For a full discussion of underlying methodology, assumptions and references, please see [http://www.wri.org/usclimatetargets](http://www.wri.org/usclimatetargets).

**Business as usual** emission projections are from EPA’s reference case for its analysis of the Waxman-Markey bill. **Short-term projected emissions** represent EIA’s most recent estimates of emissions for 2008-2010.

**The CLEARA sets economy-wide reduction targets beginning with a 20 percent reduction from 2005 levels by 2020. However, additional action by Congress would be required before these targets could be met. Reduction estimates do not include emissions increases above the cap that could occur if the safety-valve is triggered.**

***The APA and the ACESA allow offsets from emission reduction activities outside the cap to be used for a portion of compliance. If these offsets are not real, additional, verifiable and permanent, net emissions reductions would decrease proportionately.
The Politics of Coal

- Mercury & Other Air Emissions
- Ash & Combustion By-Product Disposal
- Water Consumption
- Mining Impacts
- Worker Health & Safety
The Waxman Markey Framework

### Demonstration & Early Deployment
- Carbon Storage Research Corporation
- At Least Five Commercial Scale CCS Projects
- Assessment on Distribution Utilities Based on Fossil Fuel kWhs Delivered
- Approximately $1 Billion per Year
- Public Meetings & Annual Report
- 10 Year Program

### Commercial Deployment
- >200 MW & >50% Coal/PetCoke
- Phase I: 6 GWs
  - Tons Avoided x Bonus Allowance Value
  - Avg. FMV of Prior Year Allowances
  - BAV: 50% = $50 to 85% = $90
- Phase II: Up to 72 GWs
  - Reverse Auction; or,
  - Allocation by Tranches for “Reasonable Incremental Capital & Operating Expenses Attributable to CCS”
- Subsidy for 10 Years of Operation
Fuel Mix & Fuel Price Matter

Central California CCS
Natural Gas On Margin

$6,000 /kW
11,500 BTU/kWh
55/45 Debt to Equity
6.5% Interest Rate
12% ROE
20 Year Book Life

CCS Interior West
Coal On Margin

GAS @ $3/MMBTU

Source: Shu, Economics and Policies for Carbon Capture and Sequestration in the Western United States. MIT, 2010
What Makes CCS Fly?

• A Price on Carbon
• Development & Deployment Dollars
• Public Confidence
  – Thoughtful Regulatory Framework
  – Good Geology
  – Risk Management in Private Sector
  – Public Education & Outreach