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March 28, 2019

Ms. Brinda Westbrook-Sedgwick
Commission Secretary
Public Service Commission
of the District of Columbia
1325 G Street N.W., Suite 800
Washington, DC 20005

Re: Formal Case Nos. 1086 and 1119

Dear Ms. Westbrook-Sedgwick:

Enclosed please find Potomac Electric Power Company's ("Pepco") Annual Direct Load Control ("DLC") Program Report in compliance with Order No. 17469, issued April 29, 2014, in the above-referenced proceeding. In addition, as part of the merger commitments approved by the Public Service Commission of the District of Columbia ("Commission") in Order No. 18148, Paragraph 113 of Attachment B, Pepco committed to maintaining and promoting energy efficiency and demand response programs consistent with the direction and approval of the Commission as well as District and federal law. Pepco submits that the DLC program is evidence of this commitment and will continue to operate the program consistent with Commission direction.

Please feel free to contact me if you have any questions regarding this matter.

Sincerely,



Dennis P. Jamouneau

Enclosure:

cc: All Parties of Record

**District of Columbia
Residential Air Conditioner Direct Load Control Program**

Annual Performance Report

January – December 2018

Formal Case Nos. 1086 and 1119

Submitted by: Potomac Electric Power Company

Milestones

1. Program Authorization: The Residential Air Conditioner Direct Load Control (DLC) Program was approved November 3, 2011 in Order No. 16602, Formal Case No. 1086.
2. Launch of the Program Website and Program: The website was operational on March 30, 2012 and the customer education materials were created and produced to begin the launch and mailing of the materials in Q2 2012.
3. Completion of the Program Build-out Goal: As reported in the Q3 2013 report, Pepco completed the installation of 26,654 devices prior to September 30, 2013 which exceeded the build-out goal of 25,250 devices by December 30, 2013.
4. Final Formal Evaluation Report (Phase I): Pepco filed this report on April 2, 2014, pursuant to Order No. 16602.
5. Acceptance of Annual Report Proposal: The Commission accepted Pepco's proposal to file Annual DLC Reports on April 1, 2014 through Order No. 17661. Reports must be filed by March 31 of each year.
6. Approval of Phase II: The Commission approved Pepco's proposal for Phase II of its Direct Load Control Program on October 16, 2015 through Order No. 18003, Formal Case No. 1086.
7. Year-end 2016: As of December 31, 2016, Pepco has installed 32,338 devices.
8. Year-end 2017: As of December 31, 2017, Pepco has installed 32,503 devices.
9. Year-end 2018: As of December 31, 2018, Pepco has installed 32,635 devices.

Numerical Goals and Status

- At the end of 2018, 28,129 participants have been enrolled and 32,635 devices have been installed in the program, exceeding the program build-out target. Of those, 25,251 participants and 28,712 devices were active at the end of 2018. The difference between enrolled and active represents customers who left the program or defaulted out of the program. A default occurs when a previously active customer moves from their premise and the premise remains vacant.
- Table 1 lists the original planned program-to-date installation goals by quarter as well as the revised installation plans and actual installations. Although the Company has ceased active recruitment into the program, it continues to install devices for customers who voluntarily enroll and 132 devices were installed in 2018.

**Table 1
Installation Goals**

	Target Installations	Revised Target Installations as of 9/30/2012	Actual Installations
1Q 2012	-	-	-
2Q 2012	1,825	1,122	1,122
3Q 2012	5,400	3,160	3,160
4Q 2012	5,400	4,200	3,019
Total	12,625	8,482	7,301
1Q 2013	6,320	5,700	7,301
2Q 2013	6,305	5,700	5,008
3Q 2013	-	5,368	7,044
4Q 2013	-	-	739
Total	12,625	16,768	20,092
1Q 2014	-	-	1,294
2Q 2014			486
3Q 2014			552
4Q 2014			968
Total	-	-	3,300
1Q 2015	-	-	436
2Q 2015			613
3Q 2015			295
4Q 2015			163
Total	-	-	1,507
1Q 2016	-	-	32
2Q 2016			27
3Q 2016			54
4Q 2016			25
Total	-	-	138
1Q 2017	-	-	51
2Q 2017			48
3Q 2017			48
4Q 2017			26
Total	-	-	173
1Q 2018	-	-	35
2Q 2018			28
3Q 2018			38
4Q 2018			31
Total	-	-	132
Total	25,250	25,250	32,635

*In the 2016 DC DLC report filed with the Commission on March 31, 2017, the number of installed devices (program to date) reported was 32,338. Subsequently, that number was adjusted to 32,330 based on administrative corrections to installation work orders. This true up reduced the total number of devices installed by 8.

Customer Education/Awareness and Program Implementation

1. In 2012, the program team launched the website, and implemented a recruitment campaign that included direct mail sent to customers and former Kilowatchers' participants and separate direct mail sent to segmented customer groups using targeted messaging, plus emails, door-to-door educational recruitments and community outreach.
2. In 2013, the program team continued direct mail to targeted customers, emails, door-to-door recruitment, and community outreach, and added bill inserts, news releases, marketing newsletters, instant installs via door-to-door program representatives, and outbound calling, plus an advertising campaign using Web and print ads, and radio and TV spots.
3. In 2014, as the installation goal had been met at the end of 2013, active recruitment was not undertaken, except for pre-season letters sent to retain customer awareness, and news releases and website notifications issued prior to Peak Savings Day curtailment events. Participation requests continued to come in from prior-year recruitment tactics and from word of mouth referrals.
4. In 2015, minimal recruitment activities were conducted. The program team followed the customer education plan that was implemented in 2014.
5. In 2016 as in 2015, minimal recruitment activities were conducted. The program team followed the customer education plan that was implemented in 2014.
6. On July 25, 2017, in Order No. 18846, the Commission directed Pepco to discontinue active recruitment. Active recruitment had begun to decline in 2014, after the installation goal was met at the end of 2013, and the current Statement of Work with the vendor reflects that active recruitment has ceased completely.
7. There was no active recruitment in 2018.

Changes in Program (Goals, Incentives, Tasks, Schedules and Plans)

1. No contractor employees of the EWR program are residents of the District of Columbia.
2. Pepco is not actively recruiting customers at this time, but will continue to install devices for any customers who choose to enroll in the program via the website or telephone.
3. On September 19, 2014, Pepco filed with the Commission a proposal for the next phase of the program that includes the years 2014 through 2017. This "Phase II" filing was approved on October 16, 2015 through Order No. 18003.
4. On July 25, 2017, in Order No. 18846, the Commission approved Pepco's recovery of costs related to the DLC program and permitted Pepco to continue the program in 2018. However, Order No. 18846 also directed Pepco to discontinue

active recruitment and file a report by September 25, 2017 to explain Pepco's plans to reduce program costs and detail its plans for DLC in future years.

5. On September 25, 2017, Pepco made a filing in compliance with Order No. 18846. See below.

Customers Leaving Program and Reasons for Leaving

In 2018, 182 customers left the program. Table 2 indicates the number of customers leaving and the reasons they provided to Pepco. This table does not include the number of premises that were vacant on December 31, 2018. These premises are inactive until the new resident moves in, which triggers re-activation of the premise into the program.

Table 2

Reason	A	B	C	D	E	F	G	H	I	J	K	L	M	Total
1Q 2012														0
2Q 2012	1				2									3
3Q 2012	2	1	4	6	1	1			1				2	18
4Q 2012	1		3	14	1			1					21	41
Total	4	1	7	20	4	1	0	1	1	0	0	0	23	62
1Q 2013	5	1		52	19	2	6	3	1	2			88	179
2Q 2013	3			3	12	3	6	1		17	7	74	44	170
3Q 2013				1	5	1	1	3		13	2	47	8	81
4Q 2013	3		6	12	2	3	3	4	1			62		96
Total	11	1	6	68	38	9	16	11	2	32	9	183	140	526
1Q 2014					1	1					14		2	18
2Q 2014	3				3						68	2	2	78
3Q 2014	1				1						44	3	2	51
4Q 2014											6	1		7
Total	4	0	0	0	5	1	0	0	0	0	132	6	6	154
1Q 2015	2							1			6			9
2Q 2015					1			2			27		1	31
3Q 2015	2				2						25	1	2	32
4Q 2015	1							1			4	1		7
Total	5	0	0	0	3	0	0	4	0	0	62	2	3	79
1Q 2016									1		11			12
2Q 2016			1		1						7		5	14
3Q 2016	4	1			2				1		47		9	64
4Q 2016	1				2				1		5			9
Total	5	1	1	0	5	0	0	0	3	0	70	0	14	99
1Q 2017			1		1	23		1		1	11	2		40
2Q 2017	1				3	34	1			4	38	2	32	115
3Q 2017	5			1	5	24		1	2	1	27	4	4	74
4Q 2017	2		1			6				4	10	3		26
Total	8	0	2	1	9	87	1	2	2	10	86	11	36	255
1Q 2018					2	27					10	1	9	49
2Q 2018	1				2	17			2		21	2	8	53
3Q 2018	7				2	8			1	4	13	1	30	66
4Q 2018	1					3				1	8		1	14
Total	9	0	0	0	6	55	0	0	3	5	52	4	48	182
Total	46	3	16	89	70	153	17	18	11	47	411	206	270	1357

Customer-Stated Reasons for Leaving the Program

- A. Customer uncomfortable with temperature in home
- B. Incentive not worth the discomfort they are experiencing
- C. T-stat too complicated
- D. Customer misunderstood program requirements
- E. Health condition
- F. HVAC contractor recommended removal
- G. Utility bill is higher
- H. Landlord requested removal
- I. Moving
- J. Customer equipment failure
- K. Changed mind
- L. No longer interested
- M. Other

Customers Requesting Change in Cycling Level and Reason for Change

In 2018, 466 customers modified their preferred cycling level –194 increased and 272 decreased their cycling level participation. The customers did not provide a specific reason for the change in their level of cycling.

Number of Cycling Events

As shown in Table 3, four cycling events were activated in 2018.

Table 3

Date	Start Time	End Time	# of Hours	PJM Emergency	Type of Event
4/26/2018	14:00	17:00	3	N	System Test
8/7/2018	13:00	17:00	4	N	Economic
8/29/2018	13:00	17:00	4	N	Economic
9/19/2018	13:00	14:00	1	N	PJM Test

Customer Complaints for Overrides

. Four

Number of Customers who have Used Two Overrides

.Two

Number of Customers who Requested Change in Cycling Level After Reaching Two Overrides

. None

Issues Relating to AMI Communications Network

None

PJM Market Participation Data Affecting Program Earnings

PJM market revenues received in 2018 amounted to \$504,877.

Program Cost Data

Table 4 provides program cost details by quarter and program to date through 2018 with the original projections for 2013-2015. This table has been expanded to include years of 2018 and 2019 as well as the revised budget for 2014 and 2015.

Table 4

District of Columbia Residential Air Conditioner Direct Load Control (DLC) Program Quarterly Performance Report Through December 2018 & 2019 Quarterly Budget													
	O&M		Capital		Marketing		Customer Installation Credit		Customer Annual Incentives		Residential Demand Response Total		
	Budget	Actual	Budget	Actual	Budget	Actual	Budget	Actual	Budget	Actual	Budget	Actual	Variance
2011 Totals	\$ 256,300	\$ 25,000	\$ -	\$ -	\$ 318,902	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 675,202	\$ 25,000	\$ (550,202)
2012 Totals	\$ 795,131	\$ 384,586	\$ 2,797,700	\$ 1,244,003	\$ 1,994,508	\$ 1,396,293	\$ 511,313	\$ 212,037	\$ 217,000	\$ 84,807	\$ 5,915,652	\$ 3,321,726	\$ (2,593,926)
2013 Totals	\$ 929,062	\$ 487,636	\$ 4,029,700	\$ 2,863,009	\$ 2,156,265	\$ 2,461,980	\$ 735,313	\$ 653,403	\$ 1,000,000	\$ 721,684	\$ 8,850,340	\$ 7,187,712	\$ (1,662,628)
1Q 2014	\$ 156,425	\$ 102,909	\$ 96,309	\$ 276,047	\$ 87,113	\$ 314,739	\$ 16,200	\$ 41,320	\$ -	\$ 566	\$ 356,046	\$ 735,571	\$ 379,525
2Q 2014	\$ 156,425	\$ 78,088	\$ 96,309	\$ 189,607	\$ 87,113	\$ 75,055	\$ 16,200	\$ 28,025	\$ 169,917	\$ 176,358	\$ 525,963	\$ 547,133	\$ 21,170
3Q 2014	\$ 156,425	\$ 76,257	\$ 96,309	\$ 122,955	\$ 87,113	\$ 142,497	\$ 16,200	\$ 8,965	\$ 509,752	\$ 523,185	\$ 865,798	\$ 873,879	\$ 8,081
4Q 2014	\$ 156,425	\$ 72,346	\$ 96,309	\$ 182,597	\$ 87,113	\$ 161,824	\$ 16,200	\$ 27,240	\$ 169,917	\$ 179,940	\$ 525,963	\$ 623,947	\$ 97,984
2014 Totals *	\$ 625,699	\$ 329,600	\$ 385,234	\$ 771,206	\$ 348,452	\$ 694,115	\$ 64,800	\$ 105,570	\$ 849,586	\$ 880,039	\$ 2,273,771	\$ 2,780,530	\$ 506,759
1Q 2015	\$ 190,457	\$ 77,164	\$ 28,893	\$ 65,452	\$ 83,820	\$ 84,064	\$ 4,860	\$ 45,945	\$ -	\$ -	\$ 308,030	\$ 272,625	\$ (35,405)
2Q 2015	\$ 190,457	\$ 136,193	\$ 28,893	\$ 134,683	\$ 83,820	\$ 157,077	\$ 4,860	\$ 17,145	\$ 171,471	\$ 166,292	\$ 479,500	\$ 611,390	\$ 131,890
3Q 2015	\$ 190,457	\$ 119,690	\$ 28,893	\$ 56,641	\$ 83,820	\$ 114,059	\$ 4,860	\$ 9,751	\$ 514,412	\$ 548,130	\$ 822,442	\$ 848,271	\$ 25,829
4Q 2015	\$ 190,457	\$ 111,882	\$ 28,893	\$ 36,288	\$ 83,820	\$ 145,444	\$ 4,860	\$ 5,723	\$ 171,471	\$ 206,448	\$ 479,500	\$ 505,785	\$ 26,285
2015 Totals *	\$ 761,829	\$ 444,929	\$ 115,570	\$ 293,064	\$ 335,279	\$ 600,644	\$ 19,440	\$ 78,564	\$ 857,354	\$ 920,870	\$ 2,089,472	\$ 2,238,071	\$ 148,599
1Q 2016	\$ 167,988	\$ 101,325	\$ 28,892	\$ 13,127	\$ 84,022	\$ 17,876	\$ 4,860	\$ 1,245	\$ -	\$ (141)	\$ 285,762	\$ 133,432	\$ (152,330)
2Q 2016	\$ 167,988	\$ 110,052	\$ 28,892	\$ 11,317	\$ 84,023	\$ 116,824	\$ 4,860	\$ 1,095	\$ 172,997	\$ 169,077	\$ 458,760	\$ 408,365	\$ (50,395)
3Q 2016	\$ 167,988	\$ 117,832	\$ 28,893	\$ 14,676	\$ 84,023	\$ 58,985	\$ 4,860	\$ 2,343	\$ 518,992	\$ 500,235	\$ 804,756	\$ 694,071	\$ (110,685)
4Q 2016	\$ 167,988	\$ 111,532	\$ 28,893	\$ 16,800	\$ 84,023	\$ 136,546	\$ 4,860	\$ 1,232	\$ 172,997	\$ 187,386	\$ 458,761	\$ 453,496	\$ (5,265)
2016 Totals	\$ 671,952	\$ 440,741	\$ 115,570	\$ 65,920	\$ 336,091	\$ 330,231	\$ 19,440	\$ 5,915	\$ 864,966	\$ 856,557	\$ 2,008,039	\$ 1,689,364	\$ (318,675)
1Q 2017	\$ 170,726	\$ 106,581	\$ 28,892	\$ 18,150	\$ 84,222	\$ 32,335	\$ 4,860	\$ 2,295	\$ -	\$ (120)	\$ 288,700	\$ 159,240	\$ (129,460)
2Q 2017	\$ 170,726	\$ 130,359	\$ 28,892	\$ 9,113	\$ 84,222	\$ 128,978	\$ 4,860	\$ 2,355	\$ 174,497	\$ 170,343	\$ 463,197	\$ 441,148	\$ (22,049)
3Q 2017	\$ 170,726	\$ 119,631	\$ 28,893	\$ 8,914	\$ 84,222	\$ 77,123	\$ 4,860	\$ 2,448	\$ 523,491	\$ 515,001	\$ 812,192	\$ 723,117	\$ (89,075)
4Q 2017	\$ 170,726	\$ 110,797	\$ 28,893	\$ 18,156	\$ 84,222	\$ 87,084	\$ 4,860	\$ 1,245	\$ 174,497	\$ 194,586	\$ 463,198	\$ 411,868	\$ (51,329)
2017 Totals	\$ 682,903	\$ 467,366	\$ 115,570	\$ 54,333	\$ 336,889	\$ 325,519	\$ 19,440	\$ 8,343	\$ 872,486	\$ 879,810	\$ 2,027,288	\$ 1,735,374	\$ (291,914)
1Q 2018	\$ 134,007	\$ 53,371	\$ 13,045	\$ (5,491)	\$ 23,240	\$ 32,060	\$ 4,092	\$ 1,760	\$ -	\$ 138	\$ 174,384	\$ 81,839	\$ (92,545)
2Q 2018	\$ 145,549	\$ 149,436	\$ 11,246	\$ 7,558	\$ 87,341	\$ 107,724	\$ 3,599	\$ 1,350	\$ 171,806	\$ 163,797	\$ 419,540	\$ 429,865	\$ (10,324)
3Q 2018	\$ 155,839	\$ 115,748	\$ 14,584	\$ 12,514	\$ 44,099	\$ 98,506	\$ 7,700	\$ 1,755	\$ 509,537	\$ 542,823	\$ 731,760	\$ 771,346	\$ (39,586)
4Q 2018	\$ 147,507	\$ 126,926	\$ 16,695	\$ 12,097	\$ 92,209	\$ 55,660	\$ 4,049	\$ 1,215	\$ 191,143	\$ 208,563	\$ 451,604	\$ 404,461	\$ (47,143)
2018 Total	\$ 582,903	\$ 445,482	\$ 55,570	\$ 26,679	\$ 246,889	\$ 293,949	\$ 19,440	\$ 6,080	\$ 872,486	\$ 915,321	\$ 1,777,288	\$ 1,687,510	\$ (89,778)
1Q 2019	\$ 120,916	\$ -	\$ 12,728	\$ -	\$ 33,672	\$ -	\$ 1,895	\$ -	\$ (148)	\$ -	\$ 169,063	\$ -	\$ (169,063)
2Q 2019	\$ 131,331	\$ -	\$ 10,972	\$ -	\$ 68,725	\$ -	\$ 1,667	\$ -	\$ 177,652	\$ -	\$ 390,347	\$ -	\$ (390,347)
3Q 2019	\$ 140,616	\$ -	\$ 14,229	\$ -	\$ 44,839	\$ -	\$ 3,565	\$ -	\$ 525,606	\$ -	\$ 728,855	\$ -	\$ (728,855)
4Q 2019	\$ 133,097	\$ -	\$ 16,289	\$ -	\$ 103,800	\$ -	\$ 1,875	\$ -	\$ 196,890	\$ -	\$ 450,950	\$ -	\$ (450,950)
2019 Total	\$ 525,961	\$ -	\$ 54,217	\$ -	\$ 251,035	\$ -	\$ 9,000	\$ -	\$ 900,000	\$ -	\$ 1,740,213	\$ -	\$ (1,740,213)
Program **	\$ 5,189,895	\$ 3,025,342	\$ 6,115,433	\$ 5,308,214	\$ 5,407,193	\$ 6,002,732	\$ 1,098,910	\$ 1,069,912	\$ 6,301,705	\$ 5,259,088	\$ 24,113,137	\$ 20,665,287	\$ (3,447,850)

* 2014 and 2015 budgets were revised per the approval of the Phase II Program in Order 18003, Formal Case 1086 on October 16, 2015

** The program budget total for each cost category is comprised of the actual spend in 2011 and 2012 plus the budgeted annual cost for 2013 through 2017. See the 2012 Fourth Quarter report, dated January 30, 2013, for details of the reallocated funds.

Program Cost Data Notes

- Consistent with the approved program Tariff, projected costs for Customer Annual Incentives were added for 2012 and later.

2. The Company recouped \$3.7 million from the ARRA grant. This amount exceeds the \$3.55 million that was anticipated. ARRA proceeds reduce the costs of the program and the amounts sought by the Company for recovery in future distribution base rate cases(s).
3. The spending for 2018 was less than the budgeted amount. The program costs are still less than the forecasted spend for the program through 2018 by approximately \$3.4 million.

Follow Up to Order No. 18846

As stated above, Order No. 18846 directed Pepco, within 60 days of the order, to identify steps the Company has taken or will take to reduce the costs of the DLC program and its plans going forward. On September 25, 2017, Pepco filed a letter explaining its efforts at controlling DLC costs, as well as its plan going forward for the program. Below are the items identified in the September 25, 2017 letter, each with an update (as applicable) on the current status.

1. Cessation of Active Participant Recruiting

Status: Active recruiting has ceased and the reduced overall program costs are reflected in the budget found in Table 4 including O&M, Capital and Marketing.

2. Reduction in Quantity of DLC Marketing Materials

Status: Post-season Participation letters have been removed from the schedule for 2018 and those savings, compared to earlier program years, are reflected in the Marketing column of the budget found in Table 4.

3. Modify DLC Bill Credits

Status: Two participant Market Research Focus Groups were conducted on October 30, 2018 to explore customer acceptance of credit modifications, including ongoing program credits and installation credit as well as changes to the number and length of cycling events. A total of 20 customers participated in the focus groups, including representation from all 4 quadrants of the District of Columbia, all 3 cycling levels and a mix of demographic characteristics including age, gender, income and educational status.

In both groups, opposition to any credit reduction was strong. Of all of the proposed changes, those that would have the greatest impact on customers' leaving EWR are extending the cycling hours to 8pm and significantly reducing the credits. The report is attached.

4. PJM Stakeholder Process – Market Opportunities for Residential DLC Programs

Status: Pepco has continued to monitor the evolution of PJM wholesale market participation of demand response programs. The Company and its Exelon affiliates supported approval of the PJM charter (Summer Only Demand Response Senior Task Force) to examine possible adjustments to the PJM load forecast to reflect demand response reductions. This charter

was approved by the PJM Market Reliability Committee on February 22, 2018.

5. Maximize PJM Capacity and Energy Market Earnings

Status: Similar to last year, Pepco plans to maximize program earnings by participating in PJM energy and capacity markets. Pepco's direct load control program qualifies as a seasonal demand response resource according to PJM rules for the 2022/2023 Base Residual Auction. This means Pepco's direct load control programs must be matched with a winter seasonal resource to earn PJM earnings.

6. Meet with the District of Columbia Sustainable Energy Utility on the Integration of Other Smart Thermostats in Pepco's DLC program and Other Similar Initiatives

Status: Pepco has met with the SEU on several occasions since the issuance of Order No. 18846. While these meetings have not resolved how or whether the smart thermostat units offered in an SEU program could be incorporated into Pepco's DLC program, the Company appreciates the SEU's willingness to closely coordinate and continue dialogues regarding Pepco and SEU initiatives. The MEDSIS process is also evaluating ways to impact the Energy Efficiency and Demand Response space and Pepco, along with the SEU and other parties, is actively involved.

7. Explore use of EWR Program to Defer Additional Distribution System Construction and Reliably Supply Electricity

Status: A deferral pilot is still under consideration at PHI. If action is taken and, after the results of the pilot are analyzed, Pepco will report to the Commission with further detail.

In addition, legislation and Commission actions will provide opportunities for deferral of distribution system construction necessary to relieve capacity constraints using Distributed Energy Resources, such as EWR, in the District.

8. Use of DLC Program Thermostats to Better Manage Customer Electricity Consumption

Status: Continue to support web based smart thermostat programming. Customers can access their web-programmable thermostat through the Company's Self-Service Mobile App. Offering customers a Wi-Fi web-programmable thermostat, by request and in situations where the paging signal does not reach the thermostat location. Evaluating a BYOT 'Bring your own Thermostat' program to offer customers more thermostat choice. This program would run in conjunction with the existing DLC program platform. Refer also to item 6, above.

Bring Your Own Device (BYOD) was added to Energy Wise Rewards in Maryland in December 2018, and PHI is evaluating this as an option for DC. This would require additional Commission approval for expansion of the program.



Energy Wise Rewards Program Options DC Customer Research



Focus Group Summary Report

November 2018

Background

Objectives

- The District of Columbia Public Service Commission has requested that Pepco evaluate ways to reduce the incentive costs for the Energy Wise Rewards Program.
- Pepco is conducting research to obtain customer feedback on several options:
 - Alternative options for providing credits to program participants
 - Changes to the number and length of cycling events

Methodology

- Two focus groups were conducted with District of Columbia Energy Wise Rewards participants on October 30, 2018.
- A total of 20 customers participated in the focus groups. Customers were recruited as follows:
 - Representation from all four quadrants of the District of Columbia: SE, NE, SW, and NW.
 - Representation of customers participating at different cycling levels: 50%, 75% and 100%.
 - Customers had to be at least somewhat familiar with the Energy Wise Program. Those who had heard of the name only were not recruited.
 - Representation of a mix of demographic characteristics, including gender, age, income and educational status.
- Respondent profiles are provided in the Appendix.

Program Options Discussed

Four variations of credit level changes were tested with customers.

Options	Cycling Level	Installation Credit (per device)	Monthly credits June - October
Current	50%	\$30	\$30 (\$6 monthly)
	75%	\$45	\$45 (\$9 monthly)
	100%	\$60	\$60 (\$12 monthly)
Option A	50%	\$10	\$10 (\$2 monthly)
	75%	\$20	\$20 (\$4 monthly)
	100%	\$35	\$35 (\$7 monthly)
Option B	50%	0	\$15 (\$3 monthly)
	75%	0	\$30 (\$6 monthly)
	100%	0	\$45 (\$9 monthly)
Option C	50%	\$45	0
	75%	\$60	0
	100%	\$75	0
Option D	50%	\$40	\$3
	75%	\$55	\$5
	100%	\$70	\$8

Key Findings

Credits Are Considered a Key Program Element

- The primary motivation to enroll in the Energy Wise Rewards Program was to save money on their Pepco bill. Secondary benefits included receiving a programmable thermostat and helping the environment.
- Customers are satisfied with the program the way it currently operates – they feel that they are providing Pepco with a benefit, and receiving one in return.
- Despite the focus on saving money, many participants were unsure of the exact amount of their monthly credit, but knew they received one.
- The programmable thermostat (and free installation) did motivate some customers to sign up. Customers are using the programmable features.
 - A couple of younger customers are interested in an app to control the thermostat, and more “Nest-like” features.

Negative Reactions to Credit Reductions for Current Participants

- In both groups, opposition to any credit reduction was strong.
 - Customers’ perception is that the credit reduction is designed to help Pepco’s bottom line and a change damages their perceptions of Pepco. They do not understand the rationale behind a change, as they do not understand how the program costs impact rates. Customers were skeptical of the reasons provided.
 - A consistent reaction was that it would be unfair to change the terms of the program that customers signed up for.
 - Changes could impact both retention and enrollment, depending on the selected option. Offering some sort of enrollment bonus is seen as critical to motivate customers to sign up.

Key Findings

Preferred Credit Structure

- Of the four options proposed, the preferred option was a Per Event credit, however, they think the per event credit amounts should be higher than the amounts proposed.
- Customers thought that a Monthly Only credit option worked better for those who planned to be in their home for a longer period of time, as the slightly higher annual savings would make it more worth-while financially over the long term.
- Customers thought that renters who move frequently might like the Installation Credit only option; they were thinking someone who moves annually would benefit financially from this structure. Homeowners see no benefit at all in not receiving recurring credits on their bill each summer.

Longer Hours Are Not Appealing

- Of all the changes, the two that would have the greatest impact on customers staying in the Program are extending the cycling hours to 8 pm and significantly reducing the credits.
 - There is a definite opinion that the cycling should end around 6/6:30 pm, so as not to disrupt evening household schedules.
 - One of the reasons customers like the program is that most are not aware of any impact on their household temperature. Longer hours are perceived to make their homes hotter in the evening and take longer to cool.
 - Changing the hours would likely impact retention and enrollment.

Increasing the Number of Events is Acceptable

- Most customers think there would be more events than there are currently and are not aware of the exact number held each summer.
- If the number were to increase significantly, customers think a “per-event” credit is more acceptable.

Conclusions and Recommendations

- Changing the program for existing customers would negatively impact customer satisfaction unless the amount is at a level customers consider reasonable and fair. Customers would be acceptable of a change that offered them credits they consider comparable to their existing credits.
 - Changes would not likely have an immediate impact on retention, as some customers do not pay much attention to their bill credits and/or the annual letter.
- While customers think changes can be made for new customers, many of the proposed options – particularly at the 50% level - are not considered sufficient enough to motivate them to sign up.
- A per-event credit is considered to be a reasonable option, but the lowest amount customers find acceptable is \$5, not \$3. Given customers are not completely aware of the number of events, this change would likely have the least impact on retention, at least initially.
 - Tracking whether they are receiving the correct amount each month could be an issue for some customers, who may contact the call center.
- Reducing or eliminating a monthly credit would cause fewer customers to move up to higher cycling levels.
- Within reason, customers believe the number of events could be increased, and some expect this is likely in the future. A per-event credit makes this scenario more appealing.
- Longer hours for events would cause some customers to leave the program. Any time later than 6:30 is considered to impact their evening activities.
 - However, if incentives were increased, some customers would remain in the program and change their daily routine.
 - Communicating event times the day before is considered desirable for longer event days, as customers would have more flexibility to opt out or change their behavior.

Detailed Findings

Favorability to Pepco and Perceptions of Bill

- D.C. customers were neutral to positive in terms of their perceptions of Pepco.
 - Customers who were neutral cited their lack of choice and/or Pepco as a monopoly.
- Customers indicated that Pepco keeps the lights on, that there are not as many non-storm related outages as in the past and that Pepco's response when there is an outage is much faster.
- Quite a few customers reported that their perception of Pepco has improved over the past several years, with outages being fewer and the response to outages being faster being the primary reasons for this improvement in perception.
- There was no discussion of high bills or billing in general until questions about billing were asked. There were no complaints about the bill.
- When the subject of billing was raised, most customers indicated that they pay their Pepco bill via AutoPay or online at the Pepco website.
 - One or two paid it via their online banking software.
- Customers tended to think their bill was higher in the summer time, but overall no one indicated that their bill was unreasonable or discussed rates.

Awareness of Energy Wise Rewards Program Features

- Most customers participating in the focus groups had a fundamental understanding of Energy Wise Rewards. They knew Pepco cycled their air conditioning in the summer in return for credits on their bill and a programmable thermostat.
 - Everyone had a programmable thermostat; no one had the device on their A/C unit.
- Participants all remembered receiving the Pepco marketing materials and signing up for the Program. In the first group, most customers had been in the Program one to two years; in the second group, they tended to have been in the Program longer, approximately four to five years.
- Customers were fairly positive towards the program and thought their current level of credits was sufficient, despite the fact that they were not all aware of the exact amount.
 - The primary motivation to enroll was to save money on their Pepco bill. This was universally stated. Secondary benefits included receiving a programmable thermostat, conserving energy, and benefiting the environment.
 - When asked what the primary benefit to Pepco was, customers stated it helped reduce peak usage, helping Pepco avoid infrastructure investments and prevented the Company from having to buy energy. A couple mentioned avoiding brownouts. Few cited environmental benefits.
- All of the focus group respondents indicated that they were very likely to stay in the Program and didn't see any negatives.
 - One respondent indicated if he had a change in his work situation in which he was home all day, he might consider having to leave the Program.
 - Another participant, who wanted to be able to control her home's energy use via an app, indicated that she might end up switching out the thermostat so she could do that.
- Customers were typically not aware of the number cycling events.

Awareness of Cycling Features

- Most customers knew what their cycling level was, however, they did not know the amount of the monthly credit associated with the cycling level.
 - In the first focus group, no one knew what their monthly summer credits were.
 - In the second focus group, several indicated that the total amount over the summer was \$60. This was correct, given their cycling level. A few didn't recall their credit amount.
- The majority of customers said the cycling didn't have a significant impact on their household. Many were not home during the cycling period, and most did not notice a significant difference in their home's comfort level.
 - A few customers said they knew there was a cycling event taking place because of the light indicator on the programmable thermostat.
 - A few customers noticed a change in temperature in their home when the A/C was being cycled. Those who did, reported that it wasn't terribly uncomfortable, it was just that they could tell it was happening.
- Most of the first group and about half of the second group were aware that they could opt out of a cycling event, but none had done so. Many did not know how to opt out..
- Most recalled the annual mailing from Pepco about the Program, with a couple indicating that they increased their cycling level upon receiving the mailing. Customers who switched cycling levels felt that their initial cycling level did not have an impact on their comfort, and they wanted the higher credit amounts.

Overall Reaction to Proposed Credit Changes

- As background, customers were told that the District of Columbia Public Service Commission had asked Pepco to review the Energy Wise Rewards Program and to make some changes, including evaluating the structure of the credits.
 - In the first group, customers were shown the current credit structure for the Program. In order to avoid a direct comparison between the options, in the second group, they were not shown the current credit structure, but discussed it as in the earlier group.
- In both groups, **opposition to any credit reduction was intense**. Reactions were negative to the idea of making **any** changes for existing program participants, as well as to the tested credit amounts.
 - Customers believe any changes are going to be negative for customers and benefit Pepco more than them. They do not trust the Public Service Commission to be working in the interest of Pepco customers.
 - Customers think the credit reduction is designed to help Pepco's bottom line, improving its profitability.
- Customers, even those who did not recall their credit amount, thought of any proposed change as a “bait and switch”, in which Pepco got you into the Program with one level of credits, but then reduced those credits once you were in the Program.
 - Another customer indicated it was “an insult” to customers due to the low amounts being proposed. They believe they are doing something for Pepco by allowing the Company to cycle them, but Pepco is only offering them a couple of dollars a month.
- Customers indicated that the proposed credit levels proposed in any of the options, especially A to C (described in the following pages) would not encourage new customers to sign up for the Program. The incentive amounts were too low to be bothered with.
- Of the four options proposed, the preferred option was a per event credit, however, they think the per event credit amounts should be higher than the amounts proposed.

Option A: Installation and Monthly Credit

Cycling Option % of the time the AC compressor is cycled off during the cycling event	Installation Credit (per device) One-time credit at device installation	Annual Credits (per device) Monthly Credits June - October,
50%	\$10	\$10 (\$2 monthly)
75%	\$20	\$20 (\$4 monthly)
100%	\$35	\$35 (\$7 monthly)

- This is the same structure as the current program, so there is a level of familiarity with this approach.
- Both the installation amount and the monthly amount were perceived as too low, even assuming the number of cycling events per summer remained low.
- Customers noted that the credits would not be enough to motivate them to sign up for the program, particularly at 50% cycling.
 - Customers believe the program needs to have a mutual benefit, and this does not provide enough benefit for customers.
- Reducing the current credits to the amounts indicated had a strong negative effect.
 - These credit reductions are perceived as benefiting Pepco's bottom line by taking away from the customer.
 - \$2 in particular is seen as minimal and almost insulting.
 - Customers indicated that these kind of reductions would cause them to have a negative perception of Pepco and look at alternatives, even if they are confused as to the impact of these alternatives (i.e., switching to solar power or a third party supplier, installing through the wall A/C to cool specific rooms only and opting out of the Program).

Option B: Monthly Credits

Cycling Option % of the time the AC compressor is cycled off during the cycling event	Annual Credits (per device) Monthly Credits June - October,
50%	\$15 (\$3 monthly)
75%	\$30 (\$6 monthly)
100%	\$45 (\$9 monthly)

- Option B was seen as slightly better than A, given the higher amounts, but customers still didn't think the credits were high enough.
- Customers thought that this option worked better for those who planned to be in their home for a longer period of time, as the slightly higher annual savings would make it more worth-while financially over the long term.
 - Renters preferred the cash upfront.
- Given these customers are already in the Program, they didn't care as much about an installation credit as the installation credit doesn't apply to them, but they thought that most new customers would want a higher monthly credit as well rather than an installation credit.
 - The lack of an installation credit made them less likely to sign up.
- Nevertheless, they found the amount of the monthly credit to be too low for each cycling level.

Option C: Installation Credit

Cycling Option % of time the AC compressor is cycled off during cycling event	Installation Credit per device One time credit when device is installed
50%	\$45
75%	\$60
100%	\$75

- Option C was the least preferred of all the options presented. Customers want the monthly credit. They don't see any value in staying in the program and being available for cycling.
- Respondents thought this might appeal to renters who move frequently and could sign up for the Program each time that they move; they were thinking someone who moves annually would benefit financially from this structure.
 - One renter, however, indicated that she still preferred seeing monthly credits during the summer, as she stays in her rental a long time.
- Homeowners see no benefit at all in not receiving recurring credits on their bill each summer.
- Removing the monthly credits also would eliminate the incentive to sign up for a higher cycling level.

Option D: Credit Per Event with Installation Credit

Cycling Option % of the time the AC compressor is cycled off during cycling event	Installation Credit (per device) One time credit when device is installed	Annual Reward Credit per event Credits for each event during billing cycle
50%	\$40	\$3
75%	\$55	\$5
100%	\$70	\$8

- Of all the options discussed, Option D was preferred.
- For many customers, it seems the “fairest” of the options. Each time they are being inconvenienced, they are compensated.
 - A couple expressed concerns that they would not know when they were cycled, and therefore would be unsure if they received the right per-event credits.
- Customers would like some indication of how many events would occur each year to understand if it would be worthwhile for them.
 - One customer indicated that he thought with global warming, the number of events would inevitably increase, increasing his compensation.
 - Customers want to be sure there isn’t a ceiling on how much they earn.
- There was some discussion around the amount that should be paid per event. Customers do not believe that \$3 is sufficient. Several customers at the 50% cycling level indicating that \$5 per event at 50% seemed like a reasonable number to encourage them to continue in the program.
- Overall, there was less resistance to these credit amounts than the previous options, with the exception of the \$3.

Reaction to Frequency and Length of Events

- More frequent events are preferred over increasing the length of events, depending on the events end. Increasing the length of events is acceptable only if the events end by 6 or 6:30.
- They do not mind if the total length of a cycling event increases, for example, five or six hours, but they do not want cycling events to go until 8 p.m. There was a pretty strong negative reaction to this concept.
- Customers want the cycling end time to be close to when they return home from work or their family returns home (around 6/6:30 pm) as they do not want to return to an uncomfortable house. 7 pm and 8 pm are considered too late.
 - A few single people indicated if cycling went later they would not return home as soon, but married couples and those with children did not want their evening routines disturbed. They want the house to be cooler when cooking dinner and for children's bedtimes.
 - Customers did not mind if cycling started sooner, at 10 am, but they want their home returned to normal or near normal temperatures when they return home from work or their day's activities.
 - This was a near universal negative reaction from customers and covered customers in all cycling levels for having events last until evening.
- Customers did not object to more cycling events per summer, especially since their preferred credit option was a per event credit. They did not mention a maximum number of events per week or per month that would be acceptable.
 - They do want the events to take place on week days, not weekends.
 - Several noted that they are unaware of events currently, so they probably would not be aware of the number.

Reaction to Opt Outs and Notifications

- Customers thought that if there were more cycling events over the course of the summer, there also should be more opportunities to opt out of an event. They were unsure as to exactly how many it should be, but thought it should somehow be tied to the number of events that occur over the summer in total. While none had opted out in the past, they indicated they wanted the opportunity to have greater flexibility when more events are occurring.
 - For example, this year there were four cycling events and they could opt out of up to two. So, if there are eight events during a summer, they should be able to opt out of four.
- Most customers reported that they would not opt out, unless they had company (family, etc.) over or there was a medical situation (i.e., they were sick or just got out of hospital) that necessitated them opting out.
 - One or two customers indicated that they wanted to be able to opt out via an app or online and not have to call Pepco. They didn't want to wait on hold to talk to someone.
- Customers indicated that if there were an increase in the number of cycling events over the course of the summer, it would be good to be notified.
 - There is a preference to be notified the evening before an event is scheduled to occur, so that they can plan accordingly. This is especially true if the events are going to occur slightly later in the day, i.e., closer to 6/6:30 pm.
 - There was a preference for a text message or email notification. Customers do not want to receive a robocall from Pepco. They indicated that they are likely to not pay attention to it.
 - Several people wanted a push notification on an app.

Impact of Proposed Changes

- Of all the changes that were discussed, the two that would have the greatest impact on customer retention are extending the cycling hours to 8 pm and significantly reducing the credits.
 - There is a definite opinion that the cycling should end around 6/6:30 pm, so as not to disrupt evening household schedules.
 - Customers do not want their current credit level changed. However, if it is changed, there is a preference for per event credits, but in having the amount per event be slightly higher than those proposed.
- When asked which changes would have the greatest impact on attracting new customers, the same two proposed changes were mentioned, albeit the credit amounts seemed to be thought to be slightly more influential.
- Customers believe that the credit amounts need to be sufficient to entice people to sign up for the Program. To a lesser extent, they think that if potential customers know that they are going to be cycled into the evening, they will not enroll in the Program.
- Offering an installation credit is considered critical to incentivize sign up. A credit is considered the primary program benefit and helps override any concerns over the impact of cycling on comfort.
- If there is no monthly recurring credit, customers see less of a value. However, given every customer is not aware of their monthly credit amount, some customers may not leave the program quickly if credits are reduced.

Appendix: Respondent Profiles

Respondent Profile

Names Redacted

30, 2018, 6:00pm

NAME	Sex		Curtailment			Q.5 Quadrant				Q.6 Familiarity with Energy Wise program			Q.8 Employment			Q.9	Q.10 Age			Q.11	Q.12 Residence		Q.13 Ethnicity						
	Male	Female	50%	75%	100%	NE	NW	SE	SW	Never heard/name only	Somewhat familiar	Familiar	Extremely familiar	At home during the day	Some time at home	Very little time at home	Education	Age	55-60	Over 60	HHI	Own	Rent	Asian	African American	Hispanic	Caucasian	Other	
	x		x					x			x			x			CG	25-34			60-80k		x		x				
		x	x						x		x				x		SC	35			40-60k		x		x				
		x	x			x					x				x		CG	49			100-150k	x			x				
	x			x		x						x			x		CG	36			100-150k	x			x				
		x	x					x			x			x			CG	52			80-100k		x		x				
	x		x					x				x		x			CG	37			100-150k	x			x				
		x		x		x						x			x		CG	39			150k+	x		x					
	x		x				x				x				x		CG	58	x		100-150k	x					x		
		x	x						x		x			x			AD	74		x	40-60k	x			x				
	x		x				x				x			x			AD	53			100-150k	x			x				

Respondent Profile

Names Redacted

30, 2018,,8:00pm

NAME	Sex		Curtailment			Q.5 Quadrant				Q.6 Familiarity with Energy Wise program			Q.8 Employment			Q.9	Q.10 Age			Q.11	Q.12 Residence		Q.13 Ethnicity						
	Male	Female	50%	75%	100%	NE	NW	SE	SW	Never heard/name only	Somewhat familiar	Familiar	Extremely familiar	At home during the day	Some time at home	Very little time at home	Education	Age	55-60	Over 60	HHI	Own	Rent	Asian	African American	Hispanic	Caucasian	Other	
	x		x				x				x					x	AD	36			60-80k	x				x			
		x		x				x				x				x	AD	45-4			100-150k	x			x				
	x				x				x			x				x	CG	32			150k+	x		x					
	x			x		x						x				x	CG	43			80-100k	x				x			
		x	x			x					x					x	CG	31			<40k	x			x				
		x	x			x					x					x	CG	39			40-60k	x			x				
		x	x						x			x		x			CG	39			40-60k	x			x				
	x				x		x					x		x			CG	48			80-100k	x					x		
		x	x					x			x				x		SC	52			<40k		x		x				
	x			x			x				x			x			CG	87	x		150k+	x						x	

CERTIFICATE OF SERVICE

I hereby certify that a copy of Potomac Electric Power Company's Annual Direct Load Control Program Report was served this Thursday, March 28, 2019 on all parties in Formal Case Nos. 1086 and 1119 by electronic mail.

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