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DRAFT MEETING SUMMARY
NEW MEXICO CLIMATE CHANGE ADVISORY GROUP (CCAG)
Farmington, New Mexico
Meeting #4, April 26, 2006

Attending:

CCAG members present included:

Bensingher	Charles	Sunbelt Biofuels
Burks	Jeff	PNM
Epel	Joshua	Duke
Etsitty	Stephen	Navajo Nation
Fierro	Joyce	NM Association of Counties
Gantner	Bruce	Burlington
Green	Gregory	National Environmental Trust
Grogan	Sterling	Biologist Planner MRGCD member
Ihle	Jack	Xcel Energy - Southwestern Public Service
Kaplan	Howard	Wilson & Company
Lewis	Brad	Salopek Farms
Luce	Ben	Coalition for Clean Affordable Energy
Melton	Dave	Sacred Power Corporation
Michel	Steve	NMIEC
Miller	Melissa	LANL
Milne	Bruce	UNM
Singer	Tom	NRDC
Smith	Hugh	PNM
Tavarez	Isreal	City of Albuquerque
Thaddeus	Eva	Sierra Club

State Agency Representatives present included:

Aaboe	Erik	NM Environment Department
Ely	Sandra	NM Environment Department
Musick	Brad	NM Environment Department
Norton	Jim	NM Environment Department

Weaver Lany NM Environment Department
O'Hare Craig NM Energy Minerals & Natural Resources Department

Center for Climate Strategies (CCS) team members present included: Tom Peterson, Ken Colburn, and David Von Hippel.

Introductions and Public Comment

New Mexico Environment Department (NMED) Environmental Protection Division Director Jim Norton opened the meeting shortly after 9 AM, thanked CCAG and TWG members for their participation, and remarked on the increasing profile of climate change issues in the US in general and in the West in particular, including efforts by the governors of New Mexico and Arizona to join in the Southwest Climate Change Initiative, the work of the Western Regional Air Partnership (WRAP), and related new and in-progress initiatives. Introductions of CCAG members and others in attendance followed.

Tom Peterson reminded members that Technical Working Group (TWG) calls/meetings that had occurred the day before would be summarized by CCS orally for discussion by the CCAG during the CCAG meeting. He asked for and received approval of the summary of the January 11, 2006 CCAG meeting #3. He also reviewed the day's meeting agenda, with CCAG approval.

Sandra Ely of NMED provided a call to the public, with an invitation for comment. Stanley Rasmussen from the US Army Central Regional Office in Kansas City responded, and suggested that the CCAG/TWG process includes many areas of common interest with initiatives being undertaken by the US Department of Defense (DOD), including energy efficiency, alternative fuels, and others. He urged that the TWGs take advantage of opportunities to discuss these common issues with DOD representatives. This ended the public input period.

Presentation on NMED's Climate Impact Study for New Mexico

Brad Musick of NMED provided a presentation on NMED's Climate Impact Study for New Mexico, dated December 30, 2005. A copy of this presentation is available on the www.nmclimatechange.us website. Following the presentation, a CCAG member noted that Ski New Mexico supports the CCAG's efforts, has sent letters of support for the process to the New Mexico Legislature, and are investigating actions that Ski New Mexico can take to reduce its own greenhouse gas emissions. A member of the public from Farmington asked whether there would be a study of human health effects to extend/complement the NMED study.

Representative of New Mexico Governor's Office

Ned Farquhar, New Mexico Governor Richardson's advisor on energy and environment, offered words of support and encouragement for the CCAG process from the Governor, noting that New

Mexico needs to develop practical responses to the problem of climate change, and needs to look to nearby states for regional solutions as well.

Discussions of “Contributing Issues” and “Quantification Methods” Memos, and of New Mexico’s Greenhouse Gas Reduction Targets

Sandra Ely introduced the draft “Contributing Issues Matrix” prepared by the Cross-Cutting TWG with other interested CCAG and TWG members. Sandra Ely described the process by which the memo has been compiled, and its application within a revised Policy Description Template document during the process of elaborating policy descriptions within each TWG. No further additions to the Contributing Issues matrix were suggested by those in attendance; Tom Peterson suggested that any suggestions for the Contributing Issues document be sent to Sandra.

Tom Peterson presented the next agenda item, namely discussion of a memo provided by CCS for the CCAG on proposed methods to be used by CCS in “quantifying” (estimating GHG emissions benefits and net costs for) policy options identified as “high priority” for elaboration and analysis by the TWG, as ratified by the CCAG. Questions and responses related to this memo included the following:

- A CCAG member asked about issues associated with treatment of “overlap” of costs and benefits between policies identified either within a single TWG or by more than one TWG. Tom Petersen replied that overlaps will be identified and taken into account during analyses through a variety of methods, including discounting costs and benefits of policies that address similar issues, and coordination between group leaders to quantify and count only once policies that appear in two TWGs.
- A CCAG member asked if consolidation of overlapping options would occur in one step (for example, before the next CCAG meeting) or in several steps. Tom replied that consolidation would likely occur in several steps, and outlined the process of further consideration of policy options and their estimated costs and benefits in remaining TWG and CCAG meetings.
- A CCAG member asked whether there would be interaction between CCS and the TWGs on the scope, inputs to, and methods of quantitative analysis of policies. Tom explained the process for deciding on the degree of quantification, and noted CCS’ willingness to confer with CCAG and TWG members as analyses proceed. A CCAG member urged the TWGs to be provided with an opportunity to respond by e-mail to key assumptions and methods before quantitative results are presented in the next TWG meeting.
- In a similar vein, another CCS member asked whether there were plans to produce a document for TWG review that outlined all of the assumptions and methods to be used in the analyses. Tom noted that assumptions and methods unique to particular options would be reflected in the Policy Descriptions being prepared by the TWGs, and that CCS could prepare a short document identifying “cross-cutting” factors, such as demographic or fuel pricing assumptions, that might play roles in the quantification of a number of options.

- A CCAG member asked whether negative net costs for some policies were likely to be found during the analysis. David Von Hippel replied that they would.
- CCAG members asked about modeling ranges of assumptions. Tom replied that this could be done where input data to do so was readily available. Another CCAG member asked for and received a definition of “sensitivity analysis”.
- Several CCAG members asked questions related to the incorporation of “indirect impacts” in the analysis of policy options. CCS will work with the TWGs to determine the desirability and practicality of assessing such impacts quantitatively on a case-by-case basis. In general, metric tons of carbon dioxide equivalent will be used as a proxy for the value of climate change, and will be converted to impacts through the process of setting emissions targets. A CCAG member stressed the need for a consistent approach in quantification.

Tom Peterson opened the next agenda items for the CCAG by presenting tables with New Mexico’s estimated historic, current, and projected GHG emissions presented on “production” and “consumption” bases, and presented a third table estimating targets for reduction prepared on both bases. Several clarifying questions by the CCAG and others were offered and addressed; and the inventory document prepared early in the CCAG process by CCS, with review and ratification by the CCAG, was suggested as a reference source for attendees seeking further information.

Consideration of Draft Policy Option Descriptions

By way of introduction to CCAG consideration of the draft Policy Option Descriptions in each TWG area, Tom Peterson described the decision criteria and potential “next steps” that the CCAG might recommend for each of the options.

Agriculture and Forestry

Tom Peterson then provided brief descriptions of the current draft Policy Options in the Agriculture and Forestry (AF) sector. Key topics of discussion and CCAG conclusions were as follows:

- Option F-1: CCAG agreed that CCS should move forward with development of the straw proposal and quantification.
- Options F-2a and F-2b: No CCAG objections to moving forward with quantification. Several clarifying questions were asked and answered about residential and forest lands being a potential source of biomass for switching to renewable fuels in the RCI sectors, and about the definition of the policies contained in these options.
- Options A-1 through A-11: CCAG offered no changes to the policy options identified by the AF TWG, and approved moving forward with the options as suggested (quantification of existing “straw” proposals, of preparing of straw proposals followed by quantification) as

recommended by the TWG and by CCS. Questions regarding these policy options were asked and answered on several topics, including the way to which emissions offsets will be counted when biomass fuels are used (based on fuel displaced and disposal practices avoided), coordination between TWGs in assessing the supply potential of biomass resources, the sustainability assumptions regarding use of in-state biomass resources, the definition of conservation tillage/no-till practices, the impact of forest thinning on sequestration of carbon.

Residential, Commercial and Industrial

David Von Hippel presented the results of TWG work to-date on Residential, Commercial, and Industrial (RCI) Policy Options. Discussions and decisions by the CCAG included the following:

- 1-RCI and 2-RCI were accepted as revised on April 25 by the RCI TWG, except that a CCAG member suggested, and the CCAG accepted, a modification to the proposed “high” case within those options whereby the impact of applying energy-efficiency measures and policies with net costs up to an effective threshold of \$15 per tonne of CO₂ saved will be assessed during quantification of these policy options.
- 3-RCI and 4-RCI were accepted by the CCAG for quantification as drafted by the TWG.
- For 5-RCI, it was noted that State agencies are already obliged to use 10 percent green power over and above any requirements included in a renewable portfolio standard. As a result, it was suggested by a CCAG member that 5-RCI begin with a requirement of 20% green power purchase by state agencies above any RPS requirement. Another CCAG member suggested phasing in green power purchase requirements for local governments, but more slowly than for State government. Option 6-RCI was accepted by the CCAG as drafted by the TWG. This policy will be quantified, if possible, only for increasing block electricity tariffs, otherwise the policy largely supports other RCI and ES options, and will be treated qualitatively.
- A CCAG member suggested including solar water heating and provision for solar PV system installation as a state requirement for new construction (similar to or within building codes) under one or more of the options 7-RCI, 8A-RCI, and 8B-RCI. Another CCAG member noted that these options were designed to allow the marketplace to determine which solutions to use in reducing greenhouse gas emissions from the buildings sector. Ultimately the CCAG agreed, with at least one member objecting, to add an RCI policy option, separate from existing RCI options, in which solar water heating and provision for solar PV system installation would be a mandate for new construction in New Mexico.
- All other RCI options were accepted for action as recommended by the RCI TWG, including the distribution of elements of (former) option 15-RCI to options 8B-RCI and 17-RCI.

Energy Supply

Ken Colburn presented the Energy Supply (ES) Policy Options as prepared by the TWG. Discussions of and decisions on options included:

- With regard to option ES-14, Emissions Cap and Trade (C&T), the proposal of the ES TWG was to move ahead with quantification of the option, but to push for a federal C&T program, survey results of available national analyses of the issue, prepare an analysis, using desktop (Excel-based) software, of a C&T option in the WECC region, and do analyses of smaller areas of states within the West to see what can be learned from those results. A CCAG member noted that going to a smaller region would result in “leakage and competitiveness issues”, and also offered the reminder that one New Mexico utility, SPS, is outside the area of the Western grid, and another modeling area definition would be needed to include the whole of New Mexico. A CCAG member suggested moving forward with the options, but asked for further discussion before quantification was complete. The CCAG accepted moving forward with the TWG proposal including modifications requested by the CCAG. CCAG members also requested a half-day or one-day special “educational” meeting on C&T issues, which would be open to CCAG members and all TWG members. Mid-May was suggested as a possible time for the meeting. The form of the meeting was not fully developed during the CCAG meeting, but the need to send around a reading list of materials on C&T options and analyses of same prior to the meeting was noted. CCAG members agreed on the need for such a meeting.
- Options ES-1 through -5 were accepted by the CCAG with the following modifications: shorter payback criteria are to be added in ES-2, energy storage is to be added as an element of ES-3, and different amounts of wind power (not just 4000 MW) are to be modeled under ES-3.
- The CCAG had no objections to moving forward with ES-6 as recommended by the TWG.
- Discussions of ES-7, Nuclear Re-licensing and Uprating, were begun, but conclusions were deferred until later in the meeting (see below).
- Options ES-8 through -10 were accepted by the CCAG with the following modifications and notes: ES-9 is to be quantified for TWG review jointly with RCI, and ES-10 is to include both new and upgraded transmission conductors.
- Options ES-11 through -13 were accepted by the CCAG for consideration as recommended by the ES TWG. It was noted by a CCAG member that the only agency tasked with working in the areas these options pertain to is the Oil Conservation Division of the New Mexico Energy, Minerals and Natural Resources Department.
- Option ES-15 was accepted by the CCAG for consideration as recommended by the ES TWG.
- Option ES-16 was accepted by the CCAG for consideration as recommended by the ES TWG, but with two CCAG objections. An issue of difference in regulation for municipal utilities and cooperatives, relative to other utilities, was noted as a potential barrier to

statewide application of options across utilities, and the problem of cooperative utilities being served by out-of state coal plants through long-term contracts was raised.

Transportation and Land Use

Tom Peterson introduced the Transportation and Land Use (TLU) Policy Options. The TLU TWG wanted to talk further about several policy designs. There was no objection from the CCAG to allowing the TLU group to further resolve these policies. One CCAG member asked for the inclusion in the analysis of quantification of the burdens of diesel retrofit policies on owners of existing vehicles. The availability of waste oil for use in “biodiesel” vehicles was noted, and Tom Peterson indicated that this resource issue should be taken up in the AF TWG.

Cross Cutting

Ken Colburn introduced the Draft Policy Options prepared by the Cross-Cutting (CC) TWG to date. The CCAG had no objections to moving forward with the options as recommended by the TWG. A CCAG member requested that in CC-2 the costs borne by participants should be clarified.

Continued Energy Supply Nuclear Issue Discussion

Tom Peterson suggested that the nuclear issues under discussion (nominally as a part of option ES-7) could be divided into 1) re-licensing, 2) uprating, and 3) potential new in-state nuclear generation capacity. CCAG members and others voiced the following concerns:

- With nuclear power, it is important to consider costs beyond direct costs for generation, operation, and even waste storage and decommissioning. The costs of the unusual risks associated with nuclear power, including costs borne by the State (for example, related to changes in insurance) if there is another nuclear power accident in the United States, should be considered.
- It is important to include new nuclear capacity as an option for the ES TWG and CCAG moving forward, even noting the substantial unknown risks and uncertainties, as not including nuclear power as an options may open the CCAG process to criticism as having been incomplete in its consideration of alternatives.
- If new nuclear capacity is to be evaluated, a full, preferably quantitative, consideration of issues such as nuclear waste management and other contributing issues must be included.
- The Navajo and Zuni Nations would look forward to a discussion of the issues, but have previously come to a decision to allow no new mining of Uranium on their lands.

In response to several proposals to address nuclear power issues, as forwarded by CCAG members and re-stated by Sandra Ely, Ken Colburn, and Tom Peterson, the CCAG made the following decisions:

- ES-7, as currently written, will be dropped from the list of Policy Options discussed because the State of New Mexico has no jurisdiction over re-licensing or uprating of nuclear plants, and thus consideration of the option was of low interest.
- Consideration of new nuclear capacity with a combination of quantitative and qualitative analysis was rejected by the CCAG (a majority of votes were cast against the motion).
- The CCAG approved the consideration of new nuclear capacity through a purely qualitative review of all benefits and costs of nuclear power (with two objections and a comment from a CCAG member, who suggested that “an evaluation of pros and cons of nuclear power will take [the CCAG] forward”). Another CCAG member noted that though nuclear power is admittedly an emotional issue, and has significant externalities that are not easily quantified, other options also have difficult-to-quantify externalities, yet they remain under full (quantitative) consideration, therefore it may be inconsistent not to move forward with only a qualitative analysis of new nuclear capacity.

Discussion of Date and Topic of Next CCAG Meeting

Sandra Ely opened discussion of proposed agenda items and times for the next meeting. Following discussion, the group agreed to the following:

- The group affirmed the date and location of August 8, 2006 in Santa Fe as proposed for the next CCAG meeting by Sandra Ely of NMED. TWG calls will be held the afternoon prior (August 7th), with opportunity for public participation on site as well as teleconferencing.
- The CCAG will focus the majority of the next meeting agenda and time on review and discussion of TWG activities, including further work on preparing and refining descriptions of policies identified as high priority by the TWGs and the CCAG, and reviewing initial quantitative estimates of costs and benefits of priority policy options prepared by CCS in collaboration with (and with review by) the TWGs.
- Additional discussion of production versus consumption issues will be provided as they related to design and analysis of options, time permitting.

No additional final announcements were made prior to conclusion of the meeting at approximately 2 PM.