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Memo

To: Minnesota Climate Change Advisory Group

From: The Center for Climate Strategies

CC: Ed Garvey, Minnesota Department of Commerce
David Thornton, Minnesota Pollution Control Agency
Minnesota Technical Work Group Members

Subject: Preparation for the Fourth Meeting of the Minnesota Climate Change Advisory Group Meeting

Date: September 27, 2007

At our fourth meeting of the Minnesota Climate Change Advisory Group (MCCAG) on Thursday, September 27, 2007, we will focus on review and approval of draft “straw proposals” from Technical Work Groups (TWGs) for each of the priority policy options identified in our third meeting in August. We also will review progress and recommended updates to the statewide inventory and forecast of emissions. Based on this discussion and any adjustments made by the MCCAG, the TWGs will begin work to quantify and further develop policy options. Final consideration of these options will begin at the next MCCAG meeting on November 8, 2007. At that time the MCCAG will be asked to identify an initial set of options as final recommendations that do not have objections. Remaining (not yet fully approved) options will be the subject of the final MCCAG meeting on January 10, 2008 and the TWG activities that precede it.

As preparation for our fourth meeting, please review the TWGs’ suggested draft policy option “straw proposals” below and other background documents posted to the project website at: www.mnclimatechange.us.

In terms of overall progress, the MCCAG has completed key milestones since its launch, including:

- Identification of a full range of potential Minnesota options for mitigation of GHG emissions, including over 300 possible state actions.
 - TWG identification, by balloting, of 55 initial priorities for analysis of draft policy options.
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- Completion of the initial statewide inventory and forecast of GHG emissions and start of the review process.
- Approval of a full range of initial priority policy options for further analysis.
- Formulation of “straw proposals” for the design of these initial draft policy options for consideration by the MCCAG at its fourth meeting.

The next stages of the MCCAG process will include completion of the following milestones:

- Completion of the first round of economic analysis of draft policy options by CCS, and identification of early consensus recommendations at our fifth meeting.
- Review and revision of policy option design, analysis, and draft options as needed during TWG calls and meetings.
- Final approval of remaining MCCAG policy option recommendations at our sixth meeting.
- Final approval of the statewide inventory and forecast of GHG emissions by the final meeting.

Summary of MCCAG Progress and Next Steps:

Status of Draft Policy Options	
Original Number of Potential Options Presented to the MCCAG from the CCS Catalog of State Actions	251
Updated Number of Potential Options on the CCS Catalog of States Actions, Including MCCAG Additions	300+
Current Number of Draft Potential Priority Policy Options for Analysis	55
• Residential, Commercial, and Industrial	10
• Energy Supply	14
• Transportation and Land Use	13
• Agriculture, Forestry and Waste	8
• Cross Cutting Issues	10
Next Steps	
Approve Straw Proposals for Draft Policy Option Design	MCCAG Meeting #4
Present First Round of Analysis of Draft Policy Options and Identify Early Consensus Recommendations	MCCAG Meeting #5
Approve Final MCCAG Policy Option Recommendations	MCCAG Meeting #6

Table 1.
Residential, Commercial, and Industrial Technical Work Group
Summary List of Recommended Priority Policy Options for Analysis

	Policy Name	GHG Reductions (MMtCO ₂ e)			Net Present Value 2007–2025 (Million \$)	Cost-Effectiveness (\$/tCO ₂ e)	Status of Option
		2010	2025	Total 2007–2025			
RCI-1	Maximize Savings from the Utility Conservation Improvement Program (CIP)	<i>Not Yet Quantified</i>					Pending
RCI-2	Improved Uniform Statewide Building Codes	<i>Not Yet Quantified</i>					Pending
RCI-3	Green Building Guidelines and Standards Based on Architecture 2030	<i>Not Yet Quantified</i>					Pending
RCI-4	Incentives & Resources to Promote Combined Heat and Power (CHP)	<i>Not Yet Quantified</i>					Pending
RCI-5	Program to reduce emissions of non-fuel, high-global-warming-potential GHGs	<i>Not Yet Quantified</i>					Pending
RCI-6	Non-utility Strategies and Incentives to Encourage Energy Efficiency and Reduce GHG Emissions	<i>Not Yet Quantified</i>					Pending
RCI-7	Conservation Improvement-Type Program for Propane and Fuel Oil Efficiency	<i>Not Yet Quantified</i>					Pending
RCI-8	Energy Performance Disclosure	<i>Not Yet Quantified</i>					Pending
RCI-9	Promote Technology-Specific Applications to Reduce GHG Emissions	<i>Not Yet Quantified</i>					Pending
RCI-10	Support Strong Federal Appliance Standards and Require High State Standards in the Absence of Federal Standards	<i>Not Yet Quantified</i>					Pending
	SECTOR TOTAL AFTER ADJUSTING FOR OVERLAPS						
	REDUCTIONS FROM RECENT ACTIONS (none)						
	SECTOR TOTAL PLUS RECENT ACTIONS						

Table 2.
Energy Supply Technical Work Group
Summary List of Recommended Priority Policy Options for Analysis

	Policy Name	GHG Reductions (MMtCO ₂ e)			Net Present Value 2007–2025 (Million \$)	Cost-Effectiveness (\$/tCO ₂ e)	Status of Option
		2010	2025	Total 2007–2025			
ES-1	Generation Performance Standards or Mitigation Requirements	<i>Not Yet Quantified</i>					Pending
ES-2	Improve the GHG Profile of Biofuels and Fossil Fuels (e.g., Low Carbon Fuel Standard, biofuel production)	<i>Not Yet Quantified</i>					Pending
ES-3	Efficiency Improvements, Repowering and other Upgrades to Existing Plants	<i>Not Yet Quantified</i>					Pending
ES-4	Transmission System Upgrading, including reducing transmission and distribution line loss	<i>Not Yet Quantified</i>					Pending
ES-5	Renewable and/or Environmental Portfolio Standard	<i>Not Yet Quantified</i>					Pending
ES-6	Nuclear Power Support and Incentives	<i>Not Yet Quantified</i>					Pending
ES-7	Incentives for Advanced Fossil Fuel Generation and Carbon Capture and Storage (CCS), Including Combined Hydrogen and Electricity Production with Carbon Sequestration	<i>Not Yet Quantified</i>					Pending
ES-8	Carbon Capture and Storage and/or Reuse Policies	<i>Not Yet Quantified</i>					Pending
ES-9	Large-scale, supply-oriented Combined Heat and Power (CHP) & Geothermal Incentives and/or Barrier Removal	<i>Not Yet Quantified</i>					Pending
ES-10	Voluntary GHG targets	<i>Not Yet Quantified</i>					Pending
ES-11	Carbon (GHG) tax	<i>Not Yet Quantified</i>					Pending
ES-12	Distributed Renewable Energy Incentives and/or Barrier Removal	<i>Not Yet Quantified</i>					Pending
ES-13	Technology-based approaches, including research & development, fuel cells, energy storage, distributed renewable energy technologies, etc.	<i>Not Yet Quantified</i>					
ES-X	Tracks 1, 2, and 3 (Sensitivity Analyses)	<i>Not Yet Quantified</i>					Pending
	SECTOR TOTAL AFTER ADJUSTING FOR OVERLAPS						
	REDUCTIONS FROM RECENT ACTIONS (none)						
	SECTOR TOTAL PLUS RECENT ACTIONS						

Table 3.
Transportation and Land Use Technical Work Group
Summary List of Recommended Priority Policy Options for Analysis

	Policy Name	GHG Reductions (MMtCO ₂ e)			Net Present Value 2007–2025 (Million \$)	Cost-Effectiveness (\$/tCO ₂ e)	Status of Option
		2010	2025	Total 2007–2025			
TLU-1	Improved Planning and Development Strategies	<i>Not Yet Quantified</i>					Pending
TLU-2	Improved Infrastructure	<i>Not Yet Quantified</i>					Pending
TLU-3	Biofuels (Potential overlap with ES-2 and AFW-7)	<i>Not Yet Quantified</i>					Pending
TLU-4	Infrastructure Management	<i>Not Yet Quantified</i>					Pending
TLU-5	Climate-Friendly Transportation Fees	<i>Not Yet Quantified</i>					Pending
TLU-6	Adopt CA Clean Car Standards	<i>Not Yet Quantified</i>					Pending
TLU-7	“Fix-it-First” (Repair before new infrastructure)	<i>Not Yet Quantified</i>					Pending
TLU-8	Update Road Standards	<i>Not Yet Quantified</i>					Pending
TLU-9	Commuter Choice/Parking Cash Out/required employer TDM plans	<i>Not Yet Quantified</i>					Pending
TLU-10	Congestion Pricing (or tolls) (with targeted use of revenue towards travel alternatives)	<i>Not Yet Quantified</i>					Pending
TLU-11	Truck Stop Electrification	<i>Not Yet Quantified</i>					Pending
TLU-12	Mobile Source Emissions Reduction	<i>Not Yet Quantified</i>					Pending
TLU-13	Reduced Speed Limits	<i>Not Yet Quantified</i>					Pending
	SECTOR TOTAL AFTER ADJUSTING FOR OVERLAPS						
	REDUCTIONS FROM RECENT ACTIONS (none)						
	SECTOR TOTAL PLUS RECENT ACTIONS						

Table 4.
Agriculture, Forestry, and Waste Management Technical Work Group
Summary List of Recommended Priority Policy Options for Analysis

	Policy Name	GHG Reductions (MMtCO ₂ e)			Net Present Value 2007–2025 (Million \$)	Cost-Effectiveness (\$/tCO ₂ e)	Status of Option
		2010	2025	Total 2007–2025			
AFW-1	Agricultural Crop Management	<i>Not Yet Quantified</i>					Pending
AFW-2	Land Use Management Approaches for Protection and Enrichment of Soil Carbon	<i>Not Yet Quantified</i>					Pending
AFW-3	In-State Liquid Biofuels Production	<i>Not Yet Quantified</i>					Pending
AFW-4	Expanded Use of Biomass Feedstocks for Electricity, Heat, or Steam Production	<i>Not Yet Quantified</i>					Pending
AFW-5	Forestry Management Programs to Enhance GHG Benefits	<i>Not Yet Quantified</i>					Pending
AFW-6	Forest Protection – Reduced Clearing and Conversion to Nonforest Cover	<i>Not Yet Quantified</i>					Pending
AFW-7	Integrated Waste Management	<i>Not Yet Quantified</i>					Pending
AFW-8	End of Use Waste Management Practices	<i>Not Yet Quantified</i>					Pending
	SECTOR TOTAL AFTER ADJUSTING FOR OVERLAPS						
	REDUCTIONS FROM RECENT ACTIONS (none)						
	SECTOR TOTAL PLUS RECENT ACTIONS						

**Table 5.
 Cross-Cutting Issues Technical Work Group
 Summary List of Recommended Priority Policy Options for Analysis**

	Mitigation Option	GHG Reductions (MMtCO ₂ e)			Net Present Value 2007–2025 (Million \$)	Cost-Effectiveness (\$/tCO ₂ e)	Status of Option
		2010	2025	Total 2007–2025			
CC-1	GHG Inventories, Forecasting, Reporting, and Registry	<i>Not quantified</i>					Pending
CC-2	Statewide GHG Reduction Goals and Targets	<i>Not quantified</i>					Pending
CC-3	State and Local Government GHG Emissions (Lead-by-Example)	<i>Not quantified</i>					Pending
CC-4	Public Education and Outreach	<i>Not quantified</i>					Pending
CC-5	Tax and Cap Policies	<i>Not quantified</i>					Pending
CC-7	Participate in Regional and Multi-State GHG Reduction Efforts	<i>Not quantified</i>					Pending
CC-8	Encourage the Creation of a Business-Oriented Organization to Share Information and Strategies, Recognize successes, and Support Aggressive GHG Reduction Goals	<i>Not quantified</i>					Pending
CC-9	Dedicate Greater Public Investment to Climate Data and Analysis	<i>Not quantified</i>					Pending
CC-10	Facilitate the Development of an Effective Carbon Credit System for MN	<i>Not quantified</i>					Pending
CC-11	Create a Market Advisory Group	<i>Not quantified</i>					Pending