



**DRAFT MEETING SUMMARY
COLORADO CLIMATE ACTION PANEL**

Meeting #4
Teleconference
May 22, 2007

Attendance:

Climate Action Panel (CAP) Members:

- Dr. Susan Avery
- Mike Bowman
- Dr. Joe Broz (Co-chair)
- Chris Crosby
- Michael Dowling
- Dan Grossman
- Jack Ihle
- Helen Klanderud
- Dr. Chuck Kutscher
- Brian Moeck
- John Nielsen
- Dianna Orf (alternate for Stuart Sanderson)
- Mark Ruzzin
- Stuart Sanderson
- Jennifer Schaufele (alternate for Nancy Sharpe)

Governmental agency liaisons: Heidi VanGenderen (Governors' Climate Change Advisor)

Rocky Mountain Climate Organization: Stephen Saunders, Tom Easley

Center for Climate Strategies: Tom Peterson, Ken Colburn, Ezra Hausman, Alice Napoleon, Katie Bickel, Stephen Roe, Jeff-Ang-Olson, Tiffany Batac, Randy Strait

Public: None

Background Documents: (all posted at www.coloradoclimate.org)

- Notice and Agenda
- CAP Meeting #3 Summary
- Power Point Presentation
- Policy Workgroup Straw Proposal Templates
 - Agriculture, Forestry, and Waste Management
 - Energy Supply
 - Residential, Commercial, and Industrial
 - Transportation and Land Use
 - Cross-Cutting Issues

Discussions and conclusions:

1. Welcome, Introductions, and Review of Agenda

- Stephen Saunders, President of the Rocky Mountain Climate Organization, called the meeting to order and welcomed the panel members and members of the public.
- Tom Peterson reviewed the agenda. The objective of today's meeting is to review the list of priority policies for analysis. He also described next steps in the process and that at the August 1 CAP meeting, the goal will be to review the policy options developed by each PWG. There will also be an RMCO-led group which will be working on adaptation issues (especially water quality/quantity). Outside of water-related issues, the CC PWG will address other adaptation issues. This process will run parallel to the CAP process.

2. Project Schedule

Tom Peterson reviewed the 10-Step work plan and where the CAP process is in this plan (step 5 on reviewing the PWG's draft straw proposals (policy descriptions and design characteristics)). At the next CAP meeting, the CAP will review the rest of the policy template, including estimated benefits and costs. Because the length of the process has been contracted, it will be important for CAP members to be prompt in their reviews of materials prepared by each PWG.

3. Review and Discussion of the Draft Straw Design Proposals for Policy Options

A total of 56 priority options have been identified by the PWGs. A number of options are consolidations of individual options that appeared in the catalogs for each PWG. The CCS facilitator for each PWG then briefly reviewed the description and design characteristics for each policy option, asked for clarifying questions or comments, and then asked if any CAP members objected to further development and analysis of each option. The following provides a brief summary of the discussion on each option.

- **Residential, Commercial & Industrial**

Summary of Comments and Responses to Questions:

- RCI-1: Concern was expressed that the goal of 1% savings per year is weak. There was some discussion of experience in other states, e.g., Utah has a 1% goal, and Efficiency Vermont has achieved 1%. The group was asked for examples of states/programs that have achieved greater than 1% savings, but none were given. CCS said that it could analyze a 2% reduction in energy if, after the initial round of analysis, the group felt that the goal should be set higher.
- RCI-2: It was asked whether schools are included. CCS responded that they would be.
- RCI-3:
 - i. A member noted that HB07-1146 has been signed by the Governor. CCS would look into including this in the forecast.

- ii. A member noted that some jurisdictions are (e.g., Boulder) are already beyond code.
 - iii. A member suggested that the Building Energy Optimization (BEOpt) model could be used to find the neutral cost point for buildings.
- RCI-4:
 - i. A member asked whether the goal would be applied to low income housing; CCS responded that the analysis considered total cost, but not the allocation of cost to different groups. Another member noted that data on affordable housing in the City of Aspen suggests that the cost burden goes down over time, as benefits (reduced energy expenditures) accrue.
 - ii. A member commented that buildings can be certified LEED even if they have a large energy profile. CCS noted that we are specifying an efficiency standard (% better than code) that we feel reflects the intention of the group although it is not exactly LEED.
 - iii. The group discussed changing the goal so that some portion of buildings would be certified to LEED Platinum. The group decided to allocate 30% to LEED Gold and 70% to LEED Silver.
 - iv. It was noted that neither schools nor hospitals fall under city government, but that the policy should apply to these structures.
- RCI-5: A member asked whether this policy includes super-critical peak pricing. CCS clarified that peak pricing is covered in RCI-7. Concern was expressed about cost burdens on low income consumers. It was noted that this policy would require legislation.
- RCI-6: A member asked whether this policy includes only incentives. CCS indicated that it did.
- RCI-7: A member asked who would pay for the cost of the meters? This was left as a policy implementation detail for later.
- RCI-8: No comments
- RCI-9: No comments
- RCI-10: No comments

Objections/Modifications from the CAP:

- RCI-1: Clarified that the goal is relative to a business-as-usual (BAU) forecast: “1%/year reduction in energy use in all sectors relative to *BAU* forecast”
- RCI-2: Clarified that schools are included.
- RCI-3: None
- RCI-4: Separated out LEED certification into 30% gold and 70% silver. Clarified that publicly-owned hospitals are included.
- RCI-5: None
- RCI-6: None
- RCI-7: None
- RCI-8: None
- RCI-9: None

- RCI-10: None
- **Energy Supply:**
Summary of Comments and Responses to Questions:
 - ES-1: No comments
 - ES-2: CCS was asked about cost impacts by sector (residential, commercial, industrial). However, this was not part of the cost analysis. A member asked whether a 30% renewable energy standard (RES) is feasible. Concern was expressed about dispatchability above a 20% RES. A member noted that New Mexico’s wind integration cost analysis could be calibrated to Colorado. It was noted that an ESA study found some renewables have a net cost, and others have a net savings; bundled, they could have a net savings.
 - ES-2a: Jack Ihle agreed to send information for use in the analysis of this option.
 - ES-3: No comments
 - ES-4: An ES PWG member thought that the PWG had agreed to a literature review on carbon taxes and cap and trade policies. This will be provided later in the process. It was noted that a 3 cent/kwh tax would be the highest in the country.
 - ES-5:
 - i. Noting that the City of Aspen’s power supply is over 75% renewable energy, a member asked whether the policy would apply statewide. CCS responded that it would.
 - ii. Another member stated that this policy was skewed towards increasing electricity rates and would be a burden on low income customers.
 - iii. A member noted that public benefit charges traditionally apply to energy efficiency—does ES-5 include efficiency? CCS clarified that the policy applies to renewable energy only, as requested by the ES PWG.
 - ES-6: No comments
 - ES-7: No comments
 - ES-9: It was asked how ES-9 differs from ES-5. CCS clarified that ES-9 focuses on research and development.
 - ES-10: A member suggested that the size of the plant should be flexible; he suggested a range of 200 to 600 MW.
 - ES-11: No comments
 - ES-12: A member noted that high-grade uranium sources are becoming less and less available, and that the use of lower grade uranium would lead to an increase in cost. A member suggested adding language that “life-cycle analysis should be performed” and motioned to strike “Benefits also questionable” from the straw policy proposal. Jack Ihle said he is not aware of any plans by Xcel to develop a nuclear facility.
 - ES-13: No comments
 - ES-14: No comments

- ES-15: A member raised concerns about the existence and availability of technology to make this policy feasible. A question was also raised about how much rates would increase. How would this be analyzed? Swapping natural gas plants for coal could prove very expensive, and a range of gas price forecasts should be considered.

Objections/Modifications from the CAP:

- ES-1: None
 - ES-2: With clarifications, there were no objections or modifications.
 - ES-2a: Added ‘clean coal, new nuclear resources, and carbon offsets, as well as renewable energy’ to eligible list of resources.
 - ES-3: None
 - ES-4: Deleted goal of “\$30/ton tax on CO₂ (this is about 3 cents per kWh on coal)” and replaced it with “Conduct a literature review of carbon taxes and cap and trade policies implemented or under consideration by other states and regions.”
 - ES-5:
 - i. Citing cost considerations, a member raised an objection to this policy for the record.
 - ii. The web address listed on the bottom of the straw policy proposal should be www.cleanenergyfunds.org (not CESA.org).
 - ES-6: None
 - ES-7: None
 - ES-9: None
 - ES-10: Changed goal to 200-600 MW, coverage to one generating plant.
 - ES-11: None
 - ES-12: Remove “Benefits also questionable” and replace with “Analysis of the emissions benefits of nuclear energy should account for full life-cycle costs.”
 - ES-13: None
 - ES-14: None
 - ES-15: An objection was made by Brian Moeck.
- **Transportation & Land Use:**

Summary of Comments and Responses to Questions:

 - TLU-1: No comments.
 - TLU-2: No comments.
 - TLU-3: No comments.
 - TLU-4: No comments.
 - TLU-5: No comments.
 - TLU-6: No comments.
 - TLU-7: No comments.
 - TLU-8a: A comment was made that this option may overlap with other statewide efforts to consider transportation revenue sources, including a possible increase in

the gas tax. CCS noted that this policy option will not discuss potential use of revenue, but just focus on the VMT and GHG impacts of an increase in the gas tax. This information may help inform other statewide efforts to consider gas tax changes.

- TLU-8b: No comments.
- TLU-9: No comments.
- TLU-10: No comments.
- TLU-11: No comments.

Objections/Modifications from the CAP:

- TLU-1: None
- TLU-2: None
- TLU-3: None
- TLU-4: None
- TLU-5: None
- TLU-6: None
- TLU-7: None
- TLU-8a: None
- TLU-8b: None
- TLU-9: None
- TLU-10: None
- TLU-11: None

- **Agriculture, Forestry & Waste Management:**

Summary of Comments and Responses to Questions:

- AFW-1: No Comments.
- AFW-2: No Comments.
- AFW-3: No Comments.
- AFW-4: No Comments.
- AFW-5: No Comments.
- AFW-6: No Comments.
- AFW-7: No Comments.
- AFW-8: Additional consideration was requested by the CAP regarding pest-impacted forests (beetle-kill). The CAP also requested that the PWG consider adopting an urban tree program goal.
- AFW-9: No Comments.
- AFW-10: No Comments.

Objections/Modifications from the CAP:

- AFW-1: No objections/modifications.
- AFW-2: No objections/modifications.
- AFW-3: No objections/modifications.
- AFW-4: No objections/modifications.

- AFW-5: No objections/modifications.
 - AFW-6: No objections/modifications.
 - AFW-7: No objections/modifications.
 - AFW-8: Consider developing approaches to address pest-impacted forests and adopt an urban tree program goal.
 - AFW-9: No objections/modifications.
 - AFW-10: No objections/modifications.
- **Cross-Cutting Issues:**
 Summary of Comments and Responses to Questions:
 - The CAP did not have any comments on the draft descriptions and designs for the nine cross-cutting policy options.
 Objections/Modifications from the CAP:
 - None for the nine cross-cutting policy options.

4. Next Steps PWGs

Tom Peterson covered the next steps that the PWGs will take toward completing develop and quantification of policy options: (1) final revisions to design parameters, including implementation mechanisms, (2) draft quantification analysis of options including, alternatives, and (3) final steps on formulation of cross cutting policy options and mechanisms.

5. Review and Approval of CAP Meeting #3 Summary

The summary for CAP Meeting #3 at NREL was approved.

6. Agenda, Time and Date for Next Meeting

The agenda for the next CAP meeting will be for the CAP to review the initial quantification of draft options and to revise, as needed, PWGs' straw proposals and the inventory and forecast.

CAP members were reminded that the next meeting will be held in late July or early August 2007. RMCO staff will inform the CAP members of the time and location of the next meeting.

7. Public Input and Announcements.

Members of the public were invited to make comments and raise questions, but there were none.

The meeting was adjourned.