PUBLIC SERVICE COMMISSION OF MARYLAND

The EmPOWER Maryland Energy Efficiency Act STANDARD REPORT OF 2017

With Data for Compliance Year 2016

In compliance with Section 7-211 of
the Public Utilities Article,
Annotated Code of Maryland

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Report Contents

This document constitutes the 2017 annual report of the Public Service Commission of Maryland regarding the EmPOWER Maryland Energy Efficiency Act ("EmPOWER Maryland"). This Report is submitted in compliance with §7-211 of the Public Utilities Article, *Annotated Code of Maryland* ("PUA"). PUA §7-211 requires that, on or before March 1 of each year, the Commission, in consultation with the Maryland Energy Administration ("MEA"), shall report to the General Assembly on the following:

1. the status of programs and services to encourage and promote the efficient use and conservation of energy, including an evaluation of the impacts of the programs and services that are directed to low-income communities, low- to moderate-income communities to the extent possible, and other particular classes of ratepayers;
2. a recommendation for the appropriate funding level to adequately fund these programs and services; and
3. in accordance with subsection (c) of this section, the per capita electricity consumption and the peak demand for the previous calendar year.

In compliance with PUA §7-211, topics addressed in this report include a summary of: the Energy Efficiency & Conservation ("EE&C") and Demand Response ("DR") program achievements; progress pertaining to the Advance Metering Infrastructure ("AMI") initiatives; and information regarding forthcoming milestones.

Executive Summary

The Commission reviews the progress of EmPOWER programs on a semi-annual basis, typically in May to review the results of the third and fourth quarters of the previous year, and again in October to review the results of the first and second quarters of the current year. As part of these semi-annual hearings, parties may also request program modifications and budget adjustments. As needed, the Commission also holds *ad hoc* proceedings to address specific EmPOWER elements.

The Commission held a legislative-style hearing on May 4, 5, and 6, 2016 to review the semi-annual EmPOWER reports filed by the EmPOWER Maryland Utilities[1] (hereinafter "Utilities"), Washington Gas ("WGL"), and the Maryland Department of Housing and Community Development ("DHCD"), with data from the third and fourth quarters of 2015. Following these hearings, on May 26, 2016, the Commission issued Order No. 87575, which addressed requests for program modifications and budget adjustments, as well as recommendations pertaining to programmatic improvements. Specifically, in recognition of the rapidly evolving nature of the lighting market, the Order authorized the Utilities to include Value

[1] The "EmPOWER Maryland Utilities" (electric) are: The Potomac Edison Company ("PE"); Baltimore Gas & Electric Company ("BGE"); Delmarva Power & Light Company ("Delmarva" or "DPL"); Potomac Electric Power Company ("Pepco"); and Southern Maryland Electric Cooperative ("SMECO").

LEDs as an eligible measure in their Residential Lighting Programs for the remainder of the 2015 – 2017 program cycle. Further, the Commission accepted a recommendation designed to reduce overall programmatic costs by providing additional flexibility in the implementation of certain EmPOWER programs; the Order granted the Utilities and WGL the ability to reallocate previously-approved customer incentive funds between programs within the Commercial and Industrial ("C&I") sub-portfolio. Additionally, the Order accepted a straw proposal establishing a general framework by which the Utilities deploying advanced metering infrastructure would facilitate access by authorized third-party retail suppliers to electric smart meter-enabled billing quality interval data. Finally, the Order memorialized a process by which county-level EmPOWER Maryland data may be provided to interested counties upon request.

The Commission held its second legislative-style hearing on October 25, 26, and 27, 2016 to consider the semi-annual EmPOWER reports filed by the Utilities, WGL, and DHCD for the first and second quarters of 2016. On February 2, 2017, the Commission issued Order No. 88007, which addressed requests stemming from the October 2016 hearings. The October hearings and resulting Order targeted improvements to the Utilities' Residential and C&I EmPOWER portfolios, including the authorization of budget increases totaling approximately $2 million for PE's Prescriptive Program and nearly $800,000 to support WGL's Residential Water Heater and Heating System Replacement Programs. Through its Order, the Commission also directed the Utilities and WGL to include updated marketing language on their monthly bills, and further approved the transition of the Home Performance with Energy Star ("HPwES") Program into a performance-based incentive model. Lastly, as part of the Order the Commission also established several work group directives, which Staff, the Utilities, and other stakeholders will collaborate on throughout 2017.

Initiative Highlights

- Program-to-date, the Utilities' EmPOWER Maryland programs have saved a total of 6,499,907 MWh and 2,367 MW. This translates into over 61.3 billion kilowatt-hours ("kWh") saved over the lifetime of the installed measures, which is equivalent to $7.08 billion in lifetime energy bill savings.

- Across all Utilities, the lifecycle cost per kWh for the EE&C programs is $0.032 per kWh[2] - significantly lower than the current cost of Standard Offer Service ("SOS"), which ranges from $0.060 to $0.096 per kWh.

- Program-to-date, the Utilities have spent over $2.08 billion on the EmPOWER Maryland programs, including approximately $1.32 billion on EE&C programs, and $638 million on DR programs.

- EmPOWER EE&C programs continue to be cost effective on a statewide basis in 2016, with a statewide Total Resource Cost ("TRC") score of 1.98 verified for program year 2015. For

[2] The lifecycle cost per kWh is calculated by dividing the total EE&C expenditures by the total lifecycle energy savings of the Utilities.

every dollar of reported utility or participant cost, the EmPOWER EE&C programs generate approximately $1.98 in benefits.

- Program-to-date, 25,074 limited-income customers participated in EmPOWER Maryland through the Residential Limited-Income Programs. Of the program-to-date participants, 4,438 limited-income households participated in 2016. The average savings per participant is 2,887 kWh per year. Program-to-date spending on limited-income energy efficiency programs has exceeded $112 million.

- The average monthly residential surcharge bill impacts[3] for 2016 were as follows:

Table 1: Average Monthly Residential Bill Impacts from EmPOWER Maryland Surcharge in 2016

	EE&C	DR	Dynamic Pricing[4]	Total
BGE	$3.54	$2.04	$0.20	$5.78
DPL	$4.73	$2.59	$1.55	$8.87
PE	$5.95	N/A	N/A	$5.95
Pepco	$5.42	$3.67	-$0.33	$8.76
SMECO	$4.81	$2.67	N/A	$7.48

Table 2: EE&C Reported Achievements

	Incremental 2016 Reported Energy Savings (MWh)*	Percentage of 2016 Target	2016 Energy Savings as a % of 2013 Retail Sales Baseline	Program-to-Date Reduction (MWh)**
BGE	667,010	117.86%	2.05%	3,164,351
Delmarva	73,493	109.80%	1.61%	446,468
Pepco	358,982	151.27%	2.29%	1,940,563
PE	99,064	134.90%	1.31%	671,871
SMECO	45,812	60.36%	1.27%	276,655

*Based on preliminary energy savings from semi-annual programmatic reports. These savings will be verified through an EM&V process.

** Program-to-date reported reductions include savings contributions from Fast Track Programs, which were Lighting and Appliance Rebate programs that began before the EmPOWER Maryland Law was enacted.

[3] Bill impacts are calculated assuming an average residential monthly usage of 1,000 kilowatt-hours ("kWh"). The calculated bill impact does not reflect savings produced by EmPOWER Maryland programs through reduced customer usage or energy rate reductions due to reduced system demand.

[4] The difference between rebates paid to participants and revenues received from PJM markets are trued-up in the subsequent calendar year review of the EmPOWER Maryland surcharge. Therefore, the 2016 dynamic pricing bill impacts include trued-up costs associated with the Peak Time Rebate program offered by BGE, DPL, and Pepco in the summer of 2015. Pepco's dynamic pricing surcharge was negative in 2016 (*i.e.* resulted in a credit) because the PJM Capacity payments received by Pepco exceeded the rebate credits paid to customers.

EmPOWER Maryland Portfolios

For the 2015 – 2017 program cycle, the Commission directed the Utilities to meet the EmPOWER Maryland goals through a diverse array of cost-effective solutions for Maryland ratepayers, which can include EE&C, DR, and AMI or Smart Grid-enabled opportunities.[5] While the EmPOWER Maryland Act mandates that the Commission require each gas and electric utility to establish energy efficiency programs, the directive is limited to those programs that the Commission deems appropriate and cost effective. Furthermore, the Commission must consider the impact on rates of each ratepayer class in determining whether to approve an energy efficiency program. Other statutory factors that the Commission must consider in determining whether an energy efficiency program is appropriate include the impact on jobs and on the environment.[6]

In order to verify the Utilities' energy and peak demand savings resulting from individual EE&C and DR programs, the Commission has developed an independent, third-party Evaluation, Measurement & Verification ("EM&V") process for the EmPOWER programs, consistent with national best practices. See the "Evaluation, Measurement & Verification" section herein for further information. Beginning with the2016 program year, the Utilities were evaluated against the post-2015 electric energy efficiency goals established by Order No. 87082,[7] which are designed to achieve an annual incremental gross energy savings equivalent to 2.0% of the individual utility's weather normalized gross retail sales baseline, with a ramp-up rate of 0.20% per year.

EE&C Programs

In Order No. 86785, issued on December 23, 2014, the Commission approved plans for the 2015 – 2017 program cycle. The Utilities' EmPOWER Maryland core EE&C program offerings are similarly designed with standardized customer incentives across the State, albeit with some variation in program implementation based on service territory demographics. Residential EE&C programs include discounted light-emitting diodes ("LEDs") and appliances; heating, ventilation, and air conditioning ("HVAC") rebates; home energy audits; weatherization; and limited-income programs.[8] Commercial and industrial EE&C programs are designed to encourage businesses to upgrade to more efficient equipment, such as lighting or HVAC retrofits, or to improve overall building performance through weatherization or building

[5] Beginning in 2015, the Commission also directed WGL to implement natural gas energy efficiency and conservation programs. *See* Case No. 9362, *In the Matter of Washington Gas Light Company's Energy Efficiency, Conservation and Demand Response Programs Pursuant to the EmPOWER Maryland Energy Efficiency Act of 2008.*

[6] PUA §7-211(i)(1). In its evaluation of a program or service, the Commission must consider the following four factors: cost effectiveness; impact on rates of each ratepayer class; impact on jobs; and impact on the environment.

[7] The electric energy efficiency goals are codified in statute for the duration of the 2018 – 2020 and 2021 – 2023 program cycles as a result of legislation enacted during the 2017 legislative session. *See* Md. Laws Ch. 014 (2017); PUA § 7-211(g).

[8] Other than the volumetric surcharge collected from all ratepayers, limited-income programs are offered at no additional cost for those who qualify.

shell upgrades. For larger commercial buildings or industrial facilities, a utility can customize its program offerings for cost-effective improvements.

As the 2015 – 2017 EmPOWER Maryland program cycle continues, there are several changes to evaluation parameters, building codes, and efficiency standards that will reduce the *incremental* energy and demand savings derived from the installation of efficient lighting, appliances, and equipment incentivized by EmPOWER programs. The following list provides some examples of these impacts, although it does not represent an exhaustive compilation of pending changes to codes and standards. Some of these baseline changes result in reduced savings potential available from historically-predominant EmPOWER Maryland programs, such as lighting-based programs.

- Effective January 1, 2015, the baseline efficiency standard applicable to the Utilities' Residential HVAC Programs was increased from a 13 Seasonal Energy Efficiency Ratio ("SEER") to a 14 SEER minimum efficiency requirement in order to reflect federal standard changes.
- Clothes washers will undergo two increases in efficiency standards during and immediately following the current program cycle, with the first revision effective between March 7, 2015 and January 1, 2018. The second increase will take effect on January 1, 2018.
- In April 2016, increased safety standards regarding indoor air quality were adopted, which resulted in additional ventilation measures needing to be included in certain weatherization projects.
- The Consortium for Energy Efficiency ("CEE") is continuing work on its efforts to revise the specifications for room air conditioners. The revisions were scheduled to be completed and effective in the fall of 2016; however, those standards are still pending.

BGE

BGE EmPOWER Programs

Residential Programs	Commercial Programs
Appliance Rebate	Benchmarking
Appliance Recycling	Building Operator Certification
Behavior Based	Combined Heat and Power
Natural Gas Conversions	Custom
Home Performance with Energy Star	Energy Analytics
HVAC	Master-Metered Multi-Family
Lighting	Prescriptive
Quick Home Energy Check-up	Retrocommissioning
New Construction	Small Business Solutions

BGE realized 118% of its 2016 annual energy savings target (or 667,010 MWh) and 118% of its forecasted 2016 annual demand reduction target (or 450 MW).

In exceeding its 2016 energy savings target, BGE's Residential Lighting Program continued to provide a majority (around 72%) of the net energy savings in the Residential sub-portfolio, which is a consistent percentage for both the 2015 – 2017 cycle-to-date as well as program-to-date share of savings. The Residential New Construction Program saw the most homes built under the Program since it began in 2009 with 3,017 new multifamily units, condominiums, or homes constructed.

In 2016, BGE's C&I portfolio achieved the highest energy and demand savings to-date. There was a 10% increase in net energy savings (from 169,856 MWh in 2015, to 186,711 MWh in 2016) and a 6% increase in net demand savings (from 30.702 MW in 2015, to 32.620 MW in 2016). This notable portfolio performance was largely driven by the success of the Combined Heat and Power ("CHP") program, which realized its best performance to-date across the savings metrics.

Table 3: BGE Annualized Energy Savings Reported Achievements (Gross)[9]

	Incremental 2016 Reported Energy Savings	EmPOWER Maryland 2016 Annual Target	Percentage of 2016 Target Realized
MWh	667,010	565,933	117.86%
% of 2013 Retail Sales Baseline	2.05%	1.74%	

*EmPOWER Maryland 2016 Annual Target was defined in the *Schedule for Evaluation of Utilities' Achievement of 2015 – 2017 Program Cycle Goals* in Order No. 87285 (Dec. 8, 2015) at 28.

Table 4: BGE Peak Demand Reduction Reported Achievements (Gross)[10]

	Incremental 2016 Reported Peak Demand Reduction	EmPOWER Maryland 2016 Annual Target	Percentage of 2016 Target Realized
MW	449.875	380.759	118.15%

*EmPOWER Maryland reduction targets are based upon the individual EmPOWER Maryland filings of each utility.

[9] "Reported" savings constitute unverified energy savings and demand reductions based on the Utilities' quarterly programmatic reports. An independent, third-party verification of reported savings is conducted annually.
[10] The demand reduction targets and reported achievements include peak demand reductions generated by both EE&C and DR programs, as both components are part of the total portfolio.

Pepco

Pepco EmPOWER Programs

Residential Programs	Commercial Programs
Appliance Rebate	C&I New Construction
Appliance Recycling	Combined Heat and Power
Behavior Based	Custom
Home Performance with Energy Star	Master-Metered Multi-Family
HVAC	Prescriptive
Lighting	Retrocommissioning
Quick Home Energy Check-up	Small Business
Residential New Construction	

Pepco realized 151% of its 2016 annual energy savings target (or 358,982 MWh) and 121% (or 262.087 MW) of its 2016 peak demand reduction target. The success with respect to Pepco's demand reduction portfolio was due in large part to the 126 MW of reported demand reductions achieved through the Company's smart grid-enabled Dynamic Pricing Program.[11]

In achieving its 2016 energy savings and demand reduction targets, Pepco's Residential Behavior Based Program continued to contribute the largest portion of the sub-portfolio's net savings with 51,339 MWh and 12.691 MW achieved in 2016. The Residential New Construction and HVAC Programs also experienced their best energy savings performances to-date and exceeded forecasts by 13% and 43%, respectively.

Pepco finalized its first three CHP projects in its service territory in 2016. These projects represent significant savings in the C&I sub-portfolio for Pepco with 18,078 MWh and 2.861 MW (net) saved across the three projects. This is a noteworthy achievement for Pepco as CHP projects can take a several months to years to complete due to long design and construction timeframes.

[11] Demand reductions from dynamic pricing represent a snapshot for a particular time period and are dependent upon customer engagement and participation; therefore, demand reductions attributable to dynamic pricing programs may change year-to-year. Although both programs are voluntary, the dynamic pricing program is different from the demand response program for which Pepco pays a customer an incentive so that the utility may directly control the customer's central air conditioner during a pre-defined event. Direct load control programs represent a repeatable MW reduction potential.

Table 5: Pepco Annualized Energy Savings Reported Achievements (Gross)[12]

	Incremental 2016 Reported Energy Savings	EmPOWER Maryland 2016 Annual Target	Percentage of 2016 Target Realized
MWh	358,982	237,311	151.27%
% of 2013 Retail Sales Baseline	2.29%	1.52%	

*EmPOWER Maryland 2016 Annual Target was defined in the *Schedule for Evaluation of Utilities' Achievement of 2015 – 2017 Program Cycle Goals* in Order No. 87285 (Dec. 8, 2015) at 28.

Table 6: Pepco Peak Demand Reduction Reported Achievements (Gross)[13]

	Incremental 2016 Reported Peak Demand Reduction	EmPOWER Maryland 2016 Annual Target	Percentage of 2016 Target Realized
MW	262.087	215.835	121.43%

*EmPOWER Maryland reduction targets are based upon the individual EmPOWER Maryland filings of each utility.

[12] "Reported" savings constitute unverified energy savings and demand reductions based on the Utilities' quarterly programmatic reports. An independent, third-party verification of reported savings is conducted annually.
[13] The demand reduction targets and reported achievements include peak demand reductions generated by both EE&C and DR programs, as both components are part of the total portfolio.

PE

PE EmPOWER Programs

Residential Programs	Commercial Programs
Appliance Rebate	Custom
Appliance Recycling	Prescriptive
Behavior Based	Small Business
Home Performance with Energy Star	
HVAC	
Lighting	
Quick Home Energy Check-up	
Residential New Construction	

PE realized 135% of its 2016 annual energy savings target (or 99,064 MWh) and 200% (or 21.666 MW) of its 2016 peak demand reduction target.

In realizing its 2016 annual energy savings target, PE's Residential sub-portfolio exceeded the performance of the Company's C&I sub-portfolio in net energy savings by 139% (or 12,420 MWh), and in demand savings by 112% (or 0.858 MW). The program that contributed the most savings to the Residential sub-portfolio was the Behavior Based Program, which accounted for 58% of the reported net energy savings. The Residential New Construction Program experienced its best energy and demand savings performances to-date and exceeded forecasts by 9% and 19%, respectively.

PE's C&I sub-portfolio rebounded in 2016 and achieved 253% of its energy savings target and 325% of its demand savings target. The Prescriptive Program for PE experienced its highest demand savings to-date with 4.768 MW. Further, the Company's Prescriptive Program also exceeded its energy savings forecast for 2016 by 150%.

Table 7: PE Annualized Energy Savings Reported Achievements (Gross)[14]

	Incremental 2016 Reported Energy Savings	EmPOWER Maryland 2016 Annual Target	Percentage of 2016 Target Realized
MWh	99,064	73,434	134.90%
% of 2013 Retail Sales Baseline	1.31%	0.97%	

*EmPOWER Maryland 2016 Annual Target was defined in the *Schedule for Evaluation of Utilities' Achievement of 2015 – 2017 Program Cycle Goals* in Order No. 87285 (Dec. 8, 2015) at 28.

Table 8: PE Peak Demand Reduction Reported Achievements (Gross)[15]

	Incremental 2016 Reported Peak Demand Reduction	EmPOWER Maryland 2016 Annual Target	Percentage of 2016 Target Realized
MW	21.666	10.816	200.31%

*EmPOWER Maryland reduction targets are based upon the individual EmPOWER Maryland filings of each utility.

[14] "Reported" savings constitute unverified energy savings and demand reductions based on the Utilities' quarterly programmatic reports. An independent, third-party verification of reported savings is conducted annually.
[15] PE is the only utility that does not operate a separate demand response program. Achievement toward PE's demand reduction target is derived from the Company's EE&C portfolio and non-EmPOWER funded additional programs.

DPL

DPL EmPOWER Programs

Residential Programs	Commercial Programs
Appliance Rebate	C&I New Construction
Appliance Recycling	Combined Heat and Power
Behavior Based	Custom
Home Performance with Energy Star	Master Meter and Multi-Family
HVAC	Prescriptive
Lighting	Retrocommissioning
Quick Home Energy Check-up	Small Business
Residential New Construction	

DPL realized 110% of its 2016 annual energy savings target (or 73,493 MWh) and 302% (or 56.354 MW) of its 2016 peak demand reduction target, due in large part to the 39.207 MW of reported demand reductions derived from its smart grid-enable Dynamic Pricing Program.[16]

DPL's Behavior Based Program experienced its largest net energy savings and demand savings to-date with 8,657 MWh and 1.926 MW, respectively. This is the first time that a program other than Lighting comprised the majority of the Residential sub-portfolio's energy savings, with 62% coming from the Behavior Based Program.

DPL's C&I sub-portfolio did not perform as well in 2016 compared to previous years. Specifically, the C&I sub-portfolio only achieved 22% of its net energy savings target for 2016 and 15% of its demand savings target. According to the Company, issues surrounding budgeting prevented DPL's C&I programs from performing as expected. The programs are expected to rebound in 2017 and perform on par with prior years.

[16] Demand reductions from dynamic pricing represent a snapshot for a particular time period and are dependent upon customer engagement and participation; therefore, demand reductions attributable to dynamic pricing programs may change year-to-year. Although both programs are voluntary, the dynamic pricing program is different from the demand response program for which DPL pays a customer an incentive so that the utility may directly control the customer's central air conditioner during a pre-defined event. Direct load control programs represent a repeatable MW reduction potential.

Table 9: DPL Annualized Energy Savings Reported Achievements (Gross)[17]

	Incremental 2016 Reported Energy Savings	EmPOWER Maryland 2016 Annual Target	Percentage of 2016 Target Realized
MWh	73,493	66,931	109.80%
% of 2013 Retail Sales Baseline	1.61%	1.47%	

*EmPOWER Maryland 2016 Annual Target was defined in the *Schedule for Evaluation of Utilities' Achievement of 2015 – 2017 Program Cycle Goals* in Order No. 87285 (Dec. 8, 2015) at 28.

Table 10: DPL Peak Demand Reduction Reported Achievements (Gross)[18]

	Incremental 2016 Reported Peak Demand Reduction	EmPOWER Maryland 2016 Annual Target	Percentage of 2016 Target Realized
MW	56.354	18.654	302.10%

*EmPOWER Maryland reduction targets are based upon the individual EmPOWER Maryland filings of each utility.

[17] "Reported" savings constitute unverified energy savings and demand reductions based on the Utilities' quarterly programmatic reports. An independent, third-party verification of reported savings is conducted annually.
[18] The demand reduction targets and reported achievements include peak demand reductions generated by both EE&C and DR programs, as both components are part of the total portfolio.

SMECO

SMECO EmPOWER Programs

Residential Programs	Commercial Programs
Appliance Rebate	Custom
Appliance Recycling	Master-Metered Multi-Family
Assisted Home Performance with Energy Star	Prescriptive
Behavior Based	Small Business
Home Performance with Energy Star	Upstream Lighting
HVAC	
Lighting	
Quick Home Energy Check-up	
Residential New Construction	

SMECO realized 60% of its 2016 annual energy savings target (or 45,812 MWh) and 66% (or 8.905 MW) of its 2016 peak demand reduction target.

With respect to its 2016 Residential sub-portfolio, three of SMECO's programs achieved their highest energy savings to-date with the Residential New Construction Program realizing net energy savings of 1,369 MWh, the HVAC Program realizing 752 MWh, and the Behavior Based Program realizing 15,432 MWh. The Residential New Construction and HVAC Programs also achieved their highest demand savings to-date with 0.692 MW and 0.271 MW, respectively.

For the Cooperative's C&I sub-portfolio, the Master-Metered and Multifamily Program and the Upstream Lighting Program both experienced participants for the first time since the program offerings commenced in 2015; although both Programs significantly under-performed in terms of energy savings. SMECO's Small Business Program achieved its highest energy savings and demand savings to-date, with 3,117 MWh and 0.601 MW, respectively.

Table 11: SMECO Annualized Energy Savings Reported Achievements (Gross)[19]

	Incremental 2016 Reported Energy Savings	EmPOWER Maryland 2016 Annual Target	Percentage of 2016 Target Realized
MWh	45,812	75,900	60.36%
% of 2013 Retail Sales Baseline	1.27%	2.10%	

*EmPOWER Maryland 2016 Annual Target was defined in the *Schedule for Evaluation of Utilities' Achievement of 2015 – 2017 Program Cycle Goals* in Order No. 87285 (Dec. 8, 2015) at 28.

Table 12: SMECO Peak Demand Reduction Reported Achievements (Gross)[20]

	Incremental 2016 Reported Peak Demand Reduction	EmPOWER Maryland 2016 Annual Target	Percentage of 2016 Target Realized
MW	8.905	13.458	66.17%

*EmPOWER Maryland reduction targets are based upon the individual EmPOWER Maryland filings of each utility.

[19] "Reported" savings constitute unverified energy savings and demand reductions based on the Utilities' quarterly programmatic reports. An independent, third-party verification of reported savings is conducted annually.
[20] The demand reduction targets and reported achievements include peak demand reductions generated by both EE&C and DR programs, as both components are part of the total portfolio.

Limited-Income Programs

On December 22, 2011, in Order No. 84569, the Commission designated DHCD as the sole implementer of Limited-Income programs for the EmPOWER Maryland Utilities. In April 2012, DHCD accepted control of the residential limited-income programs of BGE, PE, and SMECO. In July 2012, the transition was completed with DHCD accepting control of the Pepco and DPL limited-income programs.

In Order No. 86785, issued on December 23, 2014, the Commission authorized DHCD to continue its implementation of the Limited-Income programs in Maryland during calendar year 2015, subject to certain specified structural enhancements such as spending guidelines per household. DHCD was approved as the implementer of the limited-income programs for the remainder of the 2015-2017 program cycle in Order No. 86995.

In 2016, DHCD weatherized approximately 4,438 limited-income homes and the common areas of 85 affordable multifamily dwellings at a total cost of $19.3 million. Total energy savings per job averaged 2,305 MWh and 1,936 MWh, respectively. Both the number of participating households, as well as the total savings per job, increased in 2016 compared to data reported in 2015.

Demand Response

The EmPOWER Maryland Act requires the Utilities to implement cost-effective demand response programs; although, there are not currently goals established for the magnitude of demand reduction that each Utility must target (following the realization of the legislatively-mandated 15% by 2015 targets). The Commission approved four residential demand response programs in late 2007 and early 2008,[21] all of which were operational by the end of 2009.[22]

Customers who have actively chosen to participate in the direct load control programs included in the Utilities' demand response portfolios have a switch or thermostat installed at their properties to briefly curtail usage of central air conditioning or an electric heat pump in instances of system reliability issues or high electricity prices during critical peak hours. Each direct load control DR program includes the following common components: (1) customer participation in DR programs is voluntary; (2) upon receiving a customer request, the utility installs either a programmable thermostat or a direct load control switch for a central air conditioning system or for an electric heat pump on a customer's premise; (3) the Utilities provide a one-time installation incentive and annual bill credits to the participants during the specified summer peak months; and (4) with the exception of the SMECO DR program, customers can select one of three cycling choices (50%, 75%, or 100%).[23] Utilities will invoke the cycling process when

[21] *See* Commission Letter Order (Nov. 30, 2007).

[22] The Commission did not approve a DR program for PE similar to those implemented for BGE, Pepco, DPL, and SMECO because PE's proposed program was not cost effective due to lower zonal capacity prices.

[23] The three cycling choices represent the air conditioner compressor working cycled reduced by 50%, 75%, and 100% under PJM- or utility-invoked emergency events during summer peak season. SMECO only offers a 50% and 75% cycling level with corresponding bill credits of $50 and $75 during the summer months.

PJM calls for an emergency event or if the Utilities individually determine that an event is necessary during summer peak season. Table 13 summarizes the incentives offered by the Utilities to the program participants.

Table 13: Utilities' Incentive Levels for DLC Program Participants

Utility	50% Cycling		75% Cycling		100% Cycling		Bill Credit Month
	Installation Incentive	Annual Bill Credit	Installation Incentive	Annual Bill Credit	Installation Incentive	Annual Bill Credit	
BGE	$50	$50	$75	$75	$100	$100	Jun.– Sept
Pepco	$40	$40	$60	$60	$80	$80	Jun.– Oct
DPL	$40	$40	$60	$60	$80	$80	Jun.– Oct.
SMECO	***	$50	***	$75	N/A	N/A	Jun.– Oct.

*** A participant in SMECO CoolSentry program can keep the installed thermostat at no additional cost following 12 months of program participation; otherwise, the thermostat will be removed if the participant terminates participation less than 12 months after installation.

Table 14 summarizes the installation progress of these devices for each of the Utilities' direct load control program in 2016 and program-to-date through December 31, 2016. The 2016 device installations accounted for approximately -1% to 3% of the Utilities' program-to-date totals, with the most installation progress occurring by Pepco in 2015, followed closely by DPL.[24]

Table 14: Utilities' Residential Direct Load Program Device Installation

Utility	2016	Program-to-Date
BGE	-3,922	370,976
DPL	1,047	38,704
Pepco	1,249	221,634
SMECO	356	45,744
Total	**-1,270**	**677,058**

Table 15 summarizes the demand reductions achieved by the Utilities' DLC programs for 2016 and program-to-date. The total peak demand reduction reported in 2016 was 19.539 MW, or approximately 263% of the forecast, reinforcing the concern regarding market saturation.[25] Program-to-date, the four Utilities have achieved 705.595 MW of demand reduction through the DLC programs.

[24] In 2016, BGE experienced some customer attrition that resulted in the loss of almost 4,000 program devices, equating to over 16 MW of demand capacity, which greatly impacted the statewide totals.

[25] The annual peak demand target represents incremental savings to the total capacity a utility has to call upon during a demand response event. Negative incremental savings means that customers left the program, resulting in a lower total capacity.

Table 15: DLC Program Coincident Peak Demand Reduction (MW)

Utility	2016 Peak Demand Target	2016 Reported	Percent of 2016Target	Program-to-Date Reported
BGE	0.000	6.608	0%	411.878
DPL	0.986	0.850	86%	35.558
Pepco	6.075	11.725	193%	219.561
SMECO	0.363	0.356	98%	38.598
Total	7.424	19.539	-50%	705.595

Additional demand reductions are expected to stem from smart grid-enabled dynamic pricing programs, as well as from other non-EmPOWER funded programs such as conservation voltage reduction ("CVR"). Table 16 summarizes the reported demand reductions from the dynamic pricing programs for 2013, 2014, 2015, and 2016, as well as forecasted demand reductions for 2017 derived from the revised Executive Summary Tables filed on February 13, 2015. BGE, Pepco, and DPL are currently the only Utilities that operate dynamic pricing programs. Demand reductions from dynamic pricing programs represent a snapshot for a particular time period and are dependent upon customer engagement and participation; therefore, demand reductions attributable to dynamic pricing programs could change year-to-year.

Table 16: Dynamic Pricing Demand Reduction (MW)

Utility	Reported				Forecast
	2013	2014	2015	2016	2017
BGE	0	209	309	336	284
DPL	0	0	143	39	175
Pepco	309	125	47	126	51
Total	**309**	**334**	**499**	**501**	**510**

PJM RPM Capacity Market

In 2016, the Utilities' DLC programs resulted in a combined 230 MW bid into the PJM Reliability Pricing Model ("RPM") Base Residual Auction ("BRA") for Delivery Year ("DY") 2019-2020, a 67% decrease from the 2015 PJM bid of 687 MW for DY 2018-2019. To-date, these programs have accounted for 6,289 MW of the total capacity bid into the PJM capacity market, which has resulted in a total of $316.6 million in capacity payments PJM has or will make to the Utilities, thereby offsetting the total cost of the DLC programs, which totaled over $638 million through the end of 2016. Table 17 summarizes the capacity bid into the PJM capacity market from the DLC programs by delivery year, as well as the resulting payments the Utilities receive from PJM, which are then used to offset the DLC program cost to ratepayers.

Table 17: Demand Response Program BRA Results

	Cleared Capacity (MW)	PJM Capacity Payment (Million $)
DY 2009-2010	217	$18.8
DY 2010-2011	415	$26.4
DY 2011-2012	662	$26.6
DY 2012-2013	953	$46.5
DY 2013-2014	803	$67.7
DY 2014-2015	772	$33.9
DY 2015-2016	625	$36.0
DY 2016-2017	554	$24.1
DY 2017-2018	536	$23.5
DY 2018-2019	522	$11.5
DY 2019-2020	230	$1.6
Total	**6,289**	**$316.6**

The Utilities also bid capacity reductions from their EE&C programs and AMI-enabled dynamic pricing programs. Similar to the DLC programs, the Utilities earn capacity payments from PJM for these commitments; the payments are used to offset EE&C program costs and to fund the rebates earned by customers in the dynamic pricing program. Table 18 and Table 19 summarize the capacity bid into the PJM capacity market from the EE&C and dynamic pricing programs by delivery year, and the payments the Utilities receive from PJM.

Table 18: EE&C Program BRA Results

	Cleared Capacity (MW)	PJM Capacity Payment (Million $)
DY 2012-2013	168	$8.2
DY 2013-2014	107	$8.7
DY 2014-2015	179	$8.3
DY 2015-2016	175	$10.2
DY 2016-2017	226	$9.5
DY 2017-2018	243	$10.8
DY 2018-2019	172	$10.1
DY 2019-2020	184	$6.8
Total	**1,454**	**$72.6**

Table 19: Dynamic Pricing Program BRA Results

	Cleared Capacity (MW)	PJM Capacity Payment (Million $)
DY 2014-2015	267	$12.2
DY 2015-2016	426	$23.3
DY 2016-2017	461	$20.0
DY 2017-2018	387	$17.0
DY 2018-2019	378	$10.0
DY 2019-2020	225	$2.2
Total	**2,144**	**$84.7**

Table 20 illustrates the amount of capacity cleared in the BRA by the EmPOWER Utilities for the delivery years of 2018/2019 and 2019/2020. The table also shows the amount of capacity revenue that the Utilities can expect to receive from PJM in the two delivery years, which will be used to offset the costs of the DR, EE&C, and dynamic pricing programs borne by ratepayers.

The amount of capacity cleared in the 2019/2020 DY auction is 434 MW less than the amount of capacity cleared in 2018/2019 DY, primarily due to the reduction of the capacity bids across all three capacity types. PJM noted that the BRA is in the second year of transitioning to 100% Capacity Performance, which begins in the 2020/2021 auction. As part of the transition, bids were accepted for Capacity Performance and Base Capacity resources.[26] This change reduced the bids of Maryland utilities into the auction.[27]

[26] Capacity Performance resources must be able to produce sustained and predictable operation throughout the entire delivery year while Base Capacity resources do not have this capability and are typically summer-only resources.
[27] 2019/2020 RPM Base Residual Auction Results, PJM (May 24, 2016), http://www.pjm.com/~/media/markets-ops/rpm/rpm-auction-info/2019-2020-base-residual-auction-report.ashx. On June 15, 2015, the FERC approved a proposal by PJM to dramatically restructure its capacity market, referred to as the "capacity performance" ("CP") proposal. PJM noted that its proposal is intended to result in larger capacity payments for the most reliable resources, and higher penalties for non-performers. Critics of the CP proposal, including the Maryland Commission, countered that the changes are unnecessary for reliable service operations and will likely increase electricity end user costs significantly, and further that the CP proposal generates major concerns regarding the future of DR and intermittent resources. Without modification to the CP proposal, the Maryland Commission and others warned that the majority of DR resources will be required to withdraw from the PJM market. On November 17, 2016, PJM filed with the FERC several improvements to the CP proposal, which it asserts will increase opportunities for seasonal resources (such as summer-focused DR programs) to participate in the capacity auctions. With FERC approval, the PJM proposed changes became effective with the May 2017 auction for the 2020 – 2021 delivery year; however, the changes were insufficient to reverse the trend of a reduction in cleared capacity and expected revenues for the Utilities' EmPOWER Maryland portfolios.

Table 20: Maryland Utilities' PJM BRA Results and Expected Revenue for Delivery Years 2018/2019 and 2019/2020

DY 2018/2019					DY 2019/2020				
Cleared Bids (MW)				Expected Revenue	Cleared Bids (MW)				Expected Revenue
DR	DP	EE&C	Total	($Million)	DR	DP	EE&C	Total	($Million)
522	378	172	1,072	$31.5	230	225	184	638	$10.6

EmPOWER Maryland Funding Levels

EE&C Program Funding

On December 23, 2014, in Order No. 86785, the Commission approved the 2015 – 2017 program cycle budgets based on the EmPOWER Maryland Utilities' proposals.[28] Table 21 breaks down the 2016 Commission-approved budgets for each of the Utilities, while Table 22 illustrates the actual 2016 expenditures by the Utilities with respect to their EmPOWER Maryland EE&C programs.

Table 21: Forecasted 2016 EE&C Budgets

Utility	Residential	C&I	DHCD Limited-Income Program	Total
BGE	$53,381,134	$57,282,781	$3,754,260	$93,987,781
DPL	$717,661	$2,069,954	$766,699	$3,554,314
PE	$12,323,874	$6,630,297	$2,651,742	$21,605,914
Pepco	$5,444,794	$9,394,806	$1,216,908	$16,056,509
SMECO	$9,990,825	$7,159,167	$0	$17,969,992
Total	**$81,858,288**	**$82,537,006**	**$8,389,610**	**$153,174,509**

[28] During the course of the 2015 – 2017 program cycle, the Utilities may request and receive adjustments to the budgets of certain programs, which has resulted in 2016 budgets that differ in some respects from the proposals filed by the Utilities in September 2014.

Table 22: Reported 2016 EE&C Spending

Utility	Residential	C&I	DHCD Limited-Income Program	Total
BGE	$45,018,813	$48,504,445	$12,213,376	$105,736,633
DPL	$4,814,580	$6,098,576	$3,010,689	$13,923,844
PE	$10,567,154	$9,888,912	$3,684,677	$24,140,744
Pepco	$21,190,408	$24,677,077	$4,903,507	$50,770,992
SMECO	$7,162,513	$4,104,820	$1,994,226	$13,761,864
Total	**$88,753,469**	**$93,273,830**	**$25,806,474**	**$208,334,078**

Table 23 details the EmPOWER Maryland EE&C program surcharges and revenue requirements for each of the Utilities. The EmPOWER Maryland surcharges are a volumetric-based charge, subject to the individual ratepayer's monthly energy usage. The revenue requirements do not correspond to the filed budgets because program costs are amortized and collected over a five-year period as directed by the Commission in Order No. 81637.[29]

Table 23: 2016 EE&C Monthly Surcharges (per kWh) and Revenue Requirements

Utility	Residential	Small C&I	Large C&I	Revenue Requirement
BGE	$0.00354	$0.00628	$0.00271	$95,484,274
DPL	$0.00473	$0.01082	$0.01082	$28,741,927
PE	$0.00595	$0.00292	$0.00303	$29,957,738
Pepco	$0.00542	$0.00779	$0.00779	$87,338,863
SMECO	$0.00481	$0.00270	$0.00270	$15,599,669

[29] *In the Matter of the Commission's Investigation of Advanced Metering Technical Standards, Demand Side Management (DSM) Cost Effectiveness Tests, DSM Competitive Neutrality, and Recovery of Costs Advanced Meters and DSM Programs*, Case No. 9111.

Demand Response Program Funding

The December 23, 2014 Commission Order similarly approved three-year budgets for the demand response programs operated by BGE, DPL, Pepco, and SMECO. Table 24 details the EmPOWER Maryland demand response surcharges and revenue requirements for each of the Utilities operating an approved DR program.[30]

Table 24: 2016 Demand Response Monthly Surcharges (per kWh) and Revenue Requirements

Utility	Residential	C&I	Revenue Requirement
BGE	$0.00204	N/A	$32,369,917
DPL	$0.00259	$0.00000	$3,938,642
Pepco	$0.00367	$0.00009	$17,311,102
SMECO	$0.00267	$0.00267	$10,027,296

Table 25 details the respective forecasted and reported budgets for each of the EmPOWER Utilities operating an approved DR program during 2016. All of the Utilities' programs were under budget for the 2016 program year.

Table 25: 2016 Demand Response Forecasted and Reported Budgets

Utility	Forecasted Budget	Reported Costs	Variance
BGE	$37,705,617	$34,360,736	*($3,344,881)*
DPL	$7,544,161	$4,990,670	*($2,553,491)*
Pepco	$23,792,326	$21,902,554	*($1,889,772)*
SMECO	$9,053,428	$8,512,570	*($540,858)*
Total	$78,095,532	$69,766,530	*($8,329,002)*

[30] PE did not operate a separate DR program during 2016 and therefore did not file for a surcharge recovery of DR program costs.

Evaluation, Measurement & Verification

Determining and validating electricity savings and related impacts is a critical component of EE&C and DR programs. The process of evaluation, measurement, and verification ("EM&V") of resulting program savings is particularly important in determining: the effectiveness of program delivery; the factors driving or impeding customer participation in programs; characteristics of participants and non-participant customers; determinants of equipment decisions; and customer satisfaction with program delivery. Moreover, the design and depth of program data collection, monitoring, and analyses can impact the accuracy and prudence of compliance results. Given the scale of the EmPOWER Maryland initiative and the potential bill impacts, the Commission is sensitive to the issue of program credibility and transparency. This process also evaluates free-ridership, spillover, cost-effectiveness, deemed savings calculations, etc., pertinent to a thorough and ongoing review of viable and cost-effective energy efficiency and demand response programs.

Based on EM&V best practices, the Commission adopted an independent, third-party evaluator model to review the EmPOWER portfolio results.[31] In this model, the Utilities direct primary evaluation and verification activities through an EM&V contractor; subsequently, the Commission's third-party, independent evaluator provides independent analysis and due diligence of the EM&V process. Because this thorough evaluation process requires up to six months to complete following the receipt of program data from the prior calendar year, this report illuminates the results of the Utilities' 2015 program year reported savings.

Overall EM&V Findings of the 2015 EmPOWER EE&C Program

Energy and Peak Demand Savings

In 2015, Navigant's evaluation of the first-year savings[32] was 771,229 MWh and 129.476 MW, which was 83% and 87% of the Utilities' reported energy and demand savings for that year. For the 2015 program year, Navigant estimated an effective Net-to-Gross ("NTG") ratio of 0.73 for annual energy savings and 0.74 for peak demand savings. The NTG ratio is used to derive savings specifically attributable to the EmPOWER programs by calculating free-ridership levels and reducing reported gross savings by that amount.[33] Following the application of the calculated NTG ratios, the net savings for program year 2015 were 563,980 MWh and 96.032 MW.

As the EmPOWER Maryland Independent Evaluator, Itron, Inc. ("Itron") supports the Commission's oversight of the statewide evaluation of the EmPOWER EE&C programs conducted by Navigant. Itron's verification analysis confirmed Navigant's results and accepted all of the evaluated energy and demand savings estimates for program year 2015. This important

[31] Order No. 82869 (Aug. 31, 2009).
[32] "First-year savings" is the amount of energy a measure will save in the first year in which the measure is installed.
[33] A "free rider" is a customer who would have installed an energy efficiency measure absent the utility-provided EmPOWER incentive.

result should increase ratepayer and other stakeholders' confidence that the evaluated savings from the EmPOWER Maryland programs are real and credible.

Given that the key energy assumption values and NTG ratios have been updated and other anomalies in the program tracking databases have been rectified to improve the quality of reporting, it is expected that the Utilities' reported savings estimates for 2016 should continue to be very similar to the evaluation results. Changes to evaluation parameters and codes and standards will have the effect of raising the baseline level of energy savings, therefore reducing the incremental energy savings achieved by installing efficient equipment. The EM&V contractors will monitor and reflect these changes in future evaluation cycles.

Cost Effectiveness

Table 26 presents the 2015 total resource cost ("TRC") test cost-effectiveness results by sector for each of the Utilities.[34] The sector-level benefit-to-cost ratios reflect the present value of the benefits compared to the present value of the costs, aggregated from each program in the sector-level sub-portfolio. As noted, TRC ratios greater than 1.0 indicate that the financial benefits that accrue over the life of the measures exceed the financial costs of the program, specifically the costs associated with: utility program administration; the provision of incentives to free riders; and customer outlays for the efficiency measures. Statewide, both the Residential and C&I sub-portfolios were cost effective in 2015, with overall TRC scores of 1.70 and 2.18, respectively.

Table 26: 2015 Portfolio TRC Results

	Residential	Commercial	Portfolio
BGE	1.73	2.67	2.21
Pepco	1.95	1.89	1.91
PE	1.10	2.41	1.47
DPL	1.62	1.71	1.69
SMECO	1.76	2.45	1.96
Statewide	**1.70**	**2.18**	**1.98**

At the statewide level, the 2015 EmPOWER portfolio is expected to generate approximately $1.98 in utility and participant benefits for each dollar of utility and participant cost. For a total investment of $270 million,[35] the State's Utilities, participants, and ratepayers will realize approximately $536 million[36] in financial benefits via electricity, fuel, and water savings generated over the lifetime of the measures installed through the EmPOWER program. These results correspond to a net benefit of approximately $266 million.

[34] The 2016 program year cost-effectiveness results are expected in April 2016.
[35] The $270 million total investment is the present value of both utility and participant costs.
[36] The $536 million in financial benefits is the present value of both utility and participant benefits.

When assessing whether to approve the Utilities' plans, the Commission evaluates cost effectiveness at the sub-portfolio level, i.e., the C&I and Residential sub-portfolios should both generate TRC ratios greater than 1.0. Thus, individual programs do not necessarily need to be cost effective as long as other programs are sufficiently cost-effective to generate sector-level TRC ratios that are greater than 1.0. The Commission may approve individual programs that are not individually cost effective to ensure a broader array of energy-saving opportunities amongst rate classes, income levels, etc. or because the program may promote innovative technologies and market-transformative practices leading to broader energy savings. All EmPOWER Utilities have developed cost-effective portfolios that pass the TRC test - most by a comfortable margin.

Advanced Metering Infrastructure Programs

Advanced metering infrastructure ("AMI") or "smart grid" technology refers to an integrated system of smart meters, communication networks, and data management systems that enable two-way communication between utilities and the meters located on customer premises. Because smart grid technology facilitates real-time monitoring of energy usage, which in turn enables new and innovative programs such as dynamic pricing, AMI is included in this report as it is generally considered to be an initiative that can reduce peak demand and energy consumption beyond those reductions achieved through "traditional" EE&C and DR programs.

The Commission approved smart grid initiatives for BGE (Case No. 9208) in 2010, Pepco (Case No. 9207) in 2010, DPL (Case No. 9207) in 2012, and SMECO (Case No. 9294) in 2013. As of June 30, 2017, approximately 2.76 million electric and gas meters (so-called "smart meters") have been installed across the State. BGE has installed over 1.9 million electric meters and gas modules, and has completed it initial deployment of smart meters. BGE continues to work to install meters in hard to access locations in an effort to reduce the current level of opt-out customers from 3.7% to 1.0% by 2018. Pepco and DPL have finished deploying smart meters with the final totals for each company being 560,851 and 211,115 smart meters, respectively. Pepco and DPL have less than one percent of customers categorized as opt-out (0.3% and 0.7%, respectively). As of the second quarter of 2017, SMECO has installed approximately 97,000 smart meters and plans to complete installation by the end of 2017.

2016 per Capita Electricity Consumption and Peak Demand

Table 27 and Table 28 compare the per capita energy use and peak demand from 2007 to 2016 for all Maryland utilities. In 2016, a majority of the State's electric utilities, with the exception of Potomac Edison, experienced a decrease in per capita energy use and per capita peak demand as compared to 2015 levels.

Table 27: 2007 - 2016 per Capita Energy Consumption

Per Capita Energy Use MWh										
	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016
BGE	13.41	12.99	12.72	13.17	12.65	12.26	12.06	11.86	11.82	11.57
Pepco	9.32	9.05	8.81	8.97	8.91	8.18	8.10	7.81	7.94	7.73
PE	18.46	19.49	18.86	19.39	17.17	16.93	17.53	17.64	17.39	17.57
Delmarva	13.70	12.60	12.83	13.14	13.02	12.61	12.60	12.55	13.00	12.73
SMECO	11.22	10.57	10.47	10.83	10.85	10.61	10.49	10.21	10.25	10.03
Choptank	13.70	12.65	12.79	13.06	12.58	12.31	12.92	12.55	13.04	12.73
Hagerstown	9.33	9.01	8.67	8.95	8.37	7.93	7.71	7.60	7.62	7.58
Easton	20.25	19.23	17.82	18.48	16.59	16.65	16.52	16.41	16.55	16.33
Thurmont	15.08	14.53	14.26	14.37	13.73	13.02	13.27	13.02	13.68	13.06
Berlin	11.05	10.60	9.93	10.84	9.31	9.40	9.37	9.90	10.61	10.15
Williamsport	9.54	8.92	8.37	8.56	9.20	9.44	9.87	10.06	10.04	9.64
Somerset	4.22	N/A	N/A	4.48	4.49	N/A	N/A	N/A	N/A	N/A
A&N Coop.	9.25	11.10	9.52	8.87	8.05	10.83	10.81	11.06	N/A	N/A

Table 28: 2007 - 2016 per Capita Peak Demand

Per Capita Energy Use kW										
	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016
BGE	2.77	2.69	2.75	2.55	2.70	2.38	2.38	2.27	2.36	2.40
Pepco	1.96	1.95	2.05	1.99	1.98	1.79	1.55	1.57	1.88	2.03
PE	3.36	3.35	3.04	2.93	3.24	3.27	3.10	2.62	3.68	3.49
Delmarva	3.16	2.78	2.81	2.77	2.76	2.80	2.72	2.62	2.76	2.83
SMECO	2.28	2.29	2.43	2.40	2.42	2.22	2.15	1.93	2.76	2.36
Choptank	3.16	2.72	2.81	2.44	2.77	3.17	3.33	2.59	3.33	2.83
Hagerstown	1.87	1.78	1.68	1.76	1.71	1.65	1.54	1.28	1.66	1.50
Easton	4.54	4.37	3.91	4.13	4.04	4.09	3.81	3.24	4.27	3.73
Thurmont	2.74	2.55	2.20	2.21	2.58	2.41	2.39	2.03	4.33	3.26
Berlin	2.31	2.35	2.27	2.58	1.99	2.44	2.09	2.19	2.30	1.17
Williamsport	1.79	1.52	1.47	1.17	1.64	1.85	1.87	1.39	2.48	2.15
Somerset	1.11	N/A	N/A	0.36	1.00	N/A	N/A	N/A	N/A	N/A
A&N Coop.	2.10	2.29	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A

Upcoming Milestones

On February 2, 2017, the Commission issued Order No. 88007 after holding semi-annual hearings for results and programmatic adjustment requests stemming from the first half of 2016. The following directives were issued in the Order:

- EmPOWER Maryland Program Work Groups – In Order No. 88007, the Commission directed the various EmPOWER Maryland work groups to investigate two issues involving the HPwES program and the marketing of EmPOWER Maryland. These tasks were reviewed as part of the Commission's May semi-annual hearings and may be subject to further Commission directives in a later order.

- EmPOWER Program Modifications – The Commission approved a new design for the HPwES program so that it incorporates performance-based incentives, and also allowed BGE to combine its Retrocommissioning and Building Operator Certification programs into one.

During the 2017 legislative session, the Maryland General Assembly passed Senate Bill 184 / House Bill 514, which codified the Commission's order regarding post-2015 electric energy efficiency goals and the prospective cost-effectiveness framework. The legislation

prescribes that the methodology and magnitude of the savings trajectory described in Commission Order No. 87082 are applicable for the next two program cycles, and may be revisited beginning with the 2024 – 2026 program cycle. The electric Utilities, WGL, DHCD, Staff, and other stakeholders will work throughout 2017 on the planning process for the next three year program cycle, and the Commission will review the proposals for the 2018-2020 program cycle at the October - November 2017 semi-annual hearings.