



North Carolina Climate Action Plan Advisory Group

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Memo

To: North Carolina Legislative Commission on Global Climate Change
 From: The Center for Climate Strategies
 CC: North Carolina Department of Environment and Natural Resources, North Carolina Climate Action Planning Advisory Group
 Subject: Background for the Fifth Meeting of the North Carolina Climate Action Plan Advisory Group Members on January 24, 2007
 Date: January 12, 2007

At the fifth meeting of the North Carolina Climate Action Plan Advisory Group (CAPAG) on January 24, 2007, the CAPAG will review and begin approval of 52 draft climate change mitigation options developed since the launch of the CAPAG process in February 2006. The CAPAG will review, discuss and modify options as needed to reach final approval. Those options not fully agreed to at this meeting will be referred to the Technical Work Groups (TWGs) for further development and presentation at subsequent CAPAG meetings. Results of the CAPAG discussion will be presented at the next meeting of the Legislative Commission on Global Climate Change (LCGCC) in February.

A summary of the 52 pending draft mitigation options is attached, and a detailed description of each of the draft mitigation options is posted to the CAPAG website at: www.ncclimatechange.us. Updates to these documents will be made prior to the meeting.

A summary of draft mitigation options is attached below:

Table #	Technical Work Group	# Mitigation Options
1	Residential, Commercial and Industrial Pending Options List	11
2	Energy Supply Pending Options List	10
3	Transportation and Land Use Pending Options List	13
4	Agriculture and Forestry Pending Options List	12
5	Cross Cutting Issues Pending Options List	6
Total		52

Table 1.
Residential Commercial and Industrial Technical Work Group
Summary List of Pending Mitigation Options

	Mitigation Option	GHG Reductions (MMtCO ₂ e)			Net Present Value 2007–2020 (Million \$)	Cost-Effective-ness (\$/tCO ₂ e)	Level of Support
		2010	2020	Total 2007–2020			
RCI-1	Demand Side Management Programs for the Residential, Commercial and Industrial Sectors	6.5	27.9	208.2	-\$5,890	-\$28	TBD
RCI-2	Expand Energy Efficiency Funds	1.2	6.5	44.3	-\$1,350	-\$30	TBD
RCI-3	Energy Efficiency Requirements for Government Buildings	0.0	1.8	9.8	-\$130	-\$13	TBD
RCI-4	Market Transformation and Technology Development Programs	0.0	2.1	11.0	-\$339	-\$31	TBD
RCI-5	Improved Appliance and Equipment Efficiency Standards	0.0	1.0	5.5	-\$336	-\$61	TBD
RCI-6	Building Energy Codes	0.6	4.5	29.4	-\$490	-\$17	TBD
RCI-7	“Beyond Code” Building Design Incentives and Targets, Incorporating Local Building Materials and Advanced Construction	0.5	3.0	20.9	-\$293	-\$14	TBD
RCI-8	Education (Consumer, Primary/Secondary, Post-Secondary/ Specialist, College and University Programs)	<i>Not quantified</i>					TBD

	Mitigation Option	GHG Reductions (MMtCO ₂ e)			Net Present Value 2007–2020 (Million \$)	Cost-Effectiveness (\$/tCO ₂ e)	Level of Support
		2010	2020	Total 2007–2020			
RCI-9	Green Power Purchasing (required for state facilities) and Bulk Purchasing Programs for Energy Efficiency or Other Equipment	0.0	0.4	2.6	-\$19	-\$8	TBD
RCI-10	Distributed Renewable and Clean Fossil Fuel Power Generation	1.1	4.1	30.5	\$28	\$1	TBD
RCI-11	Residential, Commercial, and Industrial Energy and Emissions Technical Assistance and Recommended Measure Implementation	0.7	2.9	20.9	-\$653	-\$31	TBD
	SECTOR TOTAL AFTER ADJUSTING FOR OVERLAPS						
	REDUCTIONS FROM RECENT ACTIONS (table to be added below)						
	SECTOR TOTAL PLUS RECENT ACTIONS						

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

#	Policy Name	GHG Reductions (MMtCO ₂ e)			Net Present Value (Million \$)	Cost-Effectiveness (\$/tCO ₂ e)	Level of Support
		2010	2020	Total 2007-2020			
ES-1	Renewable Energy Incentives	0.0	0.0	0.2	\$3	\$13.2	TBD
ES-2	Environmental Portfolio Standard	5.7	37.7	244.6	-\$3,081	-\$12.6	TBD
ES-3	Removing barriers to CHP and clean DG	0.4	1.6	11.6	\$66	\$5.7	TBD
ES-4	CO2 tax and/or cap-and-trade	Under preparation					
ES-5	Legislative changes to address environmental & other factors	Under preparation					
ES-6	Incentives for advanced coal	0.0	8.3	66.7	\$2,135	\$32.0	TBD
ES-7	Public Benefit Charge	0.7	4.5	28.4	-\$685	-\$24.1	TBD
ES-8	Waste to Energy	0.00	0.01	0.08	-\$4	-\$49.9	TBD
ES-9	Incentives for CHP and clean DG	Combined with ES-3					
ES-10	NC Greenpower renewable resources program	0.0	0.0	0.2	\$1	\$7.9	TBD

Table 3.
Transportation and Land Use Technical Work Group
Summary List of Pending Mitigation Options

	Mitigation Option	GHG Reductions (MMtCO ₂ e)			Net Present Value 2008–2020 (Million \$)	Cost-Effective-ness (\$/tCO ₂ e)	Level of Support
		2012	2020	Total 2008–2020			
TLU-1a	Land Development Planning	2.6	8.0		<i>Expected net savings</i>		TBD
TLU-1b	Multi-modal Transportation & Promotion	2.8	3.0				TBD
TLU-3a	Feebates to raise revenue						TBD
TLU-3a	Feebates to change fleet mix						TBD
TLU-5	Truck-stop Electrification						TBD
TLU-6	Tailpipe GHG Standards						TBD
TLU-7	Biofuels Bundle	1.9	4.5				TBD
TLU-8	Procure Efficient Fleets						TBD
TLU-9	Anti-idling	.1	0.2				TBD
TLU-10	Diesel Retrofits						TBD
TLU-11	Fuel tax (50 cents/gallon)	6.4	13.9				TBD
TLU-12	Pay As You Drive Insurance	5.8	13.3		<i>Expected net savings</i>		TBD
TLU-13	Incentives for Advanced Tech Vehicles						TBD

Mitigation Option	GHG Reductions (MMtCO ₂ e)			Net Present Value 2008–2020 (Million \$)	Cost-Effective-ness (\$/tCO ₂ e)	Level of Support
	2012	2020	Total 2008–2020			
SECTOR TOTAL AFTER ADJUSTING FOR OVERLAPS ^a	14.7	34.1				
REDUCTIONS FROM RECENT POLICY ACTIONS						
SECTOR TOTAL PLUS RECENT POLICY ACTIONS						

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

	Mitigation Option	GHG Reductions (MMtCO ₂ e)			Net Present Value 2007-2020 (Million \$)	Cost-Effectiveness (\$/tCO ₂ e)	Level of Support
		2010	2020	Total 2007-2020			
AFW-1	Manure Digesters & Energy Utilization	0.2	0.9	6.3	387	\$67	TBD
AFW-2	Biodiesel Production (incentives for feedstocks and production plants)						TBD
AFW-3	Soil Carbon Management						TBD
AFW-4	Preserve Agricultural Land						TBD
AFW-5	Agricultural Biomass Feedstocks for Electricity or Steam Production						TBD
AFW-6	Policies to Promote Ethanol Production						TBD
AFW-7	Forest Protection – Reduced Clearing and Conversion to Nonforest Cover						TBD
AFW-8	Afforestation and/or Restoration of Nonforested Lands						TBD
AFW-9&10	Expanded Use of Forest Biomass and Better Forest Management						TBD
AFW-11	Landfill Methane and Biogas Energy Programs	0.2	1.9	12.8			TBD
AFW-12	Increased Recycling Infrastructure and Collection	0.2	0.5	4.1			TBD

	Mitigation Option	GHG Reductions (MMtCO ₂ e)			Net Present Value 2007-2020 (Million \$)	Cost-Effective-ness (\$/tCO ₂ e)	Level of Support
		2010	2020	Total 2007-2020			
	SECTOR TOTAL AFTER ADJUSTING FOR OVERLAPS						
	REDUCTIONS FROM RECENT ACTIONS (table to be added below)						
	SECTOR TOTAL PLUS RECENT ACTIONS						

Table 5.
Cross-Cutting Issues Technical Work Group
Summary List of Pending Mitigation Options

#	Mitigation Option	Level of Support
CC-1	GHG Inventories and Forecasts	TBD
CC-2	GHG Reporting	TBD
CC-3	GHG Registry	TBD
CC-4	Public Education and Outreach	TBD
CC-5	Adaptation	TBD
CC-6	Options for Goals or Targets (for CAPAG in support of LCGCC)	TBD