



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

FLORIDA ENERGY and CLIMATE ACTION TEAM

Agriculture, Forestry, and Waste Technical Work Group (TWG)

Notice of Teleconference Meeting, Call #10

August 12, 2008

10:00 AM – 1:00 PM EDT

Attendance:

1. Technical Working Group members:
Marc Bruner, Jimmy Cheek, Janet Bowman (for Doria Gordon), Eugene Jones, Jay Levenstein, R. David McConnell, Gary Peter, Dan Roach, Andrew Walmsley, Nick Wiley
2. Center for Climate Strategies (CCS) staff:
Rachel Anderson, Brad Strode, Jennifer Jenkins, Jackson Schreiber, Joe Pryor, Jared Nunnery
3. Florida Department of Environmental Protection: James McNeil, Lee Martin
4. Florida Agency Observers:
5. Public Attendees:

Background documents:

(all posted at <http://www.flclimatechange.us/AFW.cfm>)

1. Meeting Notice and Agenda
2. Summary of Call #9
3. Power Point Presentation for Teleconference
4. Policy Options Document
5. Updated Inventory and Forecast Appendices
 - a. Waste

Discussion items and key issues:

1. Steve Roe called the meeting to order, Rachel completed the roll call, and Steve reviewed the agenda and plans for the call.
2. Steve reviewed the Call 9 summary. There were no comments from the TWG and the Call 9 summary was deemed final.



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3. CCS reviewed the Stepwise Planning Process. CCS and the AFW TWG are currently refining the Inventory and Forecast, quantifying the potential GHG benefits and cost effectiveness of each option, and fleshing out the Implementation Mechanisms and Related Policies and Programs in Place. Also please include Additional Costs/Benefits. For each option we are also asked to include the energy security benefits in the amount of fossil fuels displaced by each option (million gallons of liquid fuel, tons of coal, etc.).
4. Steve quickly reviewed the major changes that have been incorporated into the Inventory & Forecasts. Forestry has been updated with a new rate of conversion of forest land. Agriculture has a small change to soil carbon and minor changes to forecasted livestock populations. For waste the MSW landfills were broken down into 4 categories: uncontrolled, flared, landfill gas-to-methane, and uncontrolled landfills that ceased operation prior to 1983. TWG members are requested to provide any feedback on the appendices by Friday.
5. Steve summarized the outcome of the FL Action Team meeting last week. Several options were approved with some slight changes requested:
 - a. AFW-1 approved (with modification based on the last TWG call)
 - b. AFW-2A (Forest Landscape) approved
 - c. AFW-4 (Ag and forest Biomass) approved
 - d. AFW-5A &C approved
 - e. AFW-7 (with modified ramp-up schedule of in-state biofuel production - delayed by two years).
6. For option AFW-9A – the Action Team wants analysis of a 50% goal as well as the 20% goal, and wants poultry litter added. The Action Team would like a review of the amount of poultry litter available in the state. The Action Team also reviewed the biomass supply table. Currently there is a placeholder for quantities of understory species. Rachel has contacted Tony Johnson with FIA to obtain logging and understory amounts if possible. TWG members noted that FIA would probably have the best understory numbers. In response to a question, the MSW supply forecast amount takes into account current recycling levels and assumes no change in those amounts during the forecast period.
7. The group reviewed the draft Policy Options document as follows:
 - a. AFW-1: Forest Retention – Reduced Conversion of Forested to Non-Forested Land Uses. The rate of conversion will be lowered by about 2/3 based on updates to the forestry inventory but the quantification method will not change. Forestry soil carbon was not included. A member offered to share a source for soil carbon data.
 - b. AFW-2: Afforestation and/or Restoration of Non-forested Lands. The option mentions greenbelt taxing issues so the TWG was asked to expand on what that means. TWG member suggested adding the following



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implementation mechanisms: tax exemptions or tax relief for land in conservation; change the acreage minimum that so small landowners can contribute to land conservation as well. Dan Roach and Janet Bowman will provide language on this. CCS reviewed the Urban Forestry goal quantification. There are two goals (offset metropolitan emissions or canopy cover) and the quantification numbers for them are quite different. The benefits of urban forestry are carbon sequestration and heating/cooling offset. The canopy cover uses a default tree planting distribution so that every tree has some cooling offset but is not assumed to be optimally planted. We will adjust down the metropolitan offset goal down to bring it in line with the more feasible secondary goal and 6 million plantings a year. The urban forester at IFAS is Tim White (contact info: 352-846-0850).

- c. AFW-3: Forest Management for Carbon Sequestration. This option has two parts: improved productivity on pine plantations and non-federal publicly managed lands. CCS used the Mulkey, et al paper as the basis for improved productivity. Low-intensity managed forests were moved up to medium, and medium were moved to high. TWG members noted we want to be a little conservative here. High-intensity managed forests currently make up only 5% of forests. If all medium forests were moved up to high then that would be ~58%, which is unrealistically high. High intensity management has a lot of trade-offs for wildlife values. The TWG recommends high intensity forests only be 10% and to take only 1/3 from low to medium. The group discussed what percent of public forests are manageable noting that 1/3 to 1/2 are in wetlands and are not manageable. The upland pine forests are the area where the goal could apply. Slash-, long-leaf, loblolly, oak pine, etc. equal about 44% of public lands that are manageable. The TWG chose a goal of 50% of this to manage. Members noted that this should include appropriate burning regimes. Members noted that funding of public land management is a large feasibility issue and also noted that lands are managed for different purposes – timber management, recreation, public access, etc. CCS needs the cost for implementing management on public lands and the cost of forest products as well to complete this quantification.
- d. AFW-6: Reduced Rate of Agricultural Land and Open Green Space Conversion to Development. CCS needs data on typical soil carbon levels in the state. TWG members recommended checking the Mulkey paper & checking with Kevin Robertson at Tall Timbers. CCS will gather related programs/policies from other options that apply to this one (farm and family bill, etc).
- e. AFW-5: Promotion of Farming Practices that Achieve GHG Benefits. Brian Boman at UF provided said that there are options available to improve nutrient efficiency 15-20% but that it would not result in a cost



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savings. To quantify 5B – marginal ag land CCS needs data on how many acres there are in the state. DACS doesn't necessarily have that data. Phosphate fertilizer companies count 300,000 acres of reclaimed lands. The TWG recommends bringing this forward as a non-quantified option due to a lack of data. The implementation mechanisms will include a suggestion to do the necessary research to quantify the number of acres that fall into this category. To quantify 5D CCS needs specifics on harvesting practices, what crops they could be applied to, and the energy expended in harvesting. Different for all types of crops. The TWG recommends taking the same approach as 5B. This will be put forward as an unquantified option. The first step under implementation mechanisms is to study baseline harvesting methods and improvement possibilities for each crop type. A TWG mentioned the example of sugarcane growers who are testing method of harvesting green material instead of burning then harvesting. That could have huge GHG impacts but needs more research.

- f. AFW-4: Expanded Use of Forestry, Agriculture and Waste Management Biomass Feedstocks for Electricity, Heat and Steam Production. The main outstanding issue under this option is implementation mechanisms. TWG members suggested the following implementation mechanisms: landowner incentives for energy crops to be planted on marginal ag land/reclaimed mining land; incentives such as renewable energy credits for diverting from landfills to WTE; improve ability/opportunity for producers to hook up to the grid. For option 4B the baseline landfill gas for Florida was slightly modified. For WTE the incremental cost of waste was updated based on discussions about RDF facilities. Key uncertainties include that it is being looked at from a broad perspective so individual cases will be different. Additional benefits and costs include protection of the environment and potential displacement of food/fiber as a result of introducing energy crops due to land-based changes. Under 4A TWG members recommended changing CAFO to AFO.
- g. AFW-8: Promotion of Advanced Municipal Solid Waste Management Technologies (including Bioreactor Technology). The cost quantification is based on increase collection efficiency, routing, & vehicle fuel choice. CCS assumed 100% diesel in collection vehicles. TWG members suggested moving from B5 to B20 as a potential way to quantify improvement. Farther down the line hybrid collection vehicles are an option. A member suggested pursuing use of bioreactors. This might not result in a change in gas generation but might make collection/utilization more viable. It could be quantified by estimating conversion of a conventional landfill with utilization or flaring to a bioreactor with utilization. The benefit would be an offset of fossil-based sources.

