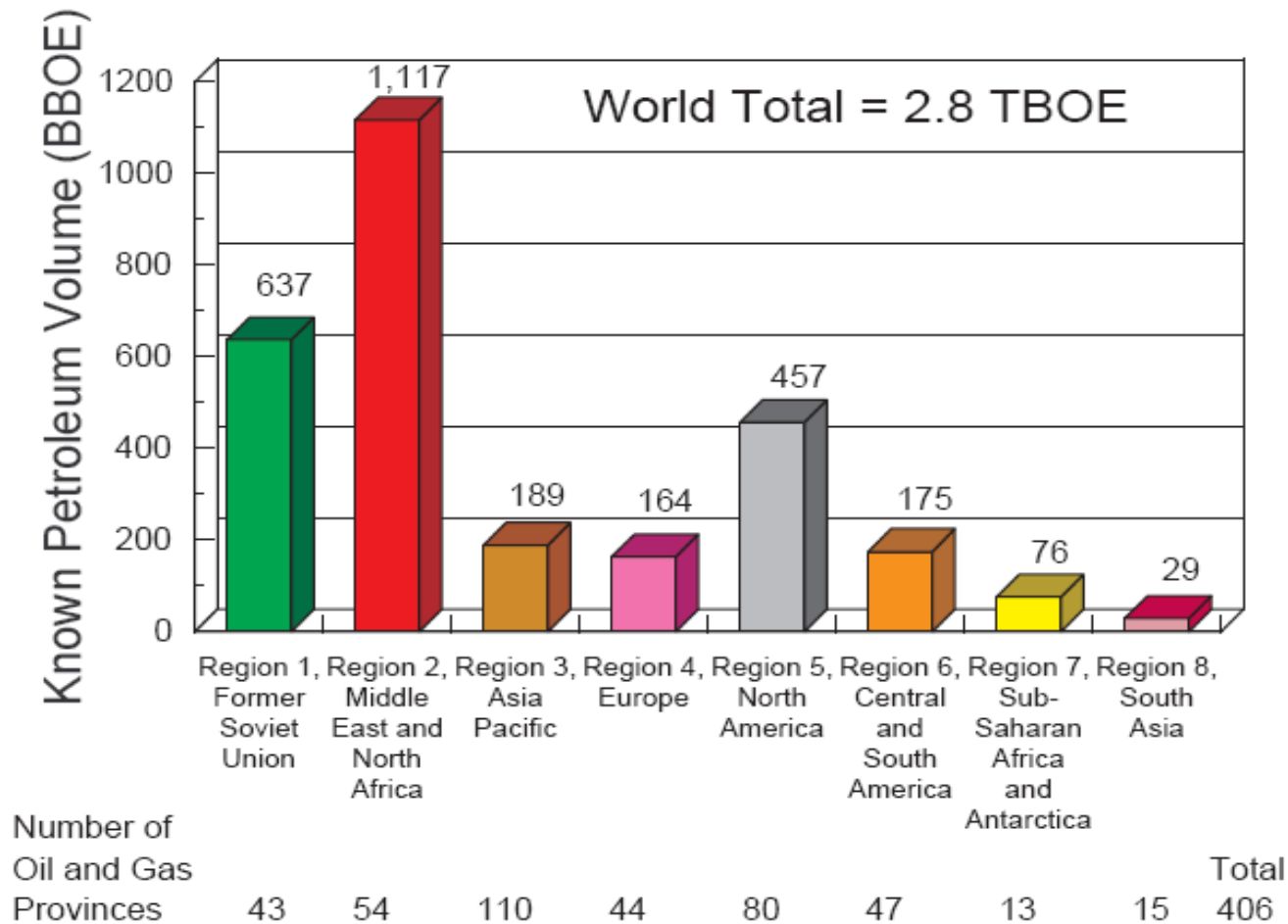
Sources: 2006: Energy Information Administration (EIA), *International Energy Annual 2006* (June-December 2008), web site [www.eia.doe.gov/iea](http://www.eia.doe.gov/iea). Projections: EIA, *World Energy Projections Plus* (2009).

# Energy Consumption as an Indicator of the Wealth of Nations

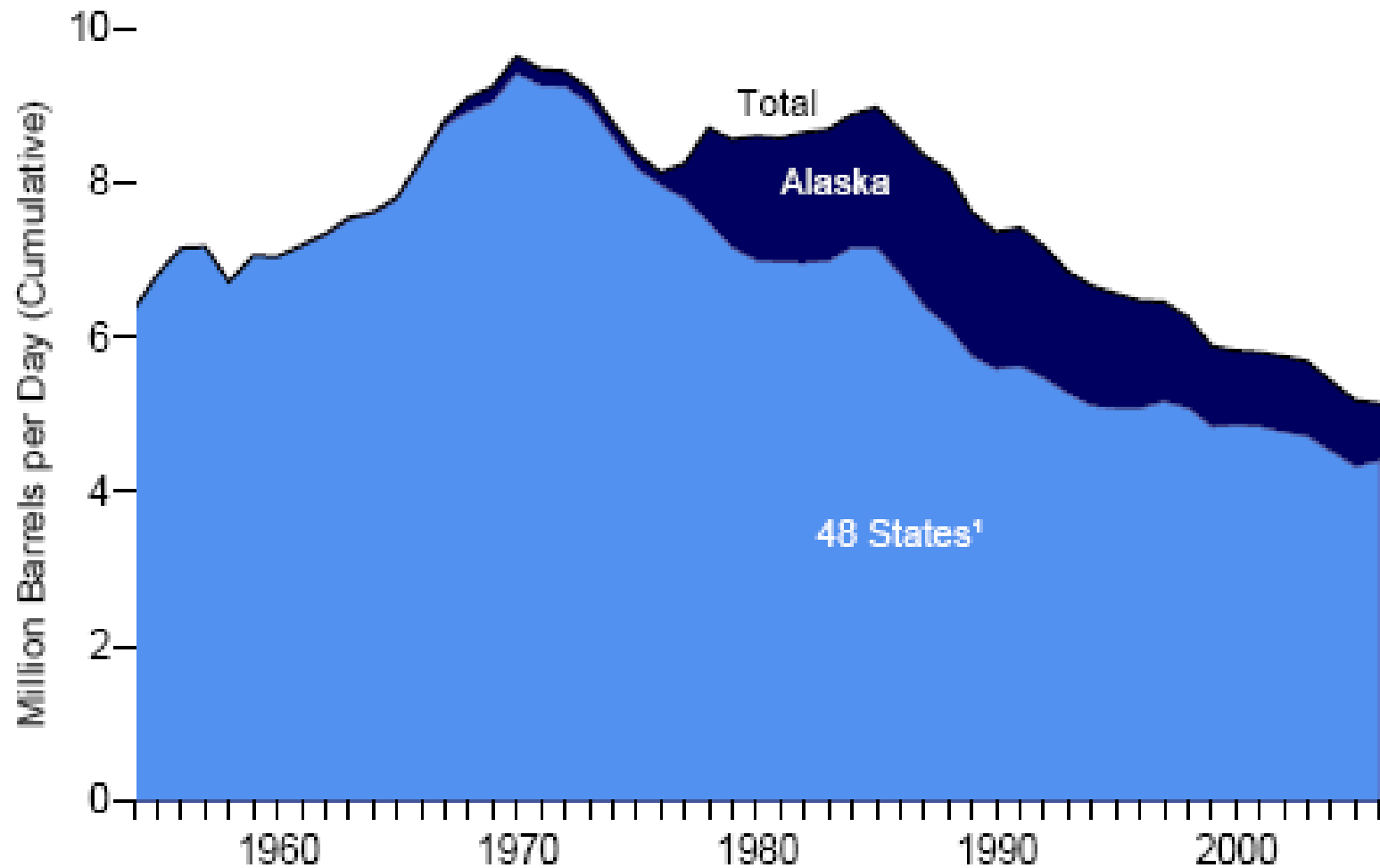


# REALITY #2

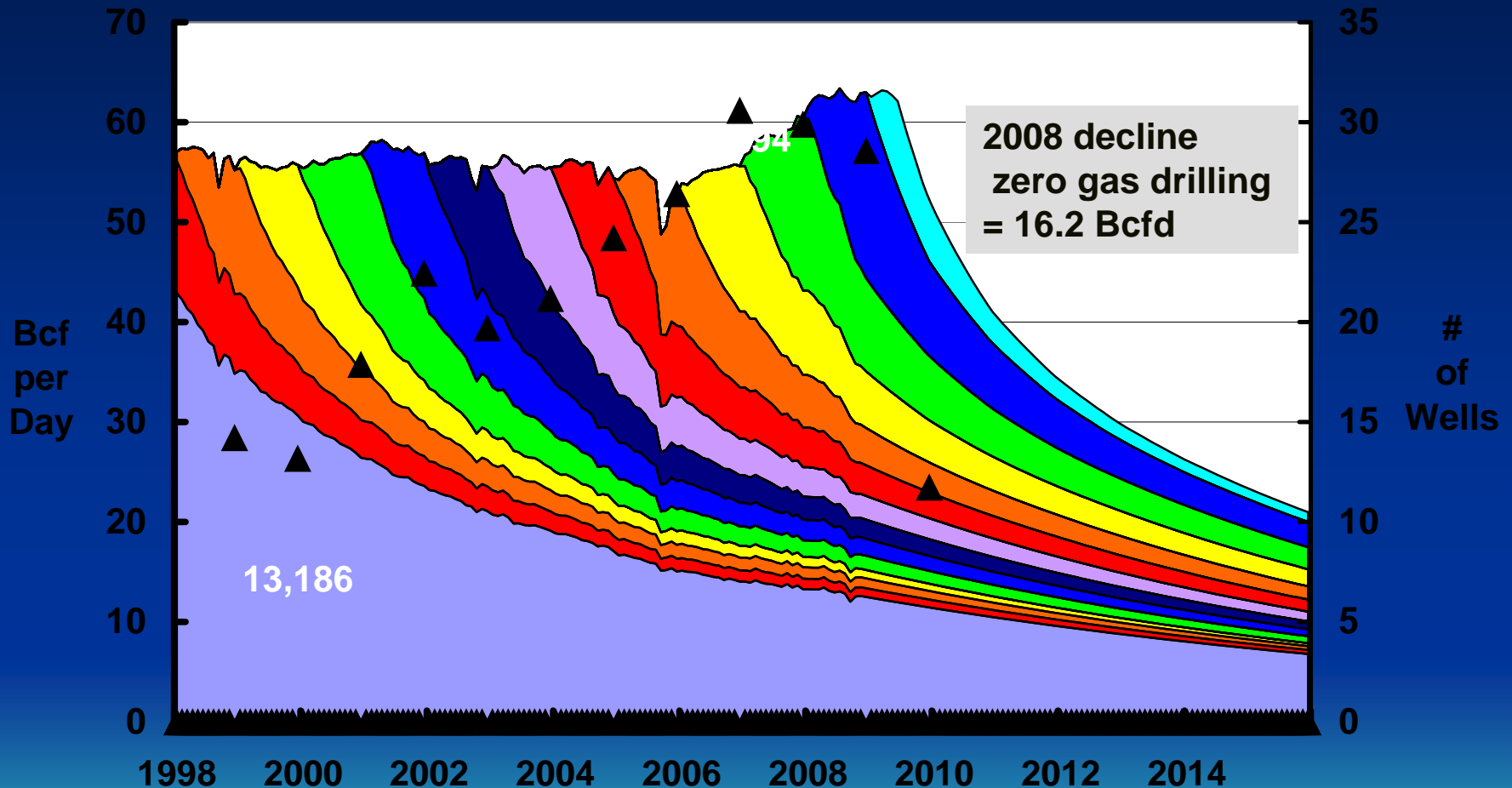
## The USA does not control global petroleum reserves



# USA CRUDE PRODUCTION 1954-2006



# DECLINE RATES ARE A MAJOR CHALLENGE FOR USA GAS SUPPLY!



**U.S Vintaged Gas Production**  
**2007: Transformation to the Shale Gas Era**

Source: HIS CERA 9-09

# LEADING POLITICAL ENERGY MYTH IN USA.....

*“End Our Dependence on  
Foreign Oil!”*

*(2008 Imports = 57% of Demand)*





# **Another Political Myth**

***We can run the USA on  
green energy!***

***End the use of  
polluting fossil fuels!***

**(Fossil fuels = 85% in 2008)**

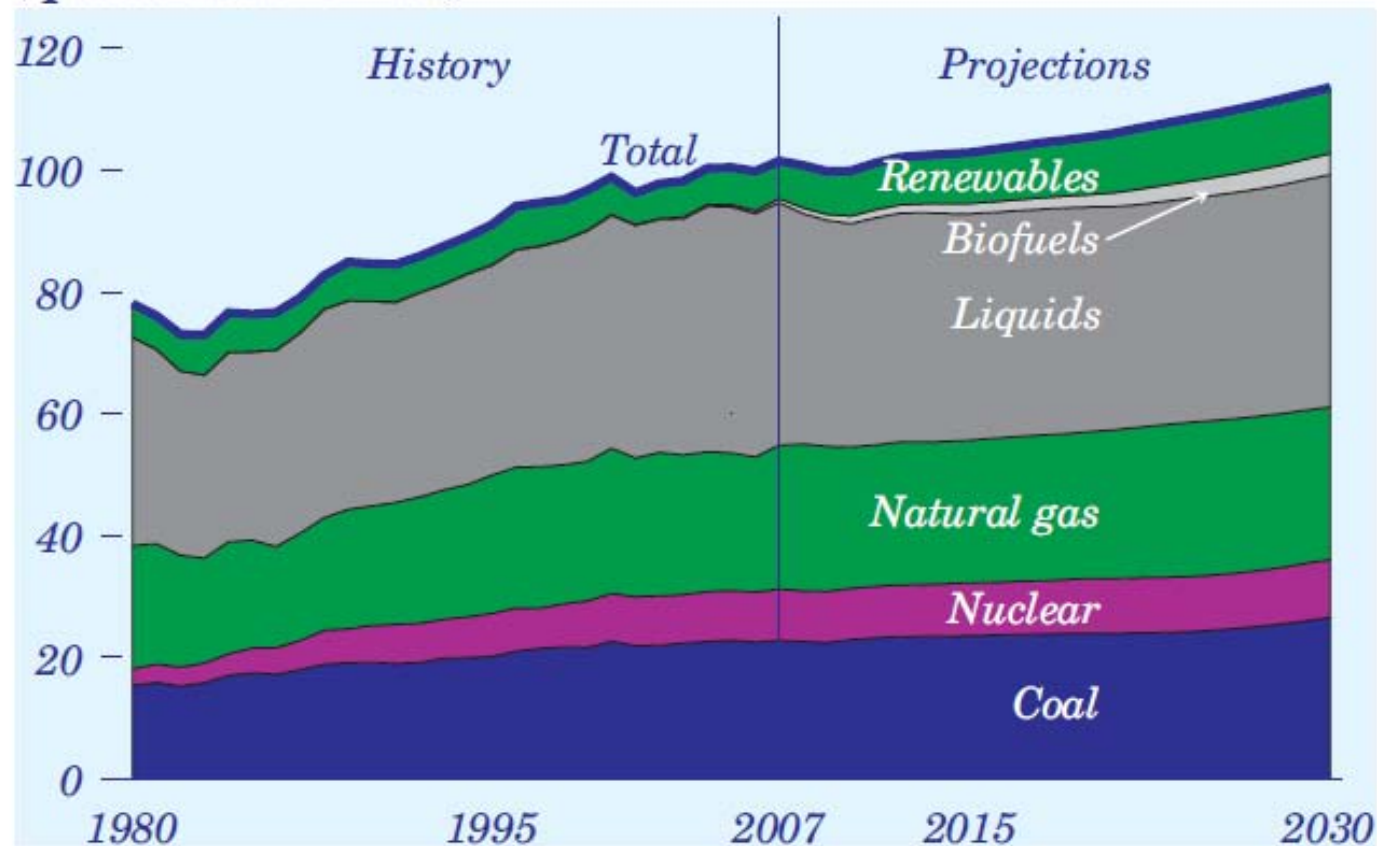


# USA ENERGY CONSUMPTION

## 2009 PROJECTIONS BY FUEL TYPE

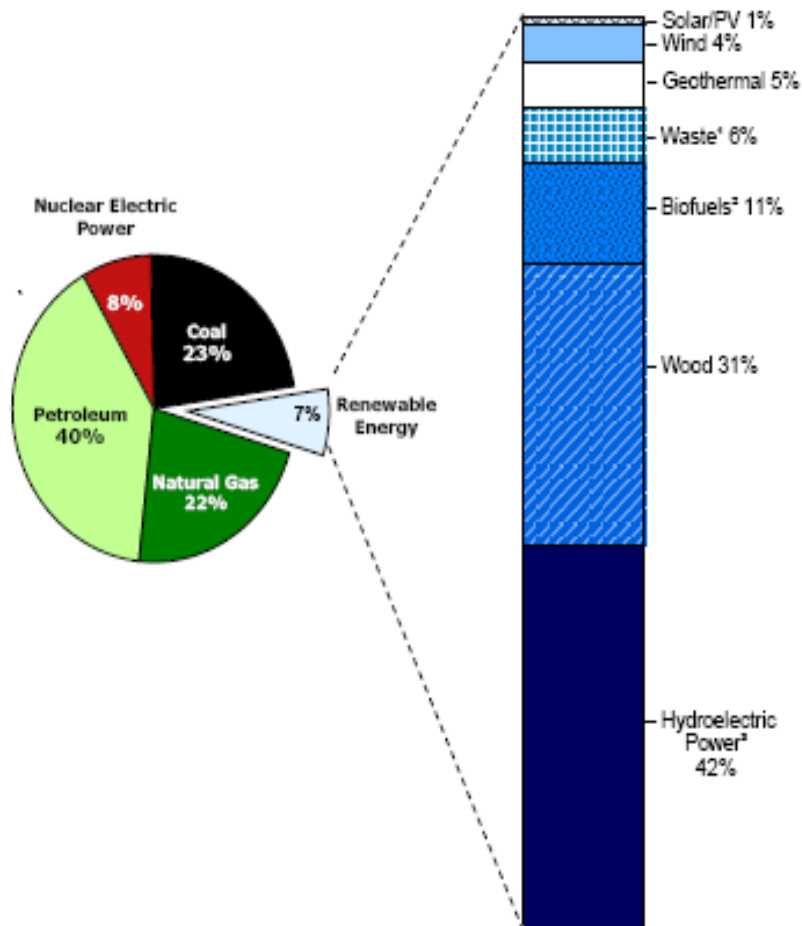
*(Politicians Ignore the Projections for Fossil Fuels)*

*Figure 37. Primary energy use by fuel, 1980-2030  
(quadrillion Btu)*

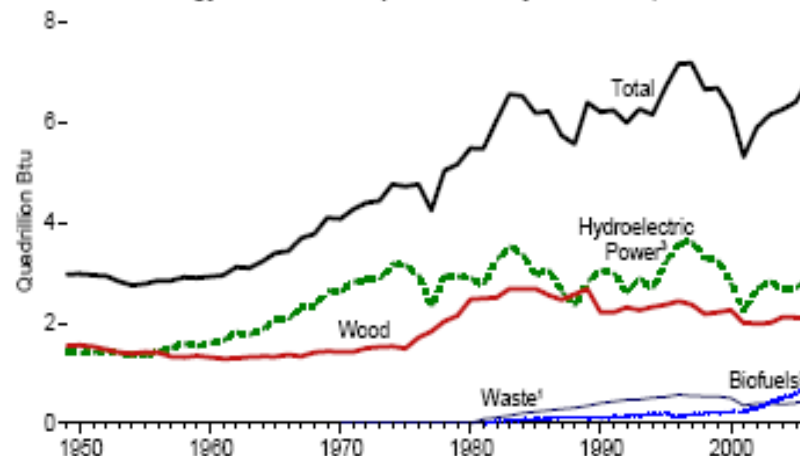


# What about renewables?

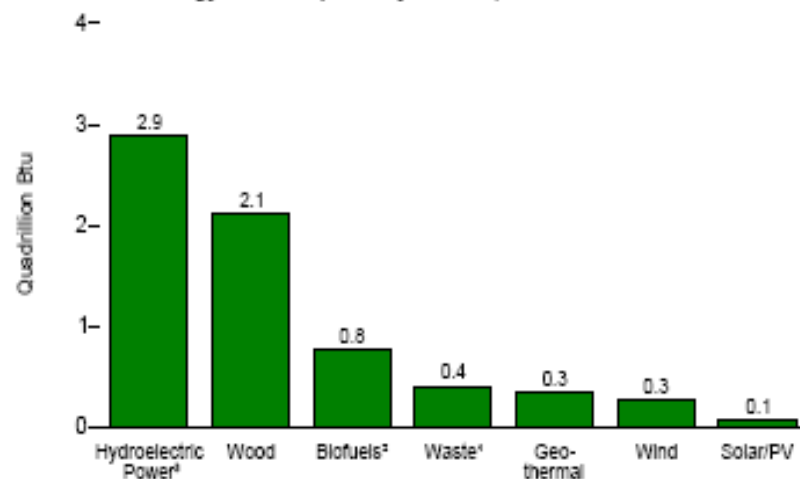
Renewable Energy as Share of Total Energy, 2006



Renewable Energy Total Consumption and Major Sources, 1949-2006



Renewable Energy Consumption by Source, 2006

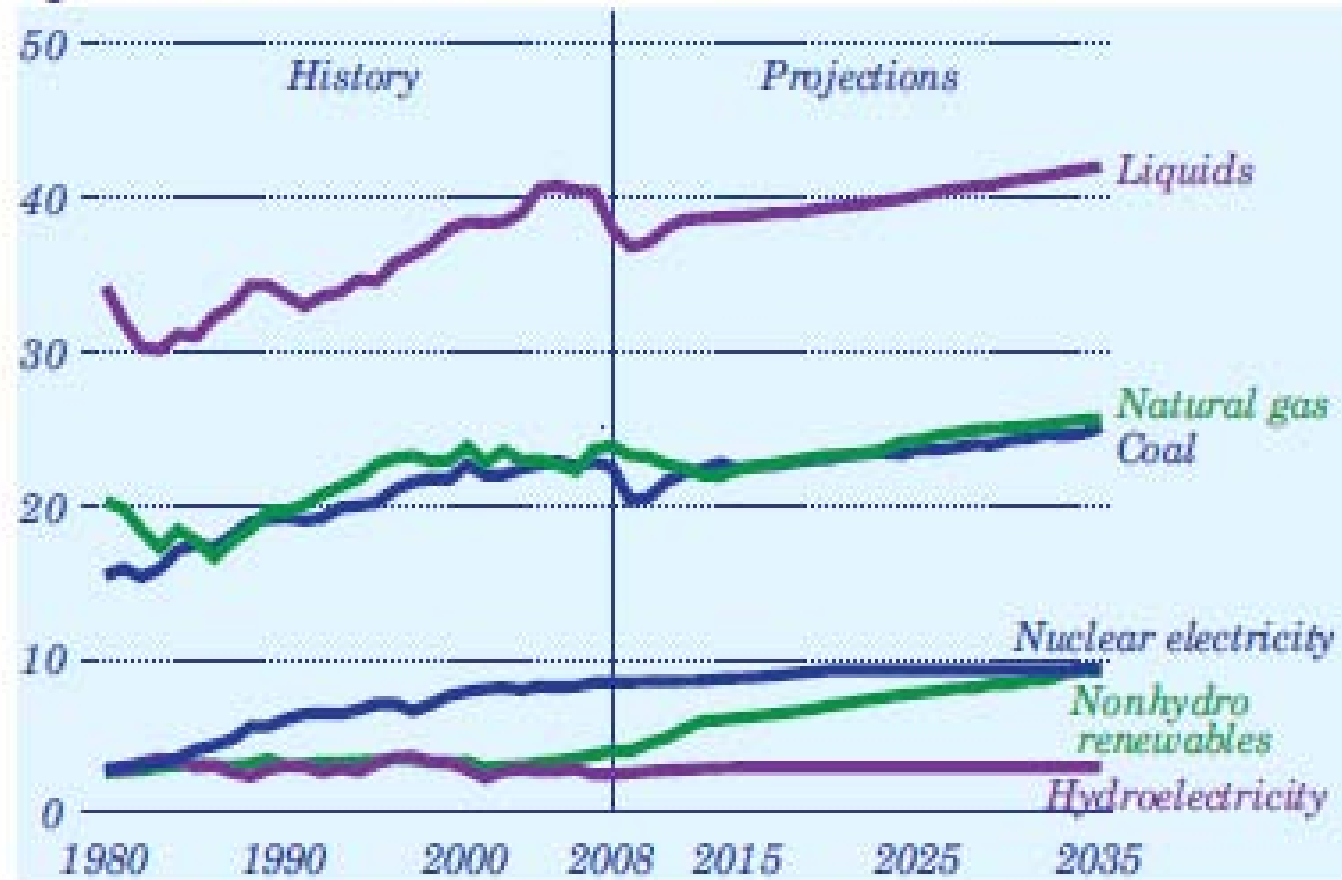


Source: EIA

Some promising technologies, but needs more work!

# USA ENERGY CONSUMPTION 2010 PROJECTIONS BY FUEL TYPE

*Figure 4. Energy consumption by fuel, 1980-2035  
(quadrillion Btu)*



# 2010 EIA Projections to 2035

- Now Include CAFE standards, Ethanol mandates, and conservation incentives.
- Assume significant liquids production from development of oil shales.
- Assume significant shale gas production.

*(GWH is Skeptical! Are these achievable?)*



**So, How do we implement these  
admirable energy policy  
objectives?**

***Not with conflicting public policy!***



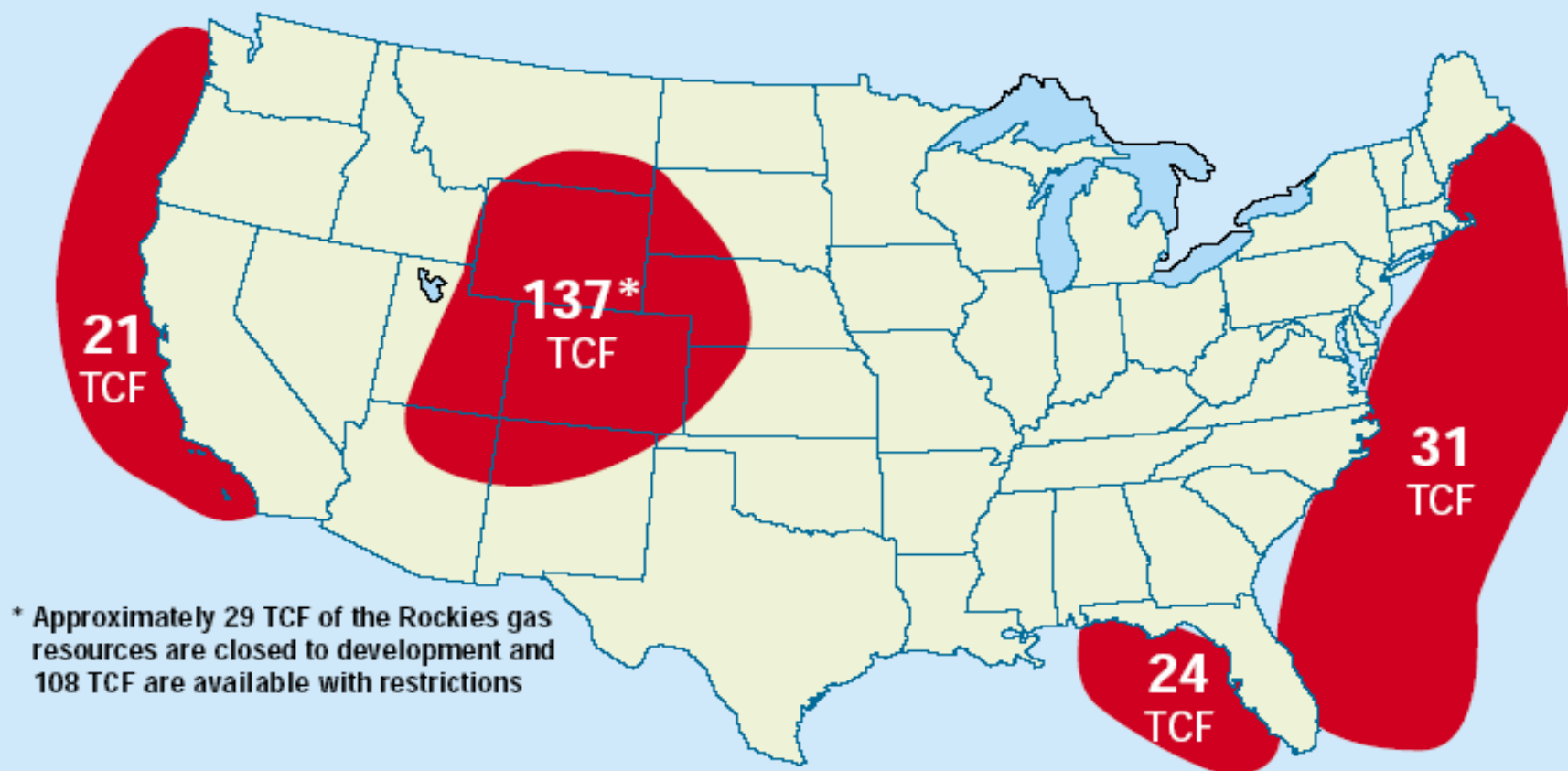
# **CURRENT POLICY DISINCENTIVES TO REDUCING FOREIGN OIL:**

- *Vilify the oil (and coal) industry*
- *Deny Exploration Access*
- *End Tax Preferences*
- *Raise the regulatory hurdles*
- *Endless environmental  
litigation*



# CAN'T EXPLORE HERE!

## Lower 48 - Natural Gas Resources Subject to Access Restrictions

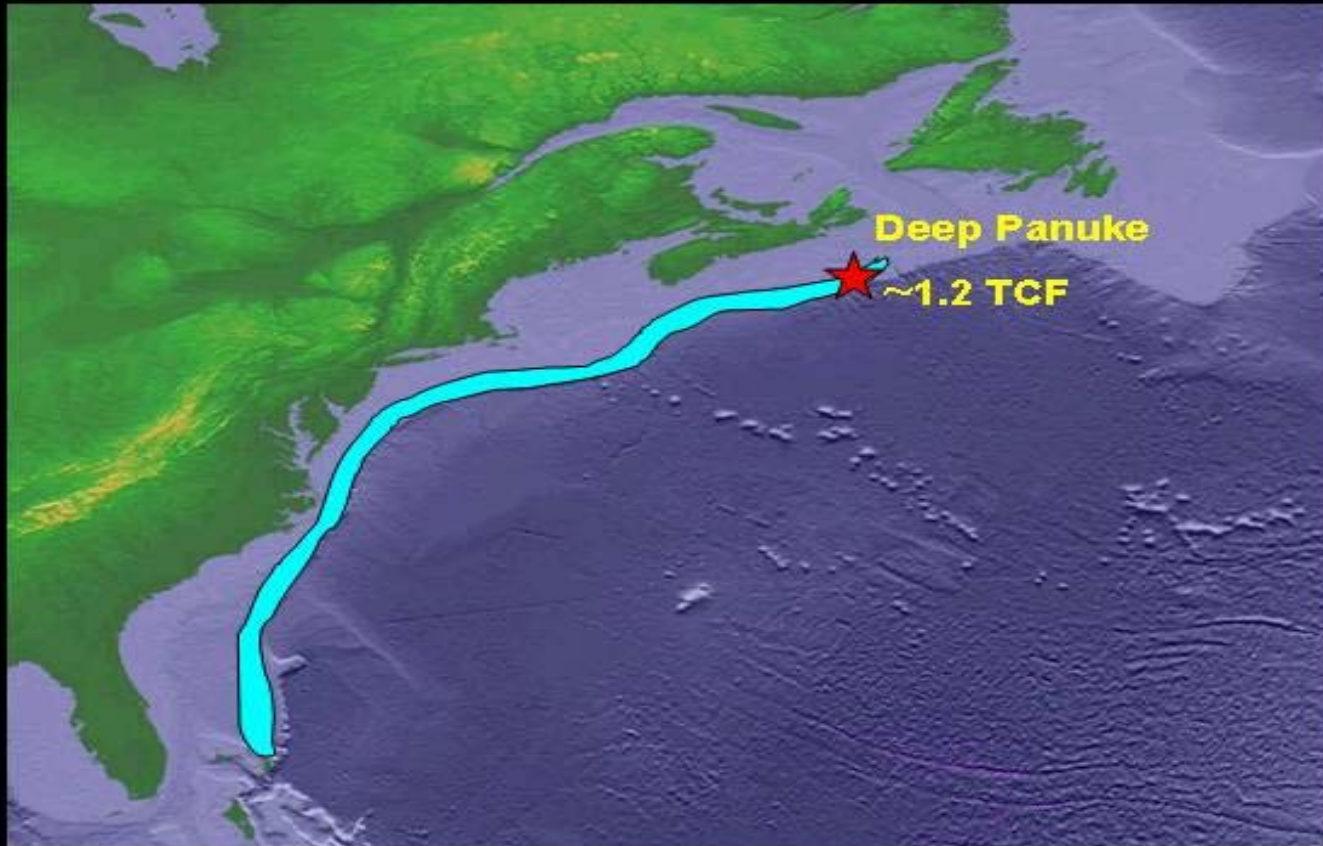


Significant amount of resource is subject to access restrictions



# Where Else Can We Explore for Conventional Resources?

## Jurassic Abenaki Reef Trend

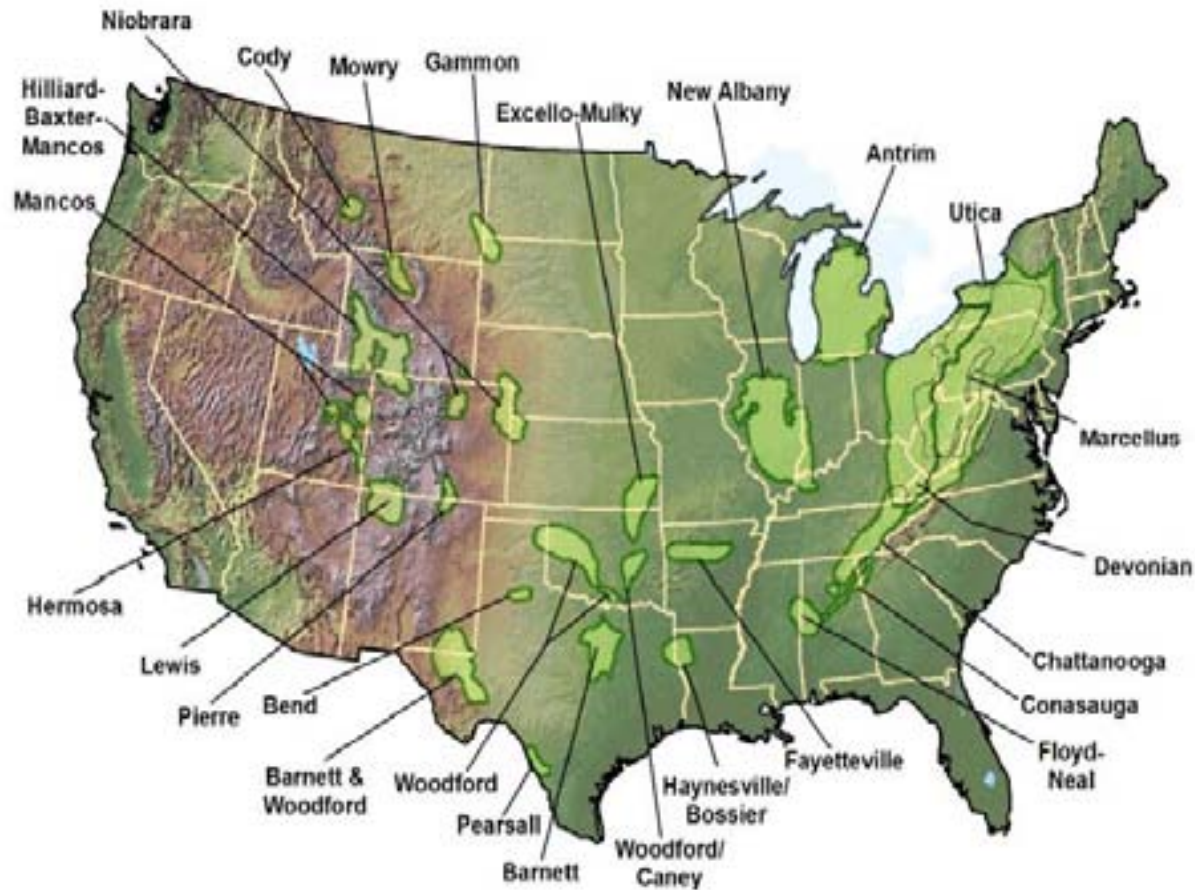


Source: CNSOPB

**BUT.....OUT OF BOUNDS IN THE USA!**

# SHALE GAS RESOURCES

EXHIBIT ES-1: UNITED STATES SHALE BASINS



Source: Modern Shale Gas Primer, 2009

# NEW SHALE RESOURCES

*Potential Gas Committee (June 09)  
estimates 1/3 of total USA Potential Gas  
Resource base is shale gas @ 616 TCF*

*> 550 Tcf recoverable shale gas per DOE*

*Note: USA Proved Gas Reserves  
@ 12/07 were 238 TCF*



# SHALE GAS RESOURCES

A significant reduction in imported oil by switching to a natural gas economy.

But.....

*Federal Legislation proposed to restrict hydro-fracking (regulate under the Clean Water Act).*

*New York moratorium.*

*Opposition to CNG on safety issues.*



# ENERGY INDEPENDENCE?

## *Obama 2011 Budget Proposal for Oil Industry Tax Preferences*

- *Repeal enhanced oil recovery credit*
- *Repeal credit for oil produced from marginal wells*
- *Repeal expensing of intangible drilling costs*
- *Repeal deduction for tertiary injectants*
- *Repeal exception to passive loss limitations for WI owners*
- *Repeal percentage depletion*
- *Repeal domestic manufacturing tax deduction*
- *Increase G&G amortization period to 7 years*



# ANOTHER ENERGY MYTH

**End the Addiction to  
Cheap Energy**

***This is a huge challenge!***

***(Americans scream at gasoline prices  
over \$3.50/gal - Europeans live with it.)***



# FAST TRACKING OIL CONSERVATION

- **Mandate increased mpg for all private and commercial automobiles and trucks. CAFE works!**
- **Promote a natural gas economy with tax incentives for CNG infrastructure and vehicles.**
- **Impose the “Hobbs Gas Tax” as a significant new Federal excise tax on all transportation fuels starting @\$0.25/gal and rising to \$1.00/gal in three years. (*I’m not running for political office!*)**

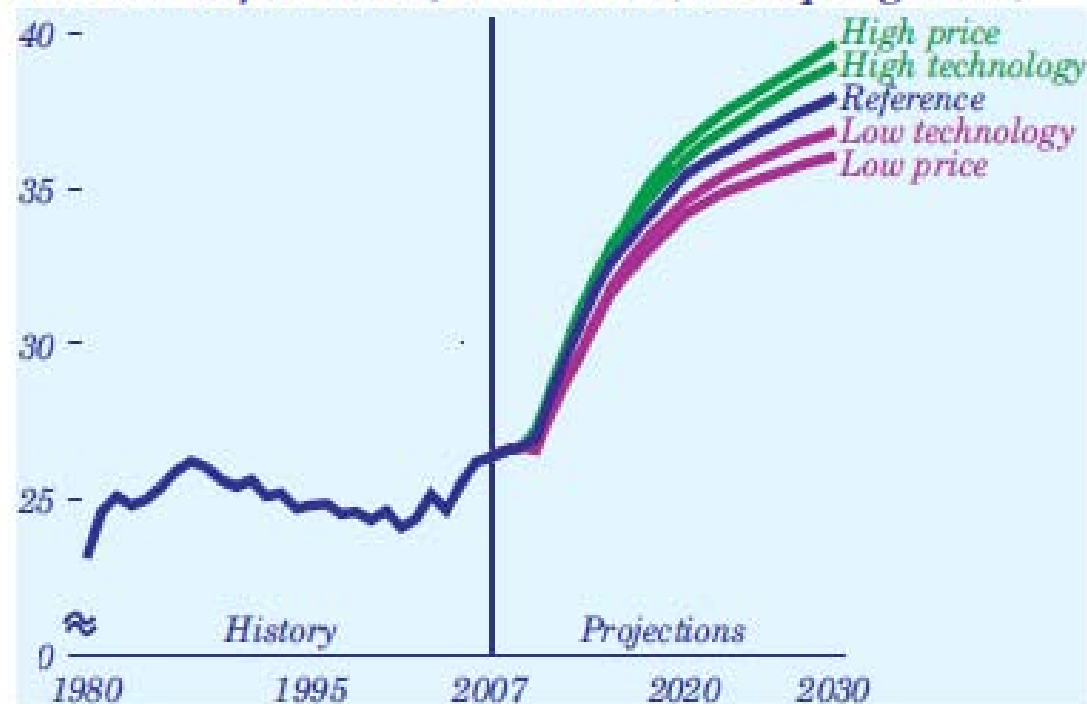




# Gasoline + Diesel = 63.5% of Refined Barrel Crude Oil

## New CAFE Standards Improve Light-Duty Vehicle Fuel Efficiency

*Figure 51. Average fuel economy of new light-duty vehicles in five cases, 1980-2030 (miles per gallon)*





# BIOFUELS - A SOLUTION?

Is ethanol really good for the nation?  
( Iowa and Nebraska for sure!)

Ref. laws mandating ethanol use.

EPACT05: 7.5 B gal biofuels by 2012

EISA07: 36 B gal biofuels by 2022 ( of which 21 B = non-corn starch)

\$0.45/gal tax credit

Ethanol...at what cost to:

*land use ?*

*food costs?*

*water resources?*

*fertilizer run-off?*

*Net energy gain?*



# THE CHALLENGE OF ACCESS

**Government and Environmental activists**  
**Making access for all natural resources very difficult...**  
**Even for wind (i.e. Nantucket Sound)**

***How Resolved?***

***Competing interests vs. “Greater Public Good”***  
***( does best financed and loudest voice win?)***

***Legal limits to activist appeals?***



# SOLUTION ?

**Educate the public and our legislators  
(Can this be done? Good luck!)**

**What's news? (A big oil spill?)  
(Who commands the airwaves?)**

***But....Popular media and politicians  
love to vilify the energy companies***



# POLICY RECONCILIATION ?

UNLIKELY.....

- *Public does not feel energy “pain”*
- *Polarization on issues.*
- *Environmental lobbies*
- *Litigation*
- *Paralysis in Washington*
- *Historic failure to pass a comprehensive Energy Bill*



# WITHOUT RECONCILIATION.....

The USA will muddle along,  
Subject to:

- *future supply imbalances/disruptions resulting from global geopolitical issues.*
- *steadily rising energy costs due to global competition.*
- *cyclical price spikes.*



# With or Without an Energy Act.....



*.....I will continue doing my bit to  
reduce imported oil!*

# About the Author

*G. Warfield "Skip" Hobbs is a consulting petroleum geologist and Founder and Managing Partner of Ammonite Resources, a firm of international petroleum geotechnical consultants that is headquartered in New Canaan, Connecticut. He holds a B.S. Degree in Geology from Yale College and a M.S. Degree in Petroleum Geology from the Royal School of Mines, Imperial College, London. Prior to forming the Ammonite Corporation in 1980, and Ammonite Resources in 1982, Hobbs worked from 1970-1980 as an international exploration geologist for Texaco and Amerada Hess in Latin America, Europe, Asia, the Middle East, and lastly in New York City. Hobbs is a licensed professional geologist in Texas, Pennsylvania and Florida.*

*Skip is a past national Secretary (1993-1995) of the 33,000 member American Association of Petroleum Geologists, and was President of the AAPG Division of Professional Affairs in 2000-2001. He is currently the President-Elect of the American Geological Institute, a federation of 46 geoscience professional societies representing over 120,000 members. Hobbs writes and lectures frequently on energy economics and energy policy.*



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