



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

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DRAFT TELECONFERENCE MEETING SUMMARY
Cap-and-Trade
Technical Work Group Call #9
July 29, 2008

Action Team Members and TWG Appointees Attending:

Debbie Harrison World Wildlife Fund	John Cahill Chadbourne & Park LLP	Randy LaBauve for Armando Olivera Florida Power & Light
Jim Vick Southern Company	Kathy Viehe Gainesville Regional Utilities	Terry Murphy Miami-Dade County Commission
Jerry Karnas Environmental Defense	Michael Hewett Publix Supermarkets	Buzz Hoover Gate Biofuels, LLC
Michael Kennedy Progress Energy Florida	Laura Crouch Tampa Electric Company	Julie Harrington Florida State University

Florida Department of Environmental Protection (DEP):

Governor’s Energy Office: Brenda Buchan

Center for Climate Strategies (CCS): Jeff Wennberg, Adam Rose, Dan Wei

Florida Public Service Commission: David Dowds

Members of the Public: George Cavros (National Defense Council), Bob Krasowski (Florida Alliance for a Clean Environment), Joe Miakisz (FPL), Bob Kaplan (Georgia Pacific), Paul Messerschmidt (Grace Financial), Janet Bowman (Nature Conservancy)

- 1. Introductions**—Jeff Wennberg from CCS introduced himself and called roll for the members of the Cap-and-Trade (C&T) Technical Work Group (TWG). The members of the public were asked to introduce themselves and identify their affiliation. Twelve TWG members and 6 members of the public identified themselves on the call.
- 2. Purpose and Goals**—Under Executive Order 07-127 Governor Crist charged the Action Team to develop a comprehensive Energy and Climate Change Action Plan that will fully achieve or surpass his Executive Order targets for statewide greenhouse gas reductions specified in Executive Order 07-127. The following recommendations were voted on and approved in Phase I:

The Action Team recommends that Florida pursue a market-based policy of “cap-and-trade” by creating tradable emissions allowances as the preferable means meeting the utility sector emissions cap and the statewide emission reduction targets directed by Governor Crist in Executive Order 07-127.

The Action Team recommends a market design process for Florida’s tradable allowances market as a vital component of the Florida’s Energy and Climate Change Action Plan development process to occur in 2008. This design process should result in final recommendations for several considerations, including but not limited to:

- An allowance allocation process,
- Economic and emergency safety valves,
- The creation and use of emission offset credits,
- A “leakage” strategy regarding the migration of emissions into surrounding states,
- Trial periods, and
- Timeframes for full implementation.

The design process should consider linking a Florida-based allowances trading market with other regional or international markets.

In the meeting today we will answer any questions on the survey and discuss the modeling results of including Florida in the Western Climate Initiative.

3. Review and Approval of the Call #8 Summary—A number of names were misspelled and we will correct the spellings. With those corrections the minutes were accepted.
4. Review and Discussion of Key Questions Survey—The responses to the survey are due tomorrow. Jeff reminded the members that this is a survey and not a ballot. No matter how many potential responses are available there is always another that could be listed. Please use the comments box if we missed an option. *Under sector coverage, there are some sectors mentioned and it was wondered where they came from?* They came from WCI’s deliberations and also somewhat patterned after Florida’s technical work groups.
5. Presentation and Discussion of Preliminary Modeling Results—Adam Rose and Dan Wei provided a presentation on the modeling. They provided a refresher on the modeling and provided a written document on how the modeling is developed and what the assumptions are. Adam Rose developed the model and the model is used to analyze trading at the national level. It is a flexible and transparent framework. The model allows one to model sectors or states. We can change the model design and update it as better data is available. It can handle a broad range of information. Adam Rose is using three main inputs: emissions levels, marginal mitigation cost, and initial permit allocations. We get the greatest cost savings where the marginal costs have the widest difference. Adam identified the marginal cost of the various options and then ranked them from lowest to highest. *Would not the lowest options*

be covered by the market anyway? There are a number of real world efficiencies that the market is not taking care of. *How does it reflect the time span or lifeline?* Another TWG is working that out and there are federal guidelines on the equipment. The base data is solid, but it is not based on Florida data; instead, it is based on South Carolina data. They have adjusted for the range of applicability (such as availability of natural gas). But as soon as they get the Florida data they will replace the approximation with the Florida results. Florida-specific data will start coming in at the next Action Team meeting. Agriculture, Forestry and Waste Management TWG data is partially completed, the Energy Supply and Demand TWG is expected to have some of their data completed, and the Transportation and Land Use TWG data is running a little behind. The next thing they do is fit mitigation options in the cost curve. An example from Minnesota is provided on slide 16.

When you talk about making adjustments, we will always be a little behind what is happening in the market. *Can we get projections on future costs of new technologies?* They are being taken into consideration.

The assumptions are outlined including the sector coverage and emission reduction target for Florida joining WCI. The emission permits are grandfathered which means some are free and some are auctioned. The model faces consumption based emissions.

There is a big difference between the permit prices in RGGI and WCI. In RGGI the assumed prices are \$1 to \$7 per ton, because of the over supply of mitigation options. In WCI they are estimating initial rates of around \$100. Some other modelers have estimated WCI costs at \$70 per ton. Part of the problem is California has a high marginal cost curve and so does Washington, which raises the price. The sector coverage is broader. WCI has a more stringent regional goal, 15% below 2005 which translates to 30% below the 2020 'Business as Usual,' as compared to RGGI's 10% below 2010 baseline. They have a relatively flat cost curve. Examining Figure 1, the fitted marginal cost curve identifies Florida starting at negative \$90 per ton of emissions offset and encounters the breakeven (\$0) at a 15% emissions reduction. There are other states such as California that have a much greater amount of their costs at a lower negative amount.

The average mitigation cost per unit of CO₂ equivalent differs for each state. For Florida it is \$14.31 per ton with Florida mitigating 30% of its emissions. Adding Florida to WCI raises the average permit cost to WCI up to \$128, compared to \$114 without Florida. Ontario will need to be factored in because they have announced their intent to join. *What modeling offsets were used?* Offsets were not included in this run. WCI has not provided guidance on what their offset program will look like, thus it could not be provided in the model. RGGI allows emitters to use offsets for 3.3% of their total emissions and WCI will probably be more generous. Even so, it will limit the amount that offsets can bring down the compliance cost.

What percentage of the Governor's goals (2020) would be covered by WCI's program? We need to follow-up on that answer; we can not answer off the top of our head. For WCI the average cost in 2020 would be \$12. It is not the average cost over the time from now through 2020; it is just the average cost in 2020. The cheapest cost is -\$90 in cost, or +\$90 in

savings. The differences in trading prices per ton between RGGI and WCI is startling, but not unexpected.

6. Questions on Cap-and-Trade Modeling Methods Paper—If anyone has questions here please send an e-mail to Jeff and he will forward on to Adam and Dan for a more in-depth response. Those responses will be shared with everyone.
7. Follow-up discussion on Offsets—What is the Principal Purpose Offsets Should Serve?—Please include your comments in the survey.
8. Discussion of ESD-10, Grace Period for Replacement of Carbon-Intensive Units—There was a brief discussion on whether this TWG should comment on EDS-10 or if we now owned it. It was the consensus from the last Action Team meeting that we now owned it. There was discussion on whether the item was already subsumed within an existing issue. Also, a question on whether the concept of a “grace period” was consistent with the notion of a market-driven cap-and-trade program where it is up to the utility to decide when and how it wishes to retire its carbon intensive units.
9. Review of Next Steps—Jeff had prepared and e-mailed out a survey for key questions. It lays out the issues and asks for individual preferences of the members. Also, there is added space for comment and multiple responses. One of the responses is “you are not prepared to answer the question.” The results of the survey will allow the group to see where folks are on the issues. Jeff and Brenda will summarize the results and provide the summary back to the group as a basis for discussion at the face to face meeting. The group will decide what to accept and move forward. The next meeting is the face-to-face meeting on August 8 and then the next teleconference is August 15. The survey results are due tomorrow. We hope to come out of the next meeting with policy guidance.

After the August 8 meeting we will take the decisions and develop paragraphs to outline the agreed upon policy. Jeff will develop a template to assist. The product of the meeting will be a list of policy options and a group of recommendations with obstacles identified along with barriers to agreement. In addition to policy decisions decided upon, the group may also decide on a set of issues that the group does not want to delve into. Those would be left to a future date.

The Action Team transferred ESD-10 to the Cap-and-Trade TWG and wanted us to offer comments and recommendations. Members are encouraged to add this issue to the survey within the sectors to be considered.

10. Agenda, Date and Time for Next Meetings—The next full meeting of the Action Team will be on August 6–7, 2008, in Orlando at the Convention Center. The next scheduled meeting of the Cap-and-Trade TWG will be an in person meeting scheduled for August 8, from 9 am to 3 pm in the Florida Department of Environmental Protection’s Central District Office and that address is: 3319 Maguire Blvd., Suite 232, Orlando, Florida, 32803-3767.

11. Public Comments—Bob Krasowski asked about the size of the waste energy plants. Jeff mentioned that the waste to energy threshold for RGGI was 25 MW (nameplate) per plant.
12. Announcements—The call ended at 4:22 pm.