

Maryland Commission on Climate Change

Mitigation Working Group

2018 Work Plan

Updated 10/20/2017

Purpose

During its 2015 session, the Maryland General Assembly codified the Maryland Commission on Climate Change (MCCC) into law, and charged the Commission with advising the Governor and General Assembly on ways to mitigate the causes of, prepare for, and adapt to the consequences of climate change. The MCCC is chaired by MDE Secretary Ben Grumbles and consists of 26 members representing diverse interests in the State.

The Mitigation Working Group (MWG) is one of four working groups that support the objectives of the Commission. The purpose of the MWG is to recommend regulatory, market-based and voluntary programs to reduce greenhouse gas (GHG) emissions. These strategies are to be designed in support of a strong economy and job creation in Maryland.

Membership

The MWG is balanced group co-chaired by three commission members (state agency, business representative, and environmental advocate), with administrative support provided by Maryland Department of the Environment (MDE) staff. A complete membership roster is located in Appendix A of this document.

2018 Priorities

The MWG is partially driven by the schedule set by the 2016 Greenhouse Gas Reduction Act (GGRA) legislation, which requires MDE to present a draft plan to the Governor and General Assembly by the end of 2018 outlining specific strategies to achieve the most recent benchmark GHG emission reduction goal (40 percent reduction from 2006 levels by 2030). Furthermore, the Plan is being developed in recognition of the IPCC's finding that, in order to reach the desired mitigation pathway¹, developed countries must reduce GHG emissions between 80 to 90% below 1990 levels by 2050. The MWG agrees that such considerations for reductions beyond 2030 are important to achieving long-term emission reduction goals, especially when it comes to actions which may take longer to achieve results. Due to the significance of this Draft Plan for the State's climate change mitigation goals in 2030 and beyond, the MWG intends to provide robust recommendations and assistance to MDE both during the development process and after the draft plan is released, prior to finalization at the end of 2019. Accordingly, the 2018 MWG plans focus on refining and finalizing the recommendations it has been building during 2016 and 2017, and taking actions to move these recommendations forward as appropriate, in order to support this effort and produce robust recommendations for the Commission's 2018 Annual Report.

Process

The MWG has access to a wide variety of internal and external assets, including the expertise and resources of MWG members, various State agencies, and the three other working groups of the Commission. In 2017, the MWG regularly sourced subject matter experts in topics of study to inform analyses and discussion of the working group, and plans to continue to do so in 2018. The MWG also plans to coordinate with the Science and Technology Working Group (STWG), the Adaptation and Response Working Group (ARWG) and the Education, Communication and Outreach Working Group (ECO) on many cross-cutting issues. More specific opportunities for collaboration are laid out in the Proposed Meeting Schedule (Appendix C).

Schedule of Meetings

Appendix C of this document provides a summary of MWG meetings scheduled for 2017, as well as tentative topics and action items.

¹ Scenario A from AR4, 450 ppm CO₂ eq

Appendix A

Mitigation Working Group Membership

Leadership	
Mike Tidwell	Co-Chair
Michael Powell	Co-Chair
Tad Aburn	Work Group Lead

Representatives of Environmental Organizations	
Mike Tidwell (co-chair)	Chesapeake Climate Action Network
Joe Uehlein	Labor Network for Sustainability
Anya Schoolman	Community Power Network
Jana Davis	Chesapeake Bay Trust
Arjun Makhijani	Institute for Energy and Environmental Research
Tamara Toles O’Laughlin	Maryland Environmental Health Network
Representatives of Academic Institutions	
Gerrit Knaap	University of Maryland, National Center for Smart Growth
Ben Hobbs	Johns Hopkins University
Representatives of Renewable and Traditional Energy Providers	
Anne Lindner	Exelon
R. Daniel Wallace	Bithenergy
Tom Weissinger	Talen Energy
Tom Dennison	Southern Maryland Electric Cooperative
John Quinn	Baltimore Gas and Electric Company
Representatives of Business Interests and Labor Organizations	
Michael Powell (co-chair)	Gordon Feinblatt LLC
Tom Ballentine	NAIOP - Real Estate Development
Mike Remsberg	Trinity Consultants
Drew Cobbs	American Petroleum Institute
Colby Ferguson	Maryland Farm Bureau
Jim Strong	United Steelworkers
Larry Kasecamp	SMART Transportation Division
Representatives of State and Local Government Agencies	
George “Tad” Aburn (working group lead)	Department of the Environment
Colleen Turner	Department of Transportation
Chris Rice	Energy Administration
Christine Conn	Department of Natural Resources
Susan Payne	Department of Agriculture
Tom Walz	Department of Housing and Community Development
Les Knapp	Maryland Association of Counties
Lisa McNeilly	Baltimore Office of Sustainability

Steering Committee	
George “Tad” Aburn	Maryland Department of the Environment
Michael Powell	Business Community Representative
Mike Tidwell	Chesapeake Climate Action Network
Colleen Turner	Maryland Department of Transportation
John Fiastro	Maryland Energy Administration
Christine Conn	Maryland Department of Natural Resources
Susan Payne	Maryland Department of Agriculture

Mitigation Working Group Recommendations from the 2017 Report

The 40 Percent by 2030 Plan:

- The Mitigation Working Group (MWG) acknowledges the importance of early collaboration on the 40 by 30 Plan, the draft of which is due at the end of 2018, and is continuing to seek input on any recommendations for additional programs or considerations, to be presented to the State in sufficient time for incorporation into the drafting process.

Enhanced Greenhouse Gas (GHG) Emissions Inventory:

- The State should continue to pursue the most locally relevant and complete methods for calculating its GHG Emissions Inventory, including but not limited to consideration of (1) including the life-cycle emissions generated by out-of-state extraction, processing, and transportation of fossil fuels based on in-state consumption (both direct consumption of fuel as well as fuel used to generate electricity which is then consumed in-state); (2) utilizing NASA-sourced LiDAR to provide a more accurate estimate of site-specific carbon sequestration through planting forests, managing forests, and increasing urban tree canopy; and (3) applying advanced methods to generate a more accurate accounting of sequestration benefits from agricultural soil management practices.

Environmental Justice and Underserved Communities:

- The MWG plans to continue to incorporate considerations for environmental justice in its recommendations for developing the 40 by 30 Plan, especially as it relates to underserved communities (both urban and rural) and populations considered especially vulnerable to the impacts of climate change (e.g. children and the elderly). The MWG encourages the State to also use this lens, particularly when examining the results of the health impacts study to be performed.
- To further inform this perspective, the MWG encourages MDE to work with the Department of Natural Resources (DNR) and the Commission's Adaptation and Response Working Group (ARWG) in developing a personal query within the Coastal Resiliency Tool that would allow for spatially explicit demographic analysis of those that may be most heavily impacted by sea-level rise.

Clean Energy Businesses and Manufacturing Jobs, and Fossil Fuel Dependent Workers:

- The MWG supports the promotion of green-energy manufacturing in-state that will directly provide sustainable, high quality jobs and generate additional jobs along the supply chain. This has the potential to not only put Maryland at the forefront of an emerging market but also reduce life-cycle emissions for renewable energy projects, both in state and in the surrounding area, by decreasing miles traveled and ensuring best practices during manufacturing.
- The manufacturing study required in 2020 under the 2016 Greenhouse Gas Emissions Reduction Act (GGRA) should explore the costs and benefits (both economic and environmental), as well as the general feasibility of: (1) potential modifications or enhancements to the current "buy local" provisions in the GGRA Plan, such as agreements in contracting for "Buy Maryland/Buy USA" and "Hire Maryland"; and (2) the development of an in-state supply chain to create lasting manufacturing and other jobs related to renewable infrastructure.
- The State should consider incorporating climate goals within its general procurement policies, requiring minimum qualifications for bidders related to attributes which will help meet the 40% by 2030 emissions reduction goals, while creating or maintaining quality jobs in the process.

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- To the extent possible, the jobs analysis for the Draft 40 by 30 Plan should include the quality of jobs (e.g. wages, benefits) and the quantity of jobs created by new initiatives, as well as where the additional jobs are likely to be located, and in what field of employment.
- Additional economics and jobs analyses should, if feasible, address the following topics: (1) workforce and economic considerations surrounding various emerging technologies in electricity generation/storage and advanced management strategies that decrease the total GHG burden of the electric grid; (2) numbers for actual expected displacement of workers, and geographic location; (3) how the future climate may impact worker productivity and construction seasons; (4) the quality of jobs that may replace fossil fuel industry work; and (5) the potential impacts of combined heat and power (CHP) on industrial operational costs and job retention.
- Additional analysis should be conducted, if feasible, regarding clean energy generation located in Maryland, including economic impacts, environmental impacts, workforce, etc., and opportunities to value reliable, efficient and clean energy resources for their environmental, health and economic qualities.

Healthy Soils and Carbon Sequestration:

- An analysis of both current and additional practices should be undertaken to identify those practices appropriate to Maryland that increase soil health, as well as the co-benefits, including carbon sequestration, greenhouse gas mitigation, water quality improvement, ecological resilience, nutrient content, health impact, crop or animal yield, and economic profitability.
- The MWG, in concert with the ARWG, supports incentivizing a menu of Best Management Practices that improve soil health. In addition, co-benefits should be considered when developing strategies and allocating new resources for existing and planned programs.
- Within their respective roles and charges, the Maryland Commission on Climate Change (MCCC) and its four working groups should support the efforts of the Healthy Soil Consortium to inform Maryland farmers of not only the benefits of soil health, but also the programs and incentives that can be accessed to further the adoption of such practices.
- A determination should be made of the tools and metrics available for use in quantifying the potential for carbon sequestration and GHG reduction that can be achieved through the adoption of healthy soil practices.
- A cross-agency inventory should be conducted of Maryland programs that could prioritize and incentivize healthy soil practices for all scales of farming, including the home gardener.
- The MWG and ARWG support the development of pilot and/or demonstration projects to test innovative soil health practices, monitor results over time, and provide educational site locations.
- Alternative funding sources, such as RGGI, social/environmental impact bonds, or public/private partnerships, should be explored; and new funding, when available, should advance programs and practices that prioritize improved soil health.

Innovative Financing:

- The MWG sub-group lead by the Maryland Energy Administration (MEA) should continue discussion on actionable recommendations for changes to legislation that would help make Commercial PACE loans more attractive to borrowers, lenders, and banks, and increase usage in Maryland.
- The MWG sub-group lead by MEA should continue to work with the Maryland Association of Counties (MACo) and other appropriate parties to move forward with a decision regarding whether the counties wish to make use of the available Qualified Energy Conservation Bonds (QECBs), or if they will waive

Appendix B

their allocations to be aggregated and distributed at the state level (in a manner to be discussed by the sub-group), to increase utilization of these funds.

Transportation:

- The MWG recommends that the process for estimating mitigation strategies for the transportation sector be enriched to include synergies of different strategy bundles as well as the co-benefits of various strategies (e.g. social equity, public health, and other environmental benefits).
- Regarding emission modeling processes, MWG recommends that considerations be made for cross-sectoral consistency in assumptions for modeling future baseline and mitigation scenarios, particularly regarding land use and development; and that there be a continued evaluation of best available state-wide inputs, including geographic areas not presently covered by Metropolitan Planning Organization (MPO) travel models.
- The MWG recommends that the Maryland Department of Transportation (MDOT), MDE, MEA and the Department of General Services (DGS) review state fleet procurement procedures and practices and provide direction on electric vehicle (EV) procurement and EV charging station installation guidance and targets by October 2018.
- The MWG recommends researching the costs and benefits of supporting the rapid deployment of ZEV school and transit buses in Maryland. The analysis should include: (1) capital, maintenance and operating cost comparisons; (2) research into the viability of zero emission vehicles (ZEVs) as well as hybrid and alternative fuel technologies; and (3) emissions reduction benefit summaries.
- The MWG recommends that MDOT research the costs and benefits (economic and emissions) of applicable and effective strategies and strategy bundles geared towards decreasing vehicle miles traveled, including increasing public transportation ridership, providing transit access through first and last mile linkages, facilitating the integration of autonomous vehicles, increasing ride-sharing, and integrated land-use planning.

Appendix C

MWG Draft Meeting Schedule for 2018

Updated 10/20/2017

Date/Time	Topic	Potential Collaboration Partners	Deliverables
Thursday January 25* 10am – 12pm			
Thursday February 1 10am – 12pm			
Thursday March 1 10am – 12pm			
Thursday April 5 10am – 12pm			
April 24th	Commission Meeting		
Thursday May 3 10am – 12pm			
Thursday May 31 10am – 12pm			
June 19th	Commission Meeting		
Thursday July 5** 10am – 12pm			
Thursday August 2 10am – 12pm			
Thursday August 30 10am – 12pm			
September 18th	Commission Meeting		
Thursday October 4 10am – 12pm			
October 23rd	Commission Meeting		
Thursday October 11* 10am – 12pm	Hold for Ad Hoc Meeting		
Thursday November 1 10am – 12pm			
November 7th	Commission Meeting		
Thursday December 6 10am – 12pm			

*These meetings are considered ad-hoc or as-needed

**Alternative date of Wednesday, June 27th is held due to July 4th holiday