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MEETING SUMMARY
SOUTH CAROLINA CLIMATE, ENERGY AND COMMERCE ADVISORY
COMMITTEE

Residential, Commercial, and Industrial (RCI) Technical Work Group (TWG)

Teleconference meeting #11, March 20, 2008

Attendance:

1. Technical Work Group Members:

- Ben Moore (for Dana Beach - Coastal Conservation League)
- Crandall Bowles – Spring Mills
- Larry Landry - Ameresco
- Shelie Miller – Clemson University
- Mitch Perkins – SC Energy Office
- Keith Sanders – CDA Architects
- David Wach – Roche Carolina, Inc.
- Paul Wojoski (for Myra Reese - South Carolina DHEC)
- John Wilson – Southern Alliance for Clean Energy
- Jim Witkowski – International Paper

2. Center for Climate Strategies (CCS) Staff:

- Alice Napoleon – Lead facilitator
- Kenji Takahashi
- Jennifer Kallay
- Ezra Hausman

3. South Carolina Department of Health and Environmental Control (DHEC):

- Michael Juras – Agency Liaison

4. Public Attendees:

- none

5. Technical Work Group Members not attending:

- Stephen Holt – GCHI
- Mike Olbrich – BP America, Inc.
- Giff Daughtridge - Nucor Steel
- Barry Falin –Voridian
- Reggie Gallant – State Farm
- Andy Walker – Bollin Ligon Walker Realtors

6. Background documents:

(posted at http://www.scclimatechange.us/Residential_Commercial_Industrial.cfm)

1. Meeting Notice and Agenda
2. Draft Summary of Meeting #10
3. PowerPoint for Teleconference
4. Policy Option Document

7. Discussion items and key issues:

This was the eleventh meeting of the RCI TWG of the South Carolina CECAC.

8. Prior call summaries

- Review of draft summary of meeting #10
 - o Jim Witkowski noted that he was on call.
 - o With this change, the meeting notes are approved.

9. Policy Option Document

- **Overview of policy analyses.**
 - o In table, policies are “complete” or “Pending.” A policy that has been accepted as final by the CECAC is labeled complete.
 - o There are new results for RCI-2 in terms of GHG reductions. Costs and savings are still under review.
 - o RCI-3 has turned out to be very complicated. We have results for solar hot water that are not shown in the policy option document. Solar cooling is still a work in progress.
 - o RCI-4 is “complete.”
 - o RCI-5 is “complete,” although there is still an issue to be resolved with whether language on a Clean Energy Standard Offer Program should be inserted in the Implementation Mechanisms. CCS received a document from a member of the CECAC, but we do not have language ready to be inserted into the policy option document.
 - o RCI-6 (building codes) was changed due to new data on cost of LEED compliance. CCS has had much difficulty finding data on costs of stronger building codes: only one study has been published, and its focus is very specific to the measures that were implemented in a single code upgrade; also, data from other states may or may not be applicable to SC. LEED looks at non-energy issues, but it has the benefit that it has much more and much better cost information.
 - o The analysis of RCI-6 was also adjusted to use a different construction estimator for costs, which produced lower construction costs for residential, but little change for commercial.
 - o The analysis for RCI-7 also draws on costs of LEED, so we also made adjustments to costs there.
 - o For RCI-8, there has been no progress on costs for industry/government partnerships. We did get some input on emissions reductions from a similar program, but we had no reference to total emissions for participants, so it is difficult to determine whether RCI-8’s goal is

reasonable. However, the current goal seems fairly conservative and CCS recommends leaving it as-is.

- RCI-9 was accepted by the CECAC and is complete.

- **Discussion of individual policy options**

- **RCI-1**

- Alice noted that there is new language in the Implementation Mechanisms section on page 4. CCS provided an example of portfolio from Massachusetts, a state that has had success at achieving significant savings (~1% per year) at a cost very similar to what we're assuming in the analysis. It was suggested that CCS draw in information from the efficiency potential studies for the co-ops and Duke in SC, and comment on how the Massachusetts portfolio is consistent with those programs. CCS will make this comparison.
- There were suggestions for improving the presentation of the Implementation Mechanisms section: insert a heading for the graph, improve presentation of context, and include subheadings.
- CCS noted that we received feedback from the CECAC to include all utilities' avoided costs in the state, if possible. We are using a slightly higher avoided cost (\$55.75/MWh) based on new information from SCANA on its avoided costs.
- Have we looked at public vs. utility cost issues for DSM? Kenji noted that he doesn't know of a study on this, but he has seen examples of three public entities and they look similar to private cost of saved energy.
- A member noted the negative net present value of RCI-1; DSM is a way for users to manage electricity costs. Also, it induces a reduction in the price of electricity. How can we reconcile the assumed avoided cost of 5-6 cents/kwh with the cost of planned projects, e.g. nuclear plants at 11 cents/kwh? Growth of energy generation is not consistent with low costs in the future. CCS said that we can note that the avoided costs may be higher if new resources are nuclear plants.
- Some say that energy efficiency is bad for the SC economy—i.e., it is not sustainable because costs may outweigh benefits. CCS will address this in the policy option document, and bring up this issue at the CECAC.
- No objections to moving forward with RCI-1 with suggestions as noted.

- **RCI-2**

- Some changes are not reflected in the policy option document. For propane, cumulative benefit of 0.3 million metric tons of CO₂e (MMtCO₂e) by 2020—this is small potatoes in the state. The very small benefit and negative cost make the cost effectiveness (\$/ton) look out of kilter.
- Benefits from fuel oil are also small—0.5 MMtCO₂e cumulative by 2020 for all sectors, making the cost effectiveness look out of whack.
- John Wilson does not find the results too surprising. If CCS is having trouble quantifying propane, the benefits could be discussed qualitatively.

Maybe we should make it clear that this is a big, cost-effective opportunity.

- No objections to moving forward with RCI-2.
- **RCI-3**
 - CCS is still working on this. Solar hot water results were provided, although CCS is not confident with these results and would like input from the TWG on installation costs for commercial and industrial applications.
 - Solar cooling is still in progress; CCS will report results at the next meeting. CCS asked if the TWG has any additional information on the cost of chillers, cooling technologies. David Wach has specific numbers for system going in March of 2009. \$8000/ton is vendor's number.
 - No objections to moving forward on RCI-3.
- **RCI-5**
 - CCS is working on language to circulate to TWG for consideration.
- **RCI-6**
 - Alice described some changes, including frequency of updates, modification of goals.
 - There is a large block of new text under implementation mechanisms, based on the CECAC's request that we describe what kind of legislative changes are required. The 1976 state law must be changed to allow for such code changes to be effective.
 - Also, CCS assumed a lower costs for construction (ICC code website as source) and incremental costs for LEED. CCS used various sources to look at energy savings vs. incremental costs.
 - The analysis for manufactured housing is separate, and there were no changes to the previous methodology.
 - No objections to moving forward with RCI-6.
- **RCI-7**
 - CCS changed the incremental cost of LEED as with RCI-6, and it affected the cost of the policy. A profit margin for an ESCO is now built into costs.
 - No objections or comments.
- **RCI-8**
 - CCS had nothing to report and repeated its need for more information.
 - No objections or comments.

10. Emissions baseline

Alice circulated a new graph (correcting an error in the spreadsheet) to replace the one on slide 8 of the presentation. Alice described the recommended adjustments for the federal Energy Independence and Security Act (EISA), passed in December, 2007. The Act includes three titles relevant to RCI: Title III covers appliance and lighting efficiency, Title IV covers energy savings in buildings and industry, and Title V covers energy savings in government and public institutions. Ezra will discuss this with Energy Supply TWG as well. Robin points out that there are other components of demand growth here.

Concern was expressed about the size of the impact. In general, the concern involved how this relates to the growth in demand provided by the utilities. We have to consider how this is accommodated throughout the RCI & ES policy documents.

Two paths forward were suggested:

- (1) Adjust underlying growth rate to reflect 2007 EISA
- (2) Model the EISA as its own policy and reflect this modeling throughout the other policy options. This would not be a policy option to consider.

CCS will consider this internally, discuss with the Energy Supply group, and then consider at CECAC how to accommodate this.

11. Public input and announcements

None.

12. Next steps and agreements:

1. The next TWG meeting is scheduled for Thursday, March 27 10-11:30. Alice proposed extending the meeting from 10:00 AM until 12:00 PM to provide a full two hours to review policy analyses and finalizing anything else left outstanding for the CECAC to consider at its April 4th meeting. There were no objections to extending the TWG meeting.
2. As the TWG meeting is only one week from today, CCS will try to post the revised policy option document (specif. the results for RCI-2 and RCI-3) as soon as possible.
3. At its next meeting, the TWG will review results of any additional analysis. Also, before the April 4 CECAC meeting, the TWG needs to consider overlaps for the cumulative benefit analysis. Finally, we may revisit the issue of revisions to emissions baseline for the federal Energy Independence and Security Act.
4. After April 4 meeting, CCS will be writing the report for approval by the CECAC on May 9.