



# Governor's Action Team on Energy and Climate Change

## State of Florida

### MEETING SUMMARY

### FLORIDA ENERGY and CLIMATE ACTION TEAM

#### Energy Supply & Demand (ESD) Technical Work Group (TWG)

#### Teleconference Meeting, Call #13

#### July 23, 2008

#### 1:30 p.m. – 3:30 p.m. EDT

### Attendance

1. **ESD TWG Members:** Charlie Beck, Ken Baker for Angie Beehler, David Byrne, Linda Campbell, Eric Draper, Phillip Fairey, Jack Glenn, David Guest, Thomas Hernandez, Leon Jacobs, Pierce Jones, Dr. Anjane'yulu' Krothapalli, Lonnie Noack for Ted McCullough, Maribel Nicholson-Choice, Cindy Tindel for Eric Silagy, John Wilson for Steve Smith, Ann Stanton, Jim Vickers, Mark Kaplan sent comments via email.
2. **State of Florida:** Brenda Buchan and Tom Rogers, Department of Environmental Protection (DEP). Jack Shreve, Office of the Governor.
3. **Members of the Public:** Bob Krasowski, Lisa Scoles, Brady, Thomas, Yon & Clark, Anita Liu.
4. **CCS Staff:** Tom Peterson, Jeff Wennberg, Linda Schade, Alison Baile, Randy Strait

### Background documents

All posted at [www.flclimatechange.us](http://www.flclimatechange.us)

### Discussion items and key issues:

This was conference call #13 for the Florida ESD TWG. Key items are an update on the proposed revision for the Inventory and Forecast. Second we were asked at the last Action Team meeting to propose a Tier 1 and Tier 2 list of prioritized options. We also want to get an update from Alison Baile who is our lead quantitative analysis.

### Review of Prior Call Summary

One correction to the minutes was that the options should be prioritized by what has worked in other venues, specifically in Europe.

A second correction. This was Eric Draper ESD-5 and ESD-6

## Continued Review of Inventory and Forecast

Tom Rogers (DEP) and Randy Strait will be assisting the discussion of the Inventory & Forecast (I&F). There are slides which are not yet in the Powerpoint (the slides were then emailed to the TWG). The Inventory & Forecast is in near final form but we want to bring it in line with the best available information.

There were questions from the TWG which Tom Rogers forwarded to Randy Strait. There was a proposal to use new information. The rationale was that it was thought more detailed information but it turned out the original data was more detailed. The task is to make revisions to the draft I&F by bringing it through each of the Technical Working Groups (TWG) to identify and include additional best available data and then send it back to the Action Team. The I&F is in draft stage and to make it final the TWG is encouraged to add data sources.

The sources of data that were used for the initial forecast included federal Department of Energy (DoE), Energy Information Agency (EIA), FERC, Environmental Protection Agency (EPA), state Annual Operating Report (AOR), Emissions and Generation Source Integrated. DEP used mass balance data from the EIA and the eGRID.

Randy Strait of CCS explained that the data which utilities use to report to DEP was used for the draft inventory. Tom Rogers and others considered this data when they were developing rulemaking for Florida cap and trade. However, it was realized that the data getting reported to DEP is the same data that gets reported to the EIA (Energy Information Administration). And, the EIA data is broken out in better detail in a way that is better suited for the I&F work for the Action Team process. Some of the shortcomings of the AOR data is that it is not as complete for Florida as the EIA. Secondly it is not consistent due to the instructions that the state provides to utilities, i.e. it is not originally intended for CO<sub>2</sub> purposes so there are no consistent methodological requirements. Also DEP reviewed data sources for their rulemaking purposes and their judgment was the EIA data was preferable.

eGRID is a compilation of the various federal data sets which the EPA puts together and does extra quality control on this (only available for 2000 and 2004) and DEP thinks that is the best data for the inventory. eGRID is only available for 2000 and 2004. Also there were changes in methodology between those years (1996 and 2000) so there is a consistency issue here too. DEP decided to use 2000 E-GRID data as the base year for the state cap and trade rule.

The most consistent data set over the greatest number of years is the EIA.

### Discussion of AOR data

Is the AOR data thought to be inconsistent for all reporting sectors or just utilities sector? Since state instructions were that utilities merely 'make their best effort', there were no instruction for a consistent methodology. For national E-GRID data – continuous emission monitors systems are used, then you move to a mass balance calculation. From the utility perspective, thru FCG – we have tried to be consistent perhaps not on CO<sub>2</sub> but we have intended to do consistent reporting. I'm not convinced that our data is not as accurate.

EPA Clean Air Markets database. AOR data still has the problem that we cannot disaggregate the CHP power units. The concern about the EPA Clean Air Markets data is it has continuous emissions monitoring system (CEMS) data in there. In DEP's judgement, any future cap and trade is going to require CEMS data.

Tom Rogers restated his recommendation. For Inventory use and for the rulemaking DEP is suggesting that the eGRID data for 2000 be used and maybe a modified EIA for the 1990 cap. For use in developing trends, the EIA data set is better because it is longer and more consistent.

### **Discussion on the Forecast**

For the Forecast, the TWG is recommending using the FL Reliability Coordinating Council data. Linda Campbell finished the report of electricity sales forecast which has been forwarded to the PSC. The current plan is for the forecast to be revised based on the sales forecast from that report for 2008.

Will the generation mix be drawn from the EIA forecast or from the Florida forecast? Randy Strait stated that the TWG preference has been to rely on the EIA data for the business-as-usual (BAU) forecast.

There were some reservations about the data and forecast and it was confirmed that the TWG would have more opportunities to review and revise the I&F on future calls. The concern was to make sure the data stands up to common sense scrutiny. Randy Strait agreed to compile the generation mix between the two data sets for the TWG to review.

There was discussion about the population numbers and growth assumptions. State-specific data was used from the Demographic Estimating Database. Historically in 1990 the growth rate was 2.2%, then going forward 2005 to 2025 it was 1.7% per year. Linda Campbell has a table in her report which was done for the PSC and it shows an annual growth rate which could be a useful gut-check comparison.

How was the growth rate applied to future demand? It is being applied to specific categories when better data is not available – e.g. the residential direct fuel use category. Natural gas, oil may play a part in Transportation forecasting. The member noted that doing research for the Public Service Commission for the Renewable Portfolio Standard (RPS) we believe that the price of fuel used for transport went down 2%. We want to take into consideration the likelihood that other consumption i.e. demand is going to drop in relation to price. And we have to make sure that there is demand response in relation to the energy efficiency programs that will be coming online.

To summarize, EIA for inventory and no changes to data for forecast in the plans as the FRC's report for the forecast will be used.

It was confirmed again that the TWG was encouraged to review the I&F including assumptions, calculations and actual numbers. Randy Strait agreed to obtain the methodology of the data from the Florida Reliability Coordinating Council (FRCC). We'll report what they have for the fuel mix and the sales forecast.

Tom Peterson re-confirmed the I&F would be brought back for further revision.

Randy Strait confirmed again that for 1990 through 2005 EIA data will be used as the most consistent data base all the way across.

## **Consideration of Tier 1 & Tier 2 Assignments**

Look at the proposed Tier 1 and Tier 2 assignments. Tier 1 items were to be easy to analyze their GHGF and economic impact, in place or proven effective in Europe.

Items in Tier 1 would get quantified. As David Guest noted earlier, it included those that were effective in Europe. Second clarification is to focus on analysis on Tier 1 because of the limitation on time. This TWG, like some of the others, has had significant movement with recent legislation.

Alison Baile and other members of the CCS team looked at the document and compared it with their knowledge of how these actions play out in other states. Alison- looking at options which would have the greatest emissions reductions was a driving point.

Jeremy Susac joined the call.

Are there any clarifying questions on the rationale for the proposed Tier 1 and Tier 2?

## **ESD-18 & ESD-3**

There was a discussion about the distinction between ESD-18 and ESD-3. It concluded with the notion that ESD-18 would be a smaller reduction so that's why ESD-3 rose to Tier 1 which covers ESD-18.

It was confirmed again that the TWG would have additional opportunities to review these documents.

## **Discussion on ESD-7 Integrated Resource Planning**

In response to the listing of ESD-7 as a Tier 2 option, one member expressed that ESD-7 should be applied to options in both Tiers, as was their understanding from prior TWG conversations. Tom Peterson asked if the proposal might be to make IRP an implementation mechanism for other quantified options. Another member strongly agreed that the newly defined IRP was important and that it should be an implementation mechanism. Tom Peterson invited DEP staffers Jeremy Susac to comment.

The member explained that the key difference is that the utilities have done it on a revenue basis. Now we are internalizing previously externalized costs. It is an application of a process but very different than what we've done in the past from a utility perspective. A second member agreed and thought that the new vision of IRP would create greater opportunities to participate from others programs such as DSM and the lifecycle benefits will have greater impact on GHG reductions.

Jeff Wennberg of CCS offered the idea that it could be referenced in any applicable policy.

The member responded: The existing system is heavily fossil fuel-based, and the idea of linking IRP if you are looking at reduction options, is a bigger area of area of opportunity than almost any other, besides retiring existing plants or to say that future plants will have a reduced carbon footprint. This looks at existing coal or natural gas firing units and asks ‘what are we doing to promote CO2 recovery? This is not captured in the Tier 1 options. But with an IRP process we would be doing that. We’d be emphasizing future demand of energy that will have different technologies and mix of renewables and energy efficiency. IRP would support the evaluation of that. This is shifting of the approach of an IRP.

Alison Baile of CCS suggested that for example for ESD-12 we could refer to the write-up of IRP that explains that there is a new approach to IRP that is being proposed. With the others we could see whether it fits in the implementation mechanism.

Most of the Tier 1 options can fit in the new IRP context. This is a different approach. It is a different objective function. You could change the resource mix. IRP is a method to find a cost effective way to reduced GHG reductions.

Alison concluded: The IRP will stay as a stand-alone but it will not be quantified for reductions. In the Tier 1 options it will be explicitly referenced in the IM sections. It was agreed to do this and bring it back to next call.

Decoupling is listed in both Tiers. Alison explained that the focus was on quantifiable reductions. There could be three categories of options: Tier 1, Tier possible to quantified but limited resources, and tier not to be quantified.

ESD-13 key difference was the notion that you would use baselines – which is the difference between this and DSM.

ESD-14 is re-titled to be existing buildings. ESD-14 relates to the extension of cut-off time beyond 2019.

Utilities are now open to performance standards. ESD-13 could be under DSM – but the notion was to use baselines against which actual performance would be measured. TWG member offered to work with Alison to ensure this concept remains. Utilities are starting to be very responsive on this so the concept should be retained as long as the Action Team has not said they don’t want it.

### **Return to Discussion of ESD-7 IRP and the Existing Generation System**

There was a concern that the current set of options – without IRP integrated – was not yet addressing the big ticket reductions possible in the existing generation system. R&D, technology evaluation and pilot projects are needed and the current options do not adequately address the existing system on the potential for retro-fit. It one of the biggest opportunities for big ticket reductions.

ESD-1 has R&D and ESD-9 has power plant efficiency.

## **ESD-1**

Tom Peterson asked if ESD-1 should be elevated to Tier 1? Yes because of the impact on future and existing generation systems.

Alison Baile explained that this was put into Tier 2 because it is difficult to quantify actual reductions. It is important and we hope it is recommended.

We need definition at the state level to make progress on these issues.

Tom Peterson took a straw poll on whether it should be ESD-1 should be elevated to Tier 1.

Keep ESD-1 in Tier 2=10     Move ESD-1 to Tier 1=2

ESD-13b and ESD-13c are deleted.

ESD-16 was put in Tier 2 due to small reduction potential but the reductions will mostly be captured in ESD-12.

ESD-6 is contentious. Given the degree of risk outstanding on this, some kind of monitoring process is needed and/or an upgrading, if reduction outcomes are going to be based on that option.

## **Review of Policy Option Quantification**

This next agenda item comes out of the Action Team discussion of the summary of whatever comes out of this and other TWGS. One of the ways to portray these policies (which go by different names) supply curve dollars per ton on a NET basis – and that is a critical point – and it lays out in a series of steps big and small from left to right with some actions that based on analysis and experience.

What was prepared today was responsive to the Action Team conversation – with data that is not yet Florida-specific. But a generalized pattern is evident that relates to specific actions that relate to technology that can be put into place on page 8, and a snapshot of a live example of how South Carolina-specific recommendations came out, page 9.

Less expensive actions might take precedence or not; the Action Team's most critical task is to achieve the reductions that the Governor has set.

It is important to note that this table shows a NET reduction. It also shows only a arrow view – cost per ton of GHG emissions removed. It does not deal with co-benefits or direct and indirect costs. There is a CCS quantification memo which goes through direct and indirect costs. Direct costs are the parties involved – so this does not include an assessment of jobs impacts, human health benefits, on any energy independence effects. This will turned into a Florida-specific data set.

Alison Baile explained that CCS will be preparing a TWG-specific quantification memo to show you what data we used, and how we used it to come up with the costs and reductions. All these

points will have uncertainties for example, “offshore,” which means offshore wind has uncertain costs.

Tom Peterson announced an important homework assignment for TWG members to suggest studies that would be applicable for Florida or cost data for any of these items. The timeline is very tight and your best suggestions are needed as soon as possible. Please reply to Alison Baile and Linda Schade directly. Feel free to include Brenda Buchan and Jeremy Susac. Jeremy and Brenda may have data sources to recommend to the TWG as well.

Alison Baile explained how she used estimates from the American Council for an Energy Efficient Economy and went through the assumptions that went into the Notional Cost Curve on Slide 8. The Marginal Cost Curve on Slide 9 takes information on technology costs into specific options, what type of renewables would come under the RPS – this was per year, with cumulative percentage reductions.

The other high priority item is that Florida has already put in place significant emission reductions. If a state has done all the easy actions, it is more challenging to take the next steps.

A TWG member said he has significant data to contribute from a rigorous analysis of existing buildings in Florida.

## **Public Comment**

BOB KRASOWSKI, Florida Alliance for a Clean Environment, asked the following questions:

Where does offshore drilling fit into this analysis? And the ACEEE report was revised after some discussions after FCNL. Which are you using? And are the case studies you are including externalities? Since the call had run over time, the questions will be addressed on next week’s call.

## **Next Steps**

1. On the next call, the ESD TWG will revisit the decisions from today, get more information from Alison Baile on quantification, and respond to questions from Alison which will sharpen refine the quantitative analysis.
2. The date for call #14 is Tuesday, July 29, 2008, from 1:30 p.m. to 3:30 p.m. EDT.