Outlook for Climate Change Legislation

The Role of Agriculture and Forestry in a Reduced Carbon Economy

May 27, 2009
Welcome!

Introductions and Objectives

Ernie Shea
25x’25 Project Coordinator
Webinar objectives:

- Provide an update of the 25x’25 Carbon Project
- Give an overview of the Waxman-Markey bill, including 25x'25’s assessment of what changes and additions are required
- Discuss Cap and Trade imperatives
- Examine the economic impacts
- Look at how the House, Senate and Obama administration will likely move forward on climate legislation over the coming months.
Session Leaders

- Nathan Rudgers, chair, 25x’25 Carbon “Work Group and 25x'25 National Steering Committee member
- Jana Gastellum, associate director of energy, Energy Future Coalition
- Jeffrey Frost, 25x'25 carbon advisor
- Todd Wooten, director, Southeast Climate Resources Center, Duke University
- Bart Ruth, chair, 25x'25 Policy Committee
- Ernie Shea, 25x’25 project coordinator and president of Natural Resource Solutions
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
25x’25 Carbon Project Update

Nathan Rudgers
Chair, 25x’25 Carbon Work Group and 25x'25 National Steering Committee member
25x’25 Carbon Initiative

- Organized in spring of 2008
- Led by a work group composed of over forty respected agricultural, forestry and conservation leaders
- Primary goals:
  - facilitate agriculture and forestry sector dialogue on our role in a reduced carbon economy, and
  - help identify climate change solution sets they can provide
25x’25 Carbon Work Group

- Farmers and ranchers
- Forest land managers
- Soil scientists
- Agronomists
- Ag economists
- Renewable energy, conservation and business partners
Mission

- Analyze agriculture and forestry’s role in a reduced carbon economy
- Develop recommendations for how each sector can capitalize on efforts to reduce and capture carbon and greenhouse gas emissions
Areas of Focus

- Ag and forestry impacts and opportunities
- Mechanisms to manage GHG emissions
- Consequences of policy choices
- How ag and forestry could best participate in emerging carbon markets
- Cap-and-trade guiding principles and policy imperatives
Progress to Date

- Produced a comprehensive report on the role of Ag and Forestry in a Reduced Carbon Economy
  - Available at [www.25x25.org](http://www.25x25.org)
  - Printed copies of Ex. Summary available
- Hosted a National Summit
- Organizing State level Carbon Forums
- Working with policy makers and partners on necessary enabling policy
Key Messages

- Agriculture and forestry are uniquely positioned to deliver low-cost offsets, in quantity, during the early years of a cap and trade program when a quick start is most urgent.

- Agriculture and forestry have much to gain from this opportunity.
Reduction Opportunities

- Sequestration
  - Conservation tillage and crop rotations
  - Cover crops
  - Grazing practices

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

- Emission reductions
  - Manure management
  - Fertilizer practices
Primary Challenges

- Costs
  - Changes in operating practices
  - Tracking and selling offsets
  - Increased input cost (esp. fuel and fertilizer)
- Getting the correct enabling policy in place
- Development of viable markets
- Informing ag and forest sectors of opportunities, challenges, alternatives and consequences
- Shaping our own destiny
HR2454
(Waxman-Markey Bill)

Jana Gastellum
Associate Director of Energy, Energy Future Coalition
Climate Legislation Update

Jana Gastellum
Associate Director, Energy
Energy Future Coalition

25x’25 Carbon Webinar
May 27, 2009
H.R. 2454

- House Energy and Commerce Committee passed May 21, 2009
- Vote: 33-25
- Being referred to 8 additional committees
Provisions

• Title I: Clean Energy
• Title II: Energy Efficiency
• Title III: Reducing Global Warming Pollution
• Title IV: Transitioning to a Clean Energy Economy
Title I: Clean Energy

- Combined Efficiency and Renewable Electricity Standard
  - Begins with 6% in 2012 and rises to 20% in 2020
  - Can fulfill 5% with efficiency
  - States can petition to increase efficiency up to 8% by 2020
Title I: Clean Energy

- Defines renewables as: wind, solar, geothermal, certain hydropower projects, marine and hydrokinetic RE, and biogas and biofuels *derived exclusively from eligible biomass* (under discussion)

- To encourage distributed generation (e.g., small wind, rooftop solar), projects are eligible for 3 credits for each MWh produced
Title II: Energy Efficiency

- Buildings Codes
- Lighting and Appliance Programs
- Transportation Efficiency
- Industrial Efficiency
- Improvements in Energy Savings
- Performance Contracting
- Public Institutions
Title III: Reducing Global Warming

• Covers 85% U.S. emissions, must reduce emissions below 2005 levels
  – 3% by 2012
  – 17% by 2020
  – 42% by 2030
  – 83% by 2050

• Compromise on near-term targets to pass out of Committee
  – Utilities still questioning 2012 number
Allowances

• Emissions Allocation
  – 30% electricity generators
    • Additional 5% to independent merchant generators
  – 9% natural gas distribution companies
  – 2% oil refiners
  – 5% reduced deforestation
  – Additional allocations to “trade-vulnerable” industries, low-income consumers, EE/RE, etc.

• Remainder Auctioned
  – Rebates to consumers
Offsets

• Offsets allowed up to 2 billion tons, split evening between international and domestic suppliers
  – If domestic cap not reached, can use up to an additional 500 million metric tons of international offsets
  – New version eliminates 5:4 ratio

• Creates Offsets Integrity Advisory Board
  – Recommends eligible project types, methodologies, etc.
Carbon Market Assurance

• Oversight of carbon allowances and offsets markets

• FERC as regulator
  – “Cease and desist” power for market manipulation, including suspected manipulation
  – President can delegate regulation for derivatives markets to appropriate agencies
EPA Analysis

• Decreasing cap from 20% to 17% results in lower allowance prices, smaller impact on energy bills and household spending
  – Household spending only 0.2% lower in 2020 ($140/year), assuming revenue recycling
EPA Analysis (cont.)

- Offsets: Stimulates domestic afforestation, methane capture, improved forest management, and other ag projects that sequester carbon

  - Domestic, eliminate 5:4 ratio
    - Increases use of domestic offsets by 11%, increases offset prices 16%
    - This will lower allowance prices 7% each year
“Right now I love every provision in that bill, but I don’t love it so much that I would not hear what other people have to say about it and learn more and examine alternatives.”

-Rep. Waxman

- Unresolved Issues
  - Renewable biomass definition
  - Targets
  - Allocations
  - RES
  - Transmission
  - FERC oversight power
Cap and Trade Imperatives

Jeffrey Frost
25x’25 Carbon Advisor
Key Points

- Offsets Are Critical for Cap & Trade
- The Agriculture and Forestry Opportunity
- The Ideal Offset Program
- Waxman-Markey Offsets Limitations
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 Paradigm Future
Cap-and-Trade with Offsets – A Good Timing Match

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

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.
The Facts:
- There Will Be a Low-Carbon Future
- There Will Be Costs for ALL Sectors of the U.S. Economy, Including Ag & Forestry
- We Can Shape Our Own Participation ONLY IF WE ARE AT THE TABLE
- Cap & Trade - the Probable Policy Choice
- Cap & Trade Opportunity
The Agriculture and Forestry Opportunity

- The Facts
- Cap & Trade - the Probable Policy Choice:
  - Ag & Forestry Are Uncapped
  - Significant Revenue Potential
  - Perhaps the Only Sectors with Net Benefits
  - Offset Market Participation is Voluntary
- Cap & Trade Opportunity
The Agriculture and Forestry Opportunity

- The Facts
- Cap & Trade - the Probable Policy Choice
- **Cap & Trade Opportunity:**
  - The Offset Program Details Are Critical
The Ideal Offset Program
Yes We Need It All . . . But Let’s Focus In . . . (next slide)

• environmental rigor;
• acceptance of all three categories of reductions (reductions in N₂O and CH₄ emissions, terrestrial sequestration, and avoided fossil fuel emissions);
• broad positives list, based upon the best science, of allowable offset projects;
• efficient, low-cost qualification procedure for new offset project types;
• efficient, low-cost project eligibility/qualification and registration procedures;
• efficient, low-cost project monitoring, quantification, verification, offset registration, and offset delivery and monetization procedures;
• stackable ecosystems services benefits from multiple programs;
• support for early actors so as to in no way disadvantage them vis-à-vis others;
• generous crediting periods;
• offset and allowance trading markets regulation favoring offset providers and market transparency over market speculation & complex derivative strategies;
• an appropriate agriculture and forestry offsets program definition and administration role for USDA within the overall authority of EPA;
• full acceptance of terrestrial sequestration;
• definition of permanence as 40 to 50 years on a contracted duration basis, with appropriate mechanisms to achieve fungibility and to allow risk management behind the registry;
The Ideal Offset Program

Issue #1: Terrestrial Sequestration (the 7% to 25% mystery)

- Technical Terms:
  - Contracted Duration
  - Fungibility
  - Risk Management

- What this Delivers:
  - Environmental Effectiveness
  - Cost Effectiveness
  - C&T Program Operational Efficiency
  - Market Efficiency
Waxman-Markey Offsets Limitations

- Biological Sequestration Offsets Rules
- Market Efficiency Plans
- Operational Efficiency
- Early Action
- USDA Role
- Quick Start Planning
- Domestic Offset Parity with International Offsets Opportunities
Waxman-Markey Supplemental Problems

- Indirect Land Use Change
- Renewable Biomass
  - Eligible Land Sources
  - Eligible Definitions
Economic Impacts

Todd Wooten
Director, Southeast Climate Resources Center
Nicholas Institute for Environmental Policy Solutions
Duke University
Economic Modeling

• Crop budget calculation
  • Simple projection of estimated price minus estimated input costs
  • Doane Report

• Economic Modeling
  • Accounts for shifts in behavior
  • Accounts for shifts in markets
  • McCarl, Inter-Agency Biomass Research and Development Board, etc.
Limitations of Doane Report

- Energy impacts used are on the high end of projections
- Does not use full economic modeling
- Does not account for new markets created in a CO2 regime, i.e. offsets, biofuels
Estimated Fuel Costs

- Doane relies on EPA estimate of Lieberman-Warner
- EPA’s recent modeling of Waxman-Markey suggests significantly lower costs
- W-M modeling unavailable at the time of Doane report
Advantages of Modeling

• Modeling can anticipate likely behaviors
• Changes in behavior reflected in changes in markets
• More detailed picture of overall impacts
Biofuels and Offsets

- New market opportunities could offset any increases
- No till, NO2 reduction projects could have dual benefits
- Possibly not included due to RFS mandate
Other studies

• Inter-Agency Biomass Research and Development Board
  – “Feedstock Production for Biofuels”
  – Biofuel demand sharply reduces loss from increased input costs
Contact Information

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Path Forward

Bart Ruth
Chair, 25x’25 Policy Committee
Path Forward

House Action
- referred to eight Committees
- Ag committee could play a pivotal role
- House leaders want to pass climate legislation before the August recess

Senate Action
- not expected to take up legislation until this fall; more likely 2010
- Ag state Senators will play a major role

Obama Administration
- watching to see what Congress does
- need something to take to the UN Climate Change talks in Copenhagen in Dec.’09