Climate Change Legislative Update and Outlook

The Role of Agriculture and Forestry in a Reduced Carbon Economy

July 29, 2009
Welcome!

Introductions and Objectives

Ernie Shea
25x’25 Project Coordinator
Webinar objectives:

- Give an overview of the American Clean Energy and Security Act
- Examine what we know and what we don’t know about the costs and benefits of pending legislation
- Discuss the outlook for climate legislation in the Senate
Session Leaders

- **Dave Grossman**, senior consultant, David Gardiner & Associates
- **Jeffrey Frost**, 25x'25 carbon advisor
- **Bill Hohenstein**, director, USDA Global Change Program Office
- **Ernie Shea**, 25x’25 project coordinator
Webinar Procedures

- Lines will be muted during presentations (*96) to minimize background noise
- For presenters and Q&A, unmute by pressing *6
- Will take questions following each presentation and also at the end of the session
- To ask a question, either press *6 to unmute or use the comment feature to submit a written question
Overview of H.R. 2454
The American Clean Energy and Security Act

Dave Grossman
Senior Consultant, David Gardiner & Associates
Climate & Energy Legislation Update

25x’25 Webinar
July 29, 2009
H.R. 2454 (ACES)

- American Clean Energy and Security Act (ACES, H.R. 2454, Waxman-Markey)

- Passed the House on June 26
  - Vote: 219 to 212
Not just a climate cap-and-trade bill:

- **Title I:** Clean Energy
- **Title II:** Energy Efficiency
- **Title III:** Reducing Global Warming Pollution
- **Title IV:** Transitioning to a Clean Energy Economy
- **Title V:** Agricultural and Forestry Related Offsets
Title I: Clean Energy

- Combined Efficiency and Renewable Electricity Standard
  - 6% renewables by 2012, rising to 20% by 2020
  - Up to one-fourth can be met with efficiency (15% renewables and 5% efficiency)
  - Governors can petition to make it 12% renewables and 8% efficiency
  - Does not pre-empt stronger state standards
  - Incentives for small distributed generation (triple credit)
Title I: Clean Energy

- Renewables:
  - Landfill gas
  - Waste water treatment gas
  - Coal mine methane used to generate electricity at or near the mouth of a mine
  - Qualified waste-to-energy
  - Qualified hydropower
  - Renewable biomass (Farm Bill definition)
  - Biogas, biofuels
  - Wind, solar, geothermal, marine and hydrokinetic
Title I: Clean Energy

- Other provisions:
  - Incentives for carbon capture and sequestration (CCS) and performance standards for new coal-fired power plants
  - Incentives for clean vehicles and fuels
  - Incentives and programs for deployment of smart grid technologies
  - Incentives and programs for clean energy transmission planning and siting
Title II: Energy Efficiency

- No stand-alone EE standard like for RE, but lots of other measures
- Other provisions:
  - Building codes – New buildings must be 30% more efficient upon enactment of ACES, 50% more efficient in 2014 (residential) or 2015 (commercial)
  - Funding for building retrofits
  - Stronger lighting and appliance efficiency standards
Title II: Energy Efficiency

Other provisions:
- New vehicle GHG standards
- States must establish goals to reduce GHGs from transportation sector in areas with large populations
- Allows small communities to join together to create joint programs for electricity and transportation efficiency that qualify for Block Grants
- Resources for energy efficient neighborhoods
- Industrial efficiency programs
Title III: Reducing Global Warming

- Economy-wide GHG emission reduction goals:
  - 3% emission reduction below 2005 levels by 2012
  - 17% emission reduction by 2020
  - 42% emission reduction by 2030
  - 83% emission reduction by 2050

- Cap and trade design
  - Covers about 85% of domestic GHG emissions
  - Large electricity generators, industrial facilities, liquid fuel & natural gas suppliers, etc. need allowances to cover their emissions; if can reduce below allowance level, can sell/trade to those above
Title III: Reducing Global Warming

- About 80% of allowances distributed without charge during early years to ease transition. Starts to phase out after 2025. By 2031, about 70% of allowances are auctioned.

- Emission allowances allocated for 3 primary goals: (1) protect consumers from energy price increases; (2) assist industry in transition to clean energy economy; and (3) spur energy efficiency and development and deployment of clean energy technology. Small amount of allowances allocated to prevent deforestation.

- Allows 2 billion tons of offsets, split domestic / int’l
Title III: Reducing Emissions

June 25, 2009

Van Hollen, H.R. 1862
- Emission caps

Waxman-Markey, H.R. 2454 (June 22 substitute)
- Emission caps only
- Caps plus all complementary requirements
- Potential range of additional reductions

For a full discussion of underlying methodology, assumptions and references, please see http://www.wri.org/usclimatetargets.
Title III: 2016 Allocation

- Low Income Households: 15%
- Worker Assistance: 1%
- Domestic Adaptation: 1%
Title III: 2030 Allocation

- Clean Technology R&D, 10%
- International Deforestation, Clean Technology, and Adaptation, 11%
- Renewable Energy and Energy Efficiency, 5%
- Carbon Capture and Storage, 5%
- Trade Vulnerable Industries, 2.3%
- Auctioned Allowances, 67%
- Consumer Rebate, 36%
- Low Income Households, 15%
- Worker Assistance, 1%
- Adaptation, 4%
- Allotted in Prior Years, 10.7%
Title IV: Transition

- Emissions allowances to protect vulnerable industries
- Green jobs worker training (grants to universities and colleges to develop programs)
- Funds to assist displaced workers
- Refunds to low-income households
- Adaptation program to assist U.S. in dealing with climate change impacts
  - funds state projects designed to respond to extreme weather events (e.g., flooding or hurricanes), changes in water availability, heat waves, sea level rise, ecosystem disruption, etc
  - programs and funds to address natural resource impacts
THANK YOU

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Offset Provisions

Jeffrey Frost
25x’25 Carbon Advisor
Offsets Are Critical for Cap & Trade

- Induces Change in Uncapped Sectors
- Reduces Program Costs
- Produces Large Volumes Earlier
- Fills the Timing Gap; Bridges to the New Energy Future
Cap-and-Trade with Offsets – A Good Timing Match

This is a visual portrait. It is NOT based on actual numeric forecasts.

Total U.S. GHG Emissions under Cap & Trade (billion metric tonnes)

- Business as Usual...
- Response from Capped Sectors
- The New Paradigm Future
  - Energy Efficiency
  - Response from Uncapped Sectors
    - Agricultural Offsets
    - Forestry Offsets
    - Other Offsets
- Net Actual Emissions (Under Cap)

Capped Sectors Represent Over 85% of Emissions:
- Electric Power Industry
- Transportation
- Industry

Today

Time Line

50 Years

Farm and forestry offset services – UNDER A PROPERLY DESIGNED PROGRAM - offer a great advantage to the capped sectors under cap-and-trade. Key benefits include: Immediate delivery of low-cost reductions to capped sectors; low-cost abatement opportunities that will reduce energy costs to American households; a growing volume of reductions as carbon prices rise over time in response to a declining cap; a saturation of the biological sequestration sources of emissions reductions at a time when the capped sectors have had ample opportunity to overcome capital turnover times, and the requisite technological solution development demanded by the fundamental paradigm shift to a low-carbon economy.
Reduction Opportunities

- Sequestration
  - Conservation tillage and crop rotations
  - Cover crops
  - Grazing practices
  - Forestation, reforestation, forest management

- Avoided emissions
  - Biofuel production
  - Thermal bio-power and bio-heat
  - Renewable electrical power

- Emission reductions
  - Manure management
  - Fertilizer practices
Critical Offset Program Issues - Waxman-Markey Perspectives

- 2 Billion Offsets
- Program Administration – USDA & EPA
- Early Action Provisions
- Quick Start Planning – Positives List
- Additionality and Baselines
- Crediting Period Renewals
- Allowance/Offset Fungibility
- Allowance Allocations
Critical Offset Program Issues - Waxman-Markey Perspectives

- Biological Sequestration Addressed
  - Permanence
  - Term Offset Credits
  - Risk Management
  - Reversals
- Domestic Offset Parity (Strategic Reserve)
Critical Offset Program Issues - Waxman-Markey Perspectives

- Indirect Land Use Change
- Renewable Biomass
  - Eligible Land Use Sources
  - Eligible Definitions
USDA Overview--
Preliminary Analysis of H.R. 2454

Bill Hohenstein
Director, Global Change Program Office,
USDA
Path Forward

Ernie Shea
25x’25 Project Coordinator
Senate Outlook

- Goal is to bring a combined energy and climate bill to the floor this fall.
- Energy & Natural resources Committee adopted a major energy bill in June
- Environment & Public Works Committee plans to release comprehensive climate bill on September 8th
Senate Outlook

- Majority Leader Reid has given other committees with jurisdiction until September 28th to complete work.
  - Agriculture
  - Commerce
  - Finance
  - Foreign Relations

- Much uncertainty over when and what type of legislation will emerge