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Catalog of State Actions Cross-Cutting (CC) Issues Working Group

Draft 9-19-07

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A catalog of state-level, GHG-reducing actions and policy options prepared by the Center for Climate Strategies (CCS), Maryland Department of Environment, and others based on actions undertaken or considered by Maryland and other states, including regional, state, local and private actions.

Important Note: The GHG Reduction Policy Options below are numbered solely for convenience in referencing them. Their numbers do NOT reflect a ranking or prioritization of the policy options.

Notation regarding options:

Options marked with an asterisk (*) indicate options that are at least partially “base case” policies, i.e., that have been considered or undertaken at some level in Maryland.

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Option No.	GHG Reduction Policy Option	Priority for Consideration	Feasibility Considerations	Notes
1 INVENTORIES AND FORECASTING				
1.1.	Establish & fund mandatory GHG emission inventory function at state agency*			<ul style="list-style-type: none"> State has already established on-going inventory capacity within the MDE. Preliminary draft inventory at this point. To be refined further.
1.2.	Establish & maintain GHG emission forecasting function			<ul style="list-style-type: none"> Growth assumptions are from existing sources. Reference case assumes no major changes. * <u>Generation Attributes Tracking System (GATS)</u>
2 GHG REPORTING AND REGISTRY				
2.1.	Establish or adopt a GHG emissions reporting program*			<ul style="list-style-type: none"> State recently joined <i>The Climate Registry</i> which, at least for voluntary participants, will include compliance with reporting protocols for registering GHG emissions and emission reductions.
<u>2.2</u>	Participate in the development of a multi-state GHG emissions reduction registry*			<ul style="list-style-type: none">
<u>2.3</u>	Provide assistance in reporting & registering GHG emissions *			<ul style="list-style-type: none">
<u>2.4</u>	Recruit members for Registry statewide			<ul style="list-style-type: none">
<u>2.5</u>	<u>Facilitate development of an effective carbon credit system for MD</u>			<ul style="list-style-type: none"> <u>The state could purchase carbon credits associated with its own activities, function as a purveyor of credits to others, or act as a certification entity of others' carbon reductions.</u>

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Option No.	GHG Reduction Policy Option	Priority for Consideration	Feasibility Considerations	Notes
4	• STATEWIDE GHG REDUCTION GOALS AND TARGETS			
<u>4.1</u>	Establish goals or targets for statewide GHG emission reductions [NOTE: Executive Order contains the presumptive goals. MCCC is tasked with recommending GHG reduction goals for the state.]			<ul style="list-style-type: none"> • Governor’s Executive Order directs that the MWG develop a Comprehensive Greenhouse Gas and Carbon Footprint Reduction Strategy. The strategy should: <ol style="list-style-type: none"> i. Evaluate and recommend goals that include but not be limited to the reduction of Maryland’s greenhouse gas emissions to 1990 levels by 2020 and 80% of 2006 levels by 2050; ii. Recommend short and long-term goals and strategies that include both energy and non-energy related measures to mitigate greenhouse gases and offset carbon emissions; and iii. Provide a detailed implementation timetable, with benchmarks, for each recommendation and strategy.
<u>4.2</u>	Institute an accountability program to measure and report progress in reducing GHG emissions.			<ul style="list-style-type: none"> • Purpose is to ensure that overall implementation of the climate plan proceeds toward its targets. • Implementation accountability for individual policy options should be included in policy option straw proposals developed by the TWGs.
<u>4.3</u>	Participate in development of accountability programs in other states			<ul style="list-style-type: none"> • Purpose is to avoid duplication of efforts, create uniformity or reporting requirements and to utilize other states’ expertise

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5	STATE GOVERNMENT GHG EMISSIONS (LEAD-BY-EXAMPLE)			
5.1.	Lead by example by establishing targets for reductions in State GHG emissions			• Empower MD initiative to reduce state GHG emissions by 15% by 2010
5.2.	Create a multi-agency body to oversee on-going state climate efforts.			• MCCC established
5.3.	Disaggregate the State’s own GHG emissions to the agency level and require annual agency-specific reports on GHG reduction progress.			
5.4.	Institute an accountability program to measure and report progress in reducing GHG emissions.			
5.5.	Climate-neutral bonding			
5.6.	Require evaluation of GHG emissions in Environmental Impact Statements and similar environmental studies.			• Environmental studies, such as environmental Assessments (EAs) and Environmental Impact Statements (EISs).
5.7.	Review sources of renewable energy			•
6	COMPREHENSIVE LOCAL GOVERNMENT CLIMATE ACTION PLANS AND LEAD BY EXAMPLE			
6.1.	Encourage and assist in the development of local government planning efforts to reduce greenhouse gas emissions, establish targets, etc.			• ID state roles <u>in promoting local GHG reduction initiatives</u>

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Option No.	GHG Reduction Policy Option	Priority for Consideration	Feasibility Considerations	Notes
6.2.	<u>Integrate local land use planning w/ GHG reductions</u>			•
7	PUBLIC EDUCATION AND OUTREACH – See Appendix A for Details for each Audience Category			
7.1.	State Government Education and Outreach Actions The State should lead by example (i.e., walk the talk) regarding education and outreach.			
7.2.	Target Audience: Policymakers (legislators, regulators, executive branch, agencies) Implementation of climate actions hinges on policymakers’ approval.			
7.3.	Target Audience: Future Generations Integrate climate change into educational curricula, post-secondary degree programs, and professional licensing.			
7.4.	Target Audience: Community Leaders & Community-Based Organizations (e.g., institutions, municipalities, service clubs, social & affinity groups, NGOs, etc.) Recognize leadership; share success stories & role models; expand involvement and participation within civic society.			
7.5.	Target Audience: General Public Increase awareness and engage in climate actions in personal and professional lives.			
7.6.	Target Audience: Industrial, <u>Trades</u> & Economic Sectors Sector-specific climate change education and outreach.			
7.7.	<u>Target Audience: Media</u> <u>Coordinate media campaigns related to GHG,</u>			

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Option No.	GHG Reduction Policy Option	Priority for Consideration	Feasibility Considerations	Notes
8 TAX AND CAP POLICIES				
8.1.	Institute tax incentives and disincentives to encourage GHG reductions.			
8.2.	Other market-based programs including cap and trade			<ul style="list-style-type: none"> • <u>Cap and Trade should not be limited to only the power/utilities sector</u>
8.3.	Explore other regional opportunities, both public and private			
8.4.	State should consider advocating a national cap and trade system.			
9 SEEK FUNDING FOR IMPLEMENTATION OF CLIMATE ACTION PANEL RECOMMENDATIONS				
9.1.	Seek and stimulate funding and investment in climate solutions in Maryland.			<ul style="list-style-type: none"> • <u>Individual TWGs should look at funding of their respective options but CC TWG might want to examine the broader funding issues.</u>
9.2.	<u>Explore the viability of a revolving loan type approach to finance GHG reduction initiatives.</u>			
10 ADAPTATION & VULNERABILITY				
10.1	Undertake a comprehensive planning effort to assess and address Maryland's vulnerability to climate change and adaptation opportunities.			<ul style="list-style-type: none"> • Adaptation WG addressing this so the CC TWG probably does not need to address it.

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Option No.	GHG Reduction Policy Option	Priority for Consideration	Feasibility Considerations	Notes
11	PARTICIPATE IN REGIONAL AND MULTI-STATE GHG REDUCTION EFFORTS			
11.1	Identify opportunities for Maryland to join with other state or regional GHG reduction efforts.			
11.2	Join or explore joining a regional climate reduction initiatives.			<ul style="list-style-type: none"> • MD is now a member of RGGI. Consider expanding it. • <u>Clean Cars initiative.</u>
12	PROMOTE ECONOMIC DEVELOPMENT OPPORTUNITIES ASSOCIATED WITH REDUCING GHG EMISSIONS IN MD			
12.1	<u>Create an entity to promote business development opportunities in climate protection.</u>			<ul style="list-style-type: none"> • <u>Need a vehicle for entrepreneurs to connect with investors.</u>
12.2	<u>Promote strategic business initiatives and share information about business efforts to reduce GHG emissions</u>			<ul style="list-style-type: none"> •
12.3	<u>Consider establishing a “Market Advisory Group” consisting of experts to provide guidance to the state on the design of market-based compliance programs to manage GHG emissions. Look at the California system as a potential model.</u>			<ul style="list-style-type: none"> • <u>CA Market Advisory Group under its GHG cap law, AB-32.</u>

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<u>12.2</u>	<u>Promote strategic business initiatives and share information about business efforts to reduce GHG emissions</u>			<ul style="list-style-type: none"> •
<u>12.3</u>	<u>Consider establishing a “Market Advisory Group” consisting of experts to provide guidance to the state on the design of market-based compliance programs to manage GHG emissions. Look at the California system as a potential model.</u>			<ul style="list-style-type: none"> • <u>CA Market Advisory Group under its GHG cap law, AB-32.</u>

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Appendix A. PUBLIC EDUCATION AND OUTREACH
Third-Level Sub-Options by Audience for Option 7 of Catalog

Option No.	GHG Reduction Policy Option	Priority for Consideration	Feasibility Considerations	Notes
7	PUBLIC EDUCATION AND OUTREACH			
7.1	State Government Education and Outreach Actions The State should lead by example (i.e., walk the talk) regarding education and outreach.			
7.1.1.	Establish an education & outreach committee to educate audiences regarding climate plan policies and to oversee those relating to education.			
7.1.2.	Include state public education and higher education officials in the committee established above			
7.1.3.	Create and maintain one or more “outreach coordinator” positions specifically tasked with climate outreach and coordination among state agencies and outside entities.			
7.1.4.	Educate state employees across-the-board, and assign “point persons” to do so on an on-going basis.			
7.1.5.	Institute annual Governor’s Awards to recognize climate action of several types/categories.			

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7.2	Target Audience: Policymakers (legislators, regulators, executive branch, agencies) Implementation of climate actions hinges on policymakers' approval.			
7.2.1.	Educate policy makers on CAP policy recommendations, climate change in general, scientific and technological advances, and progress toward state goals through regular briefings in order to promote acceptance and implementation of mitigation and adaptation policies.			
7.2.2.	Provide continuing outreach & assistance to Governor's office, legislature, and implementing agencies on a regular basis.			
7.3	Target Audience: Future Generations Integrate climate change into educational curricula, post-secondary degree programs, and professional licensing.			
7.3.1.	Add climate change to public education performance standards for science and social studies; identify (a) gaps in climate change education, and (b) specific curricula to fill any gaps.			
7.3.2.	Organize groups of educators to identify, assemble, and employ climate change curricula appropriate to age groups			

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Option No.	GHG Reduction Policy Option	Priority for Consideration	Feasibility Considerations	Notes
7.3.3.	Integrate “best practices” into public school design & construction to educate students (and parents) first-hand in their communities & colleges (i.e., walk the talk).			
7.3.4.	Integrate climate change into core college curricula.			
7.3.5.	Promote research into climate change and solutions at state universities; develop university “Centers of Excellence” on climate issues, new approaches, and technologies.			
7.3.6.	Integrate climate change into existing and/or new educational competition programs.			
7.3.7.	Work with science centers, zoos, and museums to include a climate science focus appropriate to their core mission			
7.3.8.	Introduce core competencies on climate change into professional licensing programs (e.g., energy efficiency in building design and construction, use of recycled materials, etc.)			

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7.4	Target Audience: Community Leaders & Community-Based Organizations (e.g., institutions, municipalities, service clubs, social & affinity groups, NGOs, etc.) Recognize leadership; share success stories & role models; expand involvement and participation within civic society.			
7.4.1.	Educate community planning and zoning officials about climate change, impacts, and opportunities.			
7.4.2.	Identify individual community leaders who are acting effectively on climate change; showcase and share their successes.			
7.4.3.	Identify individual community leaders who are not yet acting on climate change and make a special effort to educate and encourage them to act.			
7.4.4.	Engage associations and attend their periodic meetings to reach out on climate change, impacts, sector-specific mitigation actions, and adaptation opportunities.			
7.4.5.	Identify, assist, and leverage community-based organizations that have expertise or interest in climate-related issues			
7.4.6.	Work with community-based organizations to identify & build upon climate issues related to their core mission			

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Option No.	GHG Reduction Policy Option	Priority for Consideration	Feasibility Considerations	Notes
7.4.7.	Develop & coordinate a network of community-based organizations acting on climate change so they can link up, organize joint events, etc.			
7.4.8.	Support and facilitate outreach and education within community-based organization regarding climate change issues and actions			
7.4.9.	Develop and provide concrete information on co-benefits to entities to use in boosting their climate efforts			
7.4.10.	Organize & host events that focus on leading by example, sharing “how-to,” illuminating financial risks and opportunities, co-benefits, etc.			
7.4.11.	Encourage municipal leaders to join ICLEI’s ¹ Cities for Climate Protection program and/or the Mayors Climate Protection Agreement ²			
7.4.12.	Help communities statewide implement local Climate Wise programs.			

¹ ICLEI is the International Council for Local Environmental Initiatives. See www.iclei.org.

² See <http://www.ci.seattle.wa.us/mayor/climate/>.

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Option No.	GHG Reduction Policy Option	Priority for Consideration	Feasibility Considerations	Notes
7.5	Target Audience: General Public Increase awareness and engage in climate actions in personal and professional lives.			
7.5.1.	Educate broadcasters, reporters, editorial boards, etc. about climate change, the risks it imposes, and solutions.			
7.5.2.	Work with state broadcasters and print media associations to develop & run climate change public service announcements.			
7.5.3.	Conduct public polling to benchmark strength and depth of climate understanding.			
7.5.4.	Keep a high profile on climate change issues and actions through regular public mention by Governor and other public leaders			
7.5.5.	Develop and use a state-based “brand” on climate awareness and action			
7.5.6.	Develop & maintain a state climate change website for the public including a clearinghouse of climate change information and resources.			
7.5.7.	Work with existing company outreach efforts to customers to enhance awareness of climate change issues & opportunities			

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Option No.	GHG Reduction Policy Option	Priority for Consideration	Feasibility Considerations	Notes
7.5.8.	Undertake a concerted planning effort to identify and address climate adaptation issues & needs in the state			
7.5.9.	Work to educate consumers – and home designers, builders, and contractors – to ensure that they are aware of the different choices they have for space heating and cooling (e.g., evaporative vs. refrigerative) and the impacts of those choices.			
7.5.10.	Develop a statewide voluntary program to structure and assist individuals in undertaking actions to reduce GHG emissions.			
7.6	Target Audience: Industrial & Economic Sectors Sector-specific climate change education and outreach.			
7.6.1.	Residential, Commercial, & Industrial			
7.6.2.	Transportation & Land Use			• Have a State award for the car dealer that sells the most hybrids?

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Option No.	GHG Reduction Policy Option	Priority for Consideration	Feasibility Considerations	Notes
7.6.3.	Energy Supply and Use			<ul style="list-style-type: none"> • Do public service announcements to education the public about DSM. • Include environmental disclosure in monthly electricity bills. • Help municipal utilities move to greater demand-side emphasis rather than supply-side.
7.6.4.	Agriculture & Forestry			
7.6.5.	Implement a state program of voluntary business actions to reduce GHGs			
7.6.6.	Institute a “business incubator” program to attract and support new business development relating to the new energy economy.			
7.6.7.	Audiences outside Maryland too			

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GHG REGISTRY**ENCOURAGE THE CREATION OF A BUSINESS-ORIENTED ORGANIZATION TO SHARE INFORMATION AND STRATEGIES, RECOGNIZE SUCCESSES, AND SUPPORT AGGRESSIVE GHG REDUCTION GOALS**

Promote development of a business-oriented entity to help promote and recognize business efforts to reduce GHG emissions.

A business council for sustainability might be considered.

DEDICATE GREATER PUBLIC INVESTMENT TO CLIMATE DATA AND ANALYSIS

Consider formation of a state climate data and analysis center to develop and provide objective, state-specific information regarding climate data.

* Generation Attributes Tracking System (GATS)

FACILITATE THE DEVELOPMENT OF AN EFFECTIVE CARBON CREDIT SYSTEM FOR MD

The state could purchase carbon credits associated with its own activities, function as a purveyor of credits to others, or act as a certification entity of others' carbon reductions.