

**Colorado
Climate
Project**



www.coloradoclimate.org

**DRAFT TELECONFERENCE MEETING SUMMARY
Residential, Commercial, and Industrial Policy Working Group
Call #6, June 8, 2007**

Members Attending:

Judy Dorsey
Dave Newport
Kurt Schlomberg
Jim Schrack
Fred Stoffel

Governmental agency liaisons: none

Rocky Mountain Climate Organization: Tom Easley **Center for Climate Strategies:** Ezra Hausman, Alice Napoleon, Jennifer Kallay, Kenji Takahashi

Members of the Public: none

Agenda Item #1: Introductions and Roll Call

Agenda Item #2: Review and Approval of draft summary of Policy Work Group (PWG) Call #5

Review & approval deferred as the summary had not yet been posted.

Agenda Item #3: Review Where We Are in the Ten Step Work Plan

We are on the fourth item, evaluating GHG reduction potential, cost effectiveness and additional issues.

Coming up: other issues including results of analysis, implementation mechanisms, other aspects of the policies.

Agenda Item #4: Review CAP Meeting Input on Straw Proposals

A few changes were made to proposals by the CAP. These are:

- RCI-1 – clarification that reduction is relative to BAU.
- RCI-2 – clarified that schools are included.
- RCI-4 – separate out LEED certification to 30% gold, 70% silver. Clarified that publicly-owned hospitals are included.

Agenda Item #5: Discuss Methods for Analyzing the Draft Policy Options

The PWG members reviewed each of the policy straw proposals including material added by CCS on analytical approach, data sources, and major assumptions, as well as some additions in other areas of the templates. The comments are summarized as follows:

RCI-1 (Expanded Demand Side Management):

- CCS was asked to explain BAU (business-as-usual) in the project description
- It is helpful to have 2.5 cents specified. There was some discussion of this figure.
 - Source is Western Governor’s Association (WGA)
 - SWEEP uses a value of 2 cents, but CCS chose the WGA value because SWEEP seems outdated and overly optimistic.
 - Fred Stoffel mentioned an Xcel benchmarking study that we could make reference to, and offered to send appropriate appendices to the report to Alice.
- Feedback on goal of cost-effectiveness of portfolio
 - The goal is somewhat vague
 - It was asked if this assessment would be based on Total Resource Cost (TRC). Kenji explained that in this context TRC accounts for the cost paid by utility and any cost of appliances, or upgrades for participants. On the benefits side is the cost of saved energy, and maybe other benefits such as emission reductions if these are monetizable. Fred Stoffel noted that Xcel has used a rate impacts test in the past but is moving to the TRC test.
 - It was asked if there is a standard avoided energy cost. There are different costs that were included in the potential study mentioned by F. Stoffel; however, the study is based on 2005 data, so the prices will be “stale”.
 - Avoided energy cost differs by utility, but by how much? This might be a question to put to John Phelan in Fort Collins. Judy Dorsey offered to refer a rates person to CCS.

RCI-2 (Energy Efficiency in Buildings Owned by State and Local Governments):

- Again CCS proposes to use the WGA report for cost of saved energy, in this case 4.74 cents per kWh. This should be explained more clearly.
- Senator Reid from Nevada has proposed a bill to provide 0% financing to school districts in 4 “Sun” states to include NV, CO, NM and AZ. Sen. Reid’s bill is not to be included in the analysis, because it is hard to see what is going to happen with it. However, the cost of RCI-2 would be lower if such a bill is enacted.

RCI-3 (Enforcement of Building Codes):

- Ezra brought up whether \$1M was too little to make a difference. A figure for the percent increase in compliance associated with additional spending may be difficult to obtain.
- Doug Swartz (not on the call or a PWG member; works with John Phelan) at Fort Collins said that when effectiveness has been researched in the past, the results were “incriminating”. He may also be able to help with information sources.
- Remove specific reference to Boulder as there are many cities that may be beyond code and we are not listing them all.

RCI-4 (Planning and Design):

- CCS has a document for LEED in Colorado
- Governor’s energy office has a report with good information in this area.
- Amy Jiron with Colorado Green Buildings Council (not on the call or a PWG member) may be a good source. Her phone number was provided.
- Interpretation of the Architecture 2030 standards was discussed.
 - 2010 goal is 50% reduction on a BTU/square foot basis. This is a very high standard in a short time.
 - Ezra notes that this is only for new buildings, but asks how to interpret the standard, *i.e.*, should it be relative to existing stock in the US? No specific answer to this was provided.
- Alice asked the PWG what per-unit efficiency improvement should be used to represent this goal.
 - LEED silver is 30% above standard code, gold is 37% above standard code
 - The issue was raised that LEED is not just focused on energy, so some interpretation will be required.
- A Massachusetts study was discussed, based on US GBC. Judy Dorsey said that we may be able to get a Colorado study.
- Most studies look at “first cost”.
- Amy Jiron was again mentioned as a valuable contact.
 - Judy Dorsey noted a recent executive order to this effect and asked if the public sector wasn’t already addressed. The reference is “greening of State Government” which came out in the last two months.
 - CCS is looking through recent orders to see what they do.
- It was noted that the studies of costs and benefits will be in \$/sq foot and we will have to translate.
- Tom Easley noted, and the group agreed, that this policy option is meant to apply to local government buildings, as well as state buildings.

RCI-5 (Inverted Block Rates to Fund Energy Efficiency):

- CCS notes that this policy will be difficult to analyze.
 - Architecture 2030 standards are very complicated and not specific.
 - Some states charge more above a certain baseline, which would be simpler to analyze and implement

- Two steps necessary to analyze this option:
 - Identify the energy usage by building type, and tie this to 2030 targets
 - By 2010, this would cover 50% of building energy usage, growing by percents.
 - It will be very difficult to estimate how much revenue would result from this structure to fund energy efficiency, as well as what the direct impact on energy use would be.
- The proposal only targets electricity use, while some of the impact (elasticity) would result from fuel switching.
- Fred Stoffel noted that Xcel is opposed to this proposal and will not assist in its development in any way. Xcel already has two funding sources for energy efficiency already (DSM clause, RE clause) and these will be effecting prices.
- Alice asked for suggested data sources for the distribution of customer type. John Phelan may be a good source for this when he returns from vacation.

RCI-6 (Retrofitting Existing Buildings for Energy Efficiency):

- Alice requested suggestions from the PWG on public sources on the breakdown of these buildings. The following suggestions were offered.
 - KEMA study for Xcel should be used
 - Metro Denver EDC study entitled “Bottom Line Opportunities” (June, 2006). Holli Baumunk was suggested as a contact and her phone number was provided. It may be that only a hard copy is available.

RCI-7 (Pricing and Purchasing):

- Alice noted that CCS has identified smart metering studies on the impact of pricing in terms of energy use, primarily from California, but would like to know if there is a “smart metering study summary” of which anyone in the PWG is aware?
 - Kurt Schlomberg noted a report which may not be published, but he will put us in touch with the researcher (Dr. Ramaswami of CU Denver – Kurt will e-mail contact info to CCS.)
 - This same group has published research papers which may be helpful.
- Fred Stoffel says the timing on this proposal is aggressive (start date in 2009) and to get all of this done on that time scale would be difficult. 100% within four years is not realistic. CA conditions are different from CO in terms of mandates and energy prices.
 - Ezra says feasibility issues will be noted, and price impact issues will come out in the analysis.
 - Alice says the rate structures in California may provide greater means and incentive for consumers to avoid peak use in particular because of consumer notification and high prices during the critical peak. CCS may not be able to adjust for these program details.

RCI-8 (Renewable Energy Systems on New and Existing Buildings):

- CCS has some concerns about how to model this, and there are some ambiguities in the definition.
- Jim Schrack asked: Who is granting these tax incentives?
 - Ezra noted that this question is clearly important in terms of implementation, but that it is not crucial right now for analysis. It is more an allocation of cost issue, whereas the current exercise is just to estimate the total cost.
- Tom Easley suggested that CCS get in touch with PWG member Dan Chiras and ask for help.
- Judy Dorsey said that her understanding was that this policy was to apply to both new and existing buildings, but that the goal as written seems to apply only to existing buildings. It was discussed what an appropriate baseline for energy efficiency for new buildings could be. Local code was suggested.
- The rationale for this combined proposal is that “energy conservation comes first,” hand-in-hand with renewables.
- It will be complicated to forecast penetration rates for this policy.
- Judy Dorsey noted that there are a lot of synergies—that the energy efficiency component represents an eligibility criterion. It would be a step-wise process. However, in the analysis the 20% efficiency would not count as a benefit.
- Alice noted that to some extent, the incentives might just be a giveaway to those who would have already installed the systems. In this case the impact of the policy would be lower.

RCI-9 (Energy Delivery):

- Alice noted that the goal as written is very close to total technical potential identified by a WGA report from 2006. Because the goal is so close to the technical potential, it may make sense to analyze both the goal as written and the option of doing less.
- Other reports were identified that may be useful:
 - Intermountain CHP report,
 - EPA Report: “Emerging approaches: removing unintended utility rate barriers to distributed generation”
- Dave Newport noted that this policy was originally intended to include smart transformers, and that Xcel was to get more information on this. Fred Stoffel responded that these should not be addressed here because there are limited opportunities for customer-side transformers compared to larger utility applications. Dave did not object to not analyzing smart transformers.
- Dave suggested that we add some mention in description of opportunities to hybridize CHP with concentrated solar thermal. Three CSP plants in California are examples of this sort of hybridization. He also noted that some units are powering down due to high cost of gas, but that policies like the proposal could reverse this. Fred noted that some of the units are old and this is why they are

retiring. Dave responded that if the economics were better maybe this wouldn't happen.

RCI-10 (Targeting Small and Medium Enterprises):

- Alice noted that she had attempted to reach contacts at Fort Collins but has not heard back with information on cost (administrative and to participants) and breakdown by activities for the Climate Wise program.
- Benefits include also reduced transportation and waste reduction, which will not be quantified by our group.
- Judy says they are budgeting for an outcomes study, but they do track costs. They also have numbers for CO₂ reductions. They do not track participant costs but they do track cost savings.

Agenda Item #6: Changes to the GHG Inventory and Forecast (I&F)

Recent actions which should be taken into account in the forecast were discussed:

- HB07-1146 (Energy Conservation Building Codes)
- HB07-1169 (Cooperative Electric Association Net Metering)
- SB07-051 (High Performance State Buildings)
- Colorado municipal league has fiscal notes for each bill that discuss cost impacts, and includes summaries of the bills.
- Colorado Environmental Coalition may have reviewed the impacts of these bills.
- SWEEP was also suggested as a source. CCS has contacted Steve Dunn about this. We also have a fact sheet prepared by BCAP (Building Codes Assistance Project.)
- Other bills were noted:
 - On 1169, a good contact might be Environment Colorado (Will Coyne) or John Nielsen
 - SB-051 On high performance state buildings: There is a threshold for high performing. Waivers will be available, which will limit the impact. Dave Newport offered assistance in this area.
 - Executive order on "Greening the Government": Tom E. says that this Executive Order is a comprehensive statement covering many areas. It is important to see what the group says as a whole.
- The question was asked how local initiatives play into the I&F. Are those taken into account? CCS to investigate. Specific plans include:
 - Denver Green Print
 - Ft. Collins has had a target for 2010 (but is not on track to meet it.)
 - "Local Action Plans"
 - Boulder Climate Action Plan
 - Aspen Canary Initiative

Agenda Item #7: Next Meeting for PWG

- Next meeting topic will be reviewing results of the preliminary analysis, and reviewing changes to I&F.
- Time & Date: Will propose 18th and 23rd to the group and see who can make it.

Agenda Item #8: Public Input and Announcements

None.