BEFORE THE
PENNSYLVANIA PUBLIC UTILITY COMMISSION

Petition of PPL Electric Utilities Corporation for Approval of its Act 129 Phase II Energy Efficiency and Conservation Plan	**Docket No. M-2012-2334388**

PETITION OF PPL ELECTRIC UTILITIES CORPORATION FOR APPROVAL OF CHANGES TO ITS ACT 129 PHASE II ENERGY EFFICIENCY AND CONSERVATION PLAN

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I. INTRODUCTION

PPL Electric Utilities Corporation ("PPL Electric" or the "Company"), by and through its attorneys, hereby petitions the Pennsylvania Public Utility Commission ("Commission"), pursuant to Section 5.41 of the Commission's Rules of Administrative Practice and Procedure, 52 Pa. Code § 5.41, for permission to modify its Revised Phase II Energy Efficiency and Conservation Plan ("EE&C Plan") approved by the Commission on July 11, 2013. *Petition of PPL Electric Utilities Corporation for Approval of its Act 129 Phase II Energy Efficiency and Conservation Plan*, Docket No. M-2012-2334388 (Order Entered July 11, 2013) ("*July 2013 Order*").

Pursuant to the Commission's expedited review process[1] for approving EE&C plan changes proposed by electric distribution companies ("EDCs"), PPL Electric requests Commission approval of 22 modifications, both Major and Minor, to its Phase II EE&C Plan. PPL Electric discussed these proposed changes to the Phase II EE&C Plan at the stakeholder meeting on November 19, 2014. The Commission's 2011 *Minor Plan Change Order* established an expedited review process for approving minor EE&C Plan modifications. In its 2012 *Phase II Implementation Order,*[2] the Commission determined that it would continue to use the minor EE&C plan change approval process described in the *Minor Plan Change Order* in Phase II. *Phase II Implementation Order*, p. 92. Although most of the modifications proposed by PPL Electric in this Petition constitute a "minor" change, PPL Electric is submitting its proposed modifications in a single petition and requesting that the Commission review the modifications under the procedures for changes that do not meet the minor change criteria (i.e., "major

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[1] *See Energy Efficiency and Conservation Program*, Docket No. M-2008-2069887 (Order Entered June 10, 2011) ("*Minor Plan Change Order*").

[2] *See Energy Efficiency and Conservation Program*, Docket Nos. M-2012-2289411, M-2008-2069887 (Order Entered Aug. 3, 2012) ("*Phase II Implementation Order*").

changes") set forth in the Commission's *Minor Plan Change Order*. [3] The Company is submitting a single petition to ensure that the Commission and any interested parties have a complete representation of all the proposed changes in a single black-line EE&C Plan[4] and a single supporting petition. A single petition and black-line EE&C Plan better illustrate the collective impacts of all of the changes proposed by the Company.

Implementation of the requested changes will decrease the overall Phase II EE&C Plan budget by approximately $1.8 million. The Small Commercial and Industrial ("Small C&I") customer sector budget will increase approximately $12 million, the Large Commercial and Industrial ("Large C&I") customer sector budget will decrease approximately $7 million, the government, institution and nonprofit ("GNI") customer sector budget will decrease approximately $10 million, the Residential customer sector budget will decrease approximately $1 million, and the Low-Income customer sector budget will increase approximately $4 million. Therefore, PPL Electric requests that this Petition and the proposed EE&C Plan modifications be reviewed under the procedural schedule established in the *Minor Plan Change Order* for "non-minor" EE&C Plan changes – comments, answers, or both are to be filed within 30 days of service, and all parties will have 20 days to file replies to any comments or answers.

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[3] In addition to establishing a new expedited review process for minor changes, the *Minor Plan Change Order* detailed the review process for non-minor (i.e., major) changes. Specifically, the Commission provided that "EDCs seeking approval of changes that do not fit within the Minor EE&C Plan change criteria . . . must file a petition requesting that the Commission rescind and amend its prior order approving the plan." *Minor Plan Change Order*, p. 20. Furthermore, "[t]his petition shall be served on all parties, who will have 30 days to file comments, an answer or both." *Id.* Then the parties "have 20 days to file replies, after which the Commission will determine whether to rule on the changes or refer the matter to an Administrative Law Judge for hearings and a recommended decision." *Id.* These procedures superseded those previously established for EE&C Plan changes and "apply to all petitions for approval of an EE&C Plan change, other than petitions seeking review under the expedited process" for minor changes. *Id.* at p. 21.

[4] The black-line Phase II EE&C Plan is attached to this Petition as Appendix A. As required by the Commission's August 18, 2011 Order at Docket No. M-2009-2093215, included with the appended black-line EE&C Plan is a total resource cost test analysis for each program and for the Company's entire EE&C plan portfolio to ensure that the Act 129 mandates are being fulfilled in a cost-effective manner.

Since time is of the essence and given the compressed time frame to achieve its requirements under Act 129 of 2008 ("Act 129"),[5] as well as the lead time the Company needs to implement some of the changes,[6] the Company respectfully requests that the Commission resolve issues, if possible, on the basis of comments and replies to comments on the proposed modifications.[7] To the extent that no party opposes a proposed change or the comments fail to raise any legitimate issues of law or fact with regard to the modifications discussed herein, such changes should be approved by the Commission and not referred to an Administrative Law Judge for hearings and a recommended decision, consistent with the Commission's actions in a similar EDC EE&C Plan proceeding.[8] For all changes that cannot be resolved based upon comments and replies, PPL Electric respectfully requests that the Commission approve the proposed changes to the EE&C Plan as quickly as is practically possible so that PPL Electric can be in a position to continue to comply with its Phase II Act 129 requirements.

In support of this Petition, PPL Electric states as follows:

II. <u>BACKGROUND</u>

On November 15, 2012, PPL Electric filed its initial Phase II EE&C Plan with the Commission pursuant to Act 129 and various related Commission orders. PPL Electric's initial Phase II EE&C Plan included a broad portfolio of energy efficiency and energy education

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[5] Act 129 of 2008, P.L. 1592, 66 Pa.C.S. §§ 2806.1 and 2806.2.

[6] In particular, the Company also needs approximately four to six months to extensively revise its tracking system to reflect changes in the 2014 Technical Reference Manual ("TRM"), make changes to rebate forms, update the Company website, and amend, where needed, Conservation Service Provider ("CSP") contracts.

[7] *See Petition of West Penn Power Company for Amendment of the Orders Approving Energy Efficiency and Conservation Plans and Petition for Approval of its Amended Energy Efficiency and Conservation Plans*, Docket No. M-2009-2093218 (Interim Order and Opinion Entered Oct. 28, 2011) (The Commission stated that any delay in ruling on the proposed EE&C Plan changes would further limit the time the company had to implement the revisions. The Commission approved some elements of the petition and referred the remaining elements to the Office of Administrative Law Judge for the issuance of a Recommended Decision on an expedited basis).

[8] *Id*.

programs and initiatives. PPL Electric's portfolio of programs was designed to provide customer benefits and to meet the energy reduction goals set forth in Act 129. The initial Phase II EE&C Plan included a range of energy efficiency programs that included every customer segment in PPL Electric's service territory. These programs are the key components of a comprehensive electric energy efficiency initiative designed to achieve the 821,072 MWh/yr. of reduced energy consumption required by Act 129.

The Commission approved PPL Electric's initial Phase II EE&C Plan, with modifications, on March 14, 2013. *See Petition of PPL Electric Utilities Corporation for Approval of its Act 129 Phase II Energy Efficiency and Conservation Plan*, Docket No. M-2012-2334388 (Order Entered Mar. 14, 2013) ("*March 2013 Order*"). Pursuant to the *March 2013 Order*, on May 13, 2013, PPL Electric submitted a compliance filing. The Commission approved PPL Electric's compliance filing on July 11, 2013. *See Petition of PPL Electric Utilities Corporation for Approval of its Act 129 Phase II Energy Efficiency and Conservation Plan*, Docket No. M-2012-2334388 (Order Entered July 11, 2013) ("*Phase II EE&C Plan Order*"). On November 22, 2013, PPL Electric filed a revision to its approved Plan (hereafter referred to as "Revision I").[9] On March 6, 2014, the Commission approved Revision I.[10]

III. PROPOSED MODIFICATIONS TO THE EE&C PLAN

PPL Electric's Phase II EE&C Plan represents a comprehensive electric energy efficiency initiative designed to achieve the required 821,072 MWh/yr.[11] of reduced energy consumption.

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[9] *See* "Petition of PPL Electric Utilities Corporation for Approval of Changes to its Phase II Act 129 Energy Efficiency and Conservation Plan," Docket No. M-2012-2334388.

[10] *See Petition of PPL Electric Utilities Corporation for Approval of its Act 129 Phase II Energy Efficiency and Conservation Plan*, Docket No. M-2012-2334388 (Order Entered Mar. 6, 2014).

[11] The savings (consumption reductions) discussed herein are expressed as an annualized number (MWh/yr.) regardless of whether it is an annual target or a cumulative target (i.e., a three-year target). This is because the savings occur every year the measure is installed.

PPL Electric researched and developed the initial Phase II EE&C Plan between August and October 2012 and filed its initial Phase II EE&C Plan in November 2012 using the most current data available at the time.

In keeping with the intent of Section 1.2.5 of its Phase II EE&C Plan, the Company filed Revision I in November 2013. After receiving Commission approval of Revision I, the Company continued to fine tune its key assumptions and the mix of measures and programs for its Phase II EE&C Plan. The Company has now benefited from another year and a half of Phase II program delivery, additional market research, the Phase II Program Year 5 ("PY5") evaluation results, and input from stakeholders about desired changes, including pilots and adjustments to rebates and measures to better prepare for Phase III. The changes in the Final 2014 TRM have also had an impact on program design. PPL Electric met with stakeholders from September 2014 to November 2014 to review proposed Phase II EE&C Plan changes and to obtain their input. In general, PPL Electric proposes to:

- Increase costs and savings for the Small C&I customer sector to avoid expending all funds significantly before the end of Phase II, thereby avoiding the need to close all Small C&I programs between April 2015 and September 2015.

- Decrease the estimated costs and savings for the Residential, Large C&I, and GNI customer sectors to reflect current progress and keep the portfolio under the cost cap (due to the proposed cost increase for the Small C&I customer sector).

- Increase the estimated low-income savings and costs for income-qualified programs to provide a larger margin of savings above the low-income compliance target.[12] This additional margin is necessary so PPL Electric does not have to rely as heavily on the relatively uncertain savings from low-income participation in general residential programs, which are not determined until approximately five months after the end of a program year (through the impact evaluation). By the time savings from low-income participation in general residential programs are known, it is too late to make adjustments if those savings are lower than expected. Therefore, PPL Electric prefers to increase savings from income-qualified programs where the reported (ex ante) savings can be monitored monthly.

[12] *See* 66 Pa. C.S. § 2806.1(b)(1)(i)(G); *Phase II Implementation Order*, p. 54 (stating that at least 4.5% of an EDC's required energy consumption savings should come from the Low-Income customer sector).

- Add language to programs to clarify the timeframe for Phase II PY7 application submissions. The goal of this modification is to prevent an unexpected surge in savings and costs at the end of Phase II as was seen in Phase I, as well as to "close the Phase II books" earlier than in Phase I.

- Fine tune and implement relatively minor changes to measures and programs to reflect actual experience and participation rates, PY5 evaluation results including recommendations from the independent evaluator, and stakeholder input.

- Offer pilots, varying incentives, and varying program delivery mechanisms for residential and non-residential customers to help PPL Electric better understand the following in preparation for Phase III: (1) the impact on the market (customers and trade allies) of new technologies (2) price elasticity; and (3) ways to increase participation for more-comprehensive measures and non-lighting measures.

- Modify savings and measure eligibility requirements based on the finalized 2014 TRM.[13] Modifications to the savings, technical eligibility requirements, and data/information requirements for many TRM measures must be reflected as changes in the Company's EE&C Plan.

The proposed changes are reasonable and are designed to enable the Company to meet its Phase II compliance targets within its Phase II budget, to avoid exhausting the Small C&I customer sector budget and closing the programs up to one year before the end of Phase II, to provide an enhanced mix of measures (especially non-lighting), to promote emerging technologies, to reduce free-ridership with certain measures/programs, to comply with the updated 2014 TRM, to provide the Company with valuable market information needed to help plan for Phase III, to incorporate PY5 evaluation results and recommendations from the Company's PY5 Final Annual Report,[14] and to continue to offer an equitable mix of programs, savings, and costs across customer sectors.

[13] PPL Electric used the draft 2014 TRM when preparing Revision I because the final 2014 TRM had not yet been issued. The Commission issued the final 2014 TRM after the Company filed Revision I to its Phase II EE&C Plan. There were some differences between the draft and final versions of the 2014 TRM, which the Company addresses in this Petition.

[14] *See* "Final Annual Report for Program Year 5 of PPL Electric Utilities Corporation's Act 129 Plan," Docket No. M-2012-2334388 (Filed Nov. 14, 2014) ("PY5 Final Annual Report").

As explained in more detail below, PPL Electric proposes 22 modifications to its Phase II EE&C Plan. As previously stated, the Company is requesting that the Commission review all of the proposed modifications under the "non-minor" change procedures set forth in the *Minor Plan Change Order*. This will enable the Commission and interested parties to assess the total impact of all of the proposed changes on the total plan budget and total energy savings. PPL Electric has provided detailed support for all of the changes below. In addition, appended to this Petition is a black-line version of the Company's proposed revised Phase II EE&C Plan, which shows all of the modifications, proposed in this Petition. All of the changes, discussed herein, were identified by the Company through: (1) its experience; (2) input from stakeholders, trade allies, CSPs, and program participants; (3) PY5 evaluation results and recommendations from PPL Electric's independent evaluator; and (4) its ongoing coordination activities with other Pennsylvania EDCs. Further, some of these changes were requested by stakeholders in the past but were not included in the Company's Revision I filing due to cost concerns that ultimately did not materialize. PPL Electric discussed most of these proposed modifications to the Phase II EE&C Plan at its November 19, 2014 stakeholder meeting, and the changes were widely supported.

As shown in Tables 1 through 6 below (see pages 25-28), if the Company's proposed changes are implemented, the Company expects to meet all of the compliance targets, within the funding cap, with a distribution of programs, costs, and savings to the five customer sectors that is reasonable and equitable.[15] In addition, the benefit-cost ratio of revised EE&C Plan is 1.67, which meets the Act 129 cost-effectiveness compliance requirements.[16]

[15] *See March 2013 Order*, pp. 15-18. The Commission's EE&C Program must include "[s]tandards to ensure that each plan includes a variety of energy efficiency and conservation measures and will provide the measures equitably to all classes of customers." 66 Pa. C.S. § 2806.1(a)(5). Each EDC is required to demonstrate that its plan "provides a diverse cross section of alternatives for customers of all rate classes." 66 Pa. C.S. § 2806.1(b)(1)(i)(I).

The Phase II EE&C Plan, as revised by the changes proposed herein, continues to meet the standard required in 66 Pa. C.S. § 2806.1(a)(5) and the *Phase II Implementation Order*. The Phase II EE&C Plan, as revised, offers each customer class at least one energy efficiency measure and contains a reasonable mix of energy efficiency programs for all customers.

Following are the proposed changes to the Phase II EE&C Plan.

A. PROPOSED CHANGES

1. Increase the Estimated Costs and Savings for the Small C&I Customer Sector (*Major Change)*

PPL Electric proposes to increase the estimated costs from approximately $32.5 million to approximately $44.7 million and increase the estimated savings from 144,386 MWh/yr. to 190,466 MWh/yr. for the Small C&I customer sector, which will be primarily in the Prescriptive Equipment Program. This customer sector has shown significant interest in EE&C programs, especially lighting retrofits. The Small C&I customer sector's interest exceeds the level estimated by the Company in the approved Phase II EE&C Plan. At the current rate of spending, PPL Electric expects to exhaust the budget for Small C&I programs between April 2015 and September 2015, well before the end of Phase II (May 2016). These proposed increases in costs and savings should allow the Small C&I customer sector to continue to participate in EE&C programs until approximately May 2016.

According to the Commission, it was evident that the Company had filed a variety of energy efficiency and conservation programs that are equitably distributed among all classes of customers. *March 2013 Order*, pp. 17-18.

[16] *See* 66 Pa. C.S. § 2806.1(b)(1)(i)(I).

2. **<u>Decrease the Estimated Costs and Savings for the Residential, Large C&I, and GNI Customer Sectors *(Major Change)*</u>**

PPL Electric proposes to decrease the estimated costs and savings for the Residential, Large C&I, and GNI customer sectors to reflect current progress and keep the overall portfolio under the cost cap due to the proposed cost increase for the Small C&I customer sector. These customer sectors have shown less interest in EE&C programs than the Company estimated in the approved EE&C Plan. The changes are as follows:

- Residential customer sector costs decrease $808,000 from approximately $66.2 million to approximately $65.4 million. Residential customer sector savings decrease from 253,487 MWh/yr. to 229,739 MWh/yr. The specific program changes (participation, rebate levels, measures, costs, etc.) are described separately below and in the black-lined EE&C Plan (Appendix A).
- Large C&I customer sector costs decrease approximately $7.0 million from approximately $25.1 million to approximately $18 million. Large C&I customer sector savings decrease 5,291 MWh/yr. from 107,417 MWh/yr. to 102,126 MWh/yr. The specific program changes (participation, rebate levels, measures, costs, etc.) are described separately below and in the black-lined EE&C Plan (Appendix A).
- GNI customer sector costs decrease approximately $10.3 million from approximately $40.4 million to approximately $30.1 million. GNI customer sector savings decrease 7,052 MWh/yr. from 88,184 MWh/yr. to 81,132 MWh/yr. The specific program changes (participation, rebate levels, measures, costs, etc.) are described separately below and in the black-lined EE&C Plan (Appendix A).

3. **Adjust Savings and a Program Element of the Residential Retail Program *(Minor Change)***

PPL Electric proposes reducing the estimated savings in the lighting component of the Residential Retail Program from 221,600 to 186,000 MWh/yr. Savings estimates for light emitting diode ("LED") light bulbs have been lowered to be more consistent with projected participation levels and the CSP's contract for the quantity of bulbs and the bulb mix (wattages and types of bulbs). In addition, PPL Electric proposes reducing the estimated savings in the non-lighting component of this program from 7,700 MWh/yr. to 5,800 MWh/yr. to more accurately reflect current participation.

PPL Electric also proposes to add a low-income LED light bulb give-away element to the Residential Retail Program. For ease of administration, this element is being added to the Residential Retail Program, and the savings and costs will be allocated to the Low-Income customer sector. It is expected that 45,000 LEDs will be given away to low-income customers.

Finally, to further encourage recycling of compact fluorescent lamp ("CFL") light bulbs, the Company proposes to increase the number of CFL recycling locations and providing education materials throughout the territory with a focus on non-profits and additional municipalities interested in recycling.

Customers will be required to submit Residential Retail energy efficiency rebate forms within 180 days of installation and no later than approximately June 2016. The specific date will be determined sometime in 2015 and will depend on budget status of the program.

4. **Increase the Number of Participants, Add Measures, and Change Incentives in the Home Comfort Program *(Minor Change)***

PPL Electric is proposing to increase the number of customers in the Efficient Equipment component of the Home Comfort Program from 6,700 to 11,000. Further, as a result of customer feedback, PPL Electric proposes to change its pool pump rebate to include both in-ground and above-ground pool pumps. In addition, PPL Electric proposes to add rebates for Electronically Commutated Motors ("ECM") furnace fan blower handlers and for whole house fans for homes with central air conditioning. By offering these rebates, PPL Electric will be able to gather essential information on the "take rate." Moreover, PPL Electric, in following suggestions from stakeholders, anticipates that these rebates will increase customers' interest in "whole building" and non-lighting measures. The proposed rebate levels are listed in the EE&C Plan/Home Comfort Program – Table F3. For example, the rebate range for a SEER 16 air source heat pump will change from $100 - $250 to $50 - $2,000 and will be tiered based on efficiency level. Where possible, PPL Electric will vary these rebate levels for limited times to better evaluate price elasticity and market preferences.

In addition, PPL Electric is proposing to provide a sales promotion incentive of up to $500 to heating, ventilation, and air conditioning ("HVAC") contractors/trade allies when a customer chooses a high efficiency air source heat pump or ductless heat pump. Based on feedback from trade allies, this type of incentive is necessary for HVAC contractors to provide multiple price quotes, to explain the benefits of higher efficiency products to customers, and to increase the adoption rate for high-efficiency HVAC measures. If customers wait until their HVAC equipment fails, they are more likely to view the replacement as an "unbudgeted expense" and select the least cost, least efficient equipment. Convincing customers to replace their HVAC equipment "just before failure" (near the end of its useful life) will increase the likelihood that the customers will select more-efficient equipment.

5. **<u>Reduce the Number of Participants and Increase Incentives in the Energy Assessment & Weatherization Component of the Home Comfort Program *(Minor Change)*</u>**

The Company proposes to change the rebate structure available for customers who complete an audit and who install insulation and infiltration reduction measures that were recommended by the audit. The Company further proposes to reduce the number of customers participating in this component from 6,000 to 2,400 customers. These two changes are based on PY5 evaluation results and recommendations. Customers will now be eligible to receive up to $1,875 in rebates and bonus incentives for completing an audit and installing measures recommended from the audit. The rebate amount per customer will vary based on what a customer chooses to install. In addition, the Company proposes to require that those measures recommended by the audit be installed within 180 days of the audit and no later than Customers will be required to submit rebate forms within 180 days of installation and no later than June 2016 (with the specific day in June to be determined sometime in 2015), in order to qualify for rebates. The enhanced rebate will provide customers with an additional incentive to complete an audit and to implement audit recommendations. Customers would also be eligible for rebates for installing weatherization measures covered by the program. These proposed changes will help to meet the estimated participation levels for this program, will encourage customers to increase their non-lighting and whole home measures as desired by stakeholders, and will help PPL Electric prepare for Phase III by understanding the relationship between incentive levels and participation rates for non-lighting/whole house measures.

Customers participating in the Home Comfort Program will be eligible for rebates for quality air-source heat pumps, ductless heat pumps, above-ground or in-ground pool pumps, HVAC Central Air, ECM furnace fan blower handlers, whole house fans, and fuel switching. As suggested by stakeholders, ECM motor fans, also called dual control ("DC") or variable-speed motors, were added to the mix of available measures in this program. ECM motor fans provide constant airflow throughout the building. Unlike a conventional furnace fan, an ECM motor fan automatically adjusts the speed of the airflow to provide more even air distribution. ECM furnace motors use significantly less electricity than traditional furnace fans. Depending on usage, an ECM furnace fan may cost up to 10 times less than the cost to operate a furnace with a traditional furnace fan. Further, because the fan automatically adjusts, it keeps the temperature more stable in different rooms of the building. It also is less noisy than standard fans and does not dry out the air inside like older-style fans. By adding new HVAC and related measures and modifying rebate levels, PPL Electric expects to learn what incentive level is needed for customers to "take action" and participate in the program.

To increase awareness and participation for non-lighting measures in the Home Comfort Program, PPL Electric may implement a marketing promotion for a few "energy efficiency home makeovers", possibly promoted through the school program. Winners of this promotion would receive a free energy efficiency audit and energy efficient measures such as insulation, appliances, infiltration reduction, air source heat pump, and lighting up to approximately $10,000.

6. <u>Decrease the Number of Participants in the Home Comfort Program Manufactured Homes Component, and Decrease the Number of Participants and Increase the Incentives in the Manufactured Home – New Homes Component *(Minor Change)*</u>

PPL Electric proposes to reduce the number of participants in the Manufactured Home component of the Home Comfort Program from 200 to 150 customers. This "whole building" component had a later than expected start date in part because the original calculated savings needed to be revised. The revised estimate of 150 participants in the program by the end of Phase II is more appropriate than the estimated 200 participants in the approved EE&C Plan.

PPL Electric also proposes to reduce the number of participants in the New Homes component from 720 customers to 400 customers and to increase the incentives from "approximately $2,000" to between $2,000 and $3,000. Many lessons were learned as the program was being launched. Contractors who originally indicated interest in this program component provided feedback that the program model being offered was not workable for them. Contractor feedback confirmed that Home Energy Rating System ("HERS") rating is a more realistic way to define measure eligibility. Since starting the program, there were 12 builders who indicated interest. Of those 12, only one requested a rebate under the original program design. Since the revision of this component's design using HERS rating, 13 additional contractors have signed participation agreements with the Home Comfort Program CSP and 25 rebates have been processed. The revised estimate of 400 participants is more appropriate than 720 in the approved EE&C Plan.

To increase awareness and participation in this program, PPL Electric may implement a promotion to provide an energy efficient manufactured home to a low-income customer at no cost.

7. **Increase the Number of "Bright Kids" and "Community in Action" Participants in the Student and Parent Energy Efficiency and Education Program *(Minor Change)***

Revision I to the Phase II EE&C Plan phased out CFLs in the program's kits and switched to LEDs, which were more costly. In order to make this change, PPL Electric reduced the number of participants in the program. At this time, PPL Electric is proposing to add more students to the "Bright Kids" component and the "Community in Action" component, increasing the total number of participants from the approved 65,000 to 70,000. This will increase estimated savings from 12,199 MWh/yr. to 15,628 MWh/yr. The projected cost of this program will decrease slightly from approximately $6.1 million to approximately $5.90 million. The decrease in cost is a reflection of re-aligning kit prices.

8. Add the Costs of Call Center Services to the Residential and Low- Income Energy-Efficiency Behavior & Education Programs *(Minor Change)*

The Phase II EE&C Plan filing inadvertently did not include costs for call center services needed for these programs. PPL Electric proposes to add approximately $196,000 to these programs for this service provided by the program's turnkey CSP. This cost will be pro-rated according to the number of participating customers between the two Energy-Efficiency Behavior & Education Programs.

9. Implement Modifications to the Low-Income WRAP *(Minor Change)*

The Company proposes to make a number of modifications to its existing Low-Income WRAP. First, as recommended in the Phase II PY5 Final Annual Report,[17] the Company proposes to add "low-cost" jobs to the mix of program offerings. These are additional "low-cost" jobs, not a reallocation from the Company's Universal Services Low-Income WRAP. "Low-cost" jobs provide additional measures in homes with electric water heaters. In addition, the Company proposes to reduce the estimated number of "baseload" jobs. This is due to fewer "baseload" jobs identified in the field (i.e., inspections of customers' homes have determined that there are fewer "baseload" jobs and more "low-cost" jobs than expected). By adding "low-cost" jobs and reducing "baseload" jobs, WRAP will be better calibrated to meet market demand. As in the past, customers will receive the services that are needed in their homes, whether they are baseload, low-cost, or full cost.

[17] *See* PY5 Final Annual Report, at p. 175.

The Company proposes to add a de facto heating pilot for approximately 20 low-income customers. To be eligible, customers must own their home, have an inoperable oil heating system that is not cost-effective to repair, use electric space heaters, and have no access to natural gas at their premises. An eligible customer will receive a high-efficiency electric heating system (i.e., air source heat pump or ductless heat pump(s)) at no cost to the customer. This pilot is being proposed to evaluate cost and savings associated with customers who are using costly electric space heaters for their primary source of heat due to an inoperable oil heating system. An interim TRM protocol is likely required to estimate the savings for this measure, including using the electric space heaters as the baseline.

Finally, PPL Electric proposes to add $700,000 over two years to cover Act 129 WRAP's share of the cost to update its obsolete WRAP tracking system. The existing computer system went into service in 2001 and must be upgraded to improve reporting, analytics, Quality Assurance and Quality Control ("QA/QC"), and to record more-detailed information about each transaction as recommended by the Act 129 Statewide Evaluator and PPL Electric's evaluator. The total cost of the project will be shared equally between Act 129 and PPL Electric's Universal Services Program.

The net effect of the above proposed changes will increase the estimated cost of the program from approximately $15.6 million to approximately $16.8 million and decrease the projected savings from 10,591 MWh/yr. to 10,411 MWh/yr. The estimated savings will decrease slightly because the savings for each WRAP job type (i.e., baseload, low-cost, or full cost) have decreased based on evaluation results. For example, savings for baseload jobs decreased from 953 kWh/yr. to 939 kWh/yr., and savings for full cost jobs decreased from 2,367 kWh/yr. to 1,292 kWh/yr. (ex-post). The mix of job types further contributed to the reduced savings.

10. Increase the Estimated Number of Participants, Cost, and Savings in the E-Power Wise Program *(Minor Change)*

PPL Electric proposes to increase low-income savings to provide a larger margin of savings above the low-income set-aside target. This margin is necessary so that PPL Electric does not have to rely as heavily on the relatively uncertain savings from low-income participation in general residential programs, which are not determined until approximately five months after the end of a program year (through the impact evaluation). By the time savings from low-income participation in general residential programs are known, it is too late to make adjustments if those savings are lower than expected. Therefore, PPL Electric prefers to increase savings from income-qualified programs, such as E-Power Wise, where the reported (ex ante) savings can be monitored monthly.

In addition, savings and interest in the low-income E-Power Wise kits program have been well received. To increase savings for the Low-Income customer sector, PPL Electric proposes to add approximately 3,500 customers to this program (from approximately 7,900 to 11,400), which will increase the estimated savings from 3,378 MWh/yr. to 5,611 MWh/yr. and increase the estimated cost from approximately $1.036 million to approximately $1.539 million. This is the most cost-effective, low-income program in the Plan. It also provides a vehicle to encourage low-income customers to participate in PPL Electric's other low-income programs.

11. Increase the Estimated Number of Participants in the Low-Income Energy-Efficiency Behavior & Education Program *(Minor Change)*

PPL Electric proposes to increase the number of participants in the Low-Income Energy-Efficiency Behavior & Education Program by 20,000, from approximately 50,000 to 70,000. The currently approved Low-Income Energy-Efficiency Behavior & Education Program has an estimate of 50,000 participants with a projected savings of 8,325 MWh/yr. Prior to launching the program in PY6, PPL Electric, the program CSP, and PPL Electric's independent evaluator determined an additional 20,000 participants would be needed because the average annual usage and the estimated savings per participant were lower than previously estimated in the approved EE&C Plan.

12. Reduce the Number of Schools in the Continuous Energy Improvement Program *(Minor Change)*

PPL Electric proposes to reduce the number of schools participating in the Continuous Energy Improvement program from 10 schools to eight schools. The estimated savings and costs for this program will remain the same as in the current EE&C Plan. The program started in PY6, with 10 schools signing up to participate. As the program progressed, two of the 10 schools withdrew from the program. Although there are now only eight schools participating, estimated savings and costs remained the same as initially projected for ten schools. Now that PPL Electric knows the number of schools participating in the program, savings are calculated based on each school's consumption, rather than an estimate from potential schools.

13. Increase the Incentives and Estimated Savings for Non-Lighting Measures *(Minor Change)*

The Company proposes to increase the incentives for HVAC, heat pump water heaters, and other non-lighting measures for both residential and non-residential customers. The current incentive levels are generally too low to attract the desired level of participation. In addition, the low incentive level is contributing to relatively high free ridership for air source heat pumps. By offering these enhanced rebates, PPL Electric will be able to gather essential information on the "take rate" and price elasticity, to reduce free-ridership, and to increase customers' interest in "whole building" and non-lighting measures as desired by stakeholders. The proposed rebate levels are listed in the EE&C Plan. For example, the proposed rebate range for a SEER 16 air source heat pump will change from $100 - $250 to $50 - $2,000 and will be tiered based on efficiency level. These increased rebates will help to evaluate price elasticity and increase customers' interest in "whole building" and non-lighting measures, as desired by stakeholders.

In addition, as noted in Section III.A.4 above, PPL Electric is proposing to provide a sales promotion incentive of up to $500 to HVAC contractors/trade allies when a customer chooses a high efficiency air source heat pump or ductless heat pump. Based on feedback from trade allies, this type of incentive is necessary for HVAC contractors to provide multiple price quotes, to explain the benefits of higher efficiency products to customers, and to increase the adoption rate for high-efficiency HVAC measures, especially before the equipment fails (i.e., "early replacement"). If customers wait until their HVAC equipment fails, they are more likely to view the replacement as an "unbudgeted expense" and select the least cost, least efficient equipment. Convincing customers to replace their HVAC equipment "just before failure" (near the end of its useful life) will increase the likelihood that the customer will select more-efficient equipment. Installation of higher efficiency equipment will increase the estimated savings per measure in the EE&C Plan.

14. <u>Increase the Estimated Cost of the School Benchmarking Program to Include the Management of the Installation of LED Exit Signs *(Minor Change)*</u>

PPL Electric included the cost of installing free LED exit signs as part of the School Benchmarking Program in the existing approved EE&C Plan,[18] but inadvertently did not include the CSP administration cost for this program component. Approximately $90,000 has been added to the program budget for this purpose. The existing approved EE&C Plan includes free

[18] Savings and costs for these exit signs are in the Prescriptive Equipment Program.

LED exit signs to schools participating in the School Benchmarking Program. This measure provides an additional incentive for schools to participate in the program, brings attention to the benefits of the program, and provides additional energy savings for schools. The School Benchmarking CSP will manage the installation of the free LEDs with, as noted, the administrative cost being added to the budget for the School Benchmarking Program. Consistent with the approved EE&C Plan, the savings and installation costs for the exit signs are in the Prescriptive Equipment Program.

15. Add Pilots to Existing Residential and Non-residential Programs *(Minor Change)*

In preparation for Phase III, PPL Electric plans to explore new technologies, evaluate potential savings, and gauge market interest and costs during PY6 and PY7 within all five customer sectors through the implementation of several proposed pilots. These pilots may include, but are not necessarily limited to, a thermostatic shower restrictor valve managed by the Home Comfort Program CSP, a smart thermostat pilot managed by the Residential Energy-Efficiency Behavior & Education Program CSP or the Home Comfort CSP, and home/building automation systems. On the non-residential side, pilots may include, but are not necessarily limited to, comprehensive equipment/building/process management via metering, monitoring, and controls. Information gathered from these pilots will be used to explore the interest, viability, and cost-effectiveness of more comprehensive measures and non-lighting measures for consideration in Phase III.

The estimated cost of the thermostat pilot is $300,000. The expected objectives of this pilot include:

- Estimating the energy savings;
- Understanding different delivery mechanisms;

- Understanding implementation costs, cost-effectiveness, and consumer preferences;
- Exploring different thermostats and apps (accessible on the participant's computer, mobile phone, or tablet), and how differences influence the savings, thermostat set points, how frequently the thermostat is programmed, etc.;
- If messaging can be customized through the app, some participants may get messages and some may not. The content of messages may also vary. Messaging concepts could include things like: "We've noticed you have not programmed your thermostat." "Next week is expected to be very cold. If you change your heat setting from 72 to 68, you could save approximately $20 per week on your heating costs." "We've noticed that customers who use their programmable thermostat properly saved $20 a month more than you." "We've noticed that you are using your programmable thermostat properly and, as a result, have saved approximately $20 last month."; and
- Determining if there are differences between thermostat pilot participants who also participate in the Behavior Program (i.e., receive Home Energy Reports) and those in the Behavior Program's control group (i.e., do not receive Home Energy Reports).

Apart from the thermostat pilot, the costs of the other pilots mentioned above are included in the existing budgets for those programs and will be delivered through the normal program mechanisms. For example, a company that has a new product is expected to recruit participants in the applicable PPL Electric program (like the Custom Incentive Program). PPL Electric does not expect to endorse specific products or hire the product supplier as a CSP. PPL Electric may waive the cost-effectiveness screening requirement in the Custom Incentive Program when considering new technologies under these pilots.

16. Clarify Rebate Submission Deadlines *(Minor Change)*

PPL Electric proposes to clarify the due date for submitting rebate applications near the end of Phase II for all programs to prevent an unexpected surge in applications, costs, and savings similar to what PPL Electric experienced at the end of Phase I, and to "close the Phase II books" earlier than in Phase I.

PPL Electric will work with stakeholders, trade allies, and CSPs during 2015 to develop and communicate the deadlines. Deadlines may vary by program depending on the status of the program's budget, lead times to process applications and record the transactions, and the time required for measurement, verification, and evaluation. Conceptually, PPL Electric expects that Program Year 7 measures must be in-service (i.e., operational) by May 31, 2016, customers must submit their final applications and documentation within 30 to 90 days of installation and no later than June 15, 2016, and Evaluation, Measurement, and Verification ("EM&V") must be completed by July 31, 2016. PPL Electric proposes to identify and handle exceptions on a case-by-case basis, such as projects that require significant post-metering and, therefore, cannot be evaluated before the PY7 Final Annual Evaluation Report.

17. Discontinue the Direct Discount Component of the Large C&I Prescriptive Equipment Program at End of PY6 *(Minor Change)*

The Direct Discount Program has been a successful component of the Phase II Small C&I and Large C&I Prescriptive Equipment Programs. In Phase II, as of mid-October 2014 (all of PY5 and a portion of PY6), 377 GNI Direct Discount jobs were completed and 1,292 Small C&I Direct Discount jobs were completed. However, during that same time period, only 31 Large C&I Direct Discount jobs were completed. Because of the low level of customer interest and participation, as well as the need to add savings to the Small C&I Prescriptive Equipment

Program in order for that program not to "go dark" in PY7, Direct Discount will not be offered to Large C&I customers in PY7. Contractors will be notified well in advance of this plan change to avoid customer confusion or disappointment.

18. Adjust the Portfolio's Common Costs *(Minor Change)*

PPL Electric proposes to adjust the estimated Common Costs, which are allocated to each customer sector at the conclusion of the Phase, from approximately $35.2 million to approximately $36 million. The additional costs are necessary for EE&C Plan Development, including EE&C Plan revisions, which were underestimated in the approved Phase II EE&C Plan.

19. Change the Basis of the Rebate Cap in the Custom Incentive Program *(Minor Change)*

PPL Electric proposes to change the rebate cap from 50% of incremental measure cost to 50% of full project cost. This change is necessary because the concept of "incremental measure cost" (i.e., the difference between the cost of the efficient measure and the cost of the baseline measure) is very difficult for customers/trade allies to understand and determine for custom measures, especially the baseline for a custom measure (not standard measures in the TRM) and the baseline cost. Also, the cost of the baseline measure is nearly impossible to properly document because customers do not get a price quote for a "theoretical project" equivalent to "the baseline." Customers clearly understand and can document the total cost of their measure (i.e., their total project cost regardless of the baseline).

20. Fine-Tuning of Estimated Costs, Savings, and Participation *(Minor Change)*

As a result of the changes described above, as well as to reflect actual performance, the Company also has fine-tuned the estimated costs, savings, and participation for many of the measures and programs. These changes are shown in the black-lined EE&C Plan in Appendix

A. Further, changes to the costs and savings for the programs are reflected in Tables 3 and 4 of this Petition.

21. <u>Adjust the Estimated Phase I Carryover Savings *(minor revision)*</u>

PPL Electric proposes to adjust the estimated Phase I carryover savings listed in its EE&C Plan to agree with the verified Phase I savings carryover. In Revision I, the Company increased the estimated Phase I carryover savings from 110,000 MWh/yr. to approximately 551,000 MWh/yr. That increase was based on an estimate because the final Phase I evaluation was not yet complete. Since the submittal of Revision I, the Final Phase I Evaluation was completed (November 2013 and revised via a Supplemental Final Report in January 2014), and the verified Phase I carryover is 495,636 MWh/yr.

22. <u>General Text Revisions, Primarily for Clarification *(minor revision)*</u>

As set forth in the Appendix A to this Petition, the Company proposes a number of revisions to the text of the Phase II EE&C Plan to provide additional clarity.

B. <u>AGGREGATE IMPACT OF PROPOSED CHANGES</u>

Following is a summary of the aggregate impact of the proposed changes on each customer sector, each program, and the portfolio.

<u>Table 1 – Savings by Sector and Portfolio (MWh/yr.):</u>

	Approved EE&C Plan	**Proposed Revision**
Residential	253,487	229,739
Low-Income	22,223	25,885
Total Residential + Low-Income	*275,710*	*255,624*
Small C&I	144,386	190,446
Large C&I	107,417	102,126
GNI	88,184	81,132
Total Non-Residential	*339,987*	*373,704*
Total Phase II Savings (all sectors, excluding carryover)	**615,697**	**629,328**
Estimated Phase I Carryover Savings	551,704	495,636
Total Phase II Savings including carryover	**1,167,401**	**1,124,964**
Phase II Compliance Target	821,072	821,072
Phase II Over-compliance	346,329 (42%)	303,892 (37%)
Estimated benefit-cost ratio per the TRC	1.75	1.67

<u>Table 2 – Savings by Customer Sector (% of portfolio savings):</u>

	Approved EE&C Plan	**Proposed Revision**
Residential	41.2%	36.5%
Low-Income	4%	4.1%
Total Residential + Low-Income	**44.8%**	**40.6%**
Small C&I	23.5%	30.3%
Large C&I	17.4%	16.2%
GNI	14.3%	12.9%
Total Non-Residential	**55.2%**	**59.4%**

<u>Table 3 – Savings by Program (MWh/yr.)</u>
<u>Measures installed in Phase II only; excludes Phase I carryover</u>:

Program	Approved EE&C Plan	Proposed Revision
Appliance Recycling	26,243	25,224
Residential Retail	229,276	191,863
Residential Home Comfort	12,739	15,268
Residential Behavior & Education	32,205	30,749
WRAP	10,519	10,411
Low-Income Behavior & Education	8,325	8,280
E-Power Wise	3,378	5,611
Prescriptive Equipment	205,116	253,466
Custom	65,660	62,793
Student & Parent Energy Efficiency Education	12,199	15,628
Master Metered Low-Income Multifamily	6,886	6,885
Continuous Energy Improvement	3,150	3,150
School Benchmarking	0	0

Table 4 – Total Direct Costs by Program ($1,000):

Program	Approved EE&C Plan	Proposed Revision
Appliance Recycling	$5,189	$5,212
Residential Retail	$33,634	$32,848
Residential Home Comfort	$9,851	$10,031
Residential Behavior & Education	$2,389	$2,948
Low-Income WRAP	$15,635	$16,782
Low-Income Behavior & Education	$1,164	$1,637
E-Power Wise	$1,036	$1,539
Prescriptive Equipment	$58,935	$58,447
Custom	$12,585	$8,268
Student & Parent Energy Efficiency Education	$6,096	$5,930
Master Metered Low-Income Multifamily	$3,103	$3,110
Continuous Energy Improvement	$943	$1,073
School Benchmarking	$300	$389
Total	**$150,860**	**$148,214**

Table 5 – Total Costs (Direct & Common) by Customer Sector ($1,000):

	Approved EE&C Plan	Proposed Revision	Difference
Residential	$66,224	$65,416	($808)
Low-Income	$21,896	$26,115	$4,219
Small C&I	$32,544	$44,672	$12,128
Large C&I	$25,063	$18,009	($7,054)
GNI	$40,393	$30,063	($10,330)
Total	**$186,121**	**$184,276**	**($1,845)**

Table 6 – Total Costs (Direct & Common) by Customer Sector (% of portfolio cost):

	Approved EE&C Plan	Proposed Revision	% of Total Customer Revenue
Residential	35.6%	35.5%	Included in Total Residential
Low-Income	11.7%	14.2%	Included in Total Residential
Total Residential	**47.3%**	**49.7%**	**45%**
Small C&I	17.5%	24.2%	32%
Large C&I	13.5%	9.8%	23%
GNI	21.7%	16.3%	Included in Small and Large C&I above
Total Non-Residential	**52.7%**	**50.3%**	**55%**

As shown in **Table 6** above, the proportion of the Phase II EE&C Plan's budget for each customer sector is reasonably comparable to each customer sector's share of total PPL Electric revenue.

The Company's proposed modifications to its Phase II EE&C Plan have slightly increased the estimated common costs (primarily for Plan Development as described in Section III.A.18), and the allocation of common costs to each customer sector will change because the proportion of direct costs have changed. For EE&C Plan estimating purposes, common costs for each customer sector are determined based on each customer sector's proportion of direct costs. Actual common costs that are not specifically attributable to a customer sector will be allocated to each customer sector based on the proportion of actual direct costs.

IV. NOTICE

Pursuant to the *Minor Plan Change Order*, PPL Electric is serving copies of this filing on the Pennsylvania Office of Consumer Advocate, the Pennsylvania Office of Small Business Advocate, the Commission's Bureau of Investigation and Enforcement, and all other parties of record in PPL Electric's Phase II EE&C Plan proceeding (Docket No. M-2012-2334388). *See Minor Plan Change Order*, p. 20 (requiring service of a petition "on all parties"). PPL Electric will also post the black-line version of the EE&C Plan on its Act 129 website (http://www.pplelectric.com/e-power/stakeholders/index.htm).

V. CONCLUSION

WHEREFORE, PPL Electric Utilities Corporation respectfully requests that the Pennsylvania Public Utility Commission approve the proposed modifications to the EE&C Plan, as set forth in this Petition. PPL Electric requests that the Commission resolve issues, if possible, on the basis of comments and replies to comments on the proposed modifications. For all changes that cannot be resolved based upon comments and replies, PPL Electric respectfully requests that the Commission approve the proposed changes to the EE&C Plan as quickly as is practically possible.

Respectfully submitted,

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APPENDICES

APPENDIX A

BLACK-LINE EE&C PLAN