



Governor's Action Team on Energy and Climate Change

State of Florida

Meeting #4 DRAFT Summary

Governor's Action Team on Energy and Climate Change

Tallahassee, Florida

Wednesday, July 9 – Thursday, July 10, 2008

Attendance

Florida Energy and Climate Action Team

Members Attendees:

Secretary Michael Sole, Chairman

Representative Dan Gelber (absent on 7/9)

Tommy Boroughs

Mike Branch

Dr. Camille Coley

Dr. Jim Fenton

David Guest

Debbie Harrison

Tim Hernandez

Robert "Buzz" Hoover

Dr. Lonnie Ingram

Mark Kaplan

Jerry Karnas (absent on 7/10)

Chris Kise, Ex Officio Member (absent on 7/10)

R. David McConnell

Kathy Baughman McLeod

Armando Olivera (absent on 7/10)

Charles Pattison

Kathleen Shanahan (absent on 7/10)

Jack Shreve

Excused Absences:

Senator Jeff Atwater

Senator Al Lawson

Representative Stan Mayfield

Mayor Rick Baker, Vice Chairman

Chairman Matthew Carter

Manley Fuller

Jerry Montgomery

Kathy Viehe

Steve Adams, Staff Director, EOG

Brenda Buchan, Chief Analyst, EOG

Bruce Deterding, Senior Management Analyst II, DEP

James McNeil, Senior Executive Assistant, DEP

Kelley Smith, Chief Analyst, EOG

Public Comments Received from: Janet Bowman of the Nature Conservancy, Lane Stevens, and Bob Krasowski

Center for Climate Strategies (CCS)

Rachel Anderson (via phone), Lewison Lem, Hal Nelson (via phone), Tom Peterson, Steve Roe, Linda Schade, Joel Smith, and Jeff Wennberg.

SECRETARY SOLE welcomed the members of the Action Team, the public, and staff to the fourth meeting of Phase II of the Governor's Action Team on Energy and Climate Change planning process.

SECRETARY SOLE invited any changes or corrections to the meeting summary from Action Team Meeting 3. The summary was approved unanimously with one amendment which Tim Hernandez agreed to send via email immediately (see text below):

“Development has been channeled to places that are not developed, creating sprawl, which makes transit unfeasible in much of the state, undermines downtowns, and increases vehicle miles traveled (VMT). This will undermine everything we are doing here. We cannot allow extension of urban boundaries. And we can’t treat those who do the right thing and those who do wrong thing the same way. Specifically, we need to evaluate and change the way impact fees are levied. Those who are doing infill and redevelopment, taking advantage of existing infrastructure, transit, and services and reducing VMT/unit or square foot, should pay much lower impact fees than those who are building in locations where infrastructure must be extended and will generate higher VMT/unit or square foot. Maybe redevelopment and infill projects shouldn’t have to pay impact fees at all.”

Florida Serve to Preserve II Summit

STEVE ADAMS summarized the Governor’s Serve to Preserve Florida Summit on Global Climate Change II, which took place in Miami last week. The focus this year emphasized new opportunities for renewables, reducing carbon, and increasing energy security. This was a key shift from last year’s summit, where keen interest from attendees served as a specific example of what people were doing. Another notable focus was the concern that many faith-based groups have an interest in stewarding the environment.

At the summit, Florida Power & Light announced 110-megawatts (MW) in solar projects in Florida, which will make the state number 2 in the nation in installed solar capacity by 2010. Gulf Power announced the EarthCents program for its customers to facilitate energy efficiency through solar water heating, geothermal, enhanced energy audits, and providing compact fluorescent light (CFL) bulbs.

At the Climate Summit local mayors, including Orange County MAYOR RICHARD CROTTY, spoke about investments in energy efficiency (EE) and renewables. Rep. Stan Mayfield and Sen. Burt Saunders were present as was the originator of the German solar program, Herman Scheer. Governor Crist announced Florida’s participation in the Alliance for Sustainable Air Transportation to reduce energy use and GHG emissions from air travel.

COMMENT: The principles that HERMAN SCHERR laid out should be incorporated into the work of the Action Team.

COMMENT: An 187,000-acre purchase to enlarge the Everglades may also be an opportunity to increase bio-fuels production.

Climate Change News—Federal, State

TOM PETERSON updated the Action Team on a number of federal climate issues. The Senate debate on the Lieberman-Warner legislation was short-lived but a cap-and-trade bill is likely to be taken up early next year. In response to the Supreme Court decision in Massachusetts vs. U.S.

Environmental Protection Agency (EPA) declaring carbon dioxide (CO₂) a pollutant subject to the terms of the Clean Air Act (CAA), EPA conducted an “endangerment finding” of CO₂ and other greenhouse gases (GHGs) to determine the threats to public health and welfare from GHGs, and explored whether and how they should be regulated under the Clean Air Act. EPA Administrator Johnson used his discretionary authority in an advanced notice of proposed rulemaking (ANPR) to consider protests from other agencies and to conclude that the CAA is ill-suited for GHG regulation, citing multiple complexities and essentially passing the issue to the next administration by opening a 120-day comment period that ends after the November election. On a parallel track, last week the EPA’s Office of Research and Development, released a major study by the U.S. Climate Change Science Program synthesizing current scientific knowledge of climate change-induced threats to human health; the information in this report was not used in the endangerment finding.

TOM PETERSON laid out two possible scenarios of working within the CAA or initiating a new effort. This is no longer solely a congressional issue but will be a focus for the incoming Administration. There will be other important legislation moving through Congress on energy and climate and there will be a sharpening of focus on the U.S. position on international treaties.

QUESTION: I have not seen us focus much on sea level rise. Do we have access to federal data on this?

SECRETARY SOLE responded: Yes and Yes. As we move forward in this endeavor, the adaptation issues will be increasingly important. We’ll hear from the Adaptation Technical Work Group (TWG) tomorrow and express our desire that they delve into that issue.

State

SECRETARY SOLE: There was a historic piece of rulemaking just completed – Florida’s first GHG emissions rule – for idling of diesel engines and I’d like to thank Joe Kahn of the Florida Department of Environmental Protection’s (DEP’s) Air Division Director and the many stakeholders we worked with, including the Florida Trucking Association. It was a collaborative process, very productive, and an exciting achievement for Florida.

Florida Inventory and Forecast

STEVE ROE of CCS stepped to the podium to facilitate questions from the Action Team on the Florida Inventory and Forecast.

The Agriculture, Forestry, and Waste Management (AFW) TWG has a flat forecast in the forestry section. More details for the municipal solid waste (MSW) policies are under development—uncontrolled land fills, sites that have methane collection and are using it for energy, and those sites that have methane collection but are just flaring it.

QUESTION: Is anyone doing forecasting of changes in vegetable production given gas prices? Will we see a reduction in food imports from California and South America?

STEVE ROE responded that this can be discussed in the AFW TWG.

MEMBER: Last time, it was noted that the charts, perhaps in error, showed emissions as flat. Has that been followed up on? Please let us know when that and the other issues raised last time are addressed.

Quantification Memo

There is an overall memo that explains data sources and methods used in the quantitative analysis. In addition, there will be TWG-specific quantification methods memos that include such variables as VMT and growth rates, to use the Transportation and Land Use (TLU) TWG as an example.

Energy Supply and Demand (ESD) Straw Policy Drafts

TOM PETERSON and HAL NELSON (via telephone) explained that today's focus for all the Technical Work Groups (TWG) is on the Policy Description and Policy Design sections of the template.

ESD-1. Technology Research & Development (R&D) With Near-Term Commercial Opportunities

Florida Energy Systems Consortium received \$50 million to explore this option. The goal is to bring new technologies to the marketplace.

COMMENT: This option should explicitly include demand-side opportunities as well.

COMMENT: With regard to the timing of GHG reductions, ESD-1 has to be synchronized with renewable portfolio standards (RPSs) and other actions.

SECRETARY SOLE shared the concerns and noted that the ESD-1 reduction goal of 15% by 2025 was complementary to the other policies. With the investment and research planned, he feels that these goals are achievable through the timing set forth in these policy designs.

QUESTION: Does ESD-1 achieve 15% reduction or do all of them collectively achieve that?

TOM PETERSON responded that the Governor's actions have made some progress toward the overall goals and these policies will close any gaps. It is necessary to get further into the quantification process before it will be clear how far each of these policies will go toward the goals.

QUESTION: The parties listed in Parties Involved look right but in the Policy Description section, how will we bring private capital to this?

TOM PETERSON responded that the question of capital should be fleshed out in Implementation Mechanisms and should be built into the analysis. The Policy Description section should also note that ESD-1 is intended to support other specific policies.

SECRETARY SOLE: The intent was to move the understanding and commercialization of technologies forward.

QUESTION: Have we put into place the policies needed to encourage private capital to participate in this? We should continually evaluate the policies over time to make sure they are doing what we want them to do.

COMMENT: Local governments have excellent existing partnerships, for example, with bio-tech firms, and local governments should be referenced here.

SECRETARY SOLE: The TWG will include existing Florida actions here and identify what is missing.

COMMENT: ESD-1 needs a reliable funding source. Some jurisdictions pay 25% or 50% R&D costs.

TOM PETERSON: We will include public and private capital. Regarding goals and targets, do we want to revise this?

HAL NELSON: This is a chicken-and-egg situation, and targets we might come up with need to be acknowledged as placeholders. Guaranteed price supports are one option; we don't have any models to guide us. There is a diversity of opinions on the TWG.

TOM PETERSON summarized: **The initial goals level can stay and the intent here is to structure ESD-1 as an enabling policy by engineering an additive effect to R&D in addition to the other options, including mobilizing capital for R&D. Include demand side.**

HAL NELSON: The TWG struggled to determine the portfolio of technologies we needed to include and ended up narrowing it down to supply-side policies. (Note that there was a suggestion from the Action Team to include demand side.)

QUESTION: Have we determined a base year?

COMMENT: I think that there are efforts ongoing for solar and wind. This should focus on technologies like tidal and wave energy and technologies that academics are working on that need support.

COMMENT: One way to ramp up what our universities are doing is to provide a state match for what the federal government is funding.

TOM PETERSON asked the Action Team if ESD-1 and ESD-2 should be bundled because there was discussion about this at the last meeting. Several members agreed they should be together.

COMMENT: I'd like to keep the funding paragraph from ESD-2 for continuing R&D.

TOM PETERSON noted that the paragraph needs to be moved to the Implementation Mechanisms section.

COMMENT: There is so much potential in efficiency and there is a lot of R&D that is not taking place—it should include the demand side of the equation.

SECRETARY SOLE got agreement from the Action Team that ESD-1 and ESD-2 should be bundled. It was also agreed to modify the Policy Description specifically by adding what the state is doing and asking the TWG to attack it from the vantage point of what more can be done.

ESD-2. Technology Research & Development with Longer-Term Commercial Opportunities

See above.

ESD-3. Renewable Energy Incentives and Barrier Removal

ESD-3 and ESD-5 are intended to be additive once RPS is achieved.

TOM PETERSON: Was the TWG's intent to go beyond the RPS or renewable electricity standard (RES)?

TWG Member: The TWG's intent was to first meet the RPS but then I thought that the market would demand going beyond it.

COMMENT: I think we mistitled ESD-3. I think this is for distributed generation (DG).

In sum: Include distributed and central generation—and RPS and beyond.

COMMENT: If it is less than 2 MW, it is energy efficiency (EE) not DG. As long as we have a policy to address large and small and don't discriminate against either one, that is satisfactory.

COMMENT on goals: Florida has 60 gigawatts of capacity. Some places are putting in 2 MW of renewables per year, so maybe we shouldn't lock ourselves into 1% and let the art of the possible prevail.

Decision to run two scenarios: 1% and 2%.

How this relates to the RPS is important.

TOM PETERSON noted that there is a lot of text in the Policy Description section that needs to be redistributed in the other template sections.

There is no personal income tax in Florida—needs to be modified.

COMMENT: Feed-in tariff is an incentive, not a policy.

TOM PETERSON asked that TWG and Action Team members send in text to actionteam@dep.state.fl.us.

COMMENT: These policies can be used to create markets. Can the solar industry sit at this table and let the state know what is needed to bring solar jobs to the state?

Expand 'Parties Involved' to include: Manufacturers, producers, local, state, regional banks, and other financial institutions.

Expand ‘Implementation Mechanisms’ to address involvement of: Manufacturers, producers, local, state, regional banks, and other financial institutions

COMMENT: On all market policies, include all players. In others, it is more regulatory.

SECRETARY SOLE adjourned for lunch until 12:50 p.m.

ESD-4. Electricity Transmission and Distribution (T&D) Improvements

DISCUSSION OF GOALS: Can we do that at 5% transmission-wise? The goal is appropriate. However, was the intent to focus on T&D? Or are we ramping down purchases from GA? Suggestion to define “loss” on a system basis: edit text to say “**system losses.**” There are things you can do with transformers that can reduce losses, but we want to create enough options here.

Incentive program is needed here to encourage capital investments—system-wide. The TWG should figure out the Implementation Mechanisms.

There is nothing at the federal level that preempts capital investments, but the incentives are misaligned. Federal rulemaking is underway to mandate increases in efficiency in transformers.

EE has been somewhat bridled due to market barriers, but now HB 7135 (House Bill 7135) fixes that, making it in the interests of consumers and utilities to pursue EE. However, EE is an up-front capital expense, displacing funds for operating expenses. How can we set (state) policies that do these things?

If you shorten your transmission line, it increases efficiency; how are capital costs for “hardening for hurricanes” included? When we site that transformer, we include a cost for transmission and we cost it for a hurricane-hardened design.

Can you allocate a cost to hurricane disruption? We have metrics we could use.

How does this overlap with ESD-9? New generation must be closer to load. The goal is to reduce losses, and you should look at it from transmission, generation, distribution—whatever will keep consumer energy bills the lowest.

Potential Merge of ESD-4 and ESD-9 Power Plant Efficiency Improvements

A potential merger of ESD-4 and ESD-9 was discussed, and it was decided to wait for further analysis. This discussion is summarized below.

ESD- 9 is about modernizing older plants, which would not include fuel switching from coal to gas. Typically, a plant is owned by a single entity. Within Florida Power and Light (FPL), the decision might be to fix the plant rather than the transmission line.

Reducing fuel consumption is a goal of both ESD-4 and ESD-9. The goals for the two are additive. But the economics may tell me “don’t do anything on the transmission lines.”

How do we deal with the coal plant power from Georgia, i.e., leakage? As we account for production vs. consumption, we need to affirmatively address this in the cap-and-trade policy.

When people talk about the Florida grid, we are talking about transmission lines in the state. When we talk about the “system,” we are also talking about power purchased from Georgia and Alabama.

ESD-5a. Renewable Portfolio Standard (RPS)

The Florida Energy Commission reviewed the ability of Florida to install renewable energy capacity, and the goal was changed from 10% back to 5%. The description is a bit of an escape clause, because we knew that a study was underway and that we would come back to it when more information was available.

SECRETARY SOLE: The Governor has targeted 20% for the RPS, so we should do that.

What year should the design use to achieve the goal of 20%?

Is it baseline or proposal level? Does this group want to go beyond that? The Florida Energy Commission had recommended that the Public Service Commission (PSC) assess what is available in Florida and then come up with an RPS suitable for Florida. We should go with the Governor’s number, but I’m concerned about setting a year of 2020 before we see some quantification.

Let’s lay out how we get there.

TOM PETERSON: Hal, we normally develop a stepwise cost curve and determine how far up that cost curve we want to go. Hal and some TWG members have done some searching for cost curves. Florida doesn’t have much wind but the conventional wisdom is that Florida has solar, geothermal, and some wave/tidal as well.

If solar is going to be a big part of the Florida RPS, then you multiply out the MW and the cost of solar and see what you’ve got.

TOM PETERSON: Let’s get the ball rolling with what we have and then undertake a next step once more data come in.

ACTION: Look at 20% for 2020 or 2025. Then the TWG can rip it apart. Ramp up biomass, which is Florida’s leading opportunity.

There was discussion of running multiple scenarios but the conversation didn’t come to closure. [

ESD-5b. Environmental Portfolio Standard (EPS)

The TWG is recommending years and percentages for this policy.

COMMENT: This should not lay the entire burden on utilities but should also put some of the burden on consumers.

COMMENT: Has EE been considered for the RPS?

SECRETARY SOLE thinks the legislation is broad enough to accommodate that, but it is not specified.

COMMENT: More than one commodity needs to be included if it is going to be called “Environmental” Portfolio Standard. Also you need to incentivize individuals.

HAL NELSON: The EE makes the RPS cheaper and easier to obtain. Reducing the demand side makes the supply side cheaper. We will need to address the combined effect.

SECRETARY SOLE motioned that the DSM provision be retained on ESD-12 and that ESD-5b gets dropped.

ESD-6. Nuclear Power

CORRECTION: The number of plants in the Goals was corrected to include two plants in the baseline and two new plants with a total. 4,400 MW of anticipated capacity.

The construction of these plants is directly tied to the price of oil. If these new plants come online in 2020 at 25 or 28 cents per kW, then solar is significantly more cost-effective.

Certification of a new nuclear plant takes about 18 months.

SCENARIOS: Run one scenario showing these plants and one where they don't get built.

COMMENT: The \$9 per month the State of Florida is tacking onto utility bills in support of nuclear power must be met, at the very least, with a comparable commitment to real renewable energy.

There was a request to examine potential risks of nuclear power. It will be mentioned in the Additional Benefits and Costs section of the policy template.

SECRETARY SOLE asked that the TWG do a cost-benefit analysis.

ESD-7. Integrated Resource Planning (IRP)

Not quantifiable so put aside for this meeting.

ESD-8. Combined Heat and Power Systems (CHP)

What is the capacity for this and the economic feasibility? The 5 million number in the policy was put in as a placeholder.

The fossil fuel language in the Policy Design section seems to contradict that in the Policy Description. **Eliminate the words “fossil-fuel” in the goal section.**

Large-scale waste heat is included here, and the option will draw upon the full set of possible options. That includes paper mills, Mosaic, and waste recovery.

ESD-9. Power Plant Efficiency Improvements

On timing of 10%, the reality is that heat rates happen unevenly rather than in a linear fashion. We need to set targets in time, but it won't happen in a linear fashion. **Strike the word LINEAR in Timing.**

It's a measure of the amount of heat required to produce the electricity.

Does this policy encompass fuel switching?

SECRETARY SOLE asked that the discussion not get into fuel switching here.

ESD-10. Grace Period for Replacement of Carbon-Intensive Units **Two members thought that the Cap-and-Trade TWG should look at this.**

This has to be enforceable, and there have to be offsets to make up for the grace period. Something has to happen when the grace period is over.

ESD-11. Waste-to-Energy (WTE)

Is this the only place we look at recycling? AFW-8 covers some recycling, i.e., promotion of advanced waste management technologies. And AFW-9 and AFW-4 cover some other pieces.

Let's just focus here on methane capture.

If in the future we have a landfill vs. a WTE facility, how will we decide? An incinerator is just burning trash.

Broaden end-user beyond just utilities

ESD-12. Demand-Side Management (DSM)/Energy Efficiency Programs, Funds, or Goals for Electricity

No changes to text.

ESD-13. Incentives for Improved Building Design, Construction, and Operation in the Private Sector

ESD-13a. Existing Residential

Take out references to "new" in the Policy Design section. Send back to TWG for revision. Note connection to GP-5. A member commented that this is one of the most important potential policies in terms of GHG reductions that the Action Team is considering.

ESD-13b. New Residential

What is the baseline? More efficient than what? TWG is asked to address the affordability issue.

ESD-13c. New Master Planned Residential Communities

Consult new zero-carbon house in Florida for advice on this.

At the federal level, the big sticking point is low-income housing. It is more efficient to get hurricane-resistant glass and insulation, but the problem is cost for low-income families and housing rentals.

Identify funding mechanisms for ESD-13a through ESD-13c.

ESD-14. Improved Building Codes for Energy Efficiency in Existing Buildings

ESD 15a. Training and Education for Built Environment Professionals

Note connection with GP-5.

ESD 15b. Training and Education for Building Operators and Community Association Managers

ESD-16. More Stringent Appliance/Equipment Efficiency Standards

ESD-17. Consumer Education Programs

ESD-18. Incentives to Promote Implementation of Customer–Sited Renewable Energy Systems

Provide for a fair return for net metering, which is how Germany achieved such notable success.

Send back to TWG for clarification on Implementation Mechanisms.

ESD-19. Energy Efficiency Financing and Alternative Business Models

Concern about 5% annual goal. Send back to TWG.

There may be some utility for small businesses.

How does this intersect with land use?

ESD-21. Rate Structures and Technologies to Promote Reduced GHG Emissions

What are the economic implications? How many people would be affected? How many people would need to be incentivized to achieve this?

Identify the baseline year.

Send back to TWG. The Time of Use rate structure is different from what is in the goals.

ESD-22. Demand-Side Management/Energy Efficiency Programs, Funds, or Goals for Natural Gas

ESD-23. Decoupling

Public Comment

BOB KRASOWSKI (paraphrasing): I really appreciate the great work that is being done here and on the TWGs. We're getting opinions from a diverse set of voices. But I wanted to say that there is

also discomfort in the environmental community with some of the directions here. There are many who are not comfortable with nuclear to name one issue. We are also concerned about insufficient expertise on waste-to-energy. Finally, for several years we've been working on Serve to Preserve. Are we preserving the environment or preserving the status quo? Thanks again for all your work.

LANE STEVENS (paraphrasing): I'd like to provide some confirmation on some of the comments this afternoon from the perspective of manufacturers. And we represent firms such as Kelsey Solar Group, which is involved in thin cell solar panels and Petro-Algae, Force Systems, and Trusted Carbon. We are discussing barriers to private sector investment, and until we have the use of solar clearly defined in an RPS, until we have cap-and-trade, the private sector will not come in. Petro-Algae is ready to go, ready to commercialize but needs a defined environment.

QUESTION FROM THE ACTION TEAM: What does the industry need?

5% solar domestic and 95% foreign is the current business model. Investors would like to help find new ways to develop solar. They want to create the largest photovoltaics (PV) facility in the world here in Florida. They need to bring down the kilowatt (kW) cost to 9 or 12 cents per kW.

A member suggested that the Action Team prioritize conversations and focus on low-hanging fruit.

Agriculture, Forestry, and Waste Management (AFW) Straw Policy Drafts

STEVE ROE presented.

STEVE ROE began by reviewing Table 1 summarizing the state's biomass supply and the biomass demand for the Policy Options. An Action Team Member asked to identify where sugarcane would be in the table. The Action Team also requested an additional column in the table representing the heat value of the biomass in British thermal units (Btu's) in addition to the amount of dry tons available. Steve Roe then reviewed the Policy Options as follows:

AFW-1. Forest Retention—Reduced Conversion of Forested to Non-forested Land Uses

The focus of this option is to stabilize the amount of statewide forest cover. The Action Team asked to clarify that the baseline is 2008 levels of forested lands. A Member noted the need to balance carbon sequestration with biomass for biofuels.

AFW-2. Afforestation and/or Restoration of Non-forested Lands

This option relates to AFW-1 and provides goals for increasing forest growth in non-forested areas including urban landscapes. There were no substantive comments from the Action Team.

AFW-3. Forest Management for Carbon Sequestration

This option focuses on forest management techniques. The TWG will set a goal for non-federal publicly managed forests after some initial quantification has been completed.

AFW-4. Expanded Use of Agriculture, Forestry, and Waste Management Biomass Feedstocks for Electricity, Heat, and Steam Production

This option outlines a goal for using biomass for energy and heat needs. An Action Team Member expressed concern about the use of food crops and the impact on food costs nationally and around the world. It was also noted that starch and corn are explicitly excluded from the definition of biomass in the federal farm bill. This will be noted in the Policy Options Document. The Action Team would like specificity on the types of biomass/crops that will be used to meet this goal.

AFW-5. Promotion of Farming Practices That Achieve GHG Benefits

This option focuses on farming practices that can be applied to Florida that will reduce agriculture-associated GHG emissions. The TWG needs estimates of marginal agricultural land and high efficiency harvesting methods appropriate to Florida in order to further develop this goal.

An Action Team Member asked what types of implementation mechanisms are available? There are incentive-based programs such as loans to producers to purchase or employ equipment or practices earlier than they would otherwise have upgraded. This option is linked to the Cap-and-Trade TWG's provision for carbon offsets, and that needs to be kept in mind when developing implementation mechanisms.

AFW-6. Reduce the Rate of Agricultural Land and Open Green Space Conversion to Development

This option focuses on preserving agricultural land and green space. The Action Team requested clearer language in the goal and asked where these protected lands are going to be located. The Action Team requested that a date be added to the goal: 2025. A Member commented that developing commercially viable uses of that land provides the best opportunity for preserving it.

A Member commented that they would like to see a carbon impact assessment for new development.

A Member questioned how this option is going to work and how will it be paid for. If the result is that every time someone wants to convert some farmland another parcel gets set aside that was never going to be developed anyway, then the policy is ineffective. Additionally, meaningful agricultural land should be preserved, not just land that wasn't going to be developed anyway.

A Member asked that the intersection of this policy with our current real estate market and/or affordable housing be considered.

Another commented that that the terms "green space" and "agricultural land" need to be defined.

Members offered suggestions for other mechanisms for deterring development and providing funds such as a \$1 surcharge on rental cars or a mandatory \$10 fee on bottles and cans.

A Member noted that it is valuable for water management actors to work closely with farmers. It makes a difference in terms of keeping farmers in business.

SECRETARY SOLE stated he was not comfortable with the current goal, which outlines an acre-for-acre ratio (one acre preserved for every acre developed).

It was suggested that the goal be modified: keep the 50% reduction in but move the acre-for-acre ratio to Implementation Mechanisms and rework it.

A Member asked what number of acres we lose by 2020 under business-as-usual?

CHARLES from 1,000 Friends of Florida said he will provide some data to Steve Roe.

A Member asked if the business-as-usual assumptions have incorporated the recent slowing in the housing and development market due to the credit crunch. Another Member suggested that development rates in the next decade could easily make up for the slowdown.

A Member mentioned an anecdotal situation where Sacramento County is suing a developer because the developer is proposing only 14,000 homes in an area and the county wants 21,000 homes so there will be greater density. So far, municipalities have not been taking land use development into account, but California is now asking them to do so to comply with state plans.

AFW-7. In-State Liquid/Gaseous Biofuels Production

This option is linked to the TLU TWG's Low-Carbon Fuel Standard and focuses on providing sufficient feedstock for biofuel production.

A Member commented that Florida doesn't have the infrastructure for ethanol. Another Member responded that the goal is to change the infrastructure, noting that we changed 50% of gas tanks from single-wall to double-wall tanks in 10 years, so infrastructure can change.

Members discussed potential fuels that would be able to work with current vehicles.

A Member noted the need to inventory the biomass needs for electricity and for fuel to make sure we do not deplete the resource.

AFW-8. Promotion of Advanced Municipal Solid Waste Management Practices (Including Bioreactor Technology)

This option focuses on cradle-to-grave management of solid waste. The Action Team had no substantive comments.

AFW-9. Improved Commercialization of Biomass to Energy Conversion and Bio-Products Technologies

This option seeks to promote technologies including but not limited to manure utilization, waste water treatment plant bio-solids utilization, and other biomass conversion and bio-product technologies.

A Member commented that livestock manure can cause an enormous amount of water pollution. Use of manure addresses GHGs and water pollution at the same time as factory farms and concentrated animal feeding operations (CAFOs) get bigger and bigger. Pilot testing is going on

now. This is a huge win-win opportunity and could possibly include range cattle as well. We need more information on the distribution of farm size.

The Action Team requested that the TWG look at two scenarios for manure utilization: 20% and 50%.

A Member commented that, with regard to wastewater treatment plant bio-solids, soil application is good but needs to be carefully managed, also noting that it will reduce the amount of nitrous oxide (N₂O) used for fertilizer.

AFW-10. Programs To Support Local Farming/Buy Local

For this option, the TWG feels there is potential in the meat and dairy industry but that local production on the crop side is already very high. STEVE ROE noted that one of the challenges of this option is that data sources tracking what agricultural products are coming into Florida are scarce. Other states are also starting to look at these questions.

COMMISSIONER BRONSON of the Florida Department of Agriculture and Consumer Services (DACS) addressed the Action Team. Florida produces 280 commodities, so there are lots of opportunities to buy local. Florida produces 56% of oranges, 53% of tangerines, and 49% of U.S. tomatoes. Floridians can't eat all of that, so it has to be exported to other states. The state should also talk about shipping via the rail system using refrigerated cars, given the price of fuel and its impact on trucking. Farming operational costs have also increased. Commissioner Bronson noted that he is paying \$4.60 for off-road fuel for his hay fields. Fertilizer has gone up 61% because it is made with fuel. The DACS supports local farmers' markets. He also noted that the "big box" stores do a tremendous buy-local effort when products are in season.

Florida DACS supports the farm-to-fuel process. Florida farmers can do double and triple crops because of the climate. Grasses and other energy crops are under consideration. He noted that the group needs to keep in mind that farmers need to make money when considering future policy actions. He also emphasized that DACS promotes organic farming.

COMMISSIONER BRONSON noted that there is a lot of international competition in food production. The dollar is falling, and that affects prices.

A Member asked if DACS is able to deal with food safety issues? The COMMISSIONER responded that they continually work on food safety. DACS covers agriculture issues from the field to the table, noting that when the tomato issue came up this year, he was 99.9% certain it did not involve Florida tomatoes because DACS stays on top of safety issues.

A Member asked whether water use is being considered as part of biomass growth and use. STEVE ROE responded that these issues would be addressed in each corresponding option.

The Action Team suggested that AFW-10 focus on educating the consumer on buying locally produced goods. It will be transmitted as an unquantified option.

Action Item for TWG: Modify AFW-10 to address education.

A Member commented that wildfires may need to be looked at again in the Inventory & Forecast.

Public Comment

BOB KRASOWSKI, Florida Alliance for a Clean Environment: Concerning AFW-5, MSW should be analyzed separately because there are all kinds of toxics in MSW, and it will take attention and funds away from more legitimate biomass substances.

For AFW-8, rather than talking about incineration, we need to give attention to reducing the waste stream. The legislature asked DEP to perform a major review of diverting 75% of the waste stream.

JANET BOWMAN, Nature Conservancy: For the 50% reduction in the rate of agricultural land conversion, the goal date of 2025 seems very far away. Setting a goal of 10% by 2012 is more effective than a larger goal in 2025 because the best opportunities are now, and there will be fewer of them in 2025. The Action Team agreed.

Transportation and Land Use (TLU) Straw Policy Drafts

LEWISON LEM presented.

TLU-1. Develop and Expand Low-GHG and Alternative Fuels

This is a fast moving area.

TWG Member: I look at the problems of fuel production and biofuels and take the general strategy as being analogous to the issue of power—to create a market for biofuels for everything except corn, which is not useful—and to do something like net metering. Perhaps for the first billion gallons reduced. Make public lands available for this production. I could see a full-scale ethanol plant by 2012 and up to 200 plants or more to produce 900 million gallons. From the agriculture report, we can identify almost 10 billion tons available today that would replace 10% to 20% of Florida's fossil fuel need.

TLU-2a. Increased Fuel Economy and GHG Emissions Standards for New Vehicles

There was discussion about how aggressive the goal for TLW-2a should be.

SECRETARY SOLE concluded by informing the Action Team that DEP is already engaged in rulemaking, so maybe this is moot. Item would be moved to recent action.

Motion to delete, seconded, and agreed upon with unanimous consent.

TLU-2b. Add-on Technologies for Existing Vehicles and New Vehicles

The basic concept under TLU-2b is add-on technologies such as fuel-efficient tires. Manufacturers often use these tires, but when consumers purchase replacement tires, they are often unaware of the options. Another example is miles per gallon meters like those that hybrids have so drivers can get feedback on their driving habits.

Ensure that any products are certified as really working under the implementation of this policy.

Pursue bio-fuel distribution infrastructure which could displace out-of-state biofuel.

SECRETARY SOLE: But HB 7135 did not come to a conclusion on biofuels, so focus on development and use of low-GHG fuels and look at a timeframe in which that is feasible—and it can be aggressive.

COMMENT: If the regulations have no impact on the fossil fuel industry, I still see such a role as important for reducing risk for investors.

Most of the focus is on liquid fuels, which makes sense. Let's keep the notion of bio-gas, but plug-in hybrids are right around the corner, so electrons are the new fuel source. Fuels are not limited to liquids. The Agriculture bill definition provides for other fuel derived from cellulosic bio-gas.

LEWISON LEM: Some state are considering low-carbon fuel standards, which are viewed as a fuel- neutral policy.

SECRETARY SOLE: We do want to look at advanced Biofuels, and it is not always biofuel that is the solution when you look at alternative transport systems.

TLU-3. Smart Growth Planning

SECRETARY SOLE: There is language saying no to development that has any carbon footprint. Is this reasonable? This gets to the issues discussed yesterday about converting agricultural land to developed land. Are we at the stage where we're ready to say that all future development must be zero carbon? This may be an implementation discussion and location-specific.

Goal was amended to say "minimize GHG emissions." How about a phase-in approach? A short-term vs. a long-term goal. There are three main sources of emissions: the construction process, the design and operation of buildings, and travel to and from the neighborhood. You are talking about percentages for each category.

In a discussion on the policy design, the Action Team considered if the goal should decrease from a baseline? Or should the goal be relative?

COMMENT: Urban environment and trees—most developers cut down trees but can we encourage them to retain as many trees as possible. "Tree retention requirements." It can be addressed in AFW policies.

TLU-4. Improving Transportation System Management

The numbers based on past studies suggest that VMT will be reduced by the stated percentages by the dates specified. The average delay was 6.1%, and the goal was to reduce it to 5%. Concern was expressed that this may not be sustainable.

TLU-5. Increasing Choices in Modes of Transportation

COMMENT: If we spend money to make it easier to get from suburbs to downtowns, we are making it easier for less desirable land use patterns.

COMMENT: There was a request for a dollar amount on lost productivity due to traffic congestion. The Texas Transportation Institute comes out with numbers each year for major metropolitan areas, but they are very location-specific; however, it would be difficult to get a statewide number.

COMMENT: You need to make it easier for people to walk by adding sidewalks, trees, and so on. We need to turn off the sprawl development spigot.

COMMENT: For every dollar spent in a rural/suburban area, you should spend a dollar in an urban area.

TLU-6. Factoring GHG Emissions Into Transportation and Land Use Planning Processes

Regarding 6.5, 6.6, and 6.7, keep in mind that Governor Crist has hoped to reduce congestion and VMT.

The laws regarding policy option 6.1 this have changed.

The metropolitan planning organizations (MPOs) are the groups that allocate transportation funding throughout the state. I'd like to see the goals on this one be more ambitious.

COMMENT: What if you didn't add lanes to the arterial road networks—if you just didn't do it—and take that money and put it toward public transit.

Department of Transportation (DOT) program—Efficient Transportation Decision-Making (ETDM) was noted.

TLU-7. Incentive Programs for Increased Vehicle Fleet Efficiency

TLU-8. Increasing Freight Movement Efficiencies

Truck idling technologies, which are very cost- and carbon-effective, work by providing drivers opportunities to plug in so they don't need to keep their engines running overnight to use air conditioning, TV, and other amenities in their trucks.

The TWG still needs to do more work to establish the potential Goals, so the recommendation is to send it back to the TWG for goal setting but also to go ahead and do the quantification.

COMMENT: We're working with the Department of Agriculture to increase the weight per axel.

One Florida-specific issue: several of our ports may expand, which is also where more population density is desired, so take this into consideration.

Florida has passed a rule relating to truck anti-idling.

GOAL COMMENT: I hope that we also think about new paradigms so that in case trucks aren't the best transport option, we look at those as well.

TLU-9. Consider Transportation System Pricing Options

This is a tool that uses pricing to affect the choices people make. This is where pricing comes into play.

How does this interface with the high cost of fuel right now?

And how is this state going to suggest funding for transportation systems?

VMT charges, increased fuel tax, congestion pricing, and urban and inner city toll roads.

How do you encourage the other modes of transportation?

TOM PETERSON: How about parking management fees?

Motion to eliminate TLU-9 but also integrate important elements into TLU-2b.

Comments on the TLU Inventory and Forecast were invited. No comments were offered.

Transportation Pricing. Can be different pricing structures, e.g., mobility factors. Should not throw this away with the pricing option.

SECRETARY SOLE: Revenues are falling.

COMMENT: Look at impact fee assessment related to trips.

SECRETARY SOLE: Recall discussion on impacts fee earlier, perhaps under TLU-6.

COMMENT: This is complex. A Slippery slope.

COMMENT: Agree. I think there are ways to do what you said and reward people in zones with mixed uses or pedestrian-friendly designs.

Government Policy (GP) Straw Policy Drafts

JEFF WENNERBERG presented.

QUESTION: How will these be evaluated if they will not be quantified? JEFF WENNERBERG explained that they will be qualitative policies but that the nature of the proposal does not lend itself to reliable estimates of cost or GHG reductions.

GP-1. Targets, Reporting, Funding, and Accountability Measures

JEFF WENNERBERG described the policy in general and pointed out that the draft also called for the state to establish a funding mechanism. The state's GHG reduction targets are endorsed by the draft policy, but a mechanism for periodically reviewing and potentially amending them in the future is proposed.

SECRETARY SOLE was concerned about systems benefits charge (i.e., how much will it cost?) The state would have to develop its own rule. JEFF WENBERG explained that the systems benefits charge was offered as an example of a potential funding mechanism, but was not a specific recommendation from the TWG.

GP-2. Public Awareness and Education

COMMENT: There needs to be an entity that keeps track of education and awareness raising efforts, and coordinates them.

COMMENT: I always have a pronounced concern about separation of church and state but I think we may want to list religious leaders and faith-based groups as resources for raising public awareness. FUSE (Faiths United for Sustainable Energy) is a group that is engaged in this. SECRETARY SOLE agrees, and the panel of religious leaders working for climate change mitigation had a significant impact in the Governor's climate summit.

GP-3. Intergovernment and Inter-sector Planning, Coordination, and Assistance

COMMENT: Add "faith-based" to "Private, *faith-based*, and nonprofit."

There was a suggestion that all Regional Planning Councils (RPCs) be field offices for greater effectiveness. Counties have to find ways to comply with planning and reduction requirements and the Regional Planning Councils can help do this and provide a link to the Department of Community Affairs. But there is some doubt as to whether the RPCs can effectively do more than communicate and coordinate.

If we are serious about this, growth management needs to be discussed, and GHG mitigation concerns must be integrated into infrastructure and development planning and regulation. Some of the most controversial decisions have been around sports complexes, and then we put a sports complex out on the edge of the Everglades and there was no transit so everybody had to drive.

GP-4. "Green" Business Development Policies

What kinds of discussion took place around a system benefits charge? JEFF WENBERG said it was discussed in GP-1 but could apply to programs beyond GP-1. He explained that a summary table showing the different system benefits charges in effect in other states was going to be prepared and attached to the policy for informational purposes.

COMMENT: Small Business Development Centers should be identified as possibly serving or supporting the 'clearinghouse' function under policy design.

GP-5. Introduce Core Competencies into Professional Licensing Programs

JEFF WENBERG pointed out that this policy was very similar to ESD-15a.

SECRETARY SOLE recommended that ESD-15a be moved to the Government Policy TWS and merged with GP-5. There was no objection.

Public Comment

R.E. LeMon, a member of the GP TWG and Vice-Chancellor of the Board of Governors of the State University System supported the Action Team's edits to the policies and observed that the panel of religious leaders at the Governor's summit eloquently expressed the view that we are the stewards of the Earth.

Adaptation (ADP) TWG Deliberations Report

JOEL SMITH and LINDA SCHADE presented. They reviewed progress on the drafting of the policy templates, noting that 11 of the 15 adaptation templates have been drafted as of the Climate Action Team (CAT) meeting. Most of the drafts were discussed and commented upon during the last Adaptation TWG call on June 30, 2008. Some of the comments from the TWG members were presented to the CAT.

COMMENT: Adaptation is where people's lives are affected.

SECRETARY SOLE noted overlap between some of the topics covered under Adaptation and other TWGs. **Public Education and Outreach (ADP-15)** could be covered under the Government Policy TWG. He suggested that the CAT look at the draft templates, such as **State Funding and Financing (ADP-13)** and Public Education and Outreach, and give feedback to the TWG.

COMMENT: Some of the adaptation areas are specific to adaptation, but others will need consolidation. **Comprehensive Land Use Planning (ADP-2)** is an example. **Built Environment (ADP-5), Transportation (ADP-6), Economic Development (ADP-7), State Funding and Financing (ADP-13), and Public Education and Outreach (ADP-15)** would be timely to move into appropriate TWGs. The Member pointed out that adaptation might get lost if these topics are moved.

COMMENT: Miami-Dade County has a Task Force report, which could be useful for the Adaptation TWG. LINDA SCHADE noted that the report has been posted on www.flclimatechange.us/Adaptation.

SECRETARY SOLE said **Comprehensive Land Use Planning (ADP-2)** needs to be in the Adaptation TWG because it is separate. Other areas may have overlap. The Secretary said he would like to see the drafted policy options.

COMMENT: The Secretary and Tom Peterson should always ask if adaptation has been looked at.

The MEMBER will work with the Adaptation TWG to frame out financial adaptation for state and local governments to address risk mitigation.

COMMENT: The Netherlands is working on a building policy in which all homes will be floating.

Cap-and-Trade (C&T) TWG Deliberations Report

Jeff Wennberg presented.

JEFF WENBERG: Presented the Cap and Trade list of key policy questions that flow from the program design elements the DEP must resolve through rulemaking to fulfill the requirements of HB. 7135.

SECRETARY SOLE: Are some of these questions bigger or more fundamental than others?

JEFF WENBERG: The list contains both very big and controversial policy questions like the geographic scope, the distribution of allowances, or the sector coverage, and smaller issues such as the length of a compliance period.

SECRETARY SOLE: Advised that the TWG should focus on the big questions; the staff at DEP can work out most of the details, but he really wanted input on the big policy concerns.

COMMENT: Cap and Trade was delegated a policy for plant conversion from ESD yesterday.

TOM PETERSON: The cap and trade program is not structured as an either/or choice with the other policies and measured under consideration in the TWGS. These will need to work together to achieve the governor's goals and to keep the cost to the people of Florida to a minimum.

JEFF WENBERG AND ADAM ROSE, by telephone presented modeling results.

ADAM ROSE, after resolving some telephone problems, stepped through the powerpoint slides on the cap and trade model and the simulation of Florida joining the Regional Greenhouse Gas Initiative (RGGI).

COMMENT: The model assumes the allowances will be auctioned. Why do you make this assumption?

ADAM ROSE: we typically model the program with allowances both auctioned and distributed freely. We find that the permit price is unaffected by the method of distribution, but of course it makes a big difference to those required to buy the allowances and the state who likely receives the auction revenues.

ADAM ROSE: We've got basic RGGI data, so we've adapted that. We don't have Florida data yet. We've done Maryland, Pennsylvania, and Minnesota. As far as our simulations are concerned, what would happen if we grandfathered the permit? What happens is that with the mitigation savings, you'd get a negative permit price so your only alternative is auctioning the permits. So we looked at a situation where you'd auction all the permits.

COMMENT: Am I understanding this correctly – it appears we can achieve the needed reductions without imposing a cost to the system?

ADAM ROSE, Yes, basically that is correct, remembering that these are simulated numbers and we will need Florida-specific numbers before we can say for certain.

DISCUSSION: There was a general discussion on the pros and cons of auctioning vs. the free granting of allowances.

COMMENT: JEFF WENBERG has had some initial conversations with WCI. It appears Florida might be able to join both the Regional Greenhouse Gas Initiative (RGGI) and the Western Climate Initiative (WCI). This is an interesting prospect.

SECRETARY SOLE: I hope that the TWG is more focused on “here are the facts” rather than here is the way to do cap-and-trade to help bolster that rule development. If we focus on energy now, it’s good, but we may want to think about transportation and other industries. Right now I need to deliver a rule. I’d like to look at a phased approach. I’d like us to go ahead and meet with RGGI and WCI, so you are informed by that as you go forward.

COMMENT: I’d like to see the biofuel industry benefit from and be supported by cap-and-trade.

COMMENT: I want a good sensitivity analysis done. By 2020, the BAU prediction may be totally wrong. The sensitivity might be more important than the variables.

ADAM ROSE: If the group wants to give input on what variables or sensitivities are of most concern, we could do that. I think the reason you see such a small impact on the cost of the allowance is that there is a wealth of low-cost mitigation options in the transportation sector.

QUESTION: I want to be clear on our task. Do you want recommendations?

SECRETARY SOLE: Yes, recommendations would be helpful.

SECRETARY SOLE: There is an emphasis on key fact finding. Not as important to figure out when to implement, but the bigger policy issues is an area where I really want to hear this group’s perspective.

Public Comment

BOB KRASOWSKI: Florida Alliance for a Clean Environment: As a resident of Florida, I have been cautious about cap-and-trade because, to me, it seems to be superfluous. It reminds me of the S&L crisis, Enron, and other commodity speculation. I was concerned that the discussion was narrowed to cap-and-trade.

Also regarding the discussion of impact fees—concept of growth paying for growth. If we had a statewide impact fee on energy that was based from a zero-energy home, any deviation from that would incur a fee. I’d like to see that as part of the discussion. We should say we want to eliminate all bad carbon dioxide (CO₂) but let’s shoot for the maximum and then wordsmith the document when we finish since we don’t know what is going to happen. Finally, to maintain my contrarian character—to provide public education and information for policymakers, REP GELBER wanted to add faith-based organizations to the list of Florida resources—I’m not sure about it though I am a person of faith. Does it put faith-based above non-faith based organizations?

Agenda, Time, and Date for Next Meeting

August 6–7, 2008, in Room North 230, Orlando Convention Center, Orlando, Florida.

Public Input and Announcements

None were offered.

TOM PETERSON: The homework assignment is we are going to be bringing back numbers at the next meeting so I want to encourage everyone to read the expanded policies with initial quantification in advance of the meeting, so we're going to need to zoom right in and make decisions.

SECRETARY SOLE: Thank everyone for all the work you are doing for this project – the Action Team and all the TWG members.

A motion to adjourn was requested and received and Secretary Sole declared the meeting adjourned.