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DRAFT MEETING SUMMARY
Montana Climate Change Advisory Committee
Meeting #5
Helena, Montana
May 11, 2007

Attendees:

• Climate Change Advisory Committee (CCAC) Members:

Robert Boettcher, Sue Dickenson, Mary Fitzpatrick, Gloria Flora, Tim Gregori, Mark Lambrecht, Steve Loken, Charles McGraw, Shane Morgensen, Richard Opper, Gary Perry, Trudi Peterson, David Ryan

• Montana Department of Environmental Quality (DEQ):

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

• Science Advisory Panel Members (SAP):

Susan Capalbo, Ted Dodge, David McGinnis, Steve Running

• Members of the Public: Pat Judge

• Center for Climate Strategies (CCS):

Tom Peterson, Ken Colburn, Michael Lazarus, Katie Bickel (by telephone), Alison Bailie (by telephone), David Von Hippel (by telephone), Steve Roe (by telephone), Lewison Lem (by telephone)

Background documents:

(all posted at www.mtclimatechange.us unless noted otherwise)

- Notice and Agenda
- Draft Summary of CCAC Meeting #4 – (Summary unavailable)
- CCS Powerpoint Presentation
- CCS Memo to CCAC on Preparation for 4th Meeting
- Recommended Priorities for Analysis by TWG
 - Agriculture, Forestry, and Waste Mgmt
 - Energy Supply
 - Residential, Commercial, Institutional, and Industrial
 - Transportation and Land Use
 - Cross-Cutting Issues (including Annex Matrices)

Discussion and Conclusions:

1. Welcome and Introductions; Review of Agenda

Tom Peterson opened the meeting at approximately 9:30 AM, despite technological glitches on the projection equipment and dial-in numbers.

Richard Opper welcomed the CCAC briefly but had to leave to be at the special session of the Legislature. Attendees did self-introductions going around the room. Peterson reviewed the day's agenda, and then covered several recent climate developments in Montana, nationally (e.g., the launch of the Climate Registry), and internationally (e.g., the IPCC Working Group III report release on May 4).

Discussion about the voting/approval process proceeded, with Tom explaining the initial run through by TWG leaders, clarifying questions, and then votes.

2. Review and Approval of Policy Options

Residential Commercial Industrial and Institutional (RCII) Sector

Mike Lazarus and David Von Hippel reviewed the RCII policy options, quickly reviewing the RCII options. Clarifying questions or comments followed

RCII-1 – Some EU countries limit individual consumer electricity demand and even shut off power, requiring the consumer to reset his/her meter and also pay a higher rate. This would be another good program to explore under this option. Add a “demand limitation matrix for residential consumers,” tied to the use of demand-based tariffs; should add under metering option as well.

Strike the reference to “average MW”, as it doesn't apply in a straightforward manner to the situation of eastern MT utilities.

RCII-3 – Question arose about MT's small market size; can such standards work? Yes, because the products already exist, so their use can be required. It would be different if they were technology-forcing standards, but they're not. Boyer: Would be nice to implement appliance and equipment standards on a regional electric coordinating council basis. It was noted that at this point coordinating councils lack enforcement mechanisms/opportunities for such standards. The benefits of having Idaho and Wyoming cooperate with MT on higher appliance and equipment standards was noted. A CCAC member asked for a list of some of the appliances and equipment that might be covered under RCII-3; a list was supplied by Michael Lazarus later in the meeting.

RCII-4 – A question was asked and answered about climate neutral bonding, where included. .

RCII-5 – A correction to a footnote citing legislative activities was offered.

- RCII-6 – It was suggested should think about adding an incentive or voucher for consumers to undertake consumer education and behavior (analogous to safe driver discounts). Increasing involvement of colleges, universities, and extension services was discussed; add them to the “involved parties” listed. Encouraging the use of motion sensors was also cited in the context of the outdoor lighting elements of the option.
- RCII-7 – More detailed discussion will be held in ES section.
- RCII-8 – More detailed discussion will be held in ES section.
- RCII-9 – More detailed discussion will be held in ES section.
- RCII-10 – Question about source of 80% load factor, over what period (annual? monthly?). At least one member felt this may be too high . Others suggested that 60% might be too low. Michael Lazarus suggested removing the load factor specification from the policy recommendation, using it only as an assumption for the purposes of quantification. It was also suggested to seek better clarification of industrial vs. commercial as well.
- RCII-11 –Landlord-tenant issues were raised. Several ideas were discussed to encourage actions toward increasing the energy-efficiency of structures by landlords and tenants, with rental properties in University towns there is a particularly difficult issue due to a transient population, low tenant incomes, and a limited supply of housing. Income tax credits, time of sale/rental disclosure of utility bills for a dwelling, tenants’ rights laws, and command-and-control requirements (like those applied to rental of private homes to vacationers— including a program for licensing or certification of the energy-efficiency of rental properties) were among the ideas discussed. A question of mobile home retrofits/replacement was raised. Those topics are discussed in the policy description. Members suggested that they be included in the policy design pro-actively as well. Some legislative (and other) efforts have been undertaken in the past on this topic. A plan to refer these back to the TWG for additional, more/ explicit language. Von Hippel and Lazarus suggested voting on the goal as is, but coming back with modification to the implementation language. It was suggested that the option should be applied to all rental properties (not just low income) and non-rental properties that are low income. Involving state experts on low-income housing in the TWGs deliberation of these issues was also suggested.
- RCII-12 – The idea of including local and county government bonding activities, not just state bonding activities was put forward. Broader discussion affirmed doing so. Further, it was suggested that state leadership should also include building benchmarking or targets on the commissioning and operation of state buildings. An ESCO function/entity would be used, along with an energy cap on state building energy use (per square foot). Motion sensors were mentioned as a specific technology for reducing lighting energy use in government buildings.
- RCII-13 –As in RCII-1, the point was raised regarding incentives for modifying consumer behavior, and the extent to which metering can assist in providing same. It was suggested that the meter target (number installed /by when) is too low. The

target specified was intended as a pilot program, not a long-term goal for penetration. The TWG should flesh out a long-term goal for progress installing advanced metering, and other language changes as needed, such as a shorter timeframe for the pilot portion of the recommendation.

RCII Voting:

- RCII-1 – No objections subject to changes discussed above.
- RCII-2 – No objections subject to changes discussed above.
- RCII-3 – No objections subject to changes discussed above.
- RCII-4 – No objections subject to changes discussed above.
- RCII-5 – No objections subject to changes discussed above.
- RCII-6 – No objections subject to changes discussed above.
- RCII-7 – Discussed under ES.
- RCII-8 – Discussed under ES.
- RCII-9 – Discussed under ES.
- RCII-10 – No objections subject to changes discussed above.
- RCII-11 – Members requested that this option be referred back to the TWG for additional development.
- RCII-12 – No objections subject to changes discussed above.
- RCII-13 – No objections subject to changes discussed above.

Energy Supply (ES) Sector

Michael Lazarus and Alison Bailie briefly reviewed the Energy Supply policy options. Lazarus noted that overlaps exist between measures – and even TWGs – at this stage of the analysis; they will be eliminated as quantification of the options becomes more robust are aggregated into the final report. He also noted that various policy options impact production basis and consumption basis GHG emissions differently.

- ES-1 – The suggestion was made to include uprates at existing hydro in the definition of renewable energy covered under the option, and also to include small hydro units in existing high-flow irrigation canals and ditches. One member suggested striking any special consideration for utilities with long term contracts (i.e., level the playing field such that all power – generated in-state or imported – must comply with the same provisions); CCAC concurred. Uncertainties and trends were also discussed (e.g., how much wind integration costs will increase, whether the wind production tax credit will be renewed, etc). A separate scenario may be run reflecting alternative costs of wind power and of wind power integration into the grid.
- ES-2 – Concern was expressed about the differences across Montana regarding the availability and opportunity for renewables (e.g., east and west of the Continental

Divide). One suggestion was striking references to specific power authorities (i.e., BPA, WAPA) and just look broadly across Montana. Also, in response to a FERC order, MT is re-evaluating transmission access to remove barriers to access of wind, and that this should be added to the write-up. Other suggestions were made relative to the potential that renewable generators could sell CO₂ offsets distinct from RECs, references to “central station” wind, and “utility scale” resources. Also the USB discussions in this option should be moved to ES-4.

ES-3 – A small change replacing IGCC with advanced fossil was suggested.

ES-4 – No questions.

ES-5 – Extensive discussion was held on this option, and some headway was made delineating implementation aspects from the real policy aspects, in identifying the degree of prescriptiveness that would be appropriate from the CCAC, etc. Significant uncertainty is front and center because a bill in the Legislature bears on several of the issues addressed by this option. Accordingly, the CCAC thought it best to wait to see what the legislative disposition of the bill is, which will then guide what the TWG’s recommendation to the CCAC would be.

ES-6 – This option is not a high priority in the TWG. Discussion ensued about whether to keep it at all, combining with another option, or keeping it as is. There was some interest in keeping the biomass co-firing aspect of it; perhaps this element could be incorporated into one of the other options. It is arguably included in AFW-7, promoting biomass in energy production. Others did suggest not jettisoning this option, at least not yet. Another idea was that it could be moved (e.g., to RCII industrial efficiency or to an R&D option). Decision: Refer back to TWG to find suitable places in other options for the key elements of ES-6 to be brought forward.

ES-7 – Already covered as RCII-1.

ES-8 – Most discussion related to the political problem associated with the idea of adding a tax. One suggestion was to merge ES-8 and ES-9 together, with the idea of advocating for one or the other federally. Members generally exhibited a preference to keep the two options separate. Effects on or opportunity to assist low income citizens continues to be a concern..

ES-9 – Jointly discussed with ES-8; largely the same issues. More discussion at CCAC will be needed. Option A would be to join the Western Climate Initiative.

ES-10 – Michael Lazarus explained that there was no precedent or good model for estimating the costs and reductions for this option, but that the TWG had done so through various compliance approaches. Substantial, high-level discussion ensued on a number of issues (including, for example, the technical availability of carbon capture and storage for power plants, and the responsibility of the US to provide an example for other countries, such as China and India, that are rapidly developing coal-fired power systems.) There was also discussion reflecting diversity of opinion and timeframe, but little in the way of direct modification to this option was proposed other than to add a phase-in component for existing facilities.

ES-11 – Much discussion occurred regarding EPA’s Natural Gas Star program. Several suggested incentives or requirements for producers to adopt best management practices; enforcement of any such requirements was identified as an issue. Additional discussion concerned what numerical goal should be used; consensus evolved to use national figures with appropriate caveats. The list of Involved Parties in the option was also reviewed and revised.

ES-12 – No questions regarding refinery options. Future coal to liquid (CTL) generated some discussion about different types of coal and resulting fuels, but no controversy or changes.

ES-13 – Lots of uncertainty here because so many uncertainties exist about if, when, and how such facilities will get built. One panelist indicated that when CO₂ is used for enhanced oil recovery, combustion of the additional oil should also be factored in. Another participant mentioned permanence concerns, in terms of CO₂ staying where it was put. Other minor changes were discussed. Michael Lazarus is to add a sentence recognizing these concerns.

ES Voting:

ES-1 – No objections subject to changes discussed above.

ES-2 – No objections subject to changes discussed above.

ES-3 – No objections subject to changes discussed above.

ES-4 – No objections subject to changes discussed above.

ES-5 – Needs further consideration. Disposition: Return to TWG.

ES-6 – No objections subject to changes discussed above.

ES-7 – No objections subject to changes discussed above.

ES-8 – One objection; return to TWG; combination with cap and trade might remove objection.

ES-9 – One objection; return to TWG; objects to the regional nature of it – prefers national solution. Wouldn’t object to Montana participating as an observer. Three versions: A: Observe WRCAI – no objections; B: Full participant in Western Climate Initiative – One objection; C: Investigate and advocate for a national cap & trade – No objections.

ES-10 – Two objections to long-term phase in; One objection to changing it. Disposition: Return to TWG.

ES-11 – No objections subject to changes discussed above.

ES-12 – No objections subject to changes discussed above. Review further work of the TWG.

ES-13 – No objections subject to changes discussed above.

Transportation and Land Use (TLU) Sector

Lewison Lem reviewed the TLU options briefly and turned to clarifying questions and modifications.

- TLU-1 – One of the CCAC members mentioned and suggested to include the potential for registration leakage where people might go out of state to purchase their vehicles.
- TLU-2 – A member of the CCAC asked whether the price of gasoline would affect the cost savings of this policy. Lewison Lem responded that higher gasoline prices would result in greater cost savings.
- TLU-3 – Greater clarification on the goal level of this policy was requested.
- TLU-4 – No questions or modifications.
- TLU-5 – Several ideas and questions were raised by the CCAC. Some of the questions and suggestions included a weighting or “point system” to prioritize the list of six actions and greener roadways. CCS asked the CCAC for email submissions and comments for modification of this policy option.
- TLU-6 – This policy option is currently in progress by the TWG. The CCAC will refer to the TWG for continuation of analysis.
- TLU-7 – No questions or modifications.
- TLU-8 – Boettcher asked about manufacturers incorporating automatic shut-offs after a certain period of idling. The TWG will investigate this.
- TLU-9 – A state and local government initiative would make this a lead-by-example activity. Pat Judge suggested that the “50%-of-vehicles-being-more-efficient” might be insufficiently aggressive because about half of vehicles are more efficient than average in a normal distribution. Flora suggested that higher goals might be achievable by disaggregating the goal levels into classes of vehicles (i.e. Light Duty Passenger Vehicles and Heavy Duty Trucks). McGraw indicated that unless there was a policy reason not to, the goal for this option should be more aggressive.
- TLU-10 – Several CCAC members expressed the concern that “a minimum of 16 roundabouts by 2015” was not strong enough, given how many are already under construction. Another suggestion was to require MDT to show why it installed signal lights where it does not install a roundabout. The CCAC would like broader participation in this option and ensure that the goals will be stronger.
- TLU-11 – Some questions were raised earlier about the comparison “apples-to-apples” between rail and truck transport (e.g. there should be a g CO₂/ton-mile comparison for rail and truck operations). The CCAC would like more information on this.
- TLU-12 – The CCAC suggested differentiating fuel use by creating a luxury fuel tax (e.g. fuels for snowmobiles, boats, etc.). One name idea was a “pleasure fuel

fee.” It was recommended by the CCAC that the TWG should also consider what revenues raised from the fees could be used for.

TLU-13 – Running asked why Montana should do this since the State has no jurisdiction over aircraft emissions. Several other CCAC members indicated the desire to keep it in order to make a statement.

TLU Voting:

- TLU-1 – No objections subject to changes discussed above.
- TLU-2 – No objections subject to changes discussed above.
- TLU-3 – No objections subject to changes discussed above.
- TLU-4 – No objections subject to changes discussed above.
- TLU-5 – No objections subject to changes discussed above.
- TLU-6 – Refer to the TWG for continuation of analysis.
- TLU-7 – No objections subject to changes discussed above.
- TLU-8 – No objections subject to changes discussed above.
- TLU-9 – No objections subject to changes discussed above.
- TLU-10 – No objections subject to changes discussed above.
- TLU-11 – No objections subject to changes discussed above.
- TLU-12 – No objections subject to changes discussed above.
- TLU-13 – No objections subject to changes discussed above.

Agriculture, Forestry, and Waste (AFW) Sector

Steve Roe and Katie Bickel reviewed the TLU options briefly and turned to clarifying questions and modifications.

- AFW-1 – A member indicated that landowners in eastern Montana are now eligible to participate in offsets sales under the Chicago Climate Exchange (CCX).
- AFW-2 – A member commented that biodiesel at \$44/ton seems high, being higher than Photovoltaics (PV), for example. Steve Roe indicated that it was principally due to the specific structure of the incentive program used by the TWG. A biodiesel incentive (HB 166) did pass this legislative session, which may help. TWG will re-look at cost figures.
- AFW-3 – A question was asked about the segregation between cellulosic and starch-based ethanol production. Roe indicated that it was discussed in the TWG, but little modification to the numbers was warranted due to the feeling that cellulosic was unlikely to increase much more rapidly. Some thought the starch-based number might be high. Flora has done some recent work and will follow up. Roe indicated that the costs are strictly reflective of the cellulosic component, because the TWG provided no indication that additional financial incentives were necessary to motivate starch-based ethanol production.

- AFW-4 – Not covered in this meeting due to absence of quantification.
- AFW-5 – Not covered in this meeting due to absence of quantification.
- AFW-6 – Not covered in this meeting due to absence of quantification.
- AFW-7 – Not covered in this meeting due to absence of quantification.
- AFW-8 – Not covered in this meeting due to absence of quantification. Running mentioned a concern about the number of acres assumed to be consumed by wildfires in the future (likely that the number will increase)
- AFW-9 – Not covered in this meeting due to absence of quantification.
- AFW-10 – Not covered in this meeting due to absence of quantification.
- AFW-11 – Not covered in this meeting due to absence of quantification.
- AFW-12 – A question was raised about multiple types of plastic and how Montana might be able to improve recycling for different types of plastic. It was suggested that a bottle deposit fee be added as an implementation mechanism. Encouraging reuse practices and waste diversion facilities were also raised. Some reflection suggested that the goals were a bit weak, but it was represented that the near-term goals are based on the MT Integrated Waste Plan which received quite a bit of work during the past 2 years. The 25% diversion rate by 2020 is an increase above the 22% diversion rate in the Solid Waste Plan by 2015.

AFW Voting:

- AFW-1 – No objections subject to changes discussed above.
- AFW-2 – No objections subject to changes discussed above.
- AFW-3 – No objections subject to changes discussed above.
- AFW-4 – Not covered in this meeting due to absence of quantification.
- AFW-5 – Not covered in this meeting due to absence of quantification.
- AFW-6 – Not covered in this meeting due to absence of quantification.
- AFW-7 – Not covered in this meeting due to absence of quantification.
- AFW-8 – Not covered in this meeting due to absence of quantification.
- AFW-9 – Not covered in this meeting due to absence of quantification.
- AFW-10 – Not covered in this meeting due to absence of quantification.
- AFW-11 – Not covered in this meeting due to absence of quantification.
- AFW-12 – No objections subject to changes discussed above.

Cross Cutting (CC)Issues

Ken Colburn reviewed the Cross-Cutting policy options briefly and turned to clarifying questions and modifications.

- CC-1 – No questions.

CC-2 – No questions.

CC-3 – No questions.

CC-4 – No questions.

CC-6 – On hold pending quantification from other TWGs. No questions.

CC-7 – 7.3 – No questions

CC-7 – 7.4 – Some elaboration about CCX came from Ted Dodge. Others inquired about the NY Mercantile Exchange’s decision to start a carbon trading function.

CC Voting:

Although no objections were noted, only 7-8 official CCAC members remained at this time (~6:00 pm) so formal voting on CC items was postponed until the next meeting.

3. Public Input

There were no comments from the public.

4. Next Meeting of CCAC

The date and location for the sixth and final CCAC meeting is still being determined. Lisa Peterson indicated that the mid-July timeframe is when she expects the meeting to be scheduled. Originally it was hoped that the Whitefish or Kalispell region would be the location, but since that period will be high tourist season, it may be held elsewhere. Members volunteered other locations, including Bozeman, Missoula, and Great Falls. CCAC members will be notified when a date and location are identified.