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## Memo

**To:** Arkansas Governor's Commission on Global Warming  
**From:** The Center for Climate Strategies  
**CC:** Arkansas Governor's Office  
Kathy Webb, GCGW Co-Chair  
Kevin Smith, GCGW Co-Chair  
Technical Work Group Members  
**Subject:** Preparation for the Eighth Meeting of the Arkansas Governor's Commission on Global Warming  
**Date:** July 31, 2008

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At our eighth meeting of the Arkansas Governor's Commission on Global Warming (GCGW) on Thursday, July 31, 2008, we will focus on review and consideration of draft pending priority policy options, with the goal of approving as many as possible in order to finish work by the end of September. The GCGW will be asked to identify an initial set of options as final recommendations that do not have objections. We also will review and approve progress and recommended updates to the statewide draft inventory and forecast of emissions. Based on decisions made by the GCGW, the Technical Work Groups (TWGs) will continue to update quantification and development of the remaining draft pending policy options that the GCGW does not approve during this eighth meeting. Additional consideration and approval of the remaining draft options will continue at the next GCGW meeting on September 9, 2008 and at the final GCGW meeting on September 25, 2008.

As preparation for our meeting, please review the attached lists of TWG suggested draft policy options and other background documents posted to the project website at:  
[www.arclimatechange.us](http://www.arclimatechange.us).

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

- Identification of a full range of potential Arkansas options for mitigation of GHG emissions, including over 300 possible state actions.
- TWG identification, by balloting, of 51 initial priorities for analysis of draft policy options.
- Approval of a full range of initial priorities for analysis of draft policy options.
- Completion of the initial statewide inventory and forecast of GHG emissions and start of the review process.

- GCGW approval of TWG suggested “straw proposals” for the design of initial draft policy options.

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

- At our eighth meeting today, completion of quantification of emission reductions, costs/cost savings, and cost effectiveness of draft policy options by CCS, and identification of early consensus recommendations.
- Review and revision of policy option design, analysis, and draft options as needed during TWG calls and meetings.
- Final approval of remaining GCGW policy option recommendations at our ninth and tenth meetings.
- Final approval of the statewide inventory and forecast of GHG emissions by the final meeting.

**Summary of GCGW Progress and Next Steps:**

<b>Status of Draft Policy Options</b>	
Original Number of Potential Options Presented to the GCGW from the CCS Catalog of State Actions	306
Updated Number of Potential Options on the CCS Catalog of States Actions, Including GCGW Additions	326
Current Number of Draft Potential Priority Policy Options for Analysis	51
• Residential, Commercial, and Industrial	10
• Energy Supply	11
• Transportation and Land Use	10
• Agriculture, Forestry and Waste	9
• Cross Cutting Issues	11
<b>Next Steps</b>	
Present Analysis of Draft Policy Options and Identify Early Consensus Recommendations	GCGW Meeting #8
Approve Final GCGW Policy Option Recommendations	GCGW Meeting #9
Approve Final GCGW Policy Option Recommendations	GCGW Meeting #10

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

Policy No.	Policy Option	GHG Reductions (MMtCO <sub>2</sub> e)			Net Present Value 2009–2025 (Million \$)	Cost-Effectiveness (\$/tCO <sub>2</sub> e)	Status
		2015	2025	Total 2009–2025			
RCI-1	Improved Building Codes	0.32	0.97	7.6	–\$164.8	–\$21.7	Pending
RCI-2a	Utility and Non-Utility DSM for Peak Use Electricity	.26	0.50	5.3	–\$277	–\$52	Pending
RCI-2b	Utility and Non-Utility DSM and Energy Efficiency for Electricity	1.6	6.8	46.6	–\$1,107	–\$23.7	Pending
RCI-3a.	Reduced Energy Use in New and Retrofitted State-Owned Buildings	<i>Not Yet Quantified</i>					Pending
RCI-3b	Reduced Energy Use in State-Owned Buildings	<i>Not Yet Quantified</i>					Pending
RCI-4a	Promotion and Incentives for Improved New Building Design and Construction	<i>Not Yet Quantified</i>					Pending
RCI-4b	Promotion and Incentives for Improved Existing Buildings	<i>Not Yet Quantified</i>					Pending
RCI-5	Education for Consumers, Industry Trades, and Professions	<i>Not Quantifiable</i>					Pending
RCI-6	Incentives and Funds To Promote Renewable Energy and Energy Efficiency	<i>Not Yet Quantified</i>					Pending
RCI-7	Green Power Purchasing for Consumers	<i>Not Yet Quantified</i>					Pending
RCI-8	Nonresidential Energy Efficiency	<i>Not Yet Quantified</i>					Pending
RCI-9	Support for Energy-Efficient Communities, Including Smart Growth	<i>Not Yet Quantified</i>					Pending
RCI-10	Energy-Savings Sales Tax	<i>Not Yet Quantified</i>					Pending
	<b>Sector Total After Adjusting for Overlaps</b>	TBD	TBD	TBD	TBD	TBD	
	<b>Reductions From Recent Actions</b>	TBD	TBD	TBD	TBD	TBD	
	<b>Sector Total Plus Recent Actions</b>	TBD	TBD	TBD	TBD	TBD	

GHG = greenhouse gas; MMtCO<sub>2</sub>e = million metric tons of carbon dioxide equivalent; \$/tCO<sub>2</sub>e = dollars per metric ton of carbon dioxide equivalent; TBD = to be determined.

Negative values in the Net Present Value and the Cost-Effectiveness columns represent net cost savings.

The numbering used to denote the above pending priority policy options is for reference purposes only; it does not reflect prioritization among these important draft policy options.

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

Policy No.	Policy Option	GHG Reductions (MMtCO <sub>2</sub> e)			Net Present Value 2009–2025 (Million \$)	Cost-Effectiveness (\$/tCO <sub>2</sub> e)	Level of Support
		2015	2025	Total 2009–2025			
ES-1	Green Power Purchases and Marketing	<i>Transferred to RCI-7</i>					
ES-2	Technology Research & Development	<i>Not Quantifiable</i>					Pending
ES-3a	Renewable Portfolio Standard (RPS)	<i>Not Yet Quantified</i>					Pending
ES-3b	Renewable Energy Feed-In Tariff (REFIT)	<i>Not Yet Quantified</i>					Pending
ES-4	Grid-based Renewable Energy Incentives and/or Barrier Removal	<i>Not Yet Quantified</i>					Pending
ES-5	Approaches Benefiting From Regional Application	<i>Not Yet Quantified</i>					Pending
ES-6	Combined Heat and Power	<i>Not Yet Quantified</i>					Pending
ES-7	Geological Underground Sequestration for New Plants	<i>Not Yet Quantified</i>					Pending
ES-8	Transmission System Upgrades	<i>Not Yet Quantified</i>					Pending
ES-9	Nuclear Power	<i>Not Yet Quantified</i>					Pending
ES-10	Carbon Tax	<i>Not Yet Quantified</i>					Pending
ES-11	Efficiency Improvements and Repowering of Existing Plants	<i>Not Yet Quantified</i>					Pending
	<b>Sector Total After Adjusting for Overlaps</b>	<b>TBD</b>	<b>TBD</b>	<b>TBD</b>	<b>TBD</b>	<b>TBD</b>	
	<b>Reductions From Recent Actions</b>	<b>TBD</b>	<b>TBD</b>	<b>TBD</b>	<b>TBD</b>	<b>TBD</b>	
	<b>Sector Total Plus Recent Actions</b>	<b>TBD</b>	<b>TBD</b>	<b>TBD</b>	<b>TBD</b>	<b>TBD</b>	

GHG = greenhouse gas; MMtCO<sub>2</sub>e = million metric tons of carbon dioxide equivalent; \$/tCO<sub>2</sub>e = dollars per metric ton of carbon dioxide equivalent; TBD = to be determined.

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

Policy No.	Policy Option	GHG Reductions (MMtCO <sub>2</sub> e)			Net Present Value 2009–2025 (Million \$)	Cost-Effectiveness (\$/tCO <sub>2</sub> e)	Level of Support
		2015	2025	Total 2009–2025			
TLU-1	Study the Feasibility of Plug-In Vehicles	<i>Not quantified—Qualitative Study Option</i>					Pending
TLU-2	Research and Development of Renewable Transportation Fuels	<i>Incorporated into analysis for TLU-3</i>					Pending
TLU-3	Advanced Biofuels Development and Expansion (3a: 10% displacement)	1.52	4.76	37.40	\$411	\$11	Pending
	Advanced Biofuels Development and Expansion (3b: 12% displacement)	1.78	5.72	44.43	\$648	\$15	Pending
TLU-4	Smart Growth, Pedestrian and Bicycle Infrastructure	0.06	0.17	1.39	<0 (Net Savings)	<0 (Net Savings)	Pending
TLU-5	Improve and Expand Transit Service and Infrastructure	0.001	0.007	0.03	1.5	\$1,479	Pending
TLU-6	School and University Transportation Bundle				<i>In Process</i>		Pending
TLU-7	Promote and Facilitate Freight Efficiency	0.33	0.47	6.1	\$48	\$104	Pending
TLU-8	Procurement of Efficient Fleet Vehicles (Passenger and Freight)				<i>In Process</i>		Pending
TLU-9	Fuel Efficiency: Clean Car Incentive	<i>Not Quantified – Qualitative Study Option</i>					Pending
TLU-10	Public Education	<i>Not Quantified—Overlaps with other policies</i>					Pending
TLU-11	Lower Speed Limits and Enforcement (11a: 60 mph limit)	1.99	1.91	31.2	-\$87	\$45	Pending
	Lower Speed Limits and Enforcement (11b: 55 mph limit)	2.88	2.75	45.1	-\$125	-\$45	Pending
	<b>Sector Total After Adjusting for Overlaps</b>	<b>TBD</b>	<b>TBD</b>	<b>TBD</b>	<b>TBD</b>	<b>TBD</b>	
	<b>Reductions From Recent Actions (Federal CAFE requirements)</b>	<b>1.02</b>	<b>3.26</b>	<b>26.9</b>			
	<b>Sector Total Plus Recent Actions</b>	<b>TBD</b>	<b>TBD</b>	<b>TBD</b>	<b>TBD</b>	<b>TBD</b>	

GHG = greenhouse gas; MMtCO<sub>2</sub>e = million metric tons of carbon dioxide equivalent; \$/tCO<sub>2</sub>e = dollars per metric ton of carbon dioxide equivalent; TBD = to be determined.

Negative values in the Net Present Value and the Cost-Effectiveness columns represent net cost savings.

The numbering used to denote the above pending priority policy options is for reference purposes only; it does not reflect prioritization among these important draft policy options.

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

Policy No.	Policy Option		GHG Reductions (MMtCO <sub>2</sub> e)			Net Present Value 2009–2025 (Million \$)	Cost-Effectiveness (\$/tCO <sub>2</sub> e)	Status of Option
			2015	2025	Total 2009–2025			
AFW-1	Manure Management		Not quantified					Pending
AFW-2	Promotion of Farming Practices That Achieve GHG Benefits	Soil Carbon	0.62	1.50	13.6	–\$49	–\$3.6	Pending
		Nutrient Efficiency	0.11	0.27	2.39	–\$56	–\$23	
AFW-3	Improved Water Management and Use	Increased Surface Water	0.07	0.17	1.49	\$1,241	\$835	Pending
		Improved Purification	0.001	0.001	0.012	–\$0.4	–\$39	
AFW-4	Expanded Use of Agriculture and Forestry Biomass Feedstocks for Electricity, Heat, or Steam Production	Energy From Biomass	6.2	12.4	121.2	\$3208	\$26	Pending
		Energy From Livestock Manure and Poultry Litter	0.01	0.02	0.19	\$0.8	\$4	
		Capture of Waste Heat	0.02	0.06	0.50	–\$70	–\$140	
AFW-5	Expanded Use of Advanced Biofuels		1.35	2.15	19.7	114	\$5.8	Pending
AFW-6	Expanded Use of Locally Produced Farm and Forest Products		0.03	0.06	0.61	\$1	\$2	Pending
AFW-7	Forest Management and Establishment for Carbon Sequestration	Urban Forestry	0.02	0.11	0.41	\$17	\$41	Pending
		Sustainable Forest Management	8.4	21.0	186	TBD	TBD	
		Afforestation	0.74	1.80	16.16	\$201	\$12	
AFW-8	Advanced Recovery and Recycling		1.52	4.35	35.8	–\$259	–\$7	Pending
AFW-9	End-of-Use Waste Management Practices		0.02	0.02	0.4	–\$3	–\$1	Pending
	<b>Sector Total After Adjusting for Overlaps</b>		<b>TBD</b>	<b>TBD</b>	<b>TBD</b>	<b>TBD</b>	<b>TBD</b>	
	<b>Reductions From Recent Actions</b>		<b>0.0</b>	<b>0.0</b>	<b>0.0</b>	<b>0.0</b>	<b>0.0</b>	
	<b>Sector Total Plus Recent Actions</b>		<b>TBD</b>	<b>TBD</b>	<b>TBD</b>	<b>TBD</b>	<b>TBD</b>	

GHG = greenhouse gas; MMtCO<sub>2</sub>e = million metric tons of carbon dioxide equivalent; \$/tCO<sub>2</sub>e = dollars per metric ton of carbon dioxide equivalent; TBD = to be determined.

Negative values in the Net Present Value and the Cost-Effectiveness columns represent net cost savings.

The numbering used to denote the above pending priority policy options is for reference purposes only; it does not reflect prioritization among these important draft policy options.

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

	Policy Option	GHG Reductions (MMtCO <sub>2</sub> e)			Net Present Value 2009–2025 (Million \$)	Cost-Effectiveness (\$/tCO <sub>2</sub> e)	Level of Support
		2015	2025	Total 2009–2025			
CC-1	Greenhouse Gas Inventories and Forecasts	<i>Not Quantified</i>					Pending
CC-2	State Greenhouse Gas Reporting and Registry	<i>Not Quantified</i>					Pending
CC-3	Statewide Greenhouse Gas Reduction Goals or Targets	<i>Not Quantified</i>					Pending
CC-4	The State’s Own Greenhouse Gas Emissions (Lead-by-Example)	<i>Not Quantified</i>					Pending
CC-5	Comprehensive Local Government Climate Action Plans	<i>Not Quantified</i>					Pending
CC-6	State Climate Public Education and Outreach	<i>Not Quantified</i>					Pending
CC-7	Optimizing Best-Scale of Reduction Policies	<i>Not Quantified</i>					Pending
CC-8	Creative Financial Mechanisms	<i>Not Quantified</i>					Pending
CC-9	Adaptation and Vulnerability	<i>Not Quantified</i>					Pending
CC-10	Climate-Change Related Economic Development	<i>Not Quantified</i>					Pending
CC-11	Regulatory Realignment in Government to Encourage Constructive Climate Action	<i>Not Quantified</i>					Pending

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The numbering used to denote the above pending priority policy options is for reference purposes only; it does not reflect prioritization among these important draft policy options.