

**Colorado  
Climate  
Project**



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**DRAFT MEETING SUMMARY  
ES Policy Working Group (PWG)  
Meeting #3, April 5, 2007**

**Held In-Person at the American Mountaineering Center in Golden, CO**

**PWG Members Attending:**

Joe Broz	John Nielsen
Vicki Card	Dianna Orf
Michael Dowling	Barbara Roberts
Jack Ihle	Richard Smart
Chuck Kutscher	Randy Udall
Tom McKinnon	Kate Zimmerman
Brian Moeck	

**Governmental agency liaisons:** Lori Bird, NREL

**Rocky Mountain Climate Organization:** Tom Easley, Stephen Saunders

**Center for Climate Strategies:** Ezra Hausman

**Members of the public:** Dave Newport, University of Colorado Environmental Center; Sue Radford; Heidi VanGenderen, Wirth Chair office, University of Colorado-Denver; Del Worley, Holy Cross Electric Association

**Agenda Item#1: Introductions, Misc. and Review of Agenda.**

One member reported difficulty accessing documents on the website. If this problem recurs, please contact PWG leader Ezra Hausman for e-mail copies.

Stephen Saunders (RMCO) reviewed discussions with principals from Governor Ritter's staff and cabinet regarding the State's agreement to work in partnership with RMCO on the Colorado Climate Project. Four additional Project Directors will be added: Ken Weil, deputy chief of staff for policy; Jim Martin, director of the health department; Harris Sherman director of the natural resources department; and Tom Plant, director of the energy office. The Governor's Climate Change Coordinator (to be named shortly) will join Stephen in convening meetings of the Climate Action Panel (CAP). Additional CAP members from state departments are likely to be added. The Colorado Climate Project process will be accelerated by about two months, with an October 1, 2007, goal to have CAP recommendations

delivered to and reviewed by the Project Directors. The purpose of the accelerated schedule is to enable Governor Ritter to have a state climate action strategy in place well before the start of the 2008 session of the state legislature.

**Agenda Item#2: Approval of draft summary of Policy Work Group (PWG) Meeting #2.**

1. A member pointed out that a statement from a member at meeting #2 that a carbon tax is not workable may not preclude the PWG from adopting recommendations regarding carbon taxes. (this was not a correction to the meeting summary.) Following was a lengthy discussion about approaches the PWG might consider, including:
  - a) The potential for a PWG recommendation to support actions at the regional or national level.
  - b) The merits and downsides of a carbon tax at state, regional, or national levels:
    - a state tax would require a statewide ballot referendum;
    - the tax could be designed to be revenue neutral, or tax revenues could be used to support alternative energy R&D;
    - tax revenues must be protected from diversion into the general fund.
  - c) The merits and downsides of a cap and trade program established at the state, regional, or national level:
    - a cap would give more certainty for GHG emission reduction levels;
    - a cap would require a thorough reporting and verification framework;
    - a cap does not necessarily incentivize investments in efficiency;
    - a CO-only cap (or tax) may not have much value—regional or national better.
  - d) Support for the 5 Western States regional initiative should be on the table.
  - e) The catalog of individual options may not necessarily lend itself to the most effective, comprehensive approach for CO. What is needed is a concrete set of plans, establishing a viable way to meet goals.
  - f) The cost of energy & impact on power producers must be kept in mind.
  - g) Cultural, as well as economic incentives ought to be on the table, such as community climate neutral goals.
  - h) The American Solar Energy Society’s report, “Tackling Climate Change in the U.S.,” (<http://www.ases.org/>) has a thorough analysis of efficiency and renewables, and might be a basis for analysis here. Chuck Kutscher, editor of the report, gave a brief explanation of the report’s contents and conclusions.
2. The summary of Meeting #2 was approved by the PWG.

**Agenda Item#3: Discussion of Balloting on Policy Option Priorities**

Ezra Hausman described the construction of options for balloting by PWG members, and the balloting process:

- At today’s meeting, PWG members will discuss consolidation or separation of options from the catalog, starting with the straw bundling of options Ezra provided to members in the revised catalog of options.

- The bundled options decided upon by the PWG will form the basis of a ballot, to be emailed to PWG members within a few days (*ballot was distributed by e-mail the evening of 4/5*).
- PWG members will pick their top 10 options (not prioritized) and return their ballots to Ezra via email by April 13.
- The ballot results will be compiled for the next meeting on April 19 and the PWG's top 10 priority options will be identified.
- At the April 19 meeting, the results will be reviewed and fine tuned into a final set of options to be submitted to the CAP for review and approval at their May 3 meeting.
- In addition on April 19, PWG members will form sub-groups to begin to draft a straw proposal for each priority policy option.

**Agenda Item#4: Review and discussion of the Colorado GHG Inventory and Forecast.**  
(moved to #5 slot in meeting)

PWG members were asked for any additional comments on the Inventory and Forecast.  
Responses included:

- At Table A6 (page A-14), the entry for New Non-Renewable Generation Sources (2010-202) appears to be overestimate the contributions of coal (75%) and underestimate natural gas (25%). While specific numbers are unknown, 60% coal and 40% gas may be more appropriate given projects currently under consideration.
- The expanded RPS recently approved by the legislature should be accounted for in the baseline projections.
- A PWG member inquired if the CAP's comments at their February 15 meeting regarding carbon sequestration by forests appearing to be overestimated arising from assumptions that forest cover had increased. Tom Easley responded that the AFW PWG and its CCS facilitators were reviewing the methodology to determine if revisions were appropriate.

**Agenda Item #5: Review and discussion of the ES Catalog of Policy Options, consolidation and reorganization for balloting**  
(moved to #4 slot in meeting)

1. PWG made the following changes to the straw bundles of consolidated options provided by Ezra Hausman:

ES-1B

- Change consolidation title to "Small new hydro & efficiency improvements at existing hydro" from "Small Hydro."
- Add a new option, #1.17, named "Efficiency Improvements for Existing Hydro," and include in ES-1B
- Add GHG reduction potential and cost ratings to #1.12 and #1.13 (Medium reduction and Low cost for both).

ES- 1C

- Change consolidation title to “Waste Methane to Energy (landfills, wastewater, coal mines)” from “Waste to Energy.”
- Strike constituent option 1.10 “Waste to Energy” and add option 8.4 “Methane Recovery from coal mines.”

ES-1D

- Consolidation unchanged
- For option 1.2 “Greenpower renewable resources purchase programs,” strike the notes “Should distinguish between cellulosic versus corn-based ethanol (carbon replacement efficiency”, and “Could look to California for how to implement this distinction,” because they are not relevant.

ES-1E

- Change consolidation title to “Public Benefit Charge Funds” from “Renewable Energy Funding.”
- Strike option 1.5 “Renewable Energy production Incentives (biomass, wind, solar, geothermal, small hydro).”

ES-1F

- Change consolidation title to “Renewable Energy Incentives including Waste to Energy” from “Renewable Energy R&D.”
- Strike option 1.8 “Research and Development (R&D).”
- Add option 1.5 “Renewable Energy production Incentives (biomass, wind, solar, geothermal, small hydro).”
- Add option 1.10 “Waste to Energy.”

ES-2A

- Change consolidation title to “Incentives for CHP, DG, Smart Grid” from “Incentives for CHP, DG.”
- Add option 2.8 “SmartGrid.”

ES-2C

- Change consolidation title to “R&D for DG & Renewables, Advanced Fossil Fuel” from “DG R&D.” This will become a more general R&D category.
- Add option 1.8 “Research and Development (R&D).”
- Add option 3.3 “Fuel Cell Development Incentives.”
- Add option 3.5 “Research and Development (R&D).”

ES-2D

- Combine with bundle ES-2A.

## ES-3A

- Change consolidation title to “Promote advanced fossil fuel generation with carbon capture, including IGCC” from “Promote IGCC.” (*rationale: PWG members noted that carbon capture technology for supercritical coal, for example, is not far behind that for IGCC and the efficiency of the plants are comparable, while the cost of IGCC may be greater.*)
- For option 3.7, strike note “PWG Members mixed on ex ante prudence determinations for IGCC” and replace with “PUC should permit prudent cost recovery associated with IGCC.”

## ES-3C

- Combine with bundle ES-2C

## ES-5B

- PWG members considered combining bundles ES-5B “Transmission Improvements” and ES-1H “Transmission Infrastructure for Renewables,” but determined they are not sufficiently similar in intent. (ES-1H is about removing transmission bottle necks specifically to allow energy delivery from renewable energy resources, while ES-5B is about other types of system upgrades that improve overall system efficiency and reduce losses.)

## ES-5C

- For option 5.4, change note from “Includes compressed air, pumped water and new technologies” to “Includes compressed air, pumped water, thermal storage, aggregated hydro optimization, and new technologies.”

## ES-5D

- PWG members discussed removing this bundle since the demand side of Pricing and Rates is covered by the RCI PWG, but retained it since ES-5D is about the supply side implementation of Pricing and Rates.

## ES-6A

- Under Option 6.1, replace “CO2 taxes may be ineffective at a state level” with “Statewide ballot initiative would be required if it is a tax.”
- Add a new note intended to apply to both option 6.1 “CO2 Tax” and option 6.2 “GHG Cap and Trade,” with note to read “Either of these can include support for regional or Federal action.”

## ES-6D

- PWG members discussed combining bundles ES-6D “Standards for New Power Plants” and ES-6E “Standards for Existing Power Plants,” but decided to keep them separate.

## ES-7B

- PWG members agreed public education is a priority, but wondered if it might be covered by the Cross Cutting Issues PWG. In the end it was decided to leave it as an option for balloting.
- Add a note to option 7.3 “Public Education” to read “Need strong public education program, especially if policies will increase electricity costs.”

## ES-7C

- PWG members discussed whether the topic Structural and Social Change belonged with RCI, but decided to retain this as an option for balloting.

## ES-8A

- Add new notes at option 8.1 “Methane and CO<sub>2</sub> reduction in oil & gas operations, including fuel use and emissions reduction in venting and flaring,” with notes to read “Could be modeled after EPA voluntary ‘Natural Gas Star’ Program.” And, “May include emissions from stationary equipment such as drilling rigs.”
- Add new notes at option 8.3 “CO<sub>2</sub> capture and storage or reuse (CCSR) in Oil & Gas operations, including refineries and coal-to-liquids operations,” with notes to read “No proven sequestration opportunities on West Slope.” And, “R&D would be required; in infancy stages in Colorado.”
- PWG members noted that natural gas-fueled electricity production can be compatible with integration of renewable sources into systems because of the flexibility of gas in powering up or down.

## ES-8B

- At option 8.2 “GHG reduction in refinery operations, including in future coal-to-liquids refineries,” strike note that read “water issues a hurdle to coal to liquid applications.”

2. Jack Ihle asked to present information about Xcel’s proposal under development named Clean Energy Portfolio Standard (CEPS). Jack referred to it as “RPS on steroids.” Key points included:

- The proposal is meant to be an alternative to either a carbon tax or cap and trade. It is technology-based, with investor-owned utilities given the discretion to meet standards (e.g., 20% of energy portfolio from renewables and efficiency) from a mix of renewables, advanced coal, nuclear energy, conservation and DSM, and carbon offsets.
- Energy Information Administration (EIA) analyses indicate it would beat the Bingaman legislative program in CO<sub>2</sub> emission reductions and retail electric and natural gas prices.
- CEPS advantages over “blunt instruments” like cap and trade are that it avoids the allowance allocation struggle, there is more certainty in technology development, and technology-based programs can achieve cost-effective carbon emission reductions.

- Some PWG members expressed skepticism over Xcel's analysis that a specific implementation program could be less costly than a flexible program such as cap & trade, which could theoretically be implemented in this or many other ways. It was speculated that this may be a deficiency in the modeling, or that PUCs may not necessarily favor or allow the most efficient approaches under a cap & trade system.

**Agenda Item #6: Next Steps**

- The bundled options decided upon by the PWG will form the basis of a ballot, to be emailed to PWG members within a few days.
- PWG members will pick their top 10 options (not in priority order) and return their ballots to Ezra via email by April 13.
- The ballot results will be compiled for the next meeting on April 19.
- At the April 19 meeting, the results will be reviewed and subgroups will be formed to draft straw proposals for each priority option. The final set of priority options (with preliminary straw proposals) will be submitted to the CAP for review, modification, and approval at their May 3 meeting.
- The ES PWG will meet in person on May 4 to consider the decisions made by the CAP on May 3 and to continue developing straw proposals for the priority options as approved by the CAP.

**Agenda Item#6: Agenda, Time and Date for Next Meeting.**

Next meeting will be via conference call April 19, 10 am-noon Mountain Time.

**Agenda Item#7: Public Input and Announcements.**

Sue Radford, a Larimer County resident and former candidate for the legislature, presented information on a Colorado carbon tax proposal she has been working on in cooperation with the new Carbon Tax Center. Key features include:

- The carbon tax would be charged at the consumer level, and would increase by \$10 per ton per year from 2009 to 2030.
- To make it revenue neutral, the substantial returns from a carbon tax would be used to replace at least the state sales tax, the business property tax, and TABOR refunds.
- It is designed to be a price signal that creates winners and losers in energy supply and use, with a goal of making renewable energy investments more profitable.

Some PWG members commented that it is the type of bold proposal that ought to be considered to achieve aggressive reductions in GHG emissions. A PWG member asked that Sue be allowed to make the proposal available to the group. She agreed to email it to Tom Easley for distribution to the group.