

The Obama Administration &

~~Imperative Alternative~~ Energy

Prepared for
Climate Change & Security at Copenhagen
Hosted by the Brookings Institute
March 17, 2009

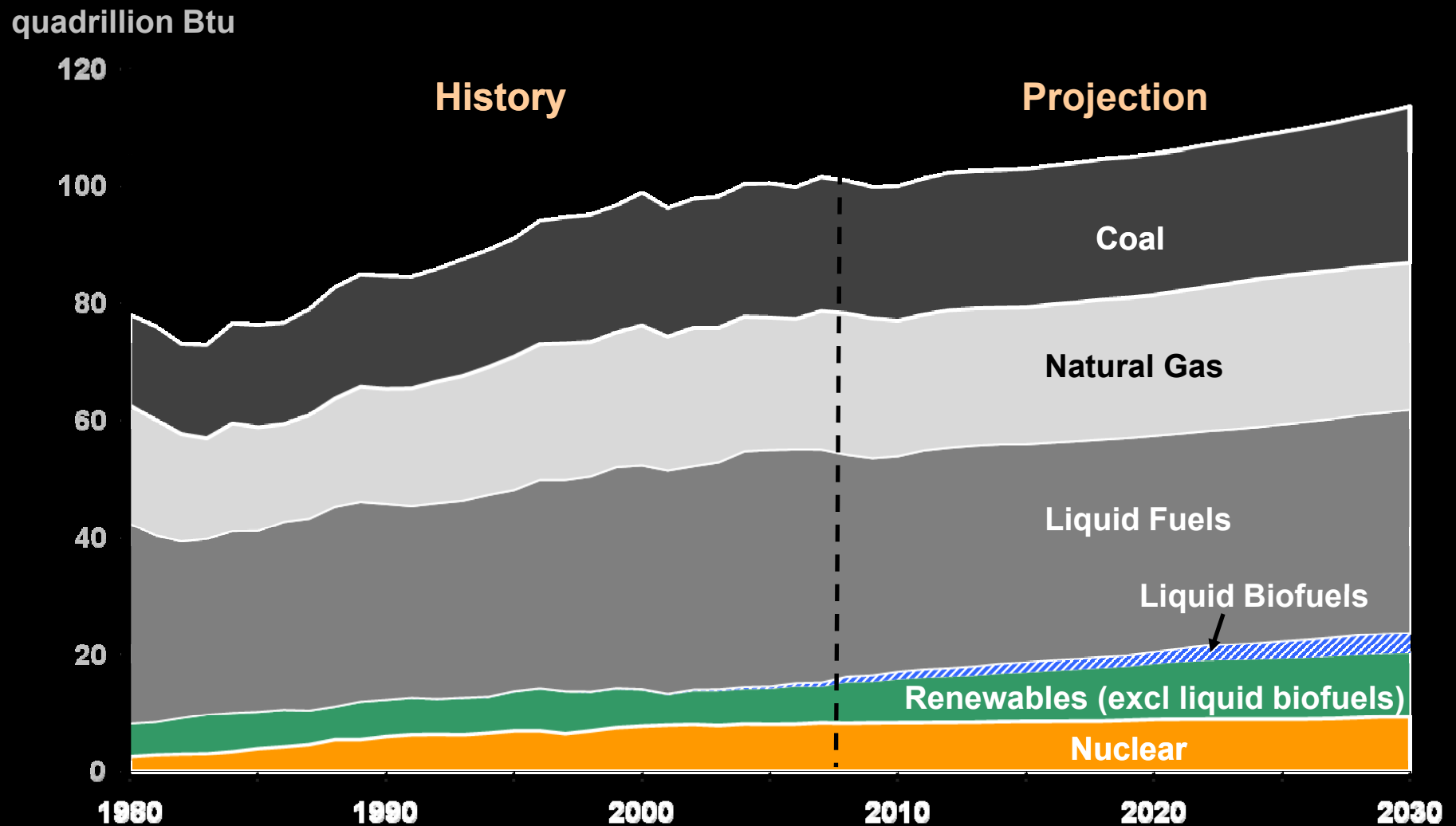
Holmes Hummel, PhD
hummel@stanfordalumni.org

Obama Administration & Imperative Energy

Inherited conditions & Immediate response

Policy Agenda & Outlook on Climate Front

*Non-fossil energy use grows rapidly, but ...
fossil fuels still provide 79% of total energy use in 2030*



EIA Annual Energy Outlook 2009, Reference Case Presentation -- December 17, 2008

Generation mix gradually shifts to lower carbon options

billion kilowatthours

6,000

History

Projections

5,000

Oil & Other

Renewable

4,000

Nuclear

25% x '20

3,000

33% x '20

Natural Gas

2,000

0% C x '20

1,000

Coal

1990

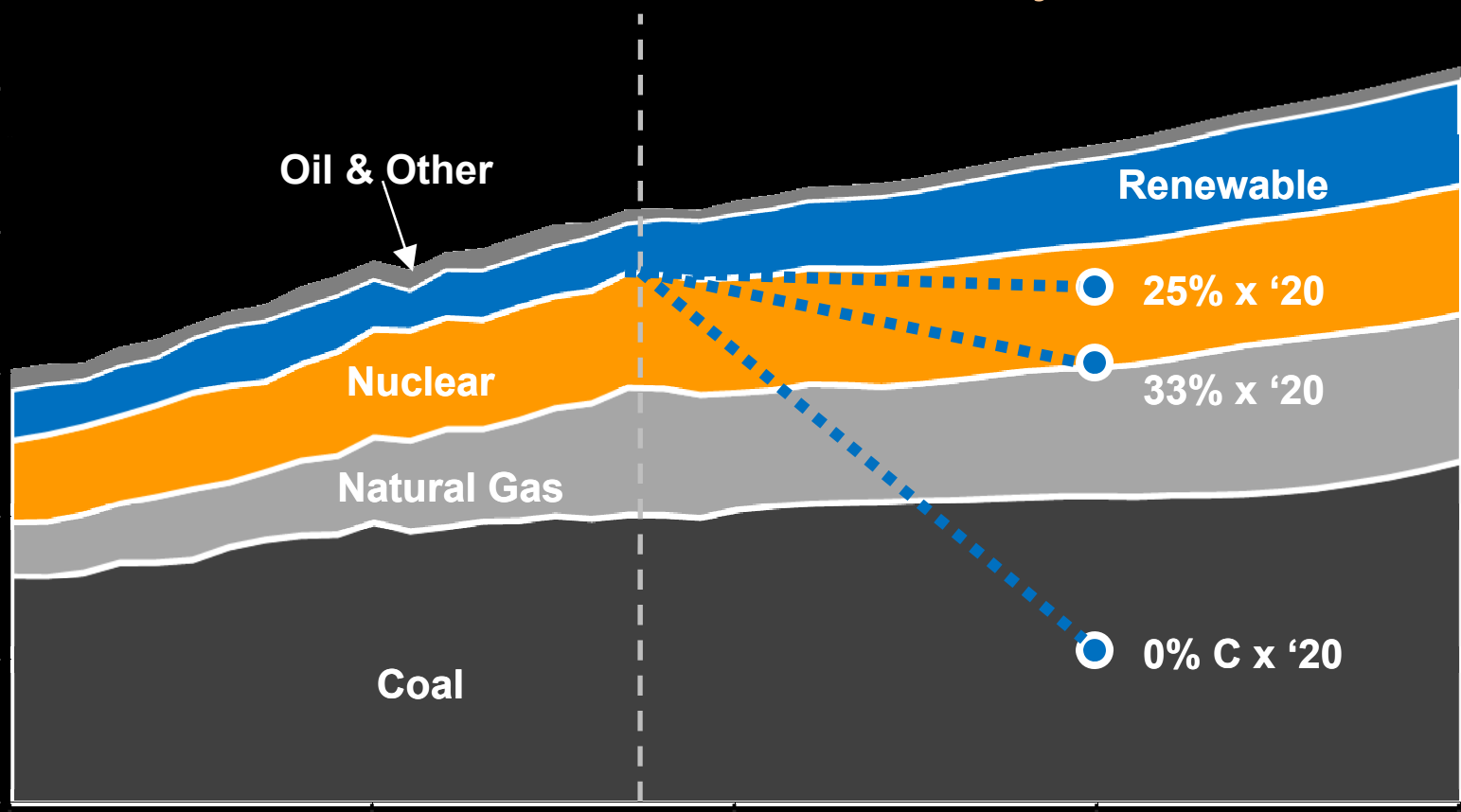
2000

2010

2020

2030

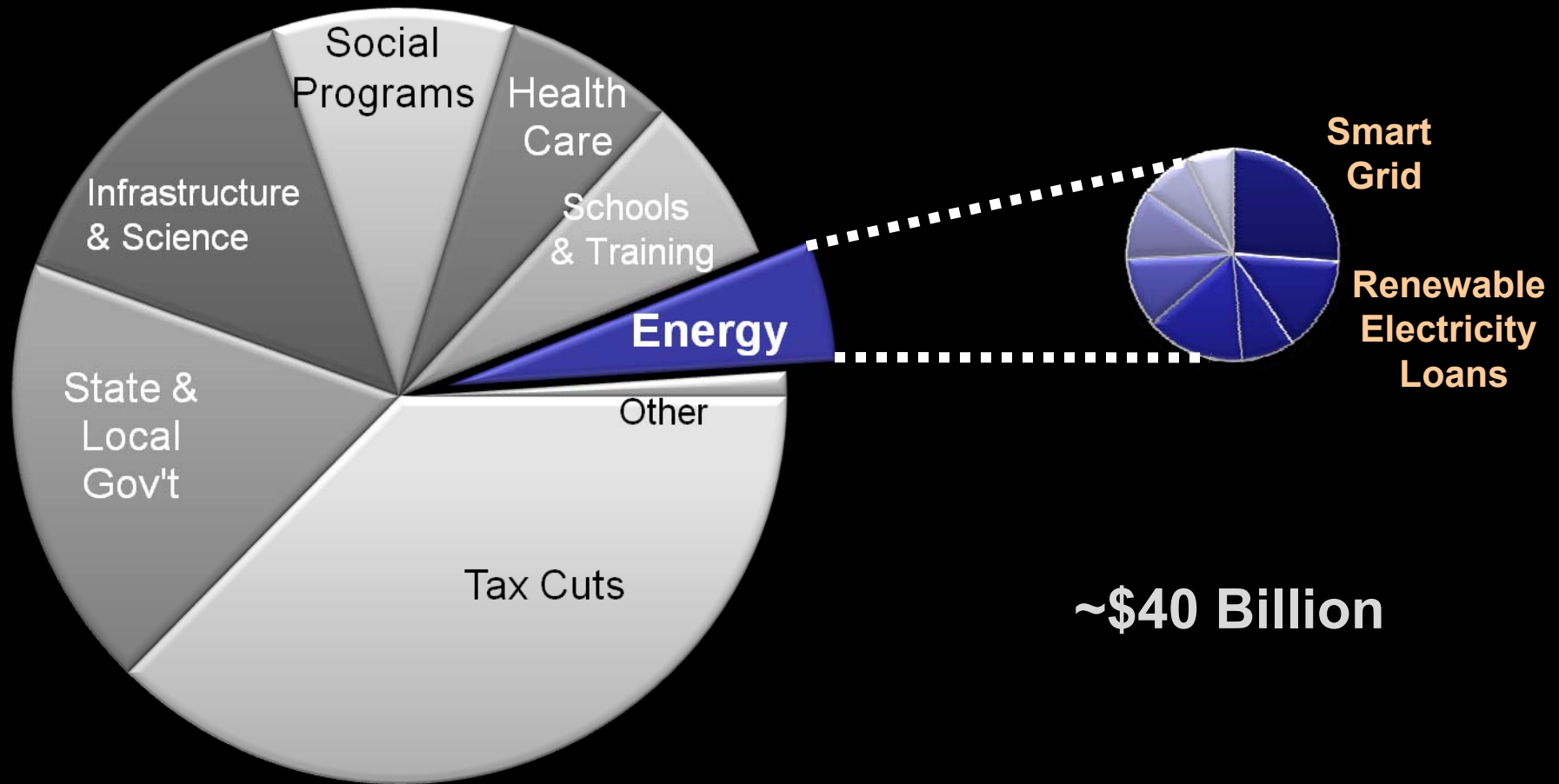
EIA Annual Energy Outlook 2009, Reference Case Presentation -- December 17, 2008



Stimulus Package Gives 2 Years of Strong Funding to Provisions in 2005 & 2007 Energy Bills

America's Recovery & Reinvestment Act

Energy



~\$40 Billion

Holmes Hummel, based on legislative summary

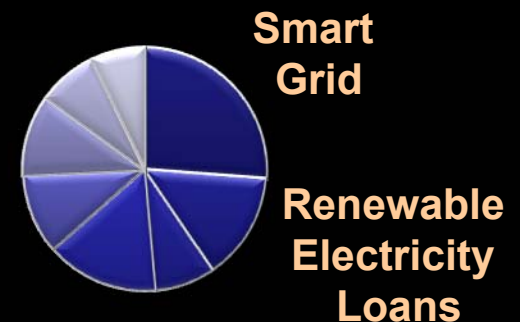
Stimulus Package Gives 2 Years of Strong Funding to Provisions in 2005 & 2007 Energy Bills

Energy

“In order to bring significant amounts of renewable energy online, **tens of thousands** of new miles of high voltage national transmission is necessary”

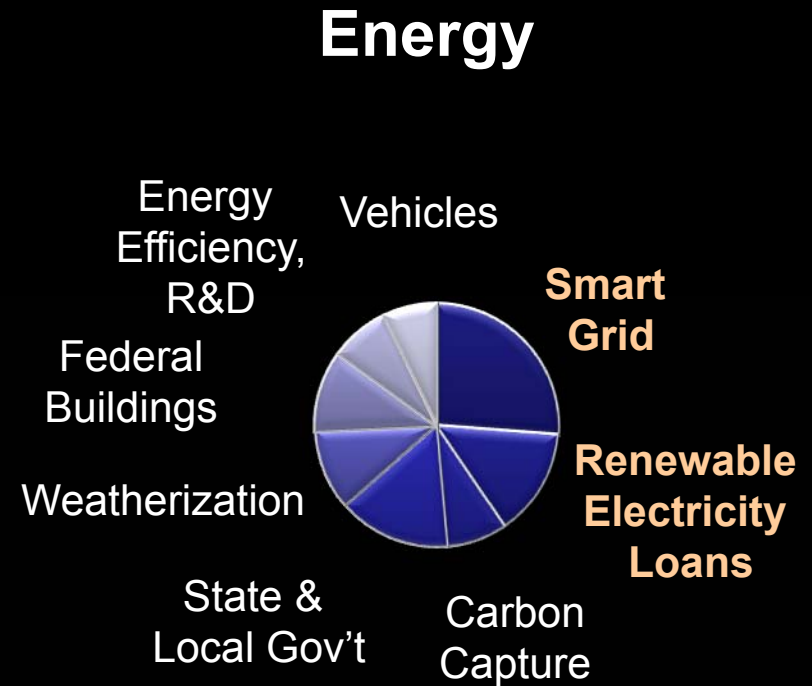
3,000 miles of new or modernized transmission lines envisioned through Recovery Act funding

\$6 Billion in tax payer debt, envisioned to leverage \$100 Billion in private investment



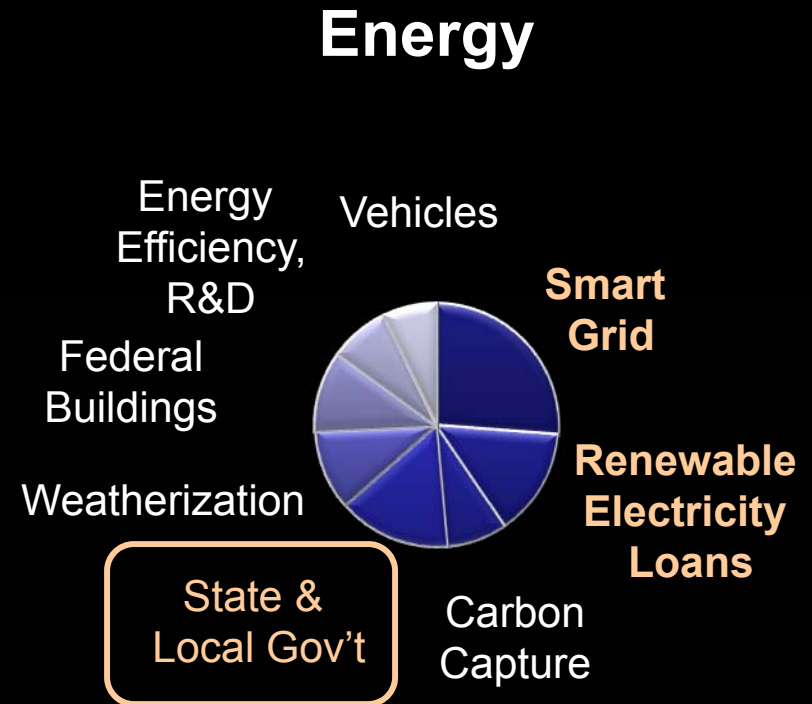
~\$40 Billion

Stimulus Package Gives 2 Years of Strong Funding to Provisions in 2005 & 2007 Energy Bills



~\$40 Billion

Stimulus Package Gives 2 Years of Strong Funding to Provisions in 2005 & 2007 Energy Bills



Section 410: To receive full funding,

Governor must certify that the following will occur:

1. Prioritization of renewable energy & efficiency projects
2. Adoption of 2007 building codes
3. Decoupling of utility profits from electricity sales

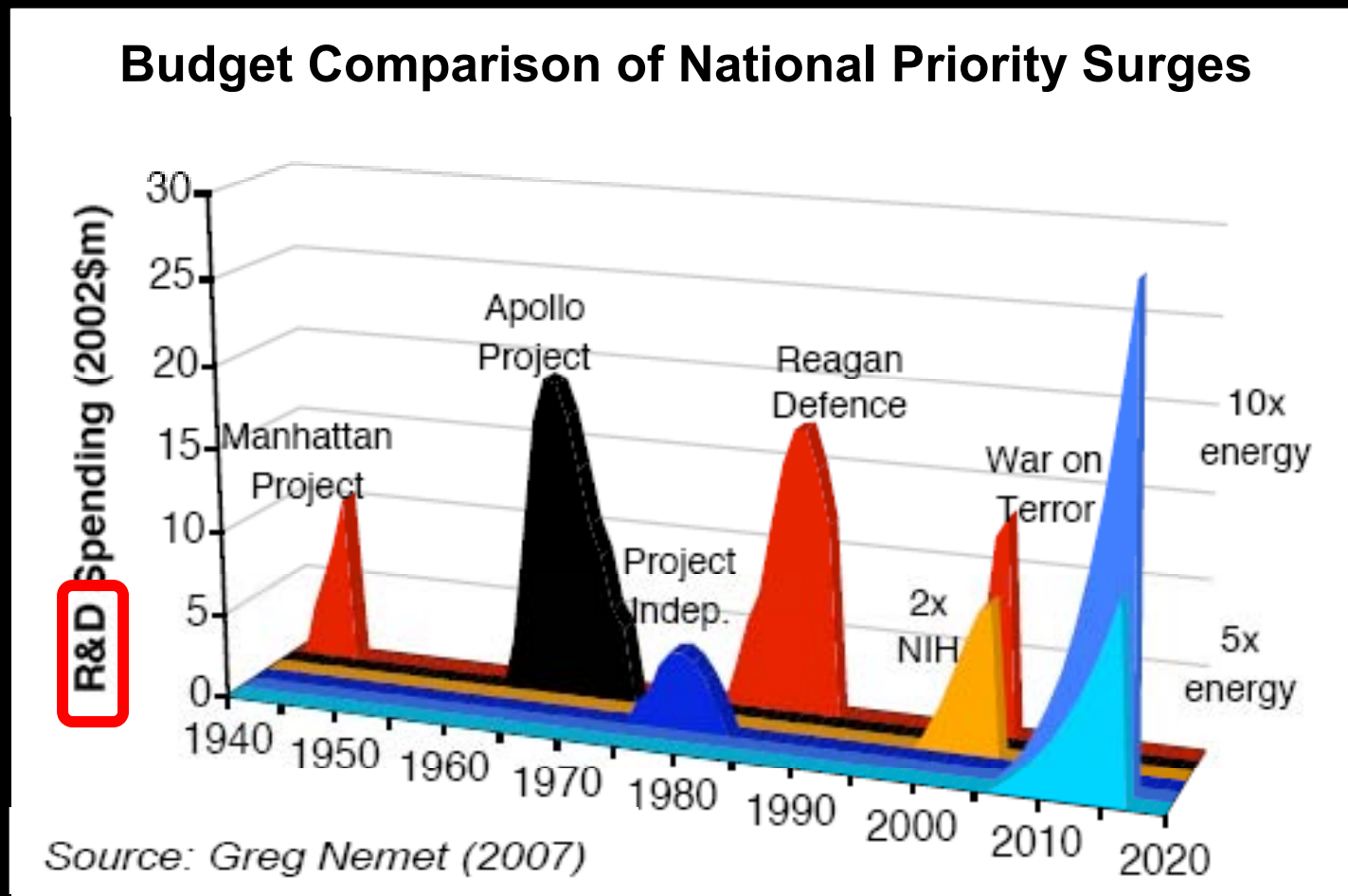
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Obama Campaign: “New Energy for America”

- \$150 billion over 10 years to catalyze private efforts

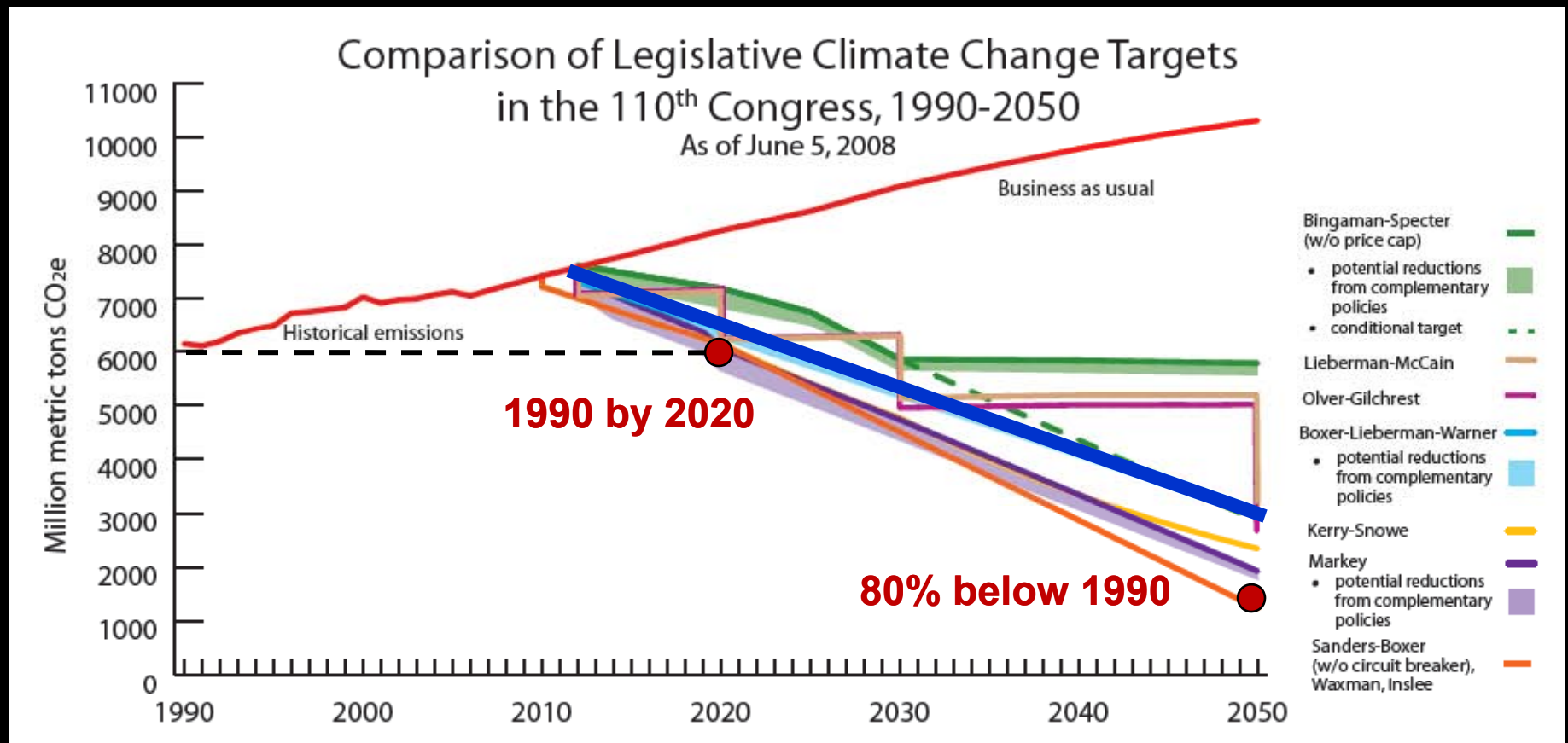


Obama Campaign: “New Energy for America”

- \$150 billion over 10 years to catalyze private efforts
- Renewable Electricity Standard: 10% by 2012; 25% by 2020
- Double renewable energy production by 2012
- 1 million plug-in hybrid vehicles by 2015
- Low Carbon Fuel Standard
 - Note: Renewable Fuel Standard waives GHG-savings requirement on 13 billion gallons of corn ethanol production.

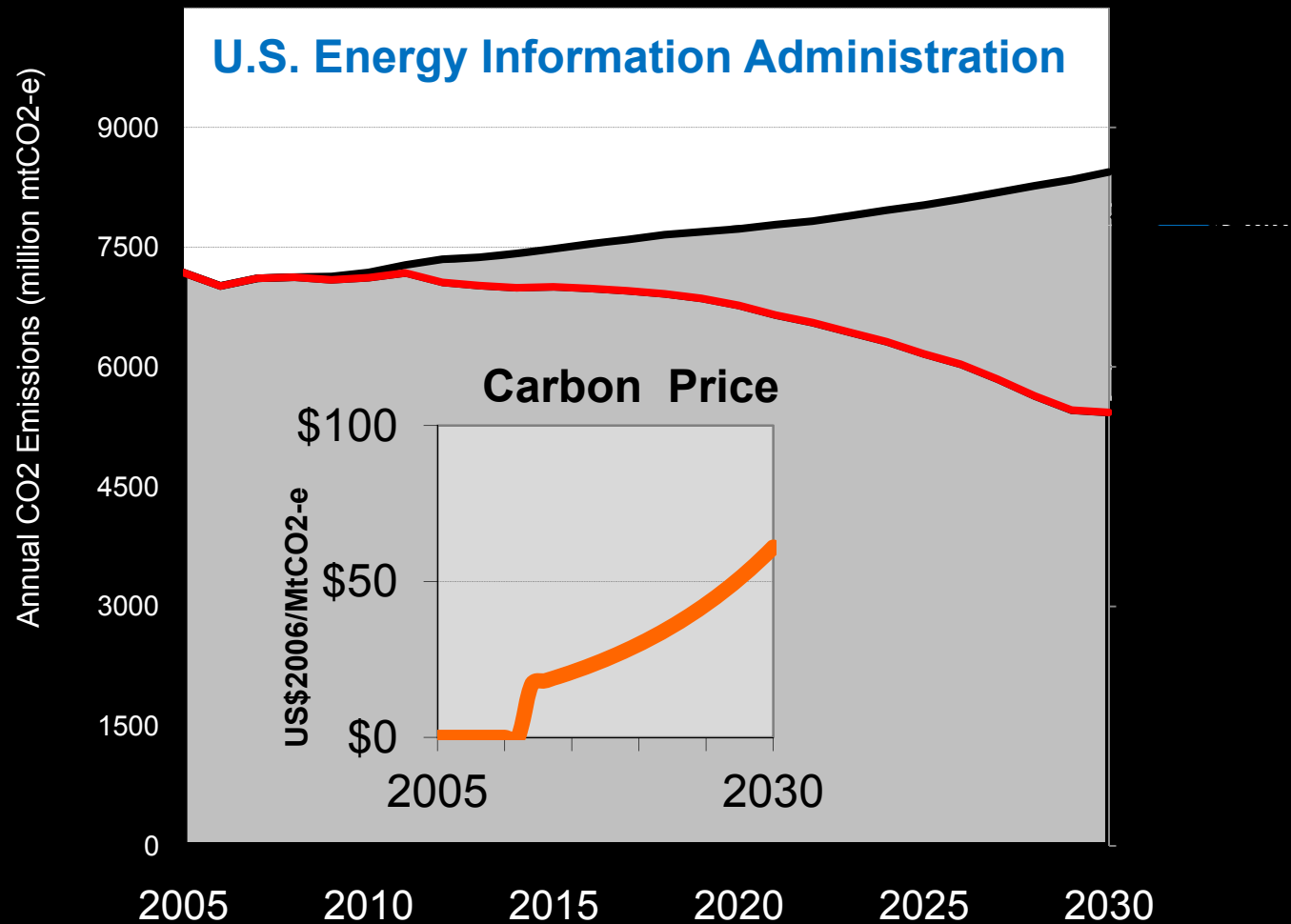
Climate Change & Security – and Imperative Energy

President Obama matches the most ambitious legislative targets



Climate Change & Security – and Imperative Energy

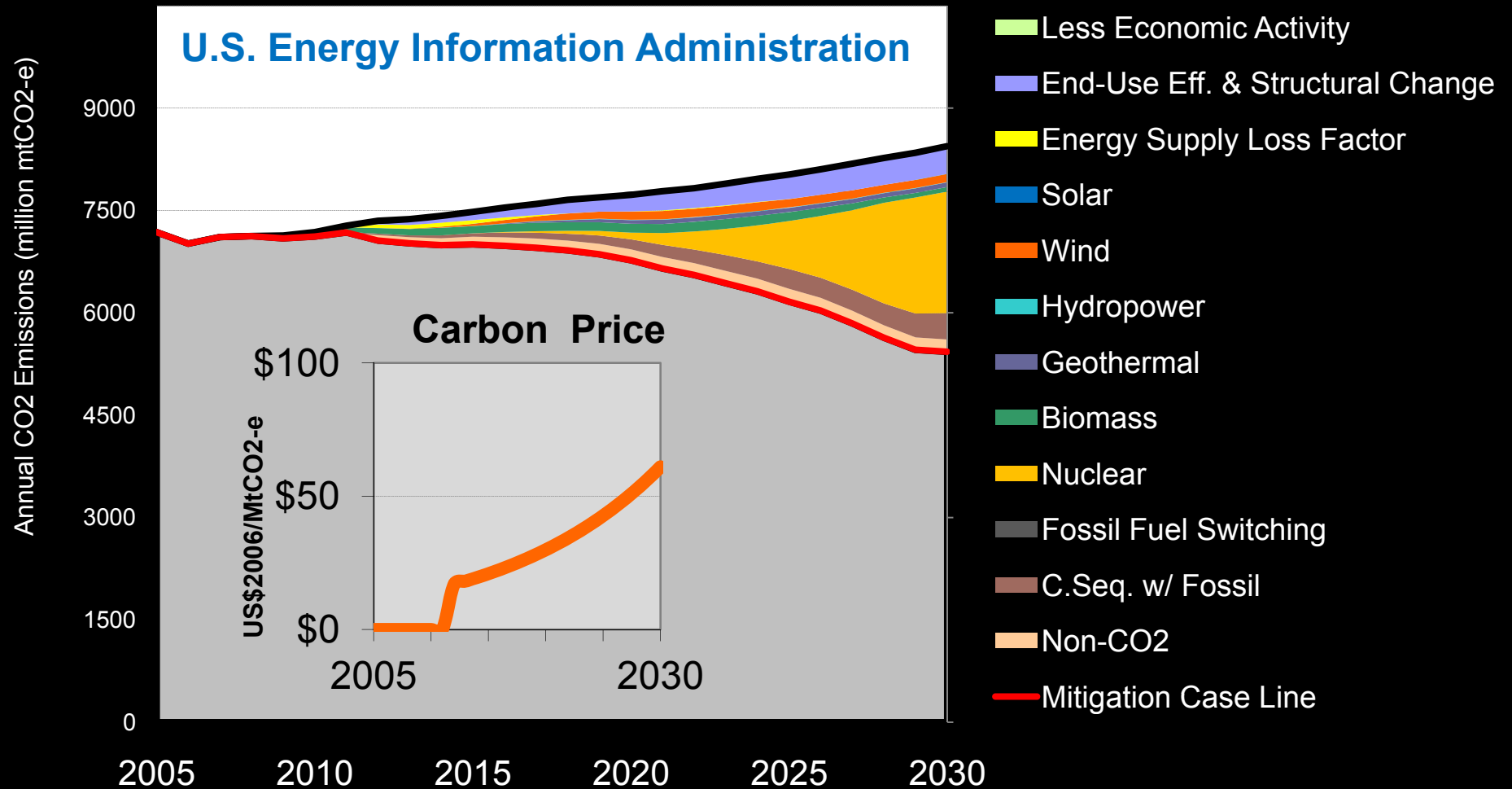
Analysis of the Lieberman-Warner Climate Policy



Analysis by Holmes Hummel, PhD of EIA S.2191 Core Case

Climate Change & Security – and Imperative Energy

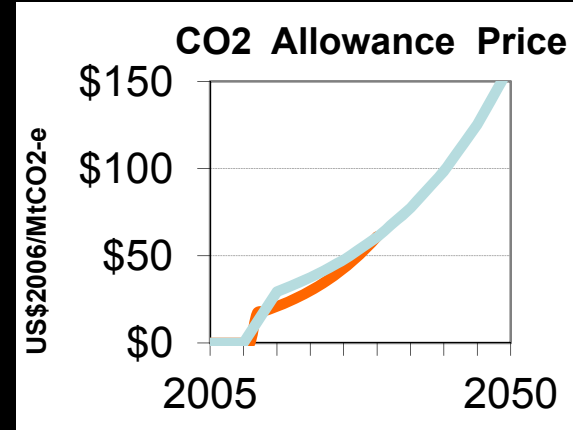
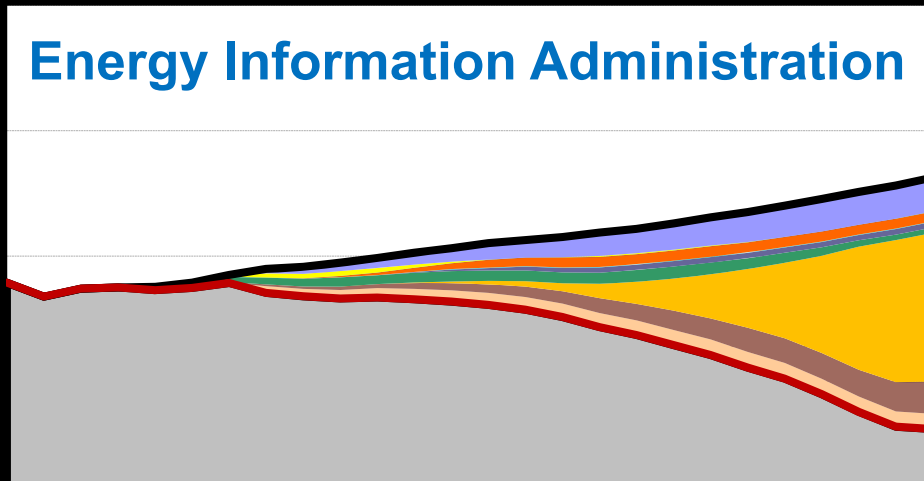
Analysis of the Lieberman-Warner Climate Policy



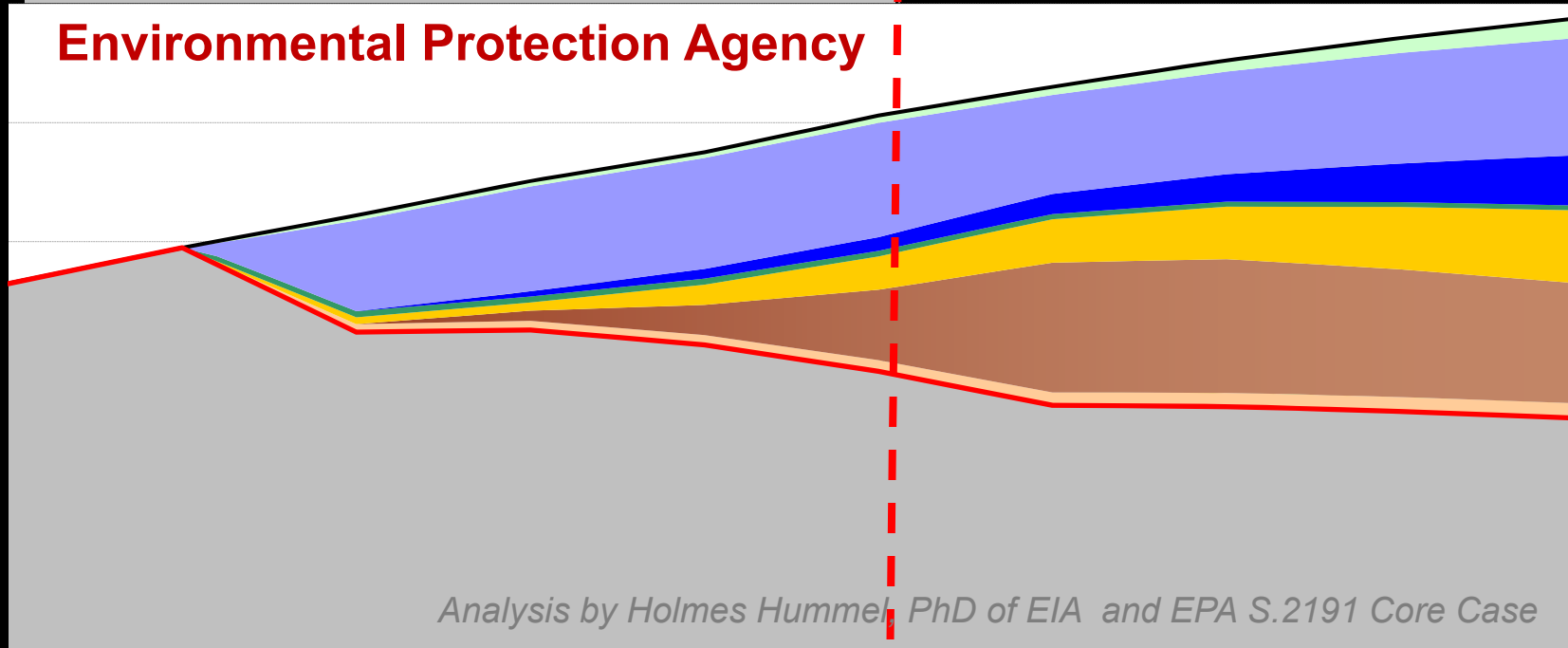
Analysis by Holmes Hummel, PhD of EIA S.2191 Core Case

Climate Change & Security – and Imperative Energy

Energy Information Administration



Environmental Protection Agency



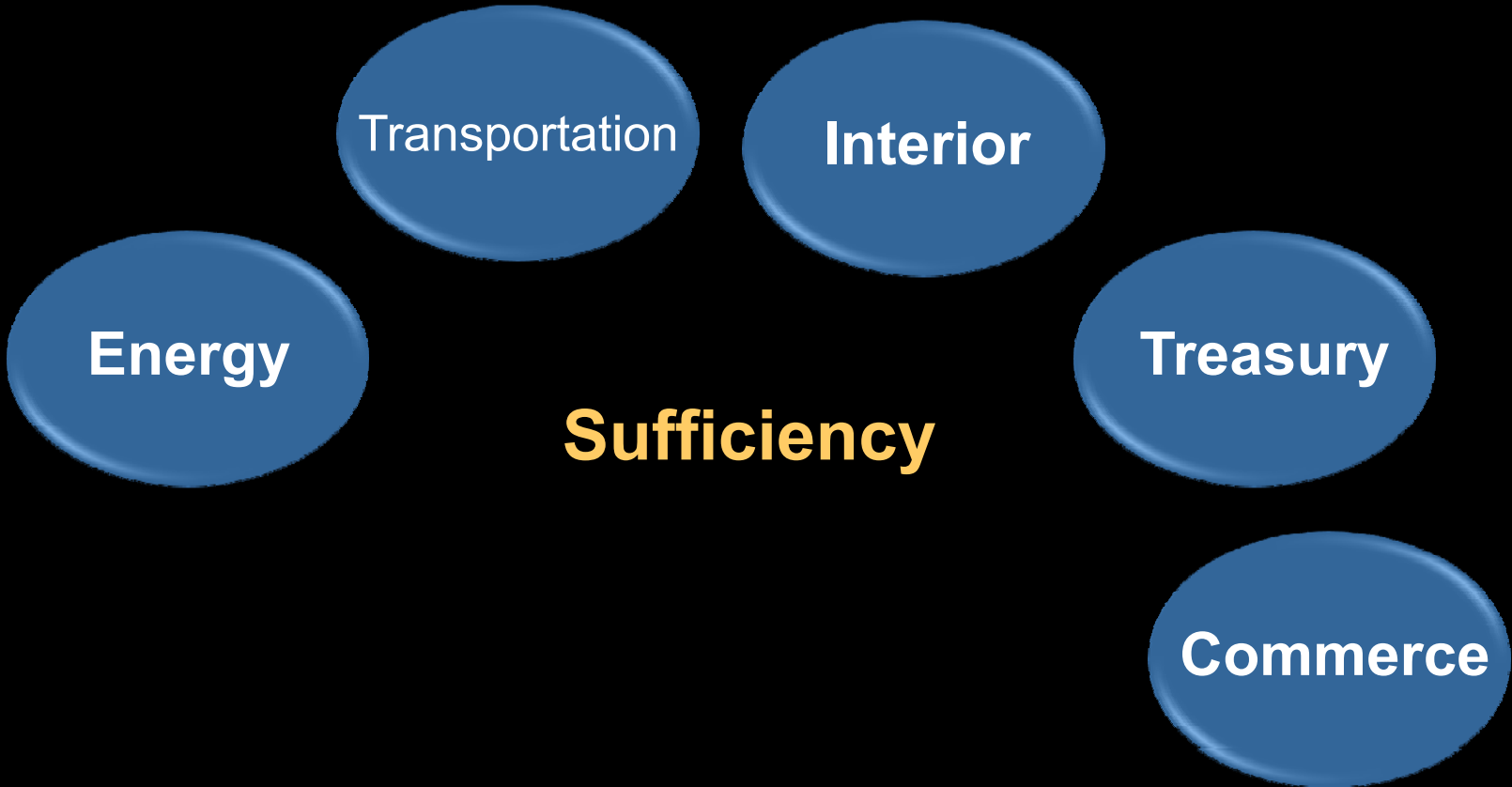
Analysis by Holmes Hummel, PhD of EIA and EPA S.2191 Core Case

**Interagency
Coordination**

Supports

**International
Cooperation**

Sufficiency



Transportation

Interior

Energy

Treasury

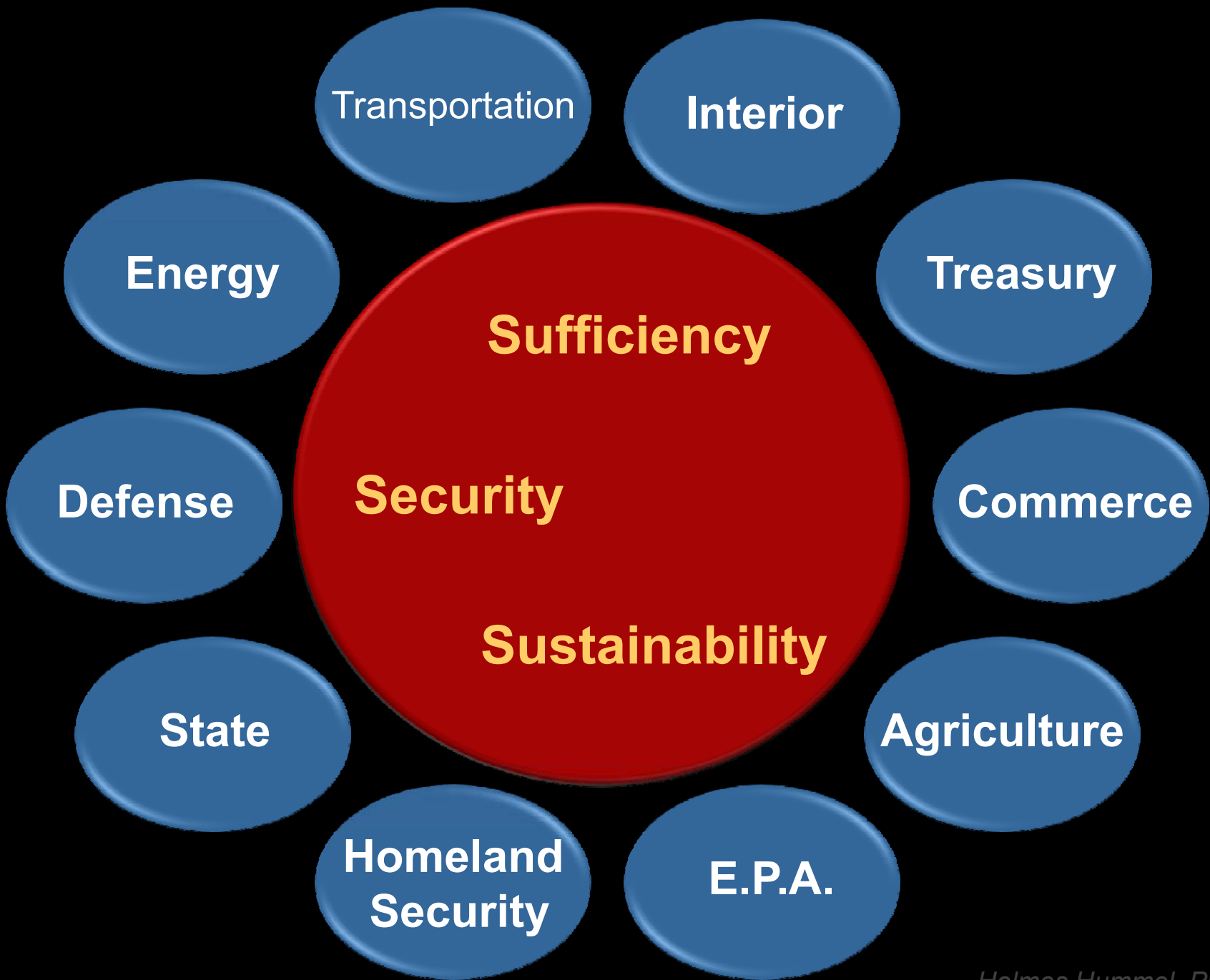
Sufficiency

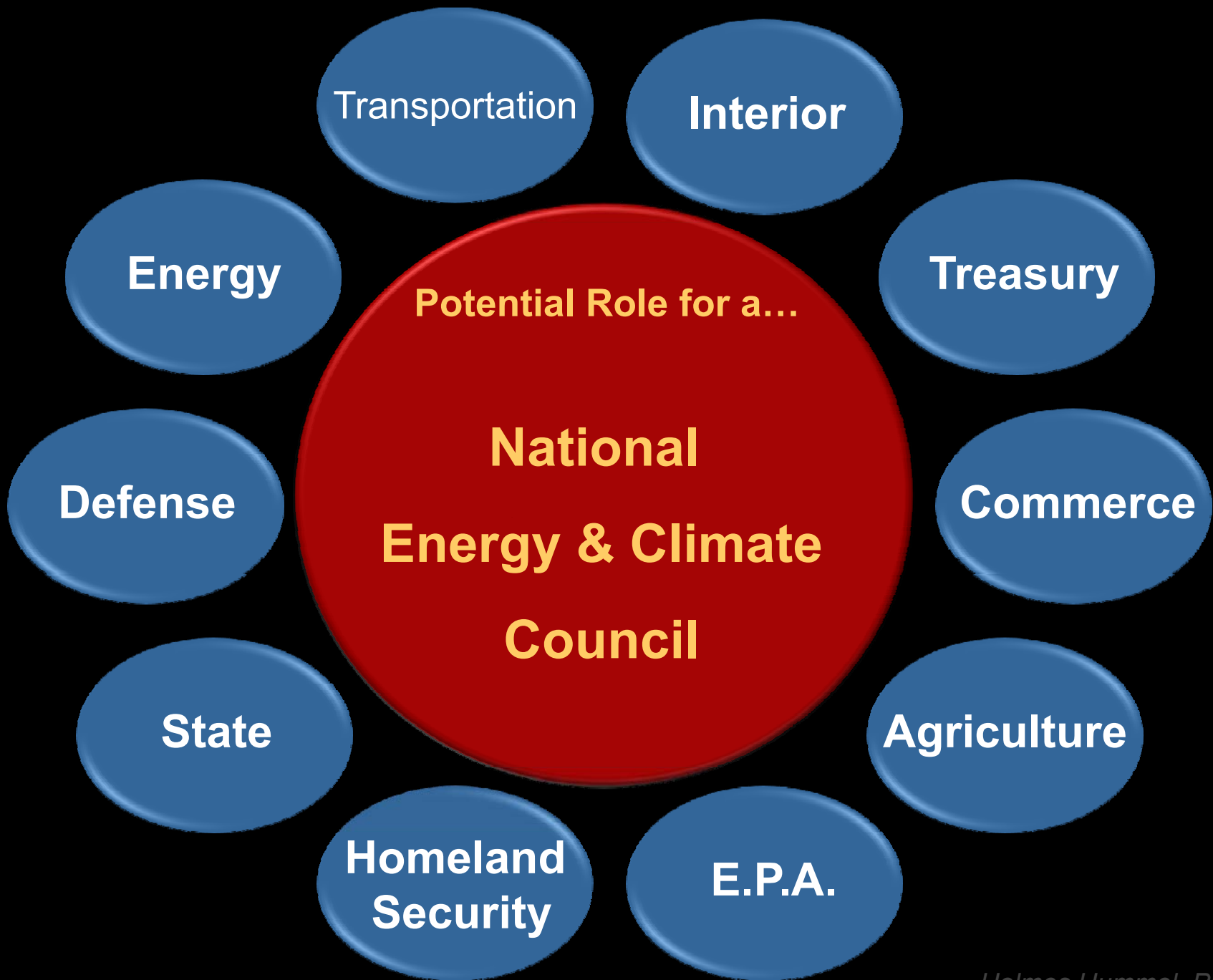
Defense

Security

Commerce

State





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