

ENERGY AND CLIMATE CHANGE POLICY CONTEXT: STATE, FEDERAL AND INTERNATIONAL

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Overview of Presentation

- ❑ Introduction to the Pew Center
- ❑ International negotiations
- ❑ U.S. climate and energy policy overview
- ❑ State-level policy action
- ❑ Federal climate policy state-of-play

Pew Center on Global Climate Change

- Founded in May 1998
- Independent, non-profit, non-partisan
- Produces **research** on policy, economics, science, solutions
- Works with **policymakers** at state, federal and international levels
- Conducts **education** and outreach
- Engages the **business** community through the Business Environmental Leadership Council

Business Environmental Leadership Council



International Negotiations

The UN Climate Agreements

UNFCCC

- 192 parties (including US) in 1994
- To prevent “dangerous” human interference
- “Common but differentiated responsibilities”
- Developed country “aim”: 1990 levels by 2000

Kyoto Protocol

- 182 parties in 2005
- Binding emission targets for 36 developed countries (average 5% below 1990 levels by 2008-2012)
- Market-based architecture designed by U.S.; however, U.S. did not sign on to the Kyoto Protocol
- Expires in 2012

Post-2012 Parallel Negotiating Tracks

- Two parallel efforts going on that are not formally linked
 - AWG-KP: Ad Hoc Working Group / Kyoto Protocol
 - Negotiating post-2012 commitments for countries with Kyoto targets
 - Launched 2005 in Montreal
 - AWG-LCA: Ad Hoc Working Group / Long-Term Cooperative Action
 - 2007 Bali Action Plan called for agreed outcome by 2009

From Kyoto to Copenhagen

- Key elements of Copenhagen Accord (brokered by Obama)
 - Aspirational goal of limiting global temperature increase to 2 degrees Celsius;
 - Process for countries to submit their mitigation pledges by January 31, 2010;
 - Terms for reporting and verification of countries' actions;
 - Commitment by developed countries for \$30 billion in "new and additional" resources in 2010-2012 to help developing countries reduce emissions, preserve forests, and adapt to climate change;
 - Goal of mobilizing \$100 billion a year in public and private finance by 2020 to address developing county needs.

Elaborating on the Accord

- Adding up the pledges
 - Countries with more than 80% of global emissions have inscribed targets or actions
 - China and India: unconditional emissions intensity targets
 - US: 17% below 2005 in 2020, contingent on legislation
 - Collectively, pledges deliver only 4-16% below BAU in 2020
 - Implies warming of 3 to 3.9 degrees C
- Procedural issues
 - Contains no reference to step two: a future binding agreement
 - Not formally adopted by the COP
 - Accord has no standing in UNFCCC's two-track (Convention and Kyoto) process

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Next Steps

- Cancun
 - Agreement to continue negotiating toward fuller agreement in Cancun, mid-late 2010
 - Many looking to South Africa in 2011 as possible place for negotiating binding agreement
- Most critical steps are at home
 - Without legislation, can US make the case in Cancun that it's on track to meeting its 17% pledge?
 - Without allowance set-asides and international offsets, how will US generate its share of \$100 billion in 2020?

U.S. Climate and Energy Policy Overview

Three Climate and Energy Policy Challenges

- US climate-energy policy must meet three interrelated challenges:
 - To power continued economic growth
 - To reduce US vulnerability to energy-related security threats
 - To reduce risk of climate change and other environmental threats

Climate Policy Options

- Options for reducing greenhouse gas emissions:
 - Voluntary reduction programs
 - Subsidies and tax cuts for R&D and deployment
 - Command-and-control
 - Tax
 - Cap-and-trade

Key Elements

- The Pew Center believes that cap-and-trade is a key element of an all-of-the-above energy policy that meets our economic, security, and environmental challenges.
- Under cap-and-trade, industry and the private market – not the government – pick the winning energy sources and technologies.

US Climate Action Partnership



US Climate Action Partnership



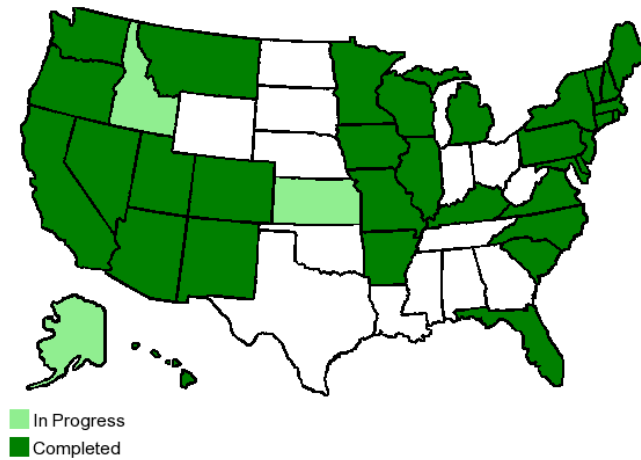
- Why do major businesses want climate-energy legislation?
 - Regulatory uncertainty hinders investment
 - There is no “no action option”
 - Multinationals understand cap-and-trade
 - Want US to have a strong position in international negotiations
 - Convinced of climate science and risks to business

State Level Policy Action

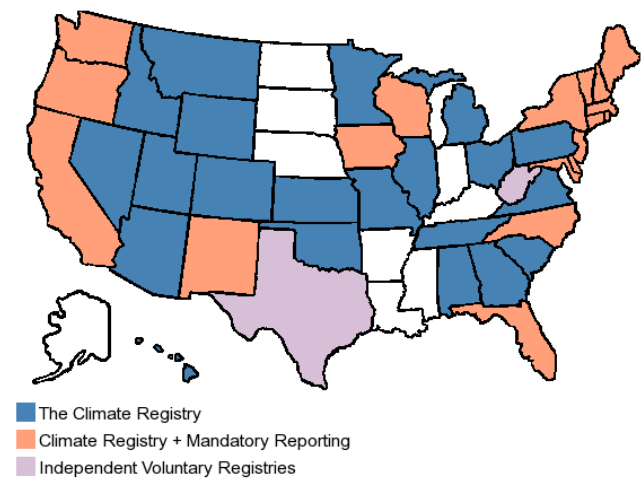
Recent State Leadership

- Mar 2010: CO increased RPS to 20%
- Feb 2010: MA established ambitious energy efficiency standards
- Jan 2010: CA Adopted LCFS
- Jan 2010: 11 Northeast and Mid-Atlantic states agreed to collaborate on LCFS
- Nov 2009: NY authorized municipal loan programs for clean energy
- Sept 2009: CA Increased RPS to 33%

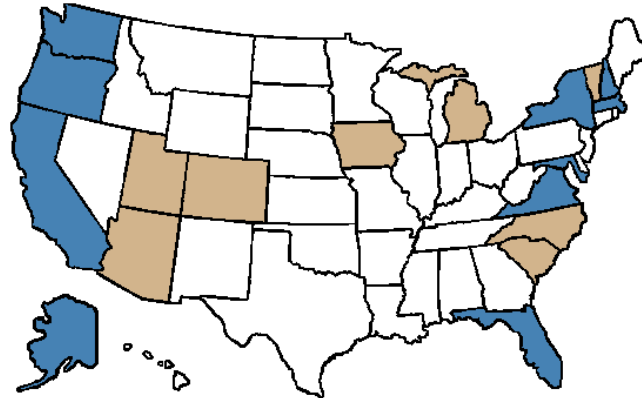
State Climate Action Plans



GHG Reporting and Registries

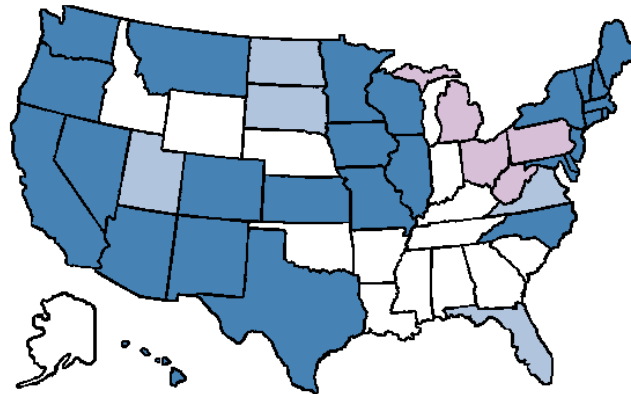


State Climate Adaptation Plans



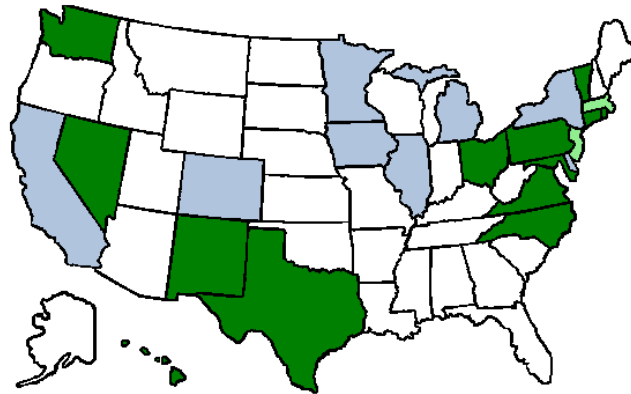
- Adaptation Plan in Progress or Completed
- Adaptation Plan Recommended in C.A.P.*

Renewable Portfolio Standards



- Renewable Portfolio Standard
- Alternative Energy Portfolio Standard
- Renewable or Alternative Energy Goal

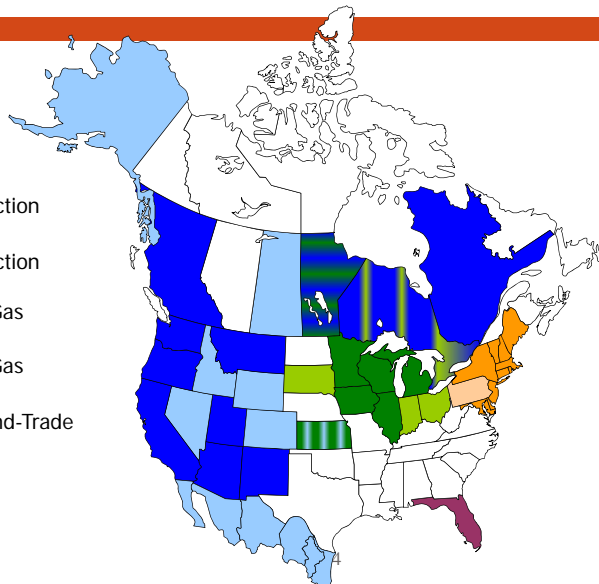
Energy Efficiency Resource Standards



- Completed Electricity Targets
- Completed Electricity & Gas Targets
- Pending Energy Efficiency Targets

Cap-and-Trade Initiatives in N. America

- Western Climate Initiative Partner
- Western Climate Initiative Observer
- Midwestern GHG Reduction Accord Member
- Midwestern GHG Reduction Accord Observer
- Regional Greenhouse Gas Initiative Participant
- Regional Greenhouse Gas Initiative Observer
- Individual State Cap-and-Trade Program



California's AB 32

- ARB must adopt the cap and trade regulation by Jan 1, 2011 and the program must begin in 2012
- Early action items include:
 - Landfill Methane Control Measure
 - Low Carbon Fuel Standard
 - SF6 Reductions
- SB 375: Requires ARB to set regional targets for reducing GHG from driving
- Western Climate Initiative: CA is participating in regional cap and trade design in tandem with its own

Three Regions Initiative

- Regional Greenhouse Gas Initiative (RGGI), Midwestern Greenhouse Gas Reduction Accord, and Western Climate Initiative (WCI) states
- Current collaboration topics: linking cap-and-trade programs, offsets, low carbon fuel standards (LCFS)
 - Pew Center is advising the LCFS working group
- Upcoming meeting: May 11 in DC

Federal Climate Policy State of Play

Climate Policy in 2009-2010

- Major events of 2009 and 2010:
 - Climate change and energy reform a top priority of Administration and Congressional leadership
 - House passage of bill (HR 2454) with GHG cap-and-trade
 - “Green Recovery” component of stimulus bill (ARRA)
 - Major GHG regulatory actions by EPA (e.g. endangerment finding, tailpipe stds, reporting rule)
 - Major businesses (e.g., USCAP) advocating for GHG cap-and-trade

Climate Policy in 2009-2010

- Key Challenges
 - Much of U.S. public appreciates importance of climate action, but not urgency
 - Climate change, and cap-and-trade in particular, have become tied up in partisan politics
 - The economy
 - Administration and Congress have several pressing priorities

Waxman-Markey Bill

- Comprehensive climate bill (H.R. 2454) with cap and trade passed House in June 2009
- Situation in the House:
 - Simple majority required for House passage
 - Energy and Commerce Committee led legislative effort
 - 2008 Dingell-Boucher discussion draft as a foundation
 - Overwhelming Democratic majority in the House
 - Powerful Speaker of the House
 - Started early in the 2-year Congressional term



Waxman-Markey Bill

- Some key provisions of Waxman-Markey bill:
 - Covers 85% of US GHG emissions through cap-and-trade
 - 17% below 2005 levels by 2020; 83% below by 2050
 - 85% of allowances allocated for free
 - 2 billion tons domestic & int'l offsets
 - Strategic reserve of 2.5 billion allowances available if allowances prices rise above trigger price
 - GHGs emissions from most stationary sources not subject to command-and-control regulation
 - U.S. state GHG cap-and-trade programs on hold from 2012-2017
 - Allowance value mostly allocated to mitigate impacts on households and businesses and for public purposes (e.g., low-carbon technology, adaptation)

Waxman-Markey Bill

- Most cost projections of Waxman-Markey are moderate
 - CBO estimates average annual household cost increase of \$175 in 2020; lowest income families receive a net benefit of \$40
 - EPA estimates average annual household consumption would be reduced by \$80-111 between 2012-2050
 - EIA estimates average annual household consumption loss of \$76 between 2012-2030
 - EIA estimates GDP would be 0.81% lower in 2030 than otherwise. After 22 years, GDP would be 4 months behind what it would have been.

Waxman-Markey Bill

- Waxman-Markey allocated a portion of cap-and-trade allowance value to states and local jurisdictions
 - State Renewable Energy and Efficiency Programs (with a portion for transportation project funding)
 - Energy Efficient Building Codes enforced by states
 - Building Retrofit Program
 - Building Energy Performance Labeling Program
 - State Climate Adaptation Programs
 - Wildlife and Natural Resources Adaptation

Senate

- Senate situation:
 - 60 out of 100 votes required for Senate passage
 - 59 Democrats in Senate, 20+ from states with strong manufacturing, fossil energy sectors
 - Never was a partisan option for climate action
 - 6 committees have jurisdiction over climate and energy
 - Limited time left in Congressional term

Senate

- Senate legislative proposals:
 - “Energy-only bill,” (Bingaman) American Clean Energy Leadership Act (reported out of committee Jun ‘09)
 - Kerry-Boxer, Clean Energy Jobs and American Power Act (reported out of committee Nov. ‘09), similar to House Waxman-Markey bill
 - Cantwell-Collins carbon “cap-and-dividend,” Carbon Limits and Energy for America’s Renewal Act (introduced Dec. ‘09)
 - Forthcoming Kerry-(Graham)-Lieberman proposal

Senate

- Kerry-Graham-Lieberman objectives:
 - Clean energy supply
 - Energy security
 - Climate change mitigation
- Kerry-Graham-Lieberman proposal:
 - GHG cap and trade
 - Increased nuclear power
 - Increased access to domestic oil and gas supplies and revenue sharing
 - Trade measures
 - GHG allowance “price collar”

Final Action

- Four essential ingredients for success:
 1. Successful resolution of current legislative uncertainty
 2. Openness to viable policy options
 3. Administration leadership of legislative process
 4. Republican engagement in political process

Key Roles for States

- Implementation of Federal policy
 - Energy Efficiency and Renewable Energy Programs or mandates, including building codes
 - Transportation emission reductions
 - Adaptation requirements
- Complementary measures to reduce emissions further
 - Transportation fuels, reducing VMT, stricter building codes, renewables
- Adaptation
 - Even in the absence of federal legislation, states will have adaptation needs

For More Information

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Supplemental Slides

EPA (and the Courts)

- Supreme Court in *Mass. V. EPA*
 - Found that greenhouse gas emissions meet the definition of “air pollutants” under the Clean Air Act
 - Required that EPA determine whether or not emissions of GHGs (from new motor vehicles) cause or contribute to air pollution, which may reasonably be anticipated to endanger public health or welfare
- On December 7, 2009, EPA made this determination – the “endangerment finding” - a required step in process leading to specific regulations of GHG emissions
- EPA has a number of options for moving forward
 - Threat of EPA action may drive legislation - some members of Congress attempting to limit and/or postpone EPA action
 - Common law nuisance lawsuits increasing

International submissions

- 55 countries (all major economies), have submitted pledges for 2020 targets/actions.
- A few are unconditional:
 - China and India “will endeavor” to reduce their carbon intensity by 40-45 percent and 20-25 percent
 - Australia, Norway & the EU offered reduction targets (5 percent below 2000, and 30 percent and 20 percent below 1990, respectively), and pledged to go further if there is a stronger deal
- However, most countries’ pledges are conditional:
 - US target “in the range of” 17 percent below 2005 is contingent on legislation
 - Other countries’ targets are contingent on reaching international agreement
 - Most developing country pledges contingent on support from developed countries

Waxman-Markey

Reducing GHG Emissions

- Cap: 17% below 2005 levels by 2020; 83% below by 2050
- Offsets: 2 billion tons domestic & international (equal split)
- Cost containment: unlimited banking of allowances and limited borrowing; strategic reserve of 2.5 billion allowances and additional offsets available if allowances prices rise above trigger price
- Clean Air Act limitation: GHGs not regulated as criteria pollutants or hazardous air pollutants under CAA
- State role: GHG cap-and-trade programs on hold for 5 years
- Allowance distribution: Used for consumer protection, industry and worker transition assistance, technology innovation, and adaptation (initially mostly free allocation; shift to mostly auction over time)

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Waxman-Markey (Cont.)

Clean Energy & Coal

- Combined Efficiency and Renewable Electricity Standard
 - Standard starts at 6% of sales in 2012 and rises to 20% in 2020
- Carbon Capture and Sequestration:
 - National strategy for CCS deployment and regulations for geologic sequestration sites
 - CCS trust fund for ~5 commercial-scale demonstration projects
 - Support for early large scale CCS deployment
- Performance standards for new coal-fueled power plants

Transportation

- Support for automobile R&D
- Provides financial assistance to manufacturers to produce electric vehicles and consumers to purchase plug-in hybrid electric vehicles

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Waxman-Markey (Cont.)

Energy Efficiency

- Promotes energy efficiency in new and retrofitted buildings
- New efficiency standards for lighting and other appliances, including financial incentives to retailers who sell high volumes of “Best-in-Class” appliances
- Smart grid and transmission provisions

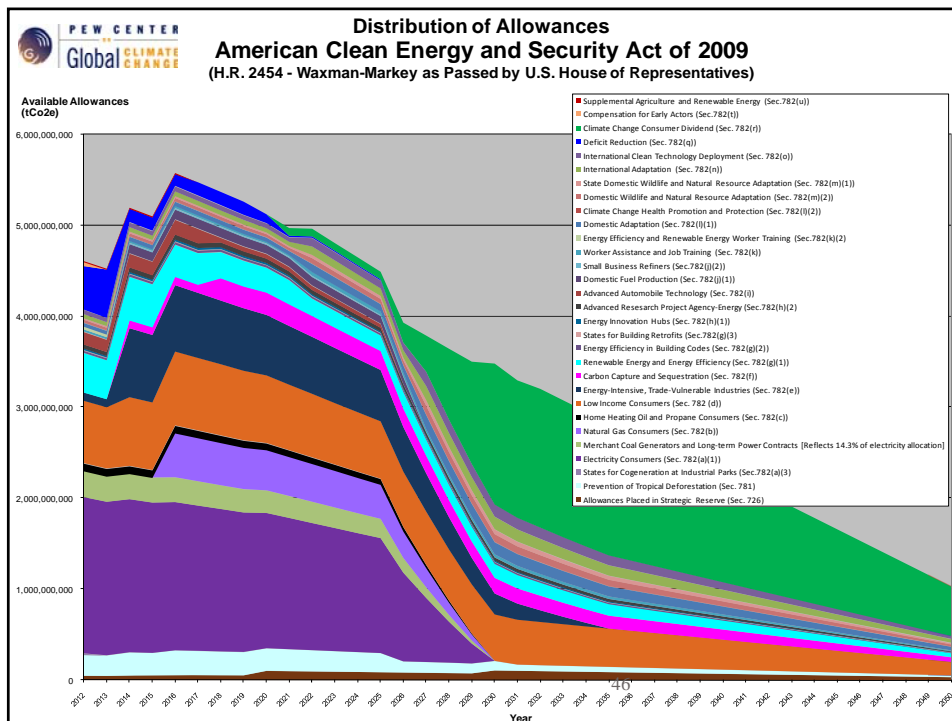
Competitiveness Provisions

- Output-based allowance distribution approach is primary mechanism
- International Reserve Allowance program—requiring allowances for imported goods’ embodied GHG emissions – as a backstop.

Adaptation Provisions

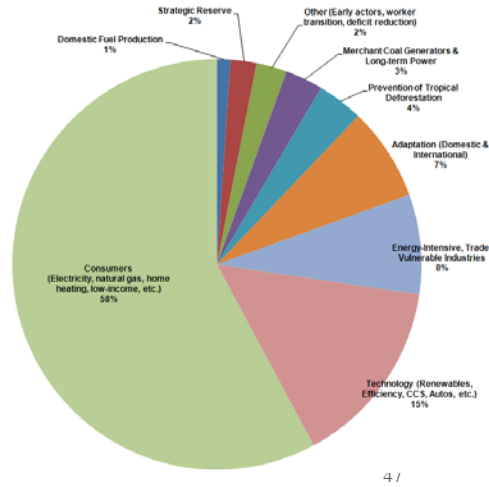
- Requires state and federal natural resource adaptation plans
- Funding for state adaptation activities

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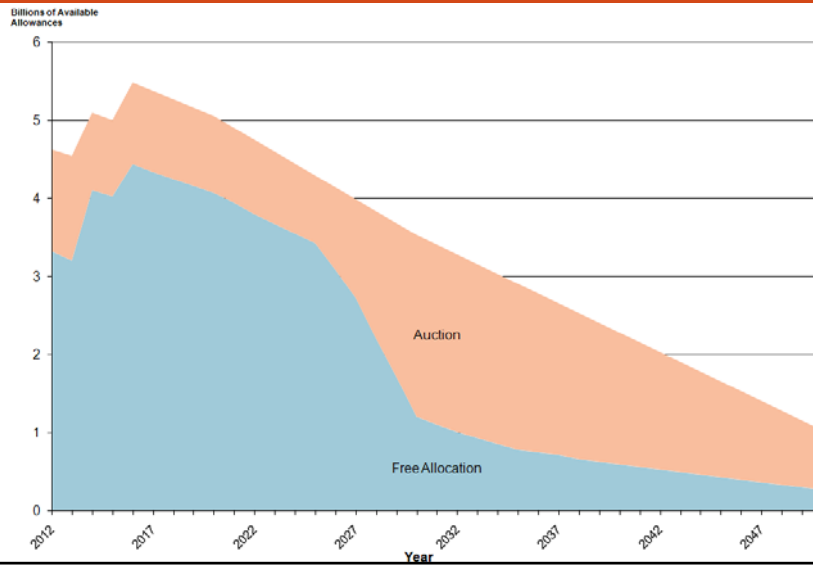
Waxman-Markey Allowance Distribution

Cumulative Distribution of Allowances (2012-2050)



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Waxman-Markey Allowance Distribution



Kerry-Boxer

Reducing GHG Emissions

- Cap: 20% below 2005 levels by 2020; 83% below by 2050
- Offsets: 2 billion tons domestic & international (1.5 billion domestic)
- Cost containment: unlimited banking of allowances and limited borrowing; “market stability reserve” of allowances available for auction if allowances prices rise above trigger price
- Clean Air Act limitation: No limitations on GHG regulation using CAA , but delays until 2020 any EPA standards on sources not covered by the cap (that could be offsets)
- State role: GHG cap-and-trade programs on hold for 5 years
- Allowance distribution: Used for consumer protection, industry and worker transition assistance, energy efficiency and deployment of clean energy technology, and adaptation (amounts not yet specified)

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Kerry-Boxer (cont.)

Clean Energy & Coal

- Provides support for states to meet RPS goals
- Carbon Capture and Sequestration:
 - National strategy for CCS deployment and regulations for geologic sequestration sites
 - CCS trust fund for ~5 commercial-scale demonstration projects
 - Support for early large scale CCS deployment
- Performance standards for new coal-fueled power plants

Transportation

- Support for automobile R&D, use of domestic plug-in electric vehicles, reductions in diesel engine emissions
- Grants to states to help reduce GHG emissions from the transportation sector

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Kerry-Boxer (cont.)

Energy Efficiency

- Promotes energy efficiency in new and retrofitted buildings
- Establishes the Retrofit for Energy and Environmental Performance (REED) to support states for building retrofits

Competitiveness Provisions

- Allowance compensation to eligible sectors is primary mechanism
- Trade provisions, including a border measure, as a backup

Adaptation Provisions

- Establishes a national climate change adaptation program and a National Climate Service
- Requires state and federal natural resource adaptation plans
- Funding for state adaptation activities (including flood control and prevention projects, wildfire education and community wildfire protection plan, etc.)

GCRP Report

Key Findings

- Global warming is unequivocal and primarily human-induced
- Climate changes are underway in the U.S. and projected to grow
- Widespread climate-related impacts are occurring now and are expected to increase

Global Climate Change Impacts in the United States



