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DRAFT MEETING SUMMARY

Montana Climate Change Advisory Committee

**Meeting #3
Billings, Montana
December 14, 2006**

Attendance:

Climate Change Advisory Committee (CCAC) Members:

Peggy Beltrone, Robert Boettcher, Sue Dickenson, Mary Fitzpatrick, Gloria Flora, Tim Gregori, Mark Lambrecht, Steve Loken, Charles McGraw, Shane Morgensen, Richard Oppen, Gary Perry, Trudi Peterson, Bob Raney, and David Ryan

Montana Department of Environmental Quality (DEQ):

Richard Oppen, Lisa Peterson, Jeff Blend, Bob Habeck, Don Vidrine, Lynda Saul, and Jim Boyer

Science Advisory Panel Members (SAP):

Susan Capalbo, Ted Dodge, David McGinnis, and Steve Running

Members of the Public:

Mirk Stark (Billings Gazette), Bob Green (Rio Tinto Energy America), Richard Janoso (PPLPA), Ross Dory (Green Electricity Buying Coop), Ron Fenex (NoPi), Paul Beck (Self-MHI Home Inspection), Dave Kelsey (SME), Jay Waverly, and Amy Solomon (Bullitt Foundation)

Center for Climate Strategies (CCS):

Tom Peterson, Katie Bickel, Alison Bailie, and Lewison Lem

Background documents:

(Posted at www.mtclimatechange.us)

- Notice and Agenda
- Draft Summary of CCAC Meeting #2
- CCS, PowerPoint Presentation

- CCS PowerPoint Presentation (printer-friendly, 2 pages per slide)
- CCS Memo to CCAC on Preparation for 3rd Meeting
- Recommended Priorities for Analysis
 - Agriculture, Forestry, and Waste Management
 - Energy Supply
 - Residential, Commercial, Industrial
 - Transportation and Land Use
 - Cross-Cutting Issues

Discussion and Conclusions:

1. Welcome and Introductions

Montana DEQ Director Richard Opper opened the CCAC's third meeting, welcomed participants, and led off with introductions around the room. Director Opper noted the following:

- There is a need for federal action on climate change.
- States and cities are leading the world.
- It is very encouraging to see what was happening.
- Have to make sure federal actions support and reinforce state actions.
- Montana is now in the spotlight, and there are many people watching this process.

2. Review of Meeting Agenda

Tom Peterson from CCS reviewed the agenda for the day.

- The goal of the meeting is to reach early priority options and leave the room with a full range of priorities for analysis. The list developed today identifies those to be studied further, and then to move forward with development of straw proposals. The list of priorities would give guidance to CCS staff and TWG members for moving forward.
- The CCAC committee is the decisional body, while the TWGs are advisory. For the measures to pass, a supermajority of 12 members of the CCAC is required, so measures would not pass if 6 or more CCAC members raise objections.
- Tom Peterson asked if there were any corrections or changes to the posted Summary for CCAC Meeting #2. Mark Lambrecht's name has to be added to the meeting summary, and the meeting summary was approved without objection.

3. Related Activities within Montana and other States

Tom Peterson described recent policy actions in other states and asked if other members of the group would like to highlight other climate related activities going on.

- In New Mexico, the process of development of the State Climate Action Plan was completed in October, and the Final Report was made available to the public in December.
- In Minnesota, the Governor recently announced that he would be initiating a state climate plan process, and has invited the CCS team to work with Minnesota stakeholders through a similar process.
- Within the western region, the Western Regional Air Partnership (WRAP) organization had asked CCS to prepare Inventories and Forecasts of greenhouse gas emissions for more than eight states, including:
 - Alaska
 - Colorado
 - Idaho
 - Nevada
 - South Dakota
 - Utah
 - Washington
 - Wyoming
- Mark Lambrecht described a number of bills related to climate change issues that have been introduced in the Montana state legislature. Steve Loken noted that some NGOs have been putting together their own independent white paper. Mary Fitzpatrick reported that the City of Billings is conducting an energy conservation study. Ted Dodge stated that he expects that carbon credits will be marketed within the state of Montana. Tim Gregori noted that under the clean renewable bond program, Montana did well, with counties receiving grants related to wind power. Susan Capalbo noted how under the big sky carbon sequestration partnership program; there was a proposal to be submitted for a million ton injection. Sue Dickenson described her attendance at the National Conference of State Legislators, and her finding that there was a critical mass of interest within the country among legislators to move forward on the issue. Amy Solomon mentioned an effort headed by the Mayor of Seattle to sign up cities to be part of a climate change effort and that Billings and Bozeman had already signed on. Chuck McGraw said that 333 cities had joined.
- Steve Loken asked Tom Peterson if CCS had noted if there had been an upswing in coal fired power plants. Tom replied that while CCS didn't track it there was some anecdotal evidence of that in some states. Allison Bailie said that there had been an increase. Tom estimated 850 new plants under a "business as usual" scenario.
- Ken Colburn (via telephone) mentioned the Stern Report, a British report on the costs of action vs. no action. Tom asked if the committee would like a link to that on the website and they agreed.

4. Review and Approval of Draft Priorities for Analysis Mitigation Actions

Tom summarized the process to date. There were 251 items in the initial catalogue of potential actions. Some additional actions were added to bring the potential to over 350 options. The process to date was to discuss the range of options and then narrow down the priorities for

further analyses. From the technical working group process, a total of 50 options are recommended to the CCAC for consideration:

- 11 options from the RCI sector
- 13 options from the ES sector
- 10 options from the TLU sector
- 10 options from the AFW sector
- 6 options from the CC issues.

Tom described the process for the meeting, which is to go through each recommended option and ask for clarifying questions. Questions and objections to any of the measures would be considered in turn.

Residential Commercial and Industrial (RCI) Sector

Alison Bailie and David Von Hippel (by phone) presented the RCI recommended options for further analysis. Alison described the RCI TWG process – RCI started with over 50 options, the TWG supported a suggestion to consolidate some options since there was much overlap with some options being implementation approaches for other options, the CCS facilitators provided a consolidation proposal that resulted in 25 options, and the consolidated list was accepted by the TWG members, who then voted on these options and ended up with 11 options as suggested priorities for further analysis. Some of the options that did not make the first “cut” were consolidated into the options that are listed here.

Alison and David provided thumbnail sketches of the following options:

RCI-1 (old A.1)	Demand Side Management Programs, Efficiency Funds and Requirements
RCI-2 (old A.2)	Market Transformation and Technology Development Programs
RCI-3 (old B.1)	State Level Appliance Efficiency Standards and State Support for Improved Federal Standards
RCI-4 (old C.1)	Building Energy Codes
RCI-5 (old C.2)	“Beyond Code” Building Design Incentives and Mandatory Programs
RCI-6 (old D.1)	Consumer Education Programs
RCI-7 (old F.1)	Support for Implementation of Clean Combined Heat and Power
RCI-8 (old F.2)	Support for Renewable Energy Applications
RCI-9 (old G.5)	Carbon Tax
RCI-10 (old H.1)	Industrial Energy Audits and Recommended Measure Implementation
RCI-11 (old H.2)	Low income energy efficiency programs

Alison briefly described a few items that had TWG interest but were not included in the top 11 options:

- Building commissioning – running existing buildings more efficiently
- Alternative bldg designs – option was consolidated into RCI-5
- Urban town/subdivision design – excluded due to overlap with TLU, more GHG reductions were likely from transportation energy reduction than buildings

The discussion of the proposed priorities ensued:

- RCI 1 – Tim Gregori commented that metering technology is an important option. Several CCAC members were very interested in smart metering as an opportunity to connect with consumers and suggested that this be included as a new option. Some members felt that this could be included in RCI-1; Bailie pointed out that it was significantly different from other energy efficiency programs and saw benefits in analyzing separately, but could be combined later in process.
- RCI 2 – There were no questions
- RCI 3 – Steve Loken raised concerns that MT standards would be difficult to enforce due to the small markets. Several members felt this option should be lower priority.
- RCI 4 – Richard Opper asked if this would only apply to new buildings or would existing also be covered. Alison said that could be considered during the next stage of the CCAC process – developing designs for each option. David Von Hippel said that typically building codes cover anything you need a building permit for. Steve Loken felt that it was crucial that existing housing stock be part of the issue.
- RCI 5 – There were no questions
- RCI 6 – A CCAC member noted that the word “conserve” is not on the list. David Von Hippel noted that potential for supporting “conservation” through education is very high. David McGinnis asked whether labeling food by with its country of origin labeling would fit under this option. Response was that it was more likely to be included in agriculture or crosscutting issues.
- RCI 7 – Steve asked what are other states were doing with regard to incentives. Alison and David noted net metering. Dave Ryan noted that net metering law was limited to 50 KW.
- RCI 8 – Bob Raney asked: Who will support the renewables? Alison noted this could be done through financial means, grants for R&D, and tax credits/incentives.
- RCI 9 – Tom noted that the carbon tax can impact reductions in two ways: They can be set high enough so that it becomes an incentive to conserve and recycled revenue can be reinvested in programs. Mary F. asked whether the taxes could be dedicated to some programs, e.g. go into a fund to help improve home energy efficiency. Alison responded this would come out in the option design. Tim said, “we need something,” but was concerned that the carbon tax would be a regressive system because those who can least afford would end up paying (live in inefficient home) and opportunities to reduce impacts may not be equitable. Tom noted that there was an interesting analysis from PA State showing that carbon tax would be a progressive tax because high-energy consumption is associated with people at higher incomes.
- RCI 10 – There were no questions.

- RCI 11 – There were no questions.

Two additional options were added by the CCAC:

- RCI 12 – Tim suggested consideration of real-time metering.
- RCI 13 – State lead by example programs.

The question came up on potential naming issue relating to RCI. The question was whether or not to include government, and if the ‘I’ stood for institutional or industrial. The suggestion was adopted to include “institutional” in the name.

Tom facilitated the voting process with the following results:

- RCI 1—passed, with no objections
- RCI 2 – passed, with no objections
- RCI 3 – passed, with 4 objections
- RCI 4 – passed, with no objections
- RCI 5 – passed, with no objections
- RCI 6 – passed, with no objections
- RCI 7 – passed, with no objections
- RCI 8 – passed, with no objections
- RCI 9 – passed, with 1 objection
- RCI 10 – passed, with no objections
- RCI 11 – passed, with no objections
- RCI 12 – passed, with no objections
- RCI 13 – passed, with no objections

Energy Supply (ES) Sector

Alison and David then summarized the Energy Supply Options:

ES-1 (old 1.1)	Environmental portfolio standard (renewables and energy efficiency)
ES-2 (old 1.5)	Renewable energy incentives (biomass, wind, solar, geothermal)
ES-3 (old 1.8, 1.11, 3.5)	Research and development (R&D), including R&D for energy storage and advanced fossil fuel technologies
ES-4 (old 2.1, 2.4)	Incentives and barrier removal (including interconnection rules and net metering arrangements) for combined heat and power (CHP) and clean distributed generation (DG)
ES-5 (old 3.1, 3.4)	Incentives for advanced fossil fuel generation (IGCC and/or fuel cells) and carbon capture and storage (CCS), including combined hydrogen and electricity production with carbon sequestration
ES-6 (old 5.1)	Efficiency improvements and repowering of existing plants

ES-7 (old 5.4)	Demand-side management (RCI TWG will take lead for analysis, with ES TWG providing review)
ES-8 (old 6.1)	CO ₂ tax (to be considered jointly with RCI TWG)
ES-9 (old 6.2)	GHG cap and trade
ES-10 (old 6.3)	Generation performance standards or GHG mitigation requirements for new (and/or existing) power plants, with/without GHG offsets
ES-11 (old 8.1, 8.2, 8.4)	Methane and CO ₂ reduction in oil & gas operations, including fuel use and emissions reduction in venting and flaring

CCAC members discussed the proposed options. Tom facilitated the voting process with the following results:

- ES 1—passed, with no objections
- ES 2 – passed, with no objections
- ES 3—passed, with no objections
- ES 4 – passed, with no objections
- ES 5—passed, with no objections. CCAC decided to remove to parenthetical phrase in title. Discussed combining ES5 and ES13, but decide to keep as is for now
- ES 6—passed, with no objections
- ES 7—passed, with no objections
- ES 8—passed, with 2 objections
- ES 9—passed, with no objections
- ES10—passed, with no objections. CCAC decided to change “power plants” to “generation facility” in long title
- ES 11—passed, with no objections
- ES 12—passed, with no objections
- ES 13—passed, with no objections

Transportation and Land Use (TLU) Sector

Lewison Lem presented the set of Policy Priorities for further analysis that was recommended by the TWG based upon the balloting of TWG members. CCAC members asked questions and made suggestions about changes and additions to the list of TLU policy priorities.

- TLU 1 – Light Duty Vehicle GHG Emissions Standards. No objections were raised.
- TLU 2 – CO₂ vehicle usage fees. Suggestion was made to broaden the category to include more different types of financial instruments, which could include a CO₂ tax.
- TLU 3 – Urban Infill and Brownfield Redevelopment
- TLU 4 – Transit Oriented Development
- TLU 5 – Smart Growth Planning and Tools
- TLU 6 – Bicycle and Pedestrian Infrastructure

- TLU 7 – Expand Transit Infrastructure and Service. Suggestion was made to bundle TLU 3-7 into one policy. In other states the bundle was referred to as “Smart Growth Bundle,” but the suggestion was made to refer to the bundle in Montana as the “Growth and Development” bundle.
- TLU 8 – Low GHG Fuel Standard. No objections were raised.
- TLU 9a – Biofuel Expansion: Ethanol blends for Light Duty Vehicles. No objections were raised. One CCAC member noted that the emphasis should be on locally owned businesses producing Montana fuels, and reducing carbon impact of fuel production.
- TLU 9b – Biofuel Expansion: Biodiesel blends for Heavy Duty Vehicles. No objections were raised.
- TLU 10 – Alternative Fuel Infrastructure Development. No objections were raised.

Further discussion and suggestions for additional transportation and land use policies ensued. There was high interest in anti-idling programs for vehicles, procurement of efficient vehicle fleets, and low rolling resistant tires. Lewison noted that each of these policies received at least one vote but were not among the highest vote getters.

- Gloria asked whether reduction in vehicle back hauling could be considered as an additional policy for consideration.
- Sue asked about pay at the pump insurance. Lewison noted that it was in the catalog as pay as you drive insurance but only received one vote.
- David asked whether there had been consideration of lawn mowers and other vehicles like snowmobiles. Lewison noted that the emissions from mowers is likely low, but that a category of ‘off-road’ vehicles could be considered.
- Several CCAC members expressed support for truck docking, where trucks can plug into electrical power rather than idling their engines when at truck stops. Lewison stated that this would be included in the anti-idling option.
- Gloria suggested that we consider recommending devices in vehicles that report MPG as vehicles are being operated. Lewison suggested that as a consumer information action, it could be blended in another policy that provided consumer information about vehicle mileage.
- Transportation system management was suggested, and Lewison indicated that the option received some votes and so could be considered further.
- One member asked about driver’s education on energy efficiency. Lewison indicated that this option was on catalog list initially but did not receive sufficient votes from the TWG members to make it a high priority.
- One member asked about electric vehicles, and the potential for state tax credits. Lewison indicated that this could be included as part of TLU 1 and TLU 2.
- One member asked about conversion of traffic lights to LED technology, and the group agreed that this should be included among the RCI options.
- One member asked about enforcing speed limits. Lewison indicated that this could be considered under Transportation System Management.

- Gary Perry asked about aerodynamics for heavy-duty vehicles. Lewison indicated that this would be good to consider.
- Gary Perry also suggested that aircraft emissions could be considered, and asked what the State of Montana could do. It was suggested that this group could remember some federal action.

Following discussion of these suggestions, the CCAC voted on the additional proposals for policy priorities for further analysis for the transportation and land use sectors. The results of the voting were the following:

- TLU – 11: Anti-Idling and Truck Docking, passed with no objections.
- TLU – 12: Procurement of Efficient Fleet Vehicles, passed with no objections.
- TLU – 13: Low Rolling Resistance Fuel Efficient Tires, passed with no objections.
- TLU – 14: Pay as you Drive Insurance, 9 votes in objection, so the policy measure does not advance.
- TLU – 15: Transportation System Management, passed with no objections.
- TLU – 16: Reduced Emissions from Vehicle Backhauling, passed with no objections.
- TLU – 17: MPG devices for the car, passed with no objections. Proposed to be bundled with other consumer information measures.
- TLU – 18: Off-Road Engines and Vehicles, passed with no objections.
- TLU – 19: Aircraft Emissions statement, passed with no objections.
- TLU – 20: Fuel Taxes for GHG emission reduction, passed with no objections. Proposed to be bundled with TLU–2.
- TLU – 21: Driver Education, passed with no objections. Proposed to be bundled with other consumer information.
- TLU – 22: Vehicle Technology for Heavy Duty Vehicles, passed with no objections.

Agriculture, Forestry, and Waste (AFW) Sector

Katie Bickel reported that the AFT TWG started initially with 68 AFW options and through the voting process has recommended 10 priority options, which encompass 28 of the original options (due to consolidation). The 10 priority options are split roughly equally between agriculture and forestry options. The TWG felt opportunities for the waste sector were relatively smaller due to the rural and dispersed populations in MT and low levels of waste production.

Katie Bickel presented the ten Policy Priorities for further analysis below and CCAC members asked questions and made suggestions about changes and additions to the list of AFW policy priorities.

In addition, Katie Bickel and Tom Peterson reviewed options that were given a medium level of priority for analysis, including: Promote locally grown food, Municipal solid waste management, Agricultural land use management (converting ag land to grassland or forests), Urban forests, and Organic farming.

One CCAC member raised concerns over AFW-4 because of economic impacts on rural communities experienced as a result of the CRP program. AFW-4 was clarified as seeking to maintain the soil carbon benefits established under the CRP program on lands that are scheduled to come out of CRP enrollment; the option is not literally an expansion of the program. The option title may be revised to reflect this clarification.

The potential for overlap among some options was discussed, in particular AFW-6 and AFW-7. Katie Bickel noted that there are potential partial overlaps that will be accounted for in the analysis.

One CCAC member recommended expanding AFW-7 to include all types of biomass feedstocks, forest and agriculture.

The final conclusions of the CCAC on AFW options were as follows. No objections were raised to any of the 10 options. AFW-7 was modified to include all biomass feedstocks (ag, forestry, others) and 2 options were elevated to priority for analysis: promotion of local grown products and organic farming. The CCAC requested that state lead by example programs on state lands, including forests and grazing lands be incorporated into the policy options (either as a new option or as part of the implementation mechanisms). Finally, the CCAC requested the TWG further review and consider waste management and recycling as a priority option.

- AFW-1 Agricultural Soil Carbon Management Programs, passed with no objections.
- AFW-2 Biodiesel production, passed with no objections .
- AFW-3 Ethanol Production, passed with no objections.
- AFW-4: Maintenance of Conservation Reserve Program (and other Farm Bill programs), passed with no objections.
- AFW-5: Preserve Open Space & Working Land, passed with no objections.
- AFW-6: Forest Health Programs for Carbon Management, passed with no objections.
- AFW-7: Expanded use of [forest & AG] biomass feedstocks for energy use, passed with no objections.
- AFW-8: Afforestation and reforestation programs, passed with no objections.
- AFW-9: Improved Management and Restoration of Existing Stands, passed with no objections.
- AFW-10: Expanded use of wood products for building materials, passed with no objections.

Cross Cutting (CC) Issues

Ken Colburn presented the set of six priority policy options from the CC TWG. The CC TWG had considered a seventh (CC-5, Adaptation) but declined to recommend it to the CCAC as a priority policy option due to the fact that the Governor's mandate for the CCAC effort focuses on mitigation rather than adaptation. CCAC members asked a few clarifying questions and then approved the list of the remaining six priority policy options put forward by the CC TWG.

- CC-1: GHG Inventories and Forecasting, No discussion and passed no objections.
- CC-2: GHG Reporting, No discussion and passed no objections.
- CC-3: GHG Registry, No discussion and passed no objections.
- CC-4: Public Education and Outreach. The CCAC noted the importance of including in this option various consumer education and consumer awareness programs raised in other TWGs. Passed no objections.
- CC-6: GHG Reduction Goals and Targets. Colburn noted that the TWG's straw proposal for this option would await at least initial quantification of options from the other TWGs. Passed no objections.
- CC-7: State GHG Emissions. Some CCAC members raised the idea that the CCAC should consider joining Chicago Climate Exchange (CCX). This issue will be included in the CC TWG's deliberations. Passed no objections.

5. Review of Issues related to the Inventory and Reference Case Forecast.

Residential, Commercial, and Industrial (RCI)

Alison Bailie reported that for RCI there were not a lot of changes, some updates and corrections to emissions from industrial processes.

Energy Supply

Alison Bailie noted greater uncertainty in projections for this sector, data request sent to utilities for additional information, so far no responses, For reference case, DEQ and CCS discussed having two scenarios, reference case and high fossil fuel production case. The high fossil fuel production case will include new transmission lines from Montana to Alberta, BC, and Las Vegas, and greater coal bed methane production. (Two views of production). Incorporation of new fossil fuel emissions could significantly increase overall emissions in the high fossil fuel case compared with the reference case.

Transportation and Land Use (TLU)

Lewis Lem indicated that the only discussion issue related to the inventory and forecast for the transportation and land use issues is related to the forecast of vehicle miles of travel (vmt). The TWG has considered the reference case forecast for vmt growth, and the Montana DEQ and MDT have looked at the issue. MDT has recommended a revision to the vmt forecast that is included in the draft Inventory and Forecast, and the issue would be discussed at the next TLU TWG meeting. The recommendation from the TWG on the way to proceed with this issue will be brought forward at the next CCAC meeting.

Agriculture, Forestry, and Waste (AFW)

Katie Bickel reviewed the AFW inventory developments. There are not recommendations for revising the agriculture estimates. CCS has filled in a gap by adding estimates for agricultural soil carbon.

In response to a question raised earlier in the meeting, Katie Bickel spent some time reviewing the forest methodology. She noted that CCS has added background documents about how measurements were made to the AFW TWG website. She also explained that the CCS estimates are derived from the official national GHG forest carbon inventory prepared by the US EPA for the UNFCCC following IPCC Guidelines. The US estimates are constructed at the state-level and are based on field sampling of forest growth under the Forest Inventory Analysis program (FIA). FIA uses on the ground field sampling of tree diameters to estimate yield volume, which are converted to forest carbon stocks estimates using biometric equations based on field research. The field measurements are developed at 'stand' level and scaled up to state level using GIS and remote sensing data on land cover. Forest carbon stock data from two points in time are used to calculate the average annual change in carbon stocks, or carbon sequestration. USFS estimates show carbon stocks in MT increasing over time. FIA program is evolving and some changes have occurred in the field sampling protocols over time, for example, Forest service has intensified coverage of lands, and intensified counting of lands, and asked for assistance from USFS for trend-line analysis of state of Montana.

A member of the Science Steering Committee, Steve Running, expressed concerns about the characterization of forest carbon sequestration relative to state total GHG emissions in Montana. Steve explained that he does not have an issue with the USFS methodology. His own estimates have yielded similar results; however, he expressed strong concern about the characterization of the forest sink in the inventory text.

Richard Opper requested CCS organize a conference call with Steve Running to further discuss the issues. CCS will organize a meeting. Katie Bickel requested an email from Steve Running outlining specific concerns, in preparation for the conference call.

Katie Bickel reviewed the waste inventory developments, reporting there are no recommendations for revisions at this point.

6. Public Input

There were no comments from the public.

7. Scheduling of Next Meeting of CCAC

CCAC members were reminded that the next meeting would be held on March 1, 2006 in Helena. Subsequent meetings are scheduled for April 26th and June 14th. The plan is expected to be completed toward the end of July 2007, and will be submitted to Secretary Opper. The meeting was adjourned.