

April 11, 2022



MEMO

To: 2022 Legislative Update Committee

From: Pamela Powers, Legislative Affairs & Administrative Manager

Re: SB 528-Climate Solutions Now Act of 2022-Summary

Senate Bill 528 broadly changes Maryland’s approach to reducing Greenhouse Gas Emissions while addressing climate change.

- Increases the statewide Greenhouse Gas Emissions reduction requirement, requiring Maryland to achieve net-zero emissions by 2045
- Establishes requirements for monitoring methane emissions from landfills
- Establishes new and alters existing energy conservation requirements for buildings
- Increase and extends specified energy efficiency and conservation program requirements
- Specifies requirements for the purchase of zero-emission vehicles
- Designates new entities and new special funds to support related activities

Creates a Climate Catalytic Capital Fund

- Promotes environmental justice and leverages increased private capital investment in technology, development, and deployment, including planning to:
 - Reduce GHG Emissions and enable the adoption of measures to combat climate change
 - Facilitate the electrification of the transportation sector and the use of sustainable alternative fuels in aviation
 - Enable improvements in energy management and efficiency to reduce GHG Emissions from the building sector
 - Expand the deployment of Clean Energy Generation and Energy Storage capacity
 - Target the implementation of energy and weatherization measures for Low-to-Moderate Income households
 - Optimize the economic, health, social and environmental value of community-scale infrastructure for resilience and energy equity
 - Allow for the deployment of advanced clean energy technology
 - Provide for the creation of a Maryland Green Bond Program
- MCEC administers the fund
 - The fund consists of the following:
 - Money appropriated in the State Budget
 - Money is made available to the fund through private collateral related to financing made from the fund
 - Proceeds from the sale, disposition, lease, or rental of collateral related to financing made from the fund
 - Repayment of financing made from the fund
 - Returns from or recovery of any financing made from the fund
 - Proceeds from the sale of any financing made, or assets acquired with the proceeds, from the fund
 - Any other money from any other source accepted for the benefit of the fund
- Uses of the fund
 - Evaluate and coordinate financing for qualified projects and clean energy technologies
 - Financing for qualified projects
 - Facilitate efficient tax equity markets for qualified projects
 - Secure private investment capital for the financing of qualified projects
 - Make grants to other green banks in the state for the purpose of financing qualified projects
 - Not more than 5% of the fund balance can be used for administrative purposes
- Expenditures from the fund can be made only with approval of the fund oversight committee
- Subject to independent audit
- Requires reporting to the Governor and General Assembly by October 1 each year on the uses of the fund and outcomes of investments
- \$5M annual budget appropriation
 - FY 2024
 - FY 2025

- FY 2026

School Construction

- At least one school constructed in each school district from 07.01.23 through 01.30.33 be built to meet Net-Zero Energy requirements
- The Interagency School Construction Commission can waive requirements:
 - Net-zero school building is not practicable because of particular limitations at the building site
 - In consideration of the availability of funds and grants, the cost to the jurisdiction of the construction of a net-zero school vs. a high-performance school building
 - IAC must consult with the Climate Transition and Clean Energy Hub when implementing
- A County can receive a 5% increase in the state share of a school construction project if the project is a net-zero school

MDE

- Must adopt a methodology for identifying communities disproportionately affected by Climate Change
- Develop specific strategies to address environmental justice concerns, reduce GHG and co-pollutants, and build climate equity and resilience within disproportionately affected communities
- Requires MDE to collaborate with the PSC, MEA, and public utilities to apply for and access federal funds made available through the Infrastructure Investment and Jobs Act
- Requires MDE to submit a proposed plan to reduce statewide GHG emissions by 60% from 2006 levels by 2031 to the Governor and General Assembly; adopt a strategy that sets the state on a path to achieving net-zero statewide GHG emissions by 2045 no later than December 31, 2030. Report review in 2035 to assure the state is on track
 - Final plan cannot include highway widening or additional road construction as a GHG emission reduction measure
 - May include the use of carbon capture, electric distribution, transmission infrastructure improvements, and storage technology as a GHG emission reduction measure if technology has been scientifically proven to achieve carbon reductions
 - Shall use the global warming potential for methane over a 20-time as accepted by Intergovernmental Panel on Climate Change when estimating the state's GHG emissions reductions
 - Shall include policy recommendations to ensure continued operation of Maryland's existing zero-carbon emission electric generators through current operating licenses
 - Includes specific estimates of GHG emission reductions that could be achieved through the expansion of mass transit options
 - Includes specific estimates of the reductions from each GHG emissions reduction measure included in the plan
- The Commission on Climate Change workgroup establishes the following workgroups
 - Scientific and Technical Working Group
 - Greenhouse Gas Mitigation Working Group
 - Adaptation and Response Working Group
 - Education, Communication, and Outreach Working Group
 - Just Transition and Retraining Working Group
 - Energy Industry Revitalization Working Group
 - Energy Resilience and Efficiency Working Group
 - This group, among other things, will study the life span and viability of energy facilities in the state that do not emit GHG including:
 - Solar energy generating facilities
 - Nuclear energy generating facilities
 - Wind energy generating facilities
 - Geothermal energy generating facilities
 - Hydroelectric energy generating facilities
 - Biofuel energy generating facilities
 - Solar Photovoltaic Systems Recovery, Reuse, and Recycling Working Group
 - The bill defines the membership of each working group
 - The bill provides the mission of each working group
 - Each group must submit a report to the Commission by December 31, 2023
 - Commission must submit a report on or before November 15 each year to the Governor and General Assembly that includes:
 - MDE must prepare a report

- Includes analysis of state funds spent on measures to reduce GHG and co-pollutants
- Includes analysis of the percentage of funding that benefited disproportionately affected communities

State Agencies

- Requires many state agencies to submit annual reports on the status of programs that support the State’s GHG reduction efforts
- Report includes:
 - Program descriptions and objectives
 - Implementation milestones
 - Enhancement opportunities
 - Funding
 - Challenges
 - Estimated GHG emissions reductions, by program, for the prior calendar year
 - When conducting long-term planning, developing policy, and drafting regulations, take into consideration the following:
 - Likely climate impact relative to Maryland’s GHG emissions reduction goals
 - Potential impact on disproportionately affected communities

Zero-Emission Vehicle School Buses

- Beginning FY 2025, School Systems
 - No contract for the purchase of school buses not zero-emission vehicle
 - Unless the bus has an in-service date of July 1, 2024, or before, no use of fuel operating vehicles
- Requirements waived if:
 - Buses meeting performance required unavailable
 - School System (County) unable to obtain Federal, State, or Private funding to cover costs
- County/School System provisions
 - Agreements with electric companies to obtain monetary incentives in exchange for allowing the utility to use storage batteries to access stored electricity through vehicle-to-grid technology
 - Work with state agencies to develop electric vehicle infrastructure sufficient to support zero-emission school buses
- Public Service Commission
 - Implements and administers Electric School Bus Pilot Program
 - Utilities apply to implement the program
 - Structured to begin on or before October 1, 2024
 - Provide deployment of at least 25 electric school buses
 - Provide rebates for electric school buses to school systems
 - Rebates limited to \$50,000,000
 - Utilities use storage batteries of electric school buses to access stored electricity through vehicle-to-grid technologies (when buses are not in use to transport students)
 - Utility replaces electricity used
 - Must consider the health and economic effects on low-income and minority communities
 - Utility must provide charging stations for electric buses
 - Utility must ensure that buses are equipped with lap and shoulder belts
 - Utility provides training to operate electric school buses, charging stations, and associated infrastructure
 - Utility collaborates with the school system to report to the Governor, the PSC, the House Economic Matters Committee, and Senate Finance Committee by February 1, 2025, and each year program in force
 - School systems
 - Consider criteria that benefit students eligible for free and reduced-price meals
 - Develop a plan for training and retaining school system employees affected by the electric school bus pilot program
 - Utility may recover reasonable and prudent program costs incurred under the program with PSC approval
 - Utility may establish a tariff or rate to provide service to electric school buses with PSC approval
 - Reports
 - Utility collaborates with the school system to report to the Governor, the PSC, the House Economic Matters Committee, and Senate Finance Committee by February 1, 2025, and each year program in force
 - Evaluation of environmental and health benefits of the program
 - Financial cost and benefits of implementing the program

- Deployment, operation, maintenance of ESBs
- Use of vehicle-to-grid technology

Building Energy Performance Standards

- Department of Housing and Community Development
 - Shall develop and implement a program to provide grants
 - Energy conservation projects
 - Project to install renewable energy generating systems
 - Covered buildings that house LMI households primarily
 - Cannot install new equipment that uses fossil fuels
 - Cannot improve efficiency on equipment that uses fossil fuels
 - \$5M annual budget appropriation
 - FY 2024
 - FY 2025
 - FY 2026
 - Must provide a report to Governor and General Assembly on projects funded December 1, 2023, and each year after
- Provides categories for buildings
 - Agricultural Buildings
 - Commercial Buildings
 - Multifamily Residential Building
 - State-Owned Buildings
 - 35,000 sq. ft. or more
 - Excludes parking garage area
- Covered Building excludes
 - Historical designated building
 - Public or nonpublic elementary or secondary school building
 - Manufacturing buildings
 - Agricultural buildings

Environmental Justice

- Commission on Environmental Justice
- Defines overburdened communities
- Any census tract for which three or more of the following environmental health indicators are above the 75th percentile statewide:
 - Particulate matter 2.5
 - Ozone
 - National Air Toxics Assessment Diesel PM
 - NATA cancer risk
 - NATA respiratory hazard index
 - Traffic proximity
 - Lead paint indicator
 - National priorities list superfund site proximity
 - Risk management plan facility proximity
 - Hazardous waste proximity
 - Wastewater discharge indicator
 - Proximity to a concentrated animal feeding operation
 - Percentage of population lacking broadband
 - Asthma emergency room discharges
 - Myocardial infarction discharges
 - Low-birth-weight infants
 - Proximity to emitting power plants
 - Proximity to a toxic release inventory
 - Proximity to a brownfield site
 - Proximity to mining operations
 - Proximity to a hazardous waste landfill

- At least 25% of the residents qualify as low-income
- At least 50% of the residents identify as nonwhite
- At least 15% of the residents have limited English proficiency
- Defines the mission of the commission
 - Adopt methodology for identifying communities disproportionately affected by climate impacts
 - Develop specific strategies to address geographical impact concerns, reduce greenhouse gas emissions and co-pollutants, and build climate equity and resilience within disproportionately affected communities
 - Establish goals for the percentage of state funding for GHG emission reduction measures that should be used for the benefit of disproportionately affected communities

Labor and Employment

- Public Utilities
 - Funds provided through the Federal Infrastructure Investment and Jobs Act
 - Utility requires contractors or subcontractors to:
 - Pay area prevailing wage for each trade employed, including wages and benefits
 - Offer health care and retirement benefits
 - Participate in an apprenticeship program registered with the state
 - Establish and execute a plan for outreach, recruitment, and retention of state residents to work on the project
 - 25% of work performed by:
 - Returning citizens
 - Women
 - Minority individuals
 - Veterans
 - Must comply with federal and state wage laws for the previous three years
 - Subject to state reporting and compliance requirements
 - Maintain appropriate licenses
- Creates a Chesapeake Conservation Corps Program
 - Administered by the Chesapeake Bay Trust
 - Defines the mission and purpose of the program
 - Establishes a Corps Board
 - Advises Trust in the development and implementation of the Corps Program
 - Defines membership of the Board
 - 11 members
 - Defines specific projects and activities
 - Must be within a community disproportionately affected by climate impacts with emphasis on climate mitigation and clean energy projects that result in long-term reduction of GHG emissions and improvements to public health and the environment
 - Specific nutrient reduction activities
 - Planting bay grasses
 - Oysters
 - Installing natural shorelines
 - Installing public accesses
 - Working with communities to improve environmental impacts and activities
 - Agricultural and forestry projects
 - Infrastructure projects
 - Energy efficiency for elderly and low-income households
 - Clean Energy projects in communities to enhance the use of renewable energy, including free and low-cost energy audits
 - Building infrastructure to promote environmental education
 - Outdoor classrooms
 - Nature trails
 - Schoolyard habitats
 - Watershed restoration
 - Stream restoration

- Rain gardens
- Educational projects
 - Developing interactive environmental education and energy conservation education for elementary and secondary school students and the public
 - Developing a curriculum targeted at training high school students and apprentices to obtain skills necessary to create and implement clean energy projects in their communities and compete for jobs in the emerging clean energy sector
- Climate mitigation projects
- Clean Energy projects
- Funding
 - \$1.5M budget appropriation
 - Chesapeake Bay Trust
 - Trust and Board to seek federal funds and grants
- Recruiting and maintaining members
 - \$15/hr.
 - Six-month commitment
 - At least 18 years old
 - Under 26 years old

Electric Distribution System Planning

- Goals
 - GHG reduction
 - Renewable Energy
 - Decrease dependence on electricity imported from other states
 - Achieving energy distribution resiliency, efficiency, and reliability
- PSC
 - Report to General Assembly with information regarding the current status of the electric distribution system, planning process, and implementation that promote goals
 - December 1, 2024
 - Measures to decrease GHG emissions incident to electric distribution, including high levels of distributed energy resources and electric vehicles
 - Priority to vulnerable communities in the development
 - Energy efficiency
 - Meeting anticipated increases in load
 - Incorporation of energy storage technology
 - Efficient management of load variability
 - Electric distribution system resiliency and reliability
 - Bidirectional power flows
 - Demand response and other non-wire and non-capital alternatives
 - Increase the use of distributed energy resources including EVs
 - Transparent stakeholder participation in ongoing electric distribution system planning processes
- Encourages utility companies to pursue federal funding to meet state goals
- Required PSC and MEA to provide assistance and support to utilities in the application process for federal funding for the distribution system
- MEA required to identify funding
 - Efficiency for distribution system
 - Grid-hardening activities to reduce disruption in operations due to weather or natural disasters
- Utilities report to PSC and MEA on funding applications, purpose of funding, status of funding application, and conditions that must be met to obtain funding
- PSC must adopt regulations or issue orders to implement policies for electric distribution and improvements by July 1, 2025

Climate Transition and Clean Energy Hub

- States purpose
 - Serve as a clearinghouse for information on advanced technology and architectural solutions to reduce GHG emissions from the building sector

- Provides technical assistance to public and private entities to achieve GHG emissions reductions and comply with state and local energy efficiency and electrification requirements including:
 - Building emissions standards for covered commercial and multifamily residential buildings
 - Maryland Building Performance Standards and local amendments to the standards
 - High-performance building requirements for state-funded buildings
 - Increasing building performance and energy efficiency for existing and new residential properties
- MEA
 - Reports to the Senate Budget and Tax Committee and the House Ways and Means Committee on October 1 of each year

Healthy Soils Program

- MDA administers the program
 - Promote incentives
 - Research
 - Education
 - Technical assistance
 - Financial assistance to farmers to implement practices
 - Determine if the program should be implemented to enhance other State and federal programs that provide financial assistance to farmers
- \$500K annual budget appropriation
 - FY 2024
 - FY 2025
 - FY 2026
 - FY 2027
 - FY 2028
- Defines mission
 - Improve health, yield, and profitability of soils in the State
 - Increase biological activity and carbon sequestration by promoting practices based on emerging soil science
 - Planting mixed cover crops
 - Adopting no-till or low-till farming practices
 - Rotation grazing
 - Promote widespread practices among farmers in the State

Creates a Building Energy Transition Implementation Task Force

- Defines membership
 - Secretary of MDE or designee
 - Secretary of Housing and Community Development or designee
 - Secretary of General Services or designee
 - Director of Maryland Energy Administration or designee
 - Chair of the Public Service Commission or designee
 - People's Counsel or designee
 - Executive Director of the Maryland Clean Energy Center or designee
 - Chair of the Maryland Green Building Council or designee
 - One member of the House of Delegates, appointed by the Speaker of the House
 - One member of the Senate, appointed by the President of the Senate
 - Members appointed by the Governor
 - One representative from a nonprofit or professional organization that advocates for energy-efficient buildings or a low-carbon environment
 - One representative from a business that provides energy efficiency or renewable energy services to large buildings or affordable housing in Maryland
 - One representative who is an architect with experience planning modifications to existing buildings to achieve GHG emissions reductions
 - One representative who is a mechanical, electrical, or plumbing engineer or commissioning agent with experience modifying or replacing systems to achieve GHG emissions reductions
 - One representative of the Multifamily Housing Industry

- One representative who is an affordable housing developer
 - One representative who is a facility or property manager for an apartment building
 - One representative who is a facility or property manager for a commercial building
 - One representative of a financial institution
 - One representative of a private equity firm
 - One representative of the district energy industry
 - One representative of a statewide commercial or industrial building association
 - One representative of organized labor who represents the building trades
 - One representative who is a tenant of an apartment building or an advocate for the rights of tenants of apartment buildings
 - Selected by the Public Service Commission
 - One representative of a municipal electric utility
 - One representative of an investor-owned utility
- Defines mission
 - Study and make recommendations regarding the development of complementary programs, policies, and incentives aimed at reducing GHG emissions from the building sector
 - Make recommendations on targeting incentives to electrification projects that would not otherwise result in strong returns on investment for building owners
 - Develop a plan for funding the retrofit of covered buildings to comply with building emissions standards
 - Recommendation related to:
 - Creation of commercial tax credits or direct subsidy payments for building decarbonization projects
 - Creation of financial incentives through EmPOWER Maryland and other state programs to support aspects of the transition to electrified buildings
 - Establish low-income household holistic retrofit targets and heat pump sales targets
 - The use of options such as on-bill, low-interest financing to spread out the up-front costs associated with electrification retrofit upgrades
- Task force reports to the Governor and General Assembly by December 1, 2023

Summary

Senate Bill 528 broadly changes the State’s approach to reducing Greenhouse Gas Emissions while addressing climate change. It increases the statewide Greenhouse Gas Emissions reduction requirement to 60% from 2006 levels by 2031, with a target of net-zero emissions by 2045, providing requirements and restrictions to meet the goals. The bill addresses methane emissions from landfills, establishes new and alters existing requirements for buildings, increases and extends energy efficiency and conservation programs, addresses environmental justice with labor and employment initiatives, provides programs and requirements for the purchase of zero-emission vehicles, and creates new entities with special funding to support activities.

This legislation passed both chambers with numerous amendments accepted by the bodies. The Senate presented the bill to the Governor on April 1, 2022. The Governor will allow the bill to become law in accordance with Article II, Section 17(c) of Maryland’s Constitution.