



# Maryland

## Department of the Environment

Larry Hogan, Governor  
Boyd K. Rutherford, Lt. Governor

Ben Grumbles, Secretary  
Horacio Tablada, Deputy Secretary

February 19, 2020

The Honorable Paul G. Pinsky, Chair  
Education, Health, and Environmental Affairs Committee  
Miller Senate Office Building, Suite 2W  
Annapolis, Maryland 21401

**Re: Senate Bill 0926- Climate Solutions Act of 2020 – Greenhouse Gas Emissions Reduction Act**

Dear Chairman Pinsky and Members of the Committee:

The Maryland Department of the Environment (MDE or the Department) has reviewed Senate Bill 0926 - *Climate Solutions Act of 2020 – Greenhouse Gas Emissions Reduction Act*.

The Department supports the bill's overall objective to reduce greenhouse gas emissions. Climate change is an urgent threat, and all levels of government and nongovernment organizations must take increasingly aggressive and balanced actions to reduce emissions and increase community resiliency. Maryland is a national leader in this area, realizing substantial reductions in emissions since the first Greenhouse Gas Reduction Act was passed in 2009, with the Hogan Administration taking bold new actions to achieve significant progress. While the Department welcomes efforts to accelerate action to combat climate change, we would like to provide information and express some concerns with the bill as currently drafted.

*Overall*

The Department has some concerns with the language changes to existing law. The language in the 2009 and 2016 Greenhouse Gas Reduction Acts was the result of a very comprehensive process that resulted in strong environmental protection and economic growth. Those bills were agreed upon by a wide array of interested parties, including environmental advocacy groups, labor and industry representatives, state agencies and public citizens. Some of the language changes to the existing GGRA that are proposed by this bill threaten to unravel the consensus underlying current law. Other language changes to the current law are vague and ambiguous or seem to provide for what is already implemented under current law, such as the requirement to “ensure that the greenhouse gas emissions reduction measures implemented in accordance with the plans: produce a net economic benefit to the State’s economy and a net increase in jobs in the State, as compared with a no-action scenario.”

The bill declares new goals to achieve a 60% reduction in greenhouse gas emissions by 2030 and 100% reduction by 2045. While the Department generally finds more ambitious goals to be laudable, it would like the Committee to be aware that developing a plan for Maryland to achieve those goals through state programs while still meeting the law’s requirements for economic impacts will be difficult, and may be impossible. Such rapid reductions may require improvements in Federal programs to advance new technologies and make major infrastructure investments. The Department believes that such Federal action is necessary and long overdue, but the Department would not be able to assume that action occurs in the development of a state plan. Members of the Committee have sharply criticized the Department for including scenarios in the currently proposed draft 2030 plan that assume the State would be successful in preventing the rollback of existing Federal programs to improve vehicle fuel efficiency (though the Department included evaluation of the proposed rollback as well); assuming new Federal programs on top of that would run counter to the Committee’s feedback on that existing proposed plan.



The bill would task the Department with issuing a final plan to achieve the new 2030 greenhouse gas reduction goals by the end of this year. The Department would like to provide feedback on that timeline. The bill's requirement for a final plan by the end of this year does not allow for public comment and review of the numerous new mitigation programs that such a plan would need to propose. Even without taking time for public review, the Department and other state agencies would struggle to meet that deadline, as development of new mitigation programs requires significant time for research, careful analysis, and consultation among agencies and with outside experts, including other states and the Maryland Commission on Climate Change. Also, the bill's requirement that MDE perform measure-by-measure emissions impact analysis would add significant time and expense to the analysis process.

The bill also places some narrower methodological requirements on the greenhouse gas plan that give the Department some concern.

First, the bill prohibits the plan from including "highway widening or traffic congestion relief." The Department cautions that "traffic congestion relief" is broadly worded, and could include a number of important and cost-effective mitigation programs, including travel demand management.

Second, the bill requires the plan to use the 20-year global warming potential for methane to estimate greenhouse gas emissions. While the Department recognizes the need to focus on short-lived climate pollutants like methane, and uses the 20-year value in methane-specific policy analysis, it notes that using the 20-year value in the economywide plan would violate established standards for greenhouse gas accounting. Both national standards, including the Greenhouse Gas Protocol,<sup>1</sup> and international standards, including the rules for implementing the Paris Climate Agreement,<sup>2</sup> require the use of 100-year global warming potentials in greenhouse gas reduction plans.

Third, the bill requires the plan to include "specific estimates of the reductions expected from each greenhouse gas reduction measure included in the plan." Prior versions of the GGRA plan did include such "measure-by-measure" analysis, but methodologies and models have advanced since then, and best practice is now to analyze the effects of multiple measures simultaneously within an economy-wide modeling framework. That is because many programs interact with one another in fundamental ways, so do not have independently attributable impacts (for example, the future reductions achieved by the EmPOWER program's efficiency investments depend profoundly on how the electricity generation system changes due to the Renewable Portfolio Standard's renewable energy deployments and the Regional Greenhouse Gas Initiative's declining pollution cap). By analyzing such measures together, analysts can capture those interactive effects and correctly estimate what all measures achieve together, which is the most important question for economywide planning. MDE can roughly estimate measure-by-measure reductions by adding subsequent analyses wherein each program is removed from the modeling process one-by-one. That analysis adds significant time and expense (the GGRA plan includes dozens of individual measures), and many of those estimates are still ultimately conceptually flawed because of the interactions among measures.

### *Fiscal and Operational Impact*

In addition to the Department's concerns noted above, SB 926 would have a fiscal and operational impact on the Department in several ways. The first impact is tied to the increase in the greenhouse gas emissions reductions to 60% from 2006 levels

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<sup>1</sup> "...users are required to estimate GHG effects using 100-year GWP values in Chapters 8, 9, and 11. [Estimating Baseline Emissions', 'Estimating GHG Effects Ex Ante', and 'Monitoring Performance Over Time', respectively]" <https://ghgprotocol.org/sites/default/files/standards/Policy%20and%20Action%20Standard.pdf>

<sup>2</sup> "Pursuant to the modalities, procedures and guidelines (MPGs) for the transparency framework for action and support adopted by decision 18/CMP.1, Parties agreed to use the 100-year time-horizon GWP values from the Fifth Assessment Report of the IPCC (see [table 8.A.1](#)), or 100-year time-horizon GWP values from a subsequent IPCC assessment report as agreed upon by the CMA, to report aggregate emissions and removals of GHGs, expressed in CO<sub>2</sub> eq ([decision 18/CMA.1, annex, paragraph 37](#))." <https://unfccc.int/process-and-meetings/transparency-and-reporting/methods-for-climate-change-transparency/common-metrics>



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by 2030 and the addition of a net-zero Statewide greenhouse gas emissions by 2045 requirement. Under the bill MDE would be required to adopt the first of two new plans by December 31, 2020, adopt regulations, and implement programs that reduce statewide greenhouse gas emissions to meet these more stringent emission reduction levels. The revised 2030 and 2045 greenhouse gas reduction goals would require that MDE repeat the comprehensive emissions and economic impact analysis included in the current GGRA plan process using extended contracts with emissions and economic impact modelers. For the 2019 GGRA Plan, emissions modeling was done on an economy-wide scale, consistent with best methodological practices and best available models. SB 926 requires that emissions reductions be calculated for each individual measure included in the plan, despite the fact that relevant measures profoundly interact with one another, so do not have independently attributable impacts. MDE can, however, estimate theoretical independent impacts by supplementing its economy-wide analysis approach with additional modeling scenarios that each evaluate the presence or absence of individual measures. Because of the significant number of emissions reduction measures that Maryland has implemented, this would require a large number of additional scenarios and substantial contract costs.

SB 926 would require the establishment of two additional working groups of the Maryland Commission on Climate Change (MCCC). The working groups would be staffed by MDE. The bill requires the Climate Justice Working Group to develop criteria to identify disadvantaged communities for the purposes of greenhouse gas emissions reductions, co-pollutant reductions and the analysis of the allocation of investments. The bill requires the Climate Jobs Working Group to advise the MCCC on issues and opportunities for workforce development and training related to energy efficiency measures, renewable energy, and other clean energy technologies, with specific focus on training and workforce opportunities for segments of the population that may be underrepresented in the clean energy workforce. Both workgroup deliverables would be due by December 31, 2020. MDE would need to hire additional positions to staff the workgroups and coordinate the deliverables required by the bill.

The bill would also require MDE to perform an annual analysis of spending by all state agencies on greenhouse gas reduction programs, including an evaluation of the portion of spending that benefits disadvantaged communities, according to criteria established by one of the new workgroups. Implementing agencies would also face additional recordkeeping and reporting costs to provide the necessary information to MDE.

All of these provisions would create many new responsibilities for MDE and have a very large fiscal and operational impact. MDE would need to hire additional staff and procure contractor(s) to meet the requirements in this bill. Given the short time line provided in this bill, MDE anticipates that hiring staff, even on a contractual basis, and procuring contracts would be difficult.

Thank you for your consideration. We will continue to monitor SB 926 during the Committee's deliberations, and I am available to answer any questions you may have. Please feel free to contact me at 410-260-6301 or by e-mail at [tyler.abbott@maryland.gov](mailto:tyler.abbott@maryland.gov).

Sincerely,



Tyler Abbott

cc: George "Tad" Aburn, Director, Air and Radiation Administration

