



Governor's Action Team on Energy and Climate Change

State of Florida

www.flclimatechange.us

Memo

To: Mike Sole, Secretary, Florida Department of Environmental Protection and Chair, Florida Action Team on Energy and Climate Change

From: The Center for Climate Strategies

Subject: Preparation for the Fifth Meeting of the Florida Action Team

Date: August 1, 2008

At the fifth meeting of the Florida Action Team on Wednesday and Thursday, August 6-7, 2008, we will focus on review and approval of the expanded draft Policy Option proposals from the Technical Work Groups (TWGs) for the options that you moved forward at the last meeting. The TWGs will present their Implementation Mechanisms and Related Policies and Programs for each option, along with any revisions to Policy Description and Policy Design the Action Team requested in meeting four. In addition, initial quantification of some of the policies will be available for your review. Depending on the level of draft policy completion and degree of consensus within the Action Team, the Team may be ready to approve several early consensus policy recommendations in meeting five.

Based on your discussion and any resulting adjustments, the TWGs will continue their work to complete the remaining draft policies by identifying additional benefits, feasibility issues and key uncertainties, plus any unfinished drafting for the next Action Team meeting. They will also continue the quantification process.

As preparation for our meeting, please review the expanded TWG draft Policy Option Proposals and other background documents to be emailed soon and posted to the Action Team Web site at: www.flclimatechange.us.

In terms of overall progress, the Action Team has completed key milestones since its launch of the Phase II process, including:

- Identification of a full range of potential Florida options for mitigation of greenhouse gas (GHG) emissions, including more than 300 possible state actions.
- TWG identification, by balloting, of 44 initial priorities for analysis of draft policy options, incorporating elements of 107 specific catalog policies.
- Development of evaluation criteria, a framework outline, a policy template and catalog examples for consideration of adaptation measures to address the impacts of climate change.

- Background and policy options briefings on a range of issues, such as the design of a cap and trade program, a carbon tax and the development of policies that promote the “greening” of Florida’s economy.
- Approval of a full range of initial priorities for analysis of draft policy options at its third meeting.
- Approval of draft policy designs and descriptions and coordination of policy jurisdiction among the TWGs in your fourth meeting.

The next stages of the Action Team process will include completion of the following milestones:

- Continuing review and revision of the Florida GHG Emission Inventory and Forecast.
- Review and revision of policy option analysis and continuing development of draft options as needed during TWG calls and meetings.
- Final approval of Florida policy option recommendations at your fifth, sixth and seventh meetings.
- Review and approval of key design recommendations for cap and trade in your sixth and seventh meetings.
- Final approval of the Florida GHG Emission Inventory and Forecast.
- Approval of Final Report in meeting number eight.

Summary of Action Team Progress and Next Steps

Status of Draft Policy Options	
Original Number of Potential Options Presented to the Action Team from the CCS Catalog of State Actions	Approx. 300
Updated Number of Potential Options in the CCS Catalog of States Actions, Including Action Team Additions	360
Current Number of Draft Proposed Priority Policy Options for Analysis	60
Energy Supply and Demand (ESD)	21
Transportation and Land Use (TLU)	8
Agriculture, Forestry, and Waste Management (AFW)	10
Government Policy and Coordination (GP)	5
Cap and Trade (C&T) policies (issues)	1 (11)
Adaptation (ADP)	15
Next Steps	
Review additional Draft Policy Option content and analysis	Action Team Meetings #6 and #7
Receive and review key program design recommendations for a Florida cap and trade program	Action Team Meetings #6 and #7
Approve Final Action Team Policy Option Recommendations	Action Team Meetings #5-6-7
Approve Final Report	Action Team Meeting #8

Adaptation (ADP) Policy Options

Summary List of Draft Policy Options

Option No.	ADP Policy Option	Level of Support
ADP-1	Advancing Science Data and Analysis for Climate Change	Pending
ADP-2	Comprehensive Planning	Pending
ADP-2.1	Local Government Level	Pending
ADP-2.2	Regional Government Level	Pending
ADP-2.3	State Government Level	Pending
ADP-3	Protection of Ecosystems and Biodiversity	Pending
ADP-3.1	Uplands, Freshwater and Marine Systems	Pending
ADP-3.2	Beaches and Beach Management	Pending
ADP-3.3	Species Protection	Pending
ADP-4	Water Resource Management	Pending
ADP-5	Built Environment, Infrastructure and Community Protection	Pending
ADP-5.1	Building Codes and Regulation	Pending
ADP-5.2	Flood Protection	Pending
ADP-5.3	Beaches as Infrastructure	Pending
ADP-6	Transportation and Other Infrastructure (moved into ADP-5)	Pending
ADP-7	Economic Development	Pending
ADP-7.1	Tourism	Pending
ADP-7.2	Other Resource-based Industries	Pending
7.2.1	Agriculture	Pending
7.2.2	Forests	Pending
7.2.3	Marine	Pending
7.2.4	Aquaculture	Pending
7.2.5	Mining	Pending
ADP-7.3	Construction	Pending
ADP-8	Insurance (Property and Casualty)	Pending
ADP-9	Emergency Preparedness and Response (Extreme Events)	Pending
ADP-10	Human Health Concerns	Pending
ADP-10.1	Health Care	Pending
ADP-10.2	Air Quality	Pending
ADP-10.3	Wastewater Treatment	Pending
ADP-10.4	Disaster Response	Pending
ADP-10.5	Medical Treatment and Biomedicine Development	Pending
ADP-11	Social Effects	Pending
ADP-11.1	Social Justice Issues	Pending
ADP-11.2	Food and Water Security	Pending

ADP-11.3	Housing	Pending
ADP-11.4	Intersection of Climate Change and Human Behavior	Pending
ADP-12	Organizing State Government for the Long Haul	Pending
ADP-13	State Funding and Financing	Pending
ADP-14	Coordinating with Other Regulatory and Standards Entities	Pending
ADP-14.1	Federal Government	Pending
ADP-14.2	Professional Societies	Pending
ADP-15	Public Education and Outreach	Pending

ADP = Adaptation; DEP = Department of Environmental Protection; DOT = Department of Transportation; WWF = World Wildlife Fund.

Note: The numbering used to denote the above pending priority policy options is for reference purposes only; it does not reflect prioritization among these important draft policy options.

Agriculture, Forestry, and Waste Management (AFW)

Summary List of Draft Priority Options for Analysis—2017 and 2025

Option No.	Policy Option	GHG Reductions (MMtCO ₂ e)			Net Present Value 2009–2025 (Million \$)	Cost-Effectiveness (\$/tCO ₂ e)	Level of Support
		2017	2025	Total 2009–2025			
AFW-1	Forest Retention—Reduced Conversion of Forested to Non-Forested Land Uses						Pending
AFW-2	Afforestation and Restoration of Non-Forested Lands						Pending
	A. Forest Landscape						
	B. Urban Forestry						
AFW-3	Forest Management for Carbon Sequestration						Pending
AFW-4	Expanded Use of Agriculture, Forestry, and Waste Management (AFW) Biomass Feedstocks for Electricity, Heat, and Steam Production						Pending
	Agriculture and Forest Biomass	19.2	33.5	323	2,388	7	
	Municipal Solid Waste (MSW) Biomass						
AFW-5	Promotion of Farming Practices That Achieve GHG Benefits						Pending
	A. Soil Carbon Management	0.81	1.53	13.8	-\$102	-\$7	
	B. Land-Use Management That Promotes Permanent Cover						
	C. Nutrient Management	0.15	0.29	2.59	-\$69	-\$27	
	D. Improved Harvesting Methods to Achieve GHG Benefits						
AFW-6	Reduce the Rate of Agricultural Land and Open Green Space Conversion To Development						Pending
AFW-7	In-State Liquid/Gaseous Biofuels Production	10.7	22.3	191	\$4,050	\$22.3	Pending
AFW-8	Promotion of Advanced Municipal Solid Waste (MSW) Management Technologies (Including Bioreactor Technology)						Pending
AFW-9	Improved Commercialization of Biomass to Energy Conversion and Bio-Products Technologies						Pending
AFW-10	A. Manure Digestion/Other Waste Energy Utilization	0.020	0.036	0.319	-\$1.38	-\$4.34	
	B. WWTP Biosolids Energy Production						

	C. Other Biomass Conversion Technologies						
	D. Bio-Products Technologies & Use						
	E. Programs to Support Local Farming/Buy Local						
	Sector Totals						
	Sector Total After Adjusting for Overlaps						
	Reductions From Recent Actions	-	-	-	-	-	
	Sector Total Plus Recent Actions	-	-	-	-	-	

GHG = greenhouse gas; MMtCO₂e = million metric tons of carbon dioxide equivalent; \$/tCO₂e = dollars per metric ton of carbon dioxide equivalent; TBD = to be determined.

* See below for discussion of overlap adjustments

Note that negative costs represent a monetary savings.

Government Policy (GP)

Summary List of Pending Priority Policy Options for Analysis

Policy No.	Policy Option	GHG Reductions (MMtCO ₂ e)			Net Present Value 2009–2025 (Million \$)	Cost-Effectiveness (\$/tCO ₂ e)	Level of Support
		2015	2025	Total 2009–2025			
GP-1	Targets, Reporting, Funding, and Accountability Measures	<i>Not to be Quantified</i>					Pending
GP-2	Public Awareness and Education	<i>Not to be Quantified</i>					Pending
GP-3	Inter-Government and Inter-Sector Planning Coordination and Assistance	<i>Not to be Quantified</i>					Pending
GP-4	"Green" Business Development Policies	<i>Not to be Quantified</i>					Pending
GP-5	Introduce Core Competencies Into Professional Licensing Programs	<i>Not to be Quantified</i>					Pending

GHG = greenhouse gas; MMtCO₂e = million metric tons of carbon dioxide equivalent; \$/tCO₂e = dollars per metric ton of carbon dioxide equivalent.

Note: The numbering used to denote the above pending priority policy options is for reference purposes only; it does not reflect prioritization among these important draft policy options.

Cap-and-Trade (C&T) Technical Work Group (TWG)

Summary List of Recommended Priority Policy Questions

Rulemaking Issue Number	Rules for the C&T Proposal Shall Include	Key TWG Recommendations
C&T-1	Set a statewide limit or cap on the amount of greenhouse gases (GHG) emitted by major emitters.	<p>What is the geographic scope of the program? What sectors are covered by the program? What sources within the covered sectors are included in the program? What is the term of the program (e.g., starting date, reduction goal date)? What reductions goal is the program expected to achieve? What is the electric sector basis for calculating emissions? (Production? Consumption? Other?) What reporting requirements will be imposed on regulated sources? Will reporting requirements be imposed on non-regulated sources? How much reporting data must be received before the program can begin?</p>
C&T-2	Establish methods, requirements, and conditions for allocating the cap among major emitters.	<p>How should allowances be distributed? (Free based on historical emissions? Free based on benchmarking? Auctioned? Other?)</p>
C&T-3	Establish methods, requirements, and conditions for emissions allowances and the process for issuing emissions allowances.	
C&T-4	Establish the relationship between allowances and the specific amounts of greenhouse gas emissions they represent.	What is the face value of an allowance?
C&T-5	Set the length of allowance periods and the time over which entities must account for emissions and surrender allowances equal to emissions.	What is the length of a compliance period?
C&T-6	Set the timeline of allowances from the initiation of the program through to 2050.	When does the program start? What is the cap for the first year? What is the cap for 2025? What is the cap for 2050?
C&T-7	Establish a process for the trade of allowances between major emitters, including a registry, tracking, or accounting system for such trades.	The Energy Bill requires all major emitters participate in The Climate Registry (TCR). How does TCR tie into a C&T trading program? How will allowances be tracked from issuance to surrender?
C&T-8	Establish cost containment mechanisms to reduce price and cost risks associated with the electric generation market in Florida.	<p>Should major emitters be permitted to borrow allowances from future time periods to meet their current GHG-compliance obligation? Should major emitters be permitted to bank allowances in the current year to be used to meet obligations in future years? If so is there a time limit on allowance banking? Should major emitters be permitted to purchase certified offsets from other entities that produce verifiable reductions in unregulated GHG emissions, or that produce verifiable reductions in GHG emissions, through</p>

Rulemaking Issue Number	Rules for the C&T Proposal Shall Include	Key TWG Recommendations
		voluntary practices that capture and store GHG that otherwise would be released into the atmosphere? Should a safety valve mechanism be established to ensure that the market prices for allowances do not surpass a predetermined level compatible with the affordability of electric utility rates and the well-being of the state's economy?
C&T-9	Establish a process to allow the Florida Department of Environmental Protection (DEP) to exercise its authority to discourage leakage of GHG emissions to neighboring states attributable to the implementation of this program.	Will leakage be addressed in the program design?
C&T-10	Establish a trial period on the trading of allowances before full implementation of a trading system.	Will there be a trial period? If so, for how long? Will allowances issued in the trial period be honored by the program after the trial period?
C&T-11	Position Florida to anticipate and influence the development of a national program.	What actions can Florida take now to maximize the benefits to Florida from the establishment of a national market based program to reduce GHG emissions?

C&T = Cap-and-Trade; TWG = Technical Work Group; GHG = greenhouse gas; DEP = Florida Department of Environmental Protection; TCR = The Climate Registry.

Energy Supply and Demand (ESD)

Summary List of Pending Priority Policy Options for Analysis

Policy No.	Policy Option	GHG Reductions (MMtCO ₂ e)			Net Present Value 2009–2025 (Million \$)	Cost-Effectiveness (\$/tCO ₂ e)	Status of Option
		2015	2025	Total 2009–2025			
Tier 1							
ESD-3	Renewable Energy Incentives and Barrier Removal						Pending
ESD-5	Renewable Portfolio Standard (RPS)						Pending
ESD-6	Nuclear Power						Pending
ESD-8	Combined Heat and Power (CHP) Systems						Pending
ESD-9	Power Plant Efficiency Improvements						Pending
ESD-11	Waste-To-Energy (WTE)						Pending
ESD-12	Demand-Side Management (DSM)/Energy Efficiency Programs, Funds, or Goals for Electricity						Pending
ESD-13a	Energy Efficiency for Existing Residential (new title)						Pending
ESD-14	Improved Building Codes for Energy Efficiency (new title)						Pending
ESD-15	Training and Education for Building Operators and Community Association Managers	<i>Not to be quantified</i>					Pending
ESD-17	Consumer Education Programs	<i>Not to be quantified</i>					Pending
ESD-23	Decoupling	<i>Not to be quantified</i>					Pending
Tier 2							
ESD-1	Technology Research and Development (R&D) with Commercial Opportunities						Pending
ESD-4	Electricity Transmission and Distribution Improvements						Pending
ESD-7	Integrated Resource Planning (IRP)	<i>Not to be quantified</i>					Pending
ESD-9	Power Plant Efficiency Improvements						Pending

Policy No.	Policy Option	GHG Reductions (MMtCO ₂ e)			Net Present Value 2009–2025 (Million \$)	Cost-Effectiveness (\$/tCO ₂ e)	Status of Option
		2015	2025	Total 2009-2025			
ESD-13b	Incentives for New Residential Buildings and Master Planned Communities Achieving High Energy Performance Standards						Pending
ESD-16	More Stringent Appliance/Equipment Efficiency Standards						Pending
ESD-18	Incentives to Promote Implementation of Customer-Sited Renewable Energy Systems						Pending
ESD-21	Rate Structures and Technologies to Promote Reduced Greenhouse Gas (GHG) Emissions						Pending
ESD-22	Demand-Side Management/Energy Efficiency Programs, Funds, or Goals for Natural Gas						Pending

GHG = greenhouse gas; MMtCO₂e = million metric tons of carbon dioxide equivalent; \$/tCO₂e = dollars per metric ton of carbon dioxide equivalent.

Note: The numbering used to denote the above pending priority policy options is for reference purposes only; it does not reflect prioritization among these important draft policy options.

Transportation and Land Use (TLU)

Summary List of Pending Priority Policy Options for Analysis

Policy No.	Policy Option	GHG Reductions (MMtCO ₂ e)			Net Present Value 2009–2025 (Million \$)	Cost-Effectiveness (\$/tCO ₂ e)	Level of Support
		2015	2025	Total 2009–2025			
TLU-1	Develop and Expand Low-GHG and Alternative Fuels	<i>Methods of analysis and performance goals to be discussed</i>					Pending
TLU-2	Add-On Technologies for Existing Vehicles and New Vehicles	<i>To be assessed following agreement on policy language and performance goals</i>					Pending
TLU-3	Smart Growth Planning	<i>Methods of analysis and performance goals to be discussed</i>					Pending
TLU-4	Improving Transportation System Management (TSM)	<i>Methods of analysis and performance goals to be discussed</i>					Pending
TLU-5	Increasing Choices in Modes of Transportation	<i>Methods of analysis and performance goals to be discussed</i>					Pending
TLU-6	Factoring GHG Emissions into Transportation and Land Use (TLU) Planning Processes	<i>Methods of analysis and performance goals to be discussed</i>					Pending
TLU-7	Incentive Programs for Increased Vehicle Fleet Efficiency	<i>To be assessed following agreement on policy language</i>					Pending
TLU-8	Increasing Freight Movement Efficiencies	<i>To be assessed following agreement on policy language</i>					Pending

GHG = greenhouse gas; MMtCO₂e = million metric tons of carbon dioxide equivalent; \$/tCO₂e = dollars per metric ton of carbon dioxide equivalent.

Note: The numbering used to denote the above pending priority policy options is for reference purposes only; it does not reflect prioritization among these important draft policy options.