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MEETING SUMMARY
Governor's Commission on Climate Change (GCCC)
Plenary Group (PG) Meeting #6
Montpelier, Vermont
June 21, 2007

Attending:

GCCC: Ernie Pomerleau, Theresa Alberghini-DiPalma, Brian Searles

PG: Debra Sachs, Scott Johnstone, Paul Comey, Jackie Folsom, Matt Cota (for Sean Cota), James Moore, Jen Jenkins, Bill Sayre, Thom Jagielski, Neale Lunderville, Phil Benedict (for Roger Allbee), Edward Mahoney, Marc Teixeira (for Don Gilbert), Riley Allen (for David O'Brien)

Department of Environmental Conservation (DEC): Jeff Wennberg, Harold Garabedian, Jeff Merrell

Center for Climate Strategies (CCS): Sivan Kartha, Ken Colburn, Tom Peterson, Steve Roe (via telephone), Katie Bickel (via telephone), Will Schroeer, Randy Strait (via telephone), Robert McKinstry

Others: Debra Baslow, Pat Peterson, Colin High, Polly McMurtry, Melissa, Kalinen, Ryan Salmon, Casey McFarland, Terry Pomerleau, Laura Nagel, William Driscoll

Background documents: (*all posted at www.vtclimatechange.us*)

1. Notice and Agenda
2. Draft Summary, Plenary Group Meeting #5
3. CCS, Powerpoint Presentation (1 and 2 slides/page)
4. Memorandum to the Plenary Group Members
5. Policy Option Descriptions for Analysis:
 - a. Agriculture, Forestry, and Waste Management
 - b. Energy Supply and Demand
 - c. Transportation and Land Use
 - d. Cross-Cutting Issues

Discussion and Conclusions:

1. Welcome and Introductions

- GCCC Chair Ernie Pomerleau opened the meeting and welcomed the Plenary Group (PG) members and members of the public.

2. Review of the Meeting Agenda

- This meeting's primary goal is to approve as many goals as possible. The remainder will be addressed at the next Plenary Group meeting on July 26th.
- After the July 26th meeting, the recommendations of the Plenary Group will be made to the Commission.
- After the final meeting of the PG, a review draft of the final report will be prepared. It will be circulated to the PG for comment, and after comments are incorporated, a conference call will be held to enable PG members to provide final insights and comments.
- After the final PG meeting, the job of the TWGs will be complete.

3. Review and Approval of the Meeting #5 Summary

- The summary for PG Meeting #5 was approved by the PG.

4. Update on Recent Climate Policy Actions

- House Bill H.520 was vetoed by the Governor; there was general agreement on the climate program goals of the legislation by all interested parties, but the Governor objected to the funding mechanism that had been incorporated into the measure.
- Clean car litigation – The briefings in the case are now complete. A decision is anticipated in July.
- Action in other states
 - Utah and British Columbia have joined the Western Climate Initiative and agreed to participate in the development of clean car standards and consider low carbon fuel standards. (Low carbon fuels are those with lower lifecycle GHG emissions. Examples include cellulosic ethanol which is less GHG intensive than starch-based ethanol, and conventional oil which is lower-GHG than tar sands-derived oil owing to the energy necessary to produce the latter.
 - Maryland Gov. O'Malley's Climate Change Commission held its initial meeting on June 19, 2007.
 - President Bush agreed at the G8 meeting to language that indicates the need to reduce GHG emissions by at least 50% and that specifies that international processes to accomplish this task should continue under the auspices of the United Nations.

5. Review and Approval of Draft Policy Options

- A member requested that, before specific options are discussed, the PG review its status regarding overall goals.

- Combining all policy options as presently quantified, CCS estimates that Vermont will fall about 1 MMTCO_{2e} short of its 2012 goal, but will exceed the 2028 goal by about the same amount. Based on this graph, the PG has two options:
 1. Formally recognize that the 2012 goal is unlikely to be achieved and to note this conclusion in the final report.
 2. Review all options and identify additional opportunities for reductions in order to reach 2012 goal.
- The PG requested that the percentage contribution by each TWG/sector be quantified. In addition, a comparison of the current GHG emission level and projected reductions of GHG emissions by each sector should be included in this summary.
- Summary of all Policy Options:

AGRICULTURE, FORESTRY AND WASTE MANAGEMENT

AFW-1 Programs to Support Local Farming/Buy Local

Status: Pending

Notes: Improving farming in the state is likely to be a heavy lift, because Vermont has been losing local processing capacity to other states and regions.

AFW-2 Agricultural Nutrient Management Programs

Status: Approved

Notes: There may be limited opportunity for additional soil carbon storage. More reductions in nutrient levels and nitrous oxide conditions are needed, directing efforts at commercial fertilizers and manure.

AFW-3 Manure Management Methods to Achieve GHG Benefits

Status: Approved

Notes: The PG recommends the application of anaerobic digesters for dairy cattle manure. It was noted that reductions in methane may be balanced to some degree by resulting increases in nitrous oxide.

AFW-4 Protect Open Space/Agricultural land

Status: Pending

Notes: Limited to reduction of agricultural soils due to new information about forest soils' net carbon impact. This option does not include more efficient development patterns. A serious concern was expressed regarding the issue of opening up current use in that farmers may decide to sell their land rather than retain agricultural use. The consequences of this implementation idea need additional review.

AFW-5 Forestry Programs to Enhance GHG Benefits

Status: Pending

Notes: The target goals appear to be difficult if not impossible, as production would need to be doubled in order to meet the goal. The

TWG may have irreconcilable differences over management and harvesting issues. The TWG is asked to clarify the issues and assign values to this option.

- AFW-6 Increased Forest Biomass Energy Use**
Status: Pending
Notes: Quantified under ESD options.
- AFW-7 Forest Protection – Reduced Clearing and Conversion to Non-Forest Cover**
Status: Pending
- AFW-8 Expanded Production and Use of Durable Wood Products (especially from VT sources)**
Status: Pending
Notes: The benefits of substituting wood for steel in residential construction are quite small in VT because little steel is currently used. Implementation options should go beyond new home construction to include flooring, paneling, cabinets, furniture, and other uses.
- AFW-9 Advanced/Expanded Recycling and Composting**
Status: Pending
Notes: Reductions in AFW-9 are based on standard EPA lifecycle analysis of reused rather than virgin materials. Many issues are similar to those in AFW-10.
- AFW-10 Programs to Reduce Waste Generation**
Status: Approved
Notes: Reductions in AFW-10 are based on standard EPA lifecycle analysis of reused rather than virgin materials. The Waste Council will address most of the issues raised as well as implementation strategies.
- AFW-11 Waste Water Treatment – Energy Efficiency Improvements**
Status: Approved
Notes: Both water and waste water are included in this analysis. Information regarding the energy consumption on potable water systems in the state is incomplete. The objective is to increase efficiency of operations by 15% before 2012 and 25% by 2028. Low costs (i.e., large savings) are due to very large increases in efficiency.
- AFW-12 In-State Liquid Biofuels Production – Ethanol and Biodiesel**
Status: Approved
Notes: Costs for petroleum fuels and biofuels established in other parts of the country and other cost data available on the internet were utilized in this analysis. Reductions are incremental beyond transportation and land use.

ENERGY SUPPLY AND DEMAND

General Notes – The TWG considered two policy option scenarios – the first in which contracts for nuclear and hydro power are extended under current terms and the second in which they are extended at half capacity. These scenarios impact ESD-4, 6 and 10. The first scenario would necessitate a smaller renewable energy requirement; the second would require a higher level renewables mandate.

Most of the electric numbers have a large inherent value because the fossil fuel sources would be on the margin. Currently Vermont has a low carbon signature, but if demand growth isn't reduced, GHG increases may be significant.

- ESD-1 Evaluation and Continuation/Expansion of Existing DSM for Electricity and Natural Gas
Status: Approved
Notes: Reduced demand may have cost implications as fixed costs are shared over lower consumption.
- ESD-2 Evaluation and Expansion of DSM to Other Fuels
Status: Approved
Notes: Oil costs should be retail net of taxes. Benefits should be allocated between both ESD-2 and ESD-3, attributing savings in existing buildings to ESD-2, and savings in new building to ESD-3 to ensure DSM savings are attributed properly. The final report should note qualitatively that there may be economic consequences of reduced energy consumption.
- ESD-3 Building Efficiency Codes, Training, Tracking
Status: Approved
Notes: See ESD-2 above. Review language to ensure adequate emphasis on reductions achieved by ESD-3 measures. Assume a higher rate of energy efficiency in new construction.
- ESD-4 Evaluate Potential for Contracting Nuclear Power**
Status: Pending
Notes: Members of PG will review potential values for cost adder for calculations in ESD-4, 6 and 10.
- ESD-5 Support for Combined Heat and Power
Status: Approved
- ESD-6 Incentives and/or Mandate for Renewable Electricity**
Status: Pending
Notes: Two scenarios considered: (a) ramping up to about 30% of total supply. (vs. today's contribution of about 15%), and (b) ramping up to about 45% (to take account of nuclear going away). Wind, hydro and biomass were all included. Significant discussion included the need to check on the cost and availability of biomass resources (e.g.,

\$30 vs. \$60 per dry ton cost). A higher heat rate was also applied than originally, and capital cost assumptions were also boosted.

ESD-7 GHG Cap & Trade and/or GHG tax

Status: Pending

Notes: All taxes and/or auctions are economy-wide, not sector specific to only the power sector. The quantification of cap & trade or taxes must be calibrated to meet the funding demand of other options. There has been no attempt to calculate additional reductions that will come from a cap & trade or a tax.

ESD-8 Incentives for Clean Distributed Technologies for Electricity or Heat

Status: Pending

Notes: Two options were considered, Natural Gas Fuel Switching and Solar Thermal Water Heating.

ESD-9 Wind-Specific Support Measures

Status: Pending

ESD-10 Hydro-Specific Support Measures

Status: Pending

TRANSPORTATION AND LAND USE

TLU-1 Compact and Transit-Oriented Development Bundle

Status: Pending

Notes: Three additional subsections added:

1.8 – Carbon Neutral New Construction and Development, as part of the development review process

1.9 - Develop a statewide Land Use Strategy

1.10 - Technical Assistance for Planning

These additions will result in much larger reductions: 0.99 MMTCO₂e by 2028. A member suggested that statements in the report need to be more specific, including more detailed proposals. Much discussion centered on the potential impact of expanding Act 250. The definition of the use of strong carbon standards must be very clear, as this may significantly impact the permitting process. Further review is needed to address areas of potential economic harms and those that could be improved under the umbrella of Act 250. Note that the members most concerned about this issue were not present at this meeting. Further clarification of the concerns and issues is needed. It was suggested that language related to the ANR Sewer Rule be eliminated as being impossible to achieve.

TLU-2 Alternatives to Single Occupancy Vehicles (SOVs)

Status: Pending

Notes: Some new implementation options were added.

TLU-3 Vehicle Emissions Reductions Incentives

Status: Pending

Notes: Review and verify numbers in the table.

TLU-4 Pay as You Drive Insurance

Status: Pending

Notes: The language was modified to require, rather than allow, insurers to offer pay as you go insurance.

TLU-5 Alternative Fuels and Infrastructure (LCFS)

Status: Approved

Notes: Incorporate TLU-8 into this option. Require a low carbon fuel standard (LCFS) similar to the California standard designed to reduce carbon intensity to 10%, rather than the 25% by 2028 recommended by the TWG. The California standard is based on a study of achievable goals in a review of federal actions.

TLU-6 Regional Intermodal Transportation System - Freight and Passenger

Status: Pending

Notes: Modify goals: Increase rail freight in VT by 100 percent; increase passenger use by 200 percent; increase inter-city bus and rail, freight and rail service and any other necessary inter-modal connections and efficiency. The potential costs of these modifications can't be quantified at this time.

TLU-7 Commuter Choice/Parking Cash-out

Status: Approved

Notes: Add language to this option that would require all employers with more than 50 employees, colleges and universities and government units adopt employee parking management and incentive programs. Establish programs to provide parking priority for low-GHG-emitting vehicles and transportation modes such as car- and vanpools and low-GHG-emitting single occupancy vehicles.

TLU-8 Plug-in Hybrids [now included in TLU-5]

Status: Consolidated into TLU-5 as a compliance option.

TLU-9 Fuel Tax Funding Mechanism [TLU TWG recommends recharacterizing this option as a broader exploration of ways to fund all the state's transportation needs]

Status: Approved

Notes: A variety of finance mechanisms are suggested. This option should be expanded to a general review of transportation financing in general and consideration of a cost/benefit analysis of all options.

CROSS-CUTTING ISSUES

CC-1 GHG Inventories and Forecasts

- Status: Unanimous Consent (previously approved as an early consensus option)
- CC-2 GHG Reporting
Status: Unanimous Consent (previously approved as an early consensus option)
- CC-3 GHG Registry
Status: Unanimous Consent (previously approved as an early consensus option)
- CC-4 Public Education and Outreach
Status: Unanimous Consent (previously approved as an early consensus option)
- CC-5 Adaptation
Status: Unanimous Consent (previously approved as an early consensus option)
- CC-6 Options for Statewide Goals or Targets**
Status: Pending
Notes: Preliminary results of all policy options indicate that on a consumption-gross emissions basis, the Governor's and Legislature's GHG emission reduction goals are unlikely to be met for the short-term target in 2012, but that the 2028 target could be achieved.
- CC-7 The State's Own GHG Emissions Reductions (Lead by Example)**
Status: Pending
Notes: Finalization awaits the PG's conclusions regarding CC-6.

6. Updates on Greenhouse Gas Emissions Inventory & Forecast

- Colburn and Strait reviewed the previously requested updates to the Vermont Inventory and Forecast. These included (a) incorporation of the impacts of the California Low-Emissions Vehicle program (Pavley) adopted by Vermont, and (b) removal of forest soil carbon as a sink due to new scientific information. The revised charts incorporating these revisions were displayed for the PG.

7. Next Steps for Technical Work Groups

- See above notes under discussion of policy options.

8. Agenda, Time, and Date for Next Meeting

- The final PG meeting will be held on July 26, 2007 in Room 11 of the State House. The meeting will run from 9:30 am to 4:00 pm.

9. Public Input and Announcements

- None