

Department of Legislative Services
 Maryland General Assembly
 2022 Session

FISCAL AND POLICY NOTE
 Enrolled - Revised

Senate Bill 528

(Senator Pinsky, *et al.*)

Education, Health, and Environmental Affairs
 and Budget and Taxation

Environment and Transportation and
 Economic Matters

Climate Solutions Now Act of 2022

This bill makes broad changes to the State’s approach to reducing statewide greenhouse gas (GHG) emissions and addressing climate change. Among other things, the bill (1) increases the statewide GHG emissions reduction requirement and requires the State to achieve net-zero statewide GHG emissions by 2045; (2) establishes new and alters existing energy conservation requirements for buildings; (3) increases and extends specified energy efficiency and conservation program requirements; (4) establishes requirements for the purchase of zero-emission vehicles (ZEVs) in the State fleet; and (5) establishes new entities and new special funds to support related activities. **The bill takes effect June 1, 2022; specified provisions terminate June 30, 2024, December 31, 2029, and June 30, 2030.**

Fiscal Summary

State Effect: Known general fund expenditures increase by \$9.5 million in FY 2023 (\$9.0 million of which is restricted in the FY 2023 budget, contingent on the enactment of this bill), by \$12.4 million to \$12.5 million in FY 2024 through 2026, and by \$7.3 million in FY 2027 (primarily reflecting the bill’s mandated appropriations in the out-years). Special fund expenditures increase by \$2.5 million in FY 2023 and by \$0.8 million annually thereafter; special fund revenues increase correspondingly. State expenditures (multiple fund types) increase significantly beginning in FY 2023. **This bill establishes several mandated appropriations beginning in FY 2024, most of which terminate.**

(\$ in millions)	FY 2023	FY 2024	FY 2025	FY 2026	FY 2027
SF Revenue	\$2.5	\$0.8	\$0.8	\$0.8	\$0.8
GF Expenditure	\$9.5	\$12.4	\$12.4	\$12.5	\$7.3
SF Expenditure	\$2.5	\$0.8	\$0.8	\$0.8	\$0.8
GF/SF Exp.	-	-	-	-	-
Net Effect	(-)	(-)	(-)	(-)	(-)

Note:(-) = decrease; GF = general funds; FF = federal funds; SF = special funds; - = indeterminate increase; (-) = indeterminate decrease

Local Effect: Although a reliable estimate of the bill’s impacts on local finances cannot be made at this time, the bill may result in a significant increase in local expenditures. Local personal property tax revenues decrease in some counties. Local finances may also be affected as a result of the bill’s provisions related to school construction and the Electric School Bus Pilot Program. **This bill imposes a mandate on a unit of local government.**

Small Business Effect: Meaningful.

Analysis

Bill Summary:

Greenhouse Gas Emissions Reduction Goals, Planning, and Monitoring

Greenhouse Gas Emissions Reduction Targets and Related Plans

The bill modifies a stated finding of the General Assembly relating to reducing GHG emissions. Under the bill, the General Assembly finds that the State has the ingenuity to reduce the threat of global warming and make GHG reductions a part of the State’s future by, among other things, achieving net-zero statewide GHG emissions by 2045. The bill explicitly requires the State to reduce statewide GHG emissions by 60% from 2006 levels by 2031 (as compared to 40% by 2030 under current law). The bill also explicitly requires the State to achieve net-zero statewide GHG emissions by 2045; this provision terminates June 30, 2030.

By June 30, 2023, the Maryland Department of the Environment (MDE) must submit a proposed plan to the Governor and the General Assembly that reduces statewide GHG emissions by 60% from 2006 levels by 2031. By December 31, 2023, MDE must adopt a final plan to meet the 2031 goal and that sets the State on a path toward achieving net-zero statewide GHG emissions by 2045. By December 31, 2030, MDE must adopt a final plan that achieves net-zero statewide GHG emissions by 2045; by December 31, 2035, MDE must review and, as necessary, revise that plan.

The bill establishes several new requirements and restrictions for a final plan developed under the bill. A final plan may not include highway widening or additional road construction as a GHG emission reduction measure. Among other things, the final plan must (1) use specified data; (2) include policy recommendations to ensure the continued operation of Maryland’s existing zero carbon emission electric generators through current operating licenses; (3) include specific estimates of the GHG emissions reductions that could be achieved through the expansion of mass transit options; and (4) include specific estimates of the expected reductions from each GHG emissions reduction measure in the

plan. A final plan may include the use of carbon capture, electric distribution and transmission infrastructure improvements, and storage technology as a GHG emission reduction measure only if the technology has been scientifically proven to achieve verifiable carbon reductions. In addition to existing requirements relating to plan development, in developing its plans under the bill, MDE must use the best available scientific information, as specified, and incorporate specified emissions data. The plans must also 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 also requires each State agency, when conducting long-term planning, developing policy, and drafting regulations, to take into consideration (1) the likely climate impact of the agency's decisions relative to Maryland's GHG emissions reduction goals and (2) the likely impact of the agency's decisions on disproportionately affected communities identified according to a specified methodology adopted by MDE under the bill.

Evaluation of State Properties Suitable for Use as An Organics Recycling Facility

Uncodified language requires MDE, in conjunction with the Department of General Services (DGS) and the Department of Natural Resources (DNR), to report to the General Assembly by October 1, 2023, on State properties that are suitable for use as organics recycling facilities in a manner consistent with a specific recommendation in the *Final Report of the Yard Waste, Food Residuals, and Other Organics Materials Diversion and Infrastructure Study Group* issued in July 2019.

Climate Justice and Jobs

Environmental Justice Considerations

The bill specifies that MDE staffing responsibilities for the existing Commission on Environmental Justice and Sustainable Communities (CEJSC) includes (1) conducting research and gathering data at CEJSC's direction; (2) arranging and staffing CEJSC meetings; (3) serving as an informed resource for the chair and members; and (4) managing, implementing, and carrying out CEJSC's work to achieve its mission and overall purpose. By December 31, 2023, MDE, in coordination with CEJSC, must (1) adopt a methodology for identifying communities disproportionately affected by climate impacts, as specified; (2) develop specific strategies to address geographical impact concerns, reduce emissions of GHGs and co-pollutants, and build climate equity and resilience within disproportionately affected communities; (3) set appropriate goals for the percentage of State funding for GHG emissions reduction measures that should be used for the benefit of disproportionately affected communities; and (4) report the policies and programs developed pursuant to the bill to the Maryland Commission on Climate Change (MCCC). The bill establishes various requirements MDE must follow when evaluating the

methodologies and when developing its recommendations and goals under these provisions.

The bill also requires MCCC to establish (1) a Just Transition Employment and Retraining Working Group; (2) an Energy Industry Revitalization Working Group; (3) an Energy Resilience and Efficiency Working Group; and (4) a Solar Photovoltaic Systems Recovery, Reuse, and Recycling Working Group. MDE must provide staff for all of the new working groups. Working group members may not receive compensation but are entitled to reimbursement for expenses, as specified.

The Just Transition Employment and Retraining Working Group must identify, study, and advise MCCC on various issues and opportunities related to workforce development, training, job loss, and job creation as the State implements energy efficiency and GHG emissions reduction measures. In particular, the working group must conduct a study of (1) the number of jobs created to counter climate impacts, as specified; (2) the projected inventory of jobs needed and skills and training required to meet the future demand for jobs to counter climate impacts; (3) workforce disruption due to community changes caused by the transition to a low-carbon economy; and (4) strategies to target workforce development and job creation in fence-line communities that have historically borne the brunt of hosting carbon polluters. By December 31, 2023, the working group must report to MCCC and the General Assembly on the study findings.

The Energy Industry Revitalization Working Group must advise MCCC on issues and opportunities related to small business revitalization and the transition to renewable energy's effects on small businesses. In particular, the working group must conduct a study of the impacts of transitioning to renewable energy. The study must include (1) the number of small businesses impacted by the transition to renewable energy; (2) the projected cost of transitioning existing small businesses to renewable energy; (3) the economic impact of the transition to renewable energy and new energy sources, as specified; (4) an analysis that identifies energy generating facilities that may close as a result of a transition to renewable energy, as specified; and (5) an analysis that identifies or estimates, to the extent practicable, specified impacts related to facility closures and how the commission can respond to such impacts, as specified. By December 31, 2023, the working group must report to MCCC and the General Assembly on the study findings.

The Energy Resilience and Efficiency Working Group must advise MCCC on issues and opportunities related to energy infrastructure improvements, transmission efficiency improvements, and battery backup viability. In particular, the working group must conduct a study of (1) methods for the State to encourage electricity storage technology research; (2) methods of increasing the security of the electricity grid, as specified; (3) potential electric grid distribution transformation projects; (4) the potential to develop clean energy resources on previously developed project sites; and (5) the lifespan and viability of energy

facilities in the State that do not emit GHG, including several types of facilities. By December 31, 2023, the working group must report to MCCC and the General Assembly on the study findings.

The Solar Photovoltaic Systems Recovery, Reuse, and Recycling Working Group must review, identify, assess, and analyze a number of issues and topics related to solar photovoltaic systems, the materials used in those systems, and the recycling, disposal, and decommissioning of the systems, as specified. The working group must also recommend financing mechanisms that best support a circular economy approach, as specified. By December 31, 2023, the working group must report to MCCC and the General Assembly on its findings and recommendations.

The bill also expands the requirements of MCCC's existing annual report to the Governor and the General Assembly.

Wage and Labor Requirements for Specified Electric Infrastructure Work

An investor-owned electric company or gas and electric company must require a contractor or subcontractor that is working on specified projects (described below) to (1) pay the area prevailing wage for each trade employed, including wages and fringe benefits; (2) offer health care and retirement benefits to the employees working on the project; (3) participate in an apprenticeship program registered with the State for each trade employed on the project; (4) establish and execute a plan for outreach, recruitment, and retention of State residents, as specified, to perform work on the project; (5) have been in compliance with federal and State wage and hour laws for the previous three years; (6) be subject to all State reporting and compliance requirements; and (7) maintain all appropriate licenses in good standing.

These wage and labor requirements apply to a project that (1) involves the construction, reconstruction, installation, demolition, restoration, or alteration of any electric infrastructure of the company (and any related traffic control activities) and (2) is funded by federal funds to meet the State's policy goals for the electric distribution system, as specified. The wage and labor requirements only apply to the portion of a project supported by the federal funds.

Amendments to the Chesapeake Conservation Corps Program

The bill alters the purpose of the Chesapeake Conservation Corps Program, which is administered (under the bill and under current law) by the Chesapeake Bay Trust (CBT). The bill establishes that the purpose of the Corps Program includes (1) mobilizing, educating, and training youth and young adults to deploy clean energy technology and mitigating and preventing the environmental and health impacts of climate impacts in

communities disproportionately affected by climate impacts and (2) ensuring underserved and geographical climate disparities populations are given assistance needed to prepare for and adapt to climate impacts. The bill also modifies an existing purpose of the Corps Program relating to green collar jobs; under the bill, one of the stated purposes of the program is to provide a green career ladder and opportunities for all youth and young adults, especially those most at risk, to be exposed to and trained in the energy efficiency, environmental protection, governmental and regulatory administration, and renewable energy generation sectors. The bill also alters the membership of the Advisory Board of the Corps Program and the standards that Corps Program projects and activities must meet.

Climate Mitigation and Clean Energy Projects: The bill adds a list of examples of climate mitigation and clean energy projects that may be undertaken by the Corps Program. The bill establishes that, for programs developed to implement climate mitigation and clean energy programs, CBT and qualified organizations must principally recruit individuals who are between ages 18 and 26 and for a minimum six-month commitment. Corps members are eligible to receive a stipend, which must include monetary payments of at least \$15 per hour. A qualified organization may not undertake a project if it would replace regular workers or duplicate or replace an existing service in the same locality.

In developing its programs and seeking federal and State grants, CBT and the Corps Board must coordinate all efforts with the Maryland Corps Program and the Maryland Conservation Corps, as specified. In addition, CBT and the Corps Board must (1) seek assistance and advice from relevant public and private sources and (2) explore opportunities for initiating a college-level campaign to engage with community colleges, historically black colleges and universities, and other institutions of higher education in the State. The bill also requires the CBT and the Corps Board to seek assistance from and cooperate with other specified entities when developing clean energy infrastructure and educational programs and Corps member programs.

Zero-emission Vehicles

School Buses

Beginning in fiscal 2025, a county board of education is prohibited from entering into a new contract to purchase any school bus that is not a ZEV or to use any school bus that is not a ZEV, unless the school bus has an in-service date of July 1, 2024, or before. However, the prohibition does not apply if (1) MDE determines that no available ZEVs meet the performance requirements for the county board's use or (2) the county board is unable to obtain federal, State, or private funding that is sufficient to cover the "incremental costs" associated with contracting for the purchase or use of school buses that are ZEVs.

A county board may enter into an agreement with an electric company to obtain monetary incentives in exchange for allowing the electric company to use the storage batteries of ZEV buses owned or operated by the county board to access the stored electricity through vehicle-to-grid technology. MDE, in consultation with other appropriate State agencies, must work with the county boards and private school bus contractors to develop electric vehicle infrastructure sufficient to support ZEV school buses. MDE must prioritize the use of available federal funding to carry out the bill's ZEV school bus provisions.

Electric School Bus Pilot Program

The bill establishes the Electric School Bus Pilot Program, implemented and administered by the Public Service Commission (PSC). An investor-owned electric company ("utility") may apply to PSC to implement a pilot program, as specified. Subject to PSC approval and specified conditions, a utility may (1) recover all reasonable and prudent program costs incurred under the program through a mechanism that is reviewed and approved by PSC and (2) establish a pilot tariff or rate to provide service to an electric school bus. Beginning in 2025, a utility that establishes a pilot program must annually report on the program in consultation with each participating school system, as specified.

Pilot Program Requirements: Generally, under the electric school bus pilot program, a utility installs interconnection equipment and provides rebates to local school systems to cover incremental costs of an electric bus fleet, and the school system allows the utility to access the stored electricity without additional compensation at times when the school system determines that the buses are not needed to transport students. A utility may apply to PSC to implement an electric school bus pilot program if the program is structured to begin by October 1, 2024, and:

- provide for the deployment of at least 25 electric school buses;
- provide for electric school bus rebates to participating school systems;
- limit total rebates to \$50.0 million;
- allow the utility to use the storage batteries of the electric school buses to access the stored electricity through vehicle-to-grid technology, generally without additional compensation to the school system for the electricity and at times when the participating school system determines that the school buses are not needed to transport students (a utility that uses electricity that a participating school system provides to charge an electric school bus battery must replace that electricity at no cost);
- provide for the selection of school systems that apply to participate in the pilot program on the basis of appropriate factors determined by the utility with the approval of PSC, including the locational benefits that the storage batteries of school buses are expected to bring to the utility;

- consider, in determining the appropriate factors used for the selection of school systems, the health and economic effects on low-income and minority communities;
- provide and install the interconnection equipment and interconnection facilities for electric vehicle charging stations;
- ensure each electric school bus is equipped with lap and shoulder belts in accordance with recommendations from the National Transportation Safety Board; and
- ensure the school board is provided with adequate training and expertise to be able to operate electric school buses and related equipment.

Generally, the initial duration of an electric school bus pilot program must be at least three years and may be up to five years; however, on the request of a utility, PSC may authorize an expansion of the scope, deployment, program costs, and duration of the pilot program.

Requirements for Participating School Systems: A participating school system must (1) when deploying electric school buses, consider criteria that benefit students who are eligible for free and reduced-price meals and (2) prior to the delivery of electric school buses, develop a plan for training and retaining any school system employee affected by the pilot program.

Federal Funding and Renewable Resources: Uncodified language specifies that the General Assembly encourages electric school bus pilot program applicants to seek any federal funds that may be available, including funds available under the federal Infrastructure and Investment Jobs Act. Where feasible, the General Assembly also encourages applicants to produce or procure electricity generated by renewable resources to power electric school bus charging infrastructure.

Zero-emission Passenger Cars and Other Light-duty Vehicles

The bill establishes the intent of the General Assembly that 100% of passenger cars in the State vehicle fleet be ZEVs by 2031 and that other light-duty vehicles in the State vehicle fleet be ZEVs by 2036.

The State must ensure that (1) in fiscal 2023 through 2025, inclusive, at least 25% of the passenger cars purchased for the State vehicle fleet are ZEVs; (2) in fiscal 2026 and 2027, at least 50% of the passenger cars purchased for the State vehicle fleet are ZEVs; (3) beginning in fiscal 2028, 100% of the passenger cars purchased for the State vehicle fleet are ZEVs ; and (4) beginning in fiscal 2024, any passenger car purchased for the State vehicle fleet that is *not* a ZEV must be a hybrid vehicle.

Further, the State must ensure that (1) in fiscal 2028 through 2030, inclusive, at least 25% of all other light-duty vehicles purchased for the State vehicle fleet are ZEVs; (2) in fiscal 2031 and 2032, at least 50% of all other light-duty vehicles purchased for the State vehicle fleet are ZEVs; and (3) beginning in fiscal 2033, 100% of all other light-duty vehicles purchased for the State vehicle fleet are ZEVs.

These requirements do not apply to the purchase of vehicles that have special performance requirements, as specified, or to the purchase of vehicles by the Maryland Department of Transportation or the Maryland Transit Administration that will be used to provide paratransit service.

DGS must ensure the development of charging infrastructure to support the operation of ZEVs in the State vehicle fleet.

By December 1 annually, the Chief Procurement Officer of DGS must submit a report to the General Assembly that includes data for the preceding fiscal year on the purchase of passenger and other light-duty vehicles, the purchase of ZEVs, any related operational savings, and an evaluation of existing charging infrastructure, among other information. Each unit must cooperate with the Chief Procurement Officer in the collection and reporting of the information needed to develop the required report.

Energy Efficiency and Clean Energy

Statement of Policy Goals

The bill states that it is the goal of the State that the electric distribution system support, in a cost-effective manner, the State's policy goals with regard to (1) GHG reduction; (2) renewable energy; (3) decreasing dependence on electricity imported from other states; and (4) achieving energy distribution resiliency, efficiency, and reliability.

Federal Funding

In order to meet the policy goals of the State for the electric distribution grid system, MDE, in coordination with PSC and the Maryland Energy Administration (MEA), must coordinate with utility providers in the State to apply for and access federal funds, as specified.

Energy Conservation Requirements for New Construction and Existing Buildings

“Covered building” means a commercial or multifamily residential building in the State or a building that is owned by the State and has a gross floor area of 35,000 square feet or more, excluding the garage area. “Covered building” does not include (1) a building

designated as a historic property, as specified; (2) a public or nonpublic elementary or secondary school building; (3) a manufacturing building; or (4) an agricultural building. “Agricultural building” means a structure that is primarily used to cultivate, manufacture, process, or produce agricultural crops, raw materials, products, or commodities, and includes a greenhouse.

International Green Construction Code: The Maryland Department of Labor (MDL) must adopt the 2018 International Green Construction Code by January 1, 2023, and adopt each subsequent version of the code within 18 months after it is issued.

Existing Buildings: MDE must develop building energy performance standards for covered buildings that achieve (1) a 20% reduction in net direct GHG emissions by January 1, 2030, as compared with 2025 levels for average buildings of similar construction and (2) net-zero direct GHG emissions by January 1, 2040. To facilitate the development of these building energy performance standards, MDE must require covered building owners to measure and report direct emissions data to the department each year beginning in 2025. The provision requiring MDE to set a standard that achieves net-zero direct GHG emissions for covered buildings terminates December 31, 2029.

By June 1, 2023, MDE must adopt regulations to implement the building energy performance standards. The regulations must meet several specified requirements. Among other things, the regulations must (1) include energy use intensity targets by building type, as specified; (2) provide maximum flexibility to the owners of covered buildings; (3) include an alternative compliance pathway allowing the owner to pay a fee for GHG emissions attributable to the building’s failure to meet direct GHG emissions reduction targets; and (4) to the extent authorized by law, include financial incentives recommended by the Building Energy Transition Implementation Task Force (discussed below).

Electric companies and gas companies must provide specified energy data to covered building owners for benchmarking purposes.

An owner of a covered building, when calculating the statewide standards developed by MDE pursuant to the bill, may not consider GHG emissions or energy use by a commercial tenant of a covered building that (1) is a food service facility, as specified, and (2) engages in commercial cooking and water heating.

Building Energy Transition Implementation Task Force: The bill establishes the Building Energy Transition Implementation Task Force to (1) study and make recommendations regarding the development of complementary programs, policies, and incentives aimed at reducing GHG emissions from the building sector in accordance with the bill; (2) make recommendations on targeting incentives to electrification projects that would not otherwise result in strong returns on investment for building owners; and (3) develop a plan

for funding the retrofit of covered buildings to comply with building emissions standards, as specified. MDE must provide staff for the task force. A member of the task force may not receive compensation, but is entitled to reimbursement for expenses, as specified. The task force must report its plan to the Governor and the General Assembly by December 1, 2023. The task force terminates June 30, 2024.

Department of Housing and Community Development Grant Funding: The Department of Housing and Community Development's (DHCD) Community Development Administration (CDA) must develop and implement a program to provide grants for energy conservation projects and projects to install renewable energy generating stations in covered buildings that house primarily low-to moderate-income households, as specified. Grants may not be used for a project to install new equipment that uses fossil fuels or improve the efficiency of existing equipment that uses fossil fuels. By December 1, 2023, and annually thereafter, CDA must report to the Governor and the General Assembly on projects funded under these provisions.

Maryland Green Building Council: In uncodified language, the bill requires the Maryland Green Building Council (MGBC) to examine (1) the use of environmental product declarations to measure the climate impact of concrete procured by the State; (2) the use of performance incentives to encourage adoption of low-carbon materials and methods by concrete manufacturers that provide concrete for State-funded projects; (3) the establishment of an expedited product evaluation, testing, and approval protocol for low-carbon concrete products; (4) the implementation of performance-based specification standards for concrete, as specified; and (5) the use of methods of compliance, including maximum cement content specifications and specifications based on maximum potential for global warming. In examining these topics, MGBC must consult with (1) any relevant associations that set industry standards for the procurement of low-carbon concrete and (2) affected contractors and subcontractors to consider both environmental and health and safety impacts. MGBC must report its findings and recommendations to the Governor and the General Assembly by December 1, 2022.

Electricity Supply for State Facilities

By January 1, 2030, each primary procurement unit must ensure that at least 75% of the electricity supply procured by the unit for use in State facilities is derived from no- or low-carbon energy sources.

Maryland Department of Labor's Building Codes Administration

In uncodified language, the bill requires MDL's Building Codes Administration to (1) develop recommendations for an all-electric building code for the State, including exemptions for particular industries (including life sciences, as specified), local conditions,

and sectors deemed critical infrastructure vital to the interest of national security, as identified by the U.S. Department of Homeland Security's Cybersecurity and Infrastructure Security Agency; (2) develop recommendations for the fastest and most cost-efficient methods to decarbonize buildings and other sectors in the State; (3) assess the availability of technology and equipment that will be needed to construct all-electric buildings in the State; (4) assess the impact of building electrification on workforce shortages; (5) develop recommendations regarding efficient cost-effectiveness measures for the electrification of new and existing buildings; (6) by January 1, 2023, report to PSC on the projected annual and peak summer and winter gas and electric loading impacts of electrification, as specified; and (7) consider recommendations for the inclusion of renewable, low-carbon biofuels, including biodiesel, during the State's transition to an all-electric building code, including an analysis of the impact on electric and gas rates, market availability, and environmental impact. The Building Codes Administration is explicitly authorized to work with consultants and experts to complete the required study. By January 1, 2023, the Building Codes Administration must make an interim report of its findings to the Legislative Policy Committee (LPC). By December 1, 2023, a final report of its findings and recommendations is due.

Public Service Commission

Energy Efficiency and Conservation Programs: The bill also extends the EmPOWER Maryland Energy Efficiency Act annual energy savings goals beyond their current 2021-2023 program cycles and increases the annual energy savings requirement beyond 2.0% beginning in 2025. Specifically, PSC must, by regulation or order, require each electric company to procure or provide cost-effective energy efficiency and conservation programs and services to its customers, as specified, that are designed on a trajectory to achieve a targeted annual incremental gross energy savings of at least the following annual percentages: (1) 2.0% annually in 2022 through 2024; (2) 2.25% per year in 2025 and 2026; and (3) 2.5% per year in 2027 and thereafter. The bill also specifies that, for 2025 and thereafter, the core objective of the targeted reductions must include development and implementation of a portfolio of mutually reinforcing goals, including GHG emissions reduction, energy savings, net customer benefits, and reaching underserved customers.

In uncodified language, the bill expresses the General Assembly's intent that (1) each electric company consult with MEA and submit its plan for achieving annual incremental gross energy savings to the PSC every three years and (2) PSC determine the advisability of maintaining specified metrics as the basis for designing cost-effective energy efficiency and conservation programs and services. PSC must (1) take the changes under the bill into account when making its determination and (2) require that the core objective of the alteration to percentages for 2025 and later years under EmPOWER change from electricity reduction to a portfolio of mutually reinforcing goals, including GHG emissions reduction, energy savings, net customer benefits, and reaching underserved customers.

Electric Distribution System Planning and Improvements: By December 1, 2024, and each year thereafter, PSC must submit a report to the General Assembly with information regarding the current status of electric distribution system evolution, including information on electric distribution system planning processes and implementation that promote, as specific goals, the following: (1) measures to decrease GHG emissions incident to electric distribution, including high levels of distributed energy resources and electric vehicles; (2) giving priority to vulnerable communities in the development of distributed energy resources and electric vehicle infrastructure; (3) energy efficiency; (4) meeting anticipated increases in load; (5) incorporation of energy storage technology, as specified; (6) efficient management of load variability; (7) electric distribution system resiliency and reliability; (8) bidirectional power flows; (9) demand response and other nonwire and noncapital alternatives; (10) increased use of distributed energy resources, including electric vehicles; (11) transparent stakeholder participation in ongoing electric distribution system planning processes; and (12) any other issues PSC considers appropriate. Uncodified language requires PSC, by December 31, 2022, and by December 31, 2023, to provide interim reports on the status of the above matters to the House Economic Matters Committee and the Senate Finance Committee.

By July 1, 2025, PSC must adopt regulations or issue orders to implement specific policies for electric distribution system planning and improvements in order to promote the policy goals described above.

The bill states that the General Assembly strongly encourages the State's electric companies to pursue diligently federal funds to meet the State's policy goals for the electric distribution system, including funds made available under specified provisions of the federal Infrastructure Investment and Jobs Act.

PSC and MEA must provide assistance and support to electric companies for applying for and obtaining access to federal and other available funds to meet the State's policy goals for the electric distribution system.

MEA must identify funding sources that may be available to electric companies to implement the State's policy goals under the bill, including funding for (1) increasing the efficiency of electric distribution systems, including through installation and integration of energy storage devices and operational changes and upgrades; (2) grid-hardening activities to reduce the occurrence of or consequences of events that disrupt operations of the electric distribution system due to extreme weather or natural disasters; (3) other distribution system-related upgrade activities available for funding under specified provisions of the federal Infrastructure Investment and Jobs Act; and (4) other specific activities that PSC identifies.

As needed to promote the State’s policy goals established under the bill, PSC must require each electric company to report to PSC and MEA on (1) the funding for which the electric company has applied; (2) the purposes for which the funding is intended to be used; (3) the status of the funding applications; and (4) conditions that must be met to obtain the funding. PSC may also adopt regulations or issue orders that require electric companies to apply for federal and other available funds in a timely manner.

General System Planning Study: In uncodified language, the bill requires PSC to complete a general system planning study, for gas and electric companies with total gross annual revenues equal to or greater than 3% of the total gross annual revenues of all public service companies in the State, to assess the capacity of each company’s gas and electric distribution systems to successfully serve customers under a managed transition to a highly electrified building sector. The study must meet several requirements. PSC is authorized to work with consultants and experts to complete the required study, and PSC may coordinate the study with other specified annual and interim reports required under the bill. Gas and electric public service companies must provide PSC and its consultants and experts information, as necessary, to complete the required study. PSC must report its findings to LPC by September 30, 2023.

Climate Transition and Clean Energy Hub

The bill establishes the Climate Transition and Clean Energy Hub in MEA. The stated purpose of the hub is to serve as a clearinghouse for information on advanced technology and architectural solutions to reduce GHG emissions from the building sector. The hub must provide technical assistance to public and private entities to achieve GHG emissions reductions and comply with State and local energy efficiency and electrification requirements, as specified. The hub must also provide technical assistance for increasing building performance and energy efficiency for other existing and new residential properties. A Position Identification Number (PIN) must be created in MEA for the coordinator of the hub. It is the intent of the General Assembly that, with the exception of the new coordinator position and salary, MEA handle the hub’s responsibilities with existing resources.

Community Solar Energy Generating Systems – Personal Property Tax Exemption

The bill establishes that for any taxable year beginning after June 30, 2022, personal property is exempt from county or municipal corporation property tax if the property is machinery or equipment that (1) is part of a community solar energy generating system that has a generating capacity that does not exceed two megawatts, as specified, and provides at least 50% of the energy it produces to low- or moderate- income customers at a cost that is at least 20% less than the amount charged by the electric company that serves the area where the community solar generating system is located and (2) is installed on a

rooftop, parking facility canopy, or brownfield. Personal property that receives an exemption under the bill is also exempt from county or municipal corporation property tax for each taxable year in which the property continues to meet the requirements for the exemption. The supervisor of assessments may not accept an application from a property owner for such an exemption after December 31, 2024. The State Department of Assessments and Taxation (SDAT) must report to specified committees of the General Assembly by October 1 each year on information about projects that have received the exemption in the immediately preceding taxable year.

Financing Provisions

Climate Catalytic Capital Fund

The bill establishes the Climate Catalytic Capital Fund, which is administered by the Maryland Clean Energy Center (MCEC). MCEC must establish a Fund Oversight Committee to manage the fund. The stated purpose of the fund is to promote geographical impact remedies and to leverage increased private capital investment in technology development and deployment (including project planning) to meet several goals related to addressing climate impacts and reducing GHG emissions, including providing for the creation of a Maryland Green Bond Program.

The fund consists of money from a broad range of sources, including money appropriated in the State budget to the fund, private donations, federal grants, repayment of financing made from the fund, and proceeds from the sale of collateral and assets, as specified. For fiscal 2024 through 2026, the Governor must include in the annual budget bill an appropriation of \$5.0 million to the fund.

The bill specifies the authorized uses of the fund and authorizes MCEC to use not more than 5% of the fund balance for administrative purposes. The fund may not be used for a project to install new, or to improve the efficiency of existing, equipment that uses fossil fuels. Expenditures from the fund must be approved by the Fund Oversight Committee, and the fund is subject to an independent audit. At least 40% of the fund balance must be used for qualified projects in communities with low- to moderate-income households in each fiscal year unless there are insufficient applications for qualified projects in such households, as specified. By October 1 each year, MCEC must report to the Governor and the General Assembly on the use of the fund and outcomes of investments made from the fund.

Net-zero School Construction Incentive

The bill increases the State share of eligible school construction project costs by 5 percentage points for a school built as a net-zero school.

Maryland Healthy Soils Program

In fiscal 2024 through 2028, the Governor must include in the annual budget bill an appropriation of at least \$500,000 for the Maryland Healthy Soils Program within the Maryland Department of Agriculture (MDA). This provision terminates June 30, 2030.

Department of Housing and Community Development Grant Program

In fiscal 2024 through 2026, the Governor must include in the annual budget bill an appropriation of \$5.0 million to DHCD to provide grants under the new grant program, the purpose of which is to reduce GHG emissions from multifamily residential buildings.

Chesapeake Conservation Corps Program Funding

Beginning in fiscal 2024, the Governor must include in the annual budget bill an appropriation of \$1.5 million annually to CBT for the Corps Program to implement climate mitigation and clean energy projects.

Current Law:

Commission on Environmental Justice and Sustainable Communities

CEJSC, which is within MDE, is tasked with examining issues of environmental justice and sustainable communities for all Marylanders. To this end, CEJSC (1) uses data sets and mapping tools to review and analyze the environmental justice implications of current State policy, laws, and regulations; (2) assesses the adequacy of State and local laws, permits and actions, and policies to address the issue of environmental justice and sustainable communities; (3) coordinates with the Children's Environmental Health and Protection Advisory Council, the Maryland Office of Minority Health and Health Disparities, and the Commission on Climate Change on recommendations to further environmental justice and sustainable communities; and (4) recommends options to the Governor and the General Assembly for addressing issues, concerns, or problems related to environmental justice.

Chesapeake Bay Trust

CBT is a nonprofit grant-making organization dedicated to improving the watersheds of the Chesapeake Bay, the Maryland Coastal Bays, and the Youghiogheny River. Created in 1985 by the Maryland General Assembly, CBT's goal is to increase stewardship through grant programs, special initiatives, and partnerships that support K-12 environmental education, on-the-ground watershed restoration, community engagement, and the underlying science of these three realms. Grantees include schools, local governments,

community groups, faith-based groups, watershed organizations, and other not-for-profit entities.

Chesapeake Conservation Corps Program

The Chesapeake Conservation Corps Program facilitates youth involvement in energy conservation and environmental efforts, and associated career opportunities for the participants, by pairing young individuals ages 18 to 25 with qualifying host organizations to undertake energy conservation and environmental projects. The program provides stipends to participating young adults and optional grants to host organizations for costs associated with projects undertaken as part of the one-year term of service. A host organization can be a nonprofit organization; a school; a community association; a service, youth, or civic group; an institution of higher education; a county or municipality; or a unit of State government. The program is administered by CBT in consultation with the Corps Board, which is established to advise the trust in the development and implementation of the program. The program has 30 to 35 participants a year.

Maryland Healthy Soils Program

Chapter 373 of 2017 established the Maryland Healthy Soils Program to (1) improve the health, yield, and profitability of the soils of the State; (2) increase biological activity and carbon sequestration in the soils of the State by promoting practices based on emerging soil science, including planting mixed cover crops, adopting no-till or low-till farming practices, and rotation grazing; and (3) promote widespread use of healthy soils practices among farmers in the State. To carry out the purposes of the program, Chapter 373 requires MDA to (1) provide incentives, including research, education, technical assistance, and, subject to available funding, financial assistance, to farmers to implement farm management practices that contribute to healthy soils and (2) determine whether the program may be implemented in a manner to enhance other State and federal programs that provide financial assistance to farmers.

The Maryland Green Building Council

MGBC, which is staffed by DGS, is charged with:

- evaluating current high-performance building technologies;
- recommending the most cost-effective green building technologies that the State might consider requiring in the construction of State facilities;
- providing recommendations concerning how to expand green building in the State;

- developing a list of building types for which green building technologies should not be applied; and
- establishing a process for receiving public input.

Maryland Building Performance Standards

MDL is required to adopt, as Maryland Building Performance Standards, the most recent version of the International Building Code (IBC), including the International Energy Conservation Code (IECC), along with applicable modifications authorized in Title 12 of the Public Safety Article. Within 18 months of the release of each new version of IBC, MDL is required to review the new version, consider modifications, and adopt specified modifications related to energy conservation and efficiency. MDL is prohibited from adopting any modification that is more stringent than IBC, except that an energy conservation requirement may be more stringent than IECC. MDL and local governments may also adopt by regulation the International Green Construction Code.

Energy Efficiency and Conservation – State Building Energy Efficiency Executive Order

In June 2019, Governor Lawrence J. Hogan, Jr., issued an executive order establishing a new energy savings goal for State government. Specifically, DGS, in cooperation with MEA, must manage a “Maryland Leads by Example” energy savings initiative that will oversee reducing, by 2029, the energy use of State-owned buildings by 10% compared to a 2018 baseline. Chapter 289 of 2020 codified the Governor’s executive order, including the goal for reducing energy use in State-owned buildings by 10%.

EmPOWER Maryland

In 2008, the General Assembly passed the EmPOWER Maryland Energy Efficiency Act, which set target reductions of 15% in per capita electricity consumption and peak demand, respectively, by 2015 from a 2007 baseline. Legislation in 2017 extended the program through its 2018-2020 and 2021-2023 program cycles and established a new annual energy savings goal of 2.0% per year, based on each electric company’s 2016 sales.

Electric Distribution Systems

PSC initiated Public Conference 44 (PC 44) in 2016 to address grid modernization and the future of electric distribution systems. In 2021 – subsequent to Maryland’s participation in a two-year, multistate task force on comprehensive electricity planning – PSC established a distribution system planning workgroup to examine possible reforms of the distribution planning process.

Prevailing Wage, State Apprenticeships, and other Compensation Requirements for Public Works Projects

Contractors and subcontractors working on eligible public works projects in Maryland must pay their employees the prevailing wage rate. “Public works” are structures or works, including a bridge, building, ditch, road, alley, waterwork, or sewage disposal plant, that are constructed for public use or benefit or paid for entirely or in part by public money.

Eligible public works projects are:

- those carried out by the State;
- any public work for which at least 25% of the money used for construction is State money; and
- specified projects in tax increment financing districts if the local governing body approves of the application of prevailing wages.

Any public works contract valued at less than \$250,000 is not required to pay prevailing wages. The State prevailing wage rate also does not apply to (1) any part of a public works contract funded with federal funds for which the contractor must pay the prevailing wage rate determined by the federal government; (2) unless let to contract, a structure or work whose construction is performed by a public service company under order of PSC, regardless of public supervision or direction or payment wholly or partly from public money; or (3) local House or Senate initiatives that receive State funds in the capital budget.

Chapters 686 and 687 of 2019 require the Board of Public Works (BPW) to adopt regulations that require all bidders, contractors, and subcontractors on State-funded construction projects to pay employee health care expenses.

Chapter 687 of 2009 established the State Apprenticeship Training Fund and requires contractors and some subcontractors on public work contracts that are subject to the prevailing wage law to either participate in an apprenticeship training program, make payments to a registered apprenticeship program or to an organization that operates registered programs for the purpose of supporting the programs, or contribute to the fund. The fund’s revenues consist entirely of payments made by contractors and penalties collected due to violations of the statutory provisions.

While many construction projects carried out by public service companies are not considered public works for purposes of paying prevailing wages, Chapter 12 of the 2021 special session requires investor-owned gas and/or electric utilities to require contractors and subcontractors on specified underground projects to pay their employees at least the applicable prevailing wage rate.

Zero-emission Vehicles (Including School Buses)

The Transportation Article defines a “zero-emission vehicle” as (1) any vehicle that the Secretary of Transportation determines to be of a type that does not produce any tailpipe or evaporative emissions and (2) has not been altered from the manufacturer’s original specifications. The Secretary must adopt regulations that specify which vehicles are zero-emission, but the relevant regulations include no such specification beyond the statutory definition.

Several State programs aim to encourage the purchase of electric vehicles in the State. For example, subject to available funding, a person who purchased a qualified plug-in electric vehicle or a qualified fuel cell electric vehicle prior to July 1, 2020, may claim a credit against the vehicle excise tax. In addition, MEA administers the Electric Vehicle Recharging Equipment Rebate Program, which provides rebates to individuals, businesses, and State and local governments.

Chapter 492 of 2019 established the Zero-Emission Vehicle School Bus Transition Grant Program within MDE to provide grants to local boards of education (and entities that contract with local boards to provide transportation services) to (1) purchase school buses that are ZEVs; (2) install electric vehicle infrastructure for charging school buses that are ZEVs; (3) engage in planning for a transition to using school buses that are ZEVs; and (4) fund pilot programs to experiment with a transition to school buses that are ZEVs. Unless it fails to meet applicable school bus and motor vehicle safety standards, a school vehicle may be operated for 12 to 15 years, depending on the county and other requirements.

State Vehicle Fleet

DGS purchases vehicles for the State based on standards developed by the Department of Budget and Management (DBM) and approved by BPW. DBM administers the State vehicle fleet. The standards developed by DBM must, as far as practicable and feasible, be based on the lowest possible life-cycle cost of the vehicle.

Greenhouse Gas Emissions Reduction Act

The Greenhouse Gas Emissions Reduction Act, originally enacted in 2009 and made permanent and expanded in 2016, was enacted in light of Maryland’s particular vulnerability to the impacts of climate change. Under the Act, the State was required to develop plans, adopt regulations, and implement programs to GHG emissions by 25% from 2006 levels by 2020 and must further reduce GHG emissions by 40% from 2006 levels by 2030; the 2030 reduction requirement terminates December 31, 2023. In February 2021, MDE finalized the Greenhouse Gas Emissions Reduction Act 2030 Plan.

Maryland Clean Energy Center

MCEC is a corporate instrumentality of the State, established in statute, to advance clean energy and energy efficiency products, services, and technologies as part of a specific economic development strategy. The center is managed by a board of directors who are appointed by the Governor. Among other things, MCEC leverages private capital and private sector capabilities to help homeowners and businesses save money on energy bills. MCEC is also authorized to facilitate public-private and public-public partnerships.

Local Personal Property Taxes

Local governments have the authority to impose personal property taxes on solar photovoltaic property. SDAT indicates that local governments collected approximately \$3.1 million in personal property tax revenues from solar energy property in fiscal 2018.

The county tax rate applicable to personal property and the operating real property of a public utility may not exceed 2.5 times the rate for real property.

Community Solar Energy Generating System Pilot Program

Chapters 346 and 347 of 2015 required PSC to establish a three-year Community Solar Energy Generating System Pilot Program, subject to specified conditions. Such a system, in addition to other requirements, must have at least two subscribers, but a subscriber limit is not specified in statute. Under PSC regulations, a system may have up to 350 accounts, unless the electric company has developed an automated billing function, in which case there is no limit. PSC regulations also increase authorized capacity additions each year. According to PSC, the program, if fully subscribed, would add about 200 megawatts under the existing 1,500-megawatt net metering cap. Chapters 461 and 462 of 2019 extended the Community Solar Energy Generating Systems Pilot Program through December 31, 2024.

State Fiscal Effect: The bill has far-reaching impacts on most State agencies. Several of the impacts are calculable (for example, the restricted funding in the fiscal 2023 budget that is contingent on the enactment of the bill, the mandated appropriations, the new PIN for MEA, and certain administrative costs), but for most, a reliable estimate cannot be made at this time. Regardless, State expenditures (multiple fund types) increase significantly beginning in fiscal 2023. The contingent fiscal 2023 funding, the mandated appropriations, and some of the potential effects resulting from other provisions are described below. Despite the bill's June 1, 2022 effective date, it is assumed that State finances are not materially affected until fiscal 2023.

Funding Restricted in the Fiscal 2023 Budget Contingent on the Enactment of this Bill

The fiscal 2023 budget restricts \$9.0 million in general funds from the Revenue Stabilization Account to support strategies for reducing statewide GHG emissions and addressing climate impacts, contingent upon the enactment of this bill and the transfer of funds by the Governor, to be allocated as follows:

- \$3.75 million to MEA to be used for a grant to MCEC to establish and administer the Climate Catalytic Capital Fund;
- \$3.75 million to DHCD for energy conservation projects and projects to install renewable energy generating systems in covered buildings that house primarily low- to moderate-income households;
- \$1.125 million to DNR for a grant to CBT for the Chesapeake Conservation Corps; and
- \$375,000 to MDA for the Maryland Healthy Soils Program.

Mandated Appropriations (and Related Administrative Costs) and Position Identification Number for the Maryland Energy Administration

Climate Catalytic Capital Fund: In addition to the restricted funding for fiscal 2023 discussed above, the bill requires the Governor to include \$5.0 million in the annual budget bill to the Climate Catalytic Capital Fund, which is administered by MCEC, in each fiscal year from fiscal 2024 through 2026. Accordingly, general fund expenditures increase by \$5.0 million annually in fiscal 2024 through 2026. MCEC is authorized to use up to 5% of the fund balance for administrative purposes, and it is anticipated that this is sufficient to fully cover MCEC's costs to administer the fund.

Climate Transition and Clean Energy Hub: The bill specifies that one PIN must be created in MEA to act as the Coordinator of the Climate Transition and Clean Energy Hub. These provisions take effect June 1, 2022, so it is assumed that the employee is hired beginning July 1, 2022, which accounts for a one-month start-up delay. Thus, general fund expenditures for MEA increase by \$114,174 in fiscal 2023 to hire one program manager to act as the coordinator for the hub, as required by the bill. It includes a salary, fringe benefits, one-time costs, and ongoing operating expenses. Future year MEA expenditures associated with this PIN, which range from \$104,806 in fiscal 2024 to \$113,462 in fiscal 2027, include a salary with annual increases and employee turnover as well as annual increases in ongoing operating expenses.

Chesapeake Conservation Corps Program: In addition to the restricted funding for fiscal 2023 discussed above, beginning in fiscal 2024, the bill requires the Governor to include in the annual budget bill an appropriation of \$1.5 million to CBT for the

Corps Program to implement climate mitigation and clean energy projects. Accordingly, general fund expenditures increase by \$1.5 million annually beginning in fiscal 2024 due to the mandated appropriation.

Maryland Healthy Soils Program: In addition to the restricted funding for fiscal 2023, discussed above, the bill also requires the Governor, in each year from fiscal 2024 through 2028, to include an appropriation of at least \$500,000 in the annual budget bill to the Maryland Healthy Soils Program, which is administered by MDA. Accordingly, general fund expenditures increase by \$500,000 annually in fiscal 2024 through 2028 due to the mandated appropriation. In addition, general fund expenditures for MDA increase through fiscal 2028 to administer the additional funds. MDA estimates that it needs to hire two employees at a cost of approximately \$200,000 annually to administer the additional funds. The Department of Legislative Services (DLS) is unable to independently verify these costs at this time but acknowledges that MDA incurs additional administrative costs.

Department of Housing and Community Development Grant Program: In addition to the restricted funding for fiscal 2023 discussed above, in fiscal 2024 through 2026, the bill requires the Governor to include an appropriation of \$5.0 million in the annual budget bill to DHCD to provide grants for energy conservation projects and projects to install renewable energy generating systems in covered buildings that house primarily low- to moderate-income households (for the purpose of reducing direct GHG emissions from multifamily residential buildings in accordance with the energy performance standards adopted by MDE under the bill). Thus, general fund expenditures increase by \$5.0 million annually in fiscal 2024 through 2026. This analysis assumes that DHCD spends all available funding each year.

In addition, general fund expenditures for DHCD increase by \$165,105 in fiscal 2023 to hire two contractual administrators to develop and implement the grant program. This estimate assumes the contractual employees are hired July 1, 2022. Future year administrative costs, which range from \$140,937 in fiscal 2024 to \$150,558 in fiscal 2026, include salaries with annual increases and employee turnover, annual increases in ongoing operating expenses, and termination of the contractual employees at the end of fiscal 2026 (after the mandated appropriation for the grant program ends). This estimate does not include any health insurance costs that could be incurred for specified contractual employees under the State's implementation of the federal Patient Protection and Affordable Care Act.

School Construction State Cost Share Provision

The bill increases the State share of eligible costs for school construction projects built as net-zero schools. Any increase in the State share for individual projects has no effect on total State funding for public school construction, which is established annually by the

Governor and the General Assembly through the capital budget process. However, to the extent that the State share of construction costs increases for a particular project, less funding is available for other projects, and fewer projects may be funded in a given year.

Zero-emission Vehicle Provisions for the State Fleet

DLS is unable to provide specific cost estimates related to the bill's requirements to transition the State fleet to ZEVs. However, it is expected that State expenditures (multiple fund types) increase potentially significantly for various State agencies to purchase ZEVs and related infrastructure. For context, below is some information available regarding the costs to install charging stations, the price differentials between conventional, hybrid, and electric standard compact sedans, and potential gas savings.

DGS procures and negotiates blanket purchase orders (BPOs) from which agencies purchase cars for State use. The current BPOs include pricing for standard sedans and standard all-electric sedans. They also include pricing for light-duty pickup trucks, cargo vans, and sport utility vehicles. DBM advises that, although car manufacturers have ZEV options available for models other than standard sedans, these options are not successful in the State's contracting process because of their high purchase price and resultant life-cycle costs. Thus, ZEV options are not available for purchase under a State BPO for any model type other than a standard compact sedan.

A Level 2 charging station generally costs less than \$1,000, but DGS advises that, with site preparation costs, enhanced electrical transmission requirements for multiple ports, and other installation costs, a Level 2 charging station can cost up to \$10,000 per port to install. Although DGS believes that two cars can share one port, electric vehicles typically must charge overnight, requiring each car to have its own port. Therefore, in practice, the State likely needs to build one charging port for each ZEV vehicle purchased (which is current DGS practice).

DBM indicates that, during fiscal 2021, the State fleet had 9 ZEV electric vehicles, with 40 more purchased during the year.

Based on the most recent BPO pricing available, the price of a standard compact sedan is \$18,200, the average price for a hybrid standard compact sedan is \$21,998, and the average price for an all-electric standard compact sedan is \$32,091. The price differential between a standard compact sedan and an all-electric standard compact sedan is \$13,891.

Based on annual driving distances of 12,000 miles at 30 miles per gallon and an average gasoline price of \$3.10 per gallon, the State spends approximately \$1,240 on gasoline for a standard compact sedan each year. The State, therefore, saves about \$1,240 in fuel costs for each ZEV in the fleet. Note, this cost-savings calculation does not account for any

increased electric utility costs related to charging electric vehicles. Fuel costs and, therefore, fuel savings are slightly higher for larger vehicles.

Effects on State Agencies from Building Energy Performance Standards and Other Energy-related Measures

State expenditures (multiple fund types) likely increase (potentially significantly) to incorporate GHG emissions reduction goals (and to take into account the likely impact of agency decisions on disproportionately affected communities) when conducting long-term planning and policy development activities and potentially to retrofit covered buildings to meet the new building energy performance standards developed by MDE.

State expenditures (multiple fund types) may also increase in the short term due to an increase in electricity costs resulting from the bill. The State uses about 1.5 million megawatt-hours of electricity per year, out of a statewide total of about 60 million megawatt-hours. While it is unknown how much the bill will raise electricity prices, for every \$60 million increase in total electric costs in the State (\$1 per megawatt-hour), State expenditures for electricity increase by about \$1.5 million. State agencies also pay the EmPOWER surcharge that is assessed on utility customers to pay for the program. Since the bill expands and extends the program, all electricity customers, including State agencies, will ultimately pay for additional expenditures incurred. For context, according to PSC, the current surcharge impact for a 2.0% goal in 2022 for an average customer (1,000 kilowatt-hours of monthly electricity usage) is between \$6.19 and \$8.42 depending on the utility territory.

Although the bill has no effect on total capital spending, which is established annually by the Governor and the General Assembly through the capital budget process, funding for other capital projects is reduced due to the capital expenditures incurred as a result of the bill.

Discussion of Fiscal Impacts Related to Some of the New Programs, Standards, and Plans

In addition to the broader statewide standards and impacts under the bill, the bill establishes new responsibilities for several agencies, and some likely need to hire new staff to implement the initiatives and programs established under the bill. In particular, in addition to the administrative costs described above, the bill establishes substantial new responsibilities for MDE, DGS, MDL, PSC, and MEA. Descriptions of these impacts are included below.

Maryland Department of the Environment: MDE anticipates establishing a new unit to develop the required building energy performance standards for covered buildings, which includes developing a standard and method for affected entities to pay an alternative

compliance fee. The modifications to the Greenhouse Gas Emissions Reductions Act also result in significant contractual costs for MDE to develop new plans. Further, MDE needs contractual assistance and additional staff to support MCCC (including the new working groups), CEJSC, and the Building Energy Transition Implementation Task Force and to meet new study and reporting requirements. MDE estimates that its administrative costs resulting from the bill total \$3.2 million in fiscal 2023, with ongoing costs of at least \$1.9 million annually. DLS cannot independently verify these estimates at this time; however, the bill establishes significant new responsibilities for MDE, and DLS advises that MDE likely incurs significant costs to hire staff and consultants.

The extent to which the alternative compliance fee established by MDE under the bill generates State revenues is unknown and is therefore not reflected in this analysis.

Department of General Services: DGS also estimates that it needs to hire a significant number of staff to implement the various provisions of the bill that fall under DGS's purview, including coordinating the installation of electric vehicle charging stations and increased staffing and administrative demands for MGBC. DLS cannot independently verify these estimates at this time; however, the bill establishes significant new responsibilities for DGS. Accordingly, general fund expenditures for DGS likely increase significantly beginning in fiscal 2023.

Maryland Department of Labor: The bill establishes substantial new responsibilities for MDL to conduct the study, develop recommendations related to electrification of buildings and building energy performance standards, and implement the bill's prevailing wage provisions for certain utility projects. MDL anticipates the need to hire eight permanent and five contractual employees (a mix of assistant attorneys general, investigators, engineers, and an administrative aide). MDL estimates that general fund expenditures increase by approximately \$942,400 in fiscal 2023, by \$829,700 in fiscal 2024, and by at least \$673,100 annually thereafter. DLS cannot independently verify these estimates at this time; however, the bill establishes significant new responsibilities for MDL, and DLS advises that MDL likely incurs significant costs to hire staff. Accordingly, general fund expenditures for MDL likely increase significantly beginning in fiscal 2023.

Public Service Commission and Maryland Energy Administration

Potential Federal Funds: The bill requires PSC and MEA to provide assistance and support to electric companies to apply for and obtain access to federal funds, including those made available under the federal Infrastructure Investment and Jobs Act, to meet the State's policy goals for the electric distribution system. The extent to which this requirement may be performed in accordance with PSC's general statutory duties and may result in an increase in federal fund revenues for the State is unknown and has not been reflected in this analysis.

Public Service Commission Administrative Costs: Special fund expenditures for PSC increase by \$2.5 million in fiscal 2023. This estimate reflects the cost of hiring three employees, one power plant siting assessor, one program manager, and one public service engineer to administer and generally implement the new responsibilities under the bill, which include (1) participating and providing support to several of the new working groups and task forces and (2) administering the Electric School Bus Pilot Program. This estimate also reflects contractual costs to conduct the required general system planning study and to fulfill the bill's regulatory and reporting requirement relating to electric distribution systems. Out-year costs, which range from \$784,725 in fiscal 2024 to \$807,857 in fiscal 2027, reflect termination of first-year contractual costs once the initial studies are complete, inflation, and ongoing operating costs. Special fund revenues increase correspondingly from assessments imposed on public service companies.

Maryland Energy Administration Administrative Costs: The bill establishes several new responsibilities for MEA, including participating in several of the new MCCC working groups, assisting PSC to identify available funding sources, and coordinating with utility providers to apply for and access federal funds, as discussed above. MEA advises that cumulatively, it cannot absorb these responsibilities with existing resources. Thus, in addition to the costs associated with the PIN hired to coordinate the new Climate Transition and Clean Energy Hub, which are discussed above, general fund expenditures for MEA increase by \$206,750 in fiscal 2023 to hire one policy manager and one administrator to fulfill the other responsibilities established for MEA under the bill. Out-year costs, which range from \$189,028 in fiscal 2024 to \$204,736 in fiscal 2027, reflect inflation and ongoing operating costs.

Local Fiscal Effect: Overall, a reliable estimate of the bill's impact on local government finances cannot be made at this time. However, some of the potential fiscal effects on local governments are discussed below.

Effect of Various Energy-related Measures

Similar to the effect described above for State agencies, local governments may incur an increase in electricity costs in the short term and incur an increase in EmPOWER surcharges on an ongoing basis.

School Construction Provision

Local revenues may increase for public school construction projects due to the increases in the State cost share for school construction projects built as net-zero schools. To the extent that increased revenues from the State supplant local funds available for capital projects, those funds can be reallocated to other projects. Thus, there may be no overall effect on local expenditures for capital construction and renovation.

Electric School Buses

Beginning in fiscal 2025, the bill prohibits a county board of education from entering into a new contract for the purchase or use of a school bus that is not a ZEV (unless the school bus has an in-service date of July 1, 2024 or before). However, these requirements do not apply if MDE determines there are no available ZEVs that meet the performance requirements, or a county board is unable to obtain funding to cover the incremental costs associated with the purchase or contract. Since a county board is not required to purchase ZEV school buses if the board is unable to obtain funding to cover incremental costs, this provision is not anticipated to have a material fiscal effect.

The bill also establishes the Electric School Bus Pilot Program. Under this program (broadly), local government revenues (from utility rebates) and expenditures (for electric buses and related costs) increase to the extent that local school systems opt to participate in the pilot program beginning in fiscal 2023. The overall effect on a particular local government is unknown, but the bill contemplates a program that would have no net effect on a particular local government's finances due to the purchase and deployment of electric school buses, if estimated incremental costs align with subsequent utility rebates. Still, there is the possibility that some costs or savings will not be included in utility rebates – whether they be unforeseen, tangential, or extend beyond the duration of the three- to five-year pilot program.

For example, electric buses are believed to have lower operating and maintenance costs over time – the duration of those potential savings, and whether/how they will be accounted for in the overall calculation of incremental costs eligible for rebates, is not specified in the bill. It is conceivable that a school system could continue benefiting from its electric buses after the pilot program terminates and rebates cease.

For context, the Maryland State Department of Education has previously advised for a prior-year bill that the cost of a traditional diesel-powered school bus can start at about \$90,000, while a comparable electric-powered school bus can cost more than \$340,000.

There are also additional capital costs related to electric school buses (*e.g.*, electric charging stations and related infrastructure investments).

Property Tax Exemption

SDAT has identified 22 active community solar energy generating systems of which 2 currently meet the exemption requirements of the bill. The 2 facilities are located in Baltimore and Prince George's counties. According to SDAT, the estimated personal property assessment for each facility is \$1.6 million. The personal property tax rate is \$2.75 per \$100 of assessment in Baltimore County and \$3.435 per \$100 of assessment in Prince George's County. Based on these personal property tax rates and the estimated

personal property for each affected community solar energy generating system, property tax revenues decrease by approximately \$44,000 in Baltimore County and by approximately \$55,000 in Prince George's County, beginning in fiscal 2023.

To the extent that other community solar energy generating systems become eligible for the exemption proposed by the bill, local government personal property tax revenues decrease accordingly. The potential local revenue loss in future years may be limited due to the requirement that property owners apply for the exemption prior to January 1, 2025.

Chesapeake Conservation Corps

Local governments, as qualified organizations, may benefit from the expansion of the Corps Program under the bill.

Small Business Effect: Although a reliable estimate of the bill's impact on small businesses cannot be made at this time, the impact on small businesses is meaningful, and some of the potential effects are discussed below.

Small businesses, such as those constructing new buildings or renovating existing buildings, incur additional costs to comply with the bill's building energy performance standards.

Small businesses may also incur an increase in electricity costs in the short term and an increase in EmPOWER surcharges on an ongoing basis.

Complying with the bill's wage and labor requirements may meaningfully impact small contractors and subcontractors working on covered projects for investor-owned utilities.

The bill likely increases the demand for small businesses that construct or sell equipment related to improving building energy performance. Small businesses that provide design and construction services could also be positively affected. Small businesses that sell ZEVs or install ZEV charging infrastructure benefit from increased sales opportunities.

Conversely, small businesses that primarily provide, install, construct, or maintain more traditional, fossil-fuel centered equipment, buildings, or products may see a decrease in the demand for their services and products.

Additional Comments: While the bill's provisions result in significant costs, as described above, the various programs and activities undertaken as a result of the bill may result in long-term energy savings for the State, local governments, and small businesses. Any such savings cannot be estimated and therefore has not been addressed in this analysis. Similarly, this analysis does not address any long-term impacts to gas or electric utility distribution rates (for example, any potential increase in natural gas distribution rates due

to declining market share). A reliable estimate of the bill's overall effects on electricity rates resulting from the bill's requirements cannot be reliably estimated at this time. However, costs incurred by utilities under the bill may be recovered through future rate cases, which are paid by all utility customers, including the State, local governments, and small businesses.

Additional Information

Prior Introductions: SB 414 of 2021, a bill with similar provisions, passed the Senate with amendments, passed the House with amendments, and had a conference committee appointed, but the two chambers could not reconcile their differences prior to the end of the legislative session. Its cross file, HB 583, received a hearing in the House Environment and Transportation Committee, but no further action was taken.

Designated Cross File: None.

Information Source(s): Anne Arundel, Baltimore, and Harford counties; Maryland Association of Counties; Northeast Maryland Waste Disposal Authority; Department of Housing and Community Development; Maryland Environmental Service; Department of Commerce; Judiciary (Administrative Office of the Courts); University System of Maryland; Public School Construction Program; Department of Budget and Management; Maryland Department of the Environment; Department of General Services; Department of Juvenile Services; Maryland Department of Labor; Department of Natural Resources; Maryland Department of Planning; Department of Public Safety and Correctional Services; Maryland Department of Transportation; State Department of Assessments and Taxation; Maryland Energy Administration; Public Service Commission; Baltimore City Public Schools; Chesapeake Bay Trust; Maryland Clean Energy Center; Department of Legislative Services

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