D13A13
Maryland Energy Administration

Operating Budget Data

($ in Thousands)

	FY 17 Actual	FY 18 Working	FY 19 Allowance	FY 18-19 Change	% Change Prior Year
Special Fund	$35,003	$54,272	$41,041	-$13,231	-24.4%
Adjustments	0	1,378	22	-1,356	
Adjusted Special Fund	**$35,003**	**$55,651**	**$41,063**	**-$14,587**	**-26.2%**
Federal Fund	907	738	761	23	3.1%
Adjustments	0	-4	7	10	
Adjusted Federal Fund	**$907**	**$734**	**$767**	**$33**	**4.5%**
Reimbursable Fund	134	132	147	15	11.5%
Adjustments	0	0	0	0	
Adjusted Reimbursable Fund	**$134**	**$132**	**$147**	**$15**	**11.5%**
Adjusted Grand Total	**$36,044**	**$56,516**	**$41,977**	**-$14,539**	**-25.7%**

Note: FY 18 Working includes targeted reversions, deficiencies, and across-the-board reductions. FY 19 Allowance includes contingent reductions and cost-of-living adjustments.

- The fiscal 2019 budget bill includes two proposed deficiency appropriations related to the Maryland Energy Administration (MEA). One proposed deficiency appropriation would increase funding for the Energy Efficiency and Conservation Programs, All Other Sectors program by $1.5 million due to the availability of funding from conditions of approval for a Certificate of Public Convenience and Necessity (CPCN) for an electric generation facility at Dominion Cove Point (DCP) and the merger between Exelon Corporation and Pepco Holdings, Inc.

- The second deficiency appropriation proposes to withdraw $103,338 of Strategic Energy Investment Funds (SEIF) from the General Administration program due to a decrease in contractual full-time equivalents (FTE) and planned equipment purchases.

Note: Numbers may not sum to total due to rounding.

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- The fiscal 2019 allowance of MEA decreases by $14.5 million (or 25.7%) compared to the fiscal 2018 working appropriation after accounting for the deficiency appropriations, a fiscal 2018 reduction in health insurance costs, and the distribution of a planned general salary increase in fiscal 2019. A decrease of $14.6 million in special funds (26.2%) is partially offset by increases in federal ($32,909) and reimbursable funds ($15,145).

- The special fund decrease occurs primarily due to declines in revenue from the Regional Greenhouse Gas Initiative (RGGI) carbon dioxide emission allowance auctions. However, two reductions, totaling $5.5 million, result from the end of programs operated with funds available for only a limited time in MEA (the Net Zero Schools Program funded through the Customer Investment Fund and several programs supported by funds from the conditions of approval of the CPCN for an electric generation facility at DCP).

Personnel Data

	FY 17 Actual	FY 18 Working	FY 19 Allowance	FY 18-19 Change
Regular Positions	28.00	28.00	28.00	0.00
Contractual FTEs	6.50	10.00	9.50	-0.50
Total Personnel	**34.50**	**38.00**	**37.50**	**-0.50**
Vacancy Data: Regular Positions				
Turnover and Necessary Vacancies, Excluding New Positions		1.40	5.00%	
Positions and Percentage Vacant as of 1/1/18		n/a	n/a	

- There are no changes in regular positions in the fiscal 2019 allowance.

- MEA reports that it has only 9.5 contractual FTEs in fiscal 2018 rather than 10 as it appears in the Governor's Budget Books. As a result, there is no change in the contractual FTE count in the fiscal 2019 allowance. However, this is 1 contractual FTE lower than what was originally planned for fiscal 2018, which is the result of a project manager position being eliminated due to the end of three federal fund competitive grants.

- The turnover expectancy for MEA stays at essentially the same level in the fiscal 2019 allowance (5%) as in the fiscal 2018 working appropriation.

- To meet its turnover expectancy, MEA would need to maintain 1.4 vacant positions. As of January 1, 2018, MEA has no vacant positions. At its current vacancy rate, MEA may have difficulty meeting its budgeted turnover expectancy.

Analysis in Brief

Major Trends

Energy Savings from MEA Programs Increase: The annual energy savings from MEA's energy efficiency grant programs increased in fiscal 2016 and 2017. Among general energy efficiency programs, the increase results primarily from the introduction of new programs in those years that produce higher levels of savings: a combined heat and power (CHP) program in fiscal 2016 and a data center energy efficiency program in fiscal 2017.

Renewable Energy Generated In-state Continues to Increase: MEA reports on renewable energy generated in-state, regardless of whether the agency funded the project. In total, renewable energy generated in-state increased in calendar 2016 by 6.4% compared to calendar 2015. The rate of increase continues to be much higher for residential and small commercial scale renewable energy than commercial scale. However, MEA anticipates larger growth in commercial scale renewable energy in calendar 2017 than is typical due to two projects beginning operations.

American Council for an Energy-Efficient Economy Scorecard: Maryland continued to rank in the top 10 of states in the 2017 American Council for an Energy-Efficient Economy (ACEEE) Scorecard of states. However, Maryland's ranking fell to 10 in the 2017 scorecard, compared to 9 in the 2016 scorecard. Maryland's strongest category continues to be in CHP development. ACEEE noted, in particular, MEA's administration of a grant program that supports CHP growth.

Issues

Regional Greenhouse Gas Initiative Revenue and Allocation: Lower than expected RGGI revenue has caused mid-year program reductions in fiscal 2017 and 2018. The fiscal 2019 allowance assumes that RGGI revenue will occur only at levels supported by the minimum clearing price in an attempt to bring stability to program funding. Any higher than expected revenue will be budgeted in a future year. As a result, RGGI program spending decreases substantially in fiscal 2019.

Uses of the Seed Funding for the Maryland Energy Innovation Fund: Chapters 364 and 365 of 2017 established the Maryland Energy Innovation Institute (MEI^2) and the Maryland Energy Innovation Fund (MEIF). The MEIF is to be used by both MEI^2 and for administrative and operating support of the Maryland Clean Energy Center (MCEC). The fund is to be capitalized between fiscal 2018 and 2022 by the transfer of $1.5 million per year from the SEIF. Committee narrative in the 2017 *Joint Chairmen's Report* (JCR) requested additional information on how the MEIF seed funding was to be used in fiscal 2018 and how much of the funding is available to support MCEC. Of the fiscal 2018 funds, MCEC is to receive $893,790, with the remainder used by MEI^2. MEI^2 plans to use the funds for staff, entrepreneurship seed grant funding, and marketing. In January 2018, MEI^2 awarded its first grants under its seed funding program.

Operating Budget Recommended Actions

1. Add a section in the budget bill requiring information on the Regional Greenhouse Gas Initiative revenue and allocation in the fiscal 2020 budget books.

Budget Reconciliation and Financing Act Recommended Actions

1. Add a provision that requires funds received by State agencies as a result of any conditions of an approved merger between AltaGas Ltd. and WGL Holdings, Inc. be expended only as authorized in the State budget, other legislation, or budget amendment.

Updates

Offshore Wind Activities: The fiscal 2019 allowance includes $2.8 million of funds from the Offshore Wind Development Fund and $2 million from the Maryland Offshore Wind Business Development Fund. These funds will be used to support a planned new marketing strategy to attract the offshore wind supply chain to the State, competitive research grants for higher education institutions, and workforce development programs to ensure that Maryland has a workforce ready for the offshore wind industry.

Programs for Residential and State Government Customers: Committee narrative in the 2017 JCR requested that MEA provide information on recent and current programs offered by the agency impacting residential and State government customers. The report by MEA described a variety of programs that either exclusively, or potentially, benefit residential or State government customers. Spending on these programs between fiscal 2010 and 2017 varied between a low of $9.3 million and a high of $31.6 million with an average of $19.3 million. By fiscal 2017, most of the funding potentially benefiting residential customers was in the area of low- and moderate-income programs, renewable energy, and electric vehicle recharging equipment rebates. This focus indicates that MEA has at least attempted to limit duplication with other agency or utility offerings, which focus more on energy efficiency programs for residential customers.

D13A13
Maryland Energy Administration

Operating Budget Analysis

Program Description

The Maryland Energy Administration (MEA) is an independent unit of State government with a mission of promoting affordable, reliable, and cleaner energy for the well-being of all Marylanders. In support of this mission, MEA conducts planning activities for a variety of energy sources, administers the Strategic Energy Investment Fund (SEIF), administers programs aimed at increasing energy efficiency and increasing the use of renewable and clean energy, and advises the Governor's Office on energy policy. MEA programs affect local and State government, nonprofit organizations, residential consumers, and commercial and industrial customers. The key goals of MEA are to:

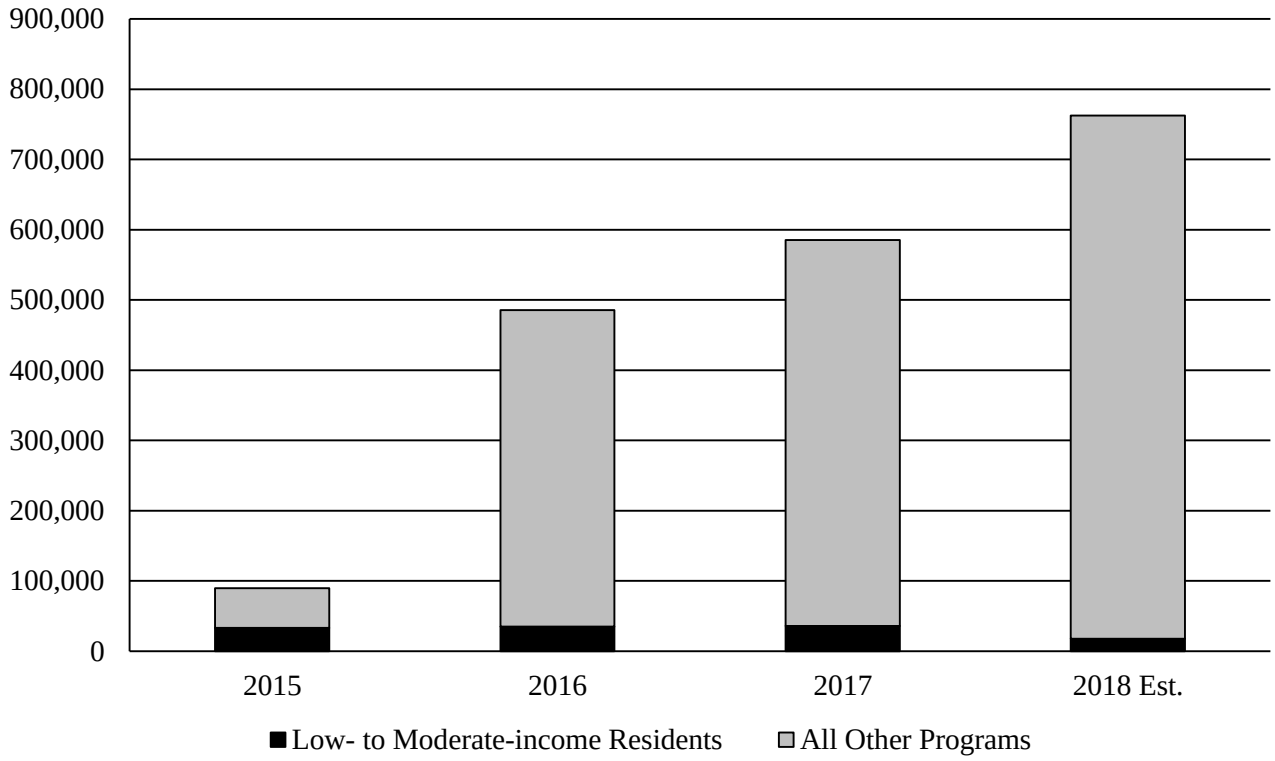
- increase Maryland's energy efficiency and energy conservation;
- reduce State agency energy consumption;
- improve the energy efficiency of local governments, nonprofits, and businesses;
- increase electricity generation fuel diversity through the increased use of in-state renewable energy; and
- diversify Maryland's transportation network by encouraging the utilization of electric vehicles.

Performance Analysis: Managing for Results

1. Energy Savings from MEA Programs Increase

The fiscal 2018 Managing for Results (MFR) submission of MEA included new performance measures that relate to programs offered by the agency, as requested in fiscal 2017 budget bill language. As these measures have been in place only two years, only three years of actual data is currently available. As shown in **Exhibit 1**, annual energy savings from MEA's energy efficiency grant programs increased in fiscal 2016 and 2017.

Exhibit 1
Annual Energy Savings from Energy Efficiency Grant Programs
Fiscal 2015-2018 Est.
(in Million British Thermal Units)



Note: Fiscal 2016 actual data has been updated from the data presented in the 2017 session due to changes to reflect actual savings upon completion versus estimates developed prior to completion.

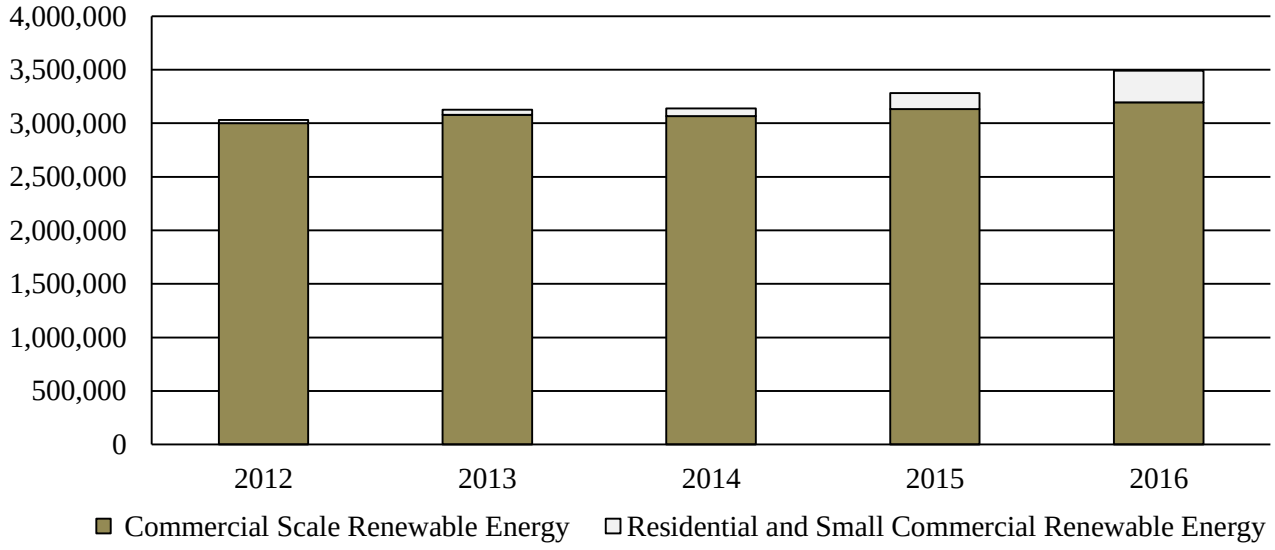
Source: Maryland Energy Administration; Department of Budget and Management

The largest growth in each year occurred in the all other energy efficiency grant programs category (which accounts for all programs not targeted toward low- to moderate-income households). In that category, annual energy savings increased by 700% in fiscal 2016 and 21.9% in fiscal 2017. The fiscal 2016 increase largely resulted from the introduction of a combined heat and power (CHP) program. CHP systems use the waste heat from electricity generation for other purposes, such as space heating. The increase in fiscal 2017 primarily results from the introduction of an energy efficiency program for data centers. Annual energy savings from grant programs targeted to low- and moderate-income customers increased at a much slower pace in those years due to relative stability in the program and funding levels.

2. Renewable Energy Generated In-state Continues to Increase

MEA includes measures in its annual MFR submission related to the amount of in-state renewable energy generated. This captures progress toward its goal of increasing electric generation fuel diversity, but it does not reflect direct funding or actions of the agency. As shown in **Exhibit 2**, the amount of renewable energy generated in-state has increased since calendar 2012. In calendar 2016 (the most recent actual data available), a total of 3.49 million megawatt hours of renewable energy were generated in-state, an increase of 6.4% over calendar 2015. Similar to most years, in calendar 2016, the rate of growth of in-state renewable energy has been higher for residential and small commercial scale renewable energy (99.7%) than for commercial scale (2%). However, MEA anticipates some higher than typical growth of commercial scale renewable energy generated in-state in calendar 2017 due to two solar photovoltaic (PV) generation projects beginning operations in Frederick and Somerset counties in that year.

Exhibit 2
Renewable Energy Generated
Calendar 2012-2016
(in Megawatt Hours)



Source: Maryland Energy Administration; Department of Budget and Management

While commercial scale renewable energy continues to be the vast majority of the renewable energy generated in-state, the share of total renewable energy generated in-state that is commercial scale continues to decline. For example, in calendar 2012, 99.1% of renewable energy generated in-state was commercial scale compared to 91.5% in calendar 2016.

3. American Council for an Energy-Efficient Economy Scorecard

The American Council for an Energy-Efficient Economy (ACEEE) is a nonprofit organization founded in 1980 with a mission to advance energy efficiency policies, programs, technologies, investments, and behaviors. Since 2007, ACEEE has annually produced a state scorecard that ranks each state on a variety of measures reflecting state progress and investment in energy efficiency. Since the 2009 scorecard, there have been six main categories (utility and benefit programs and policies, transportation, building energy codes, CHP, State government initiatives, and appliance efficiency standards). The methodology and calculation of points (and points available for categories) are often slightly modified each year to reflect changes in the field. As a result, some changes in scores and rankings may reflect changes in calculation rather than improvements or declines in performance.

The scorecard is based on policies and actions in the State as a whole, and not all would, or could, be attributed solely to MEA. As shown in **Exhibit 3**, Maryland has ranked in the top 10 of states in each year since the 2011 scorecard. After reaching a rank of 7 in the 2015 scorecard, Maryland's ranking returned to 9 in the 2016 scorecard and to 10 in the 2017 scorecard.

Exhibit 3
Maryland Rankings
2009-2017 ACEEE Scorecard Results

	ACEEE Points	ACEEE Ranking
2009*	24.0	11
2010*	24.0	16
2011	30.5	10
2012*	30.0	9
2013	27.5	9
2014	30.0	9
2015	35.0	7
2016	32.0	9
2017	31.0	10

ACEEE: American Council for an Energy-Efficient Economy

* Ranking tied with at least one other state.

Note: The maximum number of points is 50 (a higher number of points is better). A lower rank is better.

Source: American Council for an Energy-Efficient Economy

As in prior years, in the 2017 scorecard, Maryland's strongest category was in the area of CHP, where the State achieved all 4 of the available points. ACEEE noted that seven new CHP installations were completed in calendar 2016 in the State. ACEEE highlighted that Maryland offers incentives for development of these projects, among other supportive policies. ACEEE, in particular, noted that MEA administers a grant program that supports CHP growth. Maryland also scored highly in State government-led initiatives (scoring 5.5 out of the available 6 points). ACEEE noted several policies and programs available in Maryland that support this scoring. For example, ACEEE highlighted the Smart Energy Communities program run by MEA, under which local governments that adopt certain of the State's energy goals are eligible for funding for projects to work toward meeting those goals. ACEEE also noted that the State offers a loan program to State agencies for energy efficiency (funded by MEA through its pay-as-you go (PAYGO) program).

Fiscal 2018 Actions

Proposed Deficiency

The fiscal 2019 budget includes two deficiency appropriations impacting MEA. One proposed deficiency appropriation withdraws $103,338 of special funds from the General Administration program in MEA due to a decrease in planned contractual full-time equivalents and equipment purchases.

The second deficiency relates to an increase in the special fund appropriation for the Energy Efficiency and Conservation Programs, All Other Sectors program (general energy efficiency programs) from funds available to MEA from conditions of approval in cases before the Public Service Commission (PSC), totaling $5.5 million. Due to a reduction in its fiscal 2018 spending plan for the program of $4 million from the Regional Greenhouse Gas Initiative (RGGI) supported programs resulting from an underattainment of RGGI revenue, the proposed deficiency appropriation provides an increase of only $1.5 million in the special fund appropriation for the program. The revenue underattainment has led to budgetary concerns throughout programs funded by RGGI revenue in fiscal 2018. A deficiency appropriation for the Department of Human Services Office of Home Energy Program proposes to withdraw $10 million of the SEIF for energy assistance due to this underattainment. Additional information on the RGGI revenue underattainment is discussed in Issue 1.

Most of the additional funding used in the reallocation is available from a condition of approval of the Exelon Corporation (Exelon) and Pepco Holdings, Inc. merger referred to as the Most Favored Nation provision, which required an increase in the value of benefits in Maryland if conditions in another jurisdiction were higher on a per customer basis than those included in Maryland's final order. In Order No. 88128, PSC allocated funds due to this provision, including a total of $9 million to MEA, $4.5 million of which MEA intends to use in fiscal 2018. These funds are required to be used for commercial and industrial energy efficiency programs in the Pepco and Delmarva Power and Light service territories. In its filing, MEA specifically identified the CHP and the Next Generation Energy Efficiency program as programs that it could support. The other funds used in the reallocation are a part of the condition of approval of a Certificate of Public Convenience and Necessity for an electric generating facility at Dominion Cove Point (DCP). The fiscal 2018 budget originally used all of the

funds in MEA from DCP for a grid resiliency program, but MEA subsequently altered the use of these funds. **Exhibit 4** shows the changes in program funding in fiscal 2018 for MEA's general energy efficiency activities.

Exhibit 4
Fiscal 2018 Planned Spending Changes
Energy Efficiency and Conservation Programs, All Other Sectors

	Original 2018 Funding Plan	Reductions From SEIF	Reallocation of Dominion Cove Point	New Most Favored Nation Funding	Revised 2018 Funding Plan
Commercial and Industrial Grant Program	$1,750,000	-$675,000	$0	$0	$1,075,000
Mathias Agriculture Retrofit Program	750,000	-550,000	0	0	200,000
Energy Education/Building Codes	50,000	-50,000	0	0	0
Maryland Smart Energy Communities Program	725,000	-725,000	500,000	0	500,000
Data Processing Center Energy Efficiency Program	500,000	-500,000	500,000	0	500,000
Combined Heat and Power Programs	1,500,000	-1,500,000	0	3,500,000	3,500,000
Next Generation Energy Efficiency for Industrial Sector Program	0	0	0	1,000,000	1,000,000
Net Zero Schools Program	2,510,000	0	0	0	2,510,000
Total	**$7,785,000**	**-$4,000,000**	**$1,000,000**	**$4,500,000**	**$9,285,000**

SEIF: Strategic Energy Investment Fund

Source: Maryland Energy Administration

Across-the-board Employee and Retiree Health Insurance Reduction

The budget bill includes an across-the-board reduction for employee and retiree health insurance in fiscal 2018 to reflect a surplus balance in the fund. This agency's share of this reduction is $18,491 in special funds and $3,772 in federal funds.

Proposed Budget

As shown in **Exhibit 5**, the fiscal 2019 allowance of MEA decreases by $14.5 million, or 25.7%, compared to the fiscal 2018 working appropriation after accounting for deficiency appropriations, a reduction in health insurance in fiscal 2018, and the distribution of a general salary increase in fiscal 2019. However, due to declines in funding from RGGI auctions, discussed in Issue 1, MEA has altered its fiscal 2018 spending plans. The revised spending plans would result in the cancellation of $9 million of special funds. As a result, the fiscal 2018 working appropriation is overstated. Accounting for the planned cancellations of special funds in fiscal 2018, MEA's fiscal 2019 allowance decreases by $5.5 million, or 11.7%. The net decrease in spending results primarily from the elimination of certain limited-time funding activities in fiscal 2019.

Exhibit 5
Proposed Budget
Maryland Energy Administration
($ in Thousands)

How Much It Grows:	Special Fund	Federal Fund	Reimb. Fund	Total
Fiscal 2017 Actual	$35,003	$907	$134	$36,044
Fiscal 2018 Working Appropriation	55,651	734	132	56,516
Fiscal 2019 Allowance	41,063	767	147	41,977
Fiscal 2018-2019 Amount Change	-$14,587	$33	$15	-$14,539
Fiscal 2018-2019 Percent Change	-26.2%	4.5%	11.5%	-25.7%

Where It Goes:	
Personnel Expenses	
Salary and wage adjustments	$123
Distribution of general salary increase	29
Employee retirement	23
Employee and retiree health insurance including the impact of additional health insurance deduction holidays in fiscal 2018	22
Accrued leave payout	-86
Other fringe benefit adjustments	3
Spending Adjustments in Fiscal 2019 Due to Revenue Declines Not Yet Reflected in the Fiscal 2018 Working Appropriation	
Low- and moderate-income energy efficiency programs	-2,000
Renewable and Clean Energy Grants and Initiatives	-7,000
Program Changes Due to Funding Availability or Agency Priorities	
Solar resiliency hubs	2,000
Animal Waste-to-Energy program	2,000

Where It Goes:	
Solar photovoltaic in Parking Lots Grant program	1,500
Commercial and Industrial Energy Efficiency grant program	225
Residential renewable energy grants	-500
Maryland Smart Energy Communities program	-500
Combined Heat and Power program	-1,000
Grid Resiliency Program	-1,500
Alternative transportation programs including alternative fuel fueling station grants and alternative fuel voucher program	-3,000
Community Solar program	-3,500
Offshore Wind	
Maryland Offshore Wind Business Development Fund	1,000
Out-of-state travel primarily due to anticipated increase for offshore wind due to a new marketing strategy	207
Administrative Expenses and Other Program Changes	
Rent primarily due to the establishment of a legislative office in Annapolis	25
Association dues primarily to align with recent experience	-26
Evaluation, Measurement, and Verification contract costs	-140
Net Zero Schools Program due to encumbering all remaining funds in fiscal 2018	-2,510
Other changes	65
Total	**-$14,539**

Note: Numbers may not sum to total due to rounding.

Net Zero Schools Program Funding Is Completed in Fiscal 2018

Fiscal 2018 funding for the Net Zero Schools Program represents the final year of funding from the Customer Investment Fund (CIF), originating from a condition of approval imposed by PSC in the merger between Exelon and Constellation Energy Group (Constellation). In total, MEA was awarded $9 million of the CIF to support incremental funding that would be used to make three schools into net zero energy schools, which were expected to be used initially between fiscal 2014 and 2016. MEA had difficulties in finding three schools on which to use the funds due to limited new construction and interest in the program. MEA had originally planned to fund schools in three different school districts, but ultimately funded schools in only two school districts (Wilde Lake Middle School in Howard County, Graceland Park/O'Donnell Heights Elementary/Middle School in Baltimore City, Holabird Elementary/Middle School in Baltimore City). Due to the delays, MEA had $2.5 million remaining in its fiscal 2018 budget for the program. MEA reports that it will encumber remaining funding for the program in fiscal 2018. Final disbursements are not likely to occur until December 2020, when the final two schools are scheduled to be completed. As a result, of the planned encumbrances of remaining funding in fiscal 2018, no funds are included in the fiscal 2019 allowance.

Animal Waste-to-Energy

Another condition of approval of the Exelon and Constellation merger consisted of requirements related to the development of new animal waste-to-energy generation. The order gave the State multiple options for this condition to be met, including Exelon paying the State liquidated damages totaling $44 million.

The State chose the liquidated damages option and began to include funding from this source in the fiscal 2017 budget. The fiscal 2019 allowance includes $20 million of these funds across several budgets, an increase of $2 million over fiscal 2018. The increase occurs entirely among funds budgeted in MEA (where the majority of funds are budgeted). **Exhibit 6** provides detail on how the funds are used in fiscal 2018 and 2019. The exhibit also provides information on changes made to the planned use of the funds in MEA in fiscal 2018 compared to what was presented during the 2017 session. MEA estimates that the fiscal 2019 closing fund balance will be $1.3 million. At this level, most of these initiatives will either need to end, or require funding from an alternative source, in fiscal 2020.

Exhibit 6
Animal Waste-to-Energy Compliance Program Funding
Fiscal 2018-2019
($ in Millions)

	2018 Approp.	2018 Revised	2018 Changes	2019 Allowance	Difference
Animal Waste-to-Energy	$4.0	$4.0	**$0.0**	$6.0	**$2.0**
Clean Energy Grants – Residential Solar	1.0	1.0	**0.0**	1.0	**0.0**
Clean Energy Grants – Community Wind	1.0	1.0	**0.0**	1.0	**0.0**
Solar Parking	3.0	1.5	**-1.5**	3.0	**1.5**
Community Solar	1.0	4.5	**3.5**	1.0	**-3.5**
Low-income Community Solar	5.0	0.0	**-5.0**	0.0	**0.0**
Solar Resiliency Hubs	0.0	3.0	**3.0**	5.0	**2.0**
MEA Subtotal	***15.0***	***15.0***	***0.0***	***17.0***	***2.0***
Maryland Department of Agriculture	2.0	2.0	**0.0**	2.0	**0.0**
DLLR – Employment Advancement Right Now Program	1.0	1.0	**0.0**	1.0	**0.0**
Total Animal Waste-to-Energy Compliance	**$18.0**	**$18.0**	**$0.0**	**$20.0**	**$2.0**

DLLR: Department of Labor, Licensing, and Regulation

Source: Maryland Energy Administration; Governor's Budget Books, Fiscal 2019

The most significant change in the planned use of these funds in fiscal 2018 is a redesign of the portion of the funding expected to be used to assist low-income customers. During the 2017 session, MEA planned a low-income community solar program. However, MEA now, instead, intends to begin a program to develop resiliency hubs that will benefit low- and moderate-income communities during periods of extended power outages. MEA describes a resiliency hub as a building or microgrid that can provide moderate heating, cooling, and communication during a grid outage. MEA expect that the resiliency hubs would be able to provide these critical services for at least two weeks. The hubs would be required to be within walking distance of a low- to moderate-income community and contain a common room available to all who live in the area. The resiliency hubs would receive energy from a combination of solar panels, batteries, and backup generators. Outside of this change and new program, the fiscal 2019 allowance continues funding the same programs as in fiscal 2018, but with some changes in funding levels.

Washington Gas and Light and AltaGas Proposed Merger Settlement

In April 2017, AltaGas Ltd., WGL Holdings, Inc. (WGL), and Washington Gas and Light (Washington Gas) filed an application with PSC for approval of a proposed merger between AltaGas and WGL pursuant to Section 6-105 of the Public Utilities Article. PSC was expected under the statutory deadline to make a decision on the application by December 5, 2017. On December 1, 2017, the companies filed a proposed settlement between the companies and certain other parties with PSC. As part of the request to approve the proposed settlement, the companies agreed to extend the deadline for review of the merger until April 4, 2018, to allow PSC time to review the proposed settlement. The proposed settlement provides a number of additional commitments by the companies not included in the initial application. Two of these conditions would provide funding to MEA.

- $4.6 million, to be contributed within 90 days of the merger closing, to supplement funding for programs benefiting commercial and industrial customers in Washington Gas' Maryland service territory with a particular emphasis on Calvert, Charles, Frederick, and St. Mary's counties; and

- $33 million, within four months of the merger closing, to create a Maryland Gas Expansion Fund to be used to promote the expansion of natural gas infrastructure to serve businesses, residents, industrial enterprises, and utility generation facilities.

To ensure transparency in State spending, the Department of Legislative Services recommends adding a provision to the Budget Reconciliation and Financing Act (BRFA) of 2018 to require funds provided to State agencies as a result of the AltaGas and WGL merger be expended only as authorized in the budget bill, other legislation, or through a budget amendment.

Issues

1. Regional Greenhouse Gas Initiative Revenue and Allocation

2016 Program Review

RGGI began conducting its second program review, referred to as the 2016 Program Review, in calendar 2015. The review continued through calendar 2017. RGGI announced final changes from the program review on December 19, 2017. In all, there were six findings. Two relate to state actions generally: (1) RGGI states have made longer term commitments to greenhouse gas emission reductions than the end date of the current cap (2020), generally extending to 2030 or 2050; and (2) other energy policies of the states will continue to drive emissions reductions. The remaining four findings related to the functioning of RGGI and previously implemented program changes:

- the cost containment reserve was triggered twice despite a substantial bank of allowances in existence;

- the emission levels continued to trend below the cap despite the reduction in the cap resulting from the 2012 program review;

- the adjustments for banked allowances from the 2012 program review will likely not balance supply and demand to the cost containment reserve allowances and the lower than projected emission levels; and

- the allowed offsets have not been significantly used.

As a result of these findings, RGGI made several changes to both the cap and the functioning of the program with this review. Individual states must still adjust their own regulations to account for the program changes. RGGI anticipates that the individual state processes to implement the changes will be completed as soon as practical, but no later than January 1, 2021. The remainder of the discussion provides information on the major changes to the program.

Cap

The current cap for RGGI was set to expire in 2020. Through the program changes, RGGI established a cap through calendar 2030. The calendar 2021 cap of 75.147 million tons of carbon dioxide (CO_2) will be reduced by 2.275 million tons of CO_2 per year through calendar 2030. The cumulative reduction between calendar 2020 and 2030 will be 30%. RGGI also plans additional adjustments for banked allowances that will occur over a five-year period from calendar 2021 through 2025.

Cost Containment Reserve

The 2012 Program Review led to the creation of a cost containment reserve to provide a buffer against price increases. With this reserve, an additional number of allowances (5,000,000 in calendar 2014 and 10,000,000 in other years) would become available if the allowance auction clearing price reached a certain trigger ($4 in calendar 2014, $6 in calendar 2015, $8 in calendar 2016, $10 in calendar 2017, and then increasing by 2.5% per year). As noted earlier, the cost containment reserve was triggered twice (March 2014 and September 2015).

Based on the 2016 Program Review, RGGI adjusted the size of the cost containment reserve and the trigger prices. Under the revised rules, the cost containment reserve is set at 10% of the regional cap for that year (beginning in 2021). This results in a smaller reserve in calendar 2021 than would have occurred under prior rules, approximately 7.5 million rather than 10 million, and the reserve will now decrease as the cap decreases. The trigger price in calendar 2021 is set at $13.00, nearly $2.00 higher than would have occurred based on the prior rules, and the price increases by 7% per year rather than 2.5%. By calendar 2030, the cost containment reserve trigger price would equal $23.90. The higher trigger price is meant to ensure that the reserve is triggered only when emission reduction costs are higher than projected.

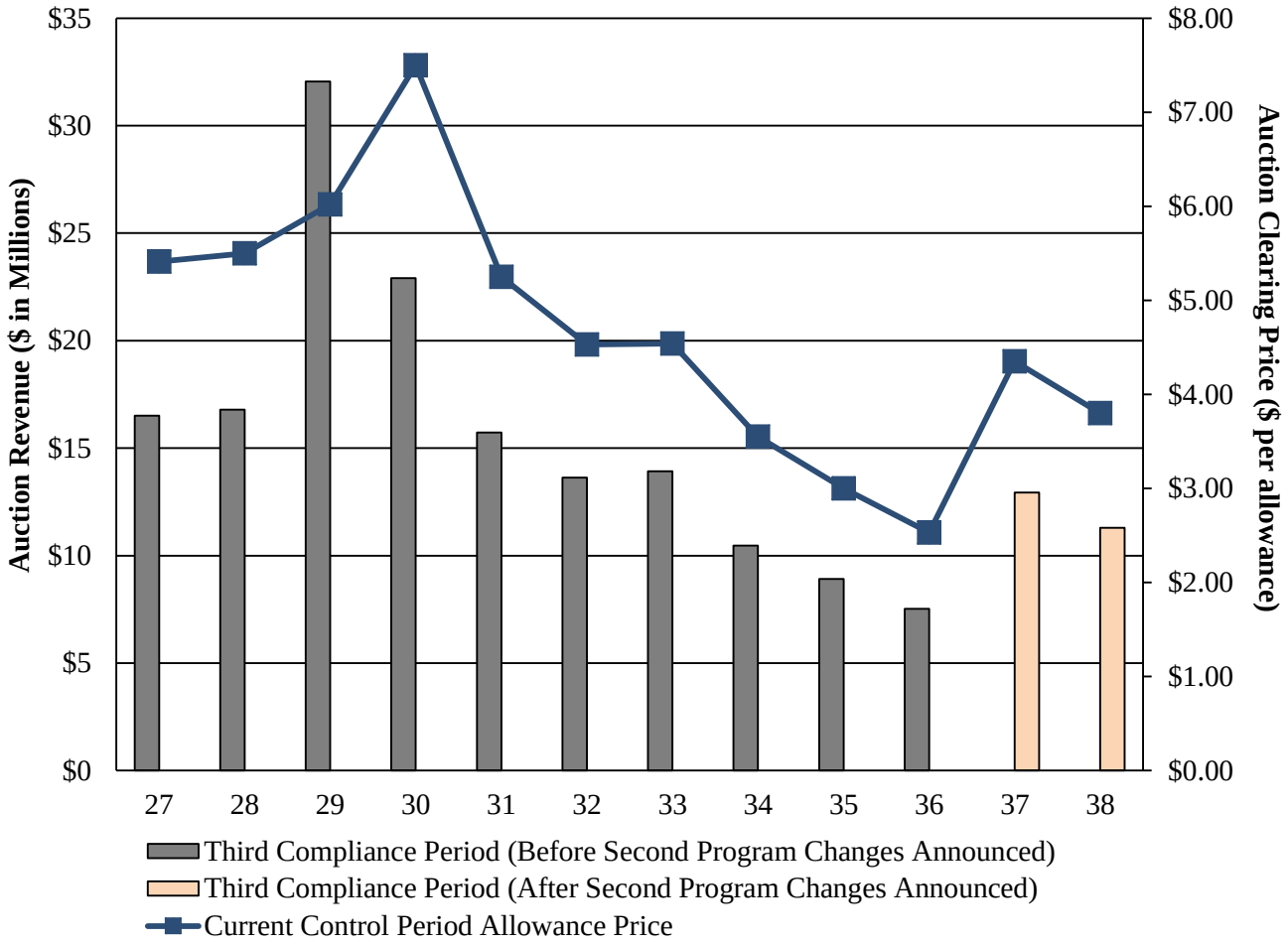
Emissions Containment Reserve

Another change is a new program element called an Emissions Containment Reserve. Under the Emissions Containment Reserve, 10% of an implementing state's base cap is withheld if the auction clearing price falls at, or below, a trigger price. Withheld allowances would not be resold in the future. The trigger price is $6.00 in calendar 2021 and increases by 7% per year. At this rate, the trigger price would equal $11.03 in calendar 2030. The goal of the Emissions Containment Reserve is to ensure that the environment benefits from reduced demand (*i.e.*, excess allowances are eliminated rather than banked). RGGI anticipates that most, but not all states, will implement the Emissions Containment Reserve. Currently, Maine and New Hampshire are not expected to implement this provision.

RGGI Revenue

RGGI auction clearing prices initially increased in the wake of the program changes resulting from the 2012 Program Review. Prices began increasing after the program changes were announced in calendar 2013, even before the changes went into effect. Prices continued on a generally upward trend through December 2015 (Auction 30), peaking at $7.50. As shown in **Exhibit 7**, the auction clearing prices began to decline rapidly after that point. By Auction 36 (June 2017) the auction clearing price had fallen to $2.53, the lowest level since calendar 2012, and approached the minimum reserve price at that time ($2.15). Although reasons for the increase in prices and subsequent decline in price is not definitively known, the potential causes include (1) speculation in the markets related to the federal Clean Power Plan that no longer appears to be moving forward; and (2) reduced demand as it became evident that emissions were below the cap level. Following the announcement of recent planned program changes, auction clearing prices rebounded to a degree in Auctions 37 and 38 (September and December 2017). The planned program changes do not go into effect until calendar 2021; therefore, it is not clear whether the rebound in auction clearing prices is sustainable.

Exhibit 7
RGGI Quarterly Auction Results for Maryland
Auctions 27 (March 2015) - 38 (December 2017)
($ in Millions)



RGGI: Regional Greenhouse Gas Initiative

Source: Reginal Greenhouse Gas Initiative, Inc.

Revenue generally, but not always, follows the trend of the change in the allowance auction prices. Differences primarily result from distributions from the cost containment reserve and annual changes in the allowance cap.

RGGI Allocation

Chapters 127 and 128 of 2008 established the SEIF primarily to receive revenue from the RGGI CO_2 emission allowance auctions. The chapters also established an allocation of revenue from the quarterly RGGI CO_2 emission allowance auctions to be distributed among various categories of spending. These allocations were subsequently changed, with the current allocation enacted as part of the BRFA of 2014. Other revenues held in the SEIF available from different fund sources (such as the Alternative Compliance Payment (ACP) from the Renewable Portfolio Standard, including the Animal Waste-to-Energy payment, the Offshore Wind Development Fund, the CIF, and funds from DCP) are not subject to the statutory allocations of revenue. Outside of the ACP, the inclusion of these funds in the SEIF were not required by statute, and most are one-time or limited-time funds with specific uses established in the PSC orders creating the funding streams.

Statutory Comparison

As shown in **Exhibit 8**, the fiscal 2019 allowance includes the assumption that $26.2 million of fund balance will support program spending, which allows the appropriation to exceed the amount of revenue currently anticipated**.**

Exhibit 8
Fiscal 2019 Allowance Compared to Required RGGI Distribution
($ in Millions)

	Revenue Available
Revenue Estimate	$24.0
Regional Greenhouse Gas Initiative Dues	-0.6
Maryland Energy Innovation Fund	-1.5
Electric Vehicle Tax Credit	-2.4
Revenue Available for Distribution	**$19.6**
Proposed use of Interest and Fund Balance	**$26.2**
Total	**$45.8**

	2019 Allowance	Revenue Distribution as Determined by Statue	2019 Revenue Allocation	Difference Between Allowance and Allocation
Energy Assistance	**$26.0**	**At least 50%**	**$9.8**	**$16.2**
Department of Human Services	$26.0			

	2019 Allowance	Revenue Distribution as Determined by Statue	2019 Revenue Allocation	Difference Between Allowance and Allocation
Low- and Moderate-income Energy Efficiency	**$5.0**	**At least 10%**	**$2.0**	**$3.0**
Maryland Energy Administration	$5.0			
Energy Efficiency, All Other Sectors	**$5.2**	**At least 10%**	**$2.0**	**$3.2**
Maryland Energy Administration	$2.5			
Maryland Department of Health	2.2			
Department of General Services	0.5			
Renewable Energy, Climate Change, Resiliency, and Energy Education	**$5.6**	**At least 20%**	**$3.9**	**$1.6**
Maryland Energy Administration	$3.0			
Maryland Department of the Environment	2.6			
Administration	**$4.0**	**No more than $5.0 million, up to 10%**	**$2.0**	**$2.1**
Maryland Energy Administration	$4.0			
Total	**$45.8**		**$19.6**	**$26.2**

Note: Fiscal 2019 allowance figures exclude non-RGGI funds, which are budgeted as the Strategic Energy Investment Fund. These included funds from the Most Favored Nation provision from the Exelon Corporation and Pepco Holdings, Inc. merger and Offshore Wind Development Funds.

Source: Department of Legislative Services; Section 9-20B-05(g) of the State Government Article; Governor's Budget Books

Fiscal 2019 Allowance Comparison

MEA has made a change in its RGGI auction revenue forecasting during this budget cycle. To stabilize program budgets, the revenue forecast through fiscal 2019 assumes revenue based on the minimum clearing price ($2.21 in the remainder of calendar 2018 and $2.26 in calendar 2019). Any revenue over these amounts are expected to be budgeted in the following budget cycle (for example, calendar 2018 overattainment would be budgeted in fiscal 2020). This change is expected to provide more certainty to the program and prevent mid-year program reductions as occurred in both fiscal 2017 and 2018. This assumption results in a decrease in planned spending in most programs in fiscal 2019 even with the use of fund balance.

The fiscal 2019 allowance decreases spending from RGGI sources by $16.6 million compared to the fiscal 2018 working appropriation. However, after accounting for $9 million of planned fiscal 2018 cancellations due to declining revenue, the fiscal 2019 allowance actually decreases by $7.6 million compared to planned fiscal 2018 spending, as shown in **Exhibit 9**. Exhibit 9 removes the planned cancellations from the fiscal 2018 working appropriation and accounts for deficiency appropriations to better reflect the true budget change.

Exhibit 9
Comparison of RGGI-related Appropriations
Fiscal 2017-2019

	2017 Actual	2018 Adjusted Working Approp.	2019 Allowance	Change
Energy Assistance	**$30,167,975**	**$27,000,000**	**$26,000,000**	**-$1,000,000**
Department of Human Services	30,167,975	27,000,000	26,000,000	-1,000,000
Low- and Moderate-income Energy Efficiency	**$10,457,556**	**$6,915,606**	**$5,000,000**	**-$1,915,606**
Maryland Energy Administration (MEA)	10,273,162	5,000,000	5,000,000	0
Department of Housing and Community Development	184,394	1,915,606	0	-1,915,606
Energy Efficiency, All Other Sectors	**$5,933,878**	**$4,525,023**	**$5,184,694**	**$659,671**
Maryland Energy Administration	3,117,163	1,275,000	2,500,000	1,225,000
Maryland Department of Health	2,613,789	2,250,732	2,184,694	-66,038
Department of General Services	202,926	999,291	500,000	-499,291
Renewable Energy, Climate Change	**$17,579,383**	**$10,830,000**	**$5,550,000**	**-$5,280,000**
Maryland Energy Administration	14,048,263	7,500,000	3,000,000	-4,500,000
Maryland Department of the Environment	2,337,512	3,330,000	2,550,000	-780,000
Maryland Department of Agriculture	1,193,608	0	0	0
Administration	**$3,386,353**	**$4,091,029**	**$4,016,122**	**-$74,907**
Maryland Energy Administration	3,386,353	4,091,029	4,016,122	-74,907
Total	**$67,525,145**	**$53,361,658**	**45,750,816**	**-$7,610,842**

RGGI: Regional Greenhouse Gas Initiative

Note: Fiscal 2018 working appropriation includes deficiency appropriations that withdraw $10 million from energy assistance and $103,338 in the MEA Administration program and add $414,606 to the Department of Housing and Community Development. The fiscal 2018 working appropriation is also adjusted to reflect spending adjustments implemented by MEA, which will result in cancellations of $2 million in the low- and moderate-income energy efficiency program and $7 million in the renewable and clean energy programs and reallocations of spending in the general energy efficiency category. Excludes non-RGGI sources budgeted as the Strategic Energy Investment Fund.

Source: Department of Legislative Services; Maryland Energy Administration; Governor's Budget Books

The only area with a net increase in spending is the general energy efficiency category (Energy Efficiency, All Other Sectors), $659,671. This increase largely results from adjustments to the fiscal 2018 spending plan in MEA (shown in Exhibit 4) that largely eliminated RGGI sourced spending in that program. RGGI-sourced spending outside of MEA was curtailed in the fiscal 2019 allowance. Spending in the Department of Housing and Community Development (DHCD) was eliminated, while Department of General Services (DGS) spending was reduced by approximately 50%.

SEIF Fund Balance

Fund balance in the SEIF accumulated due to higher than expected revenue following the 2013 announcement of program changes in the RGGI. The fund balances were used to support additional spending and remained substantial even after a fiscal 2015 transfer to the General Fund. However, as revenue steeply declined beginning in calendar 2016, the fund balance began to dwindle. As shown in **Exhibit 10**, at the close of fiscal 2017, the balance from primarily RGGI-sourced subaccounts in the SEIF totaled $64.2 million, nearly half of which was for energy assistance.

Despite planned spending reductions in fiscal 2018, including proposed negative deficiencies in two areas, spending is still expected to significantly outpace revenue. In fact, to ensure some areas maintain positive balances, MEA plans to realign interest revenue, totaling $8.2 million, from the administration account to the low- and moderate-income sector program ($3.4 million) and renewable and clean energy account ($4.8 million) and realign $2 million of fund balance from the general energy efficiency category to the low- and moderate-income energy efficiency account. In fiscal 2019, an additional $1 million of interest revenue is expected to be realigned from the administration account to support the low- and moderate-income energy efficiency account. The fiscal 2019 balance of the general energy efficiency category is also bolstered by the remaining $4.5 million of funds from the Most Favored Nation provision of the Exelon/Pepco Holdings, Inc. merger.

By the close of fiscal 2019, the SEIF balance in the primarily RGGI-sourced accounts is projected to be $18.2 million. This low balance, without higher revenue, would likely substantially limit RGGI-related spending in fiscal 2020. Energy assistance in particular would experience a significant decline as the majority of its fiscal 2019 funding comes from fund balance. However, if as is expected, RGGI auction revenue is higher than the minimum clearing price, the fiscal 2019 closing fund balance will be higher and fiscal 2020 spending could be boosted by this overattainment.

Exhibit 10
Strategic Energy Investment Fund Balance
Fiscal 2017-2019 Est.
($ in Millions)

	2017 Actual	2018 Estimated	2019 Estimated
Energy Assistance	$30.2	$20.0	$3.8
Energy Efficiency and Conservation Programs, Low- and Moderate-income Sector	1.1	2.9	0.9
Energy Efficiency and Conservation Programs, All Other Sectors	12.1	6.5	3.2
Renewable Energy, Clean Energy, Climate Change, Education, and Resiliency	8.8	9.5	7.9
Administration	12.0	4.5	2.5
Subtotal RGGI Portion	***$64.2***	***$43.4***	***$18.2***
Renewable Portfolio Standard	$39.3	$21.3	$1.3
Offshore Wind Development	9.1	8.8	6.0
Cove Point	3.0	0.0	0.0
Total	**$115.6**	**$58.6**	**$25.6**

RGGI: Regional Greenhouse Gas Initiative

Note: Subaccounts generally align with RGGI categories but may include funds from non-RGGI sources, such as, the Most Favored Nation funds. Estimated revenue in fiscal 2018 and 2019 include auction results in September and December 2017 and projected results for six actions. Numbers may not match the Strategic Energy Investment Fund Appendix T in the Governor's Budget Books to correct certain funds to align with the appropriation levels, eliminate a double counting of certain Offshore Wind Development Funds, and reflect a planned cancellation of Offshore Wind Development Funds.

Source: Maryland Energy Administration; Department of Legislative Services; Governor's Budget Books

2. Uses of the Seed Funding for the Maryland Energy Innovation Fund

The Maryland Clean Energy Center (MCEC) was established by Chapter 137 of 2008. The purpose of MCEC is to (1) promote economic development and jobs in the clean energy industry sector; (2) promote the deployment of clean energy technology; (3) serve as an incubator for the development of the clean energy industry; (4) collect, analyze, and disseminate industry data; and (5) provide outreach and technical support to further the clean energy industry. MCEC was established as a

nonbudgeted entity. Chapter 137 did not establish a funding mechanism for either startup costs or ongoing activities. MCEC is able to charge fees for some of the programs that it offers, but the revenue from these programs has been relatively limited.

MCEC received an initial startup loan, as well as subsequent loans and grants from MEA for operating support. Through fiscal 2016, MCEC received loans in three fiscal years totaling $1.3 million from MEA ($400,000 in fiscal 2009, $140,000 in fiscal 2014, and $760,000 in fiscal 2015). MCEC, had made limited repayment on the startup loan and no payments on the other loans. In addition to operating grants and loans, MEA had provided MCEC with funds for programs including $3.4 million for a residential energy loan program and $1 million for residential customer energy education and local government assistance funding.

Chapter 577 of 2016 established a task force to review a variety of issues related to MCEC including long-term sustainability. Chapters 364 and 365 of 2017 ultimately addressed a number of the MCEC funding concerns.

Chapters 364 and 365 of 2017

Chapters 364 and 365 established a new Maryland Energy Innovation Institute (MEI^2) and Maryland Energy Investment Fund (MEIF) as well as making modifications to the statute governing MCEC.

MEI^2

MEI^2 was established in the A. James Clark School of Engineering at the University of Maryland, College Park Campus (UMCP). The purpose of MEI^2 is (1) to collaborate with academic institutions in the State to participate in clean energy programs; and (2) to develop and attract private investment in clean energy innovation and commercialization in the State. MEI^2 is authorized to conduct a variety of energy activities including:

- pursuing grants, other funds, and in-kind contributions for clean energy research and innovation;

- providing seed grant funding to academic institution-based entrepreneurs or entities in order to promote the commercialization of clean energy technologies developed wholly or partly by an academic institution;

- coordinating incubation and potential financing of academic institution-based entrepreneurs or entities; and

- working closely with State units, industrial partners, nongovernmental organizations, and federal agencies and laboratories to ensure effective implementation and execution of the State's energy mission and vision.

MEIF

The MEIF was established in the University System of Maryland to be used by MEI^2 and MCEC. MEI^2 may use the funds to (1) carry out the purposes of the institute; (2) purchase advisory services and technical assistance to better support economic development; (3) pay the administrative, legal, and actuarial expenses of the institute; and (4) support the administrative and operating costs of MCEC. MCEC is authorized to use the MEIF to make grants or loans; provide equity investment financing; and guarantee a loan, equity investment, or other private financing to expand the capital resources of a business enterprise. The MEIF is authorized to receive funds from a variety of sources including federal programs, private entities, or repayments on loans or returns from investments or collateral provided for financing. The MEIF was provided with seed funding to be transferred from the SEIF from fiscal 2018 through 2022 ($1.5 million per year).

MEA's fiscal 2018 budget initially included the fiscal 2018 seed funding for the MEIF as a grant from its Renewable and Clean Energy program. MEA has since revised its plan to instead provide the seed funding as a transfer to the MEIF prior to the allocation of RGGI revenue. This is consistent with how other transfers from the SEIF have been treated. The fiscal 2019 RGGI forecast also assumes that the SEIF transfer to the MEIF will occur before the RGGI revenue allocation.

Other Provisions

The chapters also require MCEC to establish a work plan to become self-sustaining within five years of the effective date of the Act (July 1, 2017) and submit a report on the progress in becoming self-sustaining and recommendations for changes or additional funding needed to meet the self-sustaining goal by December 1, 2019. The outstanding loan balances owed to MEA by MCEC were also converted to grants.

Fiscal 2018 Planned Uses of the MEIF

Committee narrative in the 2017 *Joint Chairmen's Report* (JCR) requested MEA, in conjunction with MEI^2 and MCEC, submit a report on how the seed funds in fiscal 2018 were to be used and how much of the funding is available to support MCEC. The report was submitted in September 2017. Of the total of $1.5 million, $893,780 was provided to MCEC and $606,220 is provided to MEI^2.

MCEC

MCEC plans to use the MEIF as part of its total budget of $1 million in fiscal 2018. MCEC plans to hold $79,115 of the revenue from the MEIF as contingency funds. Other revenue including grants, sponsorship, and revenue from prior projects comprises the remaining portion of the MCEC budget.

The majority of the fiscal 2018 budget, $647,175 (63.4%), supports personnel costs. However, $80,000 of the planned personnel funding for two positions was frozen pending board approval. The next largest share of the budget is for marketing, communications, and events ($160,425) that includes

both a summit and a legislative reception. A total of $155,870 is budgeted for contractual services, of which $50,000 is intended to be used for a consultant to assist in the development of the plan to become self-sustaining. The remaining contractual services are used for activities such as legal fees, auditors, and financial advisors. Other general operating expenses including rent and utilities total $57,700.

In the report, MCEC indicated that it was negotiating a lease agreement with the School of Engineering for office space in the Technology Venture building near UMCP. At the time, the space was under renovation, and MCEC's relocation was expected to occur following the renovations. MCEC was, at that time, expected to relocate in calendar 2017. However, MCEC stated that, as of January 2018, it is still in negotiations regarding lease terms and will move into the new space in November 2018 if negotiations are completed within the next month.

The report also described a number of ongoing and fiscal 2018 planned program activities by MCEC including:

- work on the Maryland Property Assessed Clean Energy program, including efforts to broaden the number of jurisdictions with local ordinances establishing the program and program administration agreements;

- participating in the Baltimore Shines program, a program to expand access to affordable solar energy for low- to moderate-income customers;

- continuing work on MD SAVES, under which MCEC would serve as an issuer of Qualified Energy Conservation Bonds for local jurisdictions with available allocations and/or working with MEA and other State officials to develop a State plan to use the available allocations;

- completing additional transactions under the Maryland Clean Energy Capital Program; and

- marketing and education activities including updating the MCEC website, hosting an annual legislative reception, and planning a Clean Energy Summit.

MEI^2

MEI^2 was expected to use funding from the MEIF, in addition to the university provided funding of $952,000, for a number of startup related activities (a total of $1.6 million). Funding of $435,030 (27.9% of total funding) is expected to be used for MEI^2 staff. An additional $38,000 is expected to support various MEI^2 events including receptions, advisory board meetings, and other education and activities related to innovation/entrepreneurship.

The largest share of funding (approximately $700,000) was expected to support the renovation of the Technology Ventures building including laboratory infrastructure of the MEI^2 Incubator, MCEC offices, and offices for incubator companies moving into the MCEC leased space. However, MCEC no longer expects to be able to house any incubator companies into its leased space.

MEI^2 expected to use $375,240 (24.1%) to initiate three programs to support energy research and innovation: (1) an entrepreneurship seed grant supporting the period between transformative laboratory research results and prototype demonstrations; (2) an MEI^2 industry research program intended to be a matching fund program for research for pre-competitive energy technologies; and (3) an MEI^2 matching fund program for MEI^2 affiliated faculty pursuing federal energy research grants. MEI^2 intends to use an investment committee for funding recommendations. On January 22, 2018, MEI^2 announced the first awards under its seed grant program. MEI^2 provided four grants under the seed grant program to bridge the gap between academic transformative laboratory research and prototype demonstration while fostering commercialization through technology development, creation and/or advancement of university startup companies within the State. Each awardee received $100,000 each. The awardees include three professors at UMCP and one professor at the Johns Hopkins University. The use of $400,000 for the seed grant program indicates MEI^2 has slightly altered its planned use of funds from the report submitted in September 2017 to focus solely on that program.

MEA should comment on how it is working with MCEC and MEI^2 and describe any joint efforts planned during fiscal 2018 or 2019.

Operating Budget Recommended Actions

1. Add the following section:

SECTION XX. AND BE IT FURTHER ENACTED, That the Department of Budget and Management shall provide an annual report on the revenue from the Regional Greenhouse Gas Initiative (RGGI) carbon dioxide emission allowance auctions and set-aside allowances to the General Assembly in conjunction with the submission of the fiscal 2020 budget and annually thereafter as an appendix to the Governor's budget books. This report shall include information for the actual fiscal 2018 budget, fiscal 2019 working appropriation, and fiscal 2020 allowance. The report shall detail revenue assumptions used to calculate the available Strategic Energy Investment Fund (SEIF) from RGGI auctions for each fiscal year including:

(1) the number of auctions;

(2) the number of allowances sold;

(3) the allowance price for both current and future (if offered) control period allowances sold in each auction; and

(4) anticipated revenue from set-aside allowances.

The report shall also include detail on the amount of the SEIF from RGGI auction revenue available to each agency that receives funding through each required allocation:

(1) energy assistance;

(2) energy efficiency and conservation programs, low- and moderate-income sector;

(3) energy efficiency and conservation programs, all other sectors;

(4) renewable and clean energy programs and initiatives, education, climate change, and resiliency programs;

(5) administrative expenditures;

(6) dues owed to the RGGI, Inc.; and

(7) transfers or diversions of revenue made to other funds.

The report should also provide detail on the fund balance for each SEIF subaccount for the fiscal 2018 actual, fiscal 2019 working appropriation, and fiscal 2020 allowance.

Explanation: This language requires the Department of Budget and Management to include as an appendix in the Governor's budget books for fiscal 2020 detail on the revenue assumptions for RGGI auctions budgeted in each fiscal year as well as how those revenues are distributed to various agencies. This information increases transparency, differentiates funding from the SEIF that is available from sources other than RGGI auctions and allows for analysis of whether the allocation of RGGI auction revenue meets statutory requirements. This language requires fund balance information for each SEIF subaccount but does not require the SEIF balances to account for only RGGI-related fund balances within the subaccounts.

Information Request	**Author**	**Due Date**
Report on revenue assumptions and use of RGGI auction revenue	Department of Budget and Management	With the submission of the Governor's fiscal 2020 budget books and annually thereafter

Updates

1. Offshore Wind Activities

In addition to those conditions discussed earlier, two conditions of the approval of the merger between Exelon and Constellation required contributions by Exelon for certain offshore wind activities. The larger of these contributions ($30 million) was provided for offshore wind development activities and is held by the State as a subaccount (referred to as the Offshore Wind Development Fund) in the SEIF. The other contribution ($2 million) was provided to public institutions of higher learning within the State to support research and development in wind energy applications.

Chapter 3 of 2013 (the Maryland Offshore Wind Energy Act) provided for specific uses for a portion of the Offshore Wind Development Fund. These transfers were;

- $3 million ($1 million in fiscal 2014 and $2 million in fiscal 2015) to PSC for consultants; and

- $4 million ($1.5 million in fiscal 2014 and 2015 and $1 million in fiscal 2016) for the Maryland Offshore Wind Business Development Fund (MOWBDF) created by the Act.

Chapter 3 also provided an additional source of capitalization funding for the MOWBDF from any approved Offshore Wind Renewable Energy Credit (OREC) applicant. The Act requires that an approved applicant must provide $6 million over three years ($2 million within 60 days of approval, one year after the initial deposit, and two years after the initial deposit into the fund). Two applicants were approved for ORECs in May 2017, and the initial deposits from each were made into the account in July 2017.

Offshore Wind Development Fund Activities

After the transfers required in Chapter 3, $23 million of the Offshore Wind Development Fund was available for use by MEA for offshore wind activities. At the close of fiscal 2017, $9.1 million remained available for use. The fiscal 2018 working appropriation contains $2.568 million of Offshore Wind Development Funds, and the fiscal 2019 allowance includes $2.8 million, an increase of $232,000.

In fiscal 2018, the majority of funding ($2.28 million) was expected to be used to support the National Offshore Wind Innovation Center (NOW-I-C) research efforts. NOW-I-C is a collaboration between the Business Network for Offshore Wind and researchers from UMCP, the Johns Hopkins University, the University of Maryland Baltimore County, Morgan State University, and the University of Maryland Eastern Shore. However, MEA ultimately decided to use these funds for competitive grants rather than dedicate the funding to a noncompetitive grant to NOW-I-C and plans to cancel the $2.28 million in fiscal 2018 originally expected to be used for this purpose. The majority of the fiscal 2019 funds, $2.2 million, will be used for the competitive research grants:

- ***Maryland Offshore Wind Energy Research Challenge Grants – ($1 million):*** A first round of these grants was completed with the $2 million dedicated to research by public institutions of higher learning by PSC in the Exelon/Constellation merger order. This additional funding will support an additional round of funding for these grants.

- ***Offshore Wind Accelerator – ($1.2 million):*** This funding would be used to establish a United States-based Offshore Wind Accelerator or expand an existing one into Maryland. Offshore Wind Accelerators are used in Europe. The goal is to form a collaboration between government, academia, and industry together to find ways to bring down the cost of offshore wind. The groups formed through this collaboration, are expected to focus on areas including logistics and installation, turbine foundations, meteorological data (which measures wind speeds), and vessels and port infrastructure. The funding will be used to support programs and research initiatives to further this work.

Of the remaining funding:

- $368,000 ($68,000 in fiscal 2018 and $300,000 in fiscal 2019) will be used for administrative costs including salaries and travel to support the marketing strategy;

- $300,000 ($220,000 in fiscal 2018 and $80,000 in fiscal 2019) will be used for a grant to the Business Network for Offshore Wind;

- $120,000 (fiscal 2019 only) is for a study by the Department of Natural Resources on the effect of wind farm construction on catch rates, displacement, and feeding habits of black sea bass to respond to concerns by charter and recreational and charter fisheries; and

- $100,000 (for fiscal 2019 only) is for a marketing strategy (Maryland Open for Offshore Wind Business) in collaboration with other relevant agencies to attract offshore wind industry investments in Maryland and serve as an outreach platform for engaging individuals interested in pursuing careers in the offshore wind industry.

Based on the fiscal 2018 and 2019 spending plans, after accounting for the planned cancellation in fiscal 2018, the Offshore Wind Development fund balance is projected to be approximately $6 million at the close of fiscal 2019.

MOWBDF

At the close of fiscal 2017, the MOWBDF had a balance of $3.5 million. However, the approved OREC applicants subsequently deposited $2 million each into the accounts (July 2017). As a result, approximately $7.5 million is available in fiscal 2018. An additional $4 million will be deposited in fiscal 2019 (July 2018) and in fiscal 2020 (July 2019). The fiscal 2018 budget was developed prior to the approval of applications and so limited funding ($1 million) was included in the budget for programs. The fiscal 2019 allowance includes $2 million of the MOWBDF.

In both years, the funding supports the Offshore Wind Business and Workforce Development Grant Program. The program supports two components: (1) jumpstarting Maryland's offshore wind supply chain by providing grants to help offset upfront barrier costs including market entry assistance and capital expenditures and facilities upgrades; and (2) ensuring Maryland has a ready and able workforce to contribute to the construction, installation, and operations and maintenance of an offshore wind energy project. MEA announced five awards in the program under the fiscal 2018 funding on January 10, 2018. The awards include funding for two workforce programs ($300,000) and three businesses ($700,000):

- Arcon Welding Training School;
- Jane Addams Resource Corporation;
- Strum Contracting Company;
- Martin Holdings, Inc.: and
- Devereco LLC.

2. Programs for Residential and State Government Customers

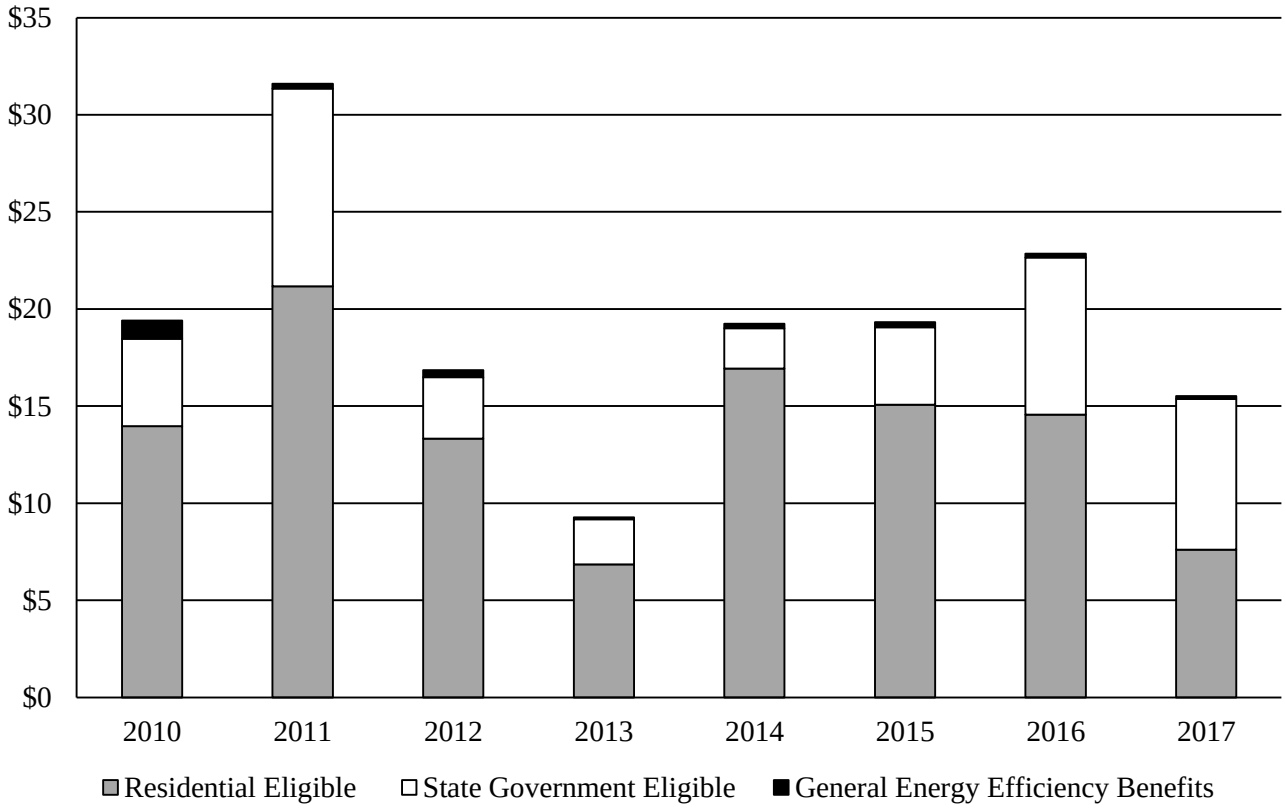
Energy program offerings in Maryland are provided through both State agencies and utilities. State agency involvement occurs primarily in DHCD, DGS, and MEA. DHCD-funded energy efficiency programs are targeted generally toward low- and moderate-income residential customers and have in recent years included acting as the implementer of the Limited Income Programs under EmPOWER Maryland. DGS programs are targeted toward State agency energy efficiency activities primarily through Energy Performance Contracts. Utility involvement is largely through the EmPOWER Maryland program. In addition, MCEC, a State created entity that largely operates independently, also undertakes energy-related programs. These programs have targeted residential, commercial, nonprofit, and State government (particularly State universities). As a result of the number of agencies and non-State agencies that undertake energy efficiency and renewable and clean energy programs, the potential for duplication of effort exists.

Furthermore, there is limited understanding of the impact of the program offerings of these various entities. As a result, the 2017 JCR requested that MEA submit a report on a variety of programs that impact residential and State government customers to include (1) a description of performance measures collected; (2) a description of how MEA evaluates (or plans to evaluate) the program; (3) program expenditures for fiscal 2010 to 2017; (4) the number of customers served by the program for fiscal 2010 to 2017; (5) annual energy savings by fiscal year for fiscal 2010 to 2017; (6) kilowatt hours of renewable energy installed by fiscal year for fiscal 2010 to 2017; and (7) program requirements. MEA submitted the report in September 2017.

Program Spending

Between fiscal 2010 and 2017, MEA's spending on programs that benefit residential or State government customers has averaged $19.3 million annually. Spending in only two years, fiscal 2011 and 2013, substantially varied from that average, as shown in **Exhibit 11**. In fiscal 2011, spending was boosted by the availability of funds from the American Recovery and Reinvestment Act of 2009. In fiscal 2013, funding was suppressed by low levels of revenue from RGGI CO_2 emission allowance auctions, which is the primary ongoing fund source for MEA energy programs.

Exhibit 11
Residential and State Government Related Energy Program Spending of MEA
Fiscal 2010-2017
($ in Millions)



Source: Maryland Energy Administration

As shown in Exhibit 11, spending was highest on residential eligible programs in nearly every year between fiscal 2010 and 2017. Fiscal 2017, in fact, was the only year that spending on programs for which residential customers are eligible was lower than spending on programs for which State government customers are eligible.

Residential Program Spending

Residential-related spending is dominated by two programs in most years (the Clean Energy Communities program and the Clean Energy Grant Program). The Clean Energy Communities Grant program provides funding for nonprofits and local governments for energy efficiency activities that benefit low- and moderate-income customers. Since fiscal 2013, the Clean Energy Communities program has been the only MEA program focusing on low- and moderate-income customers. Spending on the Clean Energy Communities program has generally fluctuated with the availability of the SEIF, the only fund source for this program. Residential customers are eligible for the Clean Energy Grant Program, but the funding is also available to other customers (primarily commercial). The Clean Energy Grant Program spending has also fluctuated with the availability of the SEIF, but has also received support from other funds in some years.

Over the years, MEA has also funded several other programs that are targeted only to residential customers. At times, these activities have been a large part of MEA spending on residential customers. Over time, these programs have shifted to funding by other sources (Appliance Rebate Program and Home Performance with Energy Star to utilities under the EmPower Maryland Program and a multifamily energy efficiency program to DHCD). The shifting of programmatic activity to other agencies or the utilities shows an effort to not duplicate program efforts given the limited State funding available.

State Government Spending

State agency specific spending has come nearly entirely through the State Agency Loan Program (SALP), an MEA PAYGO program that provides 0% interest loans with a 1% administrative fee for energy efficiency activities. The loan is repaid through the energy savings of the project. Encumbrances in this program have been relatively steady as the program is limited by the available fund balance and interest in the program.

MEA has offered a variety of programs since fiscal 2010 for which government customers are eligible. These programs have changed through the years, and the funding levels for these programs has also varied substantially. The primary programs offered recently by MEA for which government customers are eligible are the alternative transportation programs and the CHP program. Both programs have had funding of over $1 million in recent years. However, funding is largely eliminated in fiscal 2019 for the alternative transportation programs.

Program Impacts

As requested, MEA submitted data on customers served, annual energy savings, and renewable energy installed for most of the programs. For a number of programs, MEA was not able to provide

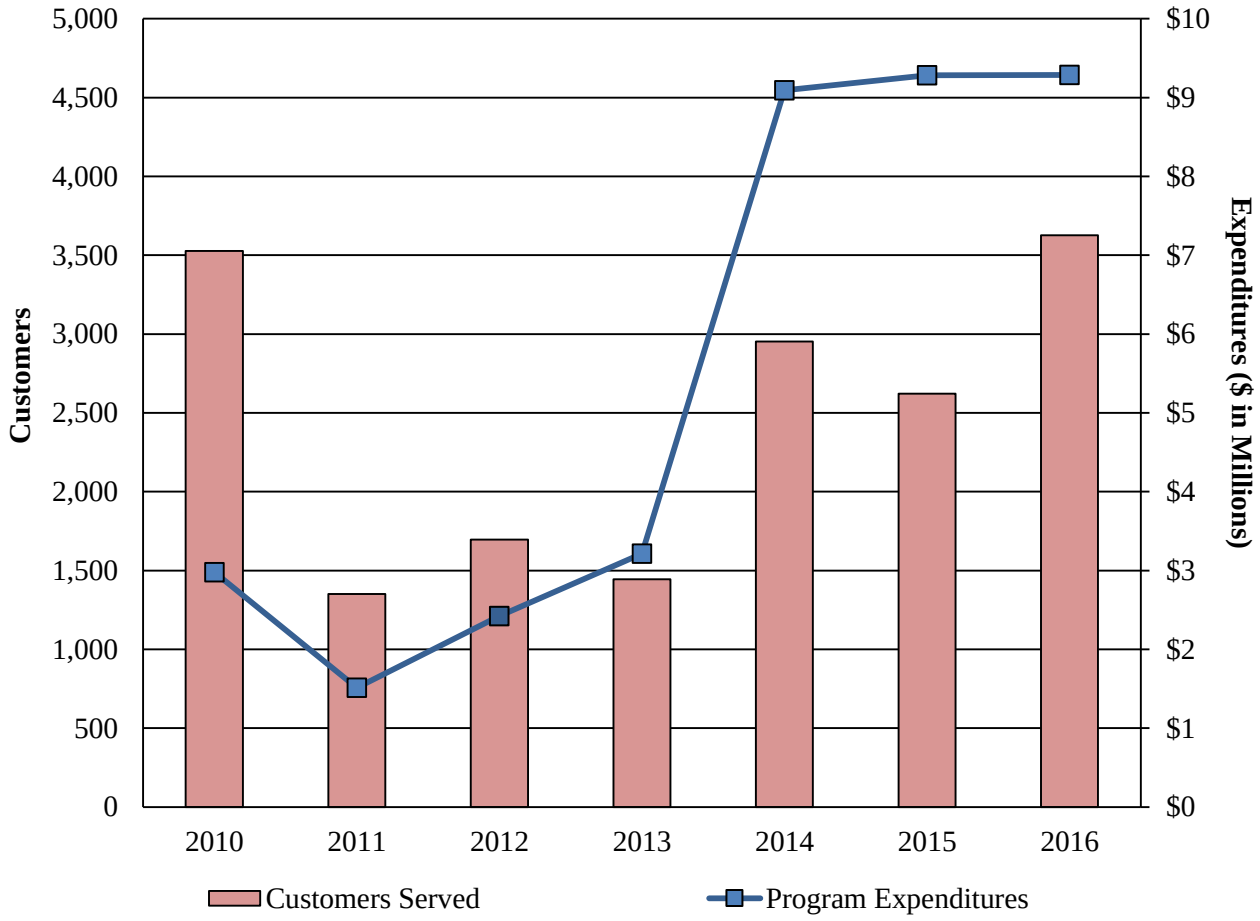
data on energy savings or renewable energy installed on an annual basis. These were generally older programs that are no longer operated or programs that provide only indirect benefits to consumers. However, MEA attempted to provide information that was responsive to the request. In these circumstances, MEA provided an estimate for a combined period or data for years in which information is available. For example, MEA provided data that shows 33,503 customers received appliance rebates for total spending of $6.8 million between fiscal 2010 and 2012, with estimated annual energy savings of 7.5 million kilowatt hours, but year-by-year data was not available.

Even for programs with more complete data, an evaluation of the program expenditures compared to energy savings or renewable energy installed is not always possible. Programs often provide energy savings of multiple types of fuel sources, which lead to measurements in multiple types of energy units. However, information for several residential programs in which annual data was available for all years of the program is discussed in the remainder of the update. State program data available for the SALP is discussed in the MEA PAYGO budget analysis.

Clean Energy Communities

Exhibit 12 provides information on the number of customers served (representing units or buildings upgraded) compared to expenditures in the Clean Energy Communities grant program. The funding in this program is awarded competitively. A portion of the funding is awarded to organizations competing within each jurisdiction and a second portion is awarded based on a statewide competition. MEA indicates that the applications are evaluated based on (1) annual energy savings per dollars of MEA investment; (2) anticipated impact on low- and moderate-income residents; (3) willingness and ability to serve customers that are not eligible to receive assistance through other programs; and (4) proposed method of delivery of energy products and services to low- and moderate-income customers. The method of evaluation should lead to an effective use of the program dollars. This program provides both electricity savings and savings to other heat sources. As shown in Exhibit 12, the number of customers served often, but not always, follows the trend of the program expenditures.

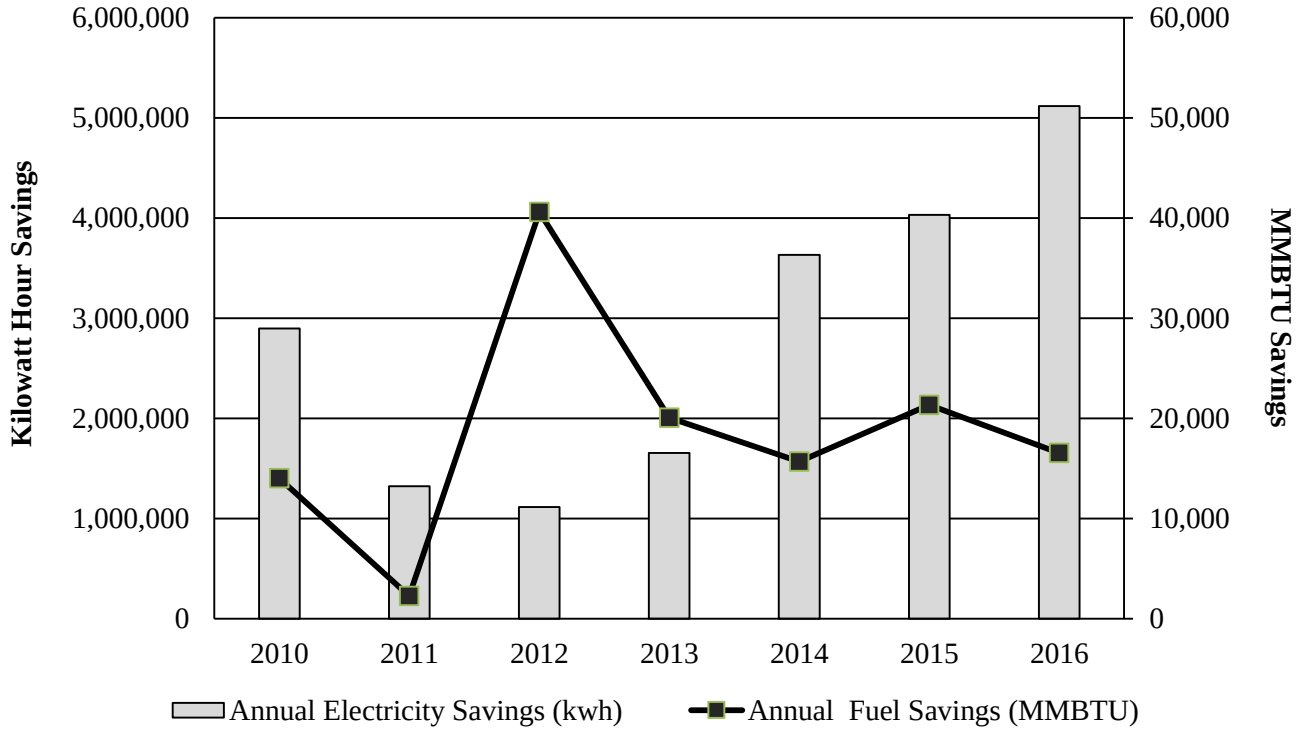
Exhibit 12
Clean Energy Communities Grant Program Customers Served versus Expenditures
Fiscal 2010-2016



Source: Maryland Energy Administration

Exhibit 13 provides data on both the kilowatt hours of energy savings and millions British Thermal Units (MMBTU) savings through the program. The kilowatt hour savings more closely follow the trend of program expenditures, while MMBTU savings fluctuate more significantly. This is likely the result of the characteristics of units served. While customers essentially always have electricity savings, the customers may not have other types of fuel sources, such as natural gas, which would allow for MMBTU savings.

Exhibit 13
Clean Energy Communities Grant Program Energy Savings
Fiscal 2010-2016



kwh: Kilowatt hours
MMBTU: millions British Thermal Units

Source: Maryland Energy Administration

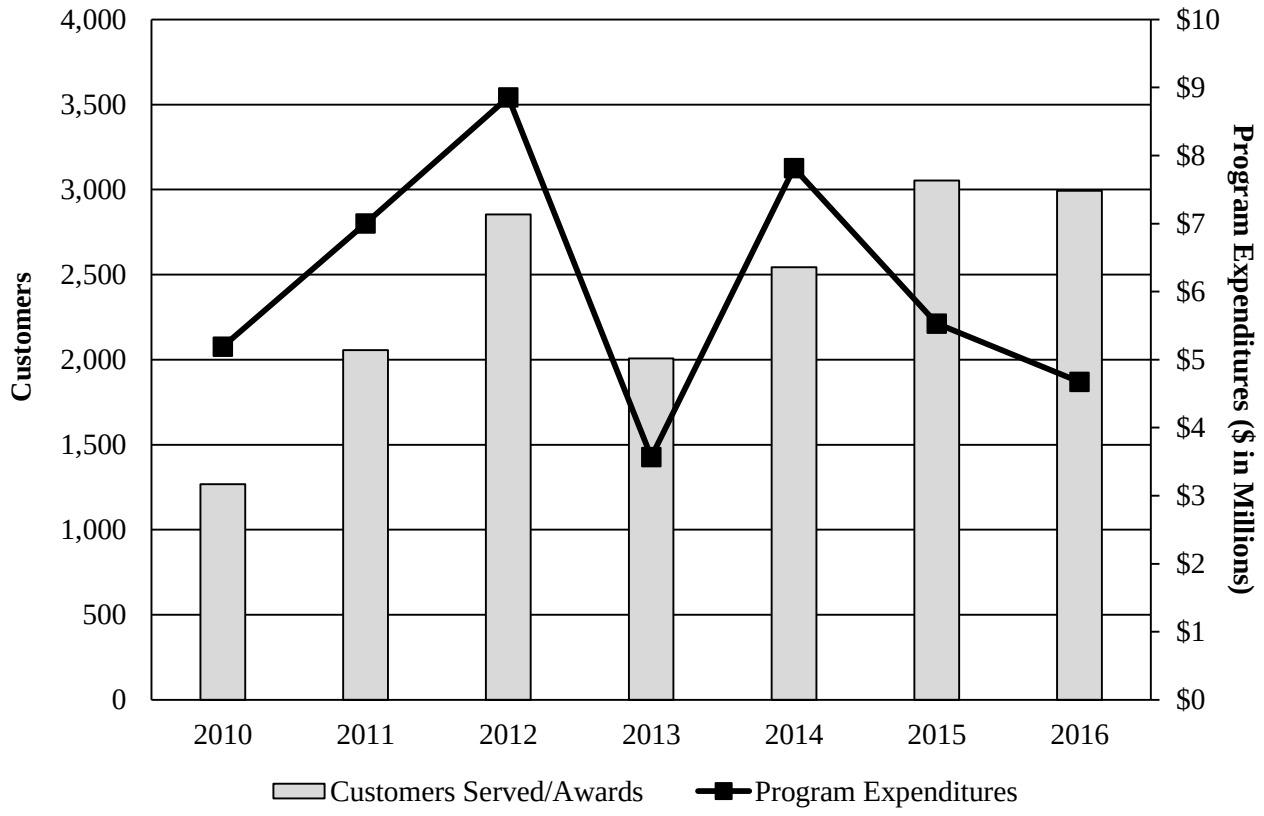
Clean Energy Grant Program

The Clean Energy Grant Program provides rebates for certain clean energy technologies for residential and commercial customers. As a result, the customers are not all residential and MEA did not separately provide residential only customers or expenditures. Eligible renewable technologies are solar, wind, geothermal, wood stove, and pellet stove. Most of the technologies measure energy installed in different units. For example, solar PV and wind measure in kilowatts, solar hot water in square feet, geothermal in tons, and wood and pellet stoves in British Thermal Units. However, as shown in **Exhibit 14**, in most years, the number of grant awards/customers follows the trend of program expenditures. The primary exception occurs in fiscal 2015 and 2016 when a much lower level of expenditures had higher numbers of awards. The mix of fuel sources plays a role in both expenditures

and number of awards because some sources have lower award amounts. For example, in fiscal 2016, awards were:

- $500 for wood stoves;
- $3,000 for residential geothermal;
- $3,000 per kilowatt (capped at $100,000) residential wind;
- $500 for residential solar hot water; and
- $1,000 for systems up to 20 kilowatts for residential PV.

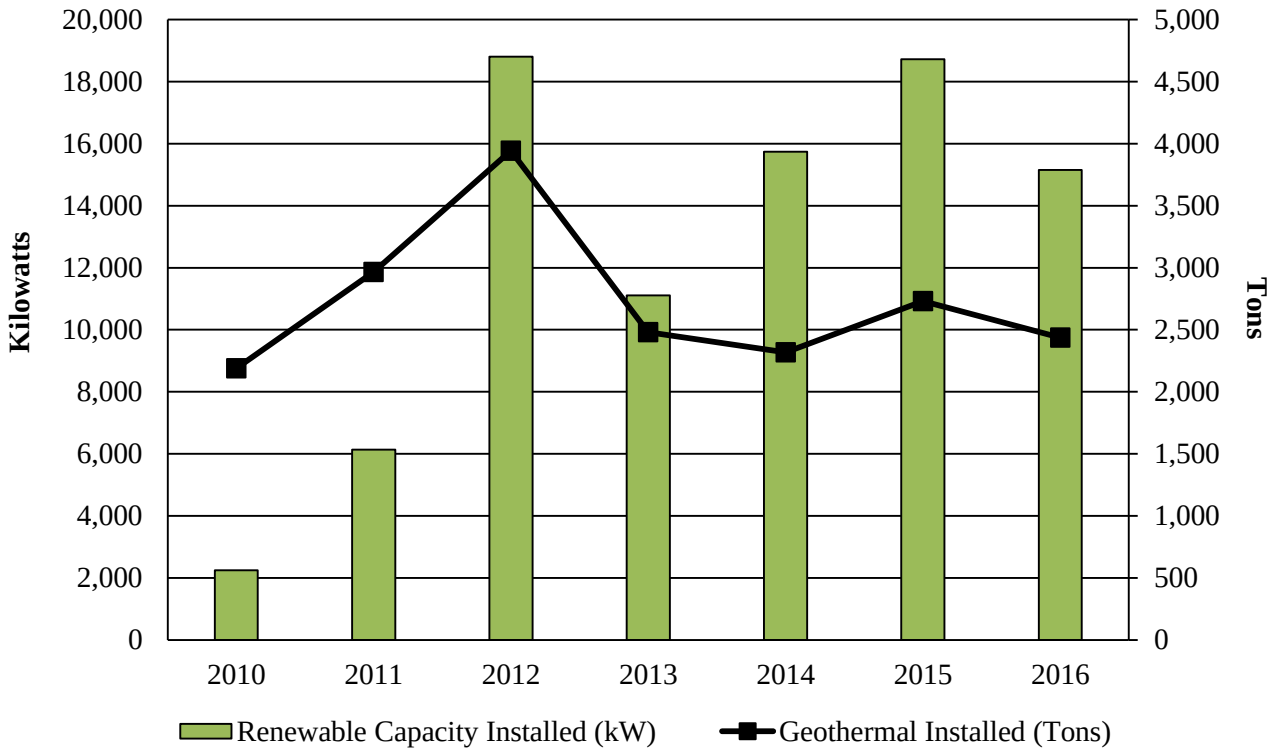
Exhibit 14
Clean Energy Grant Program Customers versus Expenditures
Fiscal 2010-2016



Source: Maryland Energy Administration

Exhibit 15 provides information on kilowatts of renewable energy installed (reflecting solar and wind installations) and tons of geothermal installed with incentives from the Clean Energy Grant Program. Solar and wind capacity installed generally follows the overall spending trends. With the exception of one year, geothermal installations have fluctuated within a small range, indicating customer motivations rather than available funding are the primary driver of the trend.

Exhibit 15
Clean Energy Grant Program Renewable Energy Installed
Fiscal 2010-2016



Kw: killowatts

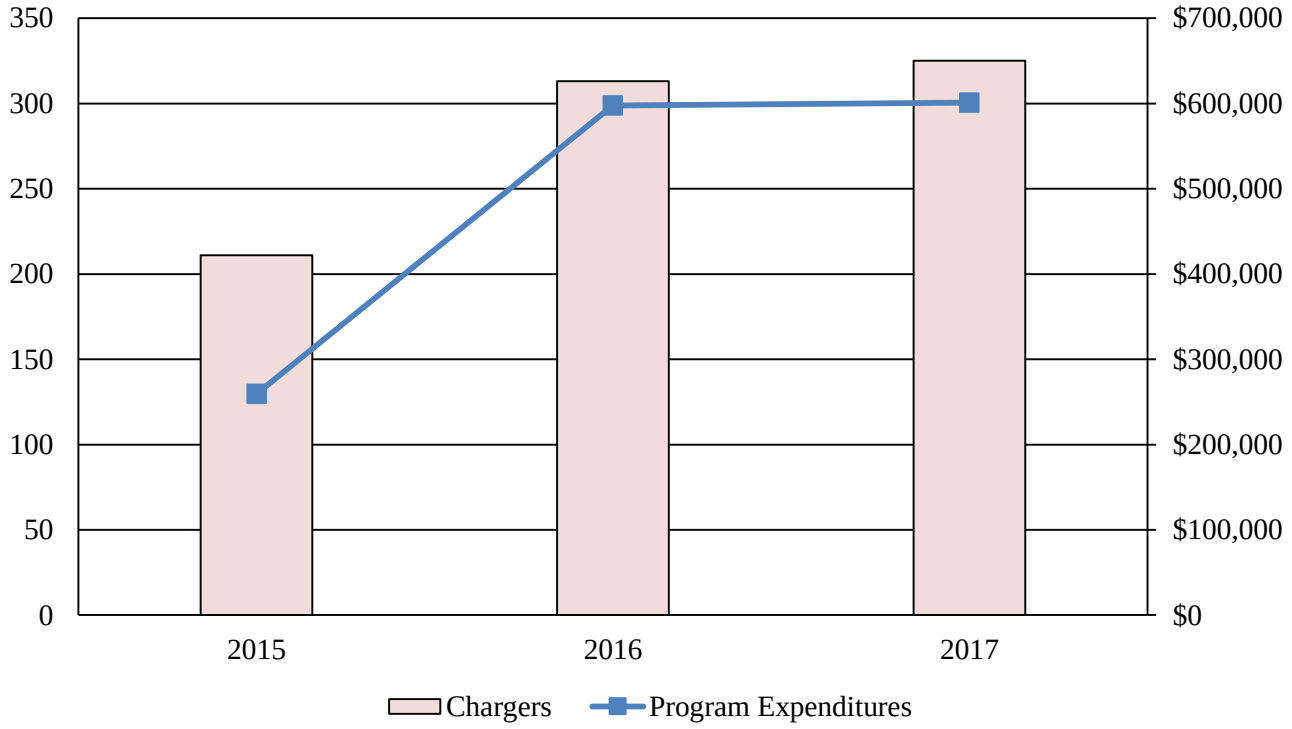
Source: Maryland Energy Administration

Electric Vehicle Charging Equipment Incentives

MEA has supported electric vehicle charging station installations through two different programs since fiscal 2012. Initially, the program was a tax credit program. MEA's support for this tax credit was indirect as the SEIF was transferred to the general fund to replace revenue lost from the tax credit. From fiscal 2012 through 2015, 190 chargers were installed at a total tax credit value of $33,545. Beginning in fiscal 2015, the program has been operated as a rebate funded directly in MEA. Total annual expenditures in the program are capped by statute. Not all charging equipment is installed

on residential properties through this program. **Exhibit 16** provides information on the number of chargers installed and program expenditures.

Exhibit 16
Electric Vehicle Charging Equipment Rebate Program
Fiscal 2015-2017



Source: Maryland Energy Administration

Conclusions

MEA has altered its program offerings over time. These changes often occurred in response to changes in available funding. However, several of the programs continue to exist but are provided by another entity. The passing of programs between entities indicates some evolution to ensure programs are funded and run by the most appropriate entity and to ensure there is not a duplication of effort for similar types of programs. The ability to evaluate energy savings compared to spending is limited. However, it generally appears that energy savings or the extent of renewable energy installed varies as would be expected with the level of expenditures. For some programs, such as the Clean Energy Communities program, MEA uses a competitive process to award funding, which should lead to the best energy savings value per dollar. Other programs are subject primarily to consumer interest.

Appendix 1
Current and Prior Year Budgets
Maryland Energy Administration
($ in Thousands)

	General Fund	Special Fund	Federal Fund	Reimb. Fund	Total
Fiscal 2017					
Legislative Appropriation	$0	$55,266	$5,921	$134	$61,321
Deficiency Appropriation	0	0	0	0	0
Cost Containment	0	0	0	0	0
Budget Amendments	0	3,351	0	0	3,351
Reversions and Cancellations	0	-23,613	-5,014	0	-28,628
Actual Expenditures	**$0**	**$35,003**	**$907**	**$134**	**$36,044**
Fiscal 2018					
Legislative Appropriation	$0	$54,272	$738	$132	$55,142
Cost Containment	0	0	0	0	0
Budget Amendments	0	0	0	0	0
Working Appropriation	**$0**	**$54,272**	**$738**	**$132**	**$55,142**

Note: The fiscal 2018 appropriation does not include deficiencies, targeted reversions, or across-the-board reductions. Numbers may not sum to total due to rounding.

Fiscal 2017

The fiscal 2017 actual expenditures of the Maryland Energy Administration (MEA) were $25.3 million lower than the legislative appropriation. Special fund expenditures were $20.3 million lower than the legislative appropriation. Special fund increases, totaling $3.4 million, occurred by budget amendment, primarily to replace special funds restricted in the General Administration budget ($3.3 million). The funds were restricted to be used for operating assistance to the Maryland Clean Energy Center (MCEC). Replacement funds were necessary to support a variety of operating expenses within MEA, including salaries and wages ($1.9 million), contracts ($927,312), various cost allocations ($106,402), and rent ($361,208). The remaining special fund increase ($50,649) was the result of the distribution of employee increments that were centrally budgeted. These increases were more than offset by special fund cancellations totaling $23.6 million. The largest share of the cancellations was the result of cost containment actions in the Renewable and Clean Energy Programs and Initiatives program taken by the agency due to lower than expected revenue from the Regional Greenhouse Gas Initiative (RGGI) carbon dioxide emission allowance auctions. These actions included delaying the use of Alternative Compliance Payments required under a condition of the approval of the Exelon Corporation and Constellation Energy Group merger ($7 million), reductions to programs funded by the Strategic Energy Investment Fund ($3.8 million), and a delay and change in planned use of funding received as a condition of the approval of the Certificate of Public Convenience and Necessity at Dominion Cove Point ($3 million).

Other significant special fund cancellations resulted from:

- language that required funds not used for the restricted purpose (operating assistance to MCEC) to be canceled ($3.3 million);

- startup delays for two new planned programs, a low- and moderate-income community solar initiative and a workforce development program in the Department of Labor, Licensing, and Regulation Employment Advancement Right Now program ($2 million);

- delays in an Animal Waste-to-Energy initiative ($1.6 million);

- lower than anticipated expenditures from the Offshore Wind Development Fund due to the timing of the Public Service Commission proceedings ($0.9 million).

- delays in awarding an evaluation, verification, and management contract ($0.8 million);

- lower than expected salaries and operating expenses in the General Administration program ($0.4 million);

- cancellation of the Non-residential Wood Energy Grant program due to lower than expected demand ($0.3 million); and

- lower than expected expenditures of the Energy Overcharge Restitution Fund ($0.2 million).

The fiscal 2017 federal fund expenditures of MEA were approximately $5 million lower than the legislative appropriation. The lower than expected expenditures derived largely from a cancellation of $5 million intended to be used for a State agency energy efficiency grant program. The federal funds were expected to be available due to a planned special and federal fund swap in the State Agency Loan Program, which could not be completed due to lower than expected revenue from RGGI auctions.

Fiscal 2018

There have been no changes to MEA's fiscal 2018 appropriation.

Appendix 2
Object/Fund Difference Report
Maryland Energy Administration

Object/Fund	FY 17 Actual	FY 18 Working Appropriation	FY 19 Allowance	FY 18 - FY 19 Amount Change	Percent Change
Positions					
01 Regular	28.00	28.00	28.00	0.00	0%
02 Contractual	6.50	10.00	9.50	-0.50	-5.0%
Total Positions	**34.50**	**38.00**	**37.50**	**-0.50**	**-1.3%**
Objects					
01 Salaries and Wages	$ 3,027,411	$ 3,071,387	$ 3,135,221	$ 63,834	2.1%
02 Technical and Spec. Fees	503,590	667,854	572,473	-95,381	-14.3%
03 Communication	72,126	56,982	55,829	-1,153	-2.0%
04 Travel	56,934	47,380	252,000	204,620	431.9%
07 Motor Vehicles	562	1,780	1,030	-750	-42.1%
08 Contractual Services	1,846,388	5,131,920	3,672,775	-1,459,145	-28.4%
09 Supplies and Materials	20,858	13,700	15,700	2,000	14.6%
10 Equipment – Replacement	24,240	15,800	15,569	-231	-1.5%
11 Equipment – Additional	4,580	15,739	14,014	-1,725	-11.0%
12 Grants, Subsidies, and Contributions	30,262,500	45,895,750	33,985,000	-11,910,750	-26.0%
13 Fixed Charges	114,236	223,660	228,870	5,210	2.3%
14 Land and Structures	110,208	0	0	0	0.0%
Total Objects	**$ 36,043,633**	**$ 55,141,952**	**$ 41,948,481**	**-$ 13,193,471**	**-23.9%**
Funds					
03 Special Fund	$ 35,003,181	$ 54,272,367	$ 41,041,122	-$ 13,231,245	-24.4%
05 Federal Fund	906,653	737,908	760,537	22,629	3.1%
09 Reimbursable Fund	133,799	131,677	146,822	15,145	11.5%
Total Funds	**$ 36,043,633**	**$ 55,141,952**	**$ 41,948,481**	**-$ 13,193,471**	**-23.9%**

Note: The fiscal 2018 appropriation does not include deficiencies, targeted reversions, or across-the-board reductions. The fiscal 2019 allowance does not include contingent reductions or cost-of-living adjustments

Appendix 3
Fiscal Summary
Maryland Energy Administration

Program/Unit	FY 17 Actual	FY 18 Wrk Approp	FY 19 Allowance	Change	FY 18 - FY 19 % Change
01 General Administration	$ 4,278,386	$ 5,354,452	$ 5,448,481	$ 94,029	1.8%
06 Energy Efficiency and Conservation Programs, Low- and Moderate-income Residential Sector	10,273,162	7,000,000	5,000,000	-2,000,000	-28.6%
07 Energy Efficiency and Conservation Programs, All Other Sectors	5,475,685	7,787,500	7,000,000	-787,500	-10.1%
08 Renewable and Clean Energy Programs and Initiatives	16,016,400	35,000,000	24,500,000	-10,500,000	-30.0%
Total Expenditures	**$ 36,043,633**	**$ 55,141,952**	**$ 41,948,481**	**-$ 13,193,471**	**-23.9%**
Special Fund	$ 35,003,181	$ 54,272,367	$ 41,041,122	-$ 13,231,245	-24.4%
Federal Fund	906,653	737,908	760,537	22,629	3.1%
Total Appropriations	**$ 35,909,834**	**$ 55,010,275**	**$ 41,801,659**	**-$ 13,208,616**	**-24.0%**
Reimbursable Fund	$ 133,799	$ 131,677	$ 146,822	$ 15,145	11.5%
Total Funds	**$ 36,043,633**	**$ 55,141,952**	**$ 41,948,481**	**-$ 13,193,471**	**-23.9%**

Note: The fiscal 2018 appropriation does not include deficiencies, targeted reversions, or across-the-board reductions. The fiscal 2019 allowance does not include contingent reductions or cost-of-living adjustments