



Memo

To: Colorado Climate Action Panel Members

From: The Center for Climate Strategies

CC: Rocky Mountain Climate Organization
Executive Office of the Governor, Colorado Department of Public Health and Environment, Policy Work Group Members

Subject: Preparation for the Sixth Meeting of the Colorado Climate Action Panel

Date: September 11, 2007

At the sixth meeting of the Colorado Climate Action Panel (CAP) on September 12, 2007, the CAP will consider final approval of 56 pending draft climate change policy options developed since the launch of the CAP process in November 2006, including recommendation of a statewide greenhouse gas (GHG) emissions reduction goal.

A summary of the 73 completed and pending draft policy options is attached, and a detailed description of each and related background is posted to the CAP website at: <http://www.coloradoclimate.org>. Our discussion during the CAP meeting will focus on final resolution of the 56 pending options not yet approved. Please review these documents prior to the meeting. A summary of draft policy options is attached below:

Table #	Policy Work Group	# Policy Options
1	Residential, Commercial, and Industrial Pending Options List	11 total; 11 Pending
2	Energy Supply Pending Options List	15 total; 5 Pending
3	Transportation and Land Use Pending Options List	12 total; 5 Pending
4	Agriculture and Forestry Pending Options List	11 total; 11 Pending
5	Cross Cutting Issues Pending Options List	9 total; 9 Pending
6	Water Adaptation Pending Options List	15 total; 15 Pending
Total		73

Table 1.
Residential, Commercial, and Industrial Policy Work Group
Summary List of Pending Policy Options

	Policy Option	GHG Reductions (MMtCO ₂ e)			Net Present Value 2007–2020 (Million \$)	Cost-Effectiveness (\$/tCO ₂ e)	Status of Option
		2012	2020	Total 2007–2020			
RCI-1	Expanded Demand Side Management ¹	1.0	6.8	35	–1,098	–32	Pending
RCI-2	Energy Efficiency in Buildings Owned by State and Local Governments	0.2	0.5	3.7	–67	–18	Pending
RCI-3	Enforcement of Building Codes	N/A	N/A	N/A	N/A	N/A	Pending
RCI-4 (total)	Planning and Design	1.0	2.4	20	1,550	76	Pending
	<i>Government</i>	<i>0.4</i>	<i>0.6</i>	<i>6.0</i>	<i>348</i>	<i>58</i>	
	<i>Commercial</i>	<i>0.5</i>	<i>1.4</i>	<i>11</i>	<i>1,219</i>	<i>109</i>	
	<i>Residential</i>	<i>0.2</i>	<i>0.4</i>	<i>3.2</i>	<i>–17</i>	<i>–5</i>	
RCI-5	Inverted Block Rates to Fund Energy Efficiency (Less Stringent Targets)	1.6	6.7	38	–1135	–30	Pending
RCI-6	Retrofitting Existing Buildings for Energy Efficiency	0.5	1.8	12	–334	–28	Pending
RCI-7	Pricing and Purchasing	2.0	2.6	25	–844	–33	Pending
RCI-8	Renewable Energy Systems on New and Existing Buildings	N/A	N/A	N/A	N/A	N/A	Pending
RCI-9	Energy Delivery (CHP)	0.3	1.4	8.3	–25	–3	Pending
RCI-10	Implementing Climate Wise Statewide	0.6	1.0	4.5	N/A	N/A	Pending
RCI-11	Cost of Service Inverted Block Rates	N/A	N/A	N/A	N/A	N/A	Pending
	Sector Total After Adjusting for Overlaps	4.3	15	91			
	Reductions From Recent Actions¹ (table to be added below)	0.9	2.6	19	–530	–28	
	Sector Total Adjusted for Recent Actions	3.3	12	72	–90	–1	

¹RCI-1 DSM goal assumed to *include* reductions associated with HB07-1037 and recent DSM initiatives by Xcel pursuant to a settlement agreement. Thus the values shown for RCI-1 represent the total forecasted DSM impact, and the “reductions from recent actions” represent the portion associated with these existing measures.

Table 2.
Energy Supply Policy Work Group
Summary List of Pending Policy Options

	Policy Option	GHG Reductions (MMtCO ₂ e)			Net Present Value 2007–2020 (Million \$)	Cost-Effective -ness (\$/tCO ₂ e)	Status of Option
		2012	2020	Total 2007–2020			
ES-1	Renewable Energy Incentives Including Waste to Energy	<i>Component of ES-2</i>					Complete
ES-2	Mandated Portfolio Standards	2	5	34	524	16	Pending
ES-2a	Clean Energy Portfolio Standard	<i>Non-specific policy not quantified</i>					Pending
ES-3	Transmission Infrastructure for Renewables	<i>Non-quantitative policy proposal</i>					Complete
ES-4	Cost for CO ₂ Emissions (Cap and Trade or Tax)	<i>Non-specific policy not quantified</i>					Complete
ES-5	Public Benefit Charge Funds	<i>Quantitative analysis pending (similar to ES-2)</i>					Pending
ES-6	Incentives for CHP, DG, Smart Grid	0.4	1	7	110	15	Complete (Revise Costs)
ES-7	Carbon Capture & Transport Infrastructure	<i>Non-quantitative proposal not quantified</i>					Complete
ES-9	R&D for Carbon Emissions Reducing Generating Technology	<i>R&D emission reduction benefits not analyzed</i>					Complete
ES-10	Promote Advanced Fossil Fuel Generation with Carbon Capture, Including IGCC	<i>Non-specific policy not quantified</i>					Complete
ES-11	Small New Hydro and Efficiency Improvements at Existing Hydro, Identifying Other Small Renewables and Removing Barriers Thereto	0	0.8	3	123	40	Complete
ES-12	Nuclear Energy	<i>Non-specific policy not quantified</i>					Complete (subject to modification)
ES-13	Efficiency Improvements for Existing Generators (Includes Heat Recovery)	0.2	1	5	<i>Costs not estimated</i>		Pending
ES-14	Oil and Gas Operations	0.8	3	16	12	0.8	Complete
ES-15	CO ₂ Emission Standards for Power Plants	0.5	2	13	-14	-1	Pending
	Sector Total After Adjusting for Overlaps	3	9	59	526	10	
	Reductions From Recent Actions (table to be added below)	-	-	-	-	-	
	Sector Total Adjusted for Recent Actions	3	9	59	526	10	

**Table 3.
Transportation and Land Use Policy Work Group
Summary List of Pending Policy Options**

	Policy Option	GHG Reductions (MMtCO ₂ e)			Net Present Value 2007–2020 (Million \$)	Cost-Effectiveness (\$/tCO ₂ e)	Status of Option
		2012	2020	Total 2007–2020			
TLU-1	Smart Growth and Related Planning	0.08	0.47	2.43	<0	<0	Pending
TLU-2	Incentives for Purchase and Operation of Low-GHG Vehicles	Quantified as part of TLU-6					Complete
TLU-3	Improve and Expand Transit Service	0.17	0.97	5.09	N/A	N/A	Complete
TLU-4	Heavy-Duty Vehicle Idle Reduction	0.07	0.11	0.91	-131	-144	Complete
TLU-5	Low Carbon Fuels Standard	0.38	2.21	16.1	N/A	N/A	Pending
TLU-6	Clean Car Program (Pavley GHG Standards for Autos)	0.70	3.40	18.8	-1,880	-100	Pending
TLU-7	Transit Marketing, Promotion, and Pricing Incentives	Quantified as part of TLU-3					Complete
TLU-8b	Variable-Priced Insurance	0.32	0.94	7.19	<0	<0	Complete
TLU-9	Parking Management	0.03	0.03	0.34	-37	-110	Pending
TLU-10	Commuter Benefits Programs	0.42	0.45	4.77	-1,145	-240	Complete
TLU-11	Driver and Consumer Education	Not quantified					Complete
	Sector Total After Adjusting for Overlaps	2.3	8.2	49.7			
	Reductions From Recent Actions (table to be added below)	0	0	0	-	-	
	Sector Total Plus Recent Actions	2.3	8.2	49.7			

Table 4.
Agriculture, Forestry, and Waste Management Policy Work Group
Summary List of Pending Policy Options

	Policy Option	GHG Reductions (MMtCO ₂ e)			Net Present Value 2007–2020 (Million \$)	Cost-Effective -ness (\$/tCO ₂ e)	Status of Option
		2012	2020	Total 2007–2020			
AFW-1	Agricultural Crop Management	0.57	0.78	7.72	–57	–7	Pending
AFW-2	Manure Management and Energy Utilization	0.01	0.32	1.82	66	36	Pending
AFW-3	Reductions in On-Farm Energy Use	0.14	0.64	3.79	–150	–40	Pending
AFW-4	Biodiesel Production	0.02	0.22	1.09	13	12	Pending
AFW-5	Ethanol Production	0.39	3.10	15.0	58	3	Pending
AFW-6a	Preserve Lands with Carbon Storage Value - Forests	0.10	0.24	1.71	44	26	Pending
AFW-6b	Preserve Lands with Carbon Storage Value - Grasslands	0.05	0.14	1.00	31	32	Pending
AFW-7 & 8	Forestry Programs to Enhance GHG Benefits	0.08	0.20	1.40	–104	–75	Pending
AFW-9	Source Reduction, Enhanced Recycling & Composting Programs	0.48	4.60	24.00	311	13	Pending
AFW-10	Landfill Methane Energy Programs	0.33	1.20	7.54	0	0	Pending
AFW-11	Urban Forestry Programs	0.03	0.08	0.59	40	79	Pending
	Sector Total After Adjusting for Overlaps	2.2	11.5	66	252	4	
	Reductions From Recent Actions (table to be added below)						
	Sector Total Plus Recent Actions	2.2	11.5	66	252	4	

**Table 5.
Cross-Cutting Issues Policy Work Group
Summary List of Pending Policy Options**

	Policy Option	GHG Reductions (MMtCO ₂ e)			Net Present Value 2007–2020 (Million \$)	Cost-Effectiveness (\$/tCO ₂ e)	Status of Option
		2012	2020	Total 2007–2020			
CC-1	GHG Inventories and Forecasts	<i>Not Quantified</i>					Pending
CC-2	State GHG Reporting	<i>Not Quantified</i>					Pending
CC-3	State GHG Registry	<i>Not Quantified</i>					Pending
CC-4	Statewide GHG Reduction Goals and Targets	<i>Not Quantified</i>					Pending
CC-5	State and Local Government GHG Emissions (Lead-by-Example)	<i>Not Quantified</i>					Pending
CC-6	Comprehensive Local Government Climate Action Plans	<i>Not Quantified</i>					Pending
CC-7	Public Education and Outreach	<i>Not Quantified</i>					Pending
CC-9	Establish a Proactive Public-Private Partnership to Seek Investment Capital and Philanthropic Funding for Reducing GHG Emissions and Supporting Development of the New Energy Economy in Colorado	<i>Not Quantified</i>					Pending
CC-10	Vulnerability and Adaptation	<i>Not Quantified</i>					Pending
	Sector Total After Adjusting for Overlaps						
	Reductions From Recent Actions (table to be added below)						
	Sector Total Plus Recent Actions						

Table 6
Water Adaptation Policy Work Group
Summary List of Policy Options

	Policy Option	Status of Option
WA-1	Need for Leadership	Pending
WA-2	Consideration of Climate Change in Water Decisions	Pending
WA-3	Colorado River Water Availability	Pending
WA-4	Interstate Compacts	Pending
WA-5	Climate, Hydrologic, and Climate-Impact Assessment and Data	Pending
WA-6	Drought Vulnerability Assessments and Planning	Pending
WA-7	Regional Modeling	Pending
WA-8	Water Conservation	Pending
WA-9	Agriculture	Pending
WA-10	Energy and Water	Pending
WA-11	Information Exchanges	Pending
WA-12	Recreation and Tourism	Pending
WA-13	Water Quality and the Environment	Pending
WA-14	Groundwater	Pending
WA-15	Colorado Water Institute	Pending