

# Developing Comprehensive National Climate Policy

Thomas D. Peterson

Robert B. McKinstry, Jr.

John C. Dernbach

April 10, 2009

# Our Premises

- *Massachusetts v. EPA* mandates national climate change program under the Clean Air Act (CAA)
- State and local governments have exercised de facto national leadership on climate change and provide important findings and guidance
- President's greenhouse gas emissions targets (14% emissions cut by 2020 from 2005 levels and 83% reduction by 2050) are consistent with state and local feasibility analysis, climate plans, and consensus building



# Our Study

## Question

---

- How could Congress and the Administration build on the Clean Air Act and state/local activities to design the most cost-effective, highest co-benefit approach to achieve the nation's GHG reduction goals?

## Thesis

---

- Lowest cost and highest co-benefit approach requires:
  - Engagement of all socio-economic sectors
  - Involvement of all levels of government
  - An appropriate combination of policy tools (e.g. cap and trade plus policies and measures)
  - Integrative planning mechanisms

# Importance of State Initiatives

## Value Added

---

- Best US Policy Often from States
  - Set the bar for federal action
  - Provide innovation, consensus building and field testing
  - Provide specific guidance for programs and policies
- Key to Implementation
  - Implement federal programs
  - Implement state and local actions outside federal domain
  - Provide flexibility
  - Create public and private partnerships

## Global Significance

---

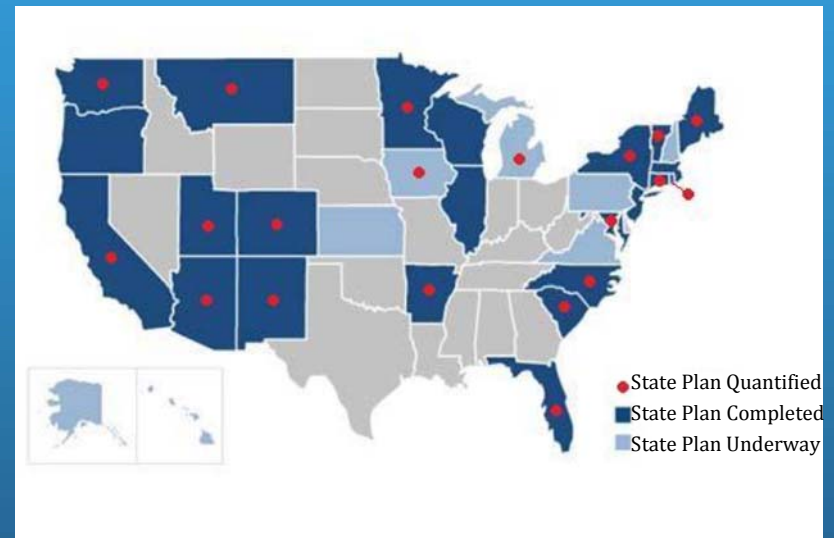


# State Climate Actions

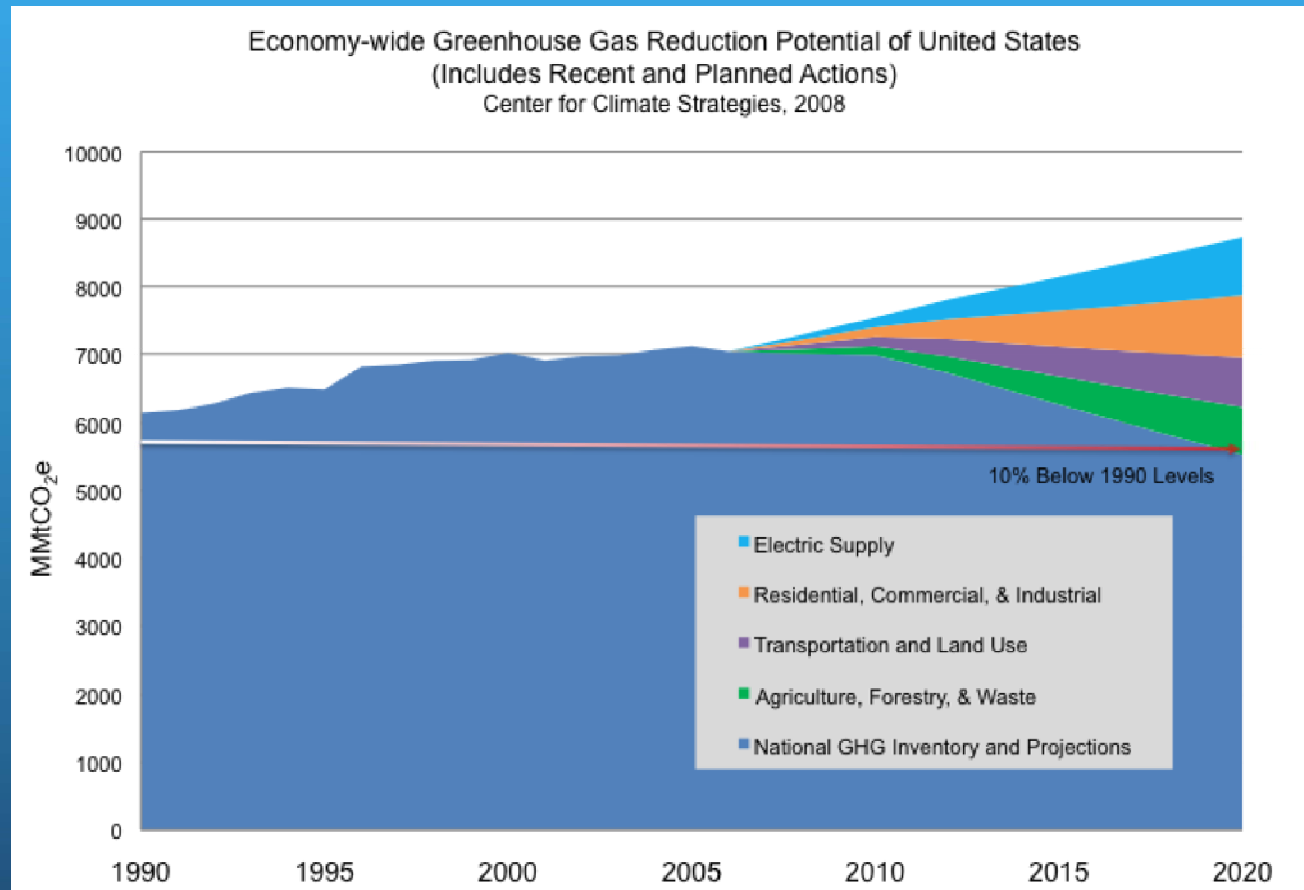
## Full Roundup

- 31 climate action plans completed or in progress
  - Cover 2/3 of US economy and population
  - Cover 1/2 of US GHG emissions
- Three regional cap and trade initiatives (RGGI, WCI, MGA)
- 40 states in the Climate Registry, most with goals and reporting systems
- Many reduction targets, sector specific programs, and cap and trade initiatives underway

## State Plans



# National Scale Up of State Plans

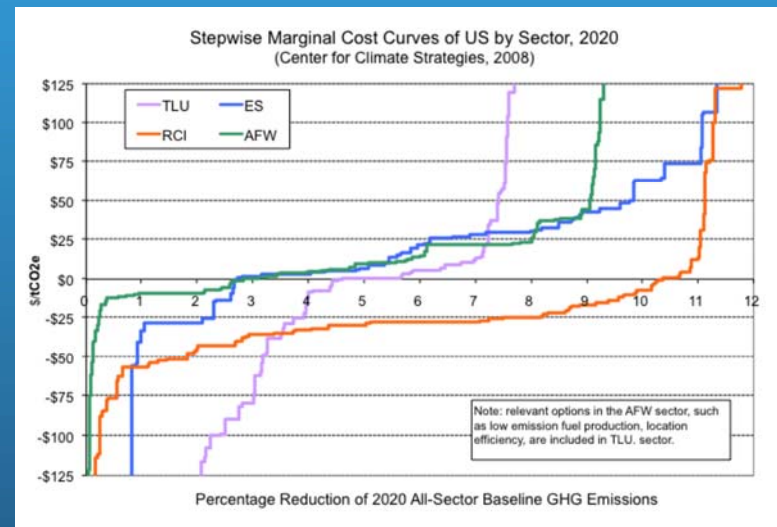


# 20 State Climate Plan Results

## Key Sectors

- Transportation & Land Use
  - Vehicle & Location Efficiency, Low Carbon Fuels
- Energy Supply
  - Heat & Power; Renewable, Advanced & Low Emitting Generation
- Residential, Commercial, Industrial
  - Energy Efficiency & Conservation, Process Improvements
- Agriculture, Forestry & Waste
  - Land Protection, Renewable Energy, Conservation Practices

## Cost Curves



# Climate and Economic Recovery

## Response Curves

### Public Investment

900 Climate Policies from 20 State Plans in 80 "Bundles" (CCS, 2008)

- Emissions reductions
- Job and income creation
- Energy savings
- Investment leveraging
- Immediate results

Federal:

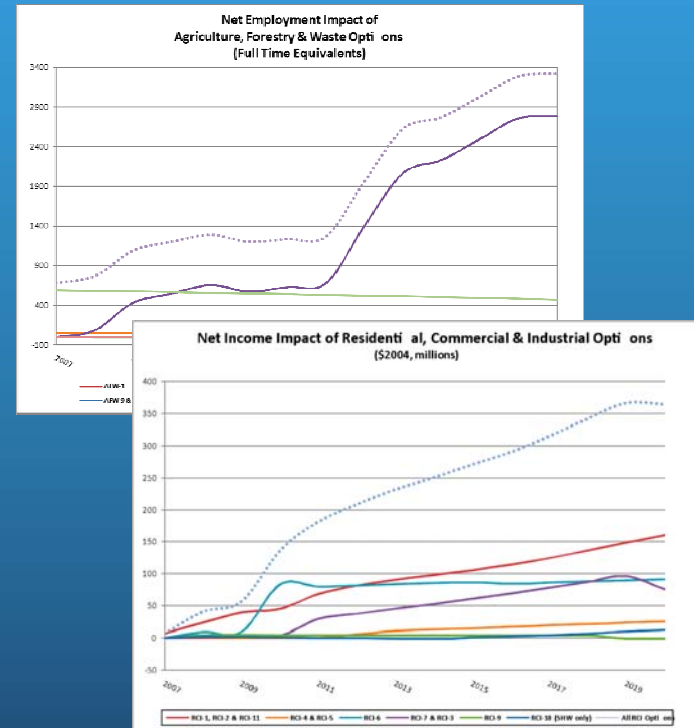
- Role in 52 bundles (funding, implementation or both); only 3 exclusive

State:

- Role in 70 bundle; 18 exclusive

Local:

- Role in 22 bundles; 1 exclusive



# Florida Climate Plan

A Report to Governor Charlie Crist

---

Phase 2 Report:  
Florida's Energy and Climate Change Action Plan  
Pursuant to Executive Order 07-128

Governor's Action Team on Energy and Climate Change

October 15, 2008



- GHGs 20% below 1990 levels by 2020
- \$28 billion net economic savings
- 148,000 net job gains
- \$37 billion net economic expansion
- 50 recommended climate policy actions in all sectors, plus cap and trade
- 125 stakeholders and technical work group members
- 7 stakeholder meetings, 75 technical work group meetings
- Full consensus on all recommendations

# Cap and Trade

## Advantages

---

- Price signals, depending on trading design
- Revenue generation, depending on auctions
- Environmental certainty, depending on cost containment
- Administrative ease, depending on system design
- Reciprocity across jurisdictions and sources
- Can be augmented with policies and measures

## Limits

---

- May not address non price barriers
  - Split incentives
  - Institutional barriers (e.g. Reform of current codes and standards)
  - Myopia (e.g. research and development incentives)
- No direct not focus on co-benefits
- Like all policies, may include uncertainties over costs (allowance prices)
- May be hard to cover all sources
- May require planning and integration beyond market

# Policies and Measures

## Advantages

---

- Proven approaches using existing institutions and tools
- Can tailor to local needs
- Can remove non price barriers and barriers to price mechanisms and caps
- Can cover all sectors and sources
- Can be augmented with flexibility and market mechanisms
- Can focus directly on co-benefits

## Limits

---

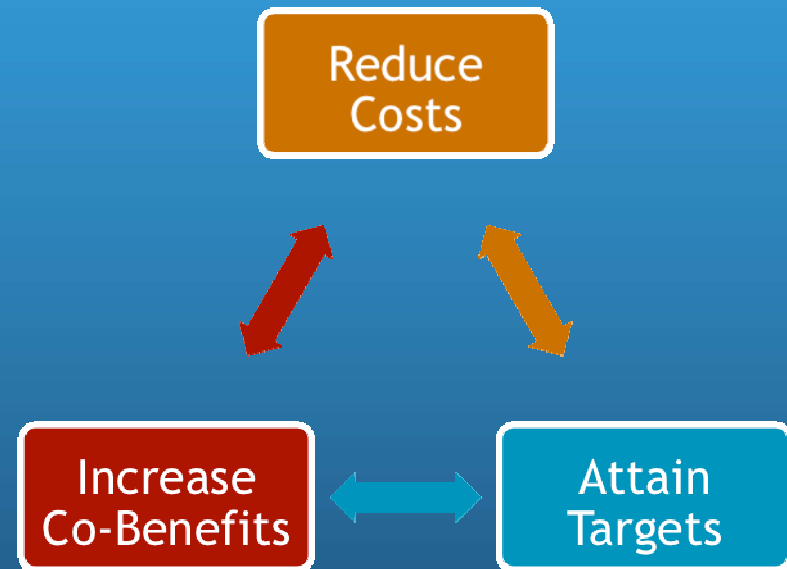
- May not provide price signals
- May lead to administrative complexity, depending on design
- Like all policies, may include uncertain costs
- Require planning and integration
- May require significant investment to implement

# Comprehensive Climate Policy

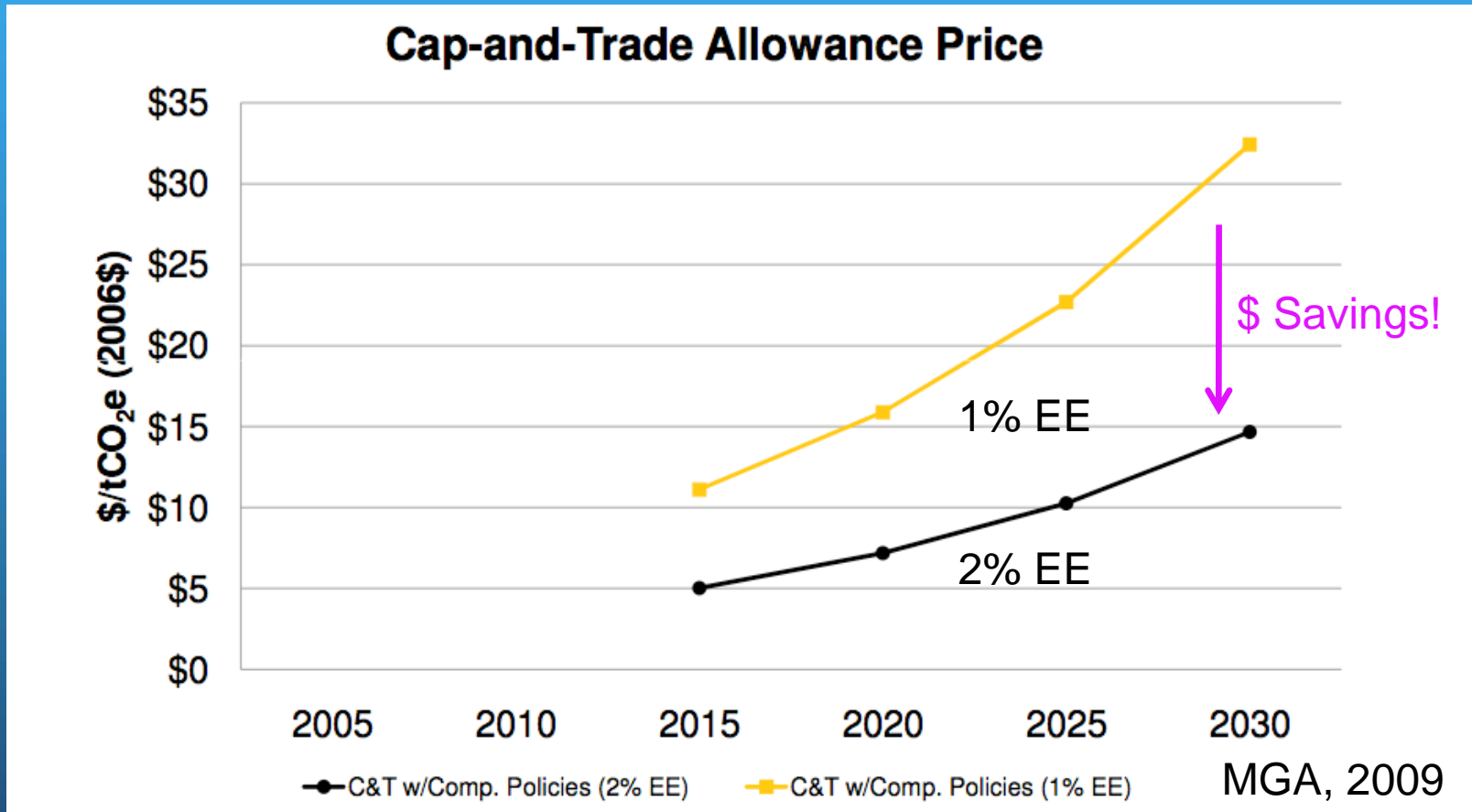
## Full Portfolio

- Cap-and-trade PLUS full set sector based policies and measures
- Creates price signals
- Removes non price barriers
- Enables all economic sectors and levels of government
- Expands flexibility and choice
- Targets economic development, energy gains, consumer needs
- Maintains momentum from existing state planning processes

## Synergies



# Energy Efficiency Measures



# Policy Integration

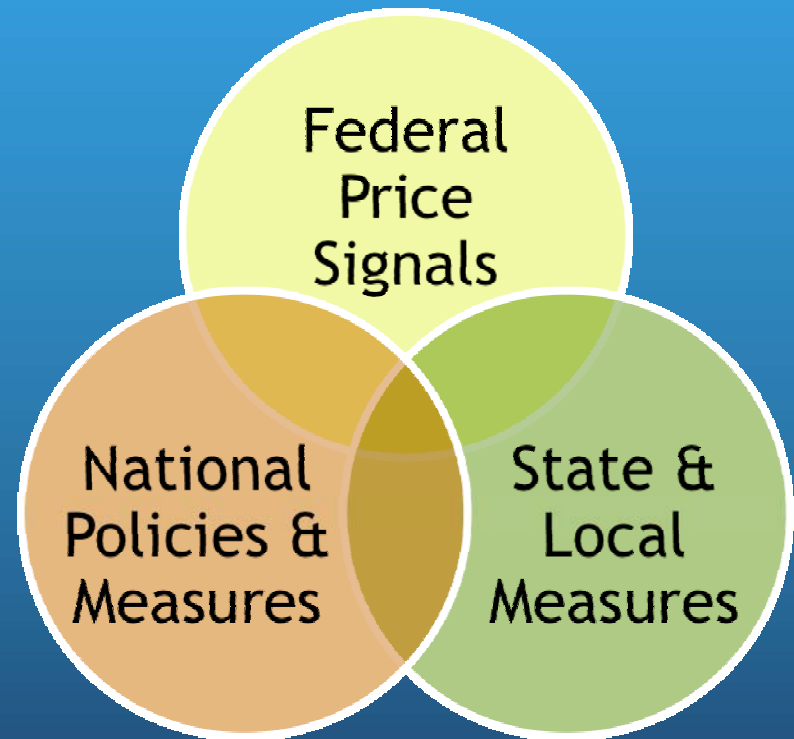
## Category Needs

---

- Policy Instruments
  - Cap and Trade & Sector Based Policies and Measures
  - Price & Non Price instruments
- Levels of Government
  - Federal & Sub Federal
- Economic sectors
  - Large & small sources

## Structural Solutions

---



# CAA Can Achieve Integration

- Tonnage reductions met by federal and state actions
  - Based on US “fair share” to stabilize GHG levels of 450-550 ppmv (can base on secondary NAAQS or legislative goals)
- Federal standards for cap and trade and categorical “sectoral” standard
- Each state adopts implementation plan designed to achieve tonnage reductions and demand reduction goals
  - NOT modeling for local ambient concentrations
  - Emissions-based approach due to unique nature of GHGs
- Will require changes - regulatory or statutory

# Potential Federal roles Under CAA

- Establish technology based standards for appropriate sectors (automobile, off road vehicles, some stationary sources, NSR for buildings, etc.)
- Standards for a cap and trade program under 110(a) or new authority
- Determine state emissions reduction goals that may be needed beyond federal minimum through state plans
- Standards for approving state climate plans
- Contents of federal implementation plan

# State Plans Under Current CAA

- Measures necessary to implement federal minimum categorical standards and federal cap and trade
- Mix of policy actions in all sectors to help meet national emissions goals (after considering federal actions)
- Examples include:
  - Programs to effectively engage citizens and consumers
  - Demand reduction for heat, power and petroleum use
  - Tax incentives, financing and assistance programs for efficiency and conservation, renewable and clean energy
  - Waste reduction, recovery and recycling
  - Agriculture and forestry protection and conservation
  - Many other current policies and programs

# Summary

- Comprehensive policy is lowest cost and highest value approach for GHG management
- CAA can be used for comprehensive approach
- Legislative enhancements/modifications will be needed
- State plans and programs provide important federal policy options, experience, and partnership
- The key: integration of sectors, levels of government, and instruments

# Contact Information

- Prof. John C. Dernbach, Widener University Law School, [jcdernbach@widener.edu](mailto:jcdernbach@widener.edu), (717) 541-1933
- Adj. Prof. Robert B. McKinstry, Jr., Penn State University/Ballard Spahr Andrews and Ingersoll LLC, [mckinstry@ballardspahr.com](mailto:mckinstry@ballardspahr.com), (215) 864-8208
- Adj. Prof. Thomas D. Peterson, Penn State University/Center for Climate Strategies, [tdp1@mac.com](mailto:tdp1@mac.com), (703) 691-3064