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# 2010: Carbon Market Outlook

Landfill Methane Outreach Program Annual Conference  
Baltimore, MD  
January 12, 2010


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**News**

Corporate policy  
05 Mar 2009 16:18 CET


**Camco shares fall again as market digests earnings delay**



Shares in carbon trader Camco continued to fall following a delay in earnings results. [Buy/Free trial](#)

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EU ETS




05 Mar 2009 16:12 CET

**EU's carbon capture plans spark dispute**

Political infighting has broken out over plans to build CCS plants with EU money. [Buy/Free trial](#)

Domestic policy




05 Mar 2009 14:01 CET

**EC foresees big CO2 cuts from land use**

Big cuts to carbon emissions can be made if EU member states manage land better, officials said. [Buy/Free trial](#)

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05 Mar 09 16:12 EU's carbon capture plans spark dispute 

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27 Feb 2009 01:41 CET

**Carbon Market**

**Prices**

Point Carbon EUA OTC assessment (EUR/t)

05 Mar 09  
DEC 2008  
**€11.25 -0.15**

Last 30 days



Methodology »  
Historic prices »  
Exchange prices »  
Carbon Market Daily »

**Point Carbon Secondary CER OTC assessment**

Date	Low	High
DEC 08-12	05 Mar 09	10.30 10.40

Methodology »

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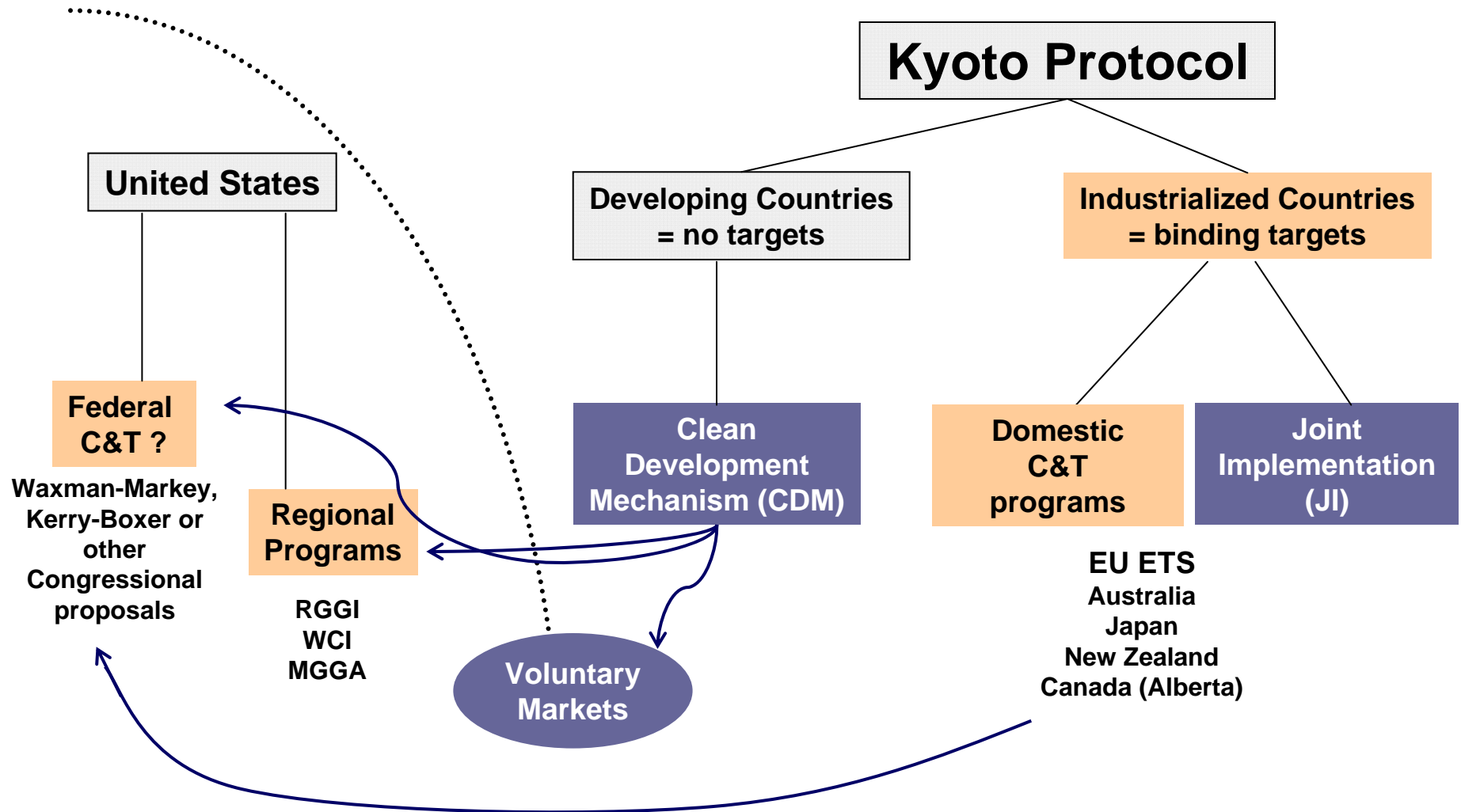
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# Outline

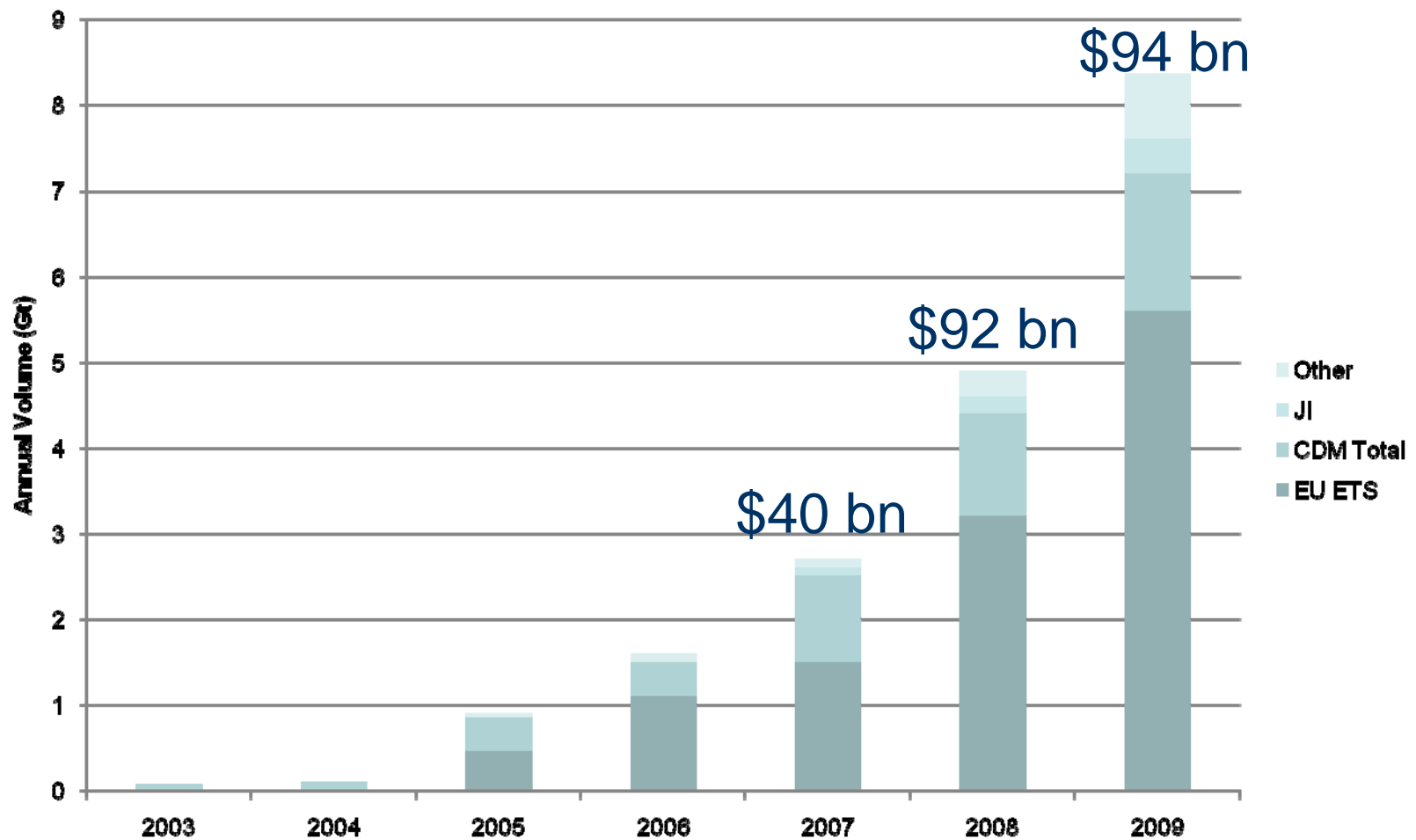
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- U.S. Federal Policy Overview – 2009 and 2010
- U.S. Regional Markets
- Voluntary Market in U.S.
- 2010 and beyond

# Global and North American Carbon Markets



# How big is the global carbon market?



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# US Federal Policy Overview and Status

- Politics of US climate change policy
- Cap-and-trade in Waxman-Markey, Kerry-Boxer
- What's next in the Senate?

# Administration's actions so far

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- Signed Stimulus bill into law, including
  - Tax credits and grants for renewables
  - Funding for CCS
  - Funding for clean energy programs and energy efficiency improvements
- New US negotiating stance at global climate talks
  - UN, “major emitters,” G8, G20
  - “we want to cooperate, we take climate change seriously”
  - Most important meeting: Copenhagen, December 2009
- Environmental Protection Agency takes actions to regulate GHGs
  - Endangerment Finding
  - Large industrial facilities that emit 25,000 tonnes of CO<sub>2</sub> a year must comply by March 1, 2010 under Clean Air Act
  - Murkowski 's(R-Alaska) intervention

# The Waxman-Markey bill

- **Target for total US reductions:** 20% from 2005 levels by 2020, 83% by 2050
- **For covered emitters:** 17% in 2020
- **Coverage:** 85% percent of the economy (including transportation, not waste or agriculture)

Target reduction	2005 baseline	1990 baseline equivalent
2012	3%	-13%
2020	17%	7%
2030	42%	33%
2050	83%	80%

# In the Senate:

## The Kerry-Boxer bill →

- Draft released 30. Sept
- Waxman-Markey is template
- Some differences in allocation, offsets, strategic reserve
- Passed out of Environment and Public Works Committee with no Republican support and one Democratic “no” vote

111<sup>TH</sup> CONGRESS  
1<sup>ST</sup> SESSION

**S.** \_\_\_\_\_

To create clean energy jobs, promote energy independence, reduce global warming pollution, and transition to a clean energy economy.

\_\_\_\_\_  
IN THE SENATE OF THE UNITED STATES

\_\_\_\_\_  
Mr. KERRY (for himself and Mrs. BOXER) introduced the following bill; which was read twice and referred to the Committee on \_\_\_\_\_

## **A BILL**

To create clean energy jobs, promote energy independence, reduce global warming pollution, and transition to a clean energy economy.

1 *Be it enacted by the Senate and House of Representa-*  
2 *tives of the United States of America in Congress assembled,*

# Major differences in Kerry-Boxer

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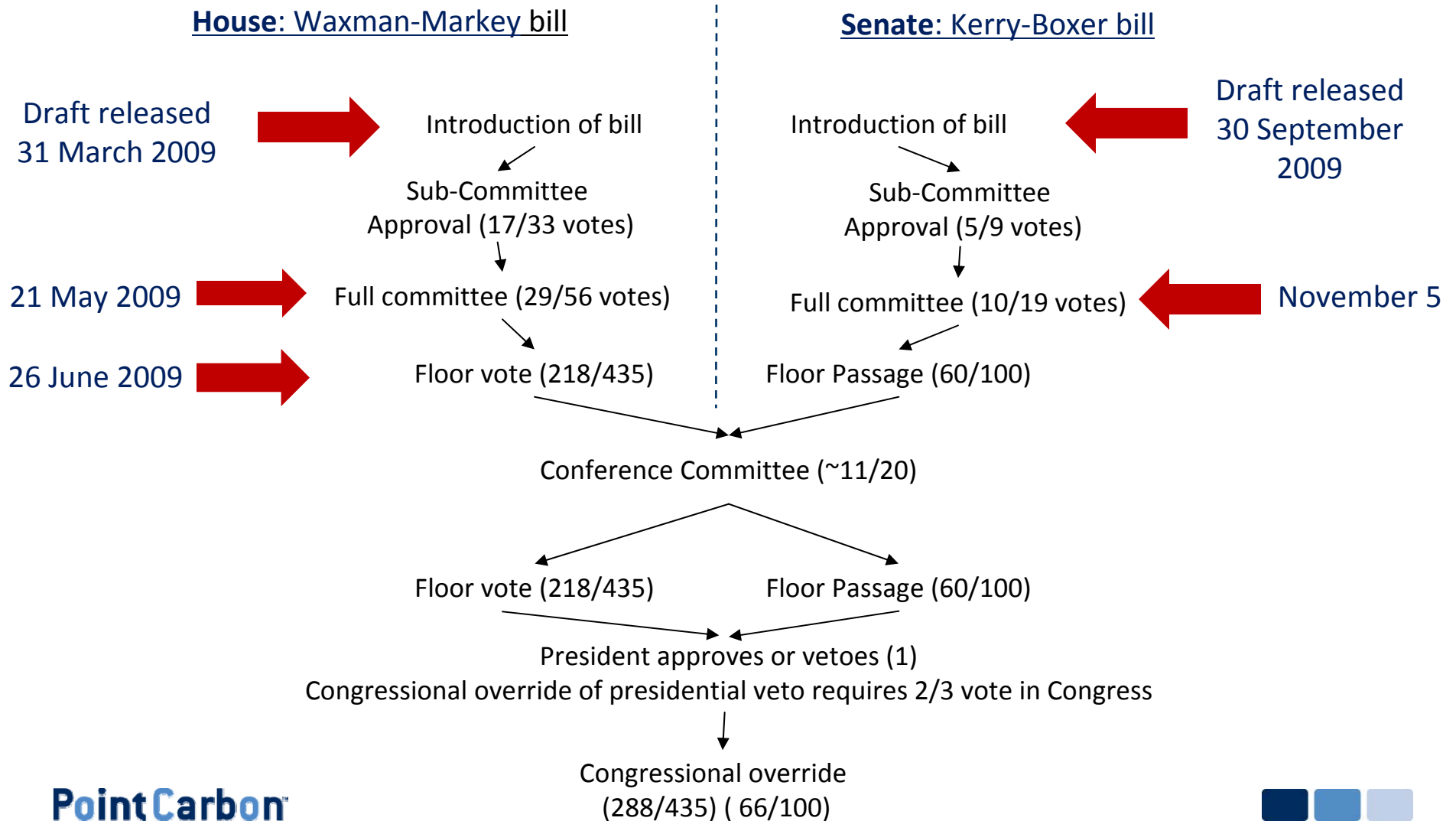
- **Slightly more stringent cap**
  - 20% reduction from covered sectors by 2020, W-M requires 17%
- **Allowance allocation: “initial reservations” change who gets what**
  - Relatively fewer allowances for industry
  - Same for consumers, special allocations like transportation programs
- **Offsets**
  - 1.5 billion domestic vs 0.5 billion international
  - Aligning offsets with other countries
  - EPA and State Dept, have authority to change international offset requirements (what is acceptable for US compliance use or not) based on COP outcome and post-Kyoto agreement
  - Allows landfill, CMM, and ag methane projects; ODS, etc.

# Latest developments

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- Environment & Public Works Committee passage without debate has alienated Republicans, some Democrats
- New alliance: Kerry (D-MA), Graham (R-SC) and Lieberman (I-CT)  
Possible new bill authored by these players would likely
  - Promote nuclear energy (subsidies, expedited new plant licensing)
  - Allow offshore oil and gas drilling (Florida, Gulf coast)
  - Allow more offsets, domestic and international
- Sen. Stabenow (D-MI) has floated amendment to offset provisions
  - Focus on increasing pool of domestic offsets
  - Allows more types that are currently voluntary
  - Much more “early action” offset credits available

# The Path Toward US Cap-and-Trade



# Possible Paths to a Federal Carbon Market

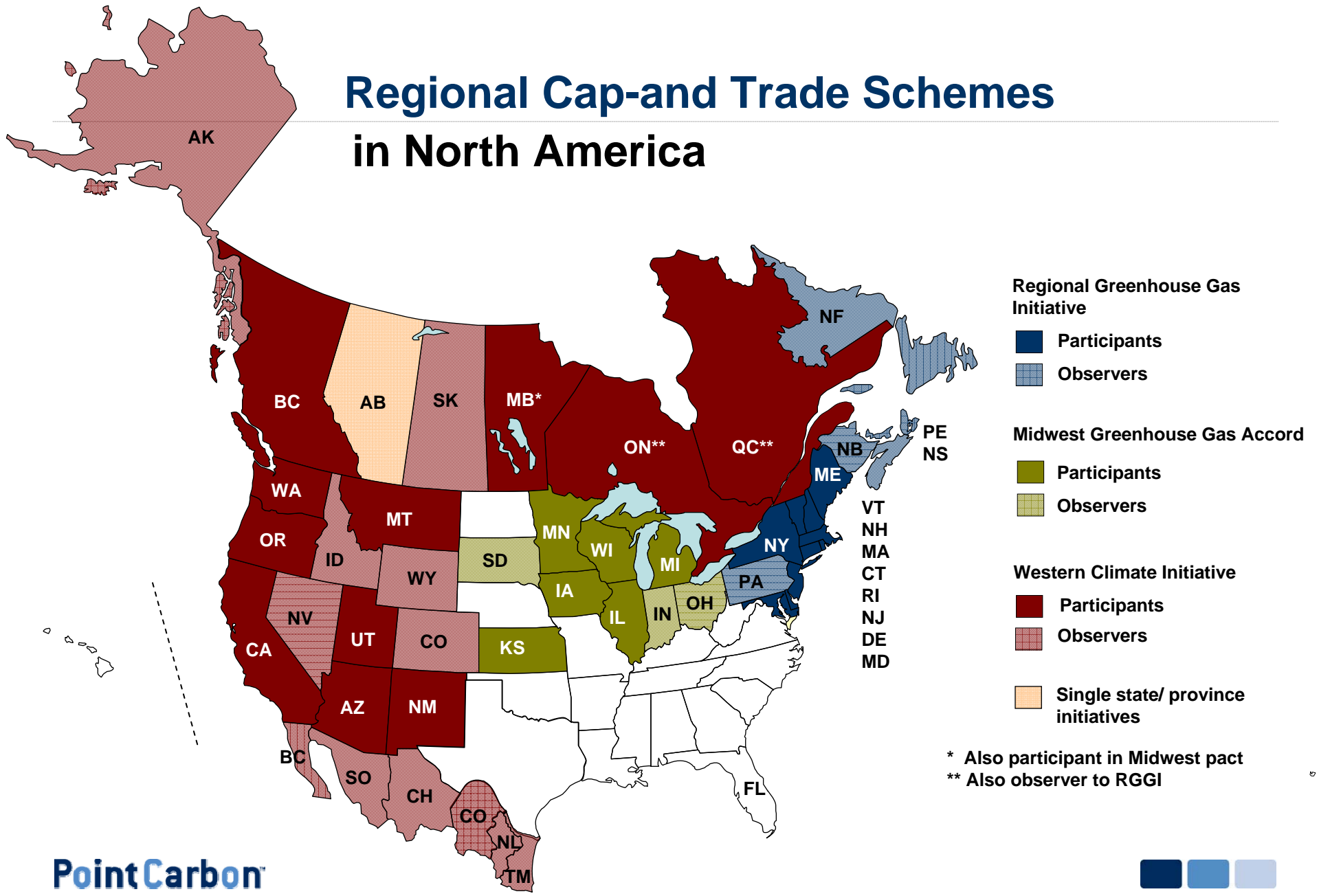
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- Kerry-Boxer moves forward in Senate (or Kerry-Graham?)
  - Ag, Commerce, Energy, Finance, Foreign Relations committees will all have a say
  - Chances of success in 2010 depend on actual content of the bill
  - If no vote before summer, mid-term election take all attention – no action until 2011
- Alternate path - in pieces:
  - Congress starts passing parts of bill in pieces, likely start with Renewable Electricity Standard
  - Cap-and-trade section would be pushed back to 2011
  - Senate leadership (Reid) so far against this option

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# Regional Carbon Markets in North America

# Regional Cap-and Trade Schemes in North America



# Linking Regional Trading Schemes

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- Provide greater carbon market liquidity
- Prevent manufacturers from moving across state lines to avoid regulation
- Certain policies must line up
  - Caps must be similar
  - Scope of program can differ (i.e. only power, or include transportation)
  - How allowances are distributed can differ
- “Deal breakers”
  - Price cap or floor (one program’s price cap would act as price cap on all programs)
  - Federal pre-emption of regional programs

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# The Voluntary Market

# Voluntary Markets

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## Demand

- US/Canada
  - Corporate
  - Individual / small companies
  - Local governments, universities
- Europe
  - Individuals / small companies
  - governments

## Supply

- US/Canada
  - Dominated by waste & agriculture in volume
- Rest of the World
  - Land Use, Land Use Change, Forestry projects
  - Non-CDM projects
  - CDM projects

**Most but not all projects verified, few certified**

# Voluntary in the Context of Pre-Compliance

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- ~40% interest purely voluntary
  - Offsetting end-user emissions (airlines, cars, supply chains)
  - Carbonfund.org; Terrapass; NativeEnergy, etc.
  - PG&E Climate Smart Program
  
- ~60% of interest is pre-compliance
  - Utilities
  - Banks
  - Industrials

# Using offsets under Federal System

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- Least expensive option for a compliance entity
- If Stabenow incorporated, induces significant increase in offset supply; early action credits
- KB Domestic/International Ratio
  - 75 % domestic & 25% international
  - Each offset worth 1 allowance starting 2009
  - Starting 2018, need 5 international offsets for 4 allowances
  - If domestic supply of credits is below 0.9 bn, President can increase % international credits to 1.25 billion (and down to 750 million tons domestic)
  - Offset use equation: Maximum pool of offsets each covered entity may use in a specific year is a % generated by:
    - Tons of CO<sub>2</sub>e emissions of covered entity divided by sum of tons of CO<sub>2</sub>e of all covered entities for the preceding calendar year. Multiplied by 2 billion.

# Kerry-Boxer Early Action Offset Provisions

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“...criteria and methodologies of at least equal stringency to the criteria and methodologies of the programs established under State or tribal law”

## Jan 1, 2001- Dec 31, 2008

- Projects & process improvements eligible
- 0.75 percent of 2012 allowances for offsets
- 0.25 percent of 2012 allowances for process improvements set aside
- \$525 million available to reimburse close to 150 million early action credits (allowances and offsets) for 2012

## Jan 1, 2009-2012

- 1:1 offset:allowance conversion ratio
- Suggests list of project types
- Preference given to existing methodologies/standards
- State/tribal law or “at least equal stringency” to federal requirements
- Final decision by President (EPA/USDA)

## US emission reduction projects

Planned emission reductions in 2010 from projects registered in Point Carbon's North American database. Reductions in 1,000 tonnes.

Source: Point Carbon's Carbon Project Manager North America

Project type	Planned ER volume, 2009	Number of active projects
Landfill gas	10,708	194
Soil sequestration	5,180	28
Geosequestration	5,372	16
Energy efficiency	2,103	36
Agricultural waste	2,066	121
Renewable energy	2,092	50
Forestry	1,821	89
Other	5,018	27
<b>Total</b>	<b>34,360</b>	<b>561</b>

# Offset Pre-Compliance OTC Prices

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Standard	High	Low
Alberta Eligible	\$11.90	\$10.70
CAR Certified V08	\$7.90	\$7.40
CCX Certified V03-08	\$0.40	\$0.30
VCS Certified V08	\$5.80	\$3.30

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# 2010 and beyond

# Copenhagen Accord in line with US interests

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## Weak accord serves Obama well domestically

- Accord's lack of teeth and quantitative target prevents attacks by Republicans on US surrendering authority to the UN
- Yet political commitment from China, India and Brazil will help address Byrd-Hagel resolution –the US will not act if other major economies don't take meaningful action
- Failure of UN process and possible move towards smaller forums (G20, Major Economies Meetings) also seen as a positive development.

## Progress on key issues also supports US agenda

- Significant progress on REDD -Reduced Emissions from Deforestation and forest Degradation
- Developing countries have agreed to some degree of reporting (but little monitoring)
- Reform of the CDM may also help

# 30 % Chance of U.S. Federal Legislation in 2010

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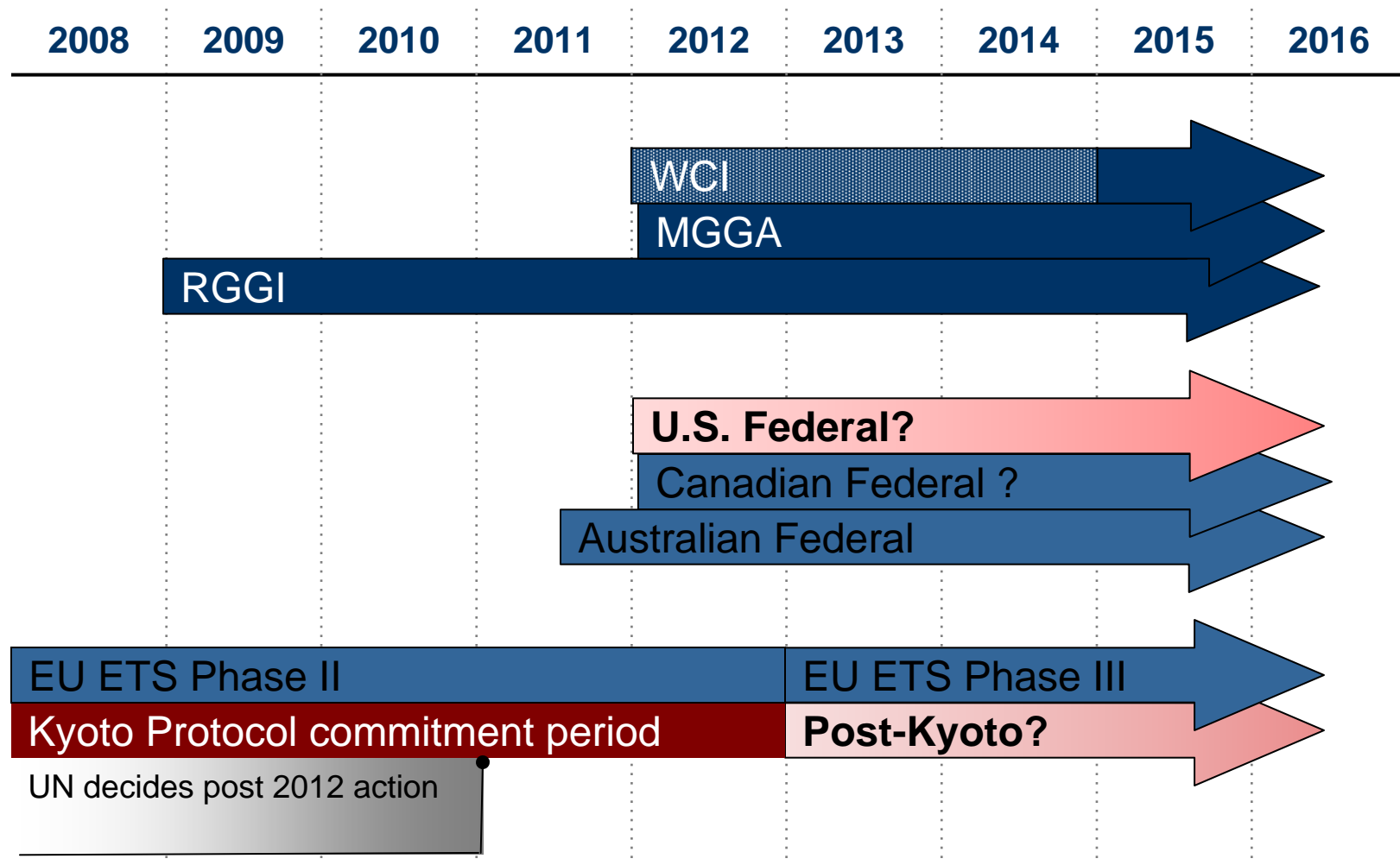
- Strategy in Copenhagen was largely designed to gain domestic support
- 60 votes needed for climate bill far from secure in Senate
- Opposition to cap-and-trade rests on concerns over global competitiveness and US jobs, among many other reasons
- Positive spin on global deal unlikely to move fence-sitters in Senate
- State of U.S. economy and mid-term elections remain main focus
- Concerns over rising energy prices, future of coal industry, impact on already declining manufacturing weigh heavily into debate

# Implications for Buyers & Investors

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- Domestic & international policy uncertainty: investments risky
  - Situation to clarify mid-2010 in U.S.; late 2010 internationally
- Financial crisis
  - Need for upfront capital increasing
  - Cost of capital higher
  - Funders more risk averse
- CAR to emerge as leading protocol
  - Most projects registered
  - Highest prices/ton
- EPA regulates industrial emissions over 25,000 mt
- Regional programs lead
  - CA gubernatorial/Senate election to dictate fate of AB 32 & WCI

# Global Carbon Market Timeline



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# Questions?

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