D13A13
Maryland Energy Administration

Operating Budget Data

($ in Thousands)

	FY 16 Actual	FY 17 Working	FY 18 Allowance	FY 17-18 Change	% Change Prior Year
Special Fund	$39,010	$58,617	$54,282	-$4,334	-7.4%
Adjustments	0	0	-10	-10	
Adjusted Special Fund	**$39,010**	**$58,617**	**$54,272**	**-$4,344**	**-7.4%**
Federal Fund	1,051	5,921	740	-5,181	-87.5%
Adjustments	0	0	-2	-2	
Adjusted Federal Fund	**$1,051**	**$5,921**	**$738**	**-$5,183**	**-87.5%**
Reimbursable Fund	134	134	132	-2	-1.6%
Adjusted Reimbursable Fund	**$134**	**$134**	**$132**	**-$2**	**-1.6%**
Adjusted Grand Total	**$40,195**	**$64,671**	**$55,142**	**-$9,529**	**-14.7%**

Note: Includes targeted reversions, deficiencies, and contingent reductions.

- The fiscal 2018 allowance for the Maryland Energy Administration (MEA) decreases by $9.5 million, or 14.7%, compared to the fiscal 2017 working appropriation after accounting for contingent reductions. However, the fiscal 2017 working appropriation is overstated by $3.3 million because a budget amendment appropriated funds to replace a like amount of restricted special funds in MEA's administrative budget that will be canceled at close-out. After accounting for the fiscal 2017 overstated funds, MEA's fiscal 2018 allowance decreases by $6.2 million, or 10.2%.

- Special funds decrease by $1.04 million, or 1.9%, after accounting for the overstated special funds in fiscal 2017. While special funds are relatively evenly funded between fiscal years, there is a change in the source of funds, including an increase in funds available from an Animal Waste-To-Energy condition in the Exelon Corporation and Constellation Energy Group merger ($4.0 million) and Customer Investment Funds ($2.3 million) and a decrease in funds from Regional Greenhouse Gas Initiative (RGGI) revenue ($8.4 million).

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

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- Federal funds decrease by $5.2 million primarily due to the elimination of one-time funds included in the fiscal 2017 working appropriation from the American Recovery and Reinvestment Act of 2009.

Personnel Data

	FY 16 Actual	FY 17 Working	FY 18 Allowance	FY 17-18 Change
Regular Positions	32.00	28.00	28.00	0.00
Contractual FTEs	9.00	9.50	10.50	1.00
Total Personnel	**41.00**	**37.50**	**38.50**	**1.00**
Vacancy Data: Regular Positions				
Turnover and Necessary Vacancies, Excluding New Positions		1.41	5.03%	
Positions and Percentage Vacant as of 12/31/16		3.00	10.71%	

- There are no changes in the number of regular positions in MEA in the fiscal 2018 allowance.

- The fiscal 2018 allowance adds 1.0 new contractual full-time equivalent (FTE) in MEA. MEA indicates that the new FTE is 1.0 policy analyst with experience related to nuclear policy, federal energy agencies, and the regional transmission operator (PJM Interconnection, LLC.).

- As of January 1, 2017, MEA had 3.0 vacant positions (a vacancy rate of 10.71%). The number of vacant positions in MEA has been significantly reduced since January 1, 2016, when 15.0 positions were vacant. Of the reductions in vacancies, 4.0 positions were abolished since that date, and a net of 8.0 positions have been filled. Of the remaining vacancies, 2.0 positions have been vacant less than three months, and 1.0 has been vacant longer than one year.

- The turnover expectancy for MEA decreases from 15.4% to 5.0% in fiscal 2018. To meet its fiscal 2018 turnover expectancy, MEA would need to maintain 1.4 vacant positions.

Analysis in Brief

Major Trends

Program-specific Performance Measures: Language in the fiscal 2017 budget bill restricted funds in MEA until the agency submitted program-specific performance measures in the fiscal 2018 Managing for Results (MFR) submission. As requested, the fiscal 2018 MFR submission of MEA includes new measures related to annual energy savings for energy efficiency programs and renewable energy incentivized through MEA programs.

American Council for an Energy-Efficient Economy Scorecard: The American Council for an Energy-Efficient Economy (ACEEE) has produced an annual state scorecard since 2007, ranking states on a variety of measures reflecting state progress and investment in energy efficiency. Maryland has been in the top 10 of states in the ACEEE scorecard since 2011, and in the 2016 scorecard ranked ninth.

EmPOWER Maryland: The energy consumption reduction and peak demand reduction goals established in Chapter 131 of 2008 (the EmPOWER Maryland Energy Efficiency Act) reached the final year in calendar 2015. Due to the timing of the data release, calendar 2015 data was not available during the 2016 session. The MFR submission for the 2017 session indicates that Maryland failed to achieve either the 15% per capita peak demand reduction goal or the 15% per capita electricity consumption reduction goal by the end of calendar 2015.

Renewable Energy Generated: In calendar 2015, Maryland continued to increase the megawatt hours of renewable energy generated in-state, an increase of 4.5% compared to calendar 2014. As it has in recent years, in calendar 2015, residential and small commercial scale renewable energy growth (104.9%) outpaced commercial scale renewable energy growth (2.2%). However, commercial scale renewable energy continues to represent the majority of renewable energy generated in-state, 95.5% in calendar 2015.

Issues

RGGI Allocation and Outlook: After increasing for several years, allowance prices from the RGGI carbon dioxide emission allowance auctions decreased during calendar 2016 and have been below estimates upon which the budget was based in fiscal 2017. The declining revenue is expected to lead to a drawdown of the Strategic Energy Investment Fund (SEIF) balance. MEA has planned several actions to address the declining revenue, which include redistributing a portion of the SEIF balance in each fiscal 2017 and 2018. These redistributions decrease the energy assistance balance by a combined $9.0 million and administration balance by $2.9 million while increasing the funding available for energy efficiency and renewable/clean energy and climate change programs. These changes allow spending to continue through fiscal 2018 at a much higher level than new revenue alone would allow. However, over the long term, spending will need to be reduced if revenue continues at this lower pace.

Maryland Clean Energy Center Funding Sustainability: The Maryland Clean Energy Center (MCEC) was established without a direct funding source. Although some revenue has been available from various program activities, it has not been enough for MCEC to become self-sufficient. From fiscal 2009 through 2016, MCEC received loans totaling $1.3 million and a grant of $212,000 from MEA, in addition to funding for certain programmatic activity. Additional grant funds are provided in fiscal 2017 to ensure MCEC's survival this year. Chapter 577 of 2016 created a task force on MCEC. Among other responsibilities, the task force was to determine whether the outstanding balance of loans from MEA to MCEC should be converted to grants and to determine an appropriate amount of State annual grant funding that MCEC should receive for operating and program assistance as it works toward becoming self-sustaining. The work of the task force is ongoing. However, the fiscal 2018 budget includes $1.5 million as the first year of a five-year plan to seed a new Maryland Energy Innovation Fund, which will support the Maryland Energy Innovation Institute and MCEC. The fund and institute are established in proposed legislation (SB 313/HB 410).

Recommended Actions

		Funds	Positions
1.	Abolish 1 regular position that has been vacant longer than one year.	$ 64,240	1.0
2.	Add language making funding for the electric vehicle recharging equipment program contingent on legislation that extends the program.		
3.	Add language to make funding for the Maryland Clean Energy Center and the Maryland Energy Innovation Institute contingent on legislation.		
4.	Adopt committee narrative requesting a report on how the seed funding for the Maryland Energy Innovation Fund will be used in fiscal 2018.		
5.	Adopt committee narrative requesting information on programs for residential customers or State government customers.		
6.	Add a section in the budget bill requiring information on the Regional Greenhouse Gas Initiative revenue and allocation in the fiscal 2019 budget books.		
	Total Reductions	**$ 64,240**	**1.0**

Updates

Offshore Wind Development Fund Activities: The 2016 *Joint Chairmen's Report* (JCR) requested that MEA submit a report providing a detailed accounting of expenditures from the Offshore Wind Development Fund. MEA spent $3.0 million from the fund in fiscal 2016. MEA anticipates spending $2.3 million in fiscal 2017, and the fiscal 2018 allowance includes $2.6 million. At the close of fiscal 2018, MEA anticipates a balance of $8.6 million in the fund.

Electric Vehicle Charging Stations on Non-State Land: The 2016 JCR requested that MEA submit a report on the number of existing electric vehicle charging stations funded by the agency on non-State owned land for which the State pays the cost of the electricity. According to the report submitted in October 2016, MEA does not pay for electricity costs related to charging stations for private owners that were installed with funds received from the agency. MEA indicates that some State agencies pay electricity costs for electric vehicle charging in certain parking areas that have either paid access or limited public access.

Clean Energy Program Residential Property Study: Chapters 592 and 593 of 2016 required MCEC to conduct a study on the optimal design and implementation strategies for a residential clean energy loan program. In the report submitted on December 1, 2016, MCEC recommended that an additional study be conducted to develop a program that utilizes best practices, including necessary consumer protections, to allow the State to be in a position to act if certain federal guidance that currently creates a barrier to implementation is amended. MCEC also recommended that any enabling legislation for this type of program include a revenue stream. MCEC recommended that it be authorized to serve as the administrator and manager of a statewide program.

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, secure, and safe energy while maintaining energy independence, sustainability, and reliability through innovative and effective policies, programs, technologies, and financing mechanisms. Consistent with 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 consumers. 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. Program-specific Performance Measures

The Managing for Results (MFR) submission of MEA, with limited exception for two pay-as-you-go (PAYGO) programs, has historically focused on statewide activities rather than outcomes of MEA administered programs. Committee narrative in the 2015 *Joint Chairmen's Report* (JCR) requested that MEA begin reporting on performance related to agency programs and activities, along with progress towards State energy goals in its annual MFR submission beginning with the fiscal 2017 submission. However, the fiscal 2017 MFR submission of MEA did not include new measures to respond to the request. Language in the fiscal 2017 budget bill withheld funds from MEA until the agency submitted program-specific performance measures in its fiscal 2018 MFR submission. The fiscal 2018 MFR submission includes new program-specific performance measures. **The**

Department of Legislative Services (DLS) will recommend the release of the $100,000 in withheld special funds in a letter following the budget hearings if no objections are raised.

The new measures of MEA capture the annual energy savings for energy efficiency grant programs, separating programs that benefit low- and moderate-income households from those benefiting other residents. MEA also added a series of measures capturing the number of renewable energy grants that the agency provides in a year and the installed capacity of various renewable energy sources that the agency has incentivized through its grants and programs. Because these measures are new, limited historical data is available in the MFR. However, **Exhibits 1** and **2** show some of the information presented in these new measures.

Exhibit 1
Annual Energy Savings from Energy Efficiency Grant Programs
Fiscal 2015-2017 Est.
(in MMBTU)

	2015	2016	2017 Est.
Low- to moderate-income residents	33,253	31,287	32,441
All other programs	56,272	376,008	312,487

MMBTU: million British Thermal Units

Note: Fiscal 2016 data for all other programs captures a new program for Combined Heat and Power projects, which drastically increased savings.

Source: Maryland Energy Administration

Exhibit 2
Capacity of Renewable Energy Incentivized by MEA Grants
Fiscal 2015-2017 Est.

	2015	2016	2017 Est.
Solar photovoltaic technology (kW)	19,419	14,901	18,085
Wind capacity installed (kW)	0	9	11
Geothermal/ground source capacity installed (tons)	2,846	2,576	2,891
Biomass stove capacity installed (MMBTU/hour)	49,225	34,387	38,600
Solar thermal capacity incentivized (square feet)	35,142	3,021	3,391

kW: kilowatts
MEA: Maryland Energy Administration
MMBTU: million British Thermal Units

Source: Maryland Energy Administration

2. 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, which 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 public benefits programs and policies, transportation, building energy codes, combined heat and power (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.

This 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**, since the 2011 scorecard, Maryland has been ranked in the top 10 of states. After reaching a ranking of seventh in the 2015 scorecard, Maryland's ranking returned to ninth in the 2016 scorecard (a spot it held in the prior three scorecards).

Exhibit 3
Maryland Rankings
2009-2016 ACEEE Scorecard Results

	ACEEE Points	ACEEE Ranking
2008	21.5	12
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

ACEEE: American Council for an Energy-Efficient Economy

*Tied with at least one other state.

Note: The maximum number of points is 50 (higher number of points is better). Lower rank is better.

Source: American Council for an Energy-Efficient Economy

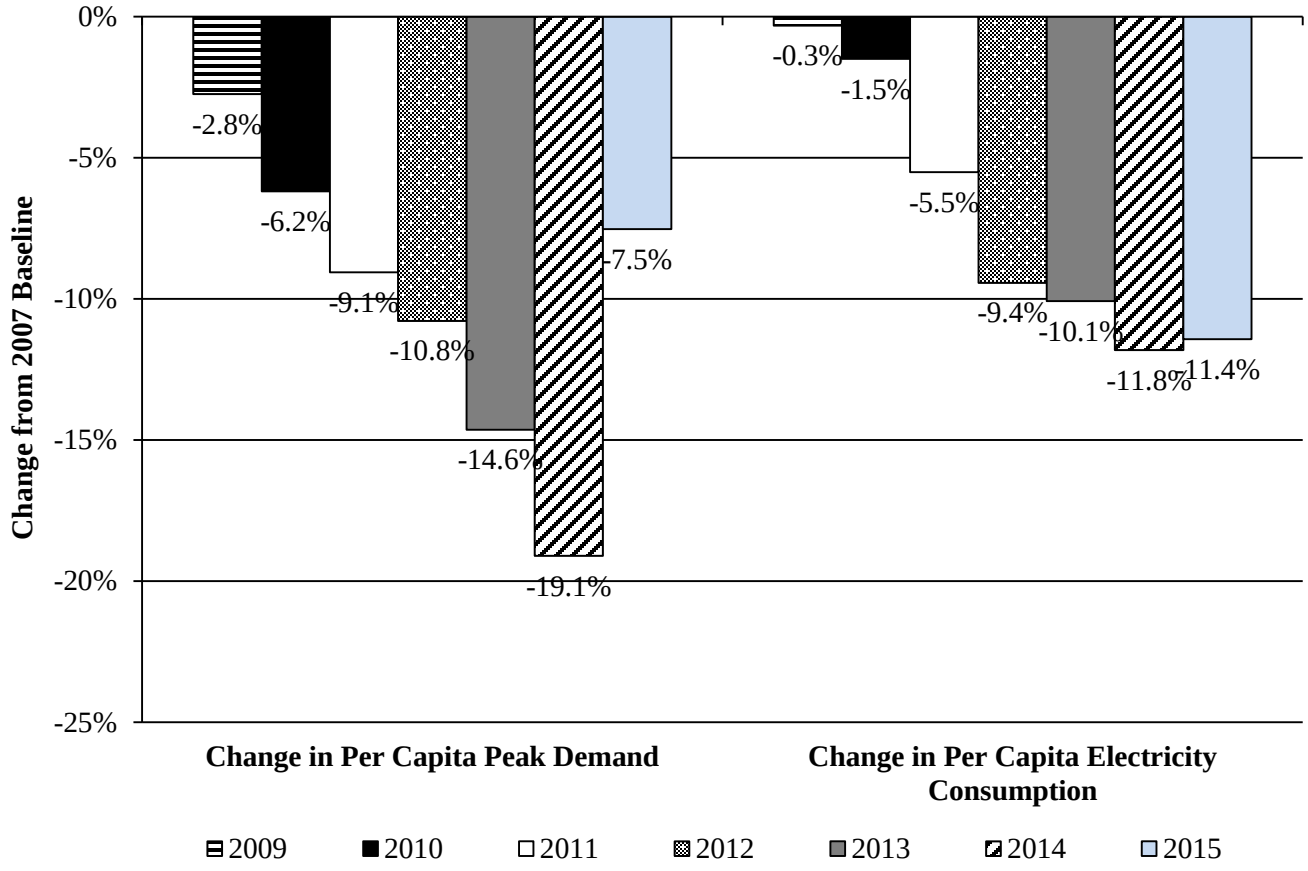
In the 2016 scorecard, Maryland's strongest category was in the area of CHP, where the State achieved all 4.0 of the available points. CHP systems use the waste heat from electricity generation for other purposes, such as space heating. Maryland was one of only three states to achieve the full 4.0 points for this category, which includes a total of 2.0 points for various policies that encourage CHP as a resource, as well as points for other supportive policies. Maryland also scored highly in the building energy codes category, receiving 6.5 of the available 7.0 points. Maryland received full credit for both residential and commercial code stringency because the State has adopted the most recent version of the energy code. Maryland's lowest performing category was in appliance efficiency standards, receiving 0.0 out of 2.0 points. ACEEE noted that Maryland's most recent appliance standards were adopted in 2007, and only 2 of 17 standards adopted have not been preempted by federal standards. However, only four states received any points in this category.

3. EmPOWER Maryland

Chapter 131 of 2008 (the EmPOWER Maryland Energy Efficiency Act), known as EmPOWER Maryland, established goals of a 15% per capita reduction in peak demand (highest electricity use) and a 15% per capita reduction in energy consumption by 2015. The timing of data release means that the fiscal 2018 MFR submission is the first that contains actual calendar 2015 results. As shown in **Exhibit 4**, the State did not meet either goal. After seeming to exceed the per capita peak demand reduction goal in calendar 2014, the calendar 2015 results showed far less progress, and in fact, a reversal of previous progress (with only a cumulative 7.5% reduction). Although to a much lesser degree, some of the earlier progress in reducing per capita electricity consumption was also reversed in calendar 2015 (an 11.4% reduction compared to 11.8% in calendar 2014). MEA indicates that weather played a factor in each of these reversals. For example, MEA noted that the peak demand programs are geared toward summer peaks, which is more typical of Maryland except in the Potomac Edison territory. However, extremely cold temperatures in February 2015 created an unusual winter peak. MEA explained that a number of the smaller utilities as well as the Southern Maryland Electric Cooperative did not weather normalize the data increasing the sensitivity of the measure to weather-related changes. In addition, the energy reduction measure is not weather normalized, so the cooler summer weather in calendar 2014 led to higher savings than occurred in calendar 2015, which had warmer weather.

In calendar 2015, the Public Service Commission (PSC) set new energy savings goals for the post-2015 EmPOWER period. Under the new goal, each major electric utility has an overall goal of achieving energy savings of 2.0% of the utility's weather normalized gross retail sales baseline. Each year's goal for each utility, however, is ramped up from the level of savings already achieved, by 0.2% per year until it reaches 2.0%. Unlike the prior goals that the State was specifically responsible for helping to achieve, the new goals are specific to each utility. DLS expects that the current EmPOWER Maryland per capita measures will be removed and/or replaced in future MFR submissions since these measures no longer reflect the State energy savings goals as defined by PSC.

Exhibit 4
EmPOWER Maryland Goal Progress
Calendar 2009-2015

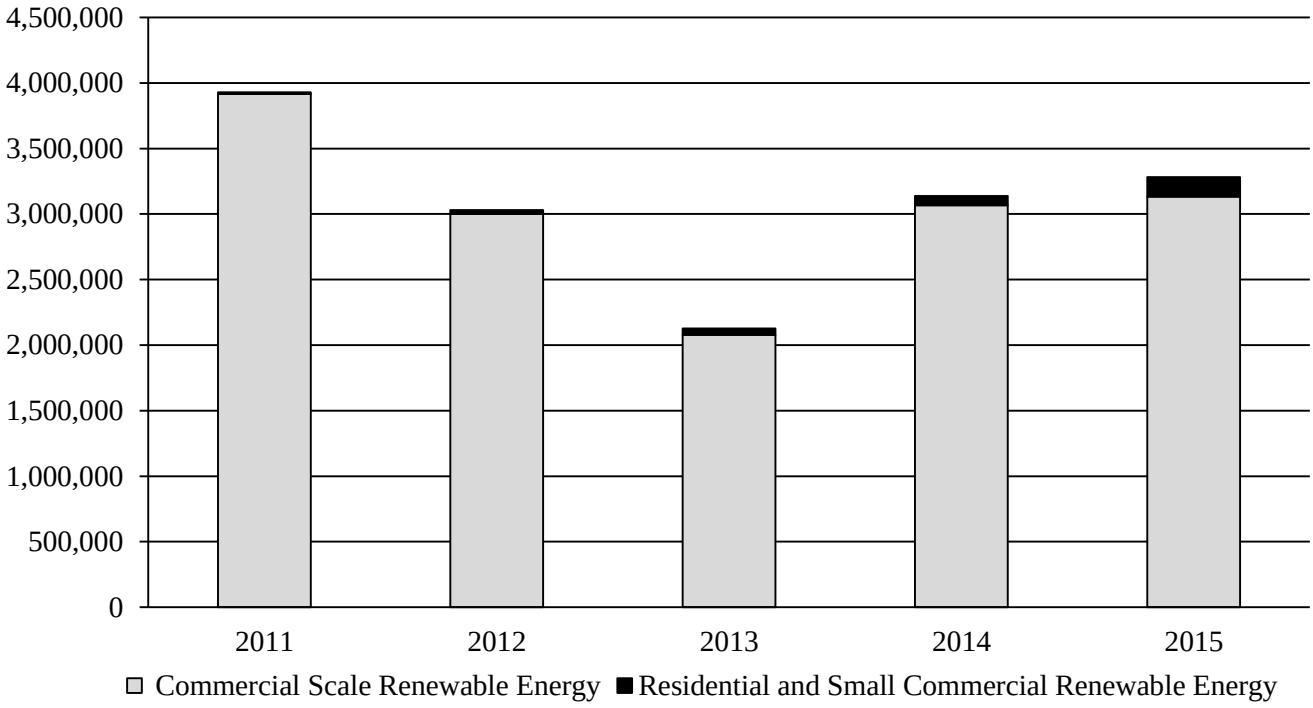


Source: Maryland Energy Administration; Department of Budget and Management; Governor's Budget Books

4. Renewable Energy Generated

MEA has a goal of increasing electricity generation fuel diversity through the increased use of in-state renewable energy. As shown in **Exhibit 5**, in calendar 2015, a total of 3.28 million megawatt hours of renewable energy were generated in-state, an increase of 4.5% from calendar 2014. Similar to other years, in calendar 2015, the rate of growth of in-state renewable energy has been higher for residential and small commercial scale renewable energy (104.9%) than for commercial scale renewable energy (2.2%). While commercial scale renewable energy continues to be the 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 2014, 97.7% of renewable energy generated in-state was commercial scale compared to 95.5% in calendar 2015.

Exhibit 5
Renewable Energy Generated
Calendar 2011-2015
(in Megawatt-hours)



Note: Calendar 2011 levels of renewable energy generated in-state were higher than normal due to hydroelectric generation resulting from high precipitation levels.

Source: Maryland Energy Administration; Department of Budget and Management

Fiscal 2017 Actions

Section 20 Position Reductions

Section 20 of the fiscal 2017 budget bill required 657 vacant positions to be abolished throughout State government. MEA had 2 positions abolished as a result of this section. MEA indicates that the abolished positions were vacant energy program manager positions. To absorb the impact of the position abolitions, MEA has altered the responsibilities of remaining energy program managers to ensure coverage of all programs operated by the agency. In addition, MEA had $80,000 of special funds reduced as part of the Section 20 reduction. The special fund reduction was less than the value of the salary and fringe benefits of the two positions (which totals slightly more than $145,000). MEA would be expected to cancel any unneeded funds in fiscal 2017 that result from these position abolitions.

Proposed Budget

As shown in **Exhibit 6**, the fiscal 2018 allowance of MEA decreases by $9.5 million (14.7%) compared to the fiscal 2017 working appropriation. However, the fiscal 2017 working appropriation is overstated by $3.3 million. Language in the fiscal 2017 budget bill restricted $3.3 million of special funds from MEA's administrative budget for a grant for operating support and assistance to the Maryland Clean Energy Center (MCEC). The restricted funds comprised a majority of MEA's administrative budget and required replacement to allow the agency to continue to operate. The restricted appropriation was replaced by budget amendment. As a result, the fiscal 2017 working appropriation contains both the restricted funds and the replacement funds, which leads to double budgeting of expenditures throughout MEA's fiscal 2017 working appropriation, even though the restricted funds are not being used for the restricted purpose and will eventually be canceled. After accounting for the double-budgeted funds, MEA's fiscal 2018 allowance decreases by $6.2 million (10.2%).

Exhibit 6
Proposed Budget
Maryland Energy Administration
($ in Thousands)

How Much It Grows:	Special Fund	Federal Fund	Reimb. Fund	Total
Fiscal 2016 Actual	$39,010	$1,051	$134	$40,195
Fiscal 2017 Working Appropriation	58,617	5,921	134	64,671
Fiscal 2018 Allowance	54,272	738	132	55,142
Fiscal 2017-2018 Amount Change	-$4,344	-$5,183	-$2	-$9,529
Fiscal 2017-2018 Percent Change	-7.4%	-87.5%	-1.6%	-14.7%

Where It Goes:

Personnel Expenses

Turnover expectancy decreases from 15.4% to 5.0%	$329
Reclassification due to hiring above budgeted salary levels	86
Social Security contributions	-18
Employee retirement after accounting for contingent reduction in Section 19	-39
Employee and retiree health insurance	-96
Regular earnings due to budgeting and filling vacancies at lower salary levels and the impact of position abolitions from Section 20 of the fiscal 2017 budget bill	-207
Other fringe benefit adjustments	-1

Where It Goes:

One-time Funding Adjustments	
Replacement of restricted funds leading to double budgeting in fiscal 2017	-3,300
Federal American Recovery and Reinvestment Act of 2009 funding anticipated to be available due to a fund swap in the State Agency Loan Program	-5,000
Offshore Wind	
Maryland Offshore Wind Business Development Fund	550
Offshore Wind Development Funds	400
Program Changes Due to Funding Availability or Agency Priorities	
Commercial and industrial energy efficiency grant program	-322
Renewable and clean energy programs (see Exhibits 8 and 9 for additional detail)	-400
Low- and moderate-income clean energy communities grant program	-3,305
Other Administrative or Program Changes	
Customer Investment Fund Net Zero Schools program extended due to delays in identifying a school to participate	2,332
Contractual employee payroll expenses due to one new contractual full-time equivalent and salary increases for grant administrators	152
Contractual employee turnover expectancy increases from 4.0% to 9.23% to account for State holidays	-39
Contractual employee health insurance	-44
End of a federal grant related to building code training	-143
Evaluation, measurement, and verification contract	-190
Rent primarily due to fiscal 2016 move to Montgomery Park building not accounted for in fiscal 2017	-191
Other changes	-84
Total	**-$9,529**

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

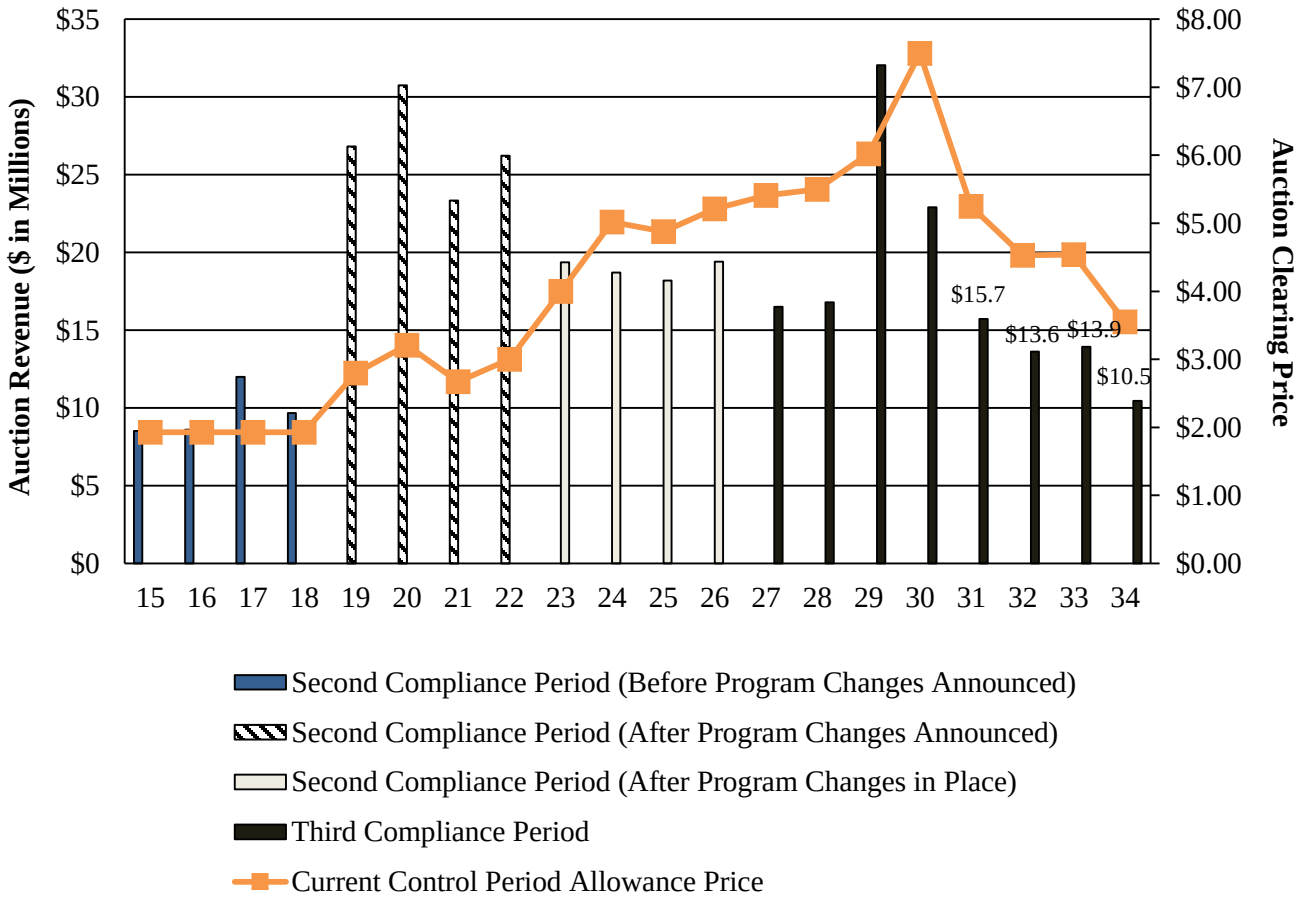
Regional Greenhouse Gas Initiative Revenue Declines Significantly Impact Fiscal 2017 and 2018 Spending

Regional Greenhouse Gas Initiative Revenue

In February 2013, Regional Greenhouse Gas Initiative (RGGI), Inc. announced changes to the RGGI carbon dioxide emission allowance program, including a reduction (45.0%) of the carbon dioxide emission allowance cap beginning in calendar 2014 and adjustments for banked allowances from before the cap change (which occur over a number of years). In addition, the cap is further reduced by

2.5% per year, as originally envisioned. As shown in **Exhibit 7**, in the initial period following the announcement of the program changes (auctions 19 to 22), auction clearing prices and the percent of allowances available for sale that sold increased, which led to higher auction revenue, even before the changes went into effect. Auction clearing prices generally continued to increase through calendar 2015 and reached $7.50 in Auction 30 (December 2015). Revenue did not always increase, however, due to variations in the number of allowances available for sale.

Exhibit 7
RGGI Quarterly Auction Results for Maryland
Auction 15-34



RGGI: Regional Greenhouse Gas Initiative

Note: Auction 15 was held on March 14, 2012, and Auction 34 was held on December 7, 2016.

Source: Regional Greenhouse Gas Initiative, Inc.

Beginning in calendar 2016, the trend of increasing auction clearing prices reversed. The auction clearing price in Auction 34 (December 2016) of $3.55 was less than half of the price in the December 2015 auction. This dramatic reduction in clearing price was not anticipated, and the fiscal 2017 budget was developed based on the anticipation of considerably higher auction clearing prices. Revenue from the auctions held to date in fiscal 2017 has totaled $24.4 million rather than the nearly $44.0 million that was expected in these two auctions during the 2016 session. The 2017 session RGGI revenue forecast generally stabilizes the revenue forecast in fiscal 2017 and the first half of fiscal 2018 at a level more reflective of the recent auctions but anticipates a modest recovery in prices in the second half of fiscal 2018. While fund balances in the SEIF help buffer some of the decline in fiscal 2017, reductions in spending in the energy efficiency programs occur in fiscal 2018.

MEA has planned some adjustments to the fiscal 2017 spending plan, largely in the Renewable and Clean Energy Programs category. In addition, fiscal 2017 spending plans for certain one-time and limited time funding (Exelon Corporation (Exelon) Animal Waste-To-Energy liquidated damages payments and Dominion Cove Point funds, as detailed later) budgeted in the Renewable and Clean Energy Program were changed, in part, to moderate the impact of RGGI-related revenue reductions, as well as to reflect changes in priorities for use of the funds. These actions distort the year-to-year comparison among the various renewable and clean energy programs.

Exhibit 8 provides detail on the adjustments made to MEA's fiscal 2017 Renewable and Clean Energy Programs spending plan. In total, MEA plans to cancel $5.75 million of RGGI-related SEIF due to the revenue declines. In some instances, this decline is partially or fully offset by changes in the planned spending from the Exelon Animal Waste-To-Energy liquidated damages payment (also referred to as an Alternative Compliance Payments (ACP). **Exhibit 9** compares the revised fiscal 2017 spending plan to the fiscal 2018 allowance. As shown in this exhibit, the fiscal 2018 allowance increases by $13.4 million compared to the current fiscal 2017 spending plan rather than the decrease of $400,000 shown in Exhibit 6. The majority of this increase results from Exelon Animal Waste-To-Energy ACP funds ($9.0 million) and the delayed use of the Dominion Cove Point funds for grid resiliency ($3.0 million).

The fiscal 2018 allowance includes two increases related to an announcement on January 3, 2017, made by Governor Lawrence J. Hogan, Jr. on his environmental agenda. The fiscal 2018 allowance increases funding from $600,000 to $1.2 million for the Electric Vehicle Recharging Equipment Rebate program. The Electric Vehicle Recharging Equipment Rebate program would have expired in fiscal 2017 under Chapters 359 and 360 of 2014, which established the program. Legislation (SB 315/HB 406) has been introduced to extend the rebate program through fiscal 2020, reduce the incentive levels, and increase the maximum volume of rebates under the program to $1.2 million. MEA indicates that the reduction in rebates reflects a maturing market for electric vehicles. **DLS recommends language making the funding for the program contingent on legislation extending the program.**

Exhibit 8
Fiscal 2017 Planned Spending Changes
Renewable and Clean Energy Programs

	Reductions from SEIF	Reallocation of ACP	Net Change
Residential Renewable Energy Grant Program	-$500,000	$500,000	$0
Commercial Renewable Energy Grants	-485,000	0	-485,000
Community Wind Development Grant Program	-1,000,000	500,000	-500,000
Solar PV in Parking Lots Grant Program	-1,000,000	1,000,000	0
Game Changes Grant Program	-500,000	0	-500,000
Maryland Smart Energy Communities Grant Program	-250,000	0	-250,000
Combined Heat and Power Grant Program	-500,000	0	-500,000
Community Solar Grant Program	0	1,000,000	1,000,000
Grid Resiliency/Microgrid Program	-1,500,000	0	-1,500,000
Non-residential Wood Energy Grant Program	-500,000	0	-500,000
Maryland Clean Energy Center operating grant	485,000	0	485,000
Green Job Training (DLLR EARN Program)	0	1,000,000	1,000,000
Animal Waste-To-Energy Program	0	-9,000,000	-9,000,000
SEIF and ACP Cancellations	**-$5,750,000**	**-$5,000,000**	**-$10,750,000**
Grid Resiliency Surcharge Offset			-3,000,000
Total Planned Special Fund Cancellations			**-$13,750,000**

ACP: Alternative Compliance Payments
DLLR: Department of Labor, Licensing, and Regulation
EARN: Employment Advancement Right Now program
PV: photovoltaic
SEIF: Strategic Energy Investment Fund

Source: Maryland Energy Administration

Exhibit 9
Fiscal 2017 and 2018 Program Spending Comparison
Renewable and Clean Energy Programs
($ in Thousands)

	2017	2018	Difference
Low- and Moderate-income Solar	$0	$5,000	$5,000
Grid Resiliency/Microgrid Program	0	3,000	3,000
Solar PV in Parking Lots Grant Program	1,000	3,000	2,000
Animal Waste-to-Energy Program	2,000	4,000	2,000
Maryland Energy Innovation Fund seed funds	0	1,500	1,500
Electric Vehicle Recharging Equipment Rebate Program	600	1,200	600
Community Wind Development Grant Program	500	1,000	500
Commercial Renewable Energy Grant Program	515	750	235
Residential Renewable Energy Grant Program	2,900	2,900	0
Game Changer Grant Program	500	500	0
Maryland Smart Energy Communities Grant Program	750	750	0
Combined Heat and Power Grant Program	2,000	2,000	0
Communications/Marketing Education	150	150	0
Community Solar	1,000	1,000	0
Freedom Fuels Grant Program	2,000	2,000	0
Alternative Fueling Stations Grant Program	2,000	2,000	0
Mathias Agriculture Renewable Energy Grant Program	250	250	0
Non-residential Wood Energy Grant Program	500	500	0
Maryland Clean Energy Center Operating Grant	485	0	-485
Green Job Training (DLLR EARN Program)	1,000	0	-1,000
Total Planned Spending	**$18,150**	**$31,500**	**$13,350**

DLLR: Department of Labor, Licensing, and Regulation
EARN: Employment Advancement Right Now program
PV: photovoltaic

Note: Funds for Green Jobs training in the DLLR EARN program are budgeted within DLLR at the same ($1.0 million) level of funding in the fiscal 2018 allowance as is being provided through the Maryland Energy Administration fiscal 2017 budget.

Source: Maryland Energy Administration; Governor's Budget Books

In addition, the fiscal 2018 allowance includes $1.5 million of seed funding for the Maryland Energy Innovation Fund (MEIF), which is used to fund the new Maryland Energy Innovation Institute that was also part of the January 3 announcement. This funding will be discussed further in Issue 2.

Exelon Waste-To-Energy

In February 2012, PSC issued an order approving the merger between Exelon and Constellation Energy Group (Constellation) with certain conditions. One of these conditions consisted of requirements related to the development of new animal waste-to-energy generation. The order gave the State several options for this condition to be met, including Exelon paying the State liquidated damages totaling $44 million if the State had chosen neither of the other options by December 31, 2016. PSC expressed intent that the funds from the liquidated damages be used to support the creation of new Tier 1 renewable energy and be paid into the SEIF and treated in the manner as ACP under the Renewable Portfolio Standard (RPS).

The State chose neither of the options and anticipated the receipt of the liquidated damages in the fiscal 2017 budget. The fiscal 2017 budget includes $11 million of the $44 million. However, MEA now anticipates that only $6 million of these funds will be used, and MEA has altered the initial plans for how those funds would be used, as shown in Exhibit 8. The fiscal 2018 allowance in total includes $18 million from these funds, the majority of which is included in the allowance of MEA ($15 million). MEA intends to use the funding largely in the same manner as in fiscal 2017 but at higher funding levels.

The most significant change in the planned use is $5 million dedicated to low-income community solar. In both fiscal 2017 and 2018, MEA plans an overall Community Solar Pilot to assist interested residents to participate. The additional $5 million will particularly assist those in the low- to moderate-income communities that participate in the three-year Community Solar Pilot Program. The focus is on funding both solar and energy storage (battery) projects. The specific projects in the low- to moderate-income program are expected to include projects in community buildings within low- to moderate-income neighborhoods that will allow the buildings to retain critical electric functions (such as lighting, ventilation, air conditioning/heating, and the ability to charge batteries) during extended electric outages.

MCEC indicated in a presentation before the House Appropriations Committee Transportation and Environment Subcommittee briefing on January 19, 2017, that in the past year it has worked on a program called Baltimore SHINE, which is a low- to moderate-income solar initiative. Under Section 10-806(e) of the Economic Development Article, MCEC is to coordinate with MEA and may not duplicate programs or activities of MEA without consent of MEA. **MEA should discuss how MEA and MCEC work together to ensure programs are not duplicated.**

Dominion Cove Point

In April 2013, Dominion Cove Point LNG, LP (DCP) filed an application with PSC for a Certificate of Public Convenience and Necessity (CPCN) to construct a 130-megawatt nameplate capacity electric generation station. On May 30, 2014, PSC granted (in order 83672) the CPCN for the new electric generating station to DCP subject to a number of conditions. One of the conditions requires a contribution of $8 million annually for five years (a total of $40 million) from DCP to the

SEIF beginning within 90 days of the commencement of construction of the facility. The contribution was required to be used solely for:

- renewable and clean energy resources;
- greenhouse gas reduction or mitigation programs;
- cost-effective energy efficiency and conservation programs, projects, or activities; or
- demand response programs that are designed to promote changes in electric usage by customers.

The SEIF began receiving contributions from DCP related to this condition in calendar 2015, but these funds did not appear in the State budget until fiscal 2017, due to the uncertain timing of the receipt. The fiscal 2017 budget included funding from the first three years of payments ($24 million), the majority of which was budgeted for a new Maryland Department of the Environment (MDE) PAYGO program for wastewater treatment plant upgrades that meet PSC's criteria for use of the funds. A portion ($3 million) was included in MEA's budget to be used for a grid resiliency surcharge offset. However, these funds will not be used in fiscal 2017 due to administrative challenges with program implementation and are instead programmed again in the fiscal 2018 allowance to be used for grid resiliency efforts (such as, microgrids and energy storage). The fiscal 2018 allowance otherwise includes the fourth year of payments in MDE for the second year of funding for the PAYGO program.

Federal American Recovery and Reinvestment Act Funding

A portion of the funding that MEA received from the American Recovery and Reinvestment Act of 2009 (ARRA) was used for additional capitalization in the State Agency Loan Program (SALP) (approximately $7.0 million). The SALP is one of two PAYGO programs in MEA and is used for State agency energy efficiency projects, often in combination with energy performance contracts. ARRA funds carry a number of requirements, including wage requirements, environmental reviews, historic preservation reviews, and buy America requirements that made the funds difficult to lend. These requirements, under ARRA rules, continue to follow the funds as the loans are repaid and recycled into new loans.

MEA planned to re-fund a portion of the ARRA capitalization of the SALP with the SEIF ($5 million) in fiscal 2017. The ARRA funds that would have become available due to the fund swap are budgeted within MEA's fiscal 2017 budget for use for State agency energy efficiency projects. These funds were expected to be one-time funds and are, as expected, eliminated in the fiscal 2018 allowance. However, due to revenue declines in the RGGI revenue discussed earlier and resulting declines in SEIF balance, the planned fund swap was put on hold, and the $5 million will not be available to be used in fiscal 2017. MEA still expects in the future to undertake this fund swap, which may result in similar one-time funding included in future budgets.

Offshore Wind Business Development Fund

The fiscal 2018 allowance from the Maryland Offshore Wind Business Development Fund (MOWBDF) increases by $550,000 compared to the fiscal 2017 working appropriation, providing a total of $1.0 million. MEA is planning to use these funds for two programs: (1) an Offshore Wind Business Development Grant Program, which will assist with market entry and facility upgrades for emerging businesses entering the offshore wind industry; and (2) an Offshore Wind Workforce Development Grant Program, which will provide grants for the development of, or improvements to, workforce training centers providing technical and safety standard training for skilled trades that are used in the construction, installation, and operations and maintenance of an offshore wind project.

MEA estimates that $2.1 million of the MOWBDF will be available at the close of fiscal 2018 based on currently planned expenditures. However, the MOWBDF could see an infusion of funds depending on the outcome of a case pending before PSC. Chapter 3 of 2013 (the Maryland Offshore Wind Energy Act) established a second set of capitalization funds for the MOWBDF from any approved Offshore Wind Renewable Energy Credit (OREC) applicant. The Act requires that an approved applicant must provide $6.0 million over three years ($2.0 million within 60 days of approval, one year after the initial deposit, and two years after the initial deposit) to the fund. Two companies have submitted applications for ORECs, and PSC is expected to make its decision in the case reviewing these applications in May 2017. Under this timeline, if one or both applications are approved, additional funding could be available to the MOWBDF in fiscal 2018.

Across-the-board Reductions

The fiscal 2018 budget bill includes a $54.5 million (all funds) across-the-board contingent reduction for a supplemental pension payment. Annual payments are mandated for fiscal 2017 through 2020 if the Unassigned General Fund balance exceeds a certain amount at the close of the fiscal year. MEA's share of this reduction is $9,693 in special funds and $1,977 in federal funds. This action is tied to a provision in the Budget Reconciliation and Financing Act (BRFA) of 2017.

Issues

1. RGGI Allocation and Outlook

Chapters 127 and 128 of 2008 established the SEIF primarily to receive revenue from RGGI carbon dioxide emission allowance auctions. The chapters also established an allocation of the revenue from the quarterly RGGI carbon dioxide 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 revenue held in the SEIF available from different fund sources (such as ACP from the RPS including the Animal Waste-to-Energy payment, the Offshore Wind Development Fund, the Customer Investment Fund, and Cove Point funds) 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

Certain distributions of RGGI revenue are made before the funding is allocated under the statutory formula. In fiscal 2018, these include dues owed to RGGI, Inc. and a transfer to the Transportation Trust Fund (TTF) to recover lost revenue associated with the Electric Vehicle Excise Tax Credit. This transfer, which had been $1.3 million in recent years, was set to expire in fiscal 2017. Governor Hogan has introduced legislation (SB 315/HB 406) that extends the tax credit to cars purchased before July 1, 2020, and increases the transfer of revenue from the SEIF to the TTF to a maximum of $2.4 million to replace the revenue lost as a result of the tax credit from fiscal 2018 through 2020, in addition to some modifications of qualifications and the value of the tax credit. The RGGI revenue distribution plan assumes a $2.4 million transfer reflecting the legislation to continue the transfer at the higher level.

Exhibit 10 provides information on the current allocation of RGGI revenue and compares the fiscal 2018 allowance of RGGI-supported SEIF to the statutory requirements. Spending from the programs may be lower than the allocation due to funding needs of programs or higher than the allocation (if sufficient fund balance exists). In general, spending in the fiscal 2018 allowance is higher than RGGI revenue alone could support. The largest difference between the fiscal 2018 allowance and the statutory allocation is in the energy assistance program, which is expected to have the highest fund balance at the close of fiscal 2017. Other programs also have substantial deviations, primarily due to the realignment of fund balances between programs and a distribution of fund interest. Only the administration program is budgeted to spend less than anticipated revenue.

Exhibit 10
Fiscal 2018 Allowance Compared to Required RGGI Distribution
($ in Millions)

	Revenue Available without Transfer
Revenue Estimate	$50.0
RGGI dues	-0.6
Electric Vehicle Tax Credit	-2.4
Revenue Available for Distribution	**$47.0**

	Fiscal 2018 Allowance	Distribution as Determined by Statue		Fiscal 2018 Revenue Allocation	Difference between Allowance and Allocation
Energy Assistance	**$37.0**	**at least**	**50%**	**$23.5**	**$13.5**
Department of Human Resources	$37.0				
Low- and Moderate-income Energy Efficiency	**$8.5**	**at least**	**10%**	**$4.7**	**$3.8**
Maryland Energy Administration	$7.0				
Department of Housing and Community Development	1.5				
Energy Efficiency, All Other Sectors	**$8.5**	**at least**	**10%**	**$4.7**	**$3.8**
Maryland Energy Administration	$5.3				
Department of Health and Mental Hygiene	2.3				
Department of General Services	1.0				

	Fiscal 2018 Allowance	Distribution as Determined by Statue		Fiscal 2018 Revenue Allocation	Difference between Allowance and Allocation
Renewable Energy, Climate Change, Resiliency, Energy Education	**$17.0**	**at least**	**20%**	**$9.4**	**$7.6**
Maryland Energy Administration	$13.5				
Maryland Department of the Environment	3.5				
Administration	**$4.2**	**no more than $5.0 million, up to**	**10%**	**$4.7**	**-$0.5**
Maryland Energy Administration	$4.2				
Total	**$75.2**			**$47.0**	**$28.2**

RGGI: Regional Greenhouse Gas Initiative

Note: Excludes funds for RGGI dues from the allocation provided to the Maryland Department of the Environment. Fiscal 2018 allowance figures exclude non-RGGI funds, which are budgeted as the Strategic Energy Investment Fund (SEIF).

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

Fiscal 2018 Allowance Comparison

Exhibit 11 compares the spending from RGGI-related funds in the SEIF in the fiscal 2018 allowance with the fiscal 2016 actual and fiscal 2017 working appropriation. The comparison excludes non-RGGI-related funds budgeted in the SEIF. In total, the fiscal 2018 allowance of RGGI-related revenue in the SEIF decreases by $18.2 million compared to the fiscal 2017 working appropriation, or $14.9 million after accounting for the double-budgeted administration funds discussed earlier. The double-budgeted funds account for nearly all of the change in administrative spending, which otherwise decreases by slightly less than $400,000.

Only the Maryland Department of the Environment receives a net increase in funding ($768,563) from RGGI in the fiscal 2018 allowance. This increase supports climate change and greenhouse gas reduction efforts primarily due to increased requirements for the department passed as part of Chapter 11 of 2016 (the Greenhouse Gas Emissions Reduction Act – Re-authorization). However, based on the revised fiscal 2017 spending plan in the Renewable Energy, Climate Change category discussed earlier, the fiscal 2018 allowance for MEA would actually increase spending by approximately $1.4 rather than decrease by $4.4 million, as shown in Exhibit 11.

Exhibit 11
Comparison of RGGI-related Appropriations
Fiscal 2016-2018

	2016 Actual	2017 Working Appropriation	2018 Allowance	Change
Energy Assistance (Department of Human Resources)	**$42,106,797**	**$42,000,000**	**$37,000,000**	**-$5,000,000**
Low- and Moderate-income Energy Efficiency	**$12,075,052**	**$12,305,000**	**$8,500,000**	**-$3,805,000**
Maryland Energy Administration	9,935,356	10,305,000	7,000,000	-3,305,000
Department of Housing and Community Development	2,139,696	2,000,000	1,500,000	-500,000
Energy Efficiency, All Other Sectors	**$11,282,463**	**$9,622,206**	**$8,525,732**	**-$1,096,474**
Maryland Energy Administration	6,798,933	5,572,333	5,275,000	-297,333
Department of Health and Mental Hygiene	3,142,407	2,613,794	2,250,732	-363,062
Department of General Services	1,341,123	1,436,079	1,000,000	-436,079
Renewable Energy, Climate Change	**$18,423,656**	**$21,631,437**	**$17,000,000**	**-$4,631,437**
Maryland Energy Administration	15,590,167	17,900,000	13,500,000	-4,400,000
Maryland Department of the Environment	2,833,489	2,731,437	3,500,000	768,563
Maryland Department of Agriculture	0	1,000,000	0	-1,000,000
Administration (Maryland Energy Administration)	**$3,793,447**	**$7,881,926**	**$4,204,060**	**-$3,677,866**
Total	**$87,681,415**	**$93,440,569**	**$75,229,792**	**-$18,210,777**

RGGI: Regional Greenhouse Gas Initiative

Note: Excludes funds for RGGI dues from the allocation provided to the Maryland Department of the Environment, which are separate from the statutory allocation. Excludes non-RGGI sources budgeted as the Strategic Energy Investment Fund.

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

RGGI Fund Balance

The increase in revenue resulting from the RGGI program changes was not anticipated in the fiscal 2013 or 2014 budgets, and, as a result, the higher than anticipated revenue in fiscal 2013 was unused and added to the SEIF balance. While fund balances have been used to support additional program spending for several years, some fund balances continued to grow due to a combination of higher than anticipated revenue and lower than anticipated spending. Fund balances remained significant at the close of fiscal 2016, even after a fiscal 2015 transfer to the General Fund. As shown in **Exhibit 12,** the closing fiscal 2016 fund balance from RGGI-related accounts in the SEIF totaled $63.4 million with the majority of the balance in the energy assistance account ($45.4 million).

Exhibit 12
Strategic Energy Investment Fund Balance
Fiscal 2016-2018 Est.
($ in Millions)

	2016 Actual	2017 Est.	2018 Est.
Energy Assistance	$45.4	$22.2	$5.7
Energy Efficiency and Conservation Programs, Low- and Moderate-income Sector	3.3	0.0	0.0
Energy Efficiency and Conservation Programs, All Other Sectors	3.8	3.7	1.3
Renewable Energy, Clean Energy, Climate Change, Education, and Resiliency	6.2	0.4	2.7
Administration	4.6	4.9	2.4
Subtotal RGGI Portion	***$63.4***	***$31.1***	***$12.1***
Renewable Portfolio Standard	$0.0	$38.0	$20.0
Offshore Wind Development	11.4	9.2	6.6
Cove Point	16.0	3.0	0.0
Total	**$90.8**	**$76.3**	**$33.7**

Note: Estimated revenue in fiscal 2017 and 2018 include auction results in September and December 2016 and projected results for six auctions. Numbers may not match the Strategic Energy Investment Fund Appendix T in the Governor's budget books due to adjustments made to reflect appropriation levels and isolate Regional Greenhouse Gas Initiative Program spending.

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

As noted earlier, the early auctions in fiscal 2017 produced considerably less revenue than was expected during the 2016 session and upon which the fiscal 2017 budget was based. In addition, two allocations (low- and moderate-income energy efficiency and renewable and clean energy programs) relied on a certain amount of fund balance to support the fiscal 2017 appropriation, even with the revenue expectation during the 2016 session. Several planned adjustments in fiscal 2017 and 2018 allow spending to be largely maintained at the appropriated levels despite the lower revenue, with the exception of the MEA appropriation for renewable and clean energy as discussed earlier. These adjustments include realigning fund interest ($9.2 million), which had accumulated over multiple years and was previously held separately, to support renewable and clean energy and the energy efficiency programs and realigning fund balance in fiscal 2017 and 2018. MEA notes that the transfer from the energy assistance account represents balance that accumulated during a period (prior to the BRFA of 2014) when the allocation for this purpose was up to 50%, indicating the allocation could be less than 50%. Similarly, the allocation for administration (the other account from which funds are being transferred) is up to 10%. In total, the fund balance realignment:

- increases funds available for low- and moderate-income energy efficiency programs ($5.8 million);
- increases funds available for general energy efficiency programs ($3.4 million);
- decreases the fund balance for administration programs ($2.9 million); and
- decreases the fund balance for energy assistance program ($9.0 million).

These adjustments allow for spending to continue in fiscal 2018 with smaller declines than would otherwise be expected. However, limited fund balances are expected to remain at the end of the close of fiscal 2018, as shown in Exhibit 12, a total of $12.1 million in RGGI-related accounts. Further adjustments may be necessary if revenue continues to come in below expectations, and spending in future years will largely need to be constrained to the level of anticipated revenue, which could result in significant spending declines beginning in fiscal 2019 if auction clearing prices do not recover.

2016 Program Review

RGGI began conducting a second program review in calendar 2015, which has continued through calendar 2016 and into calendar 2017. The discussion has included adjustments related to Clean Power Plan Compliance, potential changes to the RGGI cap post 2020 (the last year of scheduled cap reductions), flexibility mechanisms (including the cost containment reserve and offsets), control period schedule, regulated sources, and increasing participation. RGGI has held six stakeholder meetings between November 17, 2015, and January 31, 2017.

In the November 21, 2016 meeting, RGGI reviewed several potential program change options. RGGI noted that the cap reductions being considered would be expected to start in calendar 2021. Stakeholders reviewed several options for cap reductions including continuing the current 2.5% per

year cap decline or increasing the decline of the cap to 3.5% per year. Other changes discussed were related to:

- adjustments for allowances that are banked from calendar 2014 through 2020;
- the minimum clearing price;
- the eligible offset categories;
- the cost containment reserve (for example, a potential increase in cost containment reserve trigger price or a change in the size of the cost containment reserve); and
- the addition of an emissions containment reserve (which would hold a certain portion of the annual cap in reserve if the clearing price reaches a certain low level that is assumed to indicate an oversupply of allowances or banked allowances in the market). The purpose of an emissions containment reserve would be to ensure a certain level of emissions reduction.

MEA should comment on the anticipated timing of any announcements related to program changes.

2. Maryland Clean Energy Center Funding Sustainability

MCEC was established by Chapter 137 of 2008 as a body politic and corporate and an instrumentality of the State. 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 Programs

Financing Programs

MCEC operates four financing programs.

- ***Maryland Home Energy Loan Program:*** Began operations in fiscal 2011 with funds provided by MEA ($3.4 million in fiscal 2010 from funds available through the ARRA). In the first two years of the program, MCEC operated the program as a direct lending program. During fiscal 2012, MCEC revised the program and partnered with Mariner Finance. Since that time, Mariner Finance has been the provider of loans with MCEC providing a loan loss reserve and an interest rate subsidy.

- ***Maryland Clean Energy Capital Program (MCAP):*** Works with governmental and nonprofit partners on energy savings projects. MCEC issues bonds on behalf of the entity to finance projects.

- ***Commercial Property Assessed Clean Energy Finance (PACE):*** Under a PACE program, the clean energy and conservation measures are financed and repaid through tax assessment associated with the property. MCEC offers businesses financing for these projects through an equity partnership with Pace Financial Services. These financings are only able to occur in jurisdictions that have passed local laws and ordinances allowing for these types of loans (11 jurisdictions by the end of 2016). MCEC indicates one project has been financed to date under this program.

- ***Maryland SAVES:*** Was established in the summer of 2016. Under this program, MCEC works with a third-party administrator to assist local governments in financing renewable energy, energy efficiency, and alternative fuel vehicle and infrastructure projects using Qualified Energy Conservation Bonds awarded to the jurisdiction but not yet issued. However, no projects have been undertaken in this program to date.

Nonfinancing Activities

In addition to financing programs, MCEC has engaged at times in a number of nonfinancing activities. In fiscal 2011, $1 million of funds available from ARRA were restricted in MEA's budget for MCEC to be used for residential consumer energy education and local government funding assistance.

MCEC also initially was involved in an incubator project with the Maryland Clean Energy Technology Incubator Network (CETI) through a partnership with bwtech@UMBC. MCEC and bwtech@UMBC received a grant of $75,000 from Baltimore County to establish the CETI. The CETI is no longer operational.

MCEC also conducts education and outreach efforts including in-person and webinar training. MCEC also responds to requests for assistance by consumers. MCEC has also convened various events to bring energy stakeholders together including clean energy summits, legislative receptions, hosting workgroups, and coordinating meetings and holding receptions for visiting international groups.

MCEC has also conducted several studies at the request of the General Assembly, including reviewing the opportunities for a green bank and residential clean energy program financing (the residential and clean energy program financing study is discussed in Update 3 of this analysis).

MCEC Funding

MCEC was established as a nonbudgeted entity. Chapter 137 did not establish a funding mechanism for MCEC for either startup costs or ongoing activities. MCEC has the ability to charge fees for the programs that it offers and receives revenue or could potentially receive revenue from the

MCAP, Commercial PACE, and Maryland SAVES programs. Due to limited activity and the new nature of some of these programs, revenue from these sources has been limited. MCEC has operated with an operating loss from fiscal 2013 through 2016 and in three of those four years had operating revenue of less than $300,000.

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 also received a grant of $212,000 in fiscal 2016 for operating costs. While the loans for operating support have allowed MCEC to continue to operate, the loans are expected to be repaid. To date, MCEC has made one payment on the start-up loan ($50,000). This payment was made in fiscal 2014. No subsequent payments have been made on that loan, or any payments on the other loans. MEA has an overdue payment on the startup loan. The other loans are not expected to begin repayment until fiscal 2018.

The fiscal 2017 budget bill restricted $3.3 million of funding from MEA's budget to be used for a grant to MCEC for operating support and assistance. This grant would have provided funding for both administrative activities and additional programmatic activities. These funds are not being released. However, MEA has agreed to provide a smaller grant (totaling $485,000) to MCEC to allow the entity to continue operations through the fiscal year, while future funding options are under discussion.

Task Force on MCEC

Chapter 577 of 2016 established a task force to review a variety of issues related to MCEC. The report of the task force was due December 1, 2016. The full task force met twice during the 2016 interim to review the work of various State financing instrumentalities including MCEC and how the instrumentalities could assist MCEC. Other small group meetings were also held to continue discussions. However, the task force requested an extension of the report's due date until January 30, 2017, because it had not completed its work. The task force was still specifically considering whether the outstanding balance of the fiscal 2009 loans from MEA should be converted to a grant and determining an appropriate amount of State annual grant funding for MCEC as it works toward becoming self-sustaining. The task force has not submitted its report as of this writing.

Maryland Energy Innovation Institute

On January 3, 2017, Governor Hogan announced plans to create a new Green Energy Institute, now known as the Maryland Energy Innovation Institute. The Maryland Energy Innovation Institute is expected to be a collaboration between the University of Maryland Energy Research Center (UMERC) and MCEC. UMERC is an interdisciplinary initiative in the A. James Clark School of Engineering, which also involves faculty from the College of Computer, Mathematical, and Physical Sciences; the College of Agriculture and Natural Resources; and the School of Public Policy. The mission of UMERC is to (1) develop energy-efficient and environmentally sustainable technologies and practices; (2) educate the public about energy and environmental technologies; (3) inform the policy debate on issues of sustainable energy and the environment; and (4) improve energy security by developing indigenous and sustainable energy resources and promoting policies with a positive environmental impact.

Legislation (SB 313/HB 410) has been introduced to formally create this institute along with other changes. The legislation:

- modifies the statute of MCEC to:
  - clarify that MCEC collaborates with MEA in the collection, analysis, and dissemination of industry data;
  - increase the size and alter the composition of MCEC's Board of Directors, including adding the director of the Maryland Economic Development Corporation and the director of the Maryland Health and Higher Education Facilities Authority;
  - alter the appointment of the chair of the MCEC Board of Directors from election by members to appointment by the Governor;
  - remove the requirement that MCEC act as a clearinghouse for information and material pertinent to clean energy technology, education, and deployment and persons engaged in the clean energy industry, consumers, and financial institutions;
  - clarify that MCEC conduct activities in consultation with MEA; and
  - require that MCEC post financial audits on its website;
- establishes the Maryland Energy Innovation Institute in the A. James Clark School of Engineering at the University of Maryland, College Park (UMCP);
- establishes the purposes of the institute to (1) collaborate with State academic institutions to participate in clean energy programs; and (2) develop and attract private investment in clean energy innovation and commercialization in the State; and
- establishes a MEIF, managed by the institute, which is to be used by the institute and MCEC, which MCEC may use for administrative and operating costs, making grants or loans, providing equity investment financing, and other loan guarantees, equity, investment, or other private financing.

The MEIF is seeded over five years (fiscal 2018 to 2022) through transfers of $1.5 million from the SEIF to the MEIF. The first year of transfers is included in the budget of MEA, as noted earlier. **DLS recommends adding budget bill language that makes the funding contingent on legislation creating the Maryland Energy Innovation Institute. DLS also recommends committee narrative requesting a report on the planned uses of the fiscal 2018 funding including clarifying the amount that will be available to support MCEC.**

Recommended Actions

		Amount Reduction		Position Reduction
1.	Abolish 1 regular position (position identification number 087328) and reduce associated funding. This position has been vacant longer than one year. As of January 1, 2017, the Maryland Energy Administration had 3 vacant positions.	$ 64,240	SF	1.0

2. Add the following language to the special fund appropriation:

, provided that $1,200,000 of this appropriation made for the purpose of the Electric Vehicle Recharging Equipment Rebate Program is contingent on the enactment of HB 406/SB 315 that extends the electric vehicle recharging equipment rebate program beyond fiscal 2017.

Explanation: The fiscal 2018 allowance of the Renewable and Clean Energy Programs and Initiatives of the Maryland Energy Administration includes $1.2 million to support an extended and expanded Electric Vehicle Recharging Equipment Rebate Program. Chapters 359 and 360 of 2014 established the program for fiscal 2015 through 2017. If the program is not extended by legislation, the funds are not required because the program is scheduled to terminate.

3. Add the following language to the special fund appropriation:

Further provided that $1,500,000 of this appropriation made for the purpose of the Maryland Energy Innovation Fund is contingent on enactment of HB 410/SB 313, which creates the Maryland Energy Innovation Institute and the Maryland Energy Innovation Fund.

Explanation: The fiscal 2018 allowance of the Renewable and Clean Energy Programs and Initiatives in the Maryland Energy Administration includes $1.5 million for the Maryland Energy Innovation Fund, which will support the Maryland Clean Energy Center (MCEC) and the Maryland Energy Innovation Institute. The $1.5 million included in the fiscal 2018 MEA budget is the first year of a planned five years of transfers from the Strategic Energy Investment Fund to the Maryland Energy Innovation Fund. The Maryland Energy Innovation Institute is a planned joint collaboration between MCEC and the University of Maryland Energy Research Center. Neither the institute nor the fund currently exist. These funds are unnecessary without the enactment of legislation to create the fund and institute.

4. Adopt the following narrative:

Planned Uses of the Seed Funding for the Maryland Energy Innovation Fund: SB 313/HB 410 establishes a new Maryland Energy Innovation Institute and a new Maryland Energy Innovation Fund (MEIF). The MEIF is to be used by both the institute and for administrative and operating support of the Maryland Clean Energy Center (MCEC). The legislation establishes seed funding for the MEIF through transfers from the Strategic Energy Investment Fund of $1.5 million in each fiscal 2018 through 2022. The fiscal 2018 budget includes the first year of these transfers. Little is known about how these funds will be used and how much will be available from the funds to support MCEC. The committees request that the Maryland Energy Administration (MEA), in conjunction with MCEC and the Maryland Energy Innovation Institute, report on how seed funds in fiscal 2018 will be used and how much of the funding will be available to support MCEC.

Information Request	**Authors**	**Due Date**
Report on planned uses of the MEIF seed funding	MEA MCEC Maryland Energy Innovation Institute	September 1, 2017

5. Adopt the following narrative:

Programs for Residential or State Government Customers: To fully understand the scope of work and impact of programs offered by the Maryland Energy Administration (MEA), the committees request MEA provide a report on recent and current programs offered by the agency impacting residential and State government customers including:

- clean energy communities low- and moderate-income grant program;
- clean energy grant program;
- Electric Vehicle Charging Equipment Rebate Program;
- energy education;
- building code programs;
- appliance rebate program;
- home performance rebate program;

- multifamily energy efficiency program;
- State agency loan program;
- State agency building energy efficiency program;
- federal advancing energy efficiency for public buildings grant; and
- alternative transportation programs.

The report should include for each program (1) a description of the performance measures collected (or planned); (2) a description of how MEA evaluates (or plans to evaluate the program; (3) program expenditures by fiscal year for fiscal 2010 to 2017 (to the extent available); (4) number of customers served by fiscal year for fiscal 2010 to 2017 (to the extent available); (5) annual energy savings by fiscal year for fiscal 2010 to 2017 (to the extent available); (6) kilowatt hours of renewable energy installed by fiscal year for fiscal 2010 to 2017 (to the extent available); and (7) program requirements.

Information Request	**Author**	**Due Date**
Programs for residential and State government customers	MEA	July 1, 2017

6. 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 2019 budget and annually thereafter as an appendix to the Governor's budget books. This report shall include information for the actual fiscal 2017 budget, fiscal 2018 working appropriation, and fiscal 2019 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 2017 actual, fiscal 2018 working appropriation, and fiscal 2019 allowance.

Explanation: This language requires the Department of Budget and Management (DBM) to include as an appendix in the Governor's budget books for fiscal 2019 with 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 differs slightly from that included in prior years by asking for fund balance information on each SEIF subaccount, which generally reflects the RGGI allocations but also includes other funds held in the SEIF. The report does not require the SEIF balances to account for only RGGI-related fund balances within allocations.

Information Request	**Author**	**Due Date**
Report on revenue assumptions and use of RGGI auction revenue	DBM	With submission of the Governor's fiscal 2019 budget books and annually thereafter

Total Special Fund Reductions	**$ 64,240**	**1.0**

Updates

1. Offshore Wind Development Fund Activities

Background

In February 2012, PSC approved the merger of Exelon and Constellation with certain conditions. Two conditions required contributions by Exelon related to offshore wind. 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.

The 2016 JCR included committee narrative requesting that MEA provide a detailed accounting of expenditures from the Offshore Wind Development Fund during fiscal 2016 and projected expenditures during fiscal 2017. The report was submitted in September 2016.

Offshore Wind Development Fund Expenditures

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:

- $3.0 million ($1.0 million in fiscal 2014 and $2.0 million in fiscal 2015) to PSC for consultants; and

- $4.0 million ($1.5 million in fiscal 2014 and 2015 and $1.0 million in fiscal 2016) for the MOWBDF created by the Act.

Following these transfers, $23.0 million of the Offshore Wind Development Fund was available for use by MEA for offshore wind activities. Of the remaining funds, MEA explained that it developed an allocation plan under which the majority of the funding was to be provided for project development assistance ($17.0 million) and the remaining funds to be used for business and economic development ($5.0 million) and administration ($1.0 million). Project development assistance includes a variety of environmental and other surveys including high resolution geophysical surveys, biological and habitat surveys, remote sensing and atmospheric resource characterization, and geotechnical and meteorological (MET) tower deployment assistance.

MEA began receiving an appropriation for these funds in fiscal 2014. In fiscal 2016, MEA indicates it spent a total of $3.0 million (excluding transfers required in Chapter 3), while in fiscal 2017 MEA plans to spend a total of $2.3 million. **Exhibit 13** provides a comparison of the spending between these two years. These expenditures and planned expenditures include funds encumbered from prior years and will not match actual expenditures shown in the budgets for those years.

Exhibit 13
Offshore Wind Development Fund Expenditures
Fiscal 2016-2017 Est.

	2016 Actual	2017 Est.	Total
MET tower loan (wind speed)	$2,000,000	$500,000	$2,500,000
Department of Natural Resources (environmental studies)	617,923	793,047	1,410,970
Business Network for Maryland Offshore Wind grant	250,000	315,000	565,000
Offshore Renewable Energy Credit application support	0	500,000	500,000
University of Maryland Baltimore County LIDAR study (wind speed)	130,102	133,760	263,862
University of Maryland Baltimore County MET data fusion model development (wind speed modeling)	10,147	30,373	40,520
Total	**$3,008,172**	**$2,272,180**	**$5,280,352**

LIDAR: Light Detection and Ranging
MET: meteorological

Note: Expenditures represent all spending in that fiscal year, including prior year encumbered funds, not just funds appropriated in fiscal 2016 and 2017, respectively.

Source: Maryland Energy Administration

The largest share of the funds in fiscal 2016 and 2017 have been used for activities related to measuring wind speeds including a total of $2.5 million to the current holder of the Maryland offshore wind lease (US Wind Inc.) for costs related to the design, construction, installation, and operations of a MET tower. The data gathered from the MET tower will be publicly available. In addition, MEA has spent or planned to spend $263,862 for the University of Maryland Baltimore County (UMBC) in these two years to conduct a wind speed study using Light Detection and Ranging (LIDAR) technology. MEA is providing an additional $40,520 in these two years for UMBC to use the LIDAR data among other data to develop a MET data fusion model to support a long-term wind climatology assessment of wind speed and wind speed variability.

MEA has also provided or plans to provide a total of $1.4 million to the Department of Natural Resources to conduct a variety of environmental studies including a baseline ecological survey, benthic habitat mapping (ocean floor), aerial survey of whales, passive acoustic monitoring of marine mammals, and a black sea bass impact study.

The remainder of the fiscal 2016 and 2017 spending is directed toward an ongoing grant to the Business Network for Maryland Offshore Wind, now known as Business Network for Offshore Wind (B-NOW), and for technical support related to the OREC application support. Two applications for ORECs are pending before PSC with a decision expected in May 2017.

The fiscal 2018 allowance includes $2.6 million from the fund primarily for two efforts. MEA intends to continue support of B-NOW ($220,000). The majority of the funding ($2.28 million) is expected to be used for technical and research initiatives with the National Offshore Wind Innovation Center (NOW-I-C). NOW-I-C is a collaboration of B-NOW and researchers from five Maryland universities. The specific research initiatives have not been decided, but among the options are grid interconnection studies, turbine wake effect studies, studies related to technologies to reduce energy production losses, and floating LIDAR technology. MEA also intends to spend a limited amount of funds for administrative expenses. Based on planned fiscal 2017 and 2018 expenditures, the Offshore Wind Development Fund is expected to have balance of $8.6 million at the close of fiscal 2018.

2. Electric Vehicle Charging Stations on Non-State Land

Background

MEA has funded electric vehicle charging stations through three primary programs: the Electric Vehicle Recharging Equipment Rebate program, Electric Vehicle Infrastructure program, and Alternative Fuel Infrastructure Program. The Electric Vehicle Recharging Equipment Rebate program began as an income tax credit that was created in Chapter 402 of 2011 and transitioned to a rebate program as a result of Chapters 359 and 360 of 2014. Under the tax credit, individuals or corporations could receive an income tax credit for 20% of the cost of qualified electric vehicle recharging equipment placed in service in a tax year (not to exceed $400 or the tax liability of the entity for the year). Credits were limited to 1 system per individual or 30 systems per business. As initially created, the rebate program provides a rebate for the lesser of 50% of the costs of acquiring and installing qualified equipment or a certain dollar amount ($900 for individuals, $5,000 for businesses or units of State or local government, $7,500 for a retail service station dealer). MEA has provided rebates for 750 charging stations under the rebate program from fiscal 2015 through September 30, 2016. As discussed earlier, the rebate is scheduled to end in fiscal 2017, but legislation has been proposed to extend the program and reduce the rebates.

The Electric Vehicle Infrastructure Program targets direct current (DC) fast charging stations. These chargers allow a higher range for a shorter period of time. Funds for the program were available from a settlement with American Electric Power. MEA indicates that in fiscal 2015 (the only year of the program) it provided grants for 26 fast charging stations at 21 locations through this program. DC fast charging stations are an eligible use of grant funds under the Alternative Fuel Infrastructure Program. This program has a maximum grant of $45,000. In fiscal 2016, the program funded 14 fast charging stations. The program is available again in fiscal 2017 and is expected to be available in fiscal 2018.

MEA also offers a solar parking lot canopy program with electric vehicle chargers grant program which provides up to $300 per kilowatt hour of solar capacity (up to a maximum of $150,000 per project). The grants will be available to nonprofit organizations, businesses, and State and local governments.

Electric Vehicle Charging Stations on Non-State Land

The 2016 JCR requested that MEA submit a report on the number of existing electric vehicle charging stations funded by the agency on non-State owned land for which the State pays the cost of the electricity. MEA indicates that recipients of funding from its three primary programs do not receive funding to subsidize the cost of electricity at charging stations. Residential customers are responsible for their own electricity use resulting from the recharging station. The owners of the charging equipment (for nonresidential stations) are responsible for determining who will pay for the electricity.

State Payment for Electricity at Charging Stations

MEA explained, however, that there are limited examples of situations in which State agencies pay for electricity at charging stations. Those charging stations are owned by the agencies on land that the agency controls. The access to those stations is either restricted in some way or requires the public to pay for access. The examples of State agency payment of electricity are:

- Calvert Street Garage in Annapolis (paid for by the Department of General Services (DGS)) for 1 220 volt charging station and 10 110 volt charging outlets; access to the garage is limited to State employees during business hours who may be driving State vehicles but is available to the public on evenings and weekends;

- Schaeffer Building Garage (paid for by DGS) for PSC for 2 220 volt charging stations; access to the garage is limited to State personnel;

- Montgomery Park Building (partially paid for by the MDE) for 6 charging stations in a lot restricted for access with a State identification card for MDE vehicles and 6 charging stations in a public lot that require payment;

- UMCP (paid for by the university) for 20 charging stations, which are free to the public but were not paid for by the State or MEA;

- Baltimore Washington International – Thurgood Marshall Airport (paid for by the Maryland Aviation Administration (MAA)) for 10 charging stations which are located in paid garages (MAA is considering a review to charge fees, although this change would be to discourage cars from being left in the space for long periods of time); and

- Maryland Transit Administration (MTA) sites (paid for by MTA), for 30 of 31 charging stations at 19 transit sites (an MEA grant supported 13 of these charging stations). However, overall costs are low due to low utilization.

3. Clean Energy Program Residential Property Study

Background

Chapters 592 and 593 of 2016 required that MCEC conduct a study to determine optimal design and implementation strategies for a residential clean energy loan program. The study was required to consider whether these strategies will work advantageously with loans made by private lenders for residential energy efficiency and renewable energy projects. MCEC was to consult with MEA, the Maryland Association of Counties, the Maryland Bankers' Association, clean energy loan providers, the Chesapeake Climate Action Network, and the Sierra Club. The report with recommendations was due on October 1, 2016. MCEC held four workgroup meetings related to this study between July and October 2016. The report was submitted on December 1, 2016.

Advantages

The report primarily focuses on residential PACE. This type of program is expected to increase access to capital for residential energy efficiency because it is not tied directly to individual's credit score. In addition, because the lien is on the property, and it could be transferred to the next homeowner, it may encourage homeowners to make an investment in these products even if they may not expect to stay in the property for the full life of financing. MCEC also notes that energy efficiency contractors are supportive of this type of program because it could increase jobs and business opportunities. Contractors also noted that it may speed the approval process for jobs that may be slower in other financing programs.

Concerns and Potential Solutions

The report highlighted a number of concerns expressed by banking associations and consumer protection organizations about these types of loans. These concerns include:

- PACE loans are not tied to an individual's ability to pay;
- there is potential for a default resulting in a foreclosure sale because the loan is tied to the property;
- the current prohibition by the Federal Housing Financing Agency (FHFA) on Fannie Mae and Freddie Mac from purchasing loans for properties with a residential PACE lien (because these liens hold a priority position over the mortgage in a default);
- consumer education concerns, including whether homeowners understand that the lien/loan remains with the property when it is sold, whether the homeowner understands that they could be asked to repay the loan by a buyer or mortgage lender upon selling or refinancing, whether homeowners understand the implication of PACE loans on the tax bill;

- a consumer's ability to compare PACE loan terms with conventional financing terms; and

- contractor payments, including whether consumers have recourse for contractor performance.

However, in the report, MCEC also highlighted potential solutions to these concerns, including actions taken in other states to alleviate the concerns. These solutions include:

- methods to limit loans (to address individual ability to pay), such as setting a maximum percent of the value of the property that the loan can cover or requiring the owner to have a certain amount of equity in the property;

- alternative underwriting criteria (to address individual ability to pay), such as whether the owner is current on property tax and mortgage payments, whether the homeowner has missed a recent (within 30 months) mortgage payment, whether the homeowner has been in bankruptcy in the last seven years, whether the homeowner has had a notice of default in the past year, or whether an involuntary lien has been recorded against the property;

- providers contractually agreeing to subordinate their rights to foreclose for nonpayments and the rights to proceeds from the foreclosure (to address the lien status of a residential PACE loan versus mortgage) as has occurred in California (where a successful program operates); and

- withholding full payment until work is complete (to address concerns related to contractor performance).

In summer 2016, MCEC noted that although FHFA maintains a prohibition on purchasing mortgages with a residential PACE lien, the Federal Housing Administration and the Department of Veterans Affairs made a policy change to allow the approval, purchase, and refinancing of mortgages with a PACE obligation.

The National Consumer Law Center suggested a variety of factors be considered in the implementation of such a program including (1) applying consumer mortgage protections to PACE loans; (2) underwriting assessments for ability repay; (3) using accurate appraisals of the property; (4) requiring adequate disclosures; (5) canceling or providing other recourse to the homeowner if energy savings do not materialize; (6) consulting with stakeholders and consumer protection agencies for the development of best practices related to sales tactics; (7) supporting standards for energy auditors; (8) supporting minimum standards for contractors; and (9) instituting a homeowner guaranty fund.

MCEC stated that a central oversight authority (which it also referred to as a Joint Powers Authority) should oversee a residential PACE program development and administration. MCEC explained that this type of authority could be the issuer of the tax-exempt debt that provides the financing for the loans. This authority could also provide technical support and uniformity across jurisdictions (which would make it easier for contractors and homeowners to understand). MCEC also suggested a residential PACE program should have a program administrator that would be a financer

who interactors with the customers and contractors (there could be one or multiple vendors that serve in this role). Individual tax authorities, in Maryland this would be counties or city governments, must pass local ordinances to allow for the program to exist in its jurisdiction and would need to record liens, collect and remit payments, and recover defaulted payments.

Conclusions and Recommendations

MCEC stated that there was no consensus among the workgroup regarding whether a residential PACE program should be established. However, MCEC noted that current State policy goals result in the need for implementing clean energy and conservation measures, and current public funding is not sufficient to address potential demand. MCEC explained that residential PACE programs have been deployed in other states (primarily California and Florida with a few new programs in other states), and best practices could be utilized to develop a program model in Maryland. MCEC again highlighted the remaining concerns related to FHFA current prohibition on the purchases of a mortgage with a first lien PACE loan attached. MCEC stated that any potential program must adequately protect consumers. MCEC also explained that a centralized State oversight authority is part of the best practices in implementing this program, and MCEC could serve in this function but does not currently have resources to do so. Other regional or local authorities could also serve this function.

MCEC's recommendations were that:

- work should continue to design a statewide program that uses best practices and includes consumer protections, so that the State would be positioned to act if FHFA guidance on the purchase of mortgages with these liens is amended;

- enabling legislation should identify a funding source and authorize MCEC to serve as the central oversight authority;

- consideration should be given to the U.S. Department of Energy best practice guidance for management and consumer protection and incorporated into any program developed in Maryland; and

- stakeholders identified in Chapter 592 and 593 of 2016 be engaged in any future program design efforts.

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

	General Fund	Special Fund	Federal Fund	Reimb. Fund	Total
Fiscal 2016					
Legislative Appropriation	$0	$45,130	$1,051	$134	$46,316
Deficiency Appropriation	0	0	0	0	0
Budget Amendments	0	43	51	0	94
Reversions and Cancellations	0	-6,163	-51	0	-6,215
Actual Expenditures	**$0**	**$39,010**	**$1,051**	**$134**	**$40,195**
Fiscal 2017					
Legislative Appropriation	$0	$55,266	$5,921	$134	$61,321
Cost Containment	0	0	0	0	0
Budget Amendments	0	3,351	0	0	3,351
Working Appropriation	**$0**	**$58,617**	**$5,921**	**$134**	**$64,671**

Note: Does not include targeted reversions, deficiencies, and contingent reductions. Numbers may not sum to total due to rounding.

Fiscal 2016

The Maryland Energy Administration's (MEA) fiscal 2016 actual expenditures were $6.1 million lower than the legislative appropriation, all in special funds. An increase of $43,000 occurred by budget amendment to restore the 2% employee pay reduction. This increase was more than offset by cancellations totaling $6.2 million, primarily due to higher than expected employee vacancies, which also resulted in lower than expected activity in programs. MEA also canceled funds budgeted from the Environmental Trust Fund of Energy Overcharge Restitution Funds. Other factors contributing to special fund cancellations were lower than expected demand for the Maryland Smart Energy Communities program (particularly the low- and moderate-income portion and the clean and renewable energy portion), difficulties in identifying a third school in the Customer Investment Fund Net Zero Schools program, and inadvertently canceling rather than encumbering funds for grants that will need to be funded in fiscal 2017. These cancellations occurred in programs including the commercial and industrial energy efficiency grant program, the Mathias agricultural program, energy education, clean energy grants programs, game changers program, communications/marketing, transportation programs, grid resiliency/microgrid program, and the Maryland Offshore Wind Business Development Fund.

The fiscal 2016 federal fund expenditures of MEA were essentially at the level of the legislative appropriation. Increases totaling $51,192 occurred by budget amendments to account for funds remaining from a federal grant for energy audits on State buildings ($25,200), a higher than anticipated award of State Energy Program funds ($15,292), and the restoration of the 2% pay reduction ($10,000). These increases were offset by cancellations of $51,310, largely due to lower than anticipated expenditures from the Clean Cities grant.

Fiscal 2017

MEA's fiscal 2017 appropriation has increased by $3.35 million compared to the legislative appropriation, entirely in special funds. An increase of $3.3 million replaces funds restricted through budget bill language in the General Administration program of MEA for a grant to the Maryland Clean Energy Center. The replacement occurs in the areas of salaries and wages, contractual services, rent, and various State cost allocations. The remaining increase of $50,649 occurs as a result of the distribution of centrally budgeted employee increments.

Appendix 2
Audit Findings

Audit Period for Last Audit:	May 13, 2013 – June 30, 2016
Issue Date:	January 2017
Number of Findings:	1
Number of Repeat Findings:	0
% of Repeat Findings:	0%
Rating: (if applicable)	n/a

Finding 1: The Maryland Energy Administration did not have adequate procedures to ensure that all collections were deposited and that accounts receivable records were proper.

*Bold denotes item repeated in full or part from preceding audit report.

Appendix 3
Object/Fund Difference Report
Maryland Energy Administration

Object/Fund	FY 16 Actual	FY 17 Working Appropriation	FY 18 Allowance	FY 17 - FY 18 Amount Change	Percent Change
Positions					
01 Regular	32.00	28.00	28.00	0.00	0%
02 Contractual	9.00	9.50	10.50	1.00	10.5%
Total Positions	**41.00**	**37.50**	**38.50**	**1.00**	**2.7%**
Objects					
01 Salaries and Wages	$ 2,518,116	$ 4,799,429	$ 3,083,057	-$ 1,716,372	-35.8%
02 Technical and Spec. Fees	363,934	720,876	667,854	-53,022	-7.4%
03 Communication	67,155	139,166	56,982	-82,184	-59.1%
04 Travel	28,891	46,000	47,380	1,380	3.0%
07 Motor Vehicles	1,578	710	1,780	1,070	150.7%
08 Contractual Services	1,861,374	7,848,247	5,131,920	-2,716,327	-34.6%
09 Supplies and Materials	17,183	10,500	13,700	3,200	30.5%
10 Equipment – Replacement	1,574	3,250	15,800	12,550	386.2%
11 Equipment – Additional	23,728	7,500	15,739	8,239	109.9%
12 Grants, Subsidies, and Contributions	32,209,817	50,312,623	45,895,750	-4,416,873	-8.8%
13 Fixed Charges	401,938	782,972	223,660	-559,312	-71.4%
14 Land and Structures	2,700,000	0	0	0	0.0%
Total Objects	**$ 40,195,288**	**$ 64,671,273**	**$ 55,153,622**	**-$ 9,517,651**	**-14.7%**
Funds					
03 Special Fund	$ 39,009,553	$ 58,616,529	$ 54,282,060	-$ 4,334,469	-7.4%
05 Federal Fund	1,051,282	5,920,945	739,885	-5,181,060	-87.5%
09 Reimbursable Fund	134,453	133,799	131,677	-2,122	-1.6%
Total Funds	**$ 40,195,288**	**$ 64,671,273**	**$ 55,153,622**	**-$ 9,517,651**	**-14.7%**

Note: Does not include targeted reversions, deficiencies, and contingent reductions.

Appendix 4
Fiscal Summary
Maryland Energy Administration

Program/Unit	FY 16 Actual	FY 17 Working Appropriation	FY 18 Allowance	Change	FY 17 - FY 18 % Change
01 General Administration	$ 4,692,785	$ 9,020,998	$ 5,366,122	-$ 3,654,876	-40.5%
06 Energy Efficiency and Conservation Programs, Low- and Moderate-income Residential Sector	10,015,728	10,305,000	7,000,000	-3,305,000	-32.1%
07 Energy Efficiency and Conservation Programs, All Other Sectors	7,023,382	10,895,275	7,787,500	-3,107,775	-28.5%
08 Renewable and Clean Energy Programs and Initiatives	18,463,393	34,450,000	35,000,000	550,000	1.6%
Total Expenditures	**$ 40,195,288**	**$ 64,671,273**	**$ 55,153,622**	**-$ 9,517,651**	**-14.7%**
Special Fund	$ 39,009,553	$ 58,616,529	$ 54,282,060	-$ 4,334,469	-7.4%
Federal Fund	1,051,282	5,920,945	739,885	-5,181,060	-87.5%
Total Appropriations	**$ 40,060,835**	**$ 64,537,474**	**$ 55,021,945**	**-$ 9,515,529**	**-14.7%**
Reimbursable Fund	$ 134,453	$ 133,799	$ 131,677	-$ 2,122	-1.6%
Total Funds	**$ 40,195,288**	**$ 64,671,273**	**$ 55,153,622**	**-$ 9,517,651**	**-14.7%**

Note: Does not include targeted reversions, deficiencies, and contingent reductions.