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Memo

To: Members of the New Mexico Climate Change Advisory Group (CCAG)
From: The Center for Climate Strategies (CCS)
CC: New Mexico Environment Department
Re: Consideration of Draft Pending Policy Options for Final CCAG Approval
Date: October 30, 2006

Welcome to the sixth and final meeting of the CCAG!

At the fifth CCAG meeting, 16 proposed policy options were approved as final recommendations to the Climate Change Action Council (listed below and available in the draft meeting summary). At our final meeting on October 30, we will consider 51 remaining pending policy option proposals.

To aid our discussion, we are providing tables of completed and pending policy options by Technical Work Group (TWG) area (below) with summary information. In the last column of each table, under "Level of CCAG Support," we have indicated "Unanimous Consent" for those options approved at the last CCAG meeting, and "Pending" for those options to be reviewed at the sixth meeting.

Additional details on the draft policy options are posted on the project website for your review as policy option templates for each TWG. In addition, draft chapters of the final report are also posted for general discussion on October 31. These review documents can be found at: www.nmclimatechange.us/template.cfm?FrontID=4700.

Please read the detailed policy templates for each of the draft pending policy options in advance of our CCAG meeting to speed consideration of the options.

During our meeting we will review each of the draft pending policy options by TWG area. Following an update on each policy option provided by CCS, there will be a brief period of clarifying questions for each option. We will then check for any objections to approving the option as a final recommendation. For options that lack full consensus, we will invite alternative proposals to bridge remaining gaps to consensus, and then hold final votes. Support for each of individual options will be recorded at a level of unanimous consent, supermajority (five or fewer objections), or simple majority depending on final vote levels.

As a reminder, CCAG members can consider four decision criteria in selecting and designing final recommendations, including: GHG reduction potential, Cost effectiveness, Contributing issues, and Feasibility issues. It may be helpful to know that potential conflicts for specific policy options are often addressed by alternative approaches to: goal levels, timing of implementation, coverage of implementing parties, type of implementation mechanism, or modifications to the analysis of GHG reductions or costs.

We look forward to a productive meeting.

Summary of CCAG Approved Policy Options from Meeting #5

- Option RCI-1: Demand Side Management (DSM) Programs, Energy Efficiency Funds, and/or Energy Efficiency Requirements for Electricity.
- Option RCI-3: Regional Market Transformation Alliance.
- Option RCI-4: State Appliance Standards.
- Option RCI-5: Green Power Purchasing.
- Option RCI-6: Rate Design (Including Time of Use Rates, Increasing Block Rates, and Seasonal Use Rates).
- Option RCI-7a: Improved Building Codes.
- Option RCI-10: Education and Outreach for Building Professionals.
- Option RCI-11: Consumer Education Programs.
- Option RCI-12: Increased Emphasis on Energy and Environmental Consideration in Higher Education.
- Option RCI-18: Use of Alternative Gases (Non-Energy Emissions, Industrial Process Gases).
- Option ES-9: Demand-Side Management, Energy Efficiency, and Integrated Resource Planning (IRP).
- Option TLU-1: State Clean Car Program.
- Option TLU-6: Alternative Fuels Use.
- Option TLU-14: Truck Stop Electrification/Anti-Idling.
- Option CC-1: GHG Reporting.
- Option CC-2: GHG Registry.

Tables of Pending Policy Options

Table #	Technical Work Group
1	Residential, Commercial and Industrial Pending Options List – 11
2	Transportation and Land Use Pending Options List – 10
3	Energy Supply Pending Options List – 15
4	Agriculture and Forestry Pending Options List – 14
5	Cross Cutting Issues Pending Options List – 1
	Total Pending Options – 51

Table 1
Residential Commercial and Industrial Technical Work Group
Summary Table of Policy Options

Option Number	Policy Name	Estimated 2012 GHG Reduction (MMtCO ₂ e)	Estimated 2020 GHG Reduction (MMtCO ₂ e)	Cumulative 2007-2020 GHG Reduction (MMtCO ₂ e)	Estimated Cost or Cost Saving (\$/tCO ₂ e)	Level of CCAG Support
RCI-1	Demand Side Management (DSM) Programs, Energy Efficiency Funds, and/or Energy Efficiency Requirements for Electricity	0.2	1.0	5.5	-\$18	<i>Unanimous Consent</i>
RCI-2	Demand Side Management (DSM) Programs, Energy Efficiency Funds, and/or Energy Efficiency Requirements for Natural Gas and Other Fuels	0.03	0.2	1.0	-\$55	<i>Pending</i>
RCI-3	Regional Market Transformation Alliance	0.1	0.5	2.9	-\$27	<i>Unanimous Consent</i>
RCI-4	State Appliance Standards	0.1	0.3	2.1	-\$46	<i>Unanimous Consent</i>
RCI-5	Green Power Purchasing	0.3	0.1	2.3	\$7	<i>Unanimous Consent</i>

Option Number	Policy Name	Estimated 2012 GHG Reduction (MMtCO ₂ e)	Estimated 2020 GHG Reduction (MMtCO ₂ e)	Cumulative 2007-2020 GHG Reduction (MMtCO ₂ e)	Estimated Cost or Cost Saving (\$/tCO ₂ e)	Level of CCAG Support
RCI-6	Rate Design (Including Time of Use Rates, Increasing Block Rates, and Seasonal Use Rates)	0.3	0.3	3.6	-\$40	<i>Unanimous Consent</i>
RCI-7A	Improved Building Codes	0.9	2.4	16.6	-\$12	<i>Unanimous Consent</i>
RCI-7B	RCI-7B: Solar Hot Water-ready and Solar-PV-ready Codes for New Buildings	0.05	0.2	1.3	\$96	<i>Pending</i>
RCI-7C	Solar Hot Water Systems as an Element of Building Codes for New Buildings	0.2	0.4	2.7	\$22	<i>Pending</i>
RCI-8A	Building Energy Performance Requirements for State-funded and Other Government Buildings (“Reach Codes”)	0.01	0.04	0.2	\$1	<i>Pending</i>
RCI-8B	Building Energy Performance Promotion and Incentives for Energy Performance Enhancements (Attaining “Reach Codes”) in Non-Government Buildings (Including Existing Buildings)	0.3	1.3	7.4	-\$2	<i>Pending</i>

Option Number	Policy Name	Estimated 2012 GHG Reduction (MMtCO ₂ e)	Estimated 2020 GHG Reduction (MMtCO ₂ e)	Cumulative 2007-2020 GHG Reduction (MMtCO ₂ e)	Estimated Cost or Cost Saving (\$/tCO ₂ e)	Level of CCAG Support
RCI-9	Government Agency Requirements and Goals (including procurement) -- Focus on operations	0.04	0.2	0.9	-\$20	<i>Pending</i>
RCI-10	Education and Outreach for Building Professionals	Not Quantified				<i>Unanimous Consent</i>
RCI-11	Consumer Education Programs	Not Quantified [These policies being considered jointly with the Cross-Cutting Issues TWG]				<i>Unanimous Consent</i>
RCI-12	Increased Emphasis on Energy & Environmental Consideration in Higher Education					
RCI-13	Incentives and Promotion for Renewable Energy and Clean Combined Heat and Power	[These policies are being considered jointly with the Energy Supply TWG]				<i>Pending</i>
RCI-14	Regulatory/Legislative Grid, Pricing, and Other Policies to Support Distributed Generation					
RCI-16	Participation in Regional (or National) Industry Emissions Cap and Trade Programs	[This policy is being considered jointly with the Energy Supply TWG]				<i>Pending</i>
RCI-17	Voluntary Emissions Targets	0.3	0.7	4.6	Not Quantified	<i>Pending</i>

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RCI-18	Use of Alternative Gases (Non-Energy Emissions, Industrial Process Gases)	Not Quantified					<i>Unanimous Consent</i>
RCI-19	Solid Waste Recycling, Source Reduction, and Composting					<i>Pending</i>	
	Scenario A: Financial/Technical Support	0.2	0.5	3.6	Not Quantified		
	Scenario B: Financial/Technical Support and Mandatory Recycling	0.5	1.1	8.4	Not Quantified		

Table 2
Transportation and Land Use Sector
Summary Table of Policy Options

Option Number	Policy Name	Estimated 2012 GHG Reduction (MMtCO ₂ e)	Estimated 2020 GHG Reduction (MMtCO ₂ e)	Cumulative 2007-2020 GHG Reduction (MMtCO ₂ e)	Estimated Cost or Cost Saving (\$/tCO ₂ e)	Level of CCAG Support
TLU-1	State Clean Car Program	0.4	1.9	10.4	-\$117	<i>Unanimous Consent</i>
TLU-2	Low Rolling Resistance Tires	0.5	0.6	5.5	-\$92	<i>Pending</i>
TLU-3	Low-GHG Operation of State Fleet Vehicles	Not Quantified				<i>Pending</i>
TLU-4	Pay-As-You-Drive Insurance	0.2	1.0	5.0	Zero net cost	<i>Pending</i>
TLU-5	Incentive/Disincentive Options Bundle	Not Quantified				<i>Pending</i>
TLU-6	Alternative Fuels Use					<i>Unanimous Consent</i>
	Ethanol	0.1	0.3	2.0	Zero	
	Biodiesel	0.2	0.6	4.1	Zero	
	Hybrids/LSVs	0.1	0.6	2.7	under review	
	<u>ZEVs/LSVs</u>	<u>0.0</u>	<u>0.1</u>	<u>0.2</u>	under review	
	Total for Option ^a	0.4	1.7	9.1	review	
<i>^a May not add exactly due to rounding.</i>						
<i>VMT Reduction Bundle TLU-7 to TLU-11</i>						

TLU-7	Infill, Brownfield Re-development	1.2	1.3	13.4	Zero net costs or positive cost savings	<i>Pending</i>
TLU-8	Transit-Oriented Development					<i>Pending</i>
TLU-9	Smart Growth Planning, Modeling, Tools					<i>Pending</i>
TLU-10	Multimodal Transportation Bundle					<i>Pending</i>
TLU-11	Promote LEED for Neighborhood Development					<i>Pending</i>
TLU-12	Targeted Open Space and Croplands Protection	<i>Analyzed in Agriculture and Forestry TWG (F-1 and A-8)</i>				
TLU-13	Diesel Retrofits	<i>Incorporated as part of TLU-5</i>				
TLU-14	Truck Stop Electrification/Anti-Idling	0.4	0.7	6.3	\$4	<i>Unanimous Consent</i>
TLU-15	Intermodal Freight Initiatives	0.1	0.5	2.6	Not Quantified	<i>Pending</i>
TLU-16	Lower Speed Limit for Commercial Trucks Options: Trucks only (original) All vehicles, 60 mph All vehicles, 65 mph	0.2 0.6 0.3	0.3 0.7 0.4	2.8 7.3 3.9	\$51 \$83 \$53	<i>Pending</i>

Table 2.
Energy Supply Technical Work Group
Summary Table of Policy Options

Option Number	Policy Name	Estimated 2012 GHG Reduction (MMtCO ₂ e)	Estimated 2020 GHG Reduction (MMtCO ₂ e)	Cumulative 2007-2020 GHG Reduction (MMtCO ₂ e)	Estimated Cost or Cost Saving (\$/tCO ₂ e)	Level of CCAG Support
ES-1	Mandate(s) for Renewable Energy (RPS, etc.)					<i>Pending</i>
	ES-1a: 10% in 2011, 0.5% increase/year to 2021	1.0	1.7	13.2	\$4	
	ES-1b: 10% in 2011, 1% increase/year to 2021	1.1	2.6	17.8	\$6	
	ES-1c: 10% in 2011, 2% increase/year to 2021	See ES-4 below				
ES-2	Financial Incentives for Distributed Renewables					<i>Pending</i>
	ES-2b: Payback 25 years; PV, wind & biomass; all utilities	0.02	0.4	1.6	\$105	
ES-3	Renewable Energy Transmission and Storage	Not Quantified				<i>Pending</i>

Option Number	Policy Name	Estimated 2012 GHG Reduction (MMtCO ₂ e)	Estimated 2020 GHG Reduction (MMtCO ₂ e)	Cumulative 2007-2020 GHG Reduction (MMtCO ₂ e)	Estimated Cost or Cost Saving (\$/tCO ₂ e)	Level of CCAG Support
ES-4	RPS to 30% by 2021 with Financial Incentives for Centralized Renewables	1.2	4.2	26.0	\$8	<i>Pending</i>
ES-5	R&D including Energy Storage	Not Quantified				<i>Pending</i>
ES-6	Advanced Coal/Fossil Technologies (e.g., IGCC with carbon capture)					<i>Pending</i>
	ES-6a: All new coal plants would be IGCC with 60% capture	Not Quantified				
	ES-6b: All new coal plants would be IGCC with 90% capture	0.8	4.3	22.7	\$29	
ES-7	Nuclear Power	Not Quantified				<i>Pending</i>
ES-8	Incentives and Barrier Reductions for Combined Heat & Power (CHP)	0.3	0.9	6.1	\$4	<i>Pending</i>
ES-9	Demand-Side Management, Energy Efficiency, and Integrated Resource Planning (IRP)	0.2	1.0	5.5	-\$18	<i>Unanimous Consent (Quantified as RCI-1)</i>
ES-10	Transmission Capacity and Corridors	Not Quantified				<i>Pending</i>

Option Number	Policy Name	Estimated 2012 GHG Reduction (MMtCO ₂ e)	Estimated 2020 GHG Reduction (MMtCO ₂ e)	Cumulative 2007-2020 GHG Reduction (MMtCO ₂ e)	Estimated Cost or Cost Saving (\$/tCO ₂ e)	Level of CCAG Support
ES-11	CO ₂ Capture and Storage or Reuse (CCSR) in Oil and Gas Operations (A and B)	1.6	3.0	25.1	Not Quantified	<i>Pending</i>
ES-12	Methane Reduction in Oil and Gas Operations: BMPs and PROs	2.7	3.4	35.3	Not Quantified	<i>Pending</i>
ES-13	CO ₂ Reduction from Fuel Combustion in Oil and Gas Operations (A and B)	0.6	1.4	10.6	Not Quantified	<i>Pending</i>
ES-14	GHG Cap and Trade	Quantification for illustration only.				<i>Pending</i>
	National/NEMS: 2.4%–2.8% Carbon Intensity (CI) improvement per year, with a \$6.16–\$9.86 safety valve	-0.1	1.0	3.6	\$7	
	National/NEMS: 2.6%–3.0% CI, \$8.83–\$14.13 safety valve	0.1	1.0	4.2	\$10	
	National/NEMS: 2.8%–3.5% CI, \$22.09–\$35.34 safety valve	-0.1	8.1	31.3	\$17	
	National/NEMS: 3.0%–4.0% CI, \$30.92–\$49.47 safety valve	0.1	9.1	43.5	\$19	

Option Number	Policy Name	Estimated 2012 GHG Reduction (MMtCO ₂ e)	Estimated 2020 GHG Reduction (MMtCO ₂ e)	Cumulative 2007-2020 GHG Reduction (MMtCO ₂ e)	Estimated Cost or Cost Saving (\$/tCO ₂ e)	Level of CCAG Support
	Rose: 11-State Economy-wide C&T; 5% costless	6.7 ¹	10.9 ²	90.6 ³	\$3	
	Rose: 11-State Economy-wide C&T; 15% costless	10.3 ⁴	14.9 ⁵	132.0	-\$4	
	Rose: 11-State Power-Sector C&T; 5% costless	2.96	5.47	42.5	\$8	
	Rose: 4-State Economy-wide C&T; 5% costless	5.78	9.49	78.1	\$5	
ES-15	Generation Performance Standard	1.2	3.8	24.3	\$21	<i>Pending</i>
ES-16	Regulatory Reform for Electric Cooperatives	Not Quantified				<i>Pending</i>

¹ See Adam Rose spreadsheet “S_5% Case NPV1” – “Emission Reduction” Table

² See Adam Rose spreadsheet “S_5% Case NPV1” – “Emission Reduction” Table

³ Per Adam Rose’s 8/6/06 email of S/5%/2020 with 2006 NPV. See spreadsheet “S_5% Case NPV1”

⁴ TABLE AS/15%/2012, page 7.

⁵ TABLE BS/15%/2020, page 9.

⁶ TABLE AP/5%/2012, page 11.

⁷ TABLE BP/5%/2020, page 12.

⁸ TABLE A’S/5%/2012, page 13.

⁹ TABLE B’S/5%/2020, page 14.

Table 4
Agriculture and Forestry Technical Work Group
Summary Table of Policy Options

Option Number	Policy Name	Estimated 2012 GHG Reduction (MMtCO ₂ e)	Estimated 2020 GHG Reduction (MMtCO ₂ e)	Cumulative 2007-2020 GHG Reduction (MMtCO ₂ e)	Estimated Cost or Cost Saving (\$/tCO ₂ e)	Level of CCAG Support
F-1	Forestland Protection from Developed Uses	0.08	0.13	1.2	22	<i>Pending</i>
F-2a	Forest Health & Restoration - Residential Lands	0.18	0.18	2.5	-46	<i>Pending</i>
F-2b	Forest Health & Restoration - Other Lands	0.45	0.45	6.3	-15	<i>Pending</i>
A-1	Manure Energy Utilization	0.31	0.75	6.3	3	<i>Pending</i>
A-2	Biomass Feedstocks for Electricity or Steam Production	0.16	0.32	2.6	-77	<i>Pending</i>
A-3	Ethanol Production	0.5	1.0	7.5	3	<i>Pending</i>
A-4	Nutrient Management	0.004	0.012	0.08	-46	<i>Pending</i>
A-5	Manure Management - Land Application	Not Quantified ^a	Not Quantified ^a	Not Quantified ^a	Not Quantified ^a	<i>Pending</i>
A-6	Conservation Tillage/No-Till	0.03 ^b	0.08 ^b	0.60 ^b	15	<i>Pending</i>

Option Number	Policy Name	Estimated 2012 GHG Reduction (MMtCO ₂ e)	Estimated 2020 GHG Reduction (MMtCO ₂ e)	Cumulative 2007-2020 GHG Reduction (MMtCO ₂ e)	Estimated Cost or Cost Saving (\$/tCO ₂ e)	Level of CCAG Support
A-7	Convert Agricultural Land to Grassland or Forest	0.36 ^c	0.36 ^c	4.0 ^c	7	<i>Pending</i>
A-8	Reduce Permanent Conversion of Ag & Rangeland to Developed Uses	0.12	0.20	1.6	62	<i>Pending</i>
A-9	Programs to Support Organic Farming	0.21	0.40	4.4	0.5	<i>Pending</i>
A-10	Programs to Support Local Farming/Buy Local	0.32	1.1	5.9	0.2	<i>Pending</i>
A-11	Biodiesel Production	0.10	0.25	2.3	Not Quantified ^d	<i>Pending</i>

^a Not quantified due to a lack of information on the GHG benefits associated with different land application and composting techniques.

^b The GHG benefits have been adjusted to account for overlap with the soil carbon benefits derived from Option A9 on Organic Farming.

^c Emission reductions are taken against emissions that have not been built into the existing forecast for NM. They refer to emissions associated with acreage assumed to be coming out of the Conservation Reserve Program and returned to active cultivation.

^d Not quantified. Information on funding levels needed to promote biodiesel feedstock production was not identified.

Table 5
Cross-Cutting Issues Technical Work Group
Summary Table of Policy Options

Option Number	Policy Name	Estimated 2012 GHG Reduction (MMtCO₂e)	Estimated 2020 GHG Reduction (MMtCO₂e)	Cumulative 2007-2020 GHG Reduction (MMtCO₂e)	Estimated Cost or Cost Saving (\$/tCO₂e)	Level of CCAG Support
CC-1	State Greenhouse Gas Reporting	Not Quantified				<i>Unanimous Consent</i>
CC-2	State Greenhouse Gas Registry	Not Quantified				<i>Unanimous Consent</i>
CC-3	State Climate Public Education and Outreach	Not Quantified				<i>Pending</i>