

**Department of Legislative Services**  
Maryland General Assembly  
2013 Session

**FISCAL AND POLICY NOTE**

House Bill 1266

(Delegate Lafferty, *et al.*)

Economic Matters

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**Energy - Landfill Diversion - Municipal Solid Waste Portfolio Standard**

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This bill requires the Maryland Department of the Environment (MDE) to implement a municipal solid waste portfolio standard (MSWPS) consisting of minimum recycling rates, maximum solid waste landfill disposal rates, and compliance fees that must be paid by counties that fail to achieve the specified rates, beginning in 2015. Any compliance fees paid by a county are to be deposited into the Maryland Strategic Energy Investment Fund (SEIF) in the Maryland Energy Administration (MEA) and used only to provide grants, loans, and other assistance to implement the MSWPS.

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**Fiscal Summary**

**State Effect:** Special and/or general fund administrative expenditures increase by \$168,300 in FY 2014 for MDE and MEA to hire additional personnel to implement the bill. Special fund revenues increase, likely minimally, beginning in FY 2015 due to the distribution of any compliance fees paid to SEIF; revenues may be significant in future years beyond FY 2018. Special fund expenditures from SEIF increase correspondingly beginning in FY 2015 to provide grants, loans, and other assistance.

(in dollars)	FY 2014	FY 2015	FY 2016	FY 2017	FY 2018
SF Revenue	\$0	-	-	-	-
SF Expenditure	\$0	-	-	-	-
GF/SF Exp.	\$168,300	\$214,400	\$224,400	\$234,800	\$245,700
Net Effect	(\$168,300)	(\$214,400)	(\$224,400)	(\$234,800)	(\$245,700)

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

**Local Effect:** Local government expenditures increase significantly for some jurisdictions to meet the MSWPS requirements, which may include an increase in solid waste management operating and capital expenditures, the payment of compliance fees, or both. Local government revenues may increase to the extent that the additional SEIF compliance fee revenues are used to provide grants, loans, and other assistance to local

jurisdictions. Local revenues may also decrease for jurisdictions that own landfills. **This bill imposes a mandate on a unit of local government.**

**Small Business Effect:** Meaningful.

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## Analysis

### **Bill Summary:**

#### *County Compliance with the Municipal Solid Waste Portfolio Standard*

Each county must submit a report to MDE each year in a form and by a date specified by MDE that demonstrates that the county has complied with the applicable MSWPS. If a county fails to comply with the MSWPS for the applicable year, the county must pay into the fund a compliance fee that is based on the shortfall in achieving the required minimum amount of recycling or the required maximum amount of unprocessed mixed municipal solid waste disposed of in a landfill. The fee is to be adjusted annually by the consumer price index (CPI). **Exhibit 1** shows the required minimum recycling rate, maximum landfill disposal rate, and applicable compliance fee for each calendar year.

#### *Strategic Energy Investment Fund*

The bill alters the composition of SEIF to include compliance fees paid by counties under the bill, and requires MEA to provide grants, loans, and other assistance to implement the MSWPS. The bill also alters the stated purpose of the Strategic Energy Investment Program to include decreasing the energy demand *for raw materials*. Finally, the bill requires MEA, beginning in 2016, to include in its annual SEIF report, the programs, projects, and activities supported by compliance fees as well as the energy saved and produced as a result of the MSWPS.

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**Exhibit 1**  
**Municipal Solid Waste Portfolio Standard Requirements and Compliance Fees**

<b>Year</b>	<b>Recycling Rate (%)</b>	<b>Landfill Rate (%)</b>	<b>Compliance Fee (\$ per ton)</b>
2015	20	80	1
2016	22	75	1
2017	24	70	2
2018	26	65	2
2019	28	60	4
2020	30	55	4
2021	32	50	4
2022	34	45	4
2023	36	40	8
2024	38	35	8
2025	40	30	8
2026	42	25	16
2027	44	20	16
2028	46	15	16
2029	48	10	20
2030	50	5	25
2031 and later	50	0	25

Source: Department of Legislative Services

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*Duties and Responsibilities of MDE and MEA*

MDE must implement and manage the MSWPS. By January 1, 2015, MDE must designate an individual to be responsible for the oversight of compliance with the requirements of the MSWPS. The individual must (1) develop a municipal solid waste program to ensure counties comply with the MSWPS; (2) provide education and outreach to promote compliance; (3) make policy recommendations to MDE and the counties regarding improving the State's integrated municipal solid waste management system; and (4) make recommendations to MEA for programs, projects, and activities that may be supported through the use of grants, loans, and other assistance from SEIF.

By February 1 of each year, MDE must report to MEA, the Public Service Commission, and the General Assembly on the status of the implementation of the bill's requirements, including the amount of compliance fees paid and the programs, projects, and activities supported through the use of grants, loans, and other assistance from SEIF.

The bill provides MDE with the authority to implement the bill, including investigating and examining each county to determine compliance with the MSWPS. MDE must adopt regulations to implement the bill.

### *Definitions*

“Unprocessed mixed municipal solid waste” is defined as municipal solid waste or municipal solid waste components that have not been processed through recycling, energy recovery, anaerobic digestion, production and use of refuse-derived fuel, composting, or any combination of these processes so that the total weight of the waste remaining that must be disposed of in a mixed municipal solid waste disposal facility is no more than 35% of the weight before processing, on an annual average.

“Municipal solid waste” is defined as solid waste that originates from households, private residences, schools, institutions, businesses, or commercial enterprises or as the result of community activities; “solid waste” is defined in current State regulations as discarded materials that are not specifically excluded or granted a variance by other specified regulations.

“Energy recovery” is defined as a process in which solid waste produces a valuable energy resource, including steam, electricity, gas, or refuse-derived fuel, and achieves a volume reduction of at least 65% of its solid waste stream.

“Recycling” is defined as the waste diversion rate currently calculated by MDE; the waste diversion rate is equal to the recycling rate and a source reduction credit, which is granted in recognition of waste or pollution prevention activities that eliminate waste before it is created.

### *Statements of the General Assembly’s Findings and Intent*

The bill states that it is the intent of the General Assembly to protect the State’s environment, natural resources, and the public health by improving municipal solid waste management to serve the following purposes:

- reducing the amount of municipal solid waste disposed of in landfills;
- increasing recycling, composting, and anaerobic digestion of municipal solid waste components;
- increasing the recovery of energy from municipal solid waste;
- providing a clear and achievable standard for municipal solid waste management across the State’s counties; and

- encouraging an orderly and deliberate development of municipal solid waste management facilities that recycle, compost, and anaerobically digest municipal solid waste components and recover energy from municipal solid waste.

The bill also states that the General Assembly finds that:

- a municipal solid waste management goal that fosters an integrated municipal solid waste management system in a manner appropriate to the characteristics of the waste stream and utilizes municipal solid waste as an energy resource will protect the State's environment, natural resources, and public health;
- the U.S. Environmental Protection Agency has found that the landfilling of solid waste either loses energy or, when equipped with energy recovery, produces less than 0.5 million British Thermal Units (MMBtu) per ton of mixed recyclables depending on the landfill system, while recycling saves approximately 16 MMBtu per ton of mixed recyclables, and energy recovery produces nearly 7 MMBtu per ton of mixed recyclables; and
- the following municipal solid waste management practices are listed in order of preference: (1) waste reduction and reuse; (2) recycling and anaerobic digestion; (3) composting; (4) energy recovery; (5) landfilling with methane gas or with a methane collection system; and (6) landfilling without methane collection.

### **Current Law/Background:**

#### *Recycling in Maryland*

MDE promotes and encourages waste diversion across the State. Waste diversion combines both recycling and source-reduction activities. The Maryland Recycling Act, as amended by Chapter 692 of 2012 (HB 929), requires all counties and Baltimore City to recycle 20% or 35% of their waste generated, depending on population. Additionally, Chapter 692 established a new statewide recycling rate goal of 55% and a waste diversion rate goal of 60% by 2020.

Counties have flexibility to determine the best way to reach the required recycling rates. The county recycling plan, revised on a triennial basis, must address specified issues such as the feasibility of composting mixed solid waste, methods for the separate collection and composting of yard waste, and methods of financing county recycling efforts, among other issues. Chapters 264 and 265 of 2009 (SB 473/HB 1290) added to this list a strategy for collecting, processing, marketing, and disposing of recyclable materials from county public schools, and Chapter 430 of 2010 (HB 685) added to this list a strategy for the collection and recycling of fluorescent lights containing mercury.

Chapters 191 and 192 of 2012 (SB 208/HB 1) also require the property owner or manager of an apartment building or the council of unit owners of a condominium containing 10 or more units to provide for the collection and removal of recyclable materials by October 1, 2014.

The State Recycling Trust Fund within MDE is used to provide grants to counties and municipalities to support local recycling activities and now comprises primarily computer manufacturer registration fees under the State's electronic waste recycling law.

Chapters 127 and 128 of 2008 (SB 268/HB 368) created the Maryland Strategic Energy Investment Program and SEIF, to decrease energy demand and increase energy supply to promote affordable, reliable, and clean energy. SEIF is administered by MEA. Currently, the fund's primary source of revenue is proceeds from the sale of carbon dioxide (CO<sub>2</sub>) allowances under the Regional Greenhouse Gas Initiative. Money received by SEIF from the CO<sub>2</sub> auctions is required by statute to be allocated across various energy programs, including those that support energy efficiency and conservation, electricity assistance for low-income individuals, and renewable and clean energy. The fund may also receive money as appropriated in the State budget and from alternative compliance payments paid under the State's Renewable Energy Portfolio Standard (RPS), among other sources.

#### *Renewable Energy Portfolio Standard*

Maryland's RPS requires that renewable sources generate specified percentages of Maryland's electricity supply each year, increasing to 20% by 2022. Energy sources are classified as either Tier I or II, and examples of Tier I energy sources include methane from anaerobic decomposition of organic materials in a landfill or wastewater treatment plant; poultry litter-to-energy; and waste-to-energy.

#### **State Fiscal Effect:**

#### *Administrative Expenditures*

Special fund administrative expenditures increase by \$168,317 in fiscal 2014, which accounts for the bill's October 1, 2013 effective date. This estimate reflects the cost of hiring one natural resource planner and one environmental compliance specialist within MDE's Land Management Administration to investigate and evaluate county solid waste disposal practices, enforce and assist with compliance, and report to the General Assembly. The estimate also reflects the cost of hiring one program administrator within MEA to provide grants, loans, and other assistance under the bill, as recycling and waste disposal are areas not currently handled by MEA. The estimate includes salaries, fringe benefits, one-time start-up costs, and ongoing operating expenses. The fiscal 2013

ending balance for the Maryland Recycling Trust Fund is projected to be more than \$400,000 and the fiscal 2013 ending balance for SEIF is projected to be more than \$850,000; thus, this analysis assumes that sufficient special funds are available to implement the bill. However, both special funds are subject to significant annual variability and, thus, general fund expenditures increase to the extent that special funds are not available to implement the bill in any year.

MDE Positions	2
MEA Position	1
Salaries and Fringe Benefits	\$149,558
Equipment	13,995
Operating Expenses	<u>4,764</u>
<b>Total FY 2014 Administrative Expenditures</b>	<b>\$168,317</b>

Future year administrative expenditures reflect full salaries with annual increases and employee turnover as well as annual increases in ongoing operating expenses.

#### *Strategic Energy Investment Fund*

Special fund revenues to SEIF may increase beginning in fiscal 2015 from the collection of compliance fees paid by counties. A reliable estimate of any increase in SEIF revenue cannot be made due to *significant uncertainty* regarding: (1) current rates of recycling and landfill disposal under the bill's definition of municipal solid waste; (2) future changes in the rates of recycling and landfill disposal under current trends; and (3) the effect of compliance payments on future solid waste management decisions by each county.

However, *for illustrative purposes only*, SEIF revenues may increase by about \$700 in fiscal 2015 and by about \$57,500 by fiscal 2018. These estimates are based on the compliance fees specified in the bill and several assumptions that are made in the absence of any reliable data, including that recycling rates and landfill disposal rates for all counties do not change in the future. Additionally, these estimates are based on the definition of municipal solid waste as used by MDE in its tracking of county waste management under the Maryland Recycling Act, because data regarding recycling and landfill disposal does not exist based on the definition of municipal solid waste used in the bill.

While SEIF revenues are likely minimal in the initial years of the MSWPS, revenues may increase significantly by 2031 and subsequent years. For example, *under the assumptions discussed above*, SEIF revenues increase by \$82.7 million in 2031. As noted above, this is based on the unlikely assumption that rates of recycling and landfill disposal do not change over time. In reality, recycling rates may increase in the future

and landfill disposal rates may decrease as landfill tipping fees increase from the exhaustion of existing landfill capacity in Maryland, and as transportation costs increase for landfill disposal in surrounding states. Finally, the establishment of compliance fees under the bill establishes a significant incentive for counties to enhance resources dedicated to recycling, composting, and energy recovery of solid waste.

Special fund expenditures from SEIF increase correspondingly beginning in fiscal 2015 to provide grants, loans, and other assistance, as required by the bill.

**Local Expenditures:** Local government expenditures increase significantly to pay any compliance fees, alter solid waste management practices, or both. As noted above, in the initial years of the MSWPS, most jurisdictions likely pay few, if any, compliance fees to SEIF. However, for any jurisdiction that does not currently anticipate an increase in recycling rates or a decrease in landfill disposal rates sufficient to satisfy the increasingly strict standard each year under the MSWPS, expenditures increase to invest in additional solid waste management resources or to pay the applicable compliance fees.

Less expensive means of achieving additional recycling and composting of municipal solid waste include establishing outreach and education initiatives and marketing campaigns. Solid waste management costs may also increase more significantly for some jurisdictions to expand recycling efforts, ship solid waste over longer distances, or pay for more expensive alternative methods of disposal. For example, Baltimore and Harford counties each indicate that waste management costs may increase significantly to ship and dispose of municipal solid waste currently sent to landfills to waste recovery facilities in other jurisdictions.

Additionally, capital costs may increase significantly for any jurisdiction that determines that the construction of new recycling centers, composting facilities, or waste recovery facilities (such as anaerobic digesters and waste-to-energy generators) represent the least cost means of meeting the bill's requirements. For example, Carroll County advises that if the county constructs an additional composting facility, recycling center, anaerobic digester, or waste-to-energy plant, capital costs increase by \$15 million, \$54 million, \$55 million, or \$220 million, respectively. It is unclear whether the construction of any or all of these facilities would be necessary to comply with the bill, however. For some jurisdictions, the cheapest option may be to pay the applicable compliance fees.

**Local Revenues:** Local government revenues may increase to the extent that the grants, loans, and other assistance required under the bill to be made from SEIF compliance fee revenues are distributed to local governments. The bill does not specify that such assistance be directed to local governments, or to any particular recipient. However, as the money is to be used as necessary and appropriate to implement the purposes of the

MSWPS, presumably a portion of funds will be used to benefit county recycling and solid waste management programs.

Local government revenues may also decrease due to the bill's MSWPS maximum landfill disposal rates. As landfill disposal rates decrease, fewer tipping fees are paid to county-owned landfills.

**Small Business Effect:** The bill is likely to result in a meaningfully beneficial impact on small businesses engaged in solid waste management practices other than landfill disposal, as well as construction and engineering firms that specialize in the construction of recycling, compositing, or waste recovery facilities. The bill may result in a meaningfully adverse impact on small businesses engaged in the disposal of solid waste in landfills.

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## **Additional Information**

**Prior Introductions:** None.

**Cross File:** SB 799 (Senator Middleton, *et al.*) - Finance and Education, Health, and Environmental Affairs.

**Information Source(s):** Baltimore, Carroll, Harford, Montgomery, Queen Anne's counties; Maryland Department of the Environment; Maryland Association of Counties; Maryland Energy Administration; Maryland Municipal League; North East Maryland Waste Disposal Authority; Public Service Commission; Department of Legislative Services

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