

U.S. State, Regional and Federal Proposals & Linkage Implications

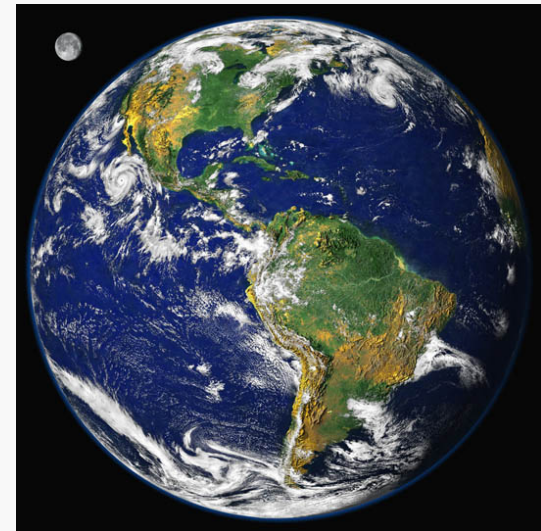


Linking Schemes

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Vicki Arroyo
Director of Policy Analysis
Pew Center on Global Climate Change

- Founded in May 1998
- Independent, non-profit, non-partisan
- Divided into five major program areas:
 - Scientific Studies/Analyses
 - Domestic and International Strategies
 - Outreach Activities
 - Business
 - States
 - Solutions
 - Communications



Selected Pew Reports



Agenda for Climate Action

The U.S. **Electric Power Sector** and Climate Change Mitigation

Granger Morgan
Jay Apt
Louise Levy
CARNEGIE MELLON UNIVERSITY

INTERNATIONAL CLIMATE EFFORTS
BEYOND 2012

REPORT OF THE
CLIMATE DIALOGUE AT POGANTICO

ADAPTATION TO CLIMATE CHANGE:
INTERNATIONAL POLICY OPTIONS

ADVANCING THE INTERNATIONAL EFFORT AGAINST CLIMATE CHANGE

by
Jim Barnes
UNIVERSITY OF TORONTO
Ellen Branger
PEW CENTER ON GLOBAL CLIMATE CHANGE
Just Smith
STRATOS CONSULTING INC.

Race to the Top:
The Expanding Role of U.S. State Renewable Portfolio Standards

Barry G. Rabe
UNIVERSITY OF MICHIGAN

The Basics of Climate Change: **Straight Facts, Innovative Solutions**

PEW CENTER ON Global CLIMATE CHANGE

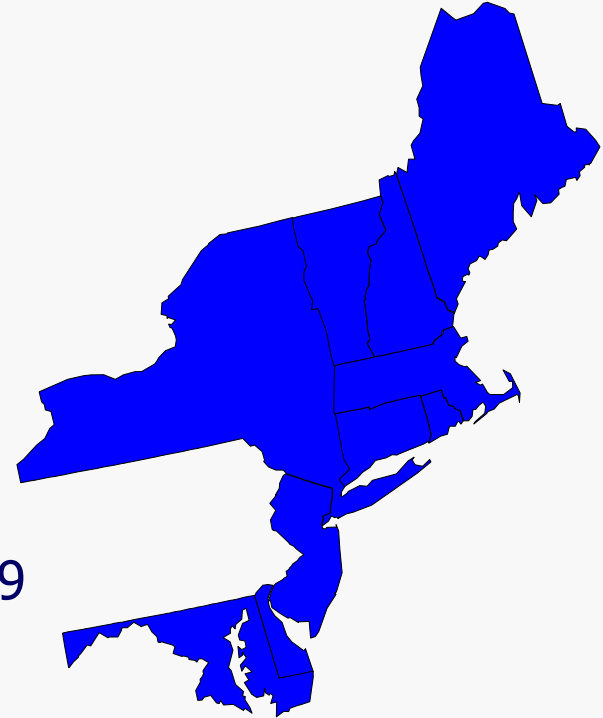
43 BELC Companies



- Purpose
 - Identify mechanisms and policy design elements in U.S. emissions trading programs that affect linkages with other systems
- Status of U.S. GHG programs
 - State programs
 - Federal proposals
 - Private programs
- Linkage mechanisms
- Policy elements that affect linkages
- Observations/conclusions

Regional Greenhouse Gas Initiative

- Regional cap-and-trade
- Initiated 2003 by NY Gov. Pataki
- CO₂ emissions from power plants
- Cap
 - Current levels between 2009 and 2015
 - 10% reduction below current levels by 2019
- Standardized approach to offsets
- Safety valve expands scope of offsets
- Model rule (template) announced August 2006
- Each state must adopt final model rule through legislation or regulation by Dec. 31, 2008



State Programs: California



- Governor Schwarzenegger targets
 - 2000 levels by 2010
 - 1990 levels by 2020
 - 80% below current emissions by 2050
- California Public Utilities Commission GHG cap on regulated utilities
- Nunez-Pavley AB 32: Global Warming Solutions Act
 - Set California's targets at 1990 levels by 2020
 - First enforceable state-wide program to cap major industrial GHG emissions and include penalties
 - Authorizes market-based mechanisms (cap-and-trade); allows one-year extension on targets
 - Possible linking with RGGI, EU-ETS
- Low Carbon Fuels Standard (reduce carbon intensity of vehicle fuels sold in California at least 10% by 2020)
- Renewable Portfolio Standard (20% by 2010)

State Programs: Climate Trust



- Created in Oregon to aid compliance with electricity sector offset requirement
 - 17% below GHG emissions of best available technology for natural gas combined cycle power
 - Washington: 20% below
- Choice of project or monetary compliance
 - All offsets so far have been monetary
 - \$0.85/ton CO₂
- No limit on geography or type of offset
- Must meet set of criteria on permanence, additionality, rigor of measurement, etc.

Climate Stewardship and Innovation Act

- Senators Lieberman (I-CT) and McCain (R-AZ)
- Votes in 2003 (43-55) and 2005 (38-60)
- Reintroduced in January 2007 (Senate bill 280)
 - All 6 GHGs
 - Large stationary sources and transportation fuels
 - 1990 levels by 2020
 - 20% below 1990 level in 2030
 - 60% below 1990 level in 2050
 - Up to 30% may come from “alternative means of compliance”
 - Penalty of 3x market value of any allowances not submitted (without payback of missing tons)

Bingaman Discussion Draft

- Senator Bingaman (D-NM)
- Draft released in January 2007 – not yet introduced
 - All 6 GHGs
 - “Upstream” fuel producers, some “downstream” entities
 - Emissions intensity target:
 - 2.6% reduction each year 2012-2021
 - 3.0% reduction each year beginning 2022
 - Absolute emissions projected to rise
 - “Safety valve” \$7/ton CO₂, increasing 5%/year
 - Credit for early action limited to 1% of total allowances
 - 5% set aside of allowances for agricultural sequestration
 - Likely to be amended per new NCEP proposal

Other Economy-wide Legislation

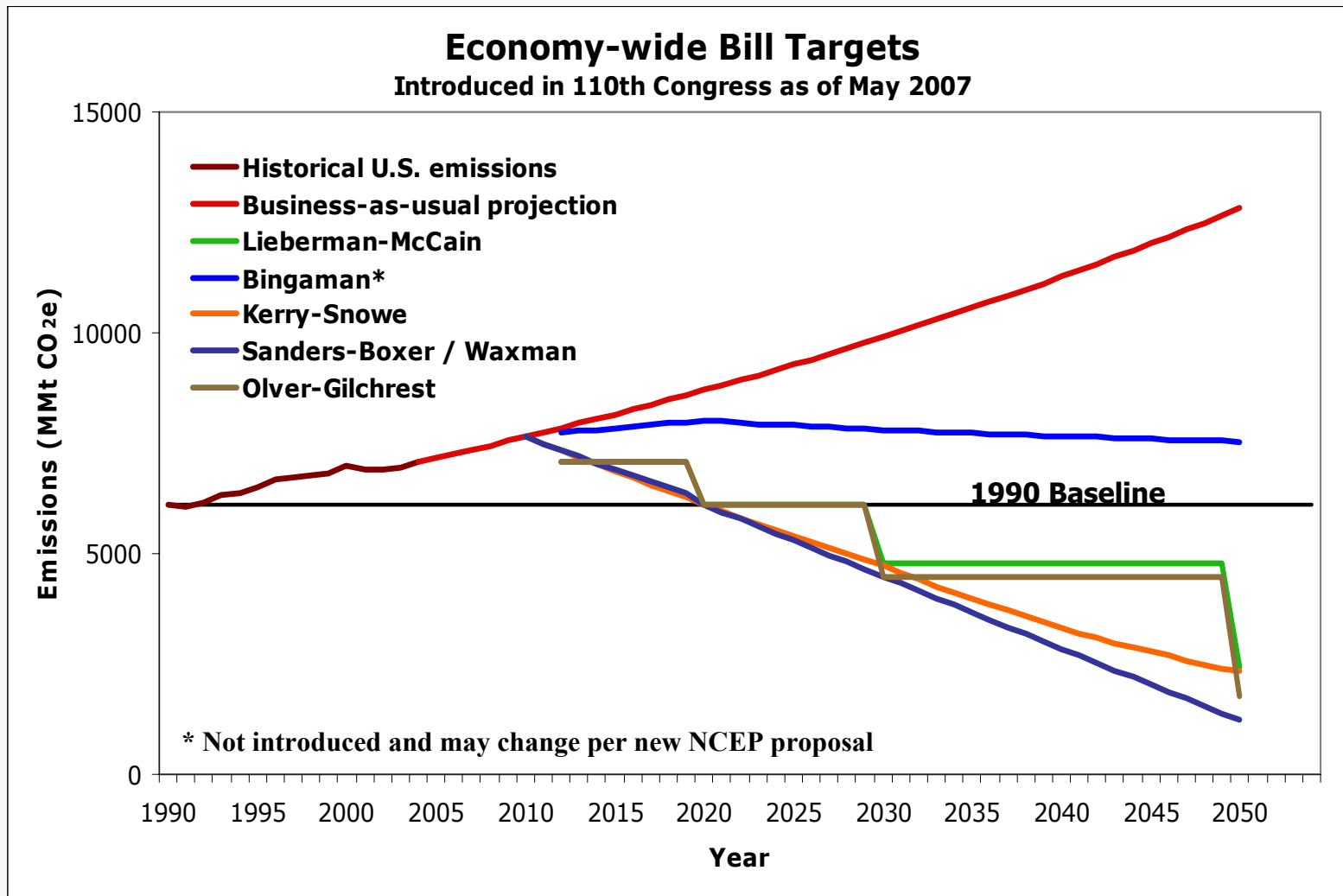
Senate

- Sanders-Boxer: cap & trade permitted but not required, offsets not specified, other sectoral standards. 80% below 1990 in 2050.
- Kerry-Snowe: offsets and cost-control not specified, other sectoral standards, funds for tech R&D. 62% below 1990 in 2050.

House

- Olver-Gilchrest: offsets, 70% below 1990 in 2050.
- Waxman: cap & trade permitted but not required, offsets not specified, other sectoral standards. 80% below 1990 in 2050.

Congressional Bill Targets



Chicago Climate Exchange

- Voluntary but contractually binding exchange
- All 6 GHGs
- Levels
 - Phase I: 4% below 1998-2001 by 2006 (1% annual reduction)
 - Phase II: additional 2% reduction from baseline by 2010
- Defined categories for eligible offsets
 - Includes projects in U.S., Brazil, Mexico, Canada and “other countries as applicable.”
- Announced expansion
 - Montreal Climate Exchange, NYCX – New York Climate Exchange, NECX – North East Climate Exchange

Linkage mechanisms:

The means by which independent systems are connected

- Definition of trading units
- Trading platform
- Rules for linking

How are these treated in emerging U.S. systems?

Trading platforms/registries

Currently only developed at state and private levels

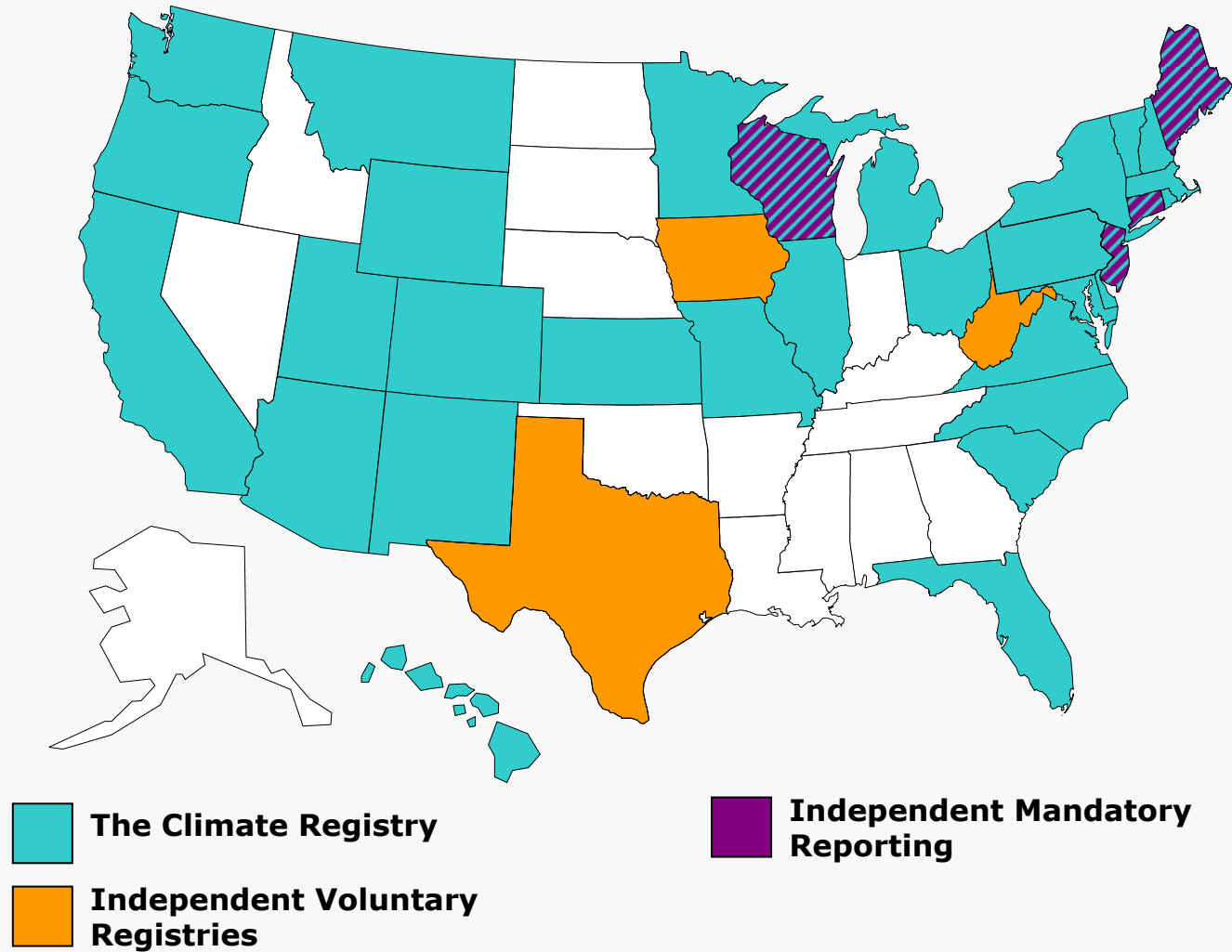
- Eastern Climate Registry
- California Climate Action Registry/CARROT
- CCX

Efforts to harmonize

- The Climate Registry - 30 states establish greenhouse gas registry

Linkage Mechanisms

U.S. GHG Reporting and Registries



Out-of-Program Allowances

- RGGI
 - Credits from international trading programs accepted as offsets
 - Price trigger of \$10
- Climate Stewardship and Innovation Act (Mc-L)
 - Accepted from nations with enforceable limits on GHGs
 - Review of other nation's system at least every 5 years
 - Subject to 30% limit on alternative compliance mechanisms
- Bingaman discussion draft
 - Some provision for tradable allowances from outside U.S.
- CCX
 - Accepts EU allowances through the European Climate Exchange (ECX)

Offsets

- RGGI
 - Defined offset categories
 - 3.3% limit; U.S. only; outside region discounted by 50%
 - \$7 price trigger → 5% limit; North America only; no discounting
 - \$10 price trigger → 20% limit; int'l allowed; compliance extension
- Climate Stewardship and Innovation Act (Mc-L)
 - Credits for net increases in sequestration; no geographic constraint
 - Subject to 30% limit
- Bingaman discussion draft
 - International offsets to be established by Secretary of Energy
- CCX
 - Defined offset categories within U.S. and international

Policy elements affecting linkages

- Prohibition of linking non-Kyoto parties
- Program coverage
- Stringency
- Intensity vs. absolute
- Allocation methodology
- Compliance periods
- Banking/borrowing
- Penalties
- Price caps
- Monitoring/reporting/verification
- Kyoto Protocol ratification

Which are raising most concern in U.S.?

Target Stringency and Flexibility Options

- RGGI
 - Current levels 2009-2015, 10% below by 2019
 - CO₂ and utilities only
- Climate Stewardship and Innovation Act (Mc-L)
 - 2004 levels by 2012
 - Allows borrowing
- Bingaman Discussion Draft
 - Intensity target: 2.6%/y 2012-2021; 3.0%/y starting 2022
 - Safety valve projected to break absolute cap
- CCX
 - 4% below 1998-2001 by 2006; 6% below by 2010
 - Voluntary participation

Price Caps

- RGGI
 - Safety valve levels only increase scope of allowances
 - No hard limit on allowance prices
- Climate Stewardship and Innovation Act (Mc-L)
 - None
- Bingaman Discussion Draft
 - \$7 per metric ton CO₂, increasing 5% each year
 - Price may be paid in lieu of submitting allowance → breaks cap
- CCX
 - No price cap or flow
 - Limits price changes to 20% up or down from previous day's last traded price

Penalties

- RGGI
 - 3x missing tons plus potential state monetary penalties
- Climate Stewardship and Innovation Act (Mc-L)
 - 3x market price for each unsubmitted allowance
 - No payback of tons
- Bingaman Discussion Draft
 - 3x safety valve price for that calendar year
 - No payback of tons
- CCX
 - No defined penalty. Environmental compliance committee would review each case.

Observations/Conclusions



- Linkages are being considered in the development of these programs, but not as a top priority
- Linkage provisions are often much less detailed than other aspects of bills
- Some explicit restrictions on linking
- Goal of the program is key
 - GHG reduction
 - Cost reductionBut also...
 - Political viability
 - Local economic development
 - Local environmental benefits
- Opportunities to add linkages later even if not initial priority
- Communication is important

For More Information



Vicki Arroyo
Director of Policy Analysis
Pew Center on Global Climate Change
ArroyoV@pewclimate.org

www.pewclimate.org

