Department of Legislative Services

Maryland General Assembly
2016 Session

FISCAL AND POLICY NOTE
First Reader - Revised

House Bill 862 (Delegate Frush, *et al.*)

Environment and Transportation and
Economic Matters

Maryland Redeemable Beverage Container Recycling Refund and Litter Reduction Act

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This bill establishes a 5-cent beverage container deposit beginning July 1, 2017, and a Maryland Redeemable Beverage Container Recycling Refund and Litter Reduction Program to be administered by the Maryland Environmental Service (MES). The bill also establishes a Reserve Redeemable Beverage Container Recycling Fund and provides for the accounting and use of unredeemed container deposits and other program revenues.

Fiscal Summary

State Effect: Special fund revenues increase significantly – perhaps by more than $100 million annually – beginning in FY 2018, from unredeemed container deposits and the sale of returned beverage containers. Special fund expenditures likewise increase significantly for specified activities. General/special fund expenditures increase by approximately $117.9 million in FY 2017 for MES to establish redemption centers; beginning in FY 2018, general/special fund expenditures increase by $103.8 million annually for MES to administer the program. General/special fund expenditures for the Maryland Department of the Environment (MDE) increase by $141,000 in FY 2018 to assist MES and to disburse grants; future year MDE expenditures reflect inflation.

($ in millions)	FY 2017	FY 2018	FY 2019	FY 2020	FY 2021
SF Revenue	$0	-	-	-	-
SF Expenditure	$0	-	-	-	-
GF/SF Exp.	$117.9	$104.0	$104.0	$104.0	$103.9
Net Effect	($117.9)	-	-	-	-

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

Local Effect: Local government operations and finances are significantly affected, as discussed below.

Small Business Effect: Meaningful.

Analysis

Bill Summary:

Intent of the General Assembly

It is the intent of the General Assembly to (1) achieve a recycling and reuse goal of 70% for the approximately 4.8 billion beverage containers sold annually in the State; (2) reduce the volume of beverage container litter in the State; and (3) reduce litter collection costs incurred by counties and municipal corporations.

Maryland Environmental Service

MES is responsible for developing, implementing, and administering the Maryland Redeemable Beverage Container Recycling Refund and Litter Reduction Program. These responsibilities include, among other things:

- overseeing the operation and maintenance of the program, including determining operating logistics and initiating refund collection and distribution;
- designing and operating transportation and processing services;
- developing and implementing a plan for establishing, operating, and managing redemption centers as deemed necessary by MES;
- establishing a process for a local government to apply to operate a redemption center located within its jurisdiction;
- developing and implementing a plan for the distribution, operation, and maintenance of reverse vending machines;
- managing all finances for the program and developing accounting and control standards;
- designing and operating a financial clearinghouse to register redeemable beverage containers;
- implementing accounting, audit, payment, and reporting procedures;
- establishing a process, based on documented impacts, to subsidize county and municipal curbside recycling collection and material recovery facilities for the first three years of the program;

- establishing an application process for, and a validation and audit system to pay, a bulk rate for specified on-premises sellers;
- establishing and funding a marketing program to educate the public about the program; and
- reporting specified information.

Deposit Created

Beginning July 1, 2017, but not before that date, every redeemable beverage container sold in Maryland must clearly indicate a refund value of 5 cents and the word "Maryland" or the letters "MD" on the container. Beginning July 1, 2017, the retail price of a full redeemable beverage container must include a refund value of 5 cents; however, the refund value may not be included in the retail price of a container sold by an "on-premises seller," which is defined as a person that sells a beverage in a redeemable beverage container for on-premises consumption; the term includes a bar, a restaurant, a hotel, a gaming venue, or a sporting venue with more than 30,000 seats.

The bill defines a "redeemable beverage container" as an individual, separate, and sealed glass, aluminum, or plastic jar, can, or bottle of between 7 and 101 fluid ounces of a beverage for human consumption in Maryland that bares a Universal Product Code and may bear a Maryland-specific refund security mark or bar code for the purpose of deterring fraud. The bill also defines a "beverage" as a drink in a redeemable beverage container, including beer and other malt beverages, liquor, hard cider, soft drinks, flavored and unflavored bottled water, fruit juice, sports drinks, and tea and coffee drinks regardless of dairy-derived content; milk, milk substitutes, and growlers are specifically excluded.

Retailers and Redemption Centers

Beginning July 1, 2017, a person may return an empty redeemable beverage container to a redemption center or a participating retailer for a full refund of the 5-cent deposit paid on the container. Beginning July 1, 2017, a "retailer" with a retail building that has an indoor market space of at least 5,000 square feet must accept an empty redeemable beverage container and pay to the redeemer the full refund value in cash. A redemption center must also do so.

A retailer or redemption center collecting a redeemable beverage container must use a reverse vending machine or other high-speed counting and sorting technology to (1) validate each container individually when calculating the refund value and (2) identify each container as having been redeemed.

The bill defines a "retailer" as a person that sells a beverage in a redeemable beverage container to a consumer for off-premises consumption.

As noted above, the bill requires MES to establish an application process for an on-premises seller to apply to receive a bulk rate for the redemption of empty redeemable beverage containers. MES must also establish a high-volume validation and audit system to pay a bulk rate to an on-premises seller for the redemption of redeemable beverage containers. The bill authorizes casinos, sporting venues with more than 30,000 seats, and other approved large venues to apply to MES for a bulk refund rate.

Also noted above, MES must develop and implement a plan for establishing, operating, and managing redemption centers as deemed necessary. MES must also establish a process for a county or municipality to apply to MES to operate a redemption center within its jurisdiction.

Use of Program Revenues

Program revenues consist of money collected from the sale of empty redeemable beverage containers for scrap materials and unredeemed deposits. The bill establishes the following allocation of program funds:

- 2.875 cents per redeemed container must go to MES for costs associated with operating and administering the program (up to $15 million must be used for repayment of its initial capital investment in the program); and
- 0.125 cents must (1) during the first three years of the program, go to distributors for costs associated with complying with the program and (2) during the fourth and subsequent years, be allocated in a manner determined to be appropriate by MES for the sustainability of the program.

Any remaining unredeemed funds and revenues collected from the sale of scrap materials must, after costs for operating and administering the program, be allocated as follows:

- during the first three years of the program (1) up to $27 million to counties and municipalities for documented and verified losses claimed by curbside collection programs and material recycling facilities; (2) up to $15 million for counties and municipalities to address total maximum daily load (TMDL) issues; and (3) up to $21 million to MDE for community grants for litter reduction and environmental programs;
- up to $2 million annually to the Chesapeake Bay Trust for environmental grants;
- $250,000 to MDE for assistance with the implementation of the program; and
- any remaining funds to the Reserve Redeemable Beverage Container Recycling Fund established under the bill.

The bill establishes a Reserve Redeemable Beverage Container Recycling Fund to maintain a reserve to ensure the viability of the program and to provide funding for litter reduction and environmental programs. The fund consists of unredeemed deposits, investment earnings, annual surplus from the operation of the program, and any other money from any other source accepted for the benefit of the fund. The fund may only be used for program implementation, operation, and sustainability, and money in the fund must be released at least once each year. Any investment earnings must be paid into the fund until the fund balance reaches $30 million; then, any investment earnings are paid out annually for litter reduction and environmental programs. The bill prohibits money in the fund from being transferred to the general fund or another special fund.

Legislative Audits/Oversight and Reporting Requirements

On or after July 1, 2017, the legislative auditor must audit the accounts and transactions of the program, as specified. MES may request an audit at any time.

MES must publish an annual program update on its website that includes specified information about program implementation. Beginning December 31, 2020, and every five years thereafter, MES must also submit a report to the Governor and the Legislative Policy Committee on specified items, including program administration, program finances, and the successes and challenges of the program, among other things. The Legislative Policy Committee has 45 days after receiving the report to initiate a review of the program.

Penalties

A person may not knowingly sell or attempt to redeem a beverage container that does not comply with the bill's requirements. Violators are guilty of a misdemeanor and subject to a fine of up to $250.

Current Law/Background: Chapter 719 of 2010 required MDE to conduct a study to evaluate solid waste management processes that reduce the solid waste stream through recycling and source reduction. MDE created the Maryland Solid Waste Management, Recycling, and Source Reduction Study Group and consulted with local government officials, waste haulers, recyclers, environmental groups, academia, State elected officials, and other affected parties including material resource facilities to study these issues. In December 2011, the study group submitted its final report and recommendations, which included, among other things, a discussion of beverage container deposit programs.

In discussing the nature of the problem, the study group found that beverage containers generally constitute a disproportionately large share of litter as compared with their share of the solid waste stream. Beverage containers are also larger than other prevalent types of litter, such as cigarette butts, and may be more visible. The study group speculated that this may be part of the reason for the prevalence of beverage container deposit programs. According to the Container Recycling Institute, 10 states have enacted and currently implement beverage container deposit programs: California, Connecticut, Hawaii, Iowa, Maine, Massachusetts, Michigan, New York, Oregon, and Vermont. Delaware enacted legislation in 2010 that repealed its container deposit law but established a statewide universal recycling requirement instead.

In its research of existing and proposed beverage recycling programs, the study group found that there are two main types of container deposit programs: (1) traditional programs where payments are made by consumers to the private sector, such as retailers; and (2) programs where the State funds redemption centers and recycling processors purchase the collected materials from the redemption centers. The study group found that, while it is difficult to compare the cost of programs between states, the second type of program is generally cheaper. The study group also found that reverse vending machines may be an efficient tool, avoiding the need for personnel to count or weigh containers.

The study group also found that recycling rates of beverage containers are significantly higher in states that have established beverage container deposits. However, the study group also noted that, while these programs are generally regarded as successful in reducing beverage container litter, the reductions cannot be definitively traced to the container deposit programs. For example, data from a U.S. Environmental Protection Agency national survey showed that beverage container litter has decreased by 74% across the nation as a whole since 1969. Nevertheless, jurisdictions with container deposit programs generally have significantly higher rates of recovery for beverage containers than jurisdictions with curbside programs alone.

The study group report cited a 2002 report that found that the capture and participation rate for curbside programs is generally around 50%. According to MDE, Maryland recycled about 40.4% of beverage containers (including wine and beer bottles) in 2013 through a combination of curbside and drop-off recycling (down from 42.8% in 2012), while states with deposit programs generally have an average recovery rate between 70% and 85%; it should be noted that recycling rates may be measured differently by different states or organizations, with differences in the definition of recycling dependent on the ultimate disposition of the collected materials. The study group concluded that a container deposit law in Maryland could roughly double the recycling rate of beverage containers. While that would be a significant increase in the percentage of beverage containers recycled, it would only represent a 1% to 2% increase in the State's overall recycling rate for all materials.

Finally, the study group examined the environmental effects of beverage container recycling more broadly, noting that, as a potential benefit of implementing a deposit program, Maryland could avoid between 164,000 and 241,000 metric tons of carbon dioxide equivalent annually. Thus, a deposit program would not only assist in achieving the State goal of increasing the statewide recycling rate to 55% and the waste diversion rate to 60% by 2020 established by Chapter 629 of 2012, but it could also support the State's goal of reducing greenhouse gas (GHG) emissions by 25% by 2020 (established by Chapters 171 and 172 of 2009). The State's Greenhouse Gas Reduction Act Plan includes a beverage container recycling rate goal of 80% by 2020 and 90% by 2030, which is one component of the plan's "zero waste" goal of reducing GHG emissions by 4.8 million tons of carbon dioxide equivalent annually; this reduction comprises 8.7% of the plan's overall GHG reductions and represents the fourth largest source of emissions reductions (behind energy, transportation, and agriculture/forestry).

In December 2014, MDE released its zero waste plan to eliminate the need for disposal of solid waste and to maximize the amount of treated wastewater that is beneficially reused. Specific actions listed in the plan include adopting a beverage container law, among several other actions. Executive Order 01.01.2015.01 states that "Maryland shall endeavor to ensure that all waste generated in the State is increasingly reduced and reused rather than discarded in a manner that adversely impacts our health and environment." The executive order also requires MDE to provide local governments with information on alternatives to landfilling.

In December 2011, the University of Maryland Environmental Finance Center issued a report for the Abell Foundation and the Waterfront Partnership of Baltimore, Inc., to quantify a beverage container deposit program's contribution to Maryland's goals to reduce GHG emissions and stormwater-related trash and to determine what money might be available to the State as a result of unredeemed beverage container deposits. The report noted the potential for litter reduction and an increase in recycling from a beverage container deposit program, but also acknowledged a potential negative impact on local recycling programs and potential concerns about handling costs. In conclusion, the report noted that the economic outcomes of a program would vary based on the design of the program. Finally, the report indicated that maximizing the benefits of container deposit legislation depends on achieving high recycling rates and that minimizing the costs of container deposit legislation depends on an efficient return system.

State Fiscal Effect:

Program Revenues and the Allocation of Those Revenues

The bill states that the intent of the General Assembly is to achieve a recycling and reuse goal of 70% for the approximately 4.8 billion beverage containers sold annually in the State. *For illustrative purposes only*, if 4.8 billion beverage containers are sold in the State in fiscal 2018 and 60% of those containers are redeemed, the program realizes approximately $132.8 million in revenues from unredeemed deposits and the sale of beverage containers. This estimate is largely based on information provided by MDE. Of that revenue:

- MES receives $82.8 million, or 2.875 cents per redeemed container, for program operation costs (up to $15 million for initial capital investment costs);
- distributors receive $3.6 million, or 0.125 cents per redeemed container, to offset costs associated with complying with the program;
- $9 million goes to local jurisdictions for documented losses claimed by curbside collection programs and material recycling facilities (assuming the $27 million cap is split evenly during the first three years of the program);
- $5 million goes to local governments to address TMDL issues (assuming the $15 million cap is split evenly during the first three years of the program);
- $7 million goes to MDE for community grants for litter reduction and environmental programs (assuming the $21 million cap is split evenly during the first three years of the program);
- $2 million goes to the Chesapeake Bay Trust;
- $250,000 goes to MDE for assistance with implementation; and
- the remainder, $23.1 million, is deposited into the Reserve Redeemable Beverage Container Recycling Fund, discussed in more detail below.

Actual redemption rates and the actual number of beverage containers sold in the State under the bill are unknown. If the redemption rate is 70%, using the same estimate of 4.8 billion recycling beverage containers in fiscal 2018, the program falls $9.1 million short of the mandated allocations established under the bill. The bill does not establish a priority for spending if program revenues are not sufficient to cover the mandated allocations.

Although the process by which unredeemed deposits and beverage containers are collected under the program is unknown, for purposes of this analysis, program revenues are considered special funds.

MES Program Costs

MES estimates that initial capital investment expenditures total approximately $117,850,000 million in fiscal 2017 to (1) locate and construct 200 redemption centers throughout the State; (2) lease and purchase reverse vending machine equipment for the redemption centers; (3) purchase material processing equipment for the redemption centers; and (4) purchase hardware and software to support the bill's requirements.

Once the program is operational, beginning in fiscal 2018, MES estimates that annual operating expenditures increase by $103.8 million annually. This estimate reflects the cost to hire 800 employees and 50 managers and includes costs to (1) purchase vehicles for managers; (2) transport redeemed beverage containers to market; and (3) operate and maintain reverse vending equipment and material processing equipment. The information and assumptions used in calculating the estimate are stated below:

- one redemption center is needed for every 30,000 individuals;
- a redemption center costs approximately $100,000 and requires approximately $150,000 in site improvements;
- a reverse vending machine costs approximately $35,000, and each redemption center requires three machines to process aluminum, glass, and plastic;
- each processing center requires a baler, a forklift, and other related machinery to process materials on-site;
- each redemption center requires four staff, assuming each center has two staff during operating hours, for 10 hours per day, 7 days per week;
- managers travel between redemption centers and cover four centers each; and
- staff must be hired by July 1, 2017, to comply with the program implementation date.

The Department of Legislative Services notes that MES is an instrumentality of the State and is a fee-for-service public corporation that receives no direct operating appropriation. MES advises that its average revenues and expenditures total $112 million annually. Thus, costs associated with the bill are significantly higher than its annual operating budget. As such, MES does not have the funding available to cover the initial anticipated capital and operating expenditures incurred to develop, implement, and administer the program in the first year, or until program revenues are sufficient to fully cover its costs. Thus, it is assumed that general fund expenditures are necessary to cover program costs at least for fiscal 2017 and likely beyond.

MDE Expenditures for Program Implementation and Grant Disbursements

Special fund expenditures for MDE increase by $141,414 in fiscal 2018. This estimate reflects the cost of hiring one environmental compliance specialist and one contractual agency grants specialist and assumes a July 1, 2017 hiring date. It includes salaries, fringe benefits, one-time start-up costs, and ongoing operating expenses.

As part of its staffing assignment, the environmental compliance specialist assists MES in initial program implementation and conducts enforcement activities, including inspecting retailers and redemption centers, monitoring distributors' compliance, and assisting in the investigation of fraudulent redemption. The estimate assumes that only spot checks and complaint-driven inspections of retailers are conducted. The contractual agency grants specialist is hired only for the first three years of the program to solicit and evaluate grant applications and to dispense and track funds for litter reduction and environmental programs.

Permanent position	1
Contractual position	1
Salaries and fringe benefits	$100,097
Vehicle and transportation expenses	31,375
Other start-up and operating expenses	9,942
Total FY 2018 MDE Expenditures	**$141,414**

It is assumed that the costs incurred by MDE in fiscal 2018 are covered by the $250,000 allocation of program revenues, as provided by the bill. Future year expenditures, which likely require general funds, reflect full salaries with annual increases and employee turnover as well as annual increases in ongoing operating expenses. Future year expenditures also reflect the termination of the contractual employee after fiscal 2020.

Reserve Redeemable Beverage Container Recycling Fund

Special fund revenues for the new special fund increase, likely by several million dollars annually (as shown above in the illustrative example) beginning in fiscal 2018, as the bill directs into the fund unredeemed container deposits, investment earnings, annual surplus from the operation of the program, and any other money from any other source accepted for the benefit of the fund. Special fund expenditures increase significantly to implement, operate, and sustain the program, as required by the bill. The stated purpose of the fund is to ensure the viability of the program and provide funding for litter reduction and environmental programs.

Audit Oversight

The bill requires the Office of Legislative Audits (OLA) to audit the accounts and transactions of the program. OLA advises that it can meet the bill's requirements with existing budgeted resources by including an audit of the program during its regularly scheduled fiscal and compliance audits of MES.

State Agency Recycling Finances

It is unclear what effect the bill may have on State agency operations and finances related to recycling. Some agencies may seek to separate discarded redeemable beverage containers and return the containers to redemption centers for collection of the refund. Although the bill's impact on State agency recycling costs is unknown, for purposes of this fiscal and policy note, it is assumed that any impact on State agency recycling finances is not significant.

Other Provisions

The Legislative Policy Committee can conduct any reviews of the program with existing budgeted resources.

It is assumed that the bill's penalty provisions do not materially impact State finances.

Local Fiscal Effect:

Local Recycling Programs

Local government revenues may decrease, potentially significantly, beginning in fiscal 2018, as a result of the diversion of redeemable beverage containers from local recycling programs, unless offset by the funding provided under the bill to compensate local governments for this loss (as discussed below).

Redeemable beverage containers are a relatively valuable portion of the recyclable material stream, particularly aluminum cans. For example, Baltimore City estimates a potential loss of $500,000 annually from the scrap value of recyclable materials that are diverted from its curbside recycling program under the bill. MES advises that the estimated loss of revenue from commodity sales at the three material recovery facilities that MES operates for Baltimore, Montgomery, and Prince George's counties is $1.3 million to $1.6 million annually. Actual losses incurred by local governments may be lower to the extent that some portion of redeemable beverage containers continues to be recycled in curbside containers. The actual loss may also vary significantly from year to year, based on scrap material market conditions.

While local governments incur losses in revenue for their recycling programs, local government expenditures to collect and transport recyclable materials also decrease as a result of the diversion of containers under the bill.

Grants to Local Governments

The bill provides for a financial offset to compensate jurisdictions for the loss in revenues from the sale of recyclable materials (as discussed above). Specifically, the bill requires MES to offset lost revenues of up to $27 million for the first three years the program is operational. It is unclear whether any revenue loss is fully, or only partially, offset under the bill, or whether sufficient revenues even exist each year to ensure that all foregone local revenues are offset.

The bill directs up to $15 million (during the first three years of the program) to local jurisdictions to address TMDL issues. In addition, up to $21 million is provided to MDE for community grants for litter reduction and environmental programs. Further, the bill directs that investment earnings that result in a fund balance in excess of $30 million be paid out annually for litter reduction and environmental programs. To the extent that there is sufficient funding to provide these monies, local finances are affected correspondingly. To the extent that local governments are able to use funds provided pursuant to the bill in lieu of other anticipated local spending to comply with various federal and State environmental laws (such as TMDL), local governments benefit.

Other Impacts to Local Governments

As noted above, it is unclear whether and to what extent government agencies may participate in the separation of discarded beverage containers for return to redemption centers. Further, it is unclear whether and to what extent local governments may choose to operate redemption centers, as the incentive to do so (if any) is to be established through future MES policies and plans; some jurisdictions may benefit from the establishment of low-cost and/or high-efficiency redemption centers in convenient or high-traffic areas.

Small Business Effect: The bill likely impacts several small businesses, including retailers, distributors, bottlers, recyclers, and others. Any small business that purchases beverage containers incurs additional costs to pay the 5-cent beverage container deposit but may return bottles to recoup this cost. Affected retailers may incur costs to collect and remit deposits on beverage containers. Retailers may also incur costs to collect and transport containers that are returned.

Small business bottlers or distributors may incur costs to ensure that redeemable beverage containers are marked in accordance with the bill, although costs for distributors are offset during the first three years of the program because the bill distributes 0.125 cents per redeemed container to them to offset compliance costs.

Small businesses engaged in the collection or transport of beverage containers for recycling may incur a reduction in revenues as a greater number of containers are returned to redemption centers rather than recycled through curbside programs. However, some small businesses may realize an additional business opportunity to operate as redemption centers, if approved by MES.

Additional Comments: Legislation that would have created beverage container deposit programs in the State has been introduced in each of the past five years. For example, Senate Bill 684/House Bill 982 of 2015 would have created a 5-cent deposit and refund system on beverage containers operated by a private beverage recycling organization composed of producers and bottlers. Senate Bill 394 of 2014 would have established a deposit of 5 cents per container to implement a statewide container recycling refund program in MDE. None of these bills passed.

Additional Information

Prior Introductions: None.

Cross File: SB 367 (Senator Ferguson, *et al.*) - Finance and Education, Health, and Environmental Affairs.

Information Source(s): Maryland Environmental Service, Baltimore City, Kent County, Maryland Association of Counties, City of Laurel, Maryland Municipal League, Comptroller's Office, Maryland Department of the Environment, Department of Natural Resources, Maryland State Lottery and Gaming Control Agency, Maryland Chamber of Commerce, Department of Legislative Services

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