Economy — Energy — Climate: Using the Linkages
The Basics

- Strong Economy Depends on Energy and Stable Climate
- Energy Policy that Ignores Climate Protection Will Fail
- Climate Policy that Ignores Energy Needs Will Fail
Economic and Energy Security

• Position U.S. to capture markets for new technologies
  – High-efficiency vehicles and appliances
  – Smart power-distribution systems
  – Advanced fuels

• Achieve deep cuts in oil dependence

• Use more home-grown resources for power production
Climate Security

- Achieve deep cuts in U.S. emissions
  - Smarter vehicles, buildings, appliances
  - Advanced fuels
  - Cleaner electric power

- Empower global reductions
  - Show U.S. leadership
  - Sell U.S. solutions
Exploiting Linkages

- Protecting the climate IS an economic growth strategy
- Protecting the climate IS an energy security strategy
- *Smart* energy policy IS a path to economic and climate security
Energy Alone

U.S. CO2 Emissions

Ref case NOEISA 2007
Energy Alone

U.S. CO2 Emissions

![Graph showing U.S. CO2 emissions from 2005 to 2030. The red line represents Ref case NOEISA 2007, and the green line represents Ref case EISA 2007. Emissions rise gradually over the period.]
Energy Alone

U.S. CO2 Emissions

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NRDC
The Earth's Best Defense
Energy Alone

U.S. Gross Crude/Refined Product Imports
Climate Alone
Power Sector CO$_2$ Emissions

Total US Power CO$_2$: EIA v ASES
Coal Gen EIA Ref v ASES

- **EIA Ref**
- **ASES**

<table>
<thead>
<tr>
<th>Year</th>
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<tr>
<td>2005</td>
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**Note:** The chart shows the billion KWh generated from coal for the years 2005, 2020, 2025, and 2030, comparing EIA Reference and ASES forecasts.
Democrats Questioning Boxer Bill

- Bayh
- Brown
- Levin
- Lincoln
- McCaskill
- Nelson, B.
- Pryor
- Rockefeller
- Stabenow
- Webb

- Bingaman
- Byrd
- Conrad
- Dorgan
- Johnson
- Salazar
The Power of Coal

Cost Per kWh & Percent of Coal Generation

φ = average retail price per kilowatt hour, 2007
% = percent of total generation from coal, 2007
The Power of Coal

Cost Per kWh & Percent of Coal Generation

- Conrad Dorgan
- Johnson
- Nelson, B.
- Salazar
- Bingaman
- McCaskill
- Bayh
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- Byrd Rockefeller
- Webb

- Pryor Lincoln

\(\text{\(\phi\)} = \text{average retail price per kilowatt hour, 2007}\)

\(\% = \text{percent of total generation from coal, 2007}\)
## Coal and the Senate

<table>
<thead>
<tr>
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IN REALITY, THERE’S NO SUCH THING AS CLEAN COAL.

THERE ARE ROUGHLY 600 COAL PLANTS PROVIDING ELECTRICITY IN THE US. NOT ONE OF THEM CAPTURES AND STORES ITS GLOBAL WARMING POLLUTION.
CCS: Moving Beyond Hype

IN REALITY, THERE’S NO SUCH THING AS CLEAN COAL.
Coal is one of the leading causes of global warming. But that hasn’t stopped the coal industry from advertising clean coal. Yet, the truth is there isn’t a single commercial coal power plant in America today that captures its global warming pollution. Learn more about what the coal industry is not telling you at thinkernality.org
POLICY
4-Part Deployment Program

- National GHG Cap
- Fleet-wide standard: low-carbon generation obligation (tradable requirement to generate low-carbon kwh from coal).
- New plant performance: NSPS.
- Financial Incentives: direct payments for injected CO2 (funded by allowance value).
Some Important Climate Players

- Senate—
  - “3 B’s”: Boxer; Bingaman; Baucus
  - Other Committees: Ag; Banking; For. Relations; Appropriations
  - Others: Reid; Corker; McConnell; Lugar; Specter

- House—
  - Waxman; Markey; Pelosi; Barton; Shimkus
Economy & Energy Links
“Hopefully the American public will wake up and support their policymakers who see this is an essential issue. I don't think the American public has grasped in its gut what could happen.... Forests are dying because of parasites. The pine bark beetle is killing pine. British Columbia has already lost 40 percent of its pine ... so, when there are no trees, when it rains, the soil doesn't hold the water... The American public needs to be made aware that this is happening. This is a real economic disaster in the making for our children, for your children.”

DOE Secretary Steven Chu, L.A. Times, Feb. 4, 2009
Green Recovery
A Program to Create Good Jobs and Start Building a Low-Carbon Economy

University of Massachusetts Political Economy Research Institute
Reducing Oil Consumption: Cars And Light Trucks

Key Assumptions:

New vehicle efficiency = 78 mpg by 2050
VMT reduction = 20% from BAU
Electricity use = 45% of miles driven

Key Assumptions:

New vehicle efficiency = 52 mpg by 2050
VMT reduction = 10% from BAU
Electricity use = 30% of miles driven

2050 Light duty vehicle gasoline gallon equivalents

BAU demand = 240 Billion gallons
Finding 9 Million Barrels per Day

- Climate Change Bill Can Produce 7.1 to 9.3 Mbd (2025 to 2050) timeframe:
  - Efficiency Savings
  - Added production from domestic Enhanced Oil Recovery (EOR) with industrial CO2

Reduction in Oil Imports

BLUEPRINT
FOR LEGISLATIVE ACTION
Diverse Voices Represented

Member Organizations:

- ALCOA
- AIG
- Boston Scientific
- BP
- Caterpillar
- ConocoPhillips
- Chrysler
- Jeep
- ExxonMobil
- Exelon
- Marsh
- PG&E Corporation
- PNM Resources
- Rio Tinto
- Siemens
- John Deere
- Dow
- FPL Group
- DuPont
- Duke Energy
- General Electric
- NRG
- Nature Conservancy
- PEPSICO
- World Resources Institute
- ConocoPhillips
- Johnson & Johnson
- Pew Center on Global Climate Change
Speedy Timeline

• House E&C Comm. by end of May
• Pass House by August recess
• Senate: multi-committee process with reports by July 4 recess
• Pass Senate in September
• Conference in October (November)
• Signature by COP 15
Warming won’t wait. Will we?

Since 1979, more than 40% of the Polar Ice Cap has melted away.

SUMMER ARCTIC SEA ICE BOUNDARY IN 1979
Thank You

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