



Governor's Action Team on Energy and Climate Change  
*State of Florida*

Governor's Action Team for Energy and  
Climate Change  
Phase II Process

*Cap and Trade*

*Technical Working Group (TWG)*

*Meeting #1*

*February 29, 2008*

# Welcome and Introductions

- Action Team TWG Members
- Florida Department of Environmental Protection
- Members of the Public
- Center for Climate Strategies

# Agenda

- Purpose and Goals
- Review of Florida Sunshine Laws
- Review of the Action Team and Technical Work Group (TWG) process
- Development of Florida Emissions Inventory & Forecast
- Development of the FL Catalog of States' Actions
- Review of Next Steps
- Agenda, Date and Time for Next Meetings
- Public Comments
- Announcements

# Purpose and Goals

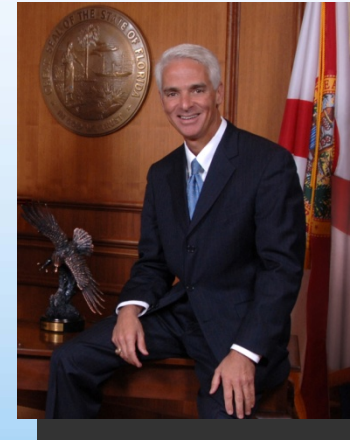
- To develop a comprehensive Energy and Climate Change Action Plan that will fully achieve or surpass Executive Order targets for statewide greenhouse gas reductions specified in Executive Order 07-127, including:
  - guidance on the design of a market-based emissions allowance trading program,
  - design of programs to further enable energy conservation
  - closer examination of emissions reduction opportunities offered by new technologies
  - an examination of revenue impacts of emissions reduction policies within the transportation sector
  - consideration of a low-carbon fuel standard
  - further consideration of the organization of Florida's state government to foster the development of a low-carbon energy market in Florida, and
  - other emissions reductions actions

# Florida Open Government and Sunshine Law Briefing

- All meetings open to the public
- Discussions between TWG members
- Documents
  - Emails
  - Meeting notes
  - Committee work product
- Other

# Florida Executive Orders

- EO 07-126 Establishes immediate actions to reduce GHG emissions from Florida State Government
- EO 07-127 Establishes immediate actions to reduce greenhouse gas emissions and emissions reduction targets and timelines
- EO 07-128 Establishes the Florida Governor's Action Team on Energy and Climate Change charged with addressing Florida's climate challenge on all fronts
- Phase I Report by November 1, 2007
- Phase II Report by October 1, 2008



# Florida Climate Change Initiatives

- Executive Order 07-127
- Sets Emission reduction targets
  - By 2017 – Meet 2000 Levels
  - By 2025 – Meet 1990 Levels
  - By 2050 – 80% Below 1990 levels

# Action Team Phase I Recommendations Pursuant to EO 07-128

- Mandatory reporting through The Climate Registry
- Cap-and-Trade market-based GHG reduction program
- Explore potential for sale of FL offset credits to RGGI
- Early emission reduction incentives
- PSC incentives for renewable energy installations
- Additional building efficiency measures
- Additional appliance efficiency measures
- Partnerships promoting CCSR

# Action Team Phase I Recommendations Pursuant to EO 07-128 (cont'd)

- Integrated land use planning to promote GHG reductions
- Low carbon vehicles
- Research and development for renewable fuels
- Investigate regional low carbon fuel standard
- State to use energy performance savings contracts
- Alternative fuels technology development
- Public-private cooperation for low-carbon energy market
- Facilitated stakeholder process for Phase II

# Roles & Responsibilities

- Process convened by Governor Crist
- Governor's Office and FL DEP oversee and coordinate process
- Action Team makes recommendations to the Governor
- Technical Work Groups (TWGs) provide guidance to Action Team
- DEP ensures timely and full completion of Action Team duties, etc.
- Public input and review for stakeholders
- CCS provides facilitation, technical support, final report

# Technical Work Group Roles

- Assist Climate Action Team
  - Identify full range of potential state actions
  - Identify suggested priorities for analysis
  - Suggest straw policy designs
  - Assist with analysis, development and review of options
  - Assist with development of policy alternatives
  - Assist with input to and review of Action Team reports
  - Review and assist with the state GHG inventory and forecast

# Technical Work Groups

- Energy Supply and Demand
  - Heat and power generation; locus for cap-and-trade or carbon tax policy
  - Energy efficiency & conservation, industrial process, waste management
- Cap-and-Trade
- Transportation and Land Use
  - Vehicle efficiency, alternative fuels & demand reduction programs
- Agriculture, Forestry, and Waste
  - Land protection, forest restoration, sustainable forest management, bioenergy, sustainable wood products, waste reduction, recycling
- Government Policy Coordination
  - Greening Florida's economy, energy/climate policy coordination, lead by example, reporting and registries
- Adaptation

# Ground Rules

- Supportive of the process
- Best effort, good faith
- Attendance at meetings
- Equal footing
- Stay current with information
- No backsliding
- Do not represent the Action Team or TWG
- Make objective and timely contributions

## Timing – Action Team Meetings

<b>Date</b>	<b>Action</b>
February 1, 2008	1 <sup>st</sup> Action Team meeting
March 17, 2008	2 <sup>nd</sup> Action Team meeting
May 29, 2008	3 <sup>rd</sup> Action Team meeting
July 9, 2008	4 <sup>th</sup> Action Team meeting
August 6, 2008	5 <sup>th</sup> Action Team meeting
September 5, 2008	6 <sup>th</sup> Action Team meeting
October 1, 2008	Phase II Final Report due
Between Action Team Meetings	TWG conference calls and meetings

# Timing – TWG Meetings

TWG (all times Eastern)	Energy Supply and Demand	Agriculture, Forestry, and Waste	Transportation and Land Use	Cap-and-Trade	Government Policy	Adaptation
Call#1	FEB 27, Wed 1:30pm-3:30pm	FEB 21, Thurs 1:00pm-3:00pm	FEB 27, Wed 1:00pm-3:00pm	FEB 29, Friday, 2:00pm-4:00pm	FEB 28, Thurs, 9:00am-11:00am	FEB 29, Friday 10:00am-12:00pm
Call#2	MAR 5, Wed 1:30pm-3:30pm	MAR 5, Wed 1:00pm-3:00pm	MAR 5, Wed 1:00pm-3:00pm	MAR 7, Friday, 2:00pm-4:00pm	MAR 6, Thurs, 9:00am-11:00am	MAR 6, Thurs, 10:00am-12:00pm
Call#3	APR 2, Wed 1:30pm-3:30pm	MAR 26, Wed 1:00pm-3:00pm	APR 3, Thurs 1:00pm-3:00pm	MAR 28, Friday, 2:00pm-4:00pm	MAR 27, Thurs, 9:00am-11:00am	TBD
Call#4	APR 23, Wed 1:30pm-3:30pm	APR 30, Wed 1:00pm-3:00pm	APR 23, Wed, 1:00pm-3:00pm	APR 25, Friday, 2:00pm-4:00pm	MAY 1, Thurs, 9:00am-11:00am	TBD

# C&T Stepwise Planning Process

1. Get organized
2. Review status of other C&T programs and initiatives
3. Identify a full range of possible actions
4. Define level of recommendations to be offered
5. Prioritize key-issue scenarios for analysis
6. Quantify initial GHG reductions and costs/savings
7. Fully develop policy option templates, including externalities, feasibility issues
8. Refine program design recommendations
9. Develop alternatives to address barriers as needed
10. Finalize and report recommendations

# Building Consensus

- Deliberative democracy applied to governance
  - Comprehensive
  - Stepwise
  - Fact based
  - Transparent
  - Inclusive
  - Collaborative
  - Consensus driven



# Transparency



- Policy Design
  - Timing, goals, coverage, implementation methods
- Economic analysis
  - Data sources
  - Quantification methods
  - Key assumptions
  - Key uncertainties

# Coverage Of Issues



- All GHG's
- All sectors
- All potential implementation mechanisms
- State and multi-state actions
- Short and long term actions
- Key externalities

# Decision Criteria

- GHG Reduction Potential (MMtCO<sub>2</sub>e)
- Cost or Cost Saved Per Ton GHG Removed
- Externalities (Co-benefits, etc.)
- Feasibility Issues


# Basis of Decisions

- TWGs and Action Team will be challenged to refine proposals to achieve unanimous consent
- Action Team recommendations fall into 3 classes:
  - Unanimous consent (no objections)
  - Super majority (five or fewer object)
  - Simple majority (more than five but fewer than half object)
- The exact number of objections will be reported and all “barriers to consensus” summarized and reported

# Catalog of States Actions

- Over 300 actions taken by US states
  - Existing, planned and proposed state level actions
  - Wide variety of US states
  - All sectors
  - Wide variety of implementation mechanisms
  - Will include key FL actions
- Action Team will add new potential actions
  - Starting place for identification of Action Team priorities for analysis

# A “Portfolio” of Policy Options...

	Codes & Standards	Market Mechanisms	Funding Mechanisms	Voluntary Agreements	Technical & Financial Assistance	Information & Education	Pilots & Demo Projects	Reporting & Disclosure
Agriculture, Forestry, & Waste								
Energy Supply & Demand								
Cap-and-Trade								
Transportation & Land Use								
Adaptation								
Government Policy								

# Screening of Potential Actions (Agriculture Example)

Option No.	GHG Reduction Policy Option	Potential GHG Emissions Reduction	Cost per Ton	Other Considerations: Jobs, Fuel Imports, Externalities, Feasibility	Priority for Analysis	Notes / Related Actions in FL
AFW-1	AGRICULTURE – PRODUCTION OF ENERGY AND MATERIALS					
1.1	Expanded Use of Biomass Feedstocks for Electricity, Heat, or Steam Production					
1.2	In-state Liquid Biofuels Production					
1.3	Manure Digesters/Other Waste Energy Utilization					
1.4	Improving Energy Capture from Biomass Heat					
1.5	Expand Use of Bio-based Materials					

- Action Team identifies about 50 initial potential options for further analysis and development.

# Policy Design Proposals

- TWGs start with Catalog, screen options and recommend priorities for FL
- Action Team identifies about 50 draft potential priority options for further development, including Phase I recommendations needing further development and analysis
- TWGs propose initial policy option design (“straw proposals”) including
  - Timing
  - Goals
  - Coverage
- CCS works with TWGs to set up quantification
- Options are quantified and fleshed out for review and revision by the Action Team
- Action Team revisits list of potential priorities, as needed

# Policy Option Template

- Policy Description (Concept)
- Policy Design (Goals, Timing, Coverage)
- Potential Implementation Methods
- Related Programs and Policies (BAU)
- Quantification of costs, results
  - Data Sources, Methods and Assumptions
  - Key Uncertainties
- Externalities, as Needed
- Feasibility Issues, as Needed
- Status of Group Approval
- Level of Group Support
- Barriers to Consensus, if any

# Final Report

- Executive Summary
- Background, Purpose, And Goals
- FL Emissions Inventory & Forecast
- Action Team Recommendations & Results
  - Agriculture, Forestry, and Waste Management
  - Energy Supply & Demand
  - Cap-and-Trade
  - Transportation & Land Use
  - Government Policy
  - Adaptation
- Appendixes



# Inventory and Forecast; Preliminary Results of Recent Actions

# Inventory Approach

- Standard US EPA and UN methodologies, guidelines and tools
- Emphasis on transparency, consistency and significance
- Preference for FL or regional data, where available
- Consumption and production-based emissions from electricity generation
  - Very simplified approach for initial analysis

# Projection Approach

- Reference case assumes no major changes from business-as-usual (BAU)
  - Includes approved policies and actions (e.g., Phase I recommendations, Executive Orders)
- Growth assumptions from existing sources
  - State population and employment forecasts
  - US Census and Bureau of Labor Statistics
  - US Energy Information Administration

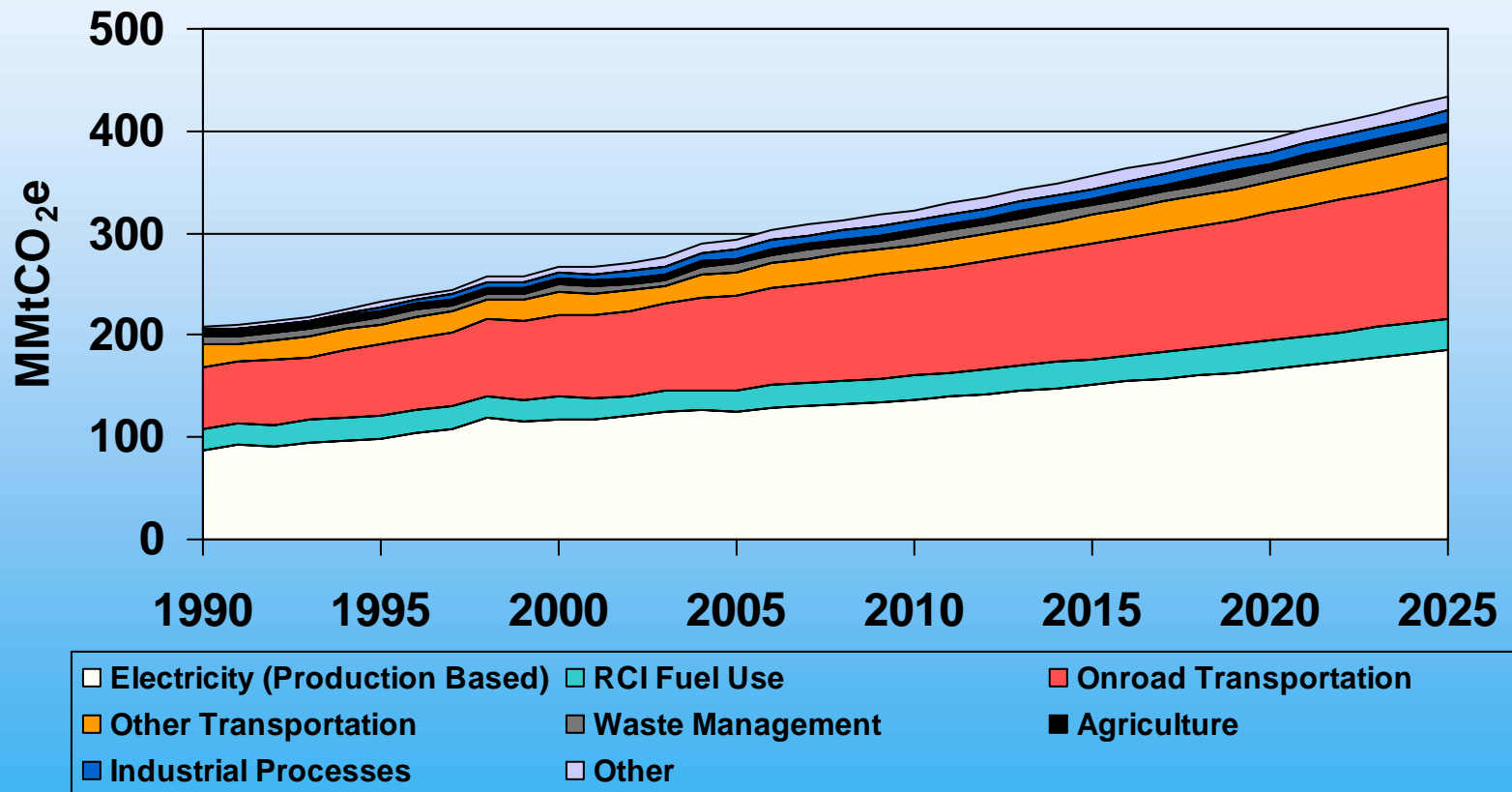
# Coverage

- Six gasses per US EPA and UNFCCC guidelines
  - Carbon Dioxide (CO<sub>2</sub>), Methane (CH<sub>4</sub>), Nitrous Oxide (N<sub>2</sub>O), Hydrofluorocarbons (HFCs), Perfluorocarbons (PFCs), Sulfur Hexafluoride (SF<sub>6</sub>)
- All major emitting sectors
  - Electricity supply and demand
  - Residential, commercial and industrial fuel use and non-fuel use processes
  - Transportation
  - Natural gas pipeline transmission & distribution
  - Agriculture, Forestry and Waste
- Emissions expressed as CO<sub>2</sub> equivalent
  - 100-year global warming potentials
    - CO<sub>2</sub>=1; CH<sub>4</sub>=21; N<sub>2</sub>O=310; HFC-23=11,700; SF<sub>6</sub>=23,900

# I&F Key Points

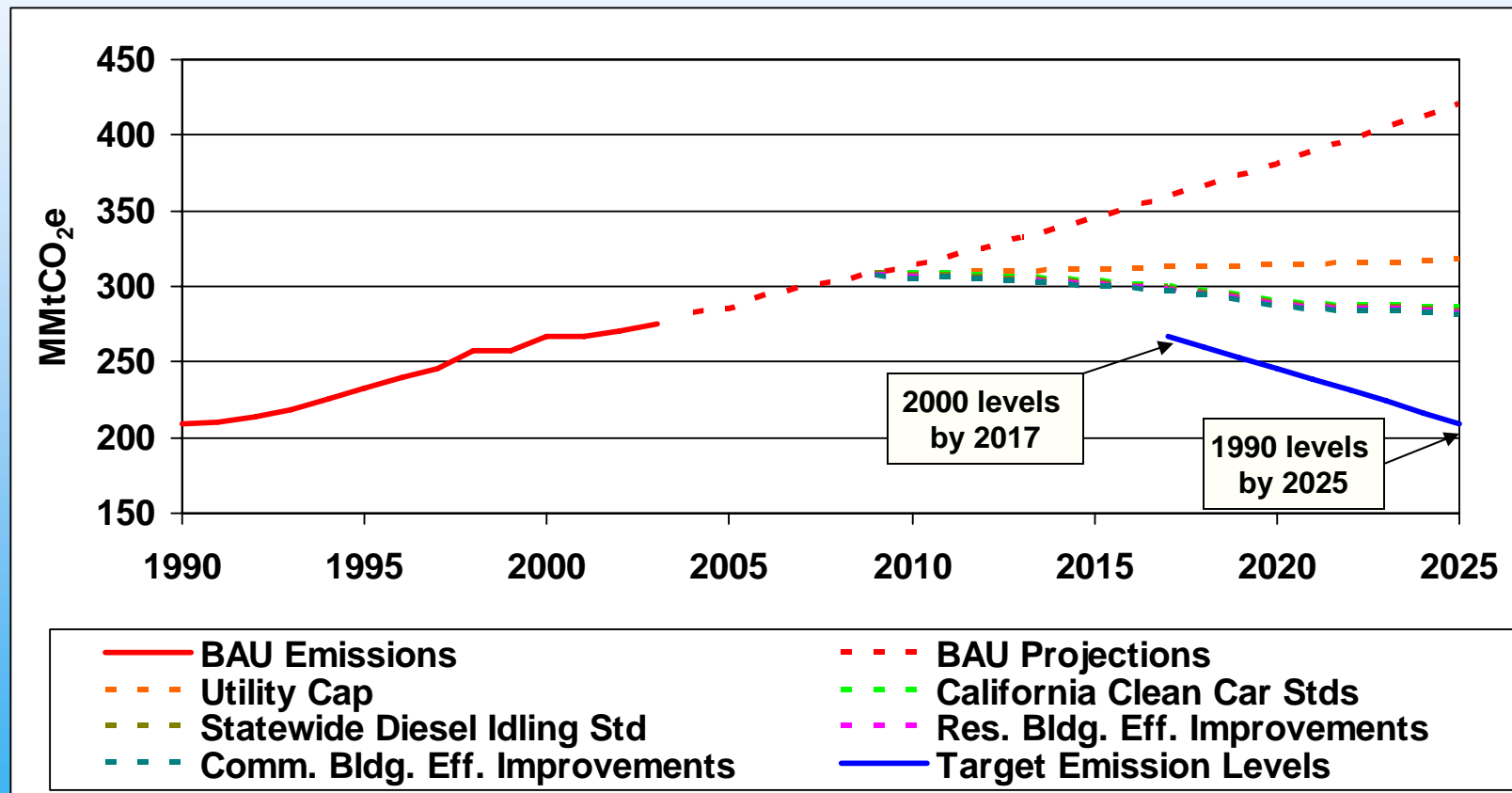
- Preliminary draft for Action Team and TWG review and revision, as needed
- Helpful for diagnosis of GHG emissions, but not as a baseline for modeling or compliance
- Consumption and production methods
- Gross and net methods

# Florida Gross GHG Emissions by Sector (Preliminary)



# Recent Florida Actions

## – Preliminary GHG Reductions



# Inventory Improvements

- Business-as-Usual (BAU) Inventory Improvements
- BAU Reference Case Forecast Improvements
- Recent Actions Quantification Improvements

# Catalog of State's Actions

- Please refer to separate catalog documents
  - Catalog (table)
  - Short descriptions of policy options
- Excerpted from larger all-sector catalog

# Market Mechanisms Primer

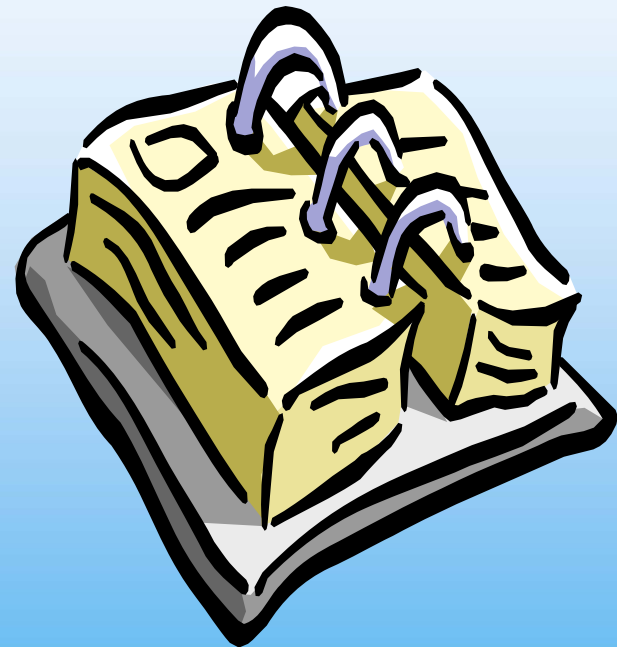
- Carbon Fee or Tax
- Cap and Trade
  - Cap
  - Scope (geography)
  - Scope (sectors)
  - Scope (gasses)
  - Point of regulation
  - Thresholds
  - Leakage
  - Offsets
  - Timing
  - Allocation
  - Banking
  - Borrowing
  - Safety valve
  - Reporting
  - Enforcement
  - Administration

# Next Steps

- Review Market Mechanisms Paper
- Review EPA C&T program experience
- Review RGGI program information
- Be prepared to discuss/propose scope of recommendations

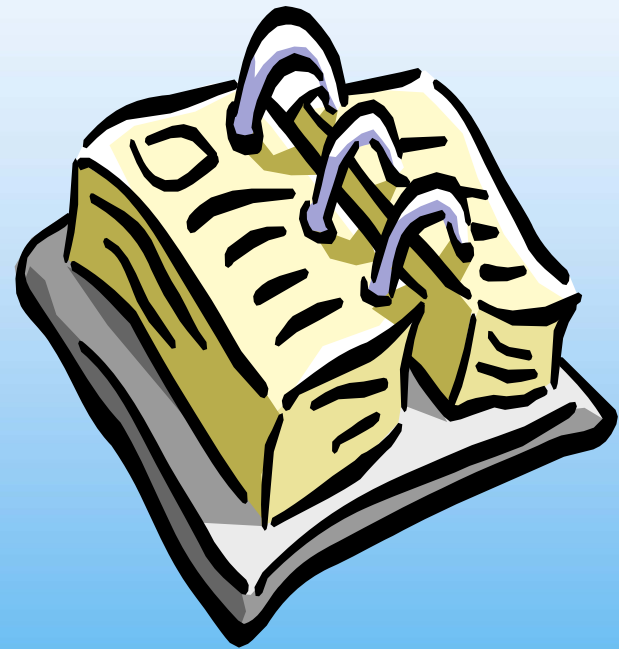
# Next Action Team Meeting

- Agenda:
  - Review and approve potential additions to the catalog of state actions
  - Review and approve TWG suggested updates to the FL emissions inventory and projection
  - Review progress on cap-and-trade design issues
- March 17, 2008, Tallahassee



# Next TWG Meeting

- Agenda:
  - Review RGGI program
  - Review EPA experience
  - Learn about C&T modeling tools
  - Propose scope of TWG recommendations to Action Team
- **March 7, 2:00PM-4:00PM ET**
- **Future Meetings**
  - **March 28, 2:00PM-4:00PM ET**
  - **April 25, 2:00PM-4:00PM ET**



# Public Input, Announcements