



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

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

*Cap-and-Trade
Technical Work Group (TWG)
Meeting #9
July 29, 2008*

Welcome and Introductions

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

Agenda

- Introductions
- Purpose and Goals
- Review and Approval of Call #8 Summary
- Review/Discussion of Key Question Survey
- Presentation and Discussion of Preliminary Modeling Results – FL joins WCI
- Questions on Cap-and-Trade Modeling Methods Paper
- Follow-up discussion on offsets – *What is the principal purpose offset credits should serve?*
- Discussion of ESD-10 *Grace Period for Replacement of Carbon-Intensive Units*
- 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

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

Approval of Call #8 Summary

- Review draft meeting summary for Cap-and-Trade TWG meeting #8
- Consider any corrections or additions to meeting summary
- Accept meeting summary with agreed upon changes

Discussion – Key Question Survey

1. Goals and caps

Q: What emissions reduction goal (cap-and-trade “cap”) should the program achieve?

2. Sector and source coverage

Q: What sectors of the economy should Florida seek to include in the cap-and-trade program from the start?

Q: What sectors of the economy should Florida seek to phase-in to the cap-and-trade program over time?

Q: Should there be a de minimus exemption for small sources within the capped sectors?

3. Allowance value and distribution

Q: What are the four most important purposes to which ‘allowance value’ should be applied? (select up to four)

Q: How should allowances be distributed?

4. Offsets

Q: What is the most important function offsets should serve in the Florida program?

Q: To what degree should the use of offsets be limited?

5. Allowance price mitigation measures

Q: To what degree should sources be allowed to ‘bank’ or hold allowances for future sale or use?

Q: To what degree should sources be allowed to ‘borrow’ or use allowances that will be issued for future compliance periods to meet current obligations?

Q: Should there be an allowance price limit, or ‘safety valve,’ above which allowances will be issued to meet the demand notwithstanding the cap?

6. Reporting

Q: What sources should be required to report emissions?

7. Leakage

Q: How should ‘leakage,’ or creating an unintended incentive for increasing imports of unregulated electricity from non-participating states, be addressed?

8. Trial period

Q: Should the Florida program include a learning phase or trial period at the beginning?

9. Regional programs

Q: Assuming modeling supports *all* options, should Florida join a regional program, seek to start a southeastern regional program, or pursue a Florida-only approach?

10. Federal program

Q: What actions should Florida take now to maximize the benefits from the establishment of a national market based program to reduce GHG emissions?

An Overview of the Cap-and-Trade Model

Rose-Zhang Permit Trading Model

- Purpose: Simulate basic features of cap-and-trade systems (and related policy refinements) to determine emission & cost implications
 - Extensive prior applications (Global, EU, US regions, RGGI, and MGA)
 - Flexible & transparent framework
 - Readily accommodates data refinements & updates
 - Readily accommodates simple & complex designs

R-Z Model Features

- Based on sound economic principles
- Main inputs (for each entity)
 - emission levels
 - marginal mitigation costs
 - initial permit allocations
- Main outputs (for each entity)
 - GHG emission reductions before and after permit trading
 - pre-trading mitigation costs
 - post-trading mitigation costs
 - cost savings
 - permit purchases/sales (volume & value)
 - permit price

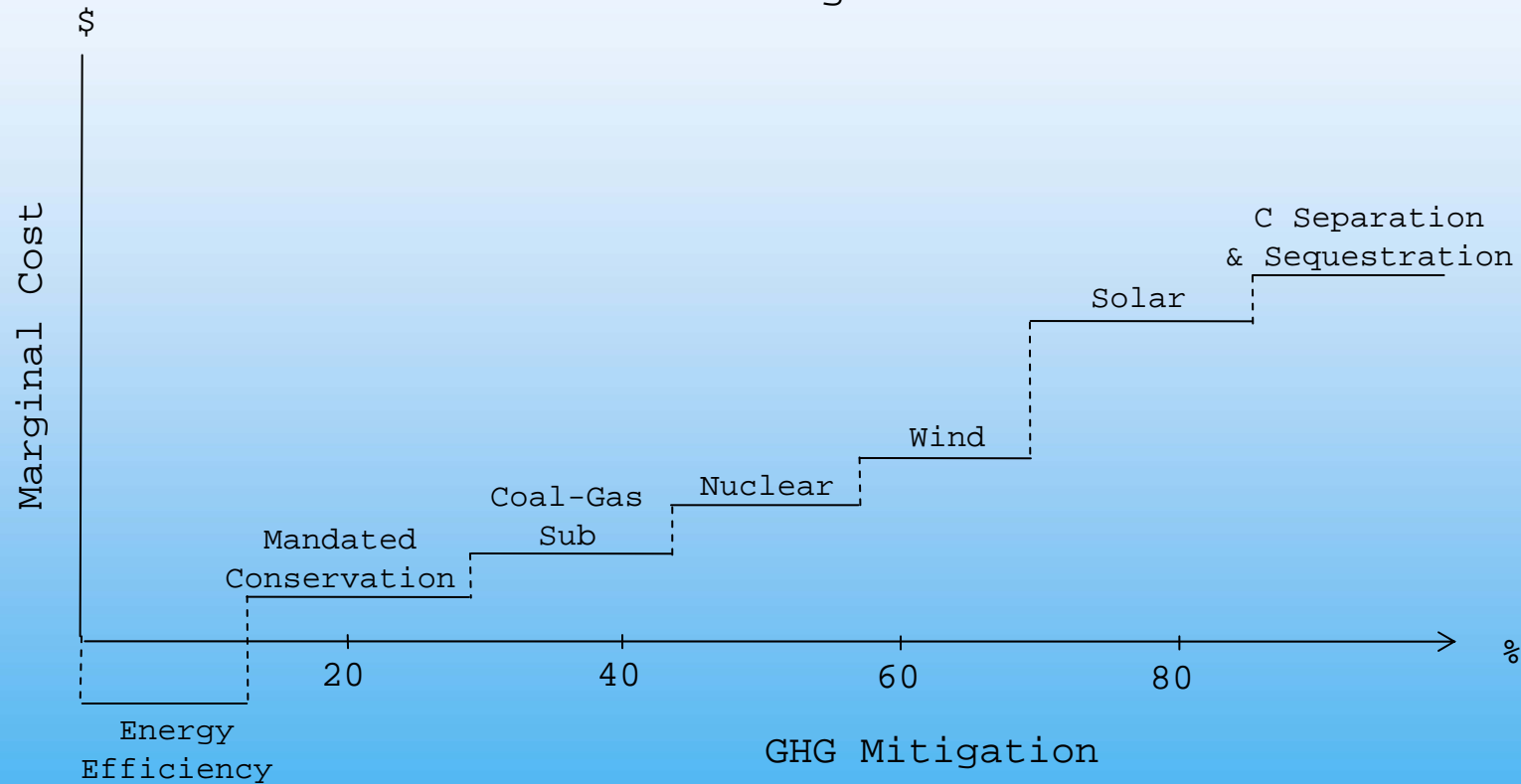
Evaluation of Permit Trading Flexibility

(All entries represent departure from CO2 mitigation only unless otherwise indicated)

Study/Application	How	What	Where
Rose-Oladosu (2002) U.S.	Sequestration Permit price 64% lower	Methane Permit price 23% lower	
Stevens-Rose (2002) Global			Global trading Cost savings 85%
Springer (2003) Global		Methane and nitrous oxide Permit price 25-49% lower	From Annex I trading to global trading Average permit price 67% Lower
Zhang (2004) Global			From Annex I trading to global trading Permit price 76 - 79% lower
Akimoto et al. (2004) Global	Sequestration CO ₂ shadow price 32% lower		
IPCC (2001) Global			Global trading Marginal abatement costs 29 - 78% lower
Rose-Zhang (2004) U.S.			National trading Cost savings 41%

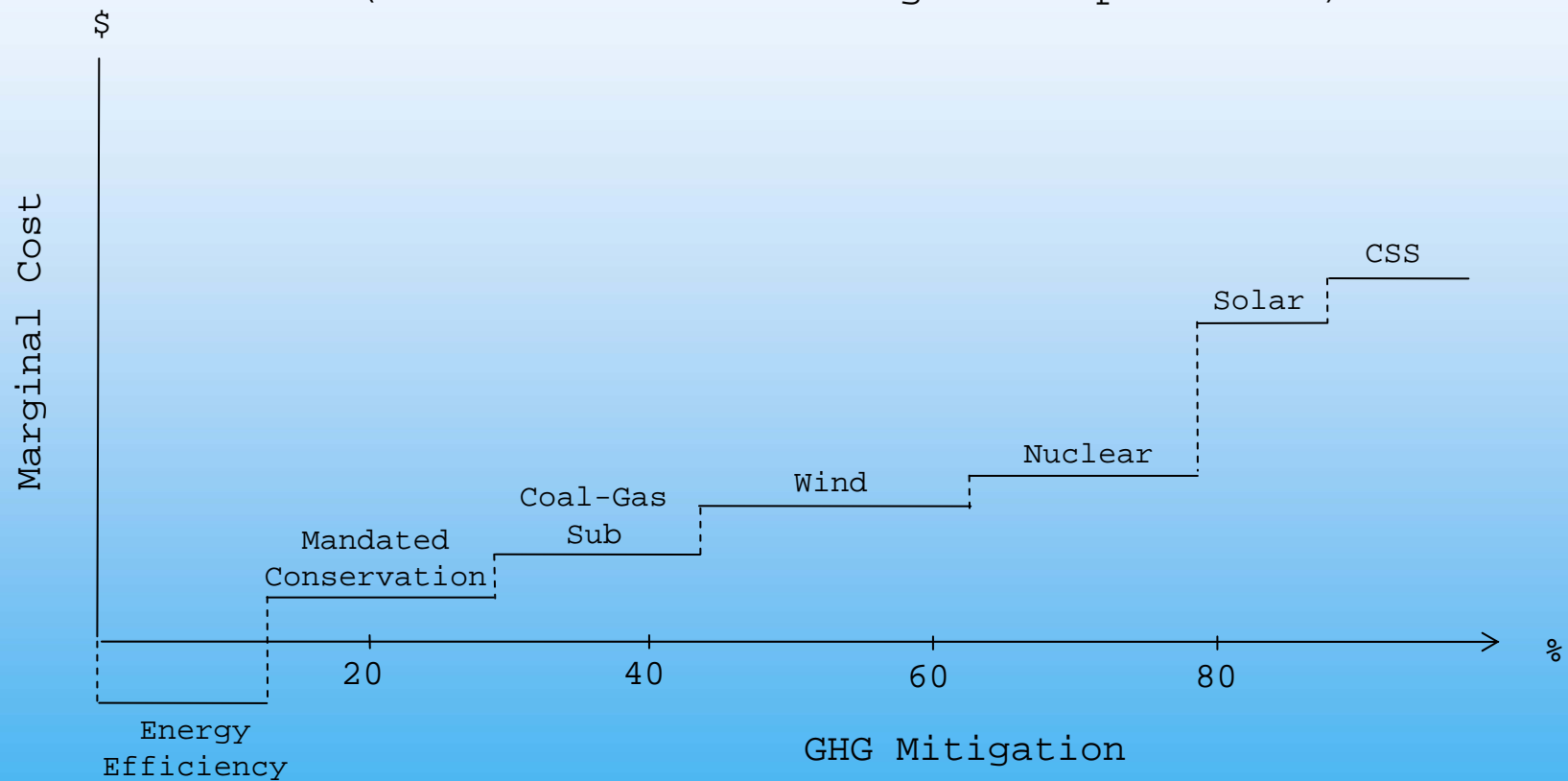
Sample Cost Curve

Figure 1. Marginal Costs of GHG Mitigation



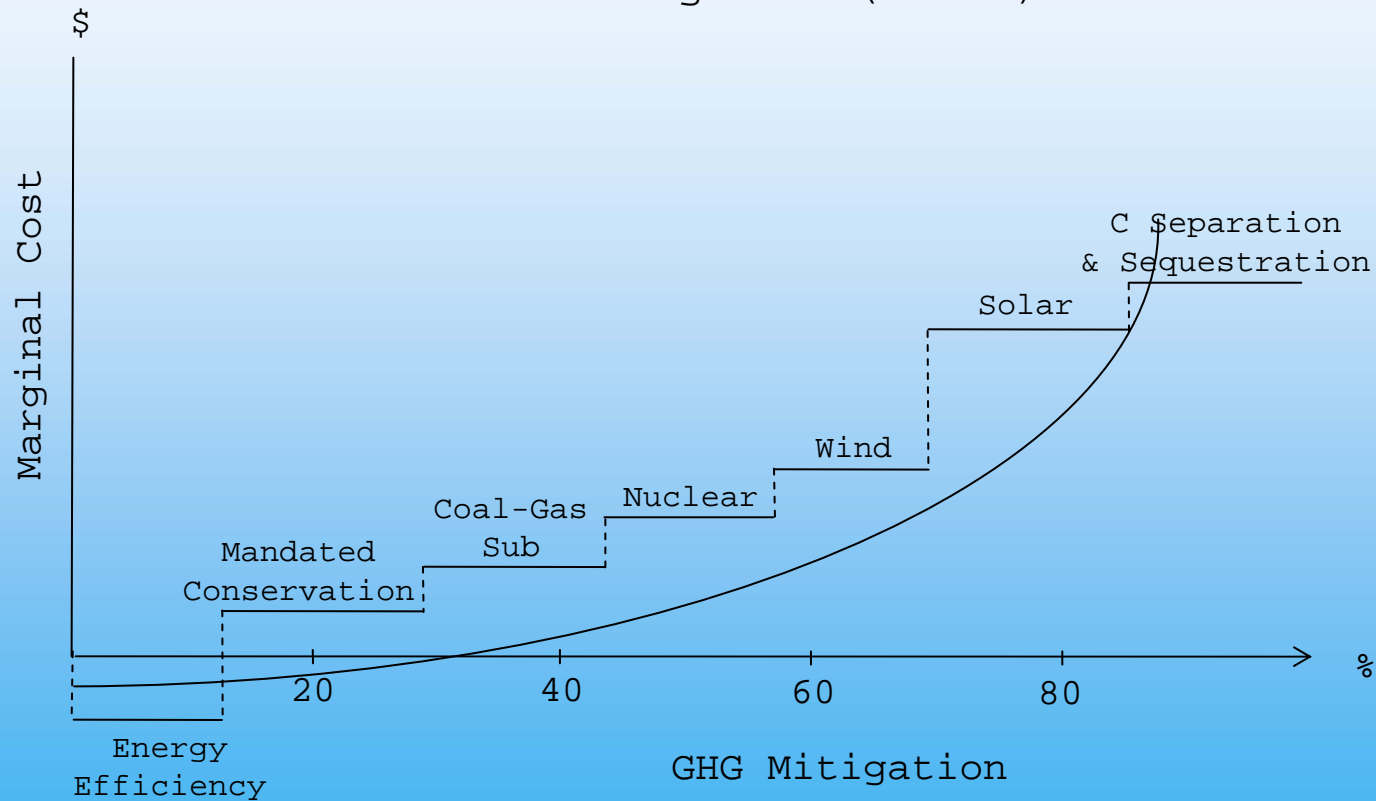
Sample Cost Curve

Figure 2. Marginal Costs of GHG Mitigation
(Wind at lower cost & greater potential)



Sample Cost Curve

Figure 3. Marginal Costs of GHG Mitigation (Curve)



Minnesota as an Example

Table 1. GHG Mitigation Options of Minnesota¹

Climate Mitigation Actions	Estimated 2025 Annual GHG Reduction Potential (MMtCO ₂ e)	Estimated Cost or Cost Savings per ton GHG Removed	GHG Reduction Potential as Percentage of 2025 Baseline Emissions ²	Cumulative GHG Reduction Potential	Weights (add-up to 100)

RCI-6: Non-Utility Strategies and Incentives To Encourage Energy Efficiency and Reduce GHG Emissions	1.3	-\$37.00	0.65%	9.91%	1.48

AFW-1: Agricultural Crop Management--A. Soil Carbon Management	1.3	-\$2.00	0.65%	15.42%	1.48
TLU-5: Climate-Friendly Transportation Pricing / Pay as You Drive	2.1	-\$1.00	1.05%	16.46%	2.39
AFW-8: End of Life Waste Management Practices--A. Landfilled Waste Methane	0.73	\$1.00	0.36%	16.98%	0.83
AFW-4: Expanded Use of Biomass Feedstocks for Electricity, Heat, or Steam Production	3.8	\$3.00	1.90%	18.87%	4.32

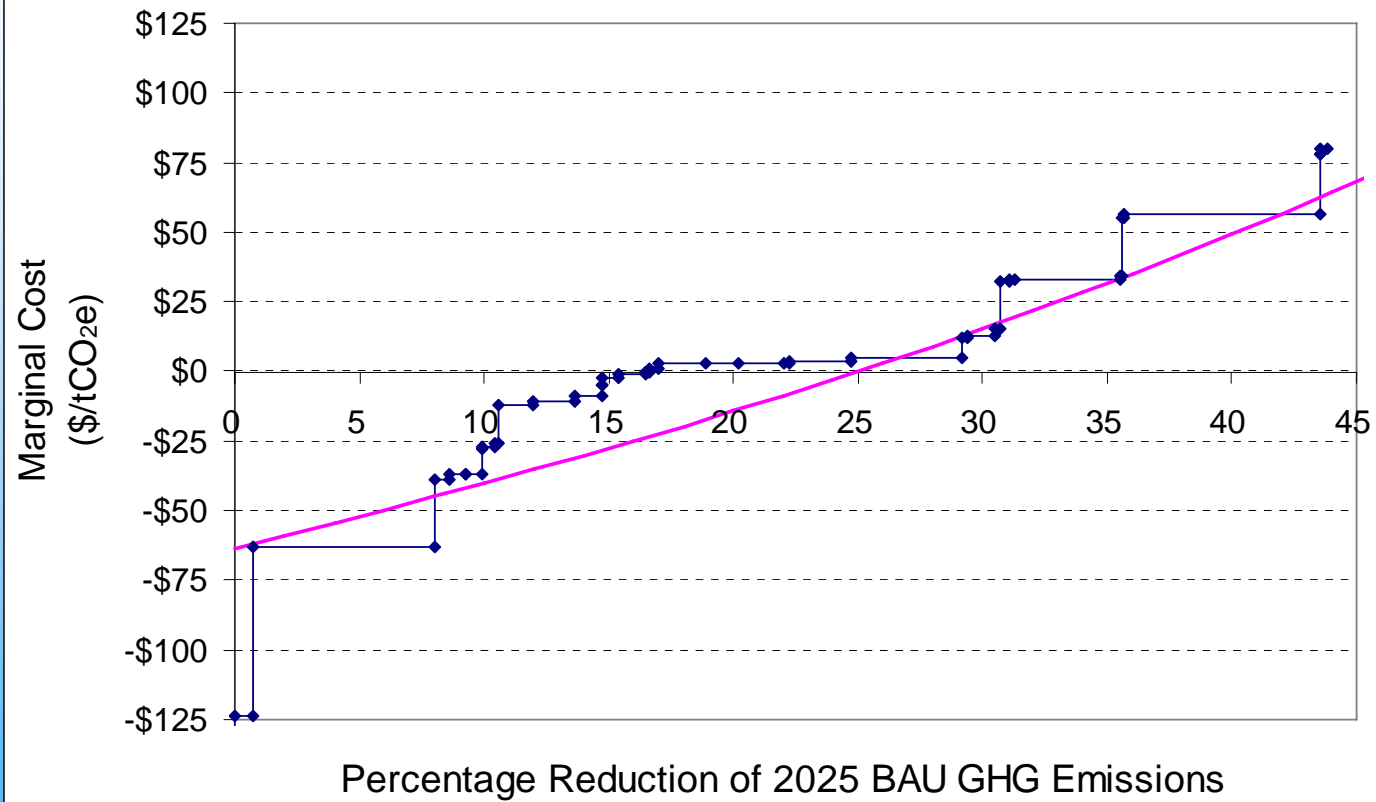
ES-3: Efficiency Improvements, Repowering and other Upgrades to Existing Plants--Biomass co-firing	0.4	\$12.00	0.20%	29.38%	0.46
AFW-5: Forestry Management Programs to Enhance GHG Benefits--A. Forestation	2.2	\$13.00	1.11%	30.48%	2.50

ES-5: Renewable and/or Environmental Portfolio Standard	15.7	\$56.40	7.83%	43.53%	17.86

¹ 8 example climate mitigation options from the 37 options analyzed in a quantitative manner for Minnesota by CCS.

² Minnesota 2025 projected consumption-based gross GHG emission level is 200.46 Million Metric Tons of CO₂e.

Economy-wide Stepwise and Fitted Marginal Cost Curves of Minnesota, 2025



Sample Outputs

(multi-state cap-and-trade)

TABLE IM1-2025. ECONOMY-WIDE EMISSION TRADING SIMULATION AMONG SIX MIDWESTERN STATES PLUS MANITOBA IN YEAR 2025

(million dollars or otherwise specified)

State	Before Trading	After Trading			Cost Saving	Permits Traded	Emission Reduction w/ Trading		Emission Reduction Goal
	Mitigation Cost	Mitigation Cost	Trading Cost	Net Cost		(million tCO ₂)	(million tCO ₂)	(percent from BAU)	(percent from BAU)
IA	-478	-910	344	-565	87	7.10	47.91	38.01	43.65
IL	-1,581	-941	-756	-1,697	116	-15.61	138.64	43.02	38.18
KS	-621	-1,392	510	-882	261	10.53	42.27	34.94	43.65
MI	-1,663	-1,445	-234	-1,679	16	-4.83	109.06	39.95	38.18
MN	-439	-972	451	-521	81	9.31	79.82	40.38	45.09
WI	-915	-706	-233	-939	24	-4.81	67.32	41.11	38.18
MB	-178	-122	-83	-204	26	-1.70	8.10	39.29	31.02
Total	-5,876	-6,487	0	-6,487	611	26.94 ^b	493.11	40.28	40.28

^a Permit Price = \$48.45/tonCO₂e. This is the price of the last permit sold, which is also equal to the price of the last ton of CO₂e mitigated (its *marginal* mitigation cost). It is the same for each state for a given case. The *average* mitigation cost per unit of CO₂ equivalent in this simulation differs for each state. For MN, for example, it is -\$12.17/tonCO₂e. Please note that the average mitigation cost is related to mitigation level of a state, which for this case is 40.38% below the baseline level in 2025 for MN. Multiplying the average mitigation cost by the number of tons of CO₂ mitigated will equal the *total* mitigation cost for each state.

^b Represents number of permits bought or sold.

Sample Outputs

(Minnesota only cap-and-trade)

Emission Trading Simulation Among Four Sectors in Minnesota
(million dollars or otherwise specified)

State	Before Trading	After Trading ^a			Cost Saving	Permits Traded	Emission Reduction After Trading		Emission Reduction Cap
	Mitigation Cost	Mitigation Cost	Trading Cost	Net Cost		(million tCO ₂ e)	(million tCO ₂ e)	(percent from BAU)	(percent from BAU)
Power Sector	2,653	-692	1,141	449	2,203	17.42	24.14	30.38	52.31
Transportation Sector	-68	216	-457	-241	173	-6.98	20.71	52.06	34.51
Other	928	-9	584	575	352	8.92	24.97	31.80	43.16
Sequestration	0	272	-1,268	-996	996	-19.36	19.36	n.a.	n.a.
Total	3,512	-213	0	-213	3,725	26.35 ^b	89.18	45.10	45.10

^a Permit Price = \$65.48/tonCO₂e.

^b Represents number of permits bought or sold.

Policy Refinements

- Production-based vs. Consumption-based allocation
- Economic sector (emitter) disaggregation
- Offsets
- Flexibility
 - how (e.g., sequestration)
 - what (e.g., CO₂, methane, nitrous oxides, SFCs)
 - where (e.g., alternative configurations of states)
 - when (e.g., permit banking & borrowing)

Potential Permit Trading Anomalies

- Participants as a whole gain from flexibility
- However, individual states may not because new entrants:
 - may raise the permit price
 - may undercut existing states' permit sales
 - may be able to exercise monopoly power
 - may increase inequities

Preliminary Cap-and-Trade Simulation of Florida Joining WCI

- Two simulations are performed:
 - Cap-and-trade among the 10 WCI Partners
 - Cap-and-trade with Florida joining WCI
- Please note these are the preliminary simulation results. They are subject to change after we obtain Florida-specific cost data and any updated data from WCI partners.

Assumptions

- Sector Coverage:
 - Electricity sector + Residential/Commercial fuel use + Large stationary combustion sources + Industrial process + Fossil fuel extraction and processing + Transportation fuels.
- Emission Reduction Target:
 - WCI Partners: 15% below the 2005 level in year 2020
 - Florida: Interpolation of the state's 2017 goal (to return to 2000 levels) and 2025 goal (to return to 1990 levels)
 - The above reduction targets are applied to the covered sectors
- Emission permits are assumed to be grandfathered
- Consumption-based gross emissions are used, i.e., forestry and agriculture soil sinks are excluded

Data Sources

- Emissions Inventory & Forecast for WCI Partners:
 - Williams and Roe. 2008. “Task 0 State-Provincial GHG Summaries Tech Memo 1-31-08.doc” and associated Excel workbooks (including data from Western State GHG plans and WRAP database), as updated by Partner feedback through 6-19-08.
- Emissions Inventory & Forecast for Florida:
 - Draft Florida Inventory and Forecast Analysis by CCS
- GHG Mitigation Options Data:
 - State Climate Change Action Plans

Simulation Results— Cap-and-Trade Among 10 WCI Partners

TABLE 1. EMISSION TRADING SIMULATION AMONG
WCI PARTNERS IN YEAR 2020^b

(million dollars or otherwise specified)

State	Before Trading	After Trading			Cost Saving	Permits Traded	Emission Reduction w/ Trading		Emission Reduction Goal
	Mitigation Cost	Mitigation Cost	Trading Cost	Net Cost		(million tCO ₂)	(million tCO ₂)	(percent from BAU)	(percent from BAU)
AZ	-416	396	-922	-526	110	-8.06	83.72	54.10	48.89
CA	-14,380	-17,321	2,280	-15,042	662	19.91	154.61	27.68	31.25
MT	-190	277	-798	-522	332	-6.97	16.13	48.13	27.33
NM	-279	988	-2,013	-1,026	747	-17.58	45.07	54.65	33.33
OR	1,232	104	794	898	334	6.94	17.83	22.74	31.59
UT	124	702	-685	17	107	-5.98	38.65	44.78	37.85
WA	2,905	-41	1,717	1,676	1,230	15.00	24.51	21.52	34.68
BC	-245	-25	-250	-275	30	-2.18	20.81	30.38	27.20
MB	-330	-174	-246	-420	90	-2.15	8.21	48.05	35.49
QC	-3,677	-3,818	123	-3,695	18	1.08	21.45	25.87	27.17
Total	-15,255	-18,914	0	-18,914	3,658	42.92 ^c	431.01	33.77	33.77

^a Permit Price = \$114.48/tonCO₂e.

^b Sector coverage: Electric sector (Consumption-based) + Residential/Commercial fuel use + Large stationary combustion sources + Industrial process + Fossil fuel production and processing + Transportation fuels. AFW (Agriculture, Forestry, and Waste Management) sector is excluded from the sector coverage.

^c Represents number of permits bought or sold.

Simulation Results— Cap-and-Trade with Florida Joining WCI

TABLE 2. EMISSION TRADING SIMULATION AMONG
WCI PARTNERS AND FLORIDA IN YEAR 2020^b

(million dollars or otherwise specified)

State	Before Trading	After Trading			Cost Saving	Permits Traded (million tCO ₂)	Emission Reduction w/ Trading		Emission Reduction Goal (percent from BAU)
	Mitigation Cost	Mitigation Cost	Trading Cost	Net Cost			(million tCO ₂)	(percent from BAU)	
AZ	-416	855	-1,518	-662	246	-11.84	87.51	56.54	48.89
CA	-14,380	-16,819	2,021	-14,798	418	15.77	158.75	28.43	31.25
MT	-190	382	-1,004	-623	433	-7.84	17.00	50.71	27.33
NM	-279	1,277	-2,560	-1,282	1,004	-19.97	47.46	57.55	33.33
OR	1,232	227	758	986	246	5.92	18.85	24.04	31.59
UT	124	964	-1,043	-79	203	-8.14	40.80	47.28	37.85
WA	2,905	119	1,753	1,871	1,034	13.68	25.83	22.67	34.68
BC	-245	105	-416	-312	67	-3.25	21.88	31.94	27.20
MB	-330	-136	-316	-452	122	-2.47	8.53	49.92	35.49
QC	-3,677	-3,764	81	-3,683	6	0.63	21.90	26.41	27.17
FL	4,354	1,824	2,244	4,068	286	17.51	148.22	35.18	39.34
Total	-10,901	-14,966	0	-14,966	4,065	53.51 ^c	596.73	35.15	35.15

^a Permit Price = \$128.15/tonCO₂e. This is the price of the last permit sold, which is also equal to the price of the last ton of CO₂e mitigated (its *marginal* mitigation cost). It is the same for each state/province for a given case. The *average* mitigation cost per unit of CO₂ equivalent in the simulation differs for each state/province. For FL, for example, it is \$12.31/tonCO₂e. Please note that the average mitigation cost is related to mitigation level of a state/province, which for this case is 35.18% below the baseline level in 2020 for FL. Multiplying the average mitigation cost by the number of tons of CO₂ mitigated will equal the *total* mitigation cost for each state/province shown in the second numerical column in the table.

^b Sector coverage: Electric sector (Consumption-based) + Residential/Commercial fuel use + Large stationary combustion sources + Industrial process + Fossil fuel production and processing + Transportation fuels. AFW (Agriculture, Forestry, and Waste Management) sector is excluded from the sector coverage.

^c Represents number of permits bought or sold.

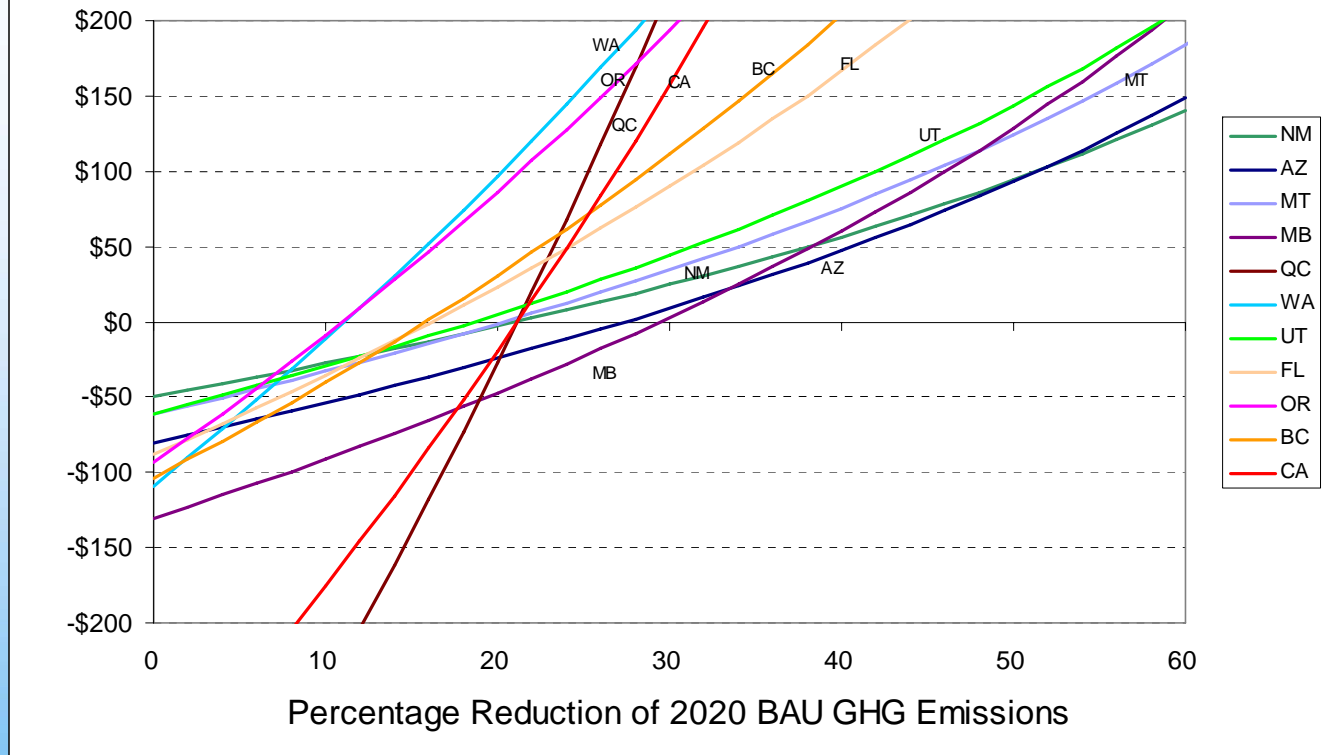
TABLE 3. DATA TABLE

State	2020 BAU Gross Emissions (Consumption-based) ^a (million tCO ₂ e)	Emissions Cap in 2020 ^b (million tCO ₂ e)	GHG Mitigation Goal in 2020 (relative to BAU emissions)	Autarkic Marginal Mitigation Cost (dollars per tCO ₂ e)
AZ	154.8	79.1	48.89%	87.6
CA	558.5	384.0	31.25%	181.5
MT	33.5	24.4	27.33%	24.3
NM	82.5	55.0	33.33%	34.7
OR	78.4	53.6	31.59%	212.7
UT	86.3	53.6	37.85%	79.6
WA	113.9	74.4	34.68%	283.7
BC	68.5	49.9	27.20%	87.5
MB	17.1	11.0	35.49%	33.5
QC	82.9	60.4	27.17%	147.4
FL	421.3	255.5	39.34%	161.2
Total	1,697.6	1,100.9	35.15%	

^a Sector coverage: Electric sector (Consumption-based) + Residential/Commercial fuel use + Large stationary combustion sources + Industrial process + Fossil fuel production and processing + Transportation fuels. AFW (Agriculture, Forestry, and Waste Management) sector is excluded from the sector coverage.

^b The cap for WCI partners is 15% below 2005 level by year 2020. 2020 cap for Florida is computed by interpolating the state's 2017 goal (to return to 2000 levels) and 2025 goal (to return to 1990 levels).

Figure 1. Fitted Marginal Cost Curves of States, 2020
(excluding AFW sector)



- Notes: 1. Marginal cost curves of AZ, CA, MT, NM, and WA are developed based on mitigation options data of these states (from state final or draft climate action plans).
2. Marginal cost curves of OR, BC, MB, QC, and FL are developed based on WA, WA, MN, CT, and SC 2020 curves, respectively. UT only has mitigation options data available for residential/commercial/industrial sector and the transportation sector. The state emission mitigation potentials and costs for the energy supply sector are approximated from New Mexico data.
3. The following assumptions are adopted when we develop the cost curve for one state based on the data from one of its adjacent states. We assume that the list of mitigation options for the adjacent state (state A) is applicable to the state without direct data (state B). Second, for state B, the estimated cost or cost savings per unit GHG removed for each option is assumed to be at the same level as that of state A. Third, the mitigation potentials of each option are assumed to be proportional to the total mitigation potential in each state; this requires that each option be adjusted by the ratio of emissions from the relevant sector of the two states. For example, if the emissions from the power sector are 50 MMtCO₂e and 100 MMtCO₂e in state A and state B, respectively, the mitigation potentials of the ES options for state A are multiplied by a factor of 2 (100/50=2) for application to state B.

Findings from the Preliminary Simulations

- The factors that have the greatest influence on all simulations are the absolute levels and the relative levels of the marginal mitigation cost curves. The former has the greatest influence on the potential for cost savings, while the latter has the greatest influence on the extent of permit trading across trading states/provinces, including whether each state/province is a permit buyer or seller.
- For many WCI partners, the total cost of achieving the carbon emission caps is negative. This means that compliance with the caps will result in overall cost savings. This result is due to the existence of an extensive range of cost-saving options, such as improvements in energy efficiency.

Findings from the Preliminary Simulations (cont)

- Before Florida joining WCI, the permit price of the cap and trade program among the 10 WCI partners is \$114.48/tCO₂e. California is the biggest permit buyer in the market, followed by Washington. New Mexico is the biggest permit seller, followed by Arizona.
- Because Florida has a marginal cost curve steeper than the WCI average level, when it joins the WCI, the permit price increases to \$128.15/tCO₂e. Florida becomes the biggest permit buyer in the market, followed by California and Washington. New Mexico and Arizona are still the biggest permit sellers.
- In both simulation cases, if we compare the net cost of each state/province after trading with the corresponding element in the column before trading, we find that all states/provinces are better off as a result of participating in trading, since all the post-trading net costs are smaller than the pre-trading costs. The cost saving amount is shown in the Cost Saving column in the result tables. Compared with the pre-trading condition, Florida can save \$286 million in 2020 by joining WCI, a cost saving of around 6.6%.

Cap-and-Trade Modeling Methods

Questions, Discussion.

Offsets Discussion

What is the principle purpose offset credits should serve?

- Create opportunity for reductions in unregulated sectors;
- Mitigate allowance prices;
- Reduce the cost of compliance to regulated sources;
- Create a market for innovative mitigation and sequestration projects;
- None – the Florida program should not include offsets;
- Other?

ESD-10 Referred from Action Team

ESD-10. Grace Period for Replacement of Carbon-Intensive Units

Policy Description

This policy consists of a 'grace period' of a number of years during which time existing fossil fuel-fired units that are scheduled to be shut-down and replaced by units with little or no greenhouse gas emissions are exempted from new CO₂ emission requirements or penalties.

Policy Design

A grace period of up to 5 years where coal or gas units slated to be replaced by nuclear generation or renewable generation are exempted from any CO₂ tax or penalty up to either the shut-down date of the existing unit or the operational date of the replacement unit, whichever is earlier.

Goals: Not quantifiable

Review of Regional Programs Comparison Table

Judi Greenwald

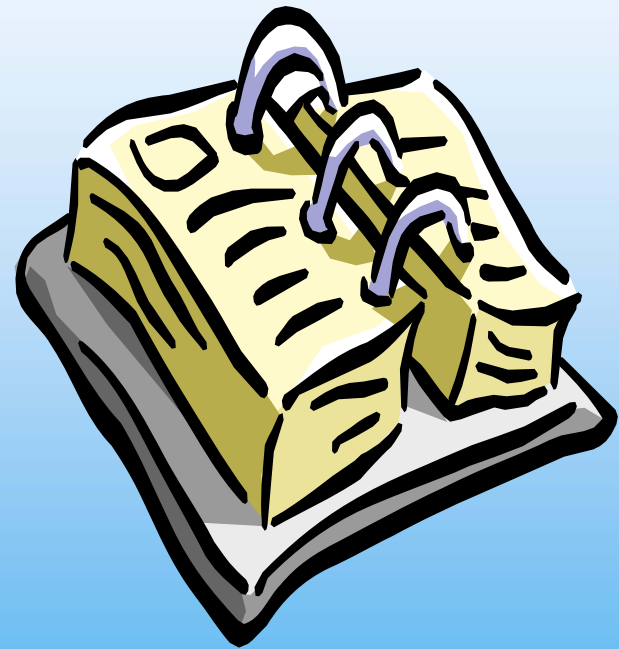
EMISSIONS REDUCTION PROGRAM	REGIONAL GREENHOUSE GAS INITIATIVE (RGGI) ¹	WESTERN CLIMATE INITIATIVE ²	MIDWEST GGRA ³	LIEBERMAN-WARNER CLIMATE SECURITY ACT (S. 3036) ⁴	EUROPEAN UNION EMISSIONS TRADING SCHEME (EU ETS) ⁵
GASES COVERED	CO ₂	6 gases*	6 gases	6 gases ⁶	CO ₂ (phase I, 2005-07); 6 gases (phase II and later)
REPORTING	The Climate Registry (TCR) ⁷ and State authorities	TCR and state authorities	TCR and state authorities	Establishes a new federal climate registry ⁸	Individual nations have their own registries that report to a common registry, the CITL. ⁹
SECTORS COVERED AND POINT OF REGULATION	Electricity Sector: fossil fuel plants with nameplate capacity greater than 25 MW. ¹⁰	Economy-wide; still under discussion. Large point sources proposed to be included downstream. Inclusion of mobile sources and residential/commercial fossil fuel use upstream under discussion. ¹¹ Considering "First jurisdictional deliverer" ¹² as the point of regulation for electricity; would cover both generation and imports.	Multi-sector	Economy-wide, "hybrid": upstream for transport fuels and natural gas and producers of some non-CO ₂ gases; downstream for large coal users; separate cap for HFC consumption ¹³	Large point source combustion, refineries, and metal, mineral, pulp, glass, lime, cement and other industries
NEAR-TERM TARGET	Stabilize annual emissions at current levels ¹⁴ through 2014. ¹⁵	No near-term target. ¹⁶	Under discussion	4% below 2005 level in 2012 ¹⁷	Phase II: 7% below 2005 levels during 2008-2012. ¹⁸
MID-TERM TARGET	10% below current levels by 2018. ¹⁹	15% below 2005 levels by 2020 ²⁰ for whole WCI program; cap and trade target could differ	Under discussion	19% below 2005 level in 2020	20% below 1990 levels by 2020. ²¹
LONG-TERM TARGET	N/A	Regional commitment to "do their share" to reduce GHG emissions 50-85% below current levels by 2050. ²² Also, member jurisdiction targets. ²³	Under discussion	71% below 2005 level in 2050	60-80% below 1990 levels by 2050. ²⁴
COMPLIANCE PERIOD	3 years; can be extended under certain circumstances. ^{25,26}	3 years ²⁷		1 year ²⁸	Phase I: 3 years Phase II & after: 5 years
ALLOWANCE BANKING & BORROWING	<u>Banking</u> : Yes, unlimited. ²⁹	<u>Banking</u> : Yes, unlimited <u>Borrowing</u> : Allowances from future compliance periods <i>should not</i> be eligible for use. ³⁰		<u>Banking</u> : Permitted without restriction. ³¹ <u>Borrowing</u> : Up to 15% of annual obligation may be borrowed from future years. Allowances must be "repaid" with 5 years, at 10% interest. ³²	<u>Banking</u> : Except for Phase I, allowances may be used for any emission during the current or subsequent compliance period. <u>Borrowing</u> : effectively allows for borrowing from 1 year in the future. ³³
OFFSETS	<i>If allowances cost less than \$7/ton</i> : Up to 3.3% of an entity's reported emissions ³⁴ may be covered by eligible U.S. offset projects. ³⁵ <i>If allowances cost \$7-\$10/ton</i> : Up to 5% of a source's reported emissions may be covered	Under discussion ⁴¹		Up to 15% of annual obligations may be met by domestic offset projects. Unused percentage under 15% may be carried forward to the following year. Furthermore, offset allowances	~10% of a country's emissions may be offset by Clean Development Mechanism (CDM) and/or Joint Implementation (JI). ⁴⁴

Next Steps

- Next TWG Meeting
 - Review results of Key Question Surveys
 - Formulate draft policy guidance on key questions
 - Feedback and guidance for next modeling runs
 - Other? (What does the TWG need to move ahead?)

Next Action Team Meeting

- Agenda:
 - Review and approve initial policy quantification and additional sections
 - Review updated Inventory and Forecast
 - Review progress on cap-and-trade design issues; receive first program recommendations
 - Review policy proposals from the Adaptation TWG
- August 6-7, 2008, Orlando



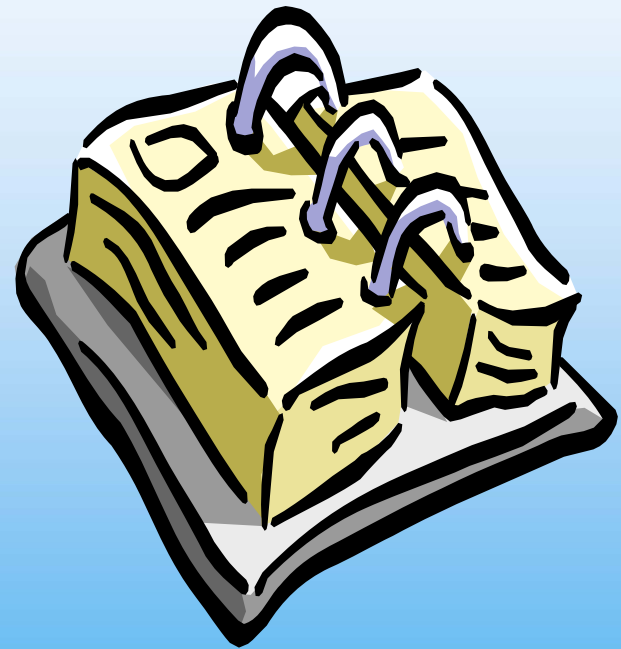
Timing – Action Team Meetings

Date	Location	Action
February 1, 2008	Tallahassee	1 st Action Team meeting
March 17, 2008	Tallahassee	2 nd Action Team meeting
May 29-30, 2008	Tallahassee	3 rd Action Team meeting
July 9-10, 2008	Tallahassee	4 th Action Team meeting
August 6-7, 2008	Orlando	5th Action Team meeting
August 22, 2008	St. Petersburg	6 th Action Team meeting
September 17-18, 2008	Tallahassee	7 th Action Team Meeting
September 26, 2008	Tallahassee	8 th Action Team Meeting
October 1, 2008		Phase II Final Report due
Between Action Team Meetings		TWG conference calls and meetings

Next TWG Meetings

- All times 2:00 p.m. – 4:00 p.m. EDT unless otherwise noted
- *Friday August 8, 2008**
- *Friday August 15, 2008*
- *Tuesday August 26, 2008*

**6 hour in-person meeting in Orlando*



Public Input, Announcements