PUBLIC SERVICE COMMISSION OF MARYLAND

The EmPower Maryland Energy Efficiency Act STANDARD REPORT OF 2011

With Data for Compliance Year 2010

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

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Executive Summary

In 2010, the EmPower Maryland initiative kicked into high gear, with the five largest utilities[1] (hereinafter "utilities") fully implementing their Public Service Commission ("Commission")-approved EmPower Maryland energy efficiency and conservation ("EE&C") portfolios[2] and four utilities offering Demand Response programs.[3] [4] Although each utility has seen marked improvement in participation quarter over quarter, energy savings and demand reductions remain considerably lower than targeted in the utilities plans, and even more modest against the EmPower Maryland 2011 and 2015 goals. Much of the energy savings achieved to date is due to the economic downturn, which was partially offset by the weather. A hot summer and cold winter led to higher peak demands and greater energy usage. Over the summer of 2010, the Commission approved Baltimore Gas and Electric Company's ("BGE") and Potomac Electric Power Company's ("Pepco") proposed Advance Metering Infrastructure ("AMI") Initiatives and deferred a decision on Delmarva Power and Light Company's ("DPL") AMI Initiative in order to further investigate the cost effectiveness of DPL's proposal. The Commission expects that the utilities will continue to revise or enhance their plans to provide additional resources, especially the deficient energy savings, to meet their 2011 and 2015 goals. These additional resources may be derived from new EE&C programs, advanced metering initiatives, and/or increased development and use of distributed generation and demand response ("DR") resources.

Initiative Highlights

- Combined, the EmPower Maryland utilities are not on target to reach the 5% per capita reduction goal in energy usage by 2011.
- Program-to-date, the utilities' EmPower Maryland programs have saved a total of 661,290 MWh and 672 MW (see Table 1 on the following page for individual utility savings), and encouraged the purchase of or installation of approximately 8.6 million energy-efficient measures.

[1] Potomac Edison ("PE"), Baltimore Gas & Electric, Delmarva Power, Pepco and Southern Maryland Electric Cooperative ("SMECO").
[2] The five utilities with approved EE&C programs are PE, BGE, DPL, Pepco, and SMECO.
[3] The four utilities with approved DR programs are BGE, Pepco, DPL, and SMECO.
[4] PE: Case 9153 Order No. 82825 dated August 6, 2009; BGE: Case 9154 Order No. 82674 dated December 31, 2008; DPL: Case 9156 Order No. 82835 dated August 13, 2009; Pepco: Case 9155 Order No. 82836 dated August 13, 2009; SMECO: Case 1957 Order No. 82834 August 13, 2009.

Table 1. EE&C and Demand Response Reported Achievements*

	2010 Reduction	Percentage of 2010 Interim Target**	Program-to-Date Reduction***	Percentage of 2011 Target
PE				
Electric Consumption Reduction (MWh)	14,994	48%	15,057	17%
Demand Reduction (MW)	5	35%	5	14%
BGE				
Electric Consumption Reduction (MWh)	274,068	80%	443,824	43%
Demand Reduction (MW)	215	70%	560	47%
DPL				
Electric Consumption Reduction (MWh)	11,632	31%	24,364	22%
Demand Reduction (MW)	15	62%	18	23%
Pepco				
Electric Consumption Reduction (MWh)	67,897	41%	159,551	33%
Demand Reduction (MW)	58	51%	70	33%
SMECO				
Electric Consumption Reduction (MWh)	18,461	73%	18,494	27%
Demand Reduction (MW)	11	49%	19	33%

*Based on preliminary energy and demand savings from quarterly programmatic reports. These savings will be verified through an EM&V process.
** Percentage of energy savings forecasted to be achieved in 2010 minus 2009 forecast from individual utility plans.
*** Program-to-date reported reduction includes savings contributions from Fast Track beginning January 1, 2008.

- In 2010, 1,992 low-income customers participated through the Residential Low-income Programs.
- The average monthly residential surcharge bill impacts[5] for 2010 were as follows:
  - PE: $0.63 (EE&C only).

[5] Bill impacts are calculated assuming an average monthly usage of 1,000 kWh.

- BGE: $0.73 (EE&C) and $1.18 (DR), totaling $1.91.
- DPL: $0.92 (EE&C) and $1.82 (DR), totaling $2.74.
- Pepco: $0.78 (EE&C) and $1.25 (DR), totaling $2.03.
- SMECO: $0.79 (EE&C) and $0.74 (DR), totaling $1.53.

- The surcharge bill impacts do not include any energy savings associated with participating in the EmPower Maryland programs. Table 2 calculates the estimated annual energy savings, annual bill savings, and monthly bill savings for a participant in each of the utilities' Quick Home Energy Check-up programs:[6]

Table 2. Estimated Annual Energy (kWh) and Bill Savings ($)

Utility	Estimated Annual Energy Savings (kWh)	Estimated Annual Bill Savings ($)	Estimated Monthly Bill Savings ($)
PE	875	$69.77	$5.81
BGE	378	$40.68	$3.39
DPL	457	$46.93	$3.91
Pepco	544	$61.12	$5.09
SMECO	486	$45.35	$3.78

Table 2 shows that residential customers, who participated in the Quick Home Energy Check-up program[7], on average, obtained average energy that led to bill savings that were greater than the EE&C and DR surcharge bill impacts across all service territories. Additional energy and bill savings would be achieved if residential customers elected to participate in more than one program.

- The utilities, to date, have spent over $281 million on the EmPower Maryland programs, including approximately $105.4 million on EE&C programs, $165.3 million on DR programs and $10.5 million for general awareness.

Report Contents

This document constitutes the 2011 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 Utility Companies Article, *Annotated Code of Maryland* ("PUC Article"). PUC Article § 7-211 requires that, on or before March 1 of each year, the Commission, in consultation with the Maryland Energy Administration[8] ("MEA"), shall report to the General Assembly on the following:

[6] Participant annual energy savings (kWh) is calculated by dividing the reported 2010 annualized energy savings by the reported number of participants. Estimated annual bill savings ($) is calculated by multiplying the energy savings by the SOS supply rate. It does not include savings from transmission or distribution rates. Estimated monthly bill savings ($) is calculated by dividing the estimated annual bill savings by 12.

[7] The Commission directed each of the utilities to offer a Quick Home Energy Check-up ("QHEC") Program at no additional cost to participants. The QHEC packages cost-effective turn-key energy efficient products, such as compact fluorescent lights ("CFLs), low-flow showerheads, faucet aerators, hot water pipe insulation, etc., with a short "check list style" audit to identify other potential energy efficient improvements.

[8] MEA has been an active participant in the stakeholder process and continues to be an active participant in the ongoing EmPower Plan enhancement meetings. The EmPower Maryland Act calls for MEA to provide 5% of 15% per capita energy consumption reduction goal by 2015. At the time of this Report, MEA had not provided its plan to achieve the 5% energy consumption reduction as required by the EmPower Maryland Act.

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 PUC Article § 7-211, topics addressed in this report include a summary of the EE&C and DR program achievements, progress on distributed generation and AMI initiatives, and information on forthcoming milestones.

EmPower Maryland Portfolios

The Commission directed Maryland's IOUs and SMECO to meet EmPower Maryland's goals through a diverse array of cost-effective solutions for its Maryland ratepayers, which can include EE&C, DR, distributed generation and AMI or Smart Grid opportunities. The requirement that programs be cost-effective is an important point of context, as it explains why the Companies approved plans were not expected to meet or surpass the EmPower Maryland goals.

Prior to approving the initial EmPower Maryland plans, the Commission estimated the share of the EmPower Maryland energy and demand savings goals per utility service territory.[9] Based on each utility's plan, Table 3 illustrates the utility's forecasted 2011 peak demand reductions and energy savings achievements for the Commission-approved EE&C and demand response programs as a percentage compared against the EmPower Maryland targets. Overall, the forecasted reductions in the utility plans expected to easily meet their peak demand reduction goals for 2011, but only reach approximately 63% of the energy savings. Forecasted Achievements significantly decline in 2015, as targets more than double from 894 MW in peak demand and 3,161,065 MWh of energy savings necessary in 2011 to 2,622 MW and 7,268,540 MWh in 2015. The majority of peak demand savings is derived from the direct load control programs, which utilities with such programs expect to maximize participation in the next few years. For all programs, consumer participation, estimated conservatively in the utility's plans, will be a huge variable in how quickly energy savings and demand reductions accrue, but it should be noted that additional programs or initiatives are necessary to achieve the 2015 energy savings goals.

[9] *Notice of EmPower Maryland Plan Consumption and Demand Reduction Targets*, issued August 15, 2008.

Table 3. EE&C and Demand Response Estimated Forecasted Achievements in 2009-2011 EmPower Plans (as Percentage Against EmPower Maryland Target)

	Percentage of EmPower Maryland Goal			
	2011		2015	
	Peak Demand Reduction (MW)	**Electric Consumption Reduction (MWh)**	**Peak Demand Reduction (MW)**	**Electric Consumption Reduction (MWh)**
PE	72%	90%	53%	93%
BGE	232%	52%	121%	62%
DPL	124%	54%	101%	59%
Pepco	150%	65%	107%	64%
SMECO	206%	88%	87%	72%
All Utilities	**216%**	**63%**	**110%**	**66%**

Unfortunately, actual energy and peak demand reductions to date shown in Table 1 are significantly lower than the achievements projected in Table 3 for 2011 in the 2009-2011 utility plans. No utility had their plans fully operational throughout 2009. In 2010, a majority of the utility approved Empower Maryland programs were operational for the entire year, which resulted in an increase of reported energy savings of over 93 percent compared to 2009.[10] Consequently, program performance during 2010 did not fall as short of the original program estimates for annual savings as a comparison to the 2011 goal implies. The most important element in achievement shortcomings to date appears to be the late start of the programs. Table 1 illustrates program success against the 2010 Interim Target and then against the 2011 EmPower Maryland goal.

In order to verify the utilities' energy and peak demand savings resulting from each utility's EE&C and DR programs, the Commission is also developing an Evaluation, Measurement & Verification ("EM&V") process for the EmPower programs. Please see "Evaluation, Measurement & Verification" for further information.

EE&C Programs

As mandated by the EmPower Maryland Act of 2008, the utilities are responsible for a 10 percent reduction in the State's energy consumption and all of the 15 percent of the required demand reductions by 2015. The initial goal for 2011 is a 5% reduction in per capita energy usage and peak demand compared to 2007 base year levels. To generate a portion of this savings, the five utilities each developed EE&C portfolios, based on a three-year planning cycle beginning with the Program Planning Year ("PY") 2009 – 2011. Subsequent plans will be developed for 2012 – 2014 and later years.

The EmPower Maryland portfolios were similarly designed with some variation in execution based upon the demographic of the service territory. Residential EE&C programs include discounted CFLs and appliances, HVAC rebates, home energy audits, weatherization, and low income programs.[11] Commercial EE&C programs are designed to encourage businesses

[10] Some programs were soft launched throughout 2010.
[11] Other than the surcharge amount charged to ratepayers, low income programs are offered at no additional cost for those who qualify.

to upgrade to more efficient equipment, such as lighting, HVAC or motors, or improve their building performance through weatherization or building shell upgrades. For larger commercial buildings or industrial facilities, the utilities can customize its incentives for cost-effective improvements.

PE

PE's portfolio was approved with regard to program design by Order No. 82383 on December 31, 2008 and approved for implementation by Order No. 82825 on August 6, 2009. The approved plan includes a portfolio of six residential[12] and five commercial[13] EE&C programs. PE's programs are designed to save 79,377 MWh by the end of 2011 and 261,117 MWh by the end of 2015.

PE fully implemented its suite of programs during the first quarter of 2010. The programs, for both residential and commercial, continued to ramp up during the year. To capture more participation, the Company enhanced several of its programs. For its Lighting Program, PE altered its program approach from a mail-in rebate form to a point of purchase buy-down. This eliminated extra steps ratepayers were asked to make and allowed for the program to be expanded to large big box stores, as well as smaller "mom and pop" shops. After the alteration of the program design, the program experienced a 212 percent increase in participation from the previous quarter. Another enhancement the Company initiated was to lower its eligibility requirements (e.g., energy usage and demand) for its Commercial and Industrial programs, specifically Custom and Lighting Efficiency. These changes allowed for a greater penetration of the programs with small businesses and expanded the measures and rebates available.

PE has experienced success with its Heating Ventilation Air Conditioner Efficiency Program during 2010. The program generated 193 percent, or 1,522 MWh more in annualized energy savings than forecasted. During the fourth quarter, the Company doubled the amount of rebates processed under this program from the third quarter program to date reported participation. The success of this program through late 2010 may be an indicator of the results to be anticipated for the 2011 cooling season.

As noted in Table 4, in 2010, PE's EE&C programs achieved 17 percent, or 15,057 MWh, of its 2011 EE&C electric consumption reduction target. PE's portfolio of programs achieved 14 percent, or 5 MW of its 2011 peak demand reduction target, as noted in Table 5. Due to the fact that the Company was still ramping up during 2010, PE fell short of its 2010 Interim Target for annual energy and demand savings in order to remain on target for 2011, reaching only 48 percent and 35 percent for energy savings and demand reduction, respectively. However, over 52 percent of PE's reported energy savings in 2010 occurred in the fourth quarter of 2010. PE does not anticipate that it will achieve its 2011 goal or target.

[12] Approved residential programs include: CFL Rebate Program; Energy Star Appliance Program; Home Performance Program; Low Income Program; Air Conditioner Efficiency Program; and Heat Pump Efficiency Program.

[13] Approved commercial programs include: Lighting Efficiency Program; Air Conditioning Efficiency Program; Heat Pump Efficiency Program; Commercial and Industrial Efficient Drives; and Commercial and Industrial Custom Applications.

Table 4. PE EE&C Energy Savings Interim Reported[14] Achievements

	2010 Electric Consumption Reduction (MWh)	Percentage of 2010 Interim Target*	Program-to-Date Electric Consumption Reduction (MWh)	Percentage of 2011 Target**
EmPower Maryland Targets**	30,969		89,988	
PE Portfolio of Programs	14,994	48%	15,057	17%

*Percentage of energy savings forecasted to be achieved in 2010 minus 2009 forecast.
**EmPower Maryland Targets are based upon the utility's individual EmPower Maryland filing which reflects the level of reduction the utility forecasted it could achieve.

Table 5. PE Peak Demand Reduction Interim Reported Achievements[15]

	2010 Peak Demand Reduction (MW)	Percentage of 2010 Interim Target*	Program-to-Date Peak Demand Reduction (MW)	Percentage of 2011 Target**
EmPower Maryland Targets**	13		34	
PE Portfolio of Programs	5	35%	5	14%

*Percentage of demand reduction reported to be achieved in 2010 minus 2009 forecast.
**EmPower Maryland Targets are based upon the utility's individual EmPower Maryland filing which reflects the level of reduction the utility forecasted it could achieve.

PE Low Income Program

PE began its Limited Income Program in November 2009. Rather than develop its own contractor base, PE developed a partnership with the Maryland Department of Housing and Community Development ("MDHCD") that utilizes local weatherization agencies in the utility's service territory to conduct weatherization audits and install measures. This allows the local weatherization offices and PE to leverage funds to provide the most energy savings to customers in its service territory.

In August 2010, the Company filed and was approved for an expansion of its low income program to include refrigerator and freezer replacement. PE incorporated this into its limited income program in November 2010 and anticipates that the installation of these particular measures will increase in 2011. In 2010, the program completed 228 audits within its territory, installing approximately 3,501 measures. PE anticipates that as the American Reinvestment

[14] Reported savings are unverified energy savings and demand reductions based the utilities' quarterly programmatic reports. An independent verification of savings is conducted annually.
[15] PE is the only utility whose Peak Demand Reduction Goals are solely based upon its EE&C Programs. Currently, PE does not have a demand response program.

Recovery Act ("ARRA") funds deplete, the local weatherization agencies will complete significantly more projects under PE's low income program.

PE General Awareness

PE used its Watt Watcher Energy Awareness and Market Transformation campaign to educate all customer classes, motivate customers to participate in one or more programs, help customers make informed decisions and increase understanding of the benefits of the program. The "little decisions" could yield "big savings" campaign utilized print, radio, cinema, and on-line advertising outlets throughout 2010. PE partnered with Radio Disney for a school program that launched in October 2010. This initiative reached out to 12 schools through a jeopardy-style quiz show.

BGE

BGE's portfolio was approved by Order No. 82384 on December 31, 2008, and began implementing six residential[16] and three commercial[17] EE&C programs throughout 2009, which were designed to save approximately 1,024,416 MWh by 2011 and 2,611,902 MWh by 2015. Since BGE was the first to receive full authorization to implement its EE&C programs, the Company continues to achieve the most energy savings and demand reduction to date.

All programs were fully operational during 2010 with strong results in participation as most residential programs met or exceeded forecasted participation and energy savings estimates. Overall, the residential suite of programs has proven to be successful throughout the service territory in 2010, exceeding its forecasted measures by 15 percent or 433,784 measures and its forecasted annualized energy savings by 14 percent or 20,095 MWh. The suite of programs achieved 94 percent, or 31 MW, of its forecasted coincident peak demand reduction. This shortfall may be attributed to the mix of measures purchased under the program, compared to the forecasted portfolio. The commercial programs failed to meet annual forecasted energy savings estimates. However, the commercial programs reported fourth quarter energy savings that exceeded the reported energy savings from the prior two quarters.

Performing exceptionally well was BGE's Residential Retrofit program, the Quick Home Energy Check-up ("QHEC") Program. In 2010, the program had forecasted 1,235 participants and 79,888 measures. The QHEC program alone reported 8,605 participants and 79,494 measures – an almost seven-fold increase in participants over full program expectations, and energy savings nearly on par with its annual 2010 targets. The QHEC program also met or exceeded most of its energy savings goals for 2010. The Home Performance with ENERGY STAR Program, another Residential Retrofit program, showed improvement over 2009 results, but was still trailing in its forecasted targets. Most likely this is due to the higher costs to participants which may act as a strong deterrent to consumers.

As noted in Table 6, in 2010, BGE's EE&C programs achieved 43 percent, or 443,824 MWh, of its 2011 EE&C electric consumption reduction target. BGE's portfolio of programs,

[16] Approved residential programs include: the Lighting and Appliance Program; Energy Star for New Home; Home Performance with Energy Star; Quick Home Energy Check-up; Online Energy Calculator; Residential HVAC Rebate Program; and Limited Income Energy Efficiency Program.

[17] Approved commercial programs include: Energy Solutions for Small Business; Small Business Lighting Solutions Program; and Retrocommissioning Program for industrial and commercial businesses.

including Demand Response, achieved 47 percent, or 560 MW of its 2011 peak demand reduction target, as noted in Table 7. BGE fell short of its forecasted annual energy and demand savings in order to remain on target for 2011, reaching only 80 percent and 70 percent of its 2010 forecasted benchmark for energy savings and demand reduction, respectively. Primarily, this is attributable to the commercial programs ramping up more slowly due to economic conditions. In 2010, these commercial programs have shown improved participation and savings, with this trend it is expected to continue in 2011.

Table 6. BGE EE&C Interim Reported[18] Achievements

	2010 Electric Consumption Reduction (MWh)	Percentage of 2010 Interim Target*	Program-to-Date Electric Consumption Reduction (MWh)***	Percentage of 2011 Target**
EmPower Maryland Targets**	343,685		1,024,416	
BGE Portfolio of Programs	274,068	80%	443,824	43%

*Percentage of energy savings forecasted to be achieved in 2010 minus 2009 forecasts.
**EmPower Maryland Targets are based upon the utility's individual EmPower Maryland filing which reflects the level of reduction the utility forecasted it could achieve.
*** Program-to-date reported reduction includes savings contributions from Fast Track beginning January 1, 2008.

Table 7. BGE Peak Demand Reduction Interim Reported Achievements[19]

	2010 Peak Demand Reduction (MW)	Percentage of 2010 Interim Target*	Program-to-Date Peak Demand Reduction (MW)***	Percentage of 2011 Target**
EmPower Maryland Targets**	306		1,190	
BGE Portfolio of Programs	215	70%	560	47%

*Percentage of demand savings forecasted to be achieved in 2010 minus 2009 forecast.
**EmPower Maryland Targets are based upon the utility's individual EmPower Maryland filing which reflects the level of reduction the utility forecasted it could achieve.
*** Program-to-date reported reduction includes savings contributions from Fast Track beginning January 1, 2008.

BGE Low Income Program

For the year, BGE's Low Income program met or exceeded forecasts in most of its metrics. Participation was 1,691 or 110 percent of targets. Additionally BGE exceeded its peak

[18] Reported savings are unverified energy savings and demand reductions based the utilities' quarterly programmatic reports. An independent verification of savings is conducted annually.
[19] Demand Reduction Goals and Achievements include peak demand reduction generated by both EE&C and Demand Response Programs, as both components contribute towards achieving the overall 2011 and 2015 peak reduction goals.

demand reduction target and achieved 94 percent of its annualized energy savings. BGE also improved the time it took for a customer to receive an audit, decreasing the wait time from 44 calendar days in 2009 to 24 days in 2010.

BGE's partnership with Baltimore City Weatherization for a boiler, furnace, and heat pump replacement pilot program ended in April 2010, as planned, after 6 months of pilot activity. Thirty six referrals were received in 2010 with each receiving a replacement. BGE believes that lessons learned from the Baltimore City program will lead to improved communication and coordination with MDHCD in the future. BGE will also work with MDHCD to further expand the outreach and effectiveness of the Low Income program. BGE hopes to continue its working relationship with MDHCD, partnering with a local weatherization agency.

BGE General Awareness

BGE continued marketing efforts in line with the themes developed by under its *Learning to Speak the Language of Energy Efficiency* campaign in 2009. BGE utilized television, radio, print, transit, outdoor, internet and events to market their programs. In a unique approach, BGE credits its partnership with WJZ as a strong driver for traffic on the BGESmartEnergy.com website and plans to continue its marketing efforts in the partnership. BGE also combined direct mailings and phone calls to effectively promote its Residential programs to homeowner associations reaching over 3,000 units in 2010.

BGE's OPOWER pilot was approved in July 2010 with mailings being sent to 25,000 customers in October and November. The OPOWER program aims to improve energy efficiency knowledge by providing customers with comparison charts of their energy use compared with similar BGE customers as well as by providing energy efficiency information. Only 34 customers have opted out to this point and fewer than 50 calls have been made to the call center. BGE will file a complete report on the effectiveness of providing a pilot participant with comparable energy usage data has on lowering the energy usage of the pilot participant at the conclusion of the OPOWER pilot.

DPL

DPL's portfolio was approved with regard to program design by Order No. 82386 on December 31, 2008 and approved for implementation by Order No. 82835 on August 13, 2009. DPL's approved plan included four residential[20] and four non-residential[21] EE&C programs, which were designed to save 105,469 MWh by 2011 and 270,552 MWh by 2015. DPL's portfolio of EE&C programs is applicable across the residential, commercial, government, and institutional customer base. DPL's plan consists of a traditional set of programs, such as market buy-down or other incentives for the purchase and/or installation of energy efficient products or measures.

At the conclusion of 2010, DPL had completed implementing its suite of programs. DPL's most successful program to date continued to be the Lighting and Appliance program

[20]Approved residential programs include: the Lighting and Appliance Program; the Home Performance with Energy Star Program which includes Quick Home Energy Check-up and the Online Audit Calculator; the Income Eligible Energy Efficiency Program; and the HVAC Program.

[21]Approved commercial programs include: the Prescriptive Program; the Heating, Ventilation, and Air-Conditioning Program, Custom Incentive Program; and the Building Commissioning and Operations & Maintenance Program.

among the residential offerings. The Appliance portion of the program experienced double the amount of rebated appliances during 2010 due to the increased rebate available through MEA's State Energy Efficiency Appliance Replacement Program ("SEEARP") funded by ARRA. This program ran from April 2010 through November 2010 and offered additional rebates on utility rebated appliances as well as new rebates not offered under EmPower portfolio. Among its commercial and industrial programs, the Prescriptive Program contributed the most savings. This program offers rebates on standard commercial items such as overhead lighting, occupancy sensors and motors.

The Appliance Program exceeded several forecasts for DPL. During 2010, the Company more than doubled the number of participants under the program. The Appliance Program rebated 126 percent more appliances than forecasted for 2010, generating 237 percent, or 147 MWh more in annualized energy savings than forecasted. DPL plans to enhance its Appliance Program to include additional appliances and rebates to match the levels resulting from the collaborative effort with MEA.

As noted in Table 8, in 2010, DPL's EE&C programs achieved 22 percent, or 24,364 MWh, of its 2011 EE&C electric consumption reduction target. DPL's portfolio of programs, including Demand Response, achieved 23 percent, or 18 MW of its 2011 peak demand reduction target, as noted in Table 9. Due to the fact that the Company was still ramping up its programs well into 2010, DPL fell short of its 2010 Interim Target for annual energy and demand savings in order to remain on target for 2011, reaching only 31 percent and 62 percent of its 2010 interim target for energy savings and demand reduction, respectively. DPL does not anticipate that it will achieve its 2011 goal or target.

Table 8. DPL EE&C Energy Savings Interim Reported[22] Achievements

	2010 Electric Consumption Reduction (MWh)	**Percentage of 2010 Interim Target***	**Program-to-Date Electric Consumption Reduction (MWh)*****	**Percentage of 2011 Target****
EmPower Maryland Targets**	37,321		112,436	
DPL Portfolio of Programs	11,632	31%	24,364	22%

*Percentage of energy savings forecasted to be achieved in 2010 minus 2009 forecast.

**EmPower Maryland Targets are based upon the utility's individual EmPower Maryland filing which reflects the level of reduction the utility forecasted it could achieve.

*** Program-to-date reported reduction includes savings contributions from Fast Track beginning January 1, 2008.

[22] Reported savings are unverified energy savings and demand reductions based the utilities' quarterly programmatic reports. An independent verification of savings is conducted annually.

Table 9. DPL Peak Demand Reduction Interim Reported Achievements[23]

	2010 Peak Demand Reduction (MW)	Percentage of 2010 Interim Target*	Program-to-Date Peak Demand Reduction (MW)***	Percentage of 2011 Target**
EmPower Maryland Targets**	24		80	
DPL Portfolio of Programs	15	62%	18	23%

*Percentage of demand reduction forecasted to be achieved in 2010 minus 2009 forecast.
**EmPower Maryland Targets are based upon the utility's individual EmPower Maryland filing which reflects the level of reduction the utility forecasted it could achieve.
*** Program-to-date reported reduction includes savings contributions from Fast Track beginning January 1, 2008.

DPL Low Income Program

DPL began its Income Eligible Energy Efficiency Program, a low income program, in March 2010. The Company completed its first group of audits from start to finish in the third quarter of 2010. For 2010, DPL weatherized 9 homes, in which they installed a total of 129 measures. DPL anticipates that the increase in the number of participating contractors will help to increase the number of completed weatherization in 2011.

When the program launched, DPL provided weatherization audit and measures, similar to that offered by the MDHCD local weatherization offices. In late 2010, the Company filed and was approved for an expansion of its low income program to include electric appliance replacement with such measures as air conditioning units, heat pumps, refrigerators and hot water heaters. DPL anticipates that this portion of the program will be available in 2011.

DPL General Awareness

Throughout 2010, DPL's campaign targeted various audiences with program specific messages. The Company began with radio spots, but later expanded its campaign to include television, newspaper, cinema, billboards and direct mail. A majority of the marketing was focused on building awareness around DPL's suite of program to improve winter energy bills. During the cooling season, DPL heavily promoted its demand response program, Energy Wise Rewards.

DPL attended several special events throughout its service territory to foster two-way dialogue between its customers and the Company. DPL also turned to social marketing, such as Twitter and Facebook, to target its customers with energy efficiency tips and programs.

[23] Demand Reduction Goals and Achievements include peak demand reduction generated by both EE&C and Demand Response Programs, as both components contribute towards achieving the overall 2011 and 2015 peak reduction goals.

Pepco

Pepco's portfolio was approved with regard to program design by Order No. 82385 on December 31, 2008 and approved for implementation by Order No. 82836 on August 13, 2009. Pepco's approved plan included four residential[24] and four non-residential[25] EE&C programs, which were designed to save 447,614 MWh by 2011 and 1.134 Million MWh by 2015.[26] Opportunities range from using the information provided through customer information and education, to incentives to purchase lighting and energy efficient HVAC and housing or building upgrades.

At the conclusion of 2010, the Company had completed implementing its suite of programs. Pepco's most successful program to date continued to be the Lighting and Appliance program among the residential offerings. The Appliance portion of the program experienced double the amount of rebated appliances during 2010 due to the increased rebates available through MEA's SEEARP funded by ARRA. This program ran from April 2010 through November 2010 and offered additional rebates on utility rebated appliances as well as new rebates not offered under the EmPower portfolio. Among its commercial and industrial programs, the Prescriptive Program contributed the most savings. This program offers rebates on standard commercial items such as overhead lighting, occupancy sensors and motors.

The Lighting and Appliance Program exceeded several forecasts for Pepco. During 2010, the Company approximately doubled the number of participants under both sections of the program. The Lighting Program generated 88 percent, or 401,170 more participants than forecasted, resulting in 41 percent, or 10,407 MWh in additional annualized energy savings than forecasted. The Appliance Program rebated 159 percent more appliances than forecasted for 2010, generating 278 percent, or 479 MWh more in annualized energy savings than anticipated. Pepco plans to enhance its Appliance Program to include additional appliances and rebates to match the levels resulting from the collaborative effort with the Maryland Energy Administration.

As noted in Table 10, in 2010, Pepco's EE&C programs achieved 33 percent, or 159,551 MWh, of its 2011 EE&C electric consumption reduction target. Pepco's portfolio of programs, including Demand Response, achieved 24 percent, or 70 MW of its 2011 peak demand reduction target, as noted in Table 11. Due to the fact that the Company was still ramping up its programs well into 2010, Pepco fell short of its 2010 Interim Target for annual energy and demand savings in order to remain on target for 2011, reaching only 41 percent and 51 percent of its 2010 Interim Target for energy savings and demand reduction, respectively. Pepco does not anticipate that it will achieve its 2011 goal or target.

[24] Approved residential programs include: the Lighting and Appliance Program; the Home Performance with Energy Star Program which includes Quick Home Energy Check-up and the Online Audit Calculator; the Income Eligible Energy Efficiency Program; and the HVAC Program.

[25] Approved commercial programs include: the Prescriptive Program; the Heating, Ventilation, and Air-Conditioning Program, Custom Incentive Program; and the Building Commissioning and Operations & Maintenance Program.

[26] Plan at 115851, Table ES-1.

Table 10. Pepco EE&C Energy Savings Interim Reported[27] Achievements

	2010 Electric Consumption Reduction (MWh)	Percentage of 2010 Interim Target*	Program-to-Date Electric Consumption Reduction (MWh)***	Percentage of 2011 Target**
EmPower Maryland Targets**	163,800		487,616	
Pepco Portfolio of Programs	67,897	41%	159,551	33%

*Percentage of energy savings forecasted to be achieved in 2010 minus 2009 forecast.
**EmPower Maryland Targets are based upon the utility's individual EmPower Maryland filing which reflects the level of reduction the utility forecasted it could achieve.
*** Program-to-date reported reduction includes savings contributions from Fast Track beginning January 1, 2008.

Table 11. Pepco Peak Demand Reduction Interim Reported Achievements[28]

	2010 Peak Demand Reduction (MW)	Percentage of 2010 Interim Target*	Program-to-Date Peak Demand Reduction (MW)***	Percentage of 2011 Target**
EmPower Maryland Targets**	113		295	
Pepco Portfolio of Programs	58	51%	70	24%

*Percentage of demand reduction forecasted to be achieved in 2010 minus 2009 forecast.
**EmPower Maryland Targets are based upon the utility's individual EmPower Maryland filing which reflects the level of reduction the utility forecasted it could achieve.
*** Program-to-date reported reduction includes savings contributions from Fast Track beginning January 1, 2008.

Pepco Low Income Program

Pepco began its Income Eligible Energy Efficiency Program, a low income program, in March 2010. The Company completed its first audits from start to finish in the third quarter of 2010. For 2010, Pepco weatherized 47 homes, in which they installed a total of 554 measures. Pepco anticipates that its increase in participating contractors will help to increase the number of completed weatherization in 2011.

When the program launched, the Company provided weatherization audit and measures, similar to that offered by the MDHCD local weatherization offices. In late 2010, the Company filed and was approved for an expansion of its low income program to include electric appliance replacement with such measures as air conditioning units, heat pumps, refrigerators and hot

[27] Reported savings are unverified energy savings and demand reductions based the utilities' quarterly programmatic reports. An independent verification of savings is conducted annually.
[28] Demand Reduction Goals and Achievements include peak demand reduction generated by both EE&C and Demand Response Programs, as both components contribute towards achieving the overall 2011 and 2015 peak reduction goals.

water heaters. Pepco anticipates that this portion of the program will be available in 2011. Pepco has expanded its contractor pool in 2010 as part of its execution plan to complete more audits and installations during 2011.

Pepco General Awareness

Throughout 2010, Pepco's campaign targeted various audiences with program specific messages. The Company began with radio spots, but later expanded its campaign to include television, newspaper, cinema, billboards and direct mail. A majority of the marketing was focused on building awareness around Pepco's suite of program to improve winter energy bills. During the cooling season, Pepco heavily promoted its demand response program, Energy Wise Rewards.

In a unique approach, Pepco sponsored a Home Energy Makeover contest with a local television station. Pepco aired television advertisements to promote EmPower programs and did special on air spots with the news station to answer customer questions regarding energy efficiency. In addition, the Company chose two winners from its Maryland territory to receive $10,000 towards energy efficiency upgrades.

SMECO

SMECO's portfolio was approved with regard to program design by Order No. 82387 on December 31, 2008 and approved for implementation by Order No. 82834 on August 13, 2009. The approved plan included six residential[29] EE&C programs and one non-residential[30] EE&C program. SMECO's programs were designed to reduce energy consumption by 68,626 MWh by the end of 2011 and 165,542 MWh by the end of 2015. SMECO's plan consists of a traditional set of programs, such as market buy-down or other incentives for the purchase and/or installation of energy efficient products or measures.

SMECO finished implementing its suite of programs during the first quarter of 2010. During the year, the Cooperative worked to ramp up its program participation through marketing and general awareness. The residential programs has proven to be successful throughout the service territory, exceeding its forecasted annualized energy savings by 54 percent or 5,984 MWh and forecasted coincident peak demand reduction by 25 percent or 0.59 MW. The Commercial and Industrial programs performed below expectations for 2010, affecting the overall savings reductions. However, SMECO has several projects in the pipeline for 2011 under its Commercial and Industrial Programs.

SMECO's New Homes Program was well received by the construction industry despite the housing market downturn. The program, which incentivizes builders to build homes that contain measures equivalent or greater than ENERGY STAR code, has surpassed forecasted results for both 2010 and program-to-date. In 2010, SMECO forecasted that the program would complete 71 homes generating 155 MWh in annualized energy savings and 0.11 MW in demand reduction. At the conclusion of 2010, builders had completed 245 homes, 245 percent more than anticipated. This resulted in SMECO realizing a 273 percent increase in both annualized energy

[29] Approved residential programs include: Lighting Program; Appliances Program; Home Performance with Energy Star; Quick Home Energy Check-up; HVAC; Energy Star New Home Construction; and Limited Income Energy Efficiency Program.

[30] Approved commercial program includes: Prescriptive/Custom Program.

savings and coincident peak demand reduction. There were 600 homes committed to the program prior to the conclusion of 2011.

As noted in Table 12, in 2010, SMECO's EE&C programs achieved 27 percent, or 18,494 MWh, of its 2011 EE&C energy reduction target. SMECO's portfolio of programs, including Demand Response, achieved 33 percent, or 19 MW of its 2011 peak demand reduction target, as noted in Table 13. Due to the fact that the Company was still ramping up during 2010, SMECO fell short of its 2010 Interim Target for annual energy and demand savings in order to remain on target for 2011, reaching only 73 percent and 49 percent, respectively. SMECO does not anticipate that it will achieve its 2011 goal or target.

Table 12. SMECO EE&C Energy Savings Interim Reported[31] Achievements

	2010 Electric Consumption Reduction (MWh)	Percentage of 2010 Interim Target*	Program-to-Date Electric Consumption Reduction (MWh)	Percentage of 2011 Target**
EmPower Maryland Targets**	25,268		68,626	
SMECO Portfolio of Programs	18,461	73%	18,494	27%

*Percentage of energy savings forecasted to be achieved in 2010 minus 2009 forecast.
**EmPower Maryland Targets are based upon the utility's individual EmPower Maryland filing which reflects the level of reduction the utility forecasted it could achieve.

Table 13. SMECO Peak Demand Reduction Interim Reported Achievements[32]

	2010 Peak Demand Reduction (MW)	Percentage of 2010 Interim Target*	Program-to-Date Peak Demand Reduction (MW)	Percentage of 2011 Target**
EmPower Maryland Targets**	23		59	
SMECO Portfolio of Programs	11	49%	19	33%

*Percentage of demand reduction forecasted to be achieved in 2010 minus 2009 forecast.
**EmPower Maryland Targets are based upon the utility's individual EmPower Maryland filing which reflects the level of reduction the utility forecasted it could achieve.

[31] Reported savings are unverified energy savings and demand reductions based the utilities' quarterly programmatic reports. An independent verification of savings is conducted annually.
[32] Demand Reduction Goals and Achievements include peak demand reduction generated by both EE&C and Demand Response Programs, as both components contribute towards achieving the overall 2011 and 2015 peak reduction goals.

SMECO Low Income Program

SMECO launched its Limited Income Energy Efficiency Program in February 2010. Since the program began there have only been 52 active leads. This has resulted in 42 completed audits and 17 homes have received installation of measures. As a unique approach, SMECO's low income program compliments the Maryland Department of Housing and Community Development's program by providing shell improvements to bring homes up to code to allow for weatherization to occur.

SMECO General Awareness

SMECO continued its "Save Energy. Save Money" campaign in 2010. Through this campaign, SMECO utilized print advertisements in local publications to promote various tips to save energy. Through online messaging, its Facebook fan base and video on demand, SMECO has been able to connect with The Cooperative also developed and produced "Save Some Bacon" tee-shirts as promotional items to get customers excited about the initiative as well as to generate word of mouth buzz.

Demand Response

The EmPower Maryland Act requires the five utilities to implement cost-effective demand response programs designed to achieve a reduction in their per capita peak energy demand (measured in kW) of five percent by 2011, ten percent by 2013, and 15 percent by 2015. In instances of system reliability or high electricity prices during critical peak hours, these programs commonly use a switch or thermostat for a central air conditioning or an electric heat pump to briefly curtail usage. The Commission approved four residential Demand Response programs in early 2008 (BGE's DR program was approved in December of 2007), with all of the programs operational by the end of 2009.[33] A significant portion of the demand reduction savings for EmPower Maryland can be attributed to these programs, with all of the utilities running such programs forecasted to exceed their 2011 demand reduction goals.[34]

Each DR program includes these common components: (1) all DR programs are 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) customers can choose one of three cycling choices, 50%, 75%, and 100%[35] except for SMECO. SMECO uses an initial 2 degree offset followed by 30% cycling for the thermostats and a 50% cycling option followed by 30% cycling for the switches during specified time periods. Utilities will invoke the cycling process when PJM calls for an emergency event or a utility's determined event during summer peak season. The incentives vary among utilities.

[33] The Commission did not approve a DR program for PE similar to those implemented for BGE, Pepco, DPL, and SMECO because PE's program was not cost-effective.

[34] The peak demand reductions achieved by the utilities include demand reductions from DR programs and EE&C programs.

[35] The cycling choices of 50%, 75%, and 100% represents the air conditioner compressor working cycle reduced by 50%, 75%, and 100% under PJM or utility invoked emergency events during summer peak season.

Table 14 summarizes the utilities incentives to the program participants.

Table 14. Utilities Incentive to 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.
DPL	$40	$40	$60	$60	$80	$80	Jun.– Oct.
Pepco	$40	$40	$60	$60	$80	$80	Jun.– Oct.
	Installation Incentive			Annual Bill Credit			Bill Credit Month
	Thermostat	Digital Switch		Thermostat	Digital Switch		
SMECO	***	None		$50	$50		Jun.– Oct.

*** A participant in SMECO CoolSentry program can keep the installed thermostat for free after 12 months of the installation; otherwise, the thermostat will be removed if the participant terminates the participation less than 12 months.

Table 15 summarizes the progress in installing these devices for each utility DLC program in 2010 and program- to-date through December 31, 2010. Ramping up efforts in 2010, the DLC programs installed 96,153 more measures than in 2009. Each utility reports that there are customer requests pending to install the devices.

Table 15. Utilities Residential Direct Load Program Installation (units)

Utility	2010	Program to Date
BGE	159,000	326,000
DPL	11,554	13,807
PEPCO	36,057	39,987
SMECO	9,599	19,464
Total	**216,210**	**399,258**

Table 16 summarizes the DLC program performance for 2010 and program-to-date. The total coincident peak demand reduction reported in 2010 was slightly below 235 MW, about 66% of the 2010 target of 358 MW. Program-to-date, the four utilities achieved 577 MW, about 44% of the 2009-2011 EmPower Maryland targets. Several barriers prevented the utilities from reaching their demand reduction goals, including permitting issues, an adequate eligible contractor base, a potential safety hazard[36] resulting in a temporary suspension of thermostat installations and lower than expected participation.[37]

[36] The safety issue involved programmable thermostats in DPL, Pepco, and SMECO programs.
[37] BGE has revised its customer participation goal from 450,000 customers to 400,000.

Table 16. DLC Program Coincident Peak Demand Reduction (MW)

Utility	2010 Peak Demand Target*	2010 Reported	Percent of 2010 Interim Target*	2009-2011 Empower Maryland Target	Program-to-Date Reported	Percent of 2009-2011 Target
BGE	243	164	67%	1005	489	49%
DPL	16	14	87%	56	16	29%
PEPCO	81	50	61%	200	55	28%
SMECO	19	8	43%	46	16	36%
Total	**358**	**235**	**66%**	**1,307**	**577**	**44%**

*Percentage of demand savings forecasted to be achieved in 2010 minus 2009 forecast.

PJM RPM Capacity Market

The DLC programs resulted in 803 MW being bid into the PJM for Delivery Year ("DY") 2013-2014 in the May 2010 PJM RPM auction, a 16% decrease from 2009 PJM bid of 952 MW for DY 2012-2013. To date, these programs have accounted for 3,050 MW of the total capacity bid into PJM market. Table 17 summarizes the capacity bid into PJM's capacity market from the DLC programs by utility and delivery year.

Table 17. Demand Response Program RPM Bid Results (MW)

Utility	DY 2013-2014	DY 2012-2013	DY 2011-2012	DY 2010-2011	DY 2009-2010	Total
BGE	615	740	513	415	217.0	2,500
DPL	32	39	25	n.a.[a]	n.a.	95
Pepco	124	149	99	n.a.	n.a.	372
SMECO	32	25	25	n.a.	n.a.	82
Total	803	953	662	415	217	3,050

[a] n.a. = no data available.

Table 18 illustrates the amount of capacity cleared in the May 2009 and May 2010 RPM Capacity market for the delivery years of 2012/2013 and 2013/2014 respectively. The table also calculates the amount of capacity revenue the utilities can expect to receive from PJM in the two delivery years that will be used to offset the costs of both demand response and EE&C programs borne by ratepayers.

Two observations of note in Table 18 are: (1) that the amount of capacity cleared in the 2013/2014 DY auction is lower than the amount of capacity cleared in 2012/2013 DY and (2) the expected revenue from PJM is higher in the 2013/2014 DY when compared to DY 2012/2013. The reason for these seemingly contradictory results (lower capacity bid and higher expected revenue) is because the clearing price for capacity increased by approximately 65 percent to 80 percent across the Maryland utility zones. According to PJM, the clearing price increases were primarily caused by the reduced capacity transfer margin into these zones and to a lesser extent by the increases in the net Cost of New Entry.[38]

[38] See PJM 2013/2014 RPM Base Residual Auction Results, PJM DCOS #592585.

Table 18. PJM RPM Bid Results and Expected Revenue for Delivery Year 2012/2013 and 2013/2014

Utility	DY 2013-2014					DY 2012-2013				
	Cleared Bids (MW)			Clearing Price ($/MW-Day)[a]	Expected Revenue ($Million)	Cleared Bids (MW)			Clearing Price ($/MW-Day)[b]	Expected Revenue ($Million)
	DR	EE&C	Total			DR	EE&C	Total		
BGE	615	65	680	$226.15	$56.13	740	100	840	$137.37	$42.12
DPL	32	2	34	$245	$3.05	39	12	51	$139.73	$2.57
Pepco	124	19	143	$247.14	$12.87	149	46	195	$137.37	$9.77
SMECO	32	16	48	$247.14	$4.32	25	10	35	$137.37	$1.75
Total	803	102	905		$76.37	953	168	1,120		$56.22

[a] Source: www.pjm.com/markets-and-operations/rpm/~/media/markets-ops/rpm/rpm-auction-info/2013-2014-base-residual-auction-report.ashx
[b] Source: http://ftp.pjm.com/markets-and-operations/rpm/~/media/markets-ops/rpm/rpm-auction-info/2012-13-base-residual-auction-report-document-pdf.ashx

The following section provides an update of each of the four utility DLC programs from January 1, 2010 through December 31, 2010.

BGE

BGE launched its DR program, PeakRewards, in June 2008. In 2010, PeakRewards enrolled 131,000 participants and installed a total of 159,000 air conditioning cycling devices. A total of 299,500 participants are enrolled in the program since its inception, with 326,000 installed devices (thermostats and switches). BGE is 75 percent to its ultimate goal of approximately 400,000 customer enrollments by the end of 2011.[39]

BGE also deployed its PeakRewards water heater program in April 2010. As of December 31, 2010, there were approximately 2,850 water heater switch installations. BGE continues to seek ways to move forward in the counties where water heater switch installation permitting issues have not been resolved.

Finally, BGE continued to operate its legacy demand response programs in 2010, which include air conditioner and water heater switches installed in the customer premises and is in the process of upgrading these customers to the PeakRewards program, if the customer decides to continue to participate. BGE enrolled about 50,000 of its legacy program customers into current PeakRewards program in 2010.[40] BGE plans to phase out the legacy programs in 2011.

[39] BGE's original estimate for customer enrollments was 450,000 by the end of 2011, or 50 percent of the eligible customers. The Company has lowered the estimate based on its experience with enrollment over the past 2 years.
[40] There were 33,000 legacy program customers as of December 31, 2010.

DPL

DPL launched its Energy Wise Rewards program in June 2009. DPL installed 11,554 air conditioning measures in 2010, exceeding its annual installation target, and installed 13,807 measures program-to-date.

The Commission temporarily suspended the installation of thermostats due to a potential safety hazard with the devices. On September 23, 2010, Pepco Holdings, Inc. ("PHI") notified the Commission of a potential fire hazard associated with the model of programmable thermostats the Company was installing as part of its Energy Wise program.[41] The Commission issued Order No. 83588 on September 23, 2010 that directed Pepco to cease the installation of the affected thermostats immediately and appear before the Commission at a hearing on September 24, 2010. On September 24, 2010, the Commission issued Order No. 83592 reinforcing the decision to cease thermostat installation in Order No. 83588 and directed Pepco to notify the Commission when the Consumer Protection Safety Commission ("CPSC") issued a decision on corrective actions for the safety issue with the thermostats DPL continued to install load control devices on central air conditioners and heat pumps. On March 7, 2011, by Order No. 83899, the Commission authorized DPL to resume installing programmable thermostats as a part of the Energy Wise Rewards program.

Pepco

Pepco launched its Energy Wise Rewards program (similar in program design to BGE's PeakRewards) in June 2009. Pepco installed 36,057 air conditioning measures in 2010 and a total of 39,987 measures since program inception. The number of installed measures is below the estimated target levels of 60,600 measures for 2010 and 75,760 measures program-to-date.

One of contributing factors to this shortfall was that the Commission temporarily suspended the installation of thermostats due to the same safety hazard discussed in the DPL section of this report. The Company continued to install load control devices on central air conditioners and heat pumps. On March 7, 2011, by Order No. 83899, the Commission authorized Pepco to resume installing programmable thermostats as a part of the Energy Wise Rewards program.

SMECO

SMECO launched its CoolSentry program in November 2008.[42] In 2010, SMECO installed 9,599 measures, which was below the 2010 target of 11,520 and also less than the number of devices installed in 2009 (9,874). Similar to Pepco, SMECO attributed this shortfall to the Commission Order that directed the Cooperative to cease installations of thermostats due to the same safety issue discussed in the Pepco and DPL sections of this report. SMECO continued to install load control devices on central air conditioners and heat pumps. On March

[41] The safety issue for Model 1F88 of programmable thermostat was reported to the Consumer Protection Safety Commission by the manufacturer of the thermostat, White Rogers. The manufacturer notified the PHI's contractor, Comverge. Comverge informed PHI.

[42] On April 21, 2010, the Commission approved SMECO's proposal to include medium and large general service customers in the Cooperative's Demand Response program.

7, 2011, by Order No. 83899, the Commission authorized SMECO to resume installing programmable thermostats as a part of the CoolSentry program.

EmPower Maryland Funding Levels

EE&C Programs

The Commission approved a three-year budget for each utilities' EmPower Maryland proposal. Table 19 breaks down the approved budgets for 2010 for each utility. Table 20 illustrates what each utility actually spent in 2010 on their EmPower Maryland programs.

Table 19. Forecasted 2010 EE&C Budgets from EmPower Filings

	Residential	Commercial	General Awareness	Total
PE	$ 8,329,309	$ 3,066,351	$ 1,124,262	$ 12,519,922
BGE	$ 21,713,096	$ 23,286,901	$ 2,500,000	$ 47,499,997
DPL	$ 4,405,233	$ 1,341,301	$ 950,000	$ 6,696,534
PEPCO	$ 10,701,098	$ 5,145,441	$ 1,300,000	$ 15,846,539
SMECO	$ 3,035,606	$ 1,753,037	$ 150,000	$ 4,938,643
Total	$ 48,184,342	$ 34,593,031	$ 6,024,262	$ 87,501,635

Table 20. Reported 2010 EE&C Spending

	Residential	Commercial	General Awareness	Total
PE	$ 4,436,476	$ 899,808	$ 1,274,298	$ 6,610,582
BGE	$ 30,896,693	$ 24,523,598	$ 2,238,378	$ 57,658,669
DPL	$ 1,237,166	$ 833,834	$ 659,369	$ 2,730,369
PEPCO	$ 3,524,511	$ 5,288,368	$ 1,135,006	$ 9,947,885
SMECO	$ 3,887,354	$ 701,043	$ 65,080	$ 4,653,477
Total	$ 43,982,200	$ 32,246,651	$ 5,372,131	$ 81,600,982

Table 21 details the various EmPower Maryland Surcharges and Revenue Requirements for each EmPower utility. The revenue requirement does not match the filed budgets because program costs are collected over a five year period as directed by the Commission in Order No. 81637 in Case No. 9111.[43]

[43] 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

Table 21. 2010 EE&C Surcharge and Revenue Requirement[44]

	Residential	Large C&I	Small C&I	Revenue Requirement
PE	$0.00063	$0.00024	$0.00024	$2,368,657
BGE[45]	$0.000730	$(0.0017)	$(0.0018)	$4,032,657
DPL	$0.000922	$0.000215	$0.000215	$2,260,587
Pepco	$0.000780	$0.000166	$0.000166	$6,034,656
SMECO	$0.00079	$0.00131	$0.00131	$4,527,439

Each of the EmPower utilities completed the implementation of their respective suite of energy efficiency programs in 2010. BGE and PE led the utilities, as each had their programs in effect prior to the first quarter of 2010. SMECO, DPL and Pepco completed implementation for the start of the second quarter of 2010. By the end of the 2010 operational year, every program across each of the EmPower utilities had shown some level of traction and ramp up.

BGE, SMECO and PE requested surcharges for their respective revenue requirements and received approval from the Commission, effective January 1, 2010. Pepco and DPL requested surcharges for the respective revenue requirements and received Commission approval effective February 1, 2010.

Demand Response

BGE, DPL, Pepco, and SMECO had their respective DR programs in operation in 2010. Table 22 details the surcharges and revenue requirements of each utility with an approved DR project.[46] Additionally, both Pepco and BGE received ARRA funding which offset some 2010 DR costs.[47]

Table 22. Demand Response Surcharge and Revenue Requirement

	Surcharge	Revenue Requirement
BGE	$0.00118	$14,954,154
DPL	$0.001822	$2,087,289
Pepco	$0.001245	$7,137,746
SMECO	$0.0007385	$2,858,642

[44] All surcharges are per kWh.
[45] BGE showed a negative surcharge for Commercial customers due to the over collection in 2009. Thus in the Company's filing (ML#119961), the Company reported negative amounts for both the surcharge and the revenue requirement for C&I. This also contributed to the seemingly low, overall EE&C revenue requirement.
[46] AP did not have DR program in effect in 2010 and therefore did not file for a surcharge recovery.
[47] In 2010, BGE received $34 million in funding while Pepco received $4.5 million for its smart grid initiatives, since approved by the Commission. *See Advanced Metering Infrastructure ("AMI") Programs.*

Table 23 details the respective forecasted and reported budgets for each of the EmPower utilities with an operational DR program. All utilities programs were under budget for the 2010 program year due to lower than anticipated participation.

Table 23. Demand Response Forecasted and Reported Budgets

	Forecasted Budget	Reported Costs	Variance
BGE	$82,252,211	$81,517,994	($734,217)
DPL	$6,945,998	$3,894,451	($3,051,547)
Pepco	$29,791,167	$12,046,509	($17,744,658)
SMECO	$2,459,664	$1,696,723	($762,941)

EmPower Maryland Surcharge

Changes to line items on customer bills were also made in 2010. In prior years, surcharges were either separate line items for DR and EE&C or were embedded in distribution rates.[48] Pepco and DPL, in their surcharge filings, combined both the EE&C and DR surcharges as one line item for simplicity. At the Commission's direction, BGE removed the DR surcharge from distribution rates and combined both their EE&C and DR surcharges. SMECO soon followed suit by combining both of the charges. Since PE does not have a DR surcharge it did not have to take this step.

Evaluation, Measurement & Verification

Determining and validating electricity savings and related impacts is a critical component of such programs, particularly when evaluating how effective program delivery has been, what factors are driving or impeding customer participation in programs, characteristics of participants and non-participating customers, determinants of equipment decisions, and customer satisfaction with program delivery. Moreover, the design and depth of program data collection, monitoring, and analyses can set the tone in terms of the significance in accuracy and prudence of compliance results. Given the enormity in scale of the EmPower Maryland initiative and the likelihood of higher bill impacts, the Commission is sensitive to the issue of program credibility and transparency. This process would also evaluate 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 a third-party, independent evaluator model.[49] In January 2010, the EmPower Maryland Utilities ("Utilities") and PSC Staff issued an RFP to select a PSC EM&V Independent Evaluator.[50] Kick-off activities commenced

[48] The Commission requires that EE&C charges be separate line items in prior years, however, BGE's DR surcharge was embedded in distribution rates. Some utilities also had a separate "Fast Track" line item.
[49] Commission Order Number 82869.
[50] The Utilities also issued an RFP for a Statewide EM&V Evaluator for their primary EM&V work for the EE&C programs only. Their Demand Response Programs will be evaluated either in-house or in conjunction with their program contractors.

in April 2010 with both the Utilities' EM&V contractor (Navigant Consulting) and the Commission's Independent Evaluator (Itron). In this model, the utilities will direct its own primary evaluation and verification activities through its EM&V Contractor, with an independent evaluator providing independent analysis and due diligence of the EM&V process, and evaluation of broad policy issues, such as impacts on the environment, jobs, price mitigation, reliability, etc., as necessary, for the Commission.

One of the first deliverables for the EM&V process was to develop a Strategic Plan,[51] which serves as a guide for the Statewide Evaluator and Utilities in developing and executing their detailed evaluation plans for the 2010-11 EmPower Maryland Programs.[52] In addition to establishing a schedule for major milestones and deliverables, the Strategic Plan provides guidance to:

- Help allocate evaluation resources among different programs
- Anticipate and resolve high level evaluation issues in advance
- Proactively identify differences in philosophy or approach
- Facilitate timely process evaluations to improve program design and implementation, and
- Strike a balance between best practices and completing the evaluation process.

Table 24 includes the key evaluation deliverable and due dates agreed to by all stakeholders.

Table 24. Key Evaluation Deliverables and Due Dates

Key Dates	Deliverables
June 14, 2010	Draft Strategic Evaluation Plan
Aug 15, 2010	Final Evaluation Plans
Dec 1, 2010 and Jan 15, 2011	Draft and Final Statewide Evaluation Report of 2009-2010 Program Savings (Navigant)
Jan 10, 2011 and Feb 15, 2011	Draft and Final Verification of 2009 and 2010 Statewide Program Savings Report (Itron)
Jan 30 annually	Utility Programmatic Savings Reports - Includes reported and verified savings for previous program year (e.g., 2010 programs for the Jan 30, 2011 report)
March 1, 2011	EmPower progress report to State General Assembly
March 15, 2011	Utilities submit cost-effectiveness analysis for major programs and the entire portfolio for program years 2009, 2010, and 2011 program years. [See the alternative option of filing a minimal update on February 15, 2011 and a comprehensive update by May 15, 2011]
May 1, 2011	Post-Installation Report to PJM for program savings bid into the market
May 1 annually	Final Process Evaluation Results and Recommended Design Changes – interim results to be provided to utilities throughout the year

A preliminary evaluation of the program-to-date savings associated with the Utilities' EE&C programs is currently underway.[53] Staff and the Independent Evaluator continue to work

[51] Mail Log No. 125011.
[52] Due to the late start of most EmPower Maryland programs in 2009 and the finalization of contracts for EM&V, all parties felt that the EM&V that could still occur on the part of the 2009 implementation would be incorporated into the 2010 evaluation efforts.
[53] At the time of this report, evaluation data was unavailable.

with the Utilities to verify the net-to-gross (i.e., free-ridership, spillover) energy and demand savings as well as evaluate the cost-effectiveness of these programs. These results will be available in the 2012 Standard Report for the Compliance Year 2011.

Advanced Metering Infrastructure Programs

Advance Metering Infrastructure or "Smart Grid" technology is generally defined as a two-way communication system and associated equipment and software, including metering equipment installed on an electric customer's premise, that uses the electric company's distribution network to provide real-time monitoring, diagnostic, and control information and services. 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.

In 2010, the Commission approved the Advanced Metering Infrastructure Initiative for BGE, granted conditional approval for Pepco's AMI initiative and deferred the approval of DPL's AMI Initiative until DPL can demonstrate the cost effectiveness of a revised business case for its AMI Initiative.

Maryland Utilities Smart Grid Proposals and Deployment Plans

Approved AMI Initiatives

BGE

On August 13, 2010, the Commission issued Order No. 83531 in Case No. 9208,[54] which authorized BGE to deploy its AMI Initiative. Some highlights of the approved AMI Initiative are:

- Install over 2 million electric meters and gas modules:
- Deployment cost of $440 million in capital cost and $57 million in operational costs offset by $136 million in federal grants from the Department of Energy;
- Total cost over the life of the program of $641 million capital cost and $194 million in operational costs offset by $136 million[55] in federal grants from the Department of Energy;
- Total benefits over the life of the project are estimated at $2.7 billion;
- 80 percent of all meters to be installed by 2014; and
- BGE awarded $200 million in Smart Grid Investment Grant funds.

Order No. 83531 directs BGE to do the following:

1) Establish a regulatory asset for the AMI Initiative. Once the Company has delivered a cost-effective AMI system, it may seek cost recovery in its base rates, including incremental costs and net depreciation and amortization costs relating to the meters;

[54] *In the Matter of Baltimore Gas and Electric Company for Authorization to Deploy a Smart Grid Initiative and to Establish a Surcharge Mechanism for the Recovery of Cost.*

[55] BGE was awarded $200 million in American Recovery and Reinvestment Act funding. Of this, $136 million funds AMI deployment and $64 million for Peak Rewards and Customer Care & Billing.

2) Allow the cost recovery for the replacement of legacy meters by smart meters to be considered in a future depreciation proceeding;
3) Submit for Commission approval, an updated customer education plan.
4) Develop "a comprehensive set of installation, performance, benefits and budgetary metrics that will allow the Commission to assess the progress and performance of the Initiative;[56] and
5) Notify the Commission of when it will proceed with the initiative. BGE confirmed its intent to proceed with the initiative in a letter sent to the Commission on August 16, 2010.

Since authorization, BGE, in conjunction with PHI, Staff and other stakeholders, established a Smart Grid Collaborative Work Group per Commission direction. The Work Group offers a venue to discuss issues such as the consumer education plan and the comprehensive set of performance metrics. The Company provided an update on deployment efforts at one status conference on December 15, 2010. The Company proposes the deployment period to take place from 2011-2014, with installation of smart meters beginning in October 2011.

Pepco

On September 2, 2010, the Commission issued Order No. 83571 in Case No. 9207[57], conditionally authorizing Pepco to deploy its AMI Initiative after the Company submits (and receives approval of) an amended business case and a comprehensive consumer education plan. Some highlights of the approved Smart Grid Initiatives are:

- Install 570,000 electric meters;
- Deployment cost of $69.4 million in capital cost;
- Total cost over the life of the program of $127 million in capital cost and $1.038 million in annual incremental operational costs;
- Total benefits over the life of the project are estimated at $311.6 million;
- 100 percent of all meters to be installed by 2011; and
- Pepco awarded $104.8 million in Smart Grid Investment Grant funds.

Order No. 83571 directs Pepco to do the following:

1) Submit an amended business case and associated benefits-to-costs analysis that demonstrate the cost-effectiveness of the AMI proposal;
2) Requires the Company to submit a plan detailing how it intends to fund its proposed Critical Peak Rebate dynamic pricing structure, including the manner in which it intends to monetize peak demand and energy use reductions attributable to AMI;
3) Tasks Pepco with developing "a detailed and comprehensive customer education and communications plan," along with a corresponding customer education and communications budget;[58]
4) Develop a comprehensive set of metrics of the Company's AMI proposal, including: (a) installation and performance of the technology; (b) incremental costs incurred; (c)

[56] Order No. 83531at 48.
[57] *In the Matter of Potomac Electric Power Company and Delmarva Power and Light Company Request for the Deployment of Advanced Meter Infrastructure.*
[58] *Id*. at 4.

incremental benefits realized; (d) effectiveness of customer education and communications efforts to include customer satisfaction and participation levels; and (e) customer privacy and cyber security;

5) Permit the Company to establish a regulatory asset for the incremental costs associated with the AMI deployment, including start-up costs, and the Company may seek cost recovery in a base rate proceeding;
6) Allow the cost recovery for the replacement of legacy meters by smart meters to be considered in a future depreciation proceeding;
7) Prohibits the Company from implementing a Critical Peak Pricing rate structure, and a dynamic rate schedule will go in effect once AMI has been installed; and
8) Ordered Commission Staff, as well as Pepco, to convene an AMI working group, which is to include representatives from Pepco, BGE, and the Office of People's Counsel to submit a proposal for "uniformity of critical peak period seasons, times, frequency, and duration, and other aspects of dynamic pricing implementation."[59]

Pepco filed its Customer Education Plan on October 15, 2010 and an amended business case with the Commission on December 13, 2010, in accordance with Order No. 83571. Pepco provided cost-benefit analyses under three different post-deployment scenarios, all of which yielded cost-effectiveness scenarios greater than 1.0. The filing also includes depreciation timetables for advanced metering infrastructure and estimated costs for regulatory assets. The consumer education plan and amended business case's final budget—as well as the performance metrics required to be reported—will be subject to the review of the Smart Grid Collaborative Work Group and to the approval of the Commission. In its amended business case filed December 13, 2010, Pepco has proposed a time period of 15 months for AMI installation, and the starting month is expected to be June 2011, with completion in August 2012. Following installation, the introduction of dynamic pricing is assumed to begin in 2012 on a phase-in basis.

Deferred AMI Initiatives

DPL

In Order No. 83571, the Commission deferred the decision on DPL's request to proceed with deployment of its AMI Initiative. This deferment stemmed primarily from the Department of Energy's decision not to grant DPL an award for ARRA funding under the Smart Grid Investment Grant. DPL's request to establish a regulatory asset for the incremental costs associated with its proposed AMI deployment was deferred as well.

Order No. 83571 directs DPL to do the following:

1) Defers DPL's request to proceed with deployment of its AMI Initiative, and the Company is directed to submit an amended business case and associated cost-benefit analysis demonstrating the cost-effectiveness of the proposal;
2) Requires the Company to submit a plan detailing how it intends to fund its proposed Critical Peak Rebate dynamic pricing structure, including the manner in which it intends to monetize peak demand and energy use reductions attributable to AMI;

[59] *Id*. at 51.

3) Denies DPL's request to establish a regulatory asset for the incremental costs associated with AMI deployment at this time, pending submission of a revised business case of AMI system deployment that is agreeable to the Commission; and
4) Prohibits the Company from implementing a Critical Peak Pricing rate structure.

DPL filed a revised business case for its AMI Initiative on December 14, 2010, which includes forecast scenarios for all of the adjustments specified by Order No. 83571. A new hearing is scheduled for July 2011.

AMI Pilots

SMECO

SMECO has

proposed a two-phase AMI Pilot Program to test the operational benefits of AMI deployment, such as savings from eliminating meter readings and improved outage restoration. Phase I of the pilot, approved by the Commission in December of 2009, includes the installation of 1,000 meters in one section of the territory and went into effect in 2010. The Cooperative will attempt to quantify the level of operational benefits attainable through deployment of AMI in SMECO's service territory, and the Cooperative will report the results of Phase I to the Commission prior to implementing Phase II, which will be a 10,000 meter deployment across the entire service territory. At the time of this report, SMECO had not yet submitted the report on Phase I of the project to the Commission. SMECO has notified Commission Staff that Phase I will commence in mid-March 2011.

2010 per Capita Energy Consumption and Peak Demand

Tables 25, 26, 27, and 28 present the per capita electricity consumption and the peak demand for all utilities in 2007, which provides the baseline in which the EmPower Maryland per capita reduction goals are based. Additionally, the tables include the EmPower Maryland per capita goals of a 5 percent reduction in energy use and peak demand in 2011 and the 10 percent per capita reduction in energy use and the 15 percent per capita reduction of peak demand. The final column in each table calculates the amount of energy use reduction and peak demand reduction necessary to achieve the applicable 2011 and 2015 per capita reduction targets. These numbers are based on energy use and demand forecasts from the 2008 PJM load forecast and population projections based on 2007 population data.

Table 25. Five Percent Reduction per Capita Energy Consumption

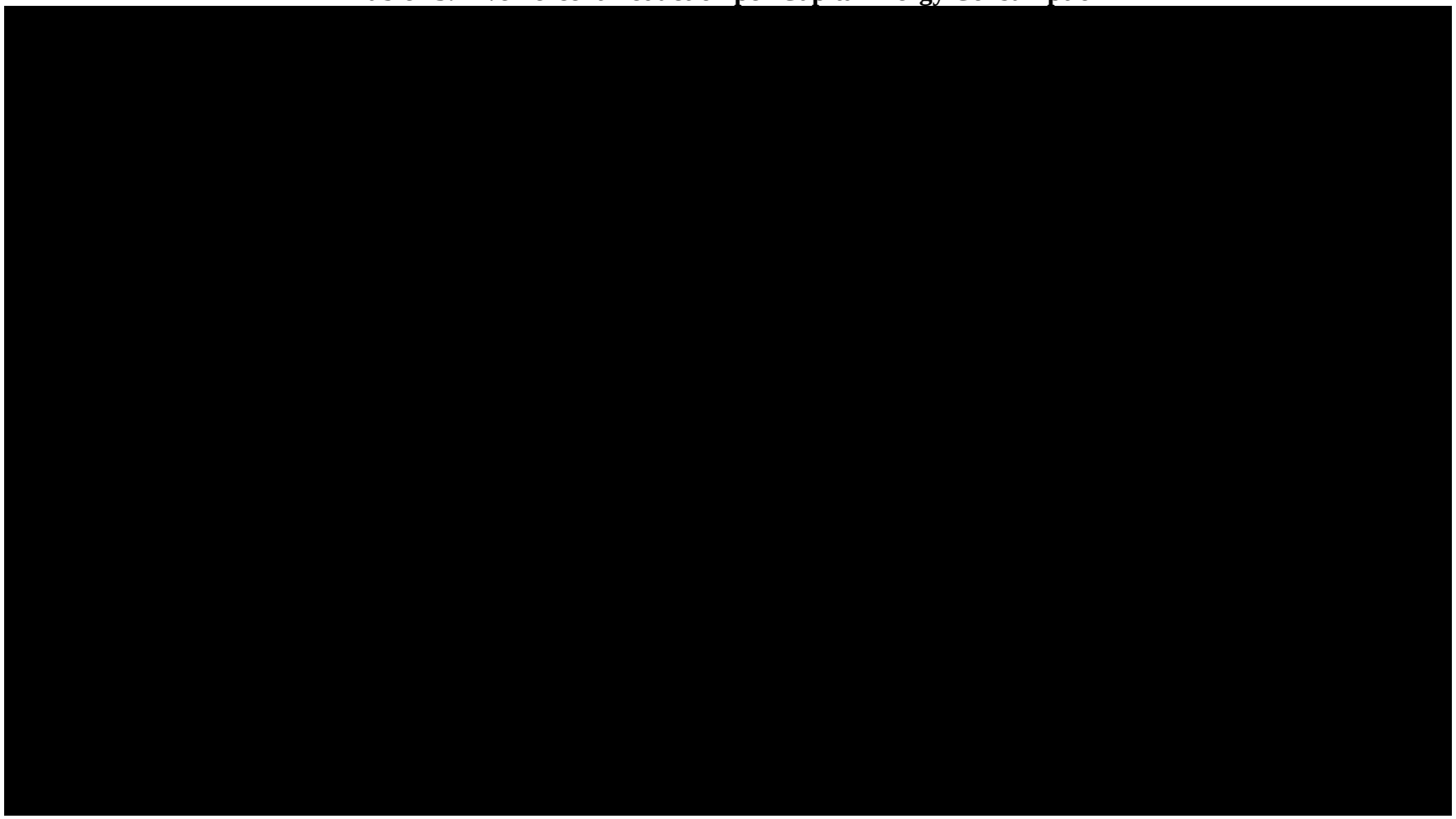

Table 26. Five Percent Reduction per Capita Peak Demand

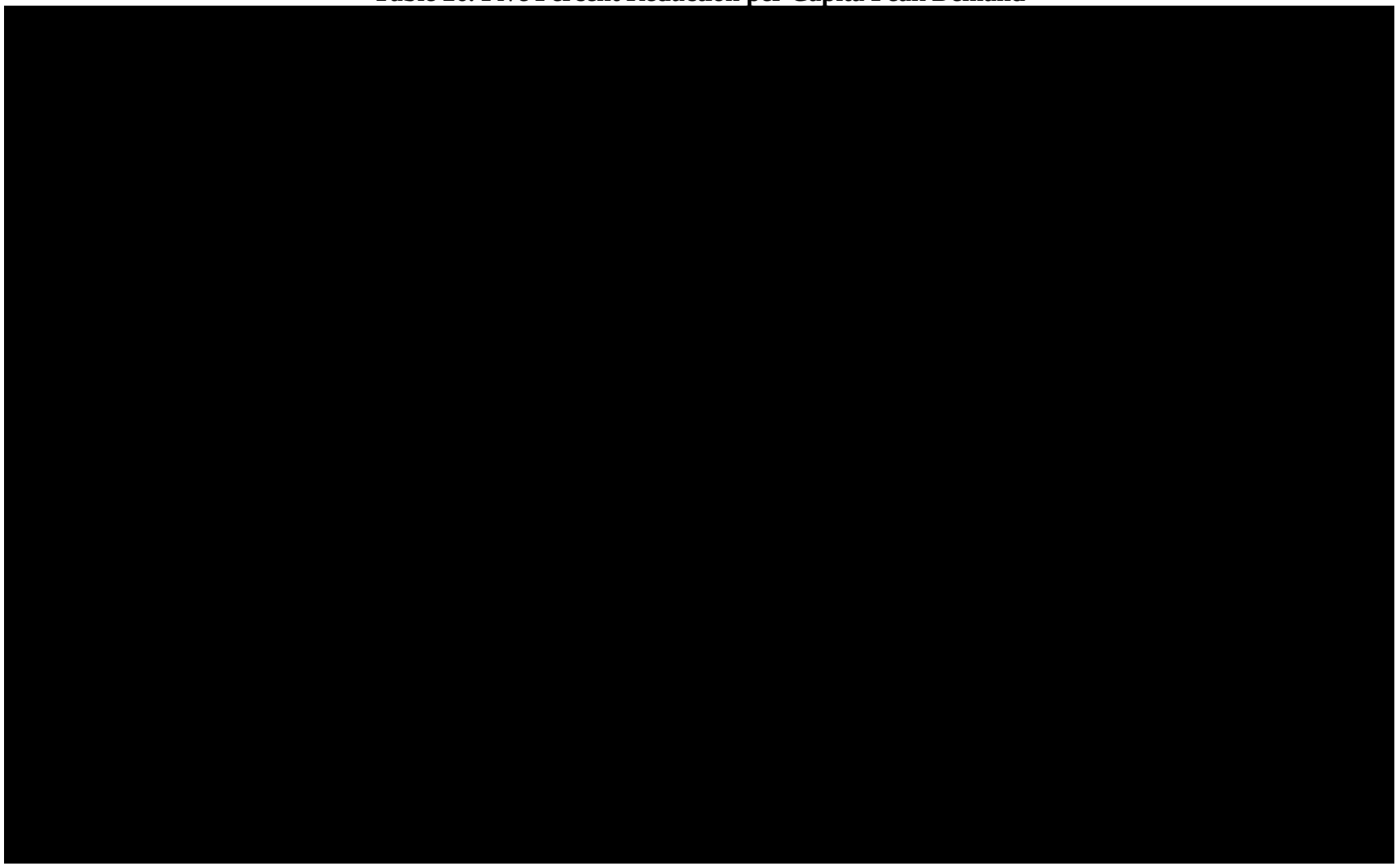

Table 27. Ten Percent Reduction per Capita Energy Consumption

EmPower Maryland - 10 Percent Reduction in Maryland Energy Sales 2015										
2007 Utility Company Data Request Information										
Maryland Utility	Energy Use MWh (1)	2007 Loss Factors (2)	Energy Sales Gross-Up by Loss Factor	2007 Estimated Population (3)	2015 Estimated Population (3)	2007 per Capita Energy Use MWh	10 Percent Reduction per Capita Energy Use MWh	Energy Use Goal 2015 MWh	PJM Derived Energy Use Forecast 2015 MWh (4)	Difference Between Goal and PJM Derived Forecast MWh
BGE	33,112,453.000	5.69%	35,109,765.179	2,621,466	2,769,412	13.39	12.05	**33,382,109**	**37,679,204**	**4,297,095**
Pepco	15,651,105.000	5.25%	16,518,897.197	1,758,697	1,897,157	9.39	8.45	**16,037,468**	**17,912,125**	**1,874,656**
PE	7,795,557.000	5.38%	8,238,615.985	424,471	472,031	19.41	17.47	**8,245,541**	**8,682,668**	**437,127**
Delmarva	4,410,698.000	5.83%	4,683,581.501	344,149	386,323	13.61	12.25	**4,731,788**	**5,234,990**	**503,202**
SMECO	3,464,094.089	5.99%	3,684,886.957	330,444	377,378	11.15	10.04	**3,787,437**	**4,042,264**	**254,827**
Choptank	957,285.184	7.11%	1,030,555.787	75,725	85,005	13.61	12.25	**1,041,163**	**1,164,220**	**123,057**
Hagerstown	355,623.286	3.56%	368,768.622	39,573	44,033	9.32	8.39	**369,300**	**388,645**	**19,345**
Easton	274,391.948	5.18%	289,372.727	13,999	14,950	20.67	18.60	**278,135**	**326,905**	**48,769**
Thurmont	86,870.000	4.92%	91,364.052	6,101	7,061	14.98	13.48	**95,166**	**96,288**	**1,122.2**
Berlin	40,259.553	7.94%	43,731.967	3,803	4,185	11.50	10.35	**43,314**	**49,405**	**6,091.3**
Williamsport	20,083.000	7.79%	21,780.261	2,230	2,481	9.77	8.79	**21,812**	**22,954**	**1,142.6**
Somerset	7,343.019	5.67%	7,783.989	1,844	1,906	4.22	3.80	**7,243**	**8,482**	**1,239.1**
A&N Coop	3,342.600	6.43%	3,572.147	354	354	10.09	9.08	**3,215**	**3,903**	**688.1**
								68,043,691	**75,612,052**	**7,568,361.4**

(1) Energy Use is 2007 total usage, not weather normalized, Choptank, Somerset and A&N have not provided responses to DR No. 3. Values are from DR No. 2.
(2) Loss Factors are from data request for preparation of the Unaccounted for Electricity Report.
(3) Based on the U.S. Census Bureau's population estimates for July 1, 2007 for state (released Dec 2007 and jurisdictions (released March, 2008). Interpolations of MDP 5-year projections scaled to December 31, 2007 population estimate based on Census Bureau annual estimates. Source: Maryland Department of Planning, Planning Data Services, July 2008. See Population Estimates - Utility Tab for more analysis.
(4) PJM forecast is from the January 2008 load and energy forecast and is for the entire BGE, DPL, PE, and Pepco Zones. Staff applied these zonal growth rates to the appropriate utilities 2007 weather normal peak demand and weather normal energy sales to produce the utility 2011 forecast for peak demand and energy sales. For example, because Hagerstown is a part of the PE Zone, Staff applied the PJM growth rate for peak demand and energy sales to the 2007 weather normal peak demand and weather normal energy sales provided by Hagerstown in response to DR No. 3.

Table 28. Fifteen Percent Reduction per Capita Peak Demand

EmPower Maryland - 15 Percent Reduction in Maryland Peak Demand 2015								
2007 Utility Company Data Request Information								
Maryland Utility	2007 Peak Demand Weather Normalized (1)	2007 Estimated Population (2)	2015 Estimated Population (2)	2007 per Capita Peak Demand MW	15 Percent Reduction per Capita Peak Demand MW	Peak Demand Goal 2015 MW	PJM Derived Peak Demand Forecast 2015 MW (3)	Difference Between Goal and PJM Derived Forecast MW
BGE	7,260.000	2,621,466	2,769,412	0.0028	0.0024	**6,519**	**7,930**	**1,411**
Pepco	3,471.000	1,758,697	1,897,157	0.0020	0.0017	**3,183**	**3,868**	**685**
PE	1,418.000	424,471	472,031	0.0033	0.0028	**1,340**	**1,526**	**186**
Delmarva	1,068.000	340,197	375,644	0.0031	0.0027	**1,002**	**1,236**	**234**
SMECO	748.700	330,444	377,378	0.0023	0.0019	**727**	**834**	**107**
Choptank	250.134	79,677	82,655	0.0031	0.0027	**221**	**286**	**66**
Hagerstown	73.992	39,573	44,033	0.0019	0.0016	**70**	**80**	**10**
Easton	64.820	13,999	14,950	0.0046	0.0039	**59**	**74**	**15**
Thurmont	16.600	6,101	7,061	0.0027	0.0023	**16.3**	**17.9**	**1.5**
Berlin	9.143	3,803	4,185	0.0024	0.0020	**8.6**	**10.5**	**1.9**
Williamsport	4.086	2,230	2,481	0.0018	0.0016	**3.9**	**4.4**	**0.5**
Somerset	2.055	1,844	1,906	0.0011	0.0009	**1.8**	**2.2**	**0.4**
A&N Coop	0.810	354	354	0.0023	0.0019	**0.7**	**0.9**	**0.2**
						13,152	**15,870**	**2,717.7**

(1) Peak Demand is Electric Company demand, coincident with PJM peak demand at 5 p.m. EDT on August 8, 2007.
Choptank, Hagerstown, Thurmont, Williamsport, Somerset, and A&N did not provide weather-normalized Peak Demand to DR No. 3.

(2) Based on the U.S. Census Bureau's population estimates for July 1, 2007 for state (released Dec 2007 and jurisdictions (released March, 2008).
Interpolations of MDP 5-year projections scaled to December 31, 2007 population estimate based on Census Bureau annual estimates.
Source: Maryland Department of Planning, Planning Data Services, July 2008. See Population Estimates - Utility Tab for more analysis.

(3) PJM forecast is from the January 2008 load and energy forecast and is for the entire BGE, DPL, PE, and Pepco Zones.
Staff applied these zonal growth rates to the appropriate utilities 2007 weather normal peak demand and weather normal energy sales to produce the utility 2011 forecast for peak demand and energy sales. For example, because Hagerstown is a part of the PE Zone, Staff applied the PJM growth rate for peak demand and energy sales to the 2007 weather normal peak demand and weather normal energy sales provided by Hagerstown in response to DR No. 3.

Tables 29a and 29b present the per capita electricity consumption for all utilities in 2010, and compare the reported 2010 per capita values to the 2007 per capita baseline values to gauge the progress that has been made towards achieving the 2011 EmPower Maryland per capita energy use goals. In both tables, it is important to note that electricity sales are not weather normalized, and therefore, will fluctuate depending upon the weather. Other variables, such as the economic activity and energy prices, may also influence electricity sales which may make it difficult to calculate EmPower Maryland's energy savings. The Act measures success based on a per capita basis of the 2007 energy use baseline.

The primary difference between Tables 29a and 29b is that Table 29a was developed using the 2011 EmPower goals that were calculated using the 2007 and 2011 population projections based on population data available in 2008, and the energy use forecast was derived using energy use forecast data from the 2008 PJM Load Forecast report. Table 29b was developed using revised 2007 and 2011 population data based on the interpolation of U.S. Census Bureau 2010 Census Data by Maryland County, data from City-Data.com, the Maryland Department of Planning. Additionally, the energy use forecast was revised based on data from the 2011 PJM Load Forecast report. The revised data used to develop Table 29b are provided to illustrate the effect of changes to the PJM Load Forecast and population estimates have on projected usage totals; and, thus, the utilities' energy sales and peak demand reduction goals. It is important to note that the 2011 five percent reduction in per capita energy use and peak demand goals are unchanged, and are based on the data presented in Table 29a.

Comparing the two tables yields several observations. The first is that the percentage of per capita energy use reduced is not dramatically different between the two tables. However, there are certain categories that have a significant difference between the original estimates in Table 29a and the revised data in Table 29b. The prime example of this is to observe the changes to Pepco's 2011 energy reduction goal in 2011 in Tables 29a and 29b. In Table 29a, Pepco's energy reduction goal for 2011 is 685,376 MWh based on PJM's 2008 Load Forecast projected to 2011. What this says is that based on the 2008 PJM Load Forecast, Pepco has to reduce its 2011 energy use by 685,376 MWh to achieve the five percent per capita reduction goal. In Table 29b, Pepco's energy reduction goal for 2011 is -36,578 MWh based on PJM's 2011 Load Forecast. This would appear that Pepco (and any other utility with a negative energy reduction goal) has achieved the EmPower Maryland goal. This negative number does not mean that Pepco has met its EmPower Maryland goal. The actual achievement or failure to meet the 2011 EmPower Maryland goals can only be ascertained after the review of actual 2011 energy use is calculated along with the actual 2011 population data.

The reason for this negative number is that there appears to be a disconnect between the population projection and the 2011 PJM energy use forecast. The population in the Pepco territory is projected to increase by approximately 4 percent from 2007 to 2011. However, the projected PJM energy use forecast between 2007 Load Forecast report and 2011 Load Forecast report is lower in 2011. Typically, energy usage will increase proportionally to population growth, so there appears that the faster growing population in the Pepco territory coupled with non-proportional increase in the energy

use forecast for 2007 and 2011 leads to the negative number for Pepco's energy reduction target.[60]

[60] The Commission has no control over how PJM forecasts the energy use and peak demand or the population data provided by the U.S. Census Bureau or the Maryland Department of Planning.

Table 29a. 2010 Per Capita Energy Use Compared to 2011 EmPower Maryland Goal

EmPower Maryland - 5 Percent Reduction in Maryland Energy Sales 2011													
2010 Utility Company Data Request Information													
EmPower Maryland Targets and Goals Based on 2007 Population Data and 2008 PJM Load Forecast													
Maryland Utility	2007 per Capita Energy Use MWh	2011 per Capita Energy Use Goal MWh	2011 per Capita Energy Reduction Target MWh (1)	2010 Energy Sales Gross-Up by Loss Factor MWh	2010 Estimated Population (2)	2010 per Capita Energy Use MWh	Percentage Reduced from 2007 Baseline (3)	Percentage of Per Capita Energy Savings Achieved Towards 2011 Reduction Target (4)		2011 Energy Sales Goal MWh	Difference Between 2010 Use and 2011 Goal MWh	2011 Energy Reduction Goal MWh	Utility Reported Savings Program-to-Date
BGE	13.39	12.72	0.67	35,054,834	2,662,691	13.17	1.7%	34.0%		34,401,168	653,665	2,052,948	443,824
Pepco	9.39	8.92	0.47	16,462,123	1,835,197	8.97	4.5%	90.0%		16,340,383	121,740	685,378	159,551
PE	17.54	16.66	0.88	7,722,404	436,214	17.70	-0.9%	-18.5%		7,472,019	250,385	122,664	15,057
Delmarva	13.61	12.93	0.68	4,549,797	345,705	13.16	3.3%	65.9%		4,716,533	-166,736	205,846	24,364
SMECO	11.15	10.59	0.56	3,686,537	340,439	10.83	2.9%	57.8%		3,748,007	-61,469	94,229	18,494
Choptank	13.61	12.93	0.68	1,088,479	82,705	13.16	3.3%	65.9%		1,037,806	50,672	56,892	
Hagerstown	9.32	8.85	0.47	361,474	39,622	9.12	2.1%	42.0%		369,869	-8,396	9,000	
Easton	20.67	19.64	1.03	281,037	15,945	17.63	14.7%	294.7%		284,291	-3,254	23,092	
Thurmont	14.98	14.23	0.75	88,392	6,170	14.33	4.3%	86.7%		93,722	-5,330	145	
Berlin	11.50	10.92	0.57	44,527	4,485	9.93	13.7%	273.3%		43,641	886	2,814	
Williamsport	9.77	9.28	0.49	19,933	2,137	9.33	4.5%	90.0%		21,845	-1,913	532	
Somerset	4.22	4.01	0.21	8,307	1,856	4.48	-6.1%	-121.1%		7,503	804	765	
A&N Coop	10.09	9.59	0.50	3,477	386	9.01	10.7%	214.8%		3,394	83	276	
Total	**12.32**	**11.71**	**0.62**	**69,371,320**	**5,773,552**	**12.02**	**2.5%**	**50.2%**		**68,540,181**	**831,139**	**3,254,581**	**661,290**

(1) The 2011 per Capita Energy Reduction Target Column is the difference between the 2007 per Capita Energy Use and 2011 per Capita Energy Use Goal. For example, for BGE to reach its 2011 per capita energy use goal of 12.72 MWh, BGE would have to achieve a reduction of 0.67 MWh off the 2007 baseline per capita energy use of 13.39.

(2) Sources: U.S. Census Bureau and Maryland Department of Planning. 2010 Census Data for Maryland counties retrieved from http://2010.census.gov/2010census/data. Berlin, Easton, Hagerstown, Thurmont and Williamsport 2010 population estimated by applying nine year annual compound growth rate (2000-2009) to 2009 population. Somerset 2010 population estimated by applying one year annual county growth rate (2008 - 2009) to Staff estimated 2009 population. A&N 2010 population estimated by applying ten year annual compound growth rate (2000-2010) to 2000 population.

(3) Percentage Reduced from the 2007 Baseline Column, calculates the percentage the 2010 per Capita Energy Use is from the 2007 per Capita Energy use Column. For example, BGE's 2010 per Capita Energy use is 1.7% lower than BGE's 2007 per capita energy use.

(4) Percentage of Per Capita Energy Savings Towards 2011 Reduction Target Column, calculates the Percentage Reduced from 2007 Baseline as a percentage of the 5% EmPower Maryland goal. For example, in 2010 BGE's per capita energy use was 1.7% lower than the 2007 per capita energy use baseline. In other words, in 2010, BGE achieved 1.7% of the 5% EmPower Maryland goal, which is equivalent to reaching 34% of the 2011 per capita energy reduction target.

Table 29b. 2010 Per Capita Energy Use Compared to 2011 EmPower Maryland Goal
Revised 2007 Population and 2011 PJM Load Forecast

EmPower Maryland - 5 Percent Reduction in Maryland Energy Sales 2011													
2010 Utility Company Data Request Information													
EmPower Maryland Targets and Goals Based on Revised 2007 Population Data and 2011 PJM Load Forecast													
Maryland Utility	2007 per Capita Energy Use MWh	2011 per Capita Energy Use Goal MWh	2011 per Capita Energy Reduction Target MWh (1)	2010 Energy Sales Gross-Up by Loss Factor MWh	2010 Estimated Population (2)	2010 per Capita Energy Use MWh	Percentage Reduced from 2007 Baseline (3)	Percentage of Per Capita Energy Savings Achieved Towards 2011 Reduction Target (4)		2011 Energy Sales Goal MWh	Difference Between 2010 Use and 2011 Goal MWh	2011 Energy Reduction Goal MWh	Utility Reported Savings Program-to-Date
BGE	13.41	12.74	0.67	35,054,834	2,662,691	13.17	1.8%	36.1%		34,168,016	886,817	1,228,017	443,824
Pepco	9.32	8.85	0.47	16,462,123	1,835,197	8.97	3.8%	75.2%		16,362,533	99,589	-36,578	159,551
PE	18.46	17.54	0.92	7,722,404	436,214	17.70	4.1%	82.3%		7,768,420	-46,016	-9,942	15,057
Delmarva	13.70	13.02	0.69	4,549,797	345,705	13.16	3.9%	78.7%		4,555,679	-5,882	-44,047	24,364
SMECO	11.22	10.66	0.56	3,686,537	340,439	10.83	3.5%	69.1%		3,692,769	-6,231	-36,725	18,494
Choptank	13.70	13.02	0.69	1,088,479	82,705	13.16	3.9%	78.7%		1,089,886	-1,407	-25,701	
Hagerstown	9.33	8.86	0.47	361,474	39,622	9.12	2.2%	43.4%		353,620	7,854	21,402	
Easton	20.25	19.24	1.01	281,037	15,945	17.63	13.0%	259.3%		316,144	-35,107	-25,498	
Thurmont	15.08	14.33	0.75	88,392	6,170	14.33	5.0%	100.5%		89,205	-813	2,158	
Berlin	11.05	10.50	0.55	44,527	4,485	9.93	10.2%	203.4%		48,165	-3,638	-2,115	
Williamsport	9.54	9.07	0.48	19,933	2,137	9.33	2.3%	45.5%		19,639	294	845	
Somerset	4.22	4.01	0.21	8,307	1,856	4.48	-6.1%	-121.1%		7,446	861	1,145	
A&N Coop	9.25	8.79	0.46	3,477	386	9.01	2.7%	53.5%		3,394	83	213	
Total	**12.38**	**11.76**	**0.62**	**69,371,320**	**5,773,552**	**12.02**	**2.9%**	**58.5%**		**68,474,915**	**896,405**	**1,073,174**	**661,290**

(1) The 2011 per Capita Energy Reduction Target Column is the difference between the 2007 per Capita Energy Use and 2011 per Capita Energy Use Goal. For example, for BGE to reach its 2011 per capita energy use goal of 12.74 MWh, BGE would have to achieve a reduction of 0.67 MWh off the 2007 baseline per capita energy use of 13.41.

(2) Sources: U.S. Census Bureau and Maryland Department of Planning. 2010 Census Data for Maryland counties retrieved from http://2010.census.gov/2010census/data. Berlin, Easton, Hagerstown, Thurmont and Williamsport 2010 population estimated by applying nine year annual compound growth rate (2000-2009) to 2009 population. Somerset 2010 population estimated by applying one year annual county growth rate (2008 - 2009) to Staff estimated 2009 population. A&N 2010 population estimated by applying ten year annual compound growth rate (2000-2010) to 2000 population.

(3) Percentage Reduced from the 2007 Baseline Column, calculates the percentage the 2010 per Capita Energy Use is from the 2007 per Capita Energy use Column. For example, BGE's 2010 per Capita Energy use is 1.8% lower than BGE's 2007 per capita energy use.

(4) Percentage of Per Capita Energy Savings Towards 2011 Reduction Target Column, calculates the Percentage Reduced from 2007 Baseline as a percentage of the 5% EmPower Maryland goal. For example, in 2010 BGE's per capita energy use was 1.8% lower than the 2007 per capita energy use baseline. In other words, in 2010, BGE achieved 1.8% of the 5% EmPower Maryland goal, which is equivalent to reaching 36.1% of the 2011 per capita energy reduction target.

Tables 30a and 30b present the per capita peak demand for all utilities in 2010, and compare the reported 2010 per capita values to the 2007 per capita baseline values to gauge the progress that has been made towards achieving the 2011 EmPower Maryland per capita peak demand reduction goals.

The primary difference between Tables 30a and 30b is that Table 30a was developed using the 2011 EmPower goals that were calculated using the 2007 and 2011 population projections based on population data available in 2008 and the peak demand forecast was derived using peak demand forecast data from the 2008 PJM Load Forecast report. Table 30b was developed using revised 2007 and 2011 population data based on the interpolation of U.S. Census Bureau 2010 Census Data by Maryland County, data from City-Data.com and the Maryland Department of Planning. Additionally, the peak demand forecast was revised based on data from the 2011 PJM Load Forecast report. The revised data used to develop Table 30b are provided to illustrate the effect of changes to the PJM Load Forecast and population estimates have on projected peak demand. It is important to note, that the 2011 five percent reduction in per capita peak demand EmPower Maryland goals are based on the data presented in Table 30a.

Similar to Tables 29a and 29b, which demonstrated how revisions to the population data and PJM forecast change the EmPower Maryland goals for per capita energy reduction, similar changes to the per capita peak demand reduction goals can be observed in Tables 30a and 30b. The percentage of per capita peak demand reduced from 2007 between the two tables is hardly discernible between the two tables. However, the 2011 peak demand reduction goal is lower (although not in the same magnitude of the energy reduction goal) in Table 30b, which uses revised population and load forecast data, versus Table 30a.

This observation that the revised peak demand reduction targets change in a smaller proportion than the revised energy reduction targets indicates that changes in population projection have a greater impact on energy use than peak demand use.

Table 30a. 2010 Per Capita Peak Demand Compared to 2011 EmPower Maryland Goal
2007 Population Data and 2008 PJM Load Forecast

EmPower Maryland - 5 Percent Reduction in Maryland Peak Demand 2011													
2010 Utility Company Data Request Information													
EmPower Maryland Targets and Goals Based on 2007 Population Data and 2008 PJM Load Forecast													
Maryland Utility	**2007 per Capita Peak Demand MW**	**2011 per Capita Peak Demand Goal MW**	**2011 per Capita Demand Reduction Target MW (1)**	**2010 Peak Demand Weather Normalized**	**2010 Estimated Population (2)**	**2010 per Capita Peak Demand MW**	**Percentage Reduced from 2007 Baseline (3)**	**Percentage of Per Capita Peak Demand Savings Achieved Towards 2011 Reduction Target (4)**		**2011 Peak Demand Goal MW**	**Difference Between 2010 Use and 2011 Goal**	**2011 Peak Demand Reduction Goal**	**Utility Reported Savings Program-to-Date**
BGE	0.0028	0.0026	0.0001	6,787	2,662,691	0.0025	8.0%	159.3%		7,113	-326	513	560
Pepco	0.0020	0.0019	0.0001	3,644	1,835,197	0.0020	-0.6%	-12.2%		3,433	211	230	70
PE	0.0033	0.0032	0.0002	1,276	435,298	0.0029	12.3%	245.0%		1,423	-147	49	5
Delmarva	0.0031	0.0030	0.0002	946	341,118	0.0028	11.7%	233.2%		1,076	-130	73	18
SMECO[5]	0.0023	0.0022	0.0001	818	340,439	0.0024	-6.1%	-122.0%		762	57	29	19
Choptank	0.0031	0.0030	0.0002	216	88,396	0.0024	22.1%	442.7%		252	-36	17	
Hagerstown[5]	0.0019	0.0018	0.0001	71	40,367	0.0018	5.9%	118.0%		74	-3	3	
Easton[5]	0.0046	0.0044	0.0002	63	15,211	0.0041	10.8%	216.7%		64	-1	6	
Thurmont[5]	0.0027	0.0026	0.0001	20	6,151	0.0032	-17.6%	-351.4%		17.0	3	0	
Berlin[3]	0.0024	0.0023	0.0001	11	4,110	0.0026	-7.2%	-144.5%		9.1	1	1	
Williamsport[5]	0.0018	0.0017	0.0001	4	2,328	0.0019	-1.5%	-30.5%		4.1	0	0	
Somerset[5]	0.0011	0.0011	0.0001	2	1,856	0.0011	4.8%	96.6%		2.0	0	0	
A&N Coop[5]	0.0023	0.0022	0.0001	N/A	392	N/A	N/A	N/A		0.8	0	0	
Total	**0.0026**	**0.0024**	**0.0001**	**13,857.883**	**5,773,160**	**0.0024**	**6.2%**	**123.8%**		**14,230**	**-372**	**921**	**672**

(1) The 2011 per Capita Peak Demand Reduction Target Column is the difference between the 2007 per Capita Peak Demand and 2011 per Capita Peak Demand Goal. For example, for BGE to reach its 2011 per capita Peak Demand goal of 0.0026 MW, BGE would have to achieve a reduction of 0.0001 MW off the 2007 baseline per capita peak demand of 0.0028 MW.

(2) Sources: U.S. Census Bureau and Maryland Department of Planning. 2010 Census Data for Maryland counties retrieved from http://2010.census.gov/2010census/data/
Berlin, Easton, Hagerstown, Thurmont and Williamsport 2010 population estimated by applying nine year annual compound growth rate (2000-2009) to 2009 population.
Somerset 2010 population estimated by applying one year annual county growth rate (2008 - 2009) to Staff estimated 2009 population.
A&N 2010 population estimated by applying ten year annual compound growth rate (2000-2010) to 2000 population.

(3) Percentage Reduced from the 2007 Baseline Column, calculates the percentage the 2010 per Capita Peak Demand is from the 2007 per Capita Peak Demand Column. For exmple, BGE's 2010 per Capita Peak Demand is 8% lower than BGE's 2007 per Capita Peak Demand.

(4) Percentage of Per Capita Peak Demand Savings Towards 2011 Reduction Target Column, calculates the Percentage Reduced from 2007 Baseline as a percentage of the 5% EmPower Maryland goal. For example, in 2010 BGE's per capita peak demand was 8% lower than the 2007 per capita peak demand baseline. In other words, in 2010, BGE achieved 8% of the 5% EmPower Maryland goal, which is equivalent to reaching 159% of the 2011 per capita peak demand target.

(5) Utilities did not provide weather normal peak demand data.

Table 30b. 2010 Per Capita Peak Demand Compared to 2011 EmPower Maryland Goal
Revised 2007 Population and 2011 PJM Load Forecast

EmPower Maryland - 5 Percent Reduction in Maryland Peak Demand 2011													
2010 Utility Company Data Request Information													
EmPower Maryland Targets and Goals Based on Revised 2007 Population Data and 2011 PJM Load Forecast													
Maryland Utility	**2007 per Capita Peak Demand MW**	**2011 per Capita Peak Demand Goal MW**	**2011 per Capita Demand Reduction Target MW (1)**	**2010 Peak Demand Weather Normalized**	**2010 Estimated Population (2)**	**2010 per Capita Peak Demand MW**	**Percentage Reduced from 2007 Baseline (3)**	**Percentage of Per Capita Peak Demand Savings Achieved Towards 2011 Reduction Target (4)**		**2011 Peak Demand Goal MW**	**Difference Between 2010 Use and 2011 Goal**	**2011 Peak Demand Reduction Goal**	**Utility Reported Savings Program-to-Date**
BGE	0.0028	0.0026	0.0001	6,787	2,662,691	0.0025	8.1%	161.2%		7,065	-278	323	560
Pepco	0.0020	0.0019	0.0001	3,644	1,835,197	0.0020	-1.4%	-27.7%		3,438	206	204	70
PE	0.0034	0.0032	0.0002	1,276	435,298	0.0029	12.7%	254.3%		1,413	-137	-132	5
Delmarva	0.0032	0.0030	0.0002	946	341,118	0.0028	12.2%	245.0%		1,060	-114	-91	18
SMECO[5]	0.0023	0.0022	0.0001	818	340,439	0.0024	-5.5%	-109.8%		750	68	68	19
Choptank	0.0032	0.0030	0.0002	216	88,396	0.0024	22.7%	453.0%		242	-26	-21	
Hagerstown[5]	0.0019	0.0018	0.0001	71	40,367	0.0018	6.0%	119.4%		71	0	0	
Easton[5]	0.0045	0.0043	0.0002	63	15,211	0.0041	9.0%	179.7%		71	-8	-6	
Thurmont[5]	0.0027	0.0026	0.0001	20	6,151	0.0032	-16.7%	-334.4%		16.2	3	4	
Berlin[3]	0.0023	0.0022	0.0001	11	4,110	0.0026	-11.6%	-231.4%		10.1	1	1	
Williamsport[5]	0.0018	0.0017	0.0001	4	2,328	0.0019	-3.9%	-77.9%		3.7	1	1	
Somerset[5]	0.0011	0.0011	0.0001	2	1,856	0.0011	4.8%	96.6%		2.0	0	0	
A&N Coop[5]	0.0021	0.0020	0.0001	N/A	392	N/A	N/A	N/A		0.8	0	0	
Total	**0.0026**	**0.0024**	**0.0001**	**13,857.883**	**5,773,160**	**0.0024**	**6.1%**	**122.3%**		**14,144**	**-286**	**349**	**672**

(1) The 2011 per Capita Peak Demand Reduction Target Column is the difference between the 2007 per Capita Peak Demand and 2011 per Capita Peak Demand Goal. For example, for BGE to reach its 2011 per capita Peak Demand goal of 0.0026 MW, BGE would have to achieve a reduction of 0.0001 MW off the 2007 baseline per capita peak demand of 0.0028 MW.

(2) Sources: U.S. Census Bureau and Maryland Department of Planning. 2010 Census Data for Maryland counties retrieved from http://2010.census.gov/2010census/data/
Berlin, Easton, Hagerstown, Thurmont and Williamsport 2010 population estimated by applying nine year annual compound growth rate (2000-2009) to 2009 population.
Somerset 2010 population estimated by applying one year annual county growth rate (2008 - 2009) to Staff estimated 2009 population.
A&N 2010 population estimated by applying ten year annual compound growth rate (2000-2010) to 2000 population.

(3) Percentage Reduced from the 2007 Baseline Column, calculates the percentage the 2010 per Capita Peak Demand is from the 2007 per Capita Peak Demand Column. For exmple, BGE's 2010 per Capita Peak Demand is 8% lower than BGE's 2007 per Capita Peak Demand.

(4) Percentage of Per Capita Peak Demand Savings Towards 2011 Reduction Target Column, calculates the Percentage Reduced from 2007 Baseline as a percentage of the 5% EmPower Maryland goal. For example, in 2010 BGE's per capita peak demand was 8% lower than the 2007 per capita peak demand baseline. In other words, in 2010, BGE achieved 8% of the 5% EmPower Maryland goal, which is equivalent to reaching 159% of the 2011 per capita peak demand target.

(5) Utilities did not provide weather normal peak demand data.

Tables 31a and 32a present the per capita electricity consumption and the peak demand for all utilities in 2010, and compare the reported 2010 per capita values to the 2007 per capita baseline values to gauge the progress that has been made towards achieving the 2015 EmPower Maryland per capita energy use and peak demand reduction goals. Since the 2010 per capita energy use and peak demand values are short of the 2011 EmPower Maryland goal, it makes sense that the 2010 per capita energy use and peak demand are even lower when compared to the 2015 EmPower Maryland goals.

Similar to Tables 29b and 30b, Table 31b and 32b present updated energy use and peak demand targets based upon the 2011 PJM Load Forecast report and revised population projections for 2011, which are based on the interpolation of U.S. Census Bureau 2010 Census Data by Maryland County, data from City-Data.com and the Maryland Department of Planning. These updates are provided to illustrate the effect of changes to the PJM Load Forecast and population estimates have on projected usage totals. The differences in 2011 per capita energy use and peak demand reductions that were calculated based on the revised population estimates and PJM energy use and load forecast are also observed in the 2015 per capita energy use and peak demand reductions. However, the 2015 EmPower per capita energy usage and peak demand reduction goals, that were developed using revised population data and the 2011 PJM Load Forecast report for energy use and peak demand projections, will be used as the new targets for the utilities as they prepare the 2012 - 2014 cycle of EmPower Maryland plans.

Table 31a. 2010 Per Capita Energy Use Compared to 2015 EmPower Maryland Goal
2007 Population Data and 2008 PJM Load Forecast

EmPower Maryland - 10 Percent Reduction in Maryland Energy Sales 2015													
2010 Utility Company Data Request Information													
EmPower Maryland Targets and Goals Based on 2007 Population Data and 2008 PJM Load Forecast													
Maryland Utility	**2007 per Capita Energy Use MWh**	**2015 per Capita Energy Use Goal MWh**	**2015 per Capita Energy Reduction Target MWh (1)**	**2010 Energy Sales Gross-Up by Loss Factor MWh**	**2010 Estimated Population (2)**	**2010 per Capita Energy Use MWh**	**Percentage Reduced from 2007 Baseline (3)**	**Percentage of Per Capita Energy Savings Achieved Towards 2015 Reduction Target (4)**		**2015 Energy Sales Goal MWh**	**Difference Between 2010 Use and 2015 Goal MWh**	**2015 Energy Reduction Goal MWh**	**Utility Reported Savings Program-to-Date**
BGE	13.39	12.05	1.34	35,054,834	2,662,691	13.17	1.7%	17.0%		33,382,109	1,672,724	4,297,095	443,824
Pepco	9.39	8.45	0.94	16,462,123	1,835,197	8.97	4.5%	45.0%		16,037,468	424,654	1,874,656	159,551
PE	17.54	15.79	1.75	7,722,404	436,214	17.70	-0.9%	-9.3%		7,451,881	270,523	338,760	15,057
Delmarva	13.61	12.25	1.36	4,549,797	345,705	13.16	3.3%	32.9%		4,731,788	-181,991	503,202	24,364
SMECO	11.15	10.04	1.12	3,686,537	340,439	10.83	2.9%	28.9%		3,787,437	-100,899	254,827	18,494
Choptank	13.61	12.25	1.36	1,088,479	82,705	13.16	3.3%	32.9%		1,041,163	47,316	123,057	
Hagerstown	9.32	8.39	0.93	361,474	39,622	9.12	2.1%	21.0%		369,300	-7,826	19,345	
Easton	20.67	18.60	2.07	281,037	15,945	17.63	14.7%	147.3%		278,135	2,902	48,769	
Thurmont	14.98	13.48	1.50	88,392	6,170	14.33	4.3%	43.3%		95,166	-6,774	1,122	
Berlin	11.50	10.35	1.15	44,527	4,485	9.93	13.7%	136.6%		43,314	1,214	6,091	
Williamsport	9.77	8.79	0.98	19,933	2,137	9.33	4.5%	45.0%		21,812	-1,879	1,143	
Somerset	4.22	3.80	0.42	8,307	1,856	4.48	-6.1%	-60.5%		7,243	1,064	1,239	
A&N Coop	10.09	9.08	1.01	3,477	386	9.01	10.7%	107.4%		3,215	262	688	
Total	**12.32**	11.09	**1.23**	**69,371,320**	**5,773,552**	**12.02**	**2.5%**	25.1%		**68,540,181**	**831,139**	**3,254,581**	**661,290**

(1) The 2015 per Capita Energy Reduction Target Column is the difference between the 2007 per Capita Energy Use and 2015 per Capita Energy Use Goal. For example, for BGE to reach its 2015 per capita energy use goal of 12.05 MWh, BGE would have to achieve a reduction of 1.34 MWh off the 2007 baseline per capita energy use of 13.39.

(2) Sources: U.S. Census Bureau and Maryland Department of Planning. 2010 Census Data for Maryland counties retrieved from http://2010.census.gov/2010census/data. Berlin, Easton, Hagerstown, Thurmont and Williamsport 2010 population estimated by applying nine year annual compound growth rate (2000-2009) to 2009 population. Somerset 2010 population estimated by applying one year annual county growth rate (2008 - 2009) to Staff estimated 2009 population. A&N 2010 population estimated by applying ten year annual compound growth rate (2000-2010) to 2000 population.

(3) Percentage Reduced from the 2007 Baseline Column, calculates the percentage the 2010 per Capita Energy Use is from the 2007 per Capita Energy use Column. For example, BGE's 2010 per Capita Energy use is 1.7% lower than BGE's 2007 per capita energy use.

(4) Percentage of Per Capita Energy Savings Towards 2015 Reduction Target Column, calculates the Percentage Reduced from 2007 Baseline as a percentage of the 10% EmPower Maryland goal. For example, in 2010 BGE's per capita energy use was 1.7% lower than the 2007 per capita energy use baseline. In other words, in 2010, BGE achieved 1.7% of the 10% EmPower Maryland goal, which is equivalent to reaching 17% of the 2015 per capita energy reduction target.

Table 31b. 2010 Per Capita Energy Use Compared to 2015 EmPower Maryland Goal
Revised 2007 Population and 2011 PJM Load Forecast

EmPower Maryland - 10 Percent Reduction in Maryland Energy Sales 2015													
2010 Utility Company Data Request Information													
EmPower Maryland Targets and Goals Based on Revised 2007 Population Data and 2011 PJM Load Forecast													
Maryland Utility	2007 per Capita Energy Use MWh	2015 per Capita Energy Use Goal MWh	2015 per Capita Energy Reduction Target MWh (1)	2010 Energy Sales Gross-Up by Loss Factor MWh	2010 Estimated Population (2)	2010 per Capita Energy Use MWh	Percentage Reduced from 2007 Baseline (3)	Percentage of Per Capita Energy Savings Achieved Towards 2015 Reduction Target (4)		2015 Energy Sales Goal MWh	Difference Between 2010 Use and 2015 Goal MWh	2015 Energy Reduction Goal MWh	Utility Reported Savings Program-to-Date
BGE	13.41	12.07	1.34	35,054,834	2,662,691	13.17	1.8%	18.1%		33,525,028	1,529,805	3,593,750	443,824
Pepco	9.32	8.39	0.93	16,462,123	1,835,197	8.97	3.8%	37.6%		15,892,578	569,544	1,239,108	159,551
PE	18.46	16.62	1.85	7,722,404	436,214	17.70	4.1%	41.1%		7,748,215	-25,811	385,708	15,057
Delmarva	13.70	12.33	1.37	4,549,797	345,705	13.16	3.9%	39.4%		4,495,919	53,879	165,106	24,364
SMECO	11.22	10.09	1.12	3,686,537	340,439	10.83	3.5%	34.5%		3,752,609	-66,072	83,870	18,494
Choptank	13.70	12.33	1.37	1,088,479	82,705	13.16	3.9%	39.4%		1,075,589	12,890	23,834	
Hagerstown	9.33	8.39	0.93	361,474	39,622	9.12	2.2%	21.7%		345,038	16,436	48,131	
Easton	20.25	18.23	2.03	281,037	15,945	17.63	13.0%	129.7%		337,855	-56,818	-37,585	
Thurmont	15.08	13.58	1.51	88,392	6,170	14.33	5.0%	50.2%		87,570	822	8,214	
Berlin	11.05	9.95	1.11	44,527	4,485	9.93	10.2%	101.7%		49,946	-5,419	-2,371	
Williamsport	9.54	8.59	0.95	19,933	2,137	9.33	2.3%	22.7%		19,634	299	1,841	
Somerset	4.22	3.80	0.42	8,307	1,856	4.48	-6.1%	-60.5%		7,072	1,235	1,797	
A&N Coop	9.25	8.33	0.93	3,477	386	9.01	2.7%	26.7%		3,215	262	570	
Total	**12.38**	11.14	**1.24**	**69,371,320**	**5,773,552**	**12.02**	**2.9%**	**29.2%**		**67,349,340**	**2,021,981**	**6,615,496**	**661,290**

(1) The 2015 per Capita Energy Reduction Target Column is the difference between the 2007 per Capita Energy Use and 2015 per Capita Energy Use Goal. For example, for BGE to reach its 2015 per capita energy use goal of 12.07 MWh, BGE would have to achieve a reduction of 1.34 MWh off the 2007 baseline per capita energy use of 13.41.

(2) Sources: U.S. Census Bureau and Maryland Department of Planning. 2010 Census Data for Maryland counties retrieved from http://2010.census.gov/2010census/data. Berlin, Easton, Hagerstown, Thurmont and Williamsport 2010 population estimated by applying nine year annual compound growth rate (2000-2009) to 2009 population. Somerset 2010 population estimated by applying one year annual county growth rate (2008 - 2009) to Staff estimated 2009 population. A&N 2010 population estimated by applying ten year annual compound growth rate (2000-2010) to 2000 population.

(3) Percentage Reduced from the 2007 Baseline Column, calculates the percentage the 2010 per Capita Energy Use is from the 2007 per Capita Energy use Column. For example, BGE's 2010 per Capita Energy use is 1.8% lower than BGE's 2007 per capita energy use.

(4) Percentage of Per Capita Energy Savings Towards 2015 Reduction Target Column, calculates the Percentage Reduced from 2007 Baseline as a percentage of the 10% EmPower Maryland goal. For example, in 2010 BGE's per capita energy use was 1.8% lower than the 2007 per capita energy use baseline. In other words, in 2010, BGE achieved 1.8% of the 10% EmPower Maryland goal, which is equivalent to reaching 18.1% of the 2015 per capita energy reduction target.

Table 32a. 2010 Per Capita Peak Demand Compared to 2015 EmPower Maryland Goal
2007 Population Data and 2008 PJM Load Forecast

EmPower Maryland - 15 Percent Reduction in Maryland Peak Demand 2015													
2010 Utility Company Data Request Information													
EmPower Maryland Targets and Goals Based on 2007 Population Data and 2008 PJM Load Forecast													
Maryland Utility	**2007 per Capita Peak Demand MW**	**2015 per Capita Peak Demand Goal MW**	**2015 per Capita Demand Reduction Target MW (1)**	**2010 Peak Demand Weather Normalized**	**2010 Estimated Population (2)**	**2010 per Capita Peak Demand MW**	**Percentage Reduced from 2007 Baseline (3)**	**Percentage of Per Capita Peak Demand Savings Achieved Towards 2011 Reduction Target (4)**		**2015 Peak Demand Goal MW**	**Difference Between 2010 Use and 2015 Goal**	**2011 Peak Demand Reduction Goal**	**Utility Reported Savings Program-to-Date**
BGE	0.0028	0.0024	0.0004	6,787	2,662,691	0.0025	8.0%	53.1%		6,519	268	1,411	560
Pepco	0.0020	0.0017	0.0003	3,644	1,835,197	0.0020	-0.6%	-4.1%		3,183	461	685	70
PE	0.0033	0.0028	0.0005	1,276	435,298	0.0029	12.3%	81.7%		1,340	-64	186	5
Delmarva	0.0031	0.0027	0.0005	946	341,118	0.0028	11.7%	77.7%		1,002	-56	234	18
SMECO[5]	0.0023	0.0019	0.0003	818	340,439	0.0024	-6.1%	-40.7%		727	92	107	19
Choptank	0.0031	0.0027	0.0005	216	88,396	0.0024	22.1%	147.6%		221	-4	66	
Hagerstown[5]	0.0019	0.0016	0.0003	71	40,367	0.0018	5.9%	39.3%		70	1	10	
Easton[5]	0.0046	0.0039	0.0007	63	15,211	0.0041	10.8%	72.2%		59	4	15	
Thurmont[5]	0.0027	0.0023	0.0004	20	6,151	0.0032	-17.6%	-117.1%		16.3	3	2	
Berlin[3]	0.0024	0.0020	0.0004	11	4,110	0.0026	-7.2%	-48.2%		8.6	2	2	
Williamsport[5]	0.0018	0.0016	0.0003	4	2,328	0.0019	-1.5%	-10.2%		3.9	0	1	
Somerset[5]	0.0011	0.0009	0.0002	2	1,856	0.0011	4.8%	32.2%		1.8	0	0	
A&N Coop[5]	0.0023	0.0019	0.0003	N/A	392	N/A	N/A	N/A		0.7	0	0	
Total	**0.0026**	**0.0022**	**0.0004**	**13,857.883**	**5,773,160**	**0.0024**	**6.2%**	41.3%		**13,152**	**706**	**2,718**	**672**

(1) The 2015 per Capita Peak Demand Reduction Target Column is the difference between the 2007 per Capita Peak Demand and 2015 per Capita Peak Demand Goal. For example, for BGE to reach its 2015 per capita Peak Demand goal of 0.0024 MW, BGE would have to achieve a reduction of 0.0004 MW off the 2007 baseline per capita peak demand of 0.0028 MW.

(2) Sources: U.S. Census Bureau and Maryland Department of Planning. 2010 Census Data for Maryland counties retrieved from http://2010.census.gov/2010census/data/
Berlin, Easton, Hagerstown, Thurmont and Williamsport 2010 population estimated by applying nine year annual compound growth rate (2000-2009) to 2009 population.
Somerset 2010 population estimated by applying one year annual county growth rate (2008 - 2009) to Staff estimated 2009 population.
A&N 2010 population estimated by applying ten year annual compound growth rate (2000-2010) to 2000 population.

(3) Percentage Reduced from the 2007 Baseline Column, calculates the percentage the 2010 per Capita Peak Demand is from the 2007 per Capita Peak Demand Column. For exmple, BGE's 2010 per Capita Peak Demand is 8% lower than BGE's 2007 per Capita Peak Demand.

(4) Percentage of Per Capita Peak Demand Savings Towards 2015 Reduction Target Column, calculates the Percentage Reduced from 2007 Baseline as a percentage of the 15% EmPower Maryland goal. For example, in 2010 BGE's per capita peak demand was 8% lower than the 2007 per capita peak demand baseline. In other words, in 2010, BGE achieved 8% of the 15% EmPower Maryland goal, which is equivalent to reaching 53% of the 2015 per capita peak demand target.

(5) Utilities did not provide weather normal peak demand data.

Table 32b. 2010 Per Capita Peak Demand Compared to 2015 EmPower Maryland Goal
Revised 2007 Population and 2011 PJM Load Forecast

EmPower Maryland - 15 Percent Reduction in Maryland Peak Demand 2015													
2010 Utility Company Data Request Information													
EmPower Maryland Targets and Goals Based on Revised 2007 Population Data and 2011 PJM Load Forecast													
Maryland Utility	**2007 per Capita Peak Demand MW**	**2015 per Capita Peak Demand Goal MW**	**2015 per Capita Demand Reduction Target MW (1)**	**2010 Peak Demand Weather Normalized**	**2010 Estimated Population (2)**	**2010 per Capita Peak Demand MW**	**Percentage Reduced from 2007 Baseline (3)**	**Percentage of Per Capita Peak Demand Savings Achieved Towards 2011 Reduction Target (4)**		**2015 Peak Demand Goal MW**	**Difference Between 2010 Use and 2015 Goal**	**2011 Peak Demand Reduction Goal**	**Utility Reported Savings Program-to-Date**
BGE	0.0027724	0.0024	0.0004	6,787	2,662,691	0.0025	8.1%	53.7%		6,547	240	1,267	560
Pepco	0.0019585	0.0017	0.0003	3,644	1,835,197	0.0020	-1.4%	-9.2%		3,154	490	672	70
PE	0.0033584	0.0029	0.0005	1,276	435,298	0.0029	12.7%	84.8%		1,331	-55	16	5
Delmarva	0.0031604	0.0027	0.0005	946	341,118	0.0028	12.2%	81.7%		988	-42	23	18
SMECO[5]	0.0022789	0.0019	0.0003	818	340,439	0.0024	-5.5%	-36.6%		720	98	139	19
Choptank	0.0031604	0.0027	0.0005	216	88,396	0.0024	22.7%	151.0%		226	-10	4	
Hagerstown[5]	0.0018711	0.0016	0.0003	71	40,367	0.0018	6.0%	39.8%		65	6	10	
Easton[5]	0.0045364	0.0039	0.0007	63	15,211	0.0041	9.0%	59.9%		71	-9	-5	
Thurmont[5]	0.0027406	0.0023	0.0004	20	6,151	0.0032	-16.7%	-111.5%		15.0	5	6	
Berlin[3]	0.0023106	0.0020	0.0003	11	4,110	0.0026	-11.6%	-77.1%		9.9	1	1	
Williamsport[5]	0.0017905	0.0015	0.0003	4	2,328	0.0019	-3.9%	-26.0%		3.5	1	1	
Somerset[5]	0.0011144	0.0009	0.0002	2	1,856	0.0011	4.8%	32.2%		1.8	0	0	
A&N Coop[5]	0.0020984	0.0018	0.0003	N/A	392	N/A	N/A	N/A		0.7	0	0	
Total	**0.0025567**	0.0022	**0.0004**	**13,857.883**	**5,773,160**	**0.0024**	**6.1%**	40.8%		**13,134**	**724**	**2,135**	**672**

(1) The 2015 per Capita Peak Demand Reduction Target Column is the difference between the 2007 per Capita Peak Demand and 2015 per Capita Peak Demand Goal. For example, for BGE to reach its 2015 per capita Peak Demand goal of 0.0024 MW, BGE would have to achieve a reduction of 0.0004 MW off the 2007 baseline per capita peak demand of 0.0028 MW.

(2) Sources: U.S. Census Bureau and Maryland Department of Planning. 2010 Census Data for Maryland counties retrieved from http://2010.census.gov/2010census/data/
Berlin, Easton, Hagerstown, Thurmont and Williamsport 2010 population estimated by applying nine year annual compound growth rate (2000-2009) to 2009 population.
Somerset 2010 population estimated by applying one year annual county growth rate (2008 - 2009) to Staff estimated 2009 population.
A&N 2010 population estimated by applying ten year annual compound growth rate (2000-2010) to 2000 population.

(3) Percentage Reduced from the 2007 Baseline Column, calculates the percentage the 2010 per Capita Peak Demand is from the 2007 per Capita Peak Demand Column. For exmple, BGE's 2010 per Capita Peak Demand is 8% lower than BGE's 2007 per Capita Peak Demand.

(4) Percentage of Per Capita Peak Demand Savings Towards 2015 Reduction Target Column, calculates the Percentage Reduced from 2007 Baseline as a percentage of the 15% EmPower Maryland goal. For example, in 2010 BGE's per capita peak demand was 8% lower than the 2007 per capita peak demand baseline. In other words, in 2010, BGE achieved 8% of the 15% EmPower Maryland goal, which is equivalent to reaching 53% of the 2015 per capita peak demand target.

(5) Utilities did not provide weather normal peak demand data.

Table 33 compares the 2007 per capita energy use and peak demand with 2008, 2009 and 2010 per capita energy use and peak demand. A majority of the state's electric utilities experienced an increase in per capita energy use and per capita peak demand compared to 2009 levels. This increase could be attributable to warmer weather over the summer, a generally colder winter, and overall lower energy prices compared to last year. Also, many utilities with approved EmPower Maryland programs were not operating the programs for the full year 2010 and the smaller municipal and cooperative utilities do not have EmPower Maryland plans. Combined, the utilities have achieved 30 percent of the per capita energy usage reduction goal for 2011 and 123 percent of the per capita peak demand reduction goal for 2011.

Table 33. 2007, 2008, 2009 & 2010 per Capita Energy Consumption and Peak Demand

Maryland Utility	Per Capita Energy Use MWh				Per Capita Peak Demand MW			
	2007	2008	2009	2010	2007	2008	2009	2010
BGE	13.39	12.99	12.72	13.17	0.0028	0.0027	0.0028	0.0025
Pepco	9.39	9.05	8.81	8.97	0.0020	0.0020	0.0019	0.0020
AP	17.54	17.94	17.50	17.70	0.0033	0.0034	0.0030	0.0029
Delmarva	13.61	12.60	12.83	13.16	0.0031	0.0028	0.0028	0.0028
SMECO	11.15	10.57	10.47	10.83	0.0023	0.0023	0.0022	0.0024
Choptank	13.61	12.65	12.79	13.16	0.0031	0.0027	0.0028	0.0024
Hagerstown	9.32	9.01	8.67	9.12	0.0019	0.0018	0.0017	0.0018
Easton	20.67	19.23	17.82	17.63	0.0046	0.0044	0.0039	0.0041
Thurmont	14.98	14.53	14.26	14.33	0.0027	0.0032	0.0022	0.0032
Berlin	11.50	10.60	9.93	9.93	0.0024	0.0024	0.0023	0.0026
Williamsport	9.77	8.92	8.37	9.33	0.0018	0.0020	0.0015	0.0019
Somerset	4.22	N/A	N/A	4.48	0.0011	N/A	N/A	0.0011
A&N Coop	10.09	11.10	9.52	9.01	0.0023	0.0023	N/A	N/A

Finally, Tables 34 and 35 present the revised 2015 EmPower Maryland per capita energy goals based on updated 2015 population data from the Maryland Department of Planning and the revised PJM forecast. These revised EmPower Maryland goals will be the basis for the 2012-2014 EmPower Maryland portfolios that will be filed in September of 2011. Table 36 presents the 10 percent reduction in per capita peak demand the EmPower Maryland Act requires the utilities to achieve in 2013. This is the first time the 2013 EmPower Maryland goals have been developed because the year 2013 fall within the 2012 – 2014 EmPower Maryland plan cycle.

Table 34. Revised 2015 Ten Percent Reduction per Capita Energy Consumption

EmPower Maryland - 10 Percent Reduction in Maryland Energy Sales 2015										
2007 Utility Company Data Request Information										
Maryland Utility	Energy Use MWh (1)	2007 Loss Factors (2)	Energy Sales Gross-Up by Loss Factor	2007 Estimated Population (3)	2015 Estimated Population (3)	2007 per Capita Energy Use MWh	10 Percent Reduction per Capita Energy Use MWh	Energy Use Goal 2015 MWh	PJM Derived Energy Use Forecast 2015 MWh (4)	Difference Between Goal and PJM Derived Forecast MWh
BGE	33,112,453.000	5.69%	35,109,765.179	2,618,715	2,778,350	13.41	12.07	**33,525,028**	**37,118,778**	**3,593,750**
Pepco	15,651,105.000	5.25%	16,518,897.197	1,772,292	1,894,550	9.32	8.39	**15,892,578**	**17,131,686**	**1,239,108**
PE	7,045,209.000	9.63%	7,795,557.000	422,227	466,292	18.46	16.62	**7,748,215**	**8,133,924**	**385,708**
Delmarva	4,410,698.000	5.83%	4,683,581.501	341,860	364,624	13.70	12.33	**4,495,919**	**4,661,025**	**165,106**
SMECO	3,464,094.089	5.99%	3,684,886.957	328,537	371,750	11.22	10.09	**3,752,609**	**3,836,480**	**83,870**
Choptank	957,285.184	7.11%	1,030,555.787	75,221	87,232	13.70	12.33	**1,075,589**	**1,099,423**	**23,834**
Hagerstown	355,623.286	3.56%	368,768.622	39,544	41,110	9.33	8.39	**345,038**	**393,169**	**48,131**
Easton	274,391.948	5.18%	289,372.727	14,289	18,537	20.25	18.23	**337,855**	**300,271**	**-37,585**
Thurmont	86,870.000	4.92%	91,364.052	6,057	6,451	15.08	13.58	**87,570**	**95,784**	**8,213.7**
Berlin	40,259.553	7.94%	43,731.967	3,957	5,021	11.05	9.95	**49,946**	**47,574**	**-2,371.3**
Williamsport	20,083.000	7.79%	21,780.261	2,282	2,286	9.54	8.59	**19,634**	**21,475**	**1,841.4**
Somerset	7,343.019	5.67%	7,783.989	1,844	1,861	4.22	3.80	**7,072**	**8,868**	**1,796.6**
A&N Coop	3,342.600	6.43%	3,572.147	386	386	9.25	8.33	**3,215**	**3,785**	**569.7**
				5,627,211	6,038,450			**67,340,269**	**72,852,242**	**5,511,973.0**

(1) Energy Use is 2007 total usage, not weather normalized, Choptank, Somerset and A&N have not provided responses to DR No. 3. Values are from DR No. 2.

(2) Loss Factors are from data request for preparation of the Unaccounted for Electricity Report.

(3) Based on the U.S. Census Bureau's population estimates for July 1, 2007 for state (revised December 2010, released March, 2011). 2015 Populations projections are from the Maryland Department of Planning - Population Forecast - revised November 2010

(4) PJM forecast is from the January 2011 load and energy forecast and is for the entire BGE, DPL, PE, and Pepco Zones. Staff applied these zonal growth rates to the appropriate utilities 2010 weather normal peak demand and weather normal energy sales to produce the utility 2015 forecast for peak demand and energy sales. For example, because Hagerstown is a part of the PE Zone, Staff applied the PJM growth rate for peak demand and energy sales to the 2010 weather normal peak demand and energy sales provided by Hagerstown in response to DR No. 6.

Table 35. Revised 2015 Fifteen Percent Reduction per Capita Peak Demand

EmPower Maryland - 15 Percent Reduction in Maryland Peak Demand 2015								
2007 Utility Company Data Request Information								
Maryland Utility	2007 Peak Demand Weather Normalized (1)	2007 Estimated Population (2)	2015 Estimated Population (2)	2007 per Capita Peak Demand MW	15 Percent Reduction per Capita Peak Demand MW	Peak Demand Goal 2015 MW	PJM Derived Peak Demand Forecast 2015 MW (3)	Difference Between Goal and PJM Derived Forecast MW
BGE	7,260.000	2,618,715	2,778,350	0.0028	0.0024	**6,547**	**7,814**	**1,267**
Pepco	3,471.000	1,772,292	1,894,550	0.0020	0.0017	**3,154**	**3,826**	**672**
PE	1,418.000	422,227	466,292	0.0034	0.0029	**1,331**	**1,347**	**16**
Delmarva	1,068.000	337,934	367,836	0.0032	0.0027	**988**	**1,011**	**23**
SMECO	748.700	328,537	371,750	0.0023	0.0019	**720**	**859**	**139**
Choptank	250.134	79,147	84,020	0.0032	0.0027	**226**	**230**	**4**
Hagerstown	73.992	39,544	41,110	0.0019	0.0016	**65**	**75**	**10**
Easton	64.820	14,289	18,537	0.0045	0.0039	**71**	**67**	**-5**
Thurmont	16.600	6,057	6,451	0.0027	0.0023	**15.0**	**21**	**5.7**
Berlin	9.143	3,957	5,021	0.0023	0.0020	**9.9**	**11**	**1.4**
Williamsport	4.086	2,282	2,286	0.0018	0.0015	**3.5**	**5**	**1.1**
Somerset	2.055	1,844	1,861	0.0011	0.0009	**1.8**	**2**	**0.3**
A&N Coop	0.810	386	386	0.0021	0.0018	**0.7**	**1**	**0.2**
	14,387.340	5,627,211	6,038,450	0.0026	0.0022	**13,134**	**15,269**	**2,135.0**

(1) Peak Demand is Electric Company demand, coincident with PJM peak demand at 5 p.m. EDT on August 8, 2007.
Choptank, Hagerstown, Thurmont, Williamsport, Somerset, and A&N did not provide weather-normalized Peak Demand to DR No. 3.

(2) Based on the U.S. Census Bureau's population estimates for July 1, 2007 for state (revised December 2010, released March, 2011).
2015 Populations projections are from the Maryland Department of Planning - Population Forecast - revised November 2010

(3) PJM forecast is from the January 2011 load and energy forecast and is for the entire BGE, DPL, AP, and Pepco Zones.
Staff applied these zonal growth rates to the appropriate utilities 2010 weather normal peak demand and weather normal energy sales to produce the utility 2015 forecast for peak demand and energy sales. For example, because Hagerstown is a part of the AP Zone, Staff applied the PJM growth rate for peak demand and energy sales to the 2010 weather normal peak demand and weather normal energy sales provided by Hagerstown in response to DR No. 6.

Table 36. 2013 Ten Percent Reduction per Capita Peak Demand

EmPower Maryland - 10 Percent Reduction in Maryland Peak Demand 2013								
2007 Utility Company Data Request Information								
Maryland Utility	2007 Peak Demand Weather Normalized (1)	2007 Estimated Population (2)	2013 Estimated Population (2)	2007 per Capita Peak Demand MW	10 Percent Reduction per Capita Peak Demand MW	Peak Demand Goal 2013 MW	PJM Derived Peak Demand Forecast 2013 MW (3)	Difference Between Goal and PJM Derived Forecast MW
BGE	7,260.000	2,618,715	2,722,909	0.0028	0.0025	**6,794**	**7,590**	**796**
Pepco	3,471.000	1,772,292	1,873,607	0.0020	0.0018	**3,302**	**3,749**	**447**
PE	1,418.000	422,227	456,650	0.0034	0.0030	**1,380**	**1,323**	**-57**
Delmarva	1,068.000	337,934	361,998	0.0032	0.0028	**1,030**	**987**	**-43**
SMECO	748.700	328,537	359,185	0.0023	0.0021	**737**	**842**	**105**
Choptank	250.134	79,147	82,686	0.0032	0.0028	**235**	**225**	**-10**
Hagerstown	73.992	39,544	40,508	0.0019	0.0017	**68**	**74**	**5**
Easton	64.820	14,289	17,453	0.0045	0.0041	**71**	**66**	**-6**
Thurmont	16.600	6,057	6,337	0.0027	0.0025	**15.6**	**20**	**4.8**
Berlin	9.143	3,957	4,800	0.0023	0.0021	**10.0**	**11**	**1.1**
Williamsport	4.086	2,282	2,225	0.0018	0.0016	**3.6**	**4**	**0.9**
Somerset	2.055	1,844	1,859	0.0011	0.0010	**1.9**	**2**	**0.2**
A&N Coop	0.810	386	386	0.0021	0.0019	**0.7**	**1**	**0.1**
						13,649	**14,895**	**1,245.2**

(1) Peak Demand is Electric Company demand, coincident with PJM peak demand at 5 p.m. EDT on August 8, 2007.
Choptank, Hagerstown, Thurmont, Williamsport, Somerset, and A&N did not provide weather-normalized Peak Demand to DR No. 3.

(2) Based on the U.S. Census Bureau's population estimates for July 1, 2007 for state (revised December 2010, released March, 2011).
2013 Populations projections are from the Maryland Department of Planning - Population Forecast - revised November 2010

(3) PJM forecast is from the January 2011 load and energy forecast and is for the entire BGE, DPL, AP, and Pepco Zones.
Staff applied these zonal growth rates to the appropriate utilities 2010 weather normal peak demand and weather normal energy sales to produce the utility 2015 forecast for peak demand and energy sales. For example, because Hagerstown is a part of the AP Zone, Staff applied the PJM growth rate for peak demand and energy sales to the 2010 weather normal peak demand and weather normal energy sales provided by Hagerstown in response to DR No. 6.

Upcoming Milestones

The following issues are expected to be addressed by the Commission in 2011.

- Over the next year, the utilities will be developing and submitting an EmPower Maryland Portfolio Plan for 2012-2014 designed to address the 2013 demand reduction goal and to make adequate progress toward the 2015 energy savings goal. Each utility's portfolio will undergo the same process and scrutiny as the EmPower Maryland Portfolio Plans for 2009-2011.
- EmPower Maryland program continuity – Depending on the timing of the approval of the 2012-2014 program proposals, the Commission will determine if the utilities will continue with the currently approved plans (2009-2011) in 2012 as a bridge until the full implementation of 2012-2014 EmPower Maryland programs.
- Evidentiary Hearings – The Commission will hold evidentiary hearings for DPL's revised AMI business case in June.
- Participation of municipal utilities and cooperatives – Per the EmPower Maryland Act, "As directed by the Commission, each municipal electric utility and each electric cooperative that serves a population of less than 250,000 in its distribution territory shall include energy efficiency and conservation programs or services as part of their service to their customers."
- Fuel-switching – According to the Commission, fuel switching "will be reviewed in 2009 when a thorough analysis can be developed" (see footnotes 11 of Pepco and DPL's Orders and 14 of BGE's Order). However, given the full docket over the course of 2009 and 2010, the Commission did not proceed with the review on fuel switching.

Conclusions and Observations

In 2010, a majority of the utility approved Empower Maryland programs were operational for the entire year, which resulted in an increase of reported energy savings of over 93 percent compared to 2009.[61] However, the ramp-up of participation and energy and demand savings for a majority of the utilities' programs did not occur until the second half of 2010. Despite this slower than expected ramp-up time, reported energy savings in 2010 (387,452 MWh) comprised over 66 percent of the program-to-date energy savings (587,265 MWh). The Commercial and Industrial program continue to underperform with respect to forecasted participation and energy savings, as the slow recovery from the economic recession in 2008 and 2009 continues to hamper commercial and industrial customers from making an investment in energy efficient upgrades. However, participation and energy savings from the commercial and industrial programs improved in the second half of 2010.

[61] Some programs were soft launched throughout 2010. By the third quarter of 2010, all programs were fully operational.

Given the trend in participation and energy savings that occurred in the second half of 2010, it is expected that energy savings and participation will be greater in 2011. It may be possible for the utilities to meet their 2011 interim targets for both energy and demand savings. Despite this continued ramp-up in participation and savings, the current portfolio of EE&C and DR programs has not met the per capita EmPower Maryland goal for reduction in electricity usage for either 2011 or 2015. On a positive note, as of 2010, even after one of Maryland's first hot summers since 2007, the State has currently met its 2010 demand reduction goal. Program enhancements will be necessary in order to achieve the targeted goals in 2011 and 2015, especially for electricity savings.