The Obama Administration &

Imperative

Alternative Energy

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

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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.
Generation mix gradually shifts to lower carbon options

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

America’s Recovery & Reinvestment Act

- Social Programs
- Health Care
- Schools & Training
- Infrastructure & Science
- State & Local Gov't
- Tax Cuts
- Energy
- Other

Energy

- Smart Grid
- Renewable Electricity Loans

~$40 Billion

Holmes Hummel, based on legislative summary
Stimulus Package Gives 2 Years of Strong Funding to Provisions in 2005 & 2007 Energy Bills

“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

Holmes Hummel, based on legislative summary
Stimulus Package Gives 2 Years of Strong Funding to Provisions in 2005 & 2007 Energy Bills

~$40 Billion

Holmes Hummel, based on legislative summary
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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Policy Agenda & Outlook on Climate Front
Obama Campaign: “New Energy for America”

- $150 billion over 10 years to catalyze private efforts

Budget Comparison of National Priority Surges

Source: Greg Nemet (2007)
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.
President Obama matches the most ambitious legislative targets:
- **1990 by 2020**
- **80% below 1990**

Comparison of Legislative Climate Change Targets in the 110th Congress, 1990-2050
As of June 5, 2008

World Resources Institute, June 2008
Climate Change & Security – and Imperative Energy

Analysis of the Lieberman-Warner Climate Policy

U.S. Energy Information Administration

Annual CO2 Emissions (million mtCO2-e)

Carbon Price

Analysis by Holmes Hummel, PhD of EIA S.2191 Core Case
Climate Change & Security – and Imperative Energy

Analysis of the Lieberman-Warner Climate Policy

U.S. Energy Information Administration

- Less Economic Activity
- End-Use Eff. & Structural Change
- Energy Supply Loss Factor
- Solar
- Wind
- Hydropower
- Geothermal
- Biomass
- Nuclear
- Fossil Fuel Switching
- C.Seq. w/ Fossil
- Non-CO2
- Mitigation Case Line

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Energy Information Administration

Environmental Protection Agency

CO2 Allowance Price

US$2006/MtCO2-e

Analysis by Holmes Hummel, PhD of EIA and EPA S.2191 Core Case
Interagency Coordination Supports International Cooperation
Sufficiency
Sufficiency

- Transportation
- Interior
- Energy
- Treasury
- Commerce

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Transportation  Interior
Energy  Sufficiency
Defense
State  Security
Treasury  Commerce

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Potential Role for a... National Energy & Climate Council
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