



Climate Change Policy or Carbon Cartel Building: You Decide

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CIBO
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Introduction

- Energy Sustainability Requires Fuel Diversity

The Heartland Institute is 23 year old think tank dedicated to identifying free market solutions to current policy issues.



2700 individual donors. No one corporation provides more than 5% of our budget.

BACKGROUND

Energy and Efficiency beget a
healthy Economy.

U.S. Resources

State Resources

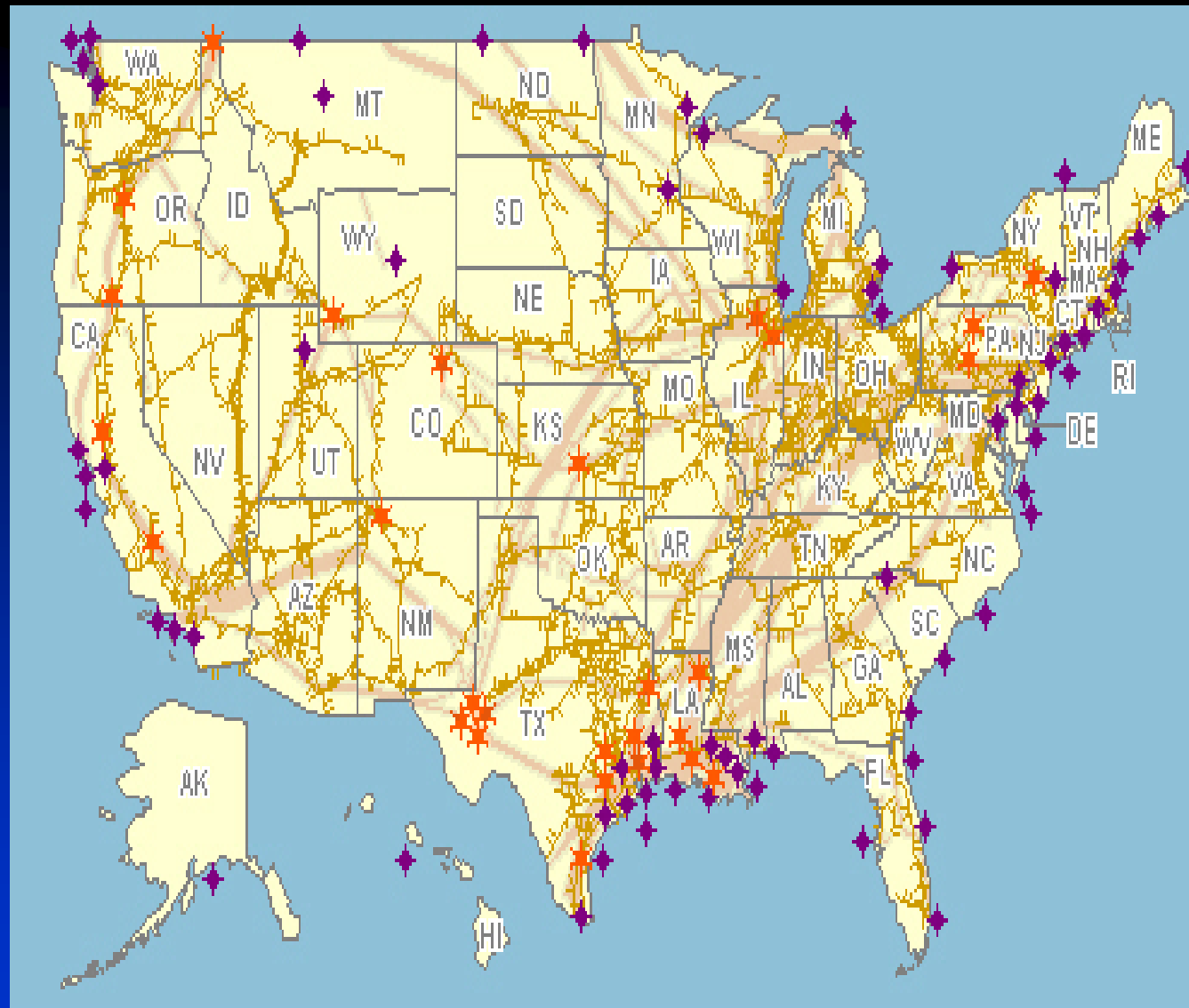
Supply and Demand

Current legislative initiatives





Policy recommendations

Fossil Fuels

- Coal, petroleum, natural gas
- According to EIA, meet 85% of energy demand
- Coal generates 50% of U.S. electricity. Reserve: 493b st
- Since 1994, U.S. is net importer of oil. 60% from other nations.
- U.S. is natural gas producer of 18.5t cf in 2006.

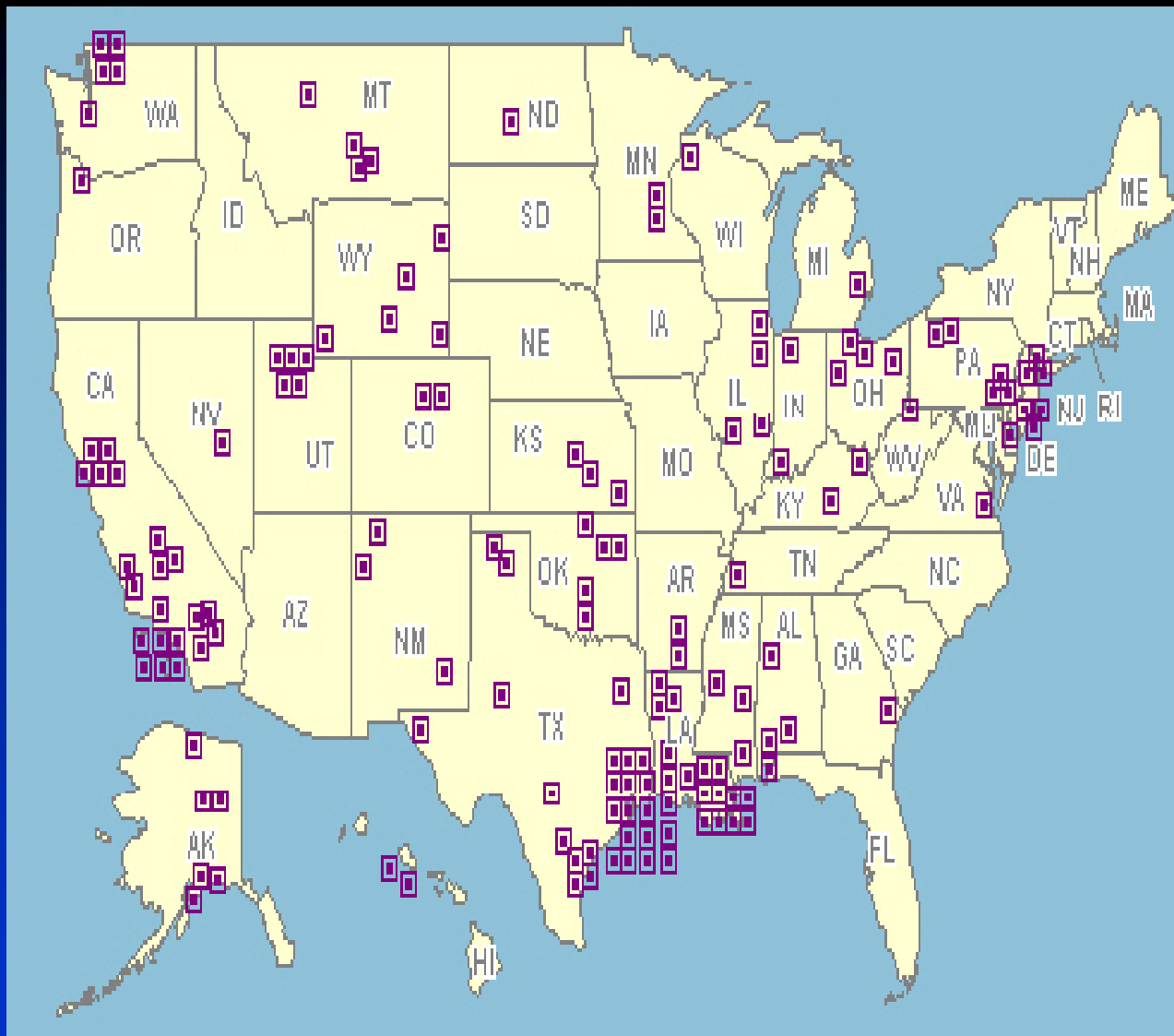


Energy Distribution

-  Electricity Transmission Line (min. 345 kV)
-  Oil Seaport & Import Sites (min. 10,000 barrels/day)
U.S. Total = 72
-  Natural Gas Flow (above 100 million cu ft/day;
1 mile band width = 100 million cu ft/day)
-  Natural Gas Hub
U.S. Total = 28

Oil Consumption

- Each 42 gallon barrel yields:
- 47% gasoline
- 23% heating oil and diesel fuels
- 18% manufactured products; chemical, plastics, synthetic rubber
- 10% jet fuel
- 4% propane
- 3% asphalt



Petroleum Refineries

- Operable Petroleum Refinery
 U.S. Total = 149

Natural Gas Use

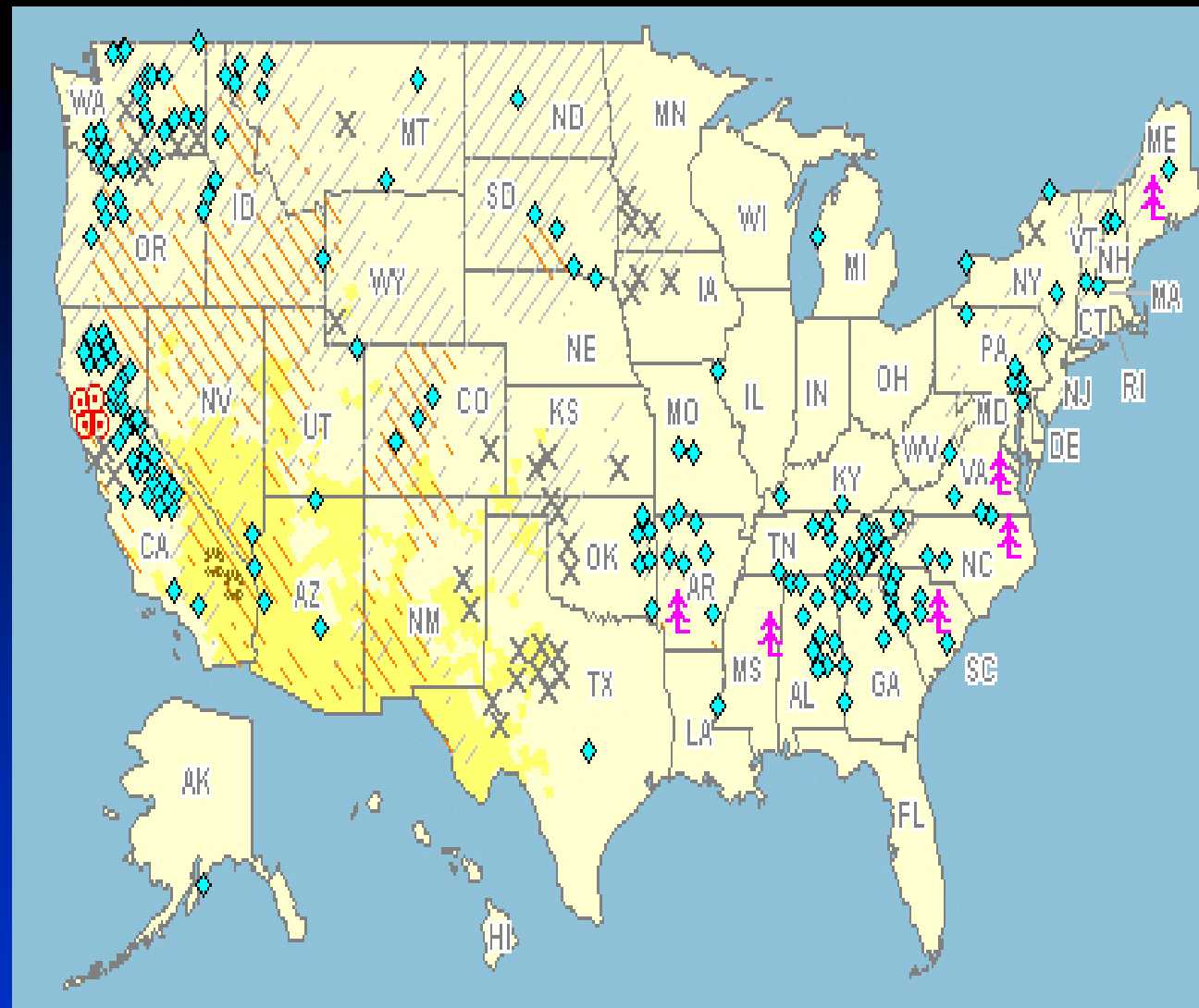
- 35% Industrial
- 29% Electricity
- 20% Residential
- 13% Commercial
- 3% Transportation

Nuclear Energy

- 8.2% of U.S. energy used solely for electricity. Provides 23% of our electric power demand.
- 104 nuclear power plants in US
- 340 world wide
- Technological advancement in reprocessing
- Cost competitive

Renewable Fuels

- Hydropower
- Solar
- Wind
- Biofuels



Renewables

Renewable Energy Potential

- Solar (Total solar radiation of 6.0 or more kilowatthours per meter squared per day)
- Wind (min. power class 4)
- Geothermal (min. surface heat of 80 milliwatts per meter squared)

Electric Power Plants (Values shown are U.S. totals)

- ◆ Hydro (183)
- ⊙ Geo (4)
- × Wind (36)
- ★ Solar (2)
- 🌲 Wood (8)

Supply and Demand

- 1.8% worldwide Economic Growth means 84 percent increase of fossil fuels by 2030. -IEA, Nov. 2007
- Oil remains largest fuel source
- Coal demand growth by 73%
- US EIA agrees

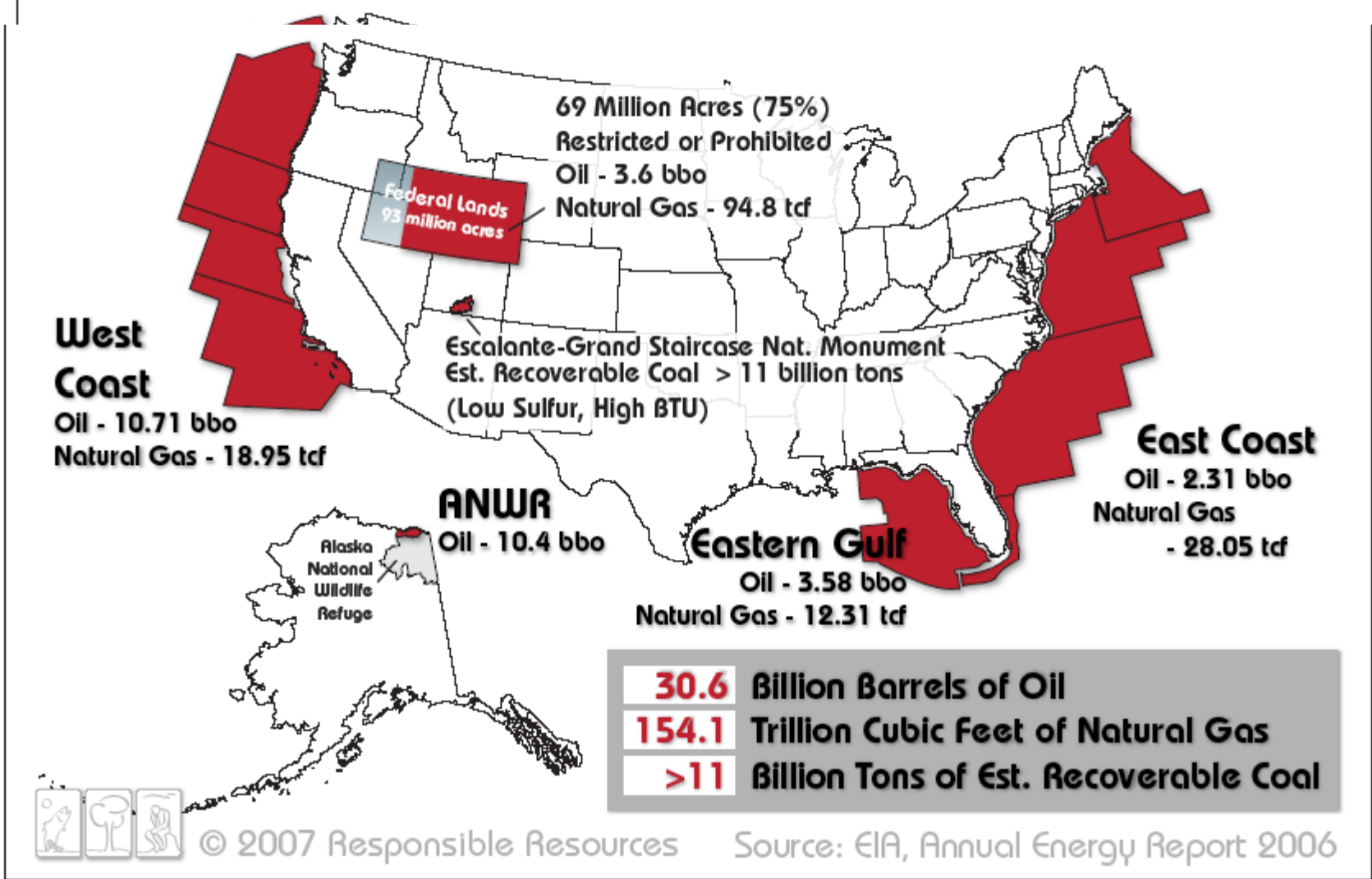
Access Denied

93 million acres total

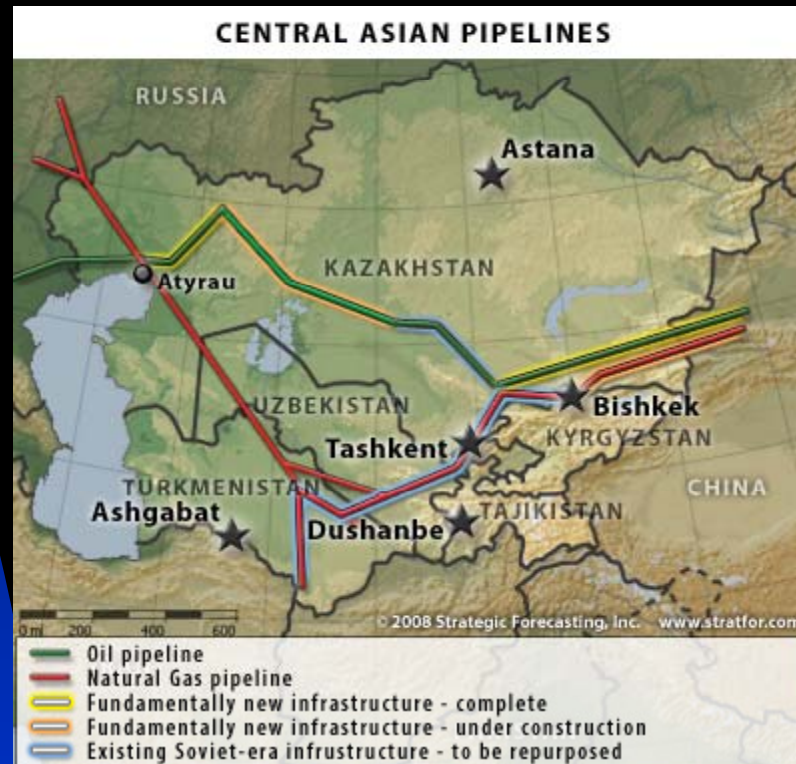
Totals: 30.6 bb oil

154.1 trillion cf natural gas

11 b short tons coal



Central Asian Pipelines



Natural Gas Cartel

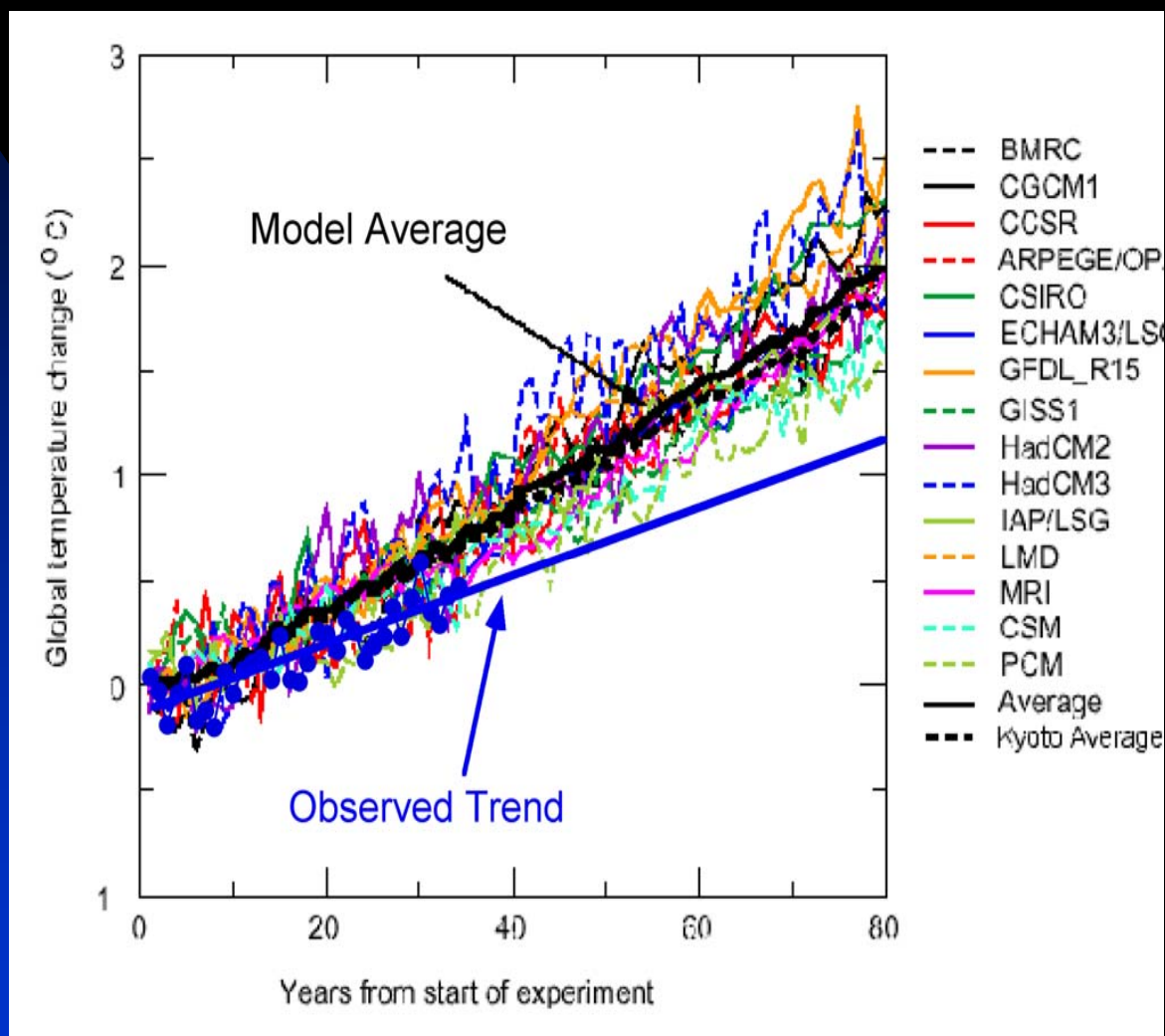
- Russia
- Iran
- Qatar

- Target is U.S. Market for LNG, but real time pricing controls for EU and profits from cap and trade scheme. This is a national security issue.

Scientific Debate

- Temperature increases due to fossil fuel use or natural cycle?
- Inconvenient Truth or convenient propaganda?
- Over 500 scientists disagree with findings of the UNIPCC report.

Observed and Predicted Global Temperature Change



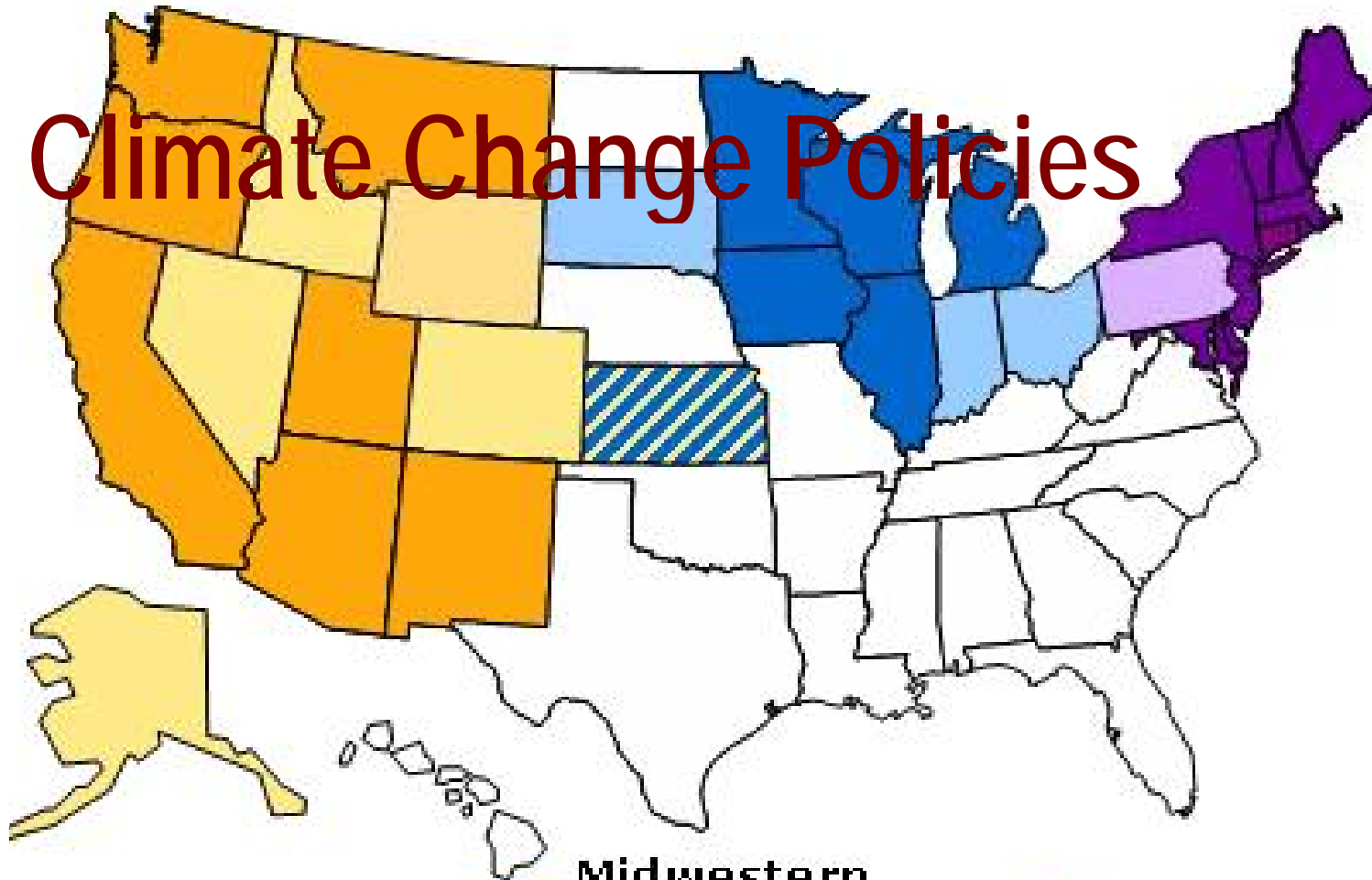
Carbon Cap and Trade

Carbon Tax

Where Does Europe Stand on Actually Complying with Kyoto?

- ❑ **European Union will not meet its goals to reach the 1990 emission levels by 2010**
- ❑ **EU leaders realize they cannot reconcile goals of increased EU industrial competitiveness. Italy, Spain, UK, Germany, Eastern European leaders are rebelling against current agreement.**
- ❑ **EU policymakers are concerned about the additional steps required to meet the targets including impact of emission trading schemes on industry.**
- ❑ **Germany plans to exempt new coal fired electricity from carbon emission restrictions. German Mittelstand just requested exemption from environmental restrictions.**
- ❑ **Slow EU economic growth hinders reducing energy intensity (energy used per Euro of output)**


Climate Change Policies



 Western Climate Initiative

 Western Climate Initiative - Observer

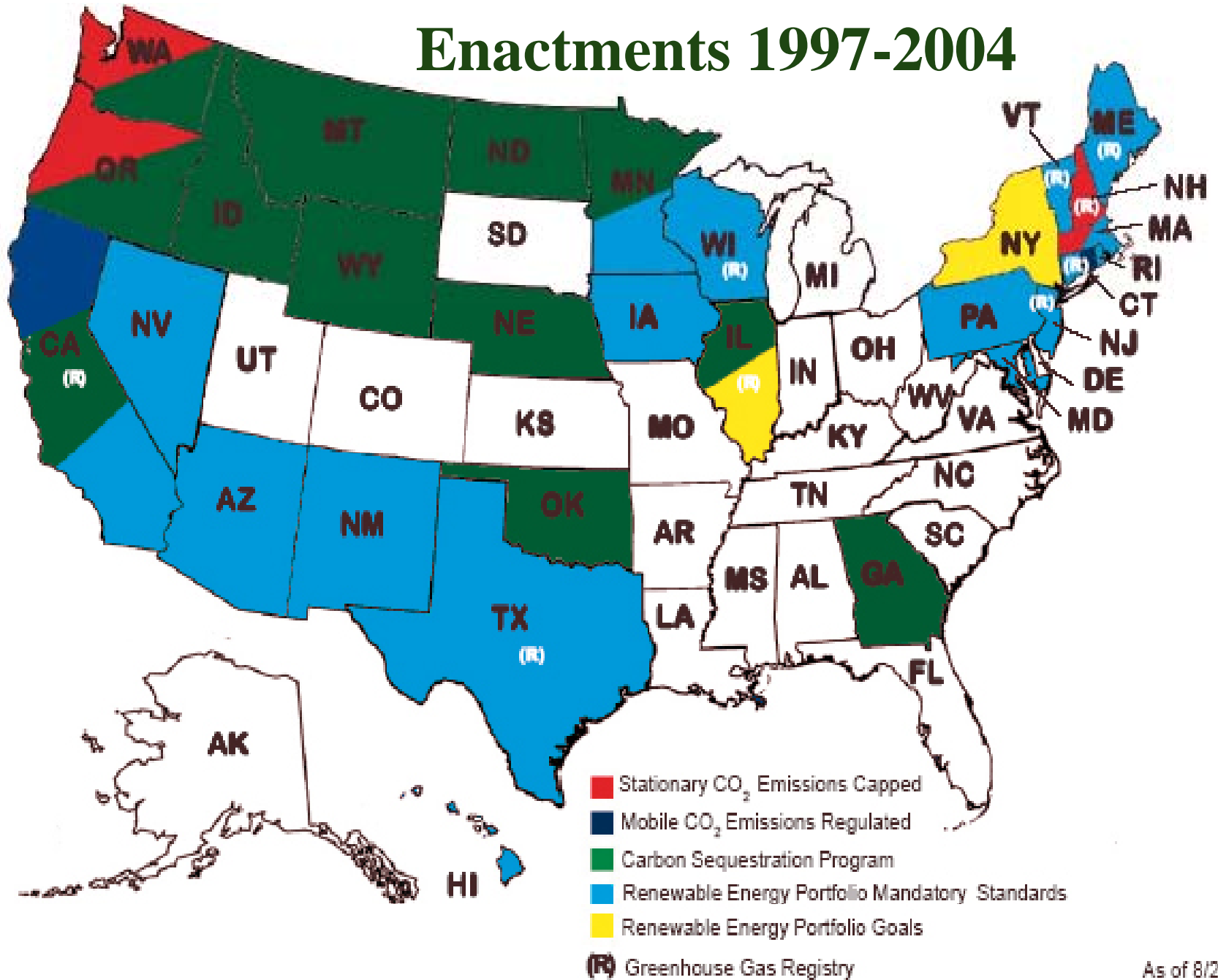
 Midwestern Greenhouse Gas Reduction Accord

 Midwestern Greenhouse Gas Reduction Accord - Observer

 RGGI

 RGGI-Observer

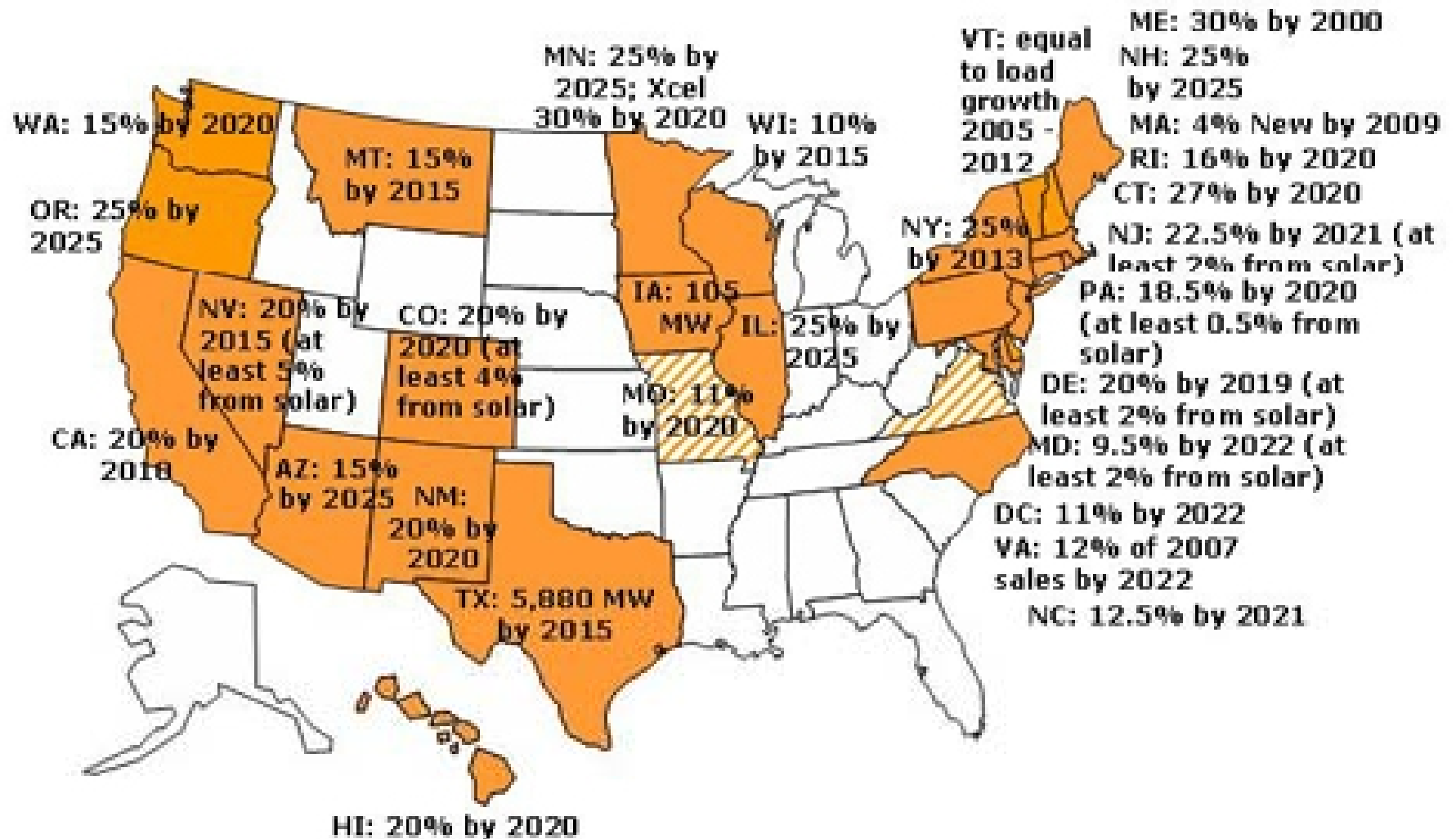
Enactments 1997-2004



As of 8/24/04

10/27/2008

Source: American Legislative Exchange Council, 09/04

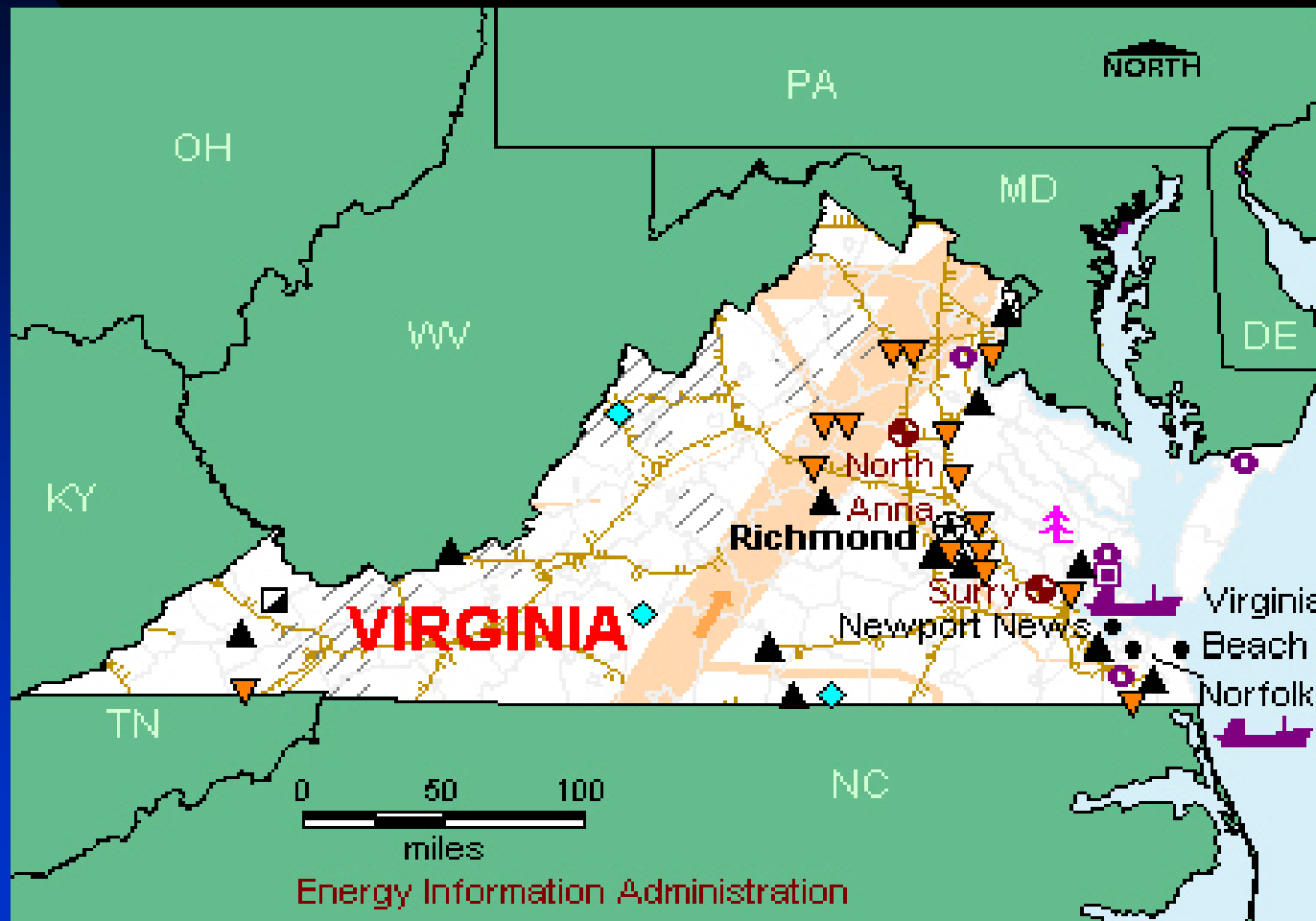


Mandatory RPS



RPS implemented through voluntary utility commitments

Virginia



S.2191 Lieberman-Warner

- Gross Domestic Product loss= \$1.5 trillion, possibly \$4.8 trillion 2030
- Annual GDP loss \$136 b possibly exceed \$400b
- 500,000 job losses annually
- Largest earmark in U.S History!!!

Virginia GSP ↓ \$4.3b/yr.

- 35,820-53,883 jobs lost by 2020
- 101,076-134,548 jobs lost by 2030
- ↑ Gasoline prices 74-145%-2030
- ↓ Household disposable income:
 - ◆ \$1,073-\$3,479 by 2020
 - ◆ \$4,522 -\$8246 by 2030

Low income hit the hardest: 18-20% of their income will be spent on energy.

*ACCF March, 2008

EPA ANPR

- Problems with Clean Air Act compliance
- \$6.7 trillion over 20 years
- 1.2 million new permits
- 500 acre farms treated as stationary sources.
- Due to global nature of CO₂ emissions, U.S. will NEVER be in compliance.

THE FREE MARKET OPTION or THE COMMONSENSE APPROACH!

- Diversify energy portfolio
- Increase access to proven reserves
- Tax reform to include accelerated depreciation rates to turn over technology in all sectors.
- Expand and maintain infrastructure
- Continue R&D