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File #: 140069

January 24, 2013

Rosemary Chiavetta, Secretary
Pennsylvania Public Utility Commission
Commonwealth Keystone Building
400 North Street, 2nd Floor North
P.O. Box 3265
Harrisburg, PA 17105-3265

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

Dear Secretary Chiavetta:

Enclosed for electronic filing is the Main Brief of PPL Electric Utilities Corporation for the above-referenced proceeding. Copies have been provided as indicated on the certificate of service.

Respectfully submitted,

David B. MacGregor

DBM/jl
Enclosures

cc: Honorable Dennis J. Buckley
Certificate of Service

CERTIFICATE OF SERVICE

I hereby certify that a true and correct copy of the foregoing has been served upon the following persons, in the manner indicated, in accordance with the requirements of 52 Pa. Code § 1.54 (relating to service by a participant).

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Andrew S. Tubbs

BEFORE THE
PENNSYLVANIA PUBLIC UTILITY COMMISSION

Petition of PPL Electric Utilities Corporation for Approval of an Energy Efficiency and Conservation Plan	: : :	Docket No. M-2012-2334388

MAIN BRIEF
OF
PPL ELECTRIC UTILITIES CORPORATION

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I. INTRODUCTION

On November 15, 2012, pursuant to Act 129 of 2008 ("Act 129"), P.L. 1592, 66 Pa.C.S. §§ 2806.1 and 2806.2, and the Pennsylvania Public Utility Commission's ("PUC" or the "Commission") Implementation Order, *Energy Efficiency and Conservation Program*, Docket Nos. M-2012-2289411, M-2008-2069887, 2012 Pa. PUC LEXIS 1259 (Order entered August 3, 2012)("*2012 Implementation Order*"), PPL Electric Utilities Corporation ("PPL Electric" or the "Company") filed a Petition with the Commission requesting approval of its Phase II (June 1, 2013 – May 31, 2016) Energy Efficiency and Conservation Plan ("Phase II EE&C Plan" or the "Plan").[1] The Phase II EE&C Plan includes a broad portfolio of energy efficiency programs, conservation practices and energy education initiatives designed to meet the goals established by Sections 2806.1 and 2806.2 of Act 129 and the Commission's *2012 Implementation Order*. For the reasons set forth below, PPL Electric respectfully requests that the Commission approve, with the modifications discussed herein, its Phase II EE&C Plan.[2]

II. PROCEDURAL HISTORY

On July 1, 2009, in compliance with Section 2806.1(b)(1)(i) of Act 129, PPL Electric filed its Phase I EE&C Plan for the period of June 1, 2009 through May 31, 2013 ("Phase I EE&C Plan"). PPL Electric's Phase I EE&C Plan was approved, with modification, by the

[1] PPL Electric submits that because this proceeding concerns a rate to be paid by customers, the page limitation contained in 52 Pa. Code § 5.501(e) applicable to briefs in non-rate related proceedings does not apply.

[2] In an effort to resolve issues raised by parties in this proceeding the Company has agreed to revise certain elements of the proposed Phase II EE&C Plan. These changes are discussed in detail below. *See, e.g.,* Sections V.C.1.a, V.C.1.d.ii;, V.C.1.d.iii, V.D.8. These changes will be included in the revised plan to be filed on February 7, 2013.

Commission on October 26, 2009.[3] The Commission thereafter approved several modifications to PPL Electric's Phase I EE&C Plan.[4]

On August 3, 2012, the Commission issued the *2012 Implementation Order*, which determined the required consumption reduction targets for each electric distribution company ("EDC") and established guidelines for implementing Phase II (June 1, 2013 – May 31, 2016) of the EE&C program. In order to establish the EDCs' required consumption reduction targets, the Commission's Statewide Evaluator ("SWE") conducted baseline studies and prepared a Market Potential Study for the Commission that recommended each EDC's specific consumption reduction target. *2012 Implementation Order*, p. 13. Pursuant to Act 129 and the *2012 Implementation Order*, PPL Electric, on November 15, 2012,[5] filed its Petition requesting that the Commission approve the proposed Phase II EE&C Plan. On December 4, 2012, PPL Electric submitted direct testimony in support of this filing.

The filing was docketed by the Commission at Docket No. M-2009-2093216 and was assigned to Administrative Law Judge Dennis J. Buckley (the "ALJ"). On November 28, 2012, a Prehearing Conference Order was issued which directed the parties to file prehearing conference memoranda on or before December 6, 2012.

On December 1, 2012, a notice of PPL Electric's November 15, 2012 filing was published in the *Pennsylvania Bulletin* providing that comments on the Phase II EE&C Plan were due December 21, 2012.

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[3] *Petition of PPL Electric Utilities Corporation for Approval of its Energy Efficiency and Conservation Plan*, Docket No. M-2009-2093216, 2009 Pa. PUC LEXIS 2242 (October 26, 2009).

[4] *See, e.g., Petition of PPL Electric Utilities Corporation for Approval of its Energy Efficiency and Conservation Plan*, Docket No. M-2009-2093216, 2010 Pa. PUC LEXIS 392 (February 17, 2010); *Petition of PPL Electric Utilities Corporation for Approval of its Energy Efficiency and Conservation Plan*, Docket No. M-2009-2093216, 2011 Pa. PUC LEXIS 2009 (May 6, 2011).

[5] On November 1, 2012, the Commission issued a Secretarial Letter granting EDCs the ability to file their Act 129 Phase II EE&C Plan any time between November 1st and November 15th. This extension was granted in recognition of the need for EDC personnel to focus on storm response duties due to Hurricane Sandy.

On December 3, 2012, UGI Utilities, Inc. – Gas Division, UGI Penn Natural Gas, Inc. and UGI Central Penn Gas, Inc. (collectively, "UGI") filed a Petition to Intervene. On December 5, 2012, the Office of Small Business Advocate ("OSBA") filed a Notice of Intervention. On December 6, 2012, the Office of Consumer Advocate ("OCA") filed a Notice of Intervention. The Coalition for Affordable Utility Services and Energy Efficiency in Pennsylvania ("CAUSE-PA"), Citizens for Pennsylvania's Future ("PennFuture"), Wal-Mart Stores East, LP and Sam's East, Inc. (collectively "WalMart"), the Commission on Economic Opportunity ("CEO"), and PP&L Industrial Customer Alliance ("PPLICA") filed Petitions to Intervene on December 6, 2012. On December 7, 2012, the Sustainable Energy Fund of Central Eastern Pennsylvania ("SEF") filed a Petition to Intervene.

A prehearing conference was held on December 10, 2012. Counsel representing PPL Electric, OCA, OSBA, SEF, PPLICA, CAUSE-PA, PennFuture, UGI, WalMart and CEO appeared. On December 12, 2012, the ALJ issued the Second Prehearing Order granting the various Petitions to Intervene listed above. On December 19, 2012, Comverge, Inc. ("Comverge") filed a Petition to Intervene, which was granted by the ALJ in the Third Prehearing Order issued on December 27, 2012.

Comments were filed with the Commission relative to PPL Electric's Phase II EE&C Plan on December 21, 2012 by OCA, PPLICA, PennFuture and Comverge. In accordance with the procedural schedule, direct testimony was distributed to all active parties on December 28, 2012 by OCA, SEF, CAUSE-PA, CEO and UGI. On January 9, 2012, the ALJ issued the Fourth Prehearing Order explaining that "comments" will not be accepted into the record. On January 11, 2013, PPL Electric and CAUSE-PA served rebuttal testimony. On January 14, 2013, Comverge filed a Petition *Nunc Pro Tunc* for Admission of late-filed Direct Testimony.

Following oral argument on Comverge's Petition, the ALJ issued the Fifth Prehearing Order denying Comverge's Petition. An evidentiary hearing was held on January 16, 2013.

III. DESCRIPTION OF PPL ELECTRIC'S PHASE II EE&C PLAN

PPL Electric's Phase II EE&C Plan includes a broad portfolio of energy efficiency programs and energy education initiatives and includes opportunities for participation by every customer segment. PPL Electric St. 1, p. 5. PPL Electric's portfolio of programs is designed to meet the Company's Phase II consumption reduction target of 821,072 MWh/yr.[6] and to comply with the other requirements set forth in the Commission's *2012 Implementation Order*. PPL Electric St. 1, p. 5.[7]

The proposed Phase II EE&C Plan follows the template provided in the September 26, 2012 Secretarial Letter at Docket No. M-2012-2289411, and is divided into the following ten sections: (1) Overview of Plan; (2) Energy-Efficiency Portfolio/Program Summary Tables and Charts; (3) Program Descriptions; (4) Program Management and Implementation Strategies; (5) Reporting and Tracking Systems; (6) Quality Assurance and Evaluation, Measurement and Verification; (7) Cost-Recovery Mechanism; (8) Cost-Effectiveness; (9) Plan Compliance Information and Other Key Issues; and (10) Appendices.[8] PPL Electric St. 1, p. 4. In addition, the Company included as Appendix G to the Phase II EE&C Plan, a proposed *pro forma* tariff for the Act 129 Compliance Rider, which is designed to fully recover all applicable EE&C-

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[6] All energy savings, including the compliance target, are annualized. Savings are expressed as MWh/yr. or annual MWh.

[7] PPL Electric used the measures and savings set forth in the *Implementation of the Alternative Energy Portfolio Standards Act of 2004: Standards for the Participation of Demand Side Management Resources – Technical Reference Manual 2013 Update,* Docket Nos. M-2012-2313373, M-00051865, 2012 Pa. PUC LEXIS 1511 (September 13, 2012) ("*2013 TRM Tentative Order*") to develop its Phase II EE&C Plan.

[8] The Phase II EE&C Plan includes the following appendices addressing the noted topics: Appendix A - Commission Approved Electricity Consumption Forecast (June 1, 2009 through May 31, 2010); Appendix B - Approved Contract for Appliance Recycling CSP; Appendix C - Calculation of Annual Savings and Costs by Program; Appendix D - Calculation methods and assumptions; Appendix E- List of measures available to Low-Income customers; Appendix F - CSP Evaluation Process; and Appendix G - Tariff - Cost recovery.

related costs. *See* Appendix G to the Phase II EE&C Plan and Exhibit JMK-1. The Act 129 Compliance Rider is fully reconcilable and will be applied on a non-bypassable basis to charges for electricity supplied to customers who receive distribution service from the Company. PPL Electric St. 3, pp. 7-9.

PPL Electric's primary objective is to deliver a portfolio of cost effective programs that will meet customers' needs, fulfill the Company's Phase II EE&C Plan objectives as defined in Section 8 of the Phase II EE&C Plan, and achieve the results required by Act 129 and the Commission's *2012 Implementation Order*. See PPL Electric St. 1, p. 5. PPL Electric's portfolio reflects a strategic approach that is targeted, yet flexible enough to adjust and expand, as warranted, to meet changing market conditions and progress toward the Phase II EE&C Plan goals. PPL Electric St. 1, p. 7. The portfolio builds on customer, trade ally, and stakeholder relationships through training, incentives, education, marketing strategies, and customer support. *Id.* PPL Electric's proposed portfolio will build on existing programs, market knowledge, and community presence to efficiently meet program goals and target market sectors. *Id.* Further, it will support the local economy by reducing customer energy costs, utilizing local labor whenever practical and by promoting the adoption and use of energy efficient equipment. *See* Phase II EE&C Plan, Sections 1.1.2 and 3.1.

The proposed Phase II EE&C Plan includes the following 13 programs:

Continued from Phase I to Phase II:

- Appliance Recycling
- Residential Retail Program (combines residential lighting and the portion of the Residential Efficient Equipment program that includes appliances, electronics, and water heating)
- Residential Energy-Efficiency Behavior & Education
- Low-Income WRAP Program (with changes)
- E-Power Wise Program
- Prescriptive Equipment Small C&I, Large C&I and GNI Program (with additions)

- Custom Incentive Small C&I, Large C&I and GNI Program

New Programs in Phase II:

- Residential Home Comfort Program (hybrid combining the Phase I Audit and Weatherization Program; the portion of Phase I Residential Efficient Equipment program that includes HVAC and insulation; pool pumps; and a new home component)
- Student and Parent Energy-Efficiency Education Program
- Low-income Energy-Efficiency Behavior & Education Program
- Master Metered Low-Income Multifamily Housing Program
- Continuous Energy Improvement Program
- School Benchmarking Program

PPL Electric St. 1, pp. 8-9.

All of the Company's programs are voluntary, and subject to the budget limitations for each program customers can elect to participate in any program for which they are eligible. PPL Electric St. 1, p. 9. A full description of each of the 13 programs is set forth in Section 3.2 of the Phase II EE&C Plan. These programs include a range of energy-efficiency programs targeted to every customer segment in PPL Electric's service territory. PPL Electric St. 1, p. 9. As discussed below, in compliance with the Secretarial Letter dated September 26, 2012 at Docket No. M-2012-2289411, PPL Electric has differentiated its programs according to the three customer classes defined in the EE&C Plan template, *i.e.*, Residential, Small Commercial and Industrial ("Small C&I"), and Large Commercial and Industrial ("Large C&I"). *See* Section V.B.2, below; PPL Electric St. 1, p. 9; Phase II EE&C Plan, Section 3.2.

PPL Electric's portfolio of programs is designed to provide customer benefits and to meet the Company's Phase II consumption reduction target and other program requirements set forth in Act 129 and the *2012 Implementation Order*, within the designated expenditure cap of two percent (2%) of 2006 annual revenues for each year of the three-year plan, which equates to approximately $184.5 million. PPL Electric St. 1, p. 10; PPL Electric St. 3, p. 4.

Act 129 requires that each EDC EE&C Plan include specific energy efficiency measures for households at or below 150% of the federal poverty income guidelines, the number of which shall be proportionate to those households' share of the total energy usage in the service territory. *See* 66 Pa. C.S. §2806.1(b)(1)(i)(G); *2012 Implementation Order* at 53. In addition, the Commission directed that each EDC seek to obtain a minimum of 4.5% of its total required consumption reduction from low-income customers by May 31, 2016. *2012 Implementation Order* at 54. These savings may be achieved directly from low-income sector programs as well as low-income customer participation in general residential programs. For PPL Electric, this low-income carve out is 36,948 MWh/yr. PPL Electric's Phase II EEC&C Plan is designed to meet these requirements. *See* Section V.B.4, below; PPL Electric St. 1, p. 6; Phase II EE&C Plan, Section 9.1.3.

The Commission also requires 10% of the EDC's Phase II consumption reduction target to come from the institutional sector which includes government, education, and non-profit (collectively referred to as "GNI" customers). *2012 Implementation Order* at 45. For PPL Electric, this carve out is 82,107 MWh/yr. PPL Electric St. 1, pp. 6, 11. PPL Electric is offering GNI customers an extensive selection of programs, including the Master Metered Low-Income Multifamily Housing Program, the Prescriptive Equipment Program (including incentives for customer owned area and LED street lighting and a wide array of other energy-efficiency measures), and the Custom Incentive Program. PPL Electric St. 1, p. 11; Phase II EE&C Plan, Sections 3.5 and 9.1.2. PPL Electric's Phase II EE&C Plan is designed to meet the GNI reduction target.

The Commission's *2012 Implementation Order* also requires that PPL Electric's Phase II EE&C Plan include at least one comprehensive measure for residential and small commercial rate classes. *2012 Implementation Order* at 20. PPL Electric has proposed to include a Home Comfort Program in its Phase II EE&C Plan. PPL Electric St. 1, p. 14. This program will include an incentive for contractors building energy-efficient new homes and customer incentives for audits, surveys, and weatherization for existing homes. To meet the requirement for the Small C&I sector, as part of the Prescriptive Equipment Program, PPL Electric is offering free audits and a comprehensive choice of measures specifically for farms. *Id.*

The Commission also encouraged EDCs to give special emphasis to multifamily housing within the GNI sector in their Phase II EE&C Plans. *2012 Implementation Order* at 49. In response, PPL Electric has developed the Master Metered Low-Income Multifamily Housing Program, which will use direct installation and rebates to encourage electric efficiency in multifamily, low income, master metered buildings. This program is designed to provide approximately 6,000 to 10,000 MWh/yr. toward the required GNI ten percent (10%) reduction goal. *Id.*

The proposed Phase II EE&C Plan includes procedures to measure, evaluate, and verify performance of the programs and the Plan as a whole. *See* PPL Electric St. 1, p. 16; Phase II EE&C Plan, Section 6. Phase II EE&C Plan also outlines a process for conducting an annual cost-effectiveness evaluation of the Plan in accordance with the Commission's 2013 Total Resource Cost Test Order. PPL Electric St. 2, p. 7.

For each program in the Phase II EE&C Plan, cost effectiveness was estimated in accordance with the procedures for the modified California test[9] described in the Commission's Secretarial Letter concerning the implementation of the Energy-efficiency and Conservation Program (Docket No. M-2008-2069887) and subsequent refinements introduced in the

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[9] See *California Standard Practice Manual for Economic Analysis of Demand-Side Management Programs and Projects,* California Energy Commission, October 2001.

Commission's August 30, 2012 Order concerning the Total Resource Cost for Phase II of Act 129 (Docket No M-2012-2300653). PPL Electric St. 2, p. 7.

PPL Electric's proposed Phase II EE&C Plan is cost effective, based on a Total Resource Cost Test ("TRC") criterion. *See* PPL Electric St. 2, p. 8; Phase II EE&C Plan, Section 8. Cost effectiveness of the Phase II EE&C Plan was demonstrated in data presented in Section 3.2, Program Descriptions and Tables 7- 7E. PPL Electric determined the life-cycle costs, savings, and avoided cost benefits for each measure to compute the measure's cost effectiveness from a TRC perspective. PPL Electric St. 2, p. 8. Application of the TRC identified some measures that did not meet the cost-effectiveness threshold. However, to ensure a well-balanced and comprehensive mix of measures, to meet the Commission's requirement to include "comprehensive" measures for customers, and to meet the Commission's requirement for low-income savings, certain measures and programs with a relatively low TRC are included in the Phase II EE&C Plan. PPL Electric St. 2, p. 8.

PPL Electric's programs are designed to support residential (including low-income), commercial and industrial, and government and non-profit sector customers through a logical continuum of energy efficiency actions, starting with facility review and analysis and ending with implementation, verification, and evaluation. PPL Electric St. 1, p. 28. Marketing and education functions, customer care and quality assurance, program tracking, evaluation, monitoring, and verification all will be common features of all programs. *Id.* The Phase II EE&C Plan is supported by financial incentives and a delivery approach focused on providing customers with the support they need to achieve their energy efficiency objectives. *Id.* Implementation activities range from the simple installation of a common energy efficiency measure that can be installed with minimal oversight or administrative burdens to installation of more complex measures.

IV. SUMMARY OF ARGUMENT

The specific issues raised in the testimony by the various parties to this proceeding are addressed in detail below. In reviewing these individual proposals, PPL Electric asks the Commission to consider carefully several important points that support full and prompt approval of the Company's Phase II EE&C Plan.

PPL Electric's Plan was not developed in a vacuum. In developing its Plan for this proceeding, PPL Electric relied heavily on its successful Phase I Plan and particularly on lessons learned and valuable experience gained in the implementation of that plan over the last three years. In addition, PPL Electric engaged in an extensive stakeholder process soliciting and obtaining valuable input from a wide variety of interested parties, including customer representatives, Conservation Service Providers ("CSPs"), trade allies, and other EDCs.

The result is an integrated plan consisting of a wide variety of proven measures carefully crafted and balanced to meet the requirements and constraints of Act 129 and the Commission's *2012 Implementation Order*. This was a challenging process. The *2012 Implementation Order* contains specific energy reduction and budget requirements that must be achieved in an efficient and cost-effective manner during the Phase II implementation period. In addition, Phase II plans must contain a variety of programs and measures equitably distributed among customer classes with savings targets specifically for low-income and institutional customers, and are subject to extensive evaluation to determine compliance. Moreover, these requirements must be met through the voluntary participation of customers in the EE&C programs, within a hard spending cap, with the possibility of Technical Reference Manual ("TRM"), with TRC or other revisions during the course of the plan that could substantially affect PPL Electric's ability to comply, and with the specter of significant financial penalties for non-compliance.

For these reasons, it is not appropriate to modify one part of the Phase II EE&C Plan without addressing how such changes impact other portions of the Plan, how those changes impact the cost-effectiveness of the portfolio as a whole, how the changes would impact the interests of other stakeholders, and most importantly how those changes impact PPL Electric's ability to comply with the Commission's *2012 Implementation Order*. It is critical for PPL Electric to have substantial discretion in designing its Phase II EE&C Plan. PPL Electric has the ultimate responsibility to comply with Act 129, and it is PPL Electric who will face the consequences if it does not comply. There is no single "perfect" EE&C Plan and absent a "fatal flaw", such as non-compliance with a direct Act 129 or Commission requirement, PPL Electric's EE&C Plan should be approved.

While a number of parties have proposed certain changes to PPL Electric's Phase II Plan, the Plan has widespread acceptance and support. No party has contended that PPL Electric's Phase II Plan, as filed, will not achieve the mandated levels of savings, will not be cost-effective or will not achieve any other of the mandated requirements of Act 129 and related Commission Orders. The Bureau of Investigation and Enforcement did not intervene in this proceeding or raise objections to the Plan, OSBA has not objected to any aspect of the Company's Phase II EE&C Plan, and the OCA, while recommending certain changes, stated that, "PPL Electric has made a good effort in deriving and assembling its proposed portfolio." Further, with limited exception, the opposing party recommendations focus almost entirely on two issues; fuel switching and low-income programs that, while relevant, are not central to this proceeding.

With respect to fuel switching, the Commission has already determined in an order of statewide application, that fuel switching should be considered in an EDC's EE&C Plan, but that fuel switching should not be mandated.[10] PPL Electric carefully considered fuel switching measures in preparing its Phase II filing and also carefully considered the various fuel switching proposals advanced during the course of this proceeding. In response, PPL Electric proposed in its rebuttal testimony to establish a pilot fuel switching program for residential customers. In accordance with prior Commission rulings on this matter, this should conclude the matter of fuel switching in this proceeding.

Low-income programs are an important part of the EE&C Plan, but requests for changes must not be allowed to detract from the overall goal of achieving Commission-mandated overall savings requirements. The Commission's *2012 Implementation Order* requires Phase II plans to achieve 4.5% of savings from low-income customers. PPL Electric's Phase II EE&C Plan is designed to achieve 8.68% of its savings from low-income customers, 4.18% above the Commission's requirement. Even so, several parties propose an array of revisions, additions and "improvements" to the low-income programs in PPL Electric's Phase II EE&C Plan, which in aggregate, would require substantial additional funding to low-income programs. However, none of these parties provides any consideration or analysis as to how much the adoption of these changes would impact the cost-effectiveness of the portfolio, where this additional funding would come from, how other customer sectors would be affected, or how these changes would affect PPL Electric's ability to comply with its conservation requirements within the 2% cost cap. Absent such information, these additional low-income proposals should not be adopted.

Apart from fuel switching and low-income programs, there was little opposition to PPL Electric's Plan.

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[10] Fuel switching is discussed in Section V.D, below.

OCA, while generally supportive of the Company's plan, proposes that PPL Electric establish a new separate program for "data centers." OCA, however, offers no information on how much this would cost, what savings might be achieved, what other programs would be cut and what impact this proposal would have on PPL Electric's ability to comply with Act 129 and related Commission Orders. The Plan does include opportunities for all businesses, including data centers, to participate in the Plan's Custom Program.

Finally, as the Commission has recognized in the timing of the schedule mandated for this proceeding, it is critically important that PPL Electric be permitted to move ahead as quickly as possible to implement its Phase II EE&C Plan. Phase I ends May 31, 2013, and Phase II begins the next day. PPL Electric must complete many tasks to "hit the ground running" on June 1, 2013. This "running start" is critical if PPL Electric is to have any meaningful opportunity to meet its Phase II savings requirements. Prompt Commission action also will help achieve a smooth transition to Phase II and to avoid "going dark" on major programs. For these reasons, it is essential that the Commission approve PPL Electric's Phase II EE&C Plan as soon as possible.

V. ARGUMENT

A. PROCEDURAL/EVIDENTIARY ISSUES

On January 14, 2013, Comverge filed a Petition for Admission *Nunc Pro Tunc* for Admission of Direct Testimony. Oral argument was held on January 16, 2013, immediately before the start of the evidentiary hearing in this case. On January 16, 2013, the ALJ issued the Fifth Prehearing Order, wherein he denied Comverge's Petition. In denying Comverge's request to admit direct testimony *nunc pro tunc*, the ALJ properly determined that Comverge had failed to meet the standards for the admission of late-filed testimony. Specifically, the ALJ identified the following reasons for denying Comverge's Petition: (1) Comverge knew, or should have known, that a party's "comments" would not be made part of the certified record in this proceeding, thus necessitating the need for a party to serve testimony; (2) Comverge's service of direct testimony, requesting a significant modification to PPL Electric's Phase II EE&C Plan, three days after PPL Electric served its rebuttal testimony, would prejudice PPL Electric; and (3) Comverge's failure to produce its witness at the evidentiary hearing effectively eliminated any opportunity for PPL Electric to cross-examine Comverge's witness and would have resulted in a "flagrant violation of PPL right to due process." Fifth Prehearing Order, p. 8. The ALJ's denial of Comverge's Petition.

B. ACT 129 CONSERVATION REQUIREMENTS

The required elements of an EDC's Plan are set forth in Sections 2806.1 and 2806.2 of the Public Utility Code, 66 Pa.C.S. §§ 2806.1 and 2806.2, as well as the Commission's *2012 Implementation Order*. The *2012 Implementation Order* provides, in pertinent part, that an EDC's filing for Commission approval of an EE&C Plan must provide information regarding the following:

a. Comply with the designated expenditure cap which is approximately $184.5 million for the Phase II period.[11] The three-year plan will start on June 1, 2013 and conclude on May 31, 2016.
b. Achieve a total overall energy reduction of at least 821,072 MWh/yr. by May 31, 2016.[12] At least 25% of the energy reduction target must be achieved in each of the three program years.[13]
c. Achieve a minimum of 10%[14] of the total required energy reductions from GNI customers by May 31, 2016.[15]
d. Achieve a minimum of 4.5%[16] of the total required energy reductions from the low-income customer sector (<= 150% of Federal Poverty Income Guidelines) by

[11] *See* Section V.E.1, below; Phase II EE&C Plan, Sections 1.3, 1.8 and 7.2. *See also* PPL Electric St. 1, pp. 10, 22 and 24; PPL Electric St. 2, p. 11; PPL Electric St. 3, p. 4-5.
[12] *See* Section V.B.1, below; Phase II EE&C Plan, Section 9.1.2. *See also* PPL Electric St. 1, pp. 5-6; PPL Electric St. 2, p 5-6.
[13] *See* Phase II EE&C Plan, Section 1.5. *See also* PPL Electric St. 1, pp. 11-12.
[14] This minimum translates into 82,107 MWh/yr. for PPL Electric.
[15] *See* Section V.B.3, below; Phase II EE&C Plan, Section 9.1.4. *See also* PPL Electric St. 1, pp. 11-13.
[16] This minimum translates into 36,948 MWh/yr. for PPL Electric.

May 31, 2016. This includes savings from low-income programs and low-income participation in general residential programs.[17]

e. Ensure that the proportion of measures available to the low-income sector is at least 9.95% of the total measures available to all customer sectors.[18]

f. Offer at least one energy-efficiency program for each customer sector and offer a reasonable mix of energy-efficiency programs for all customer sectors. Offer at least one comprehensive measure for residential and commercial customer sectors.[19]

g. Ensure that the portfolio is cost-effective based on the TRC Test.[20]

h. Allocate the cost of measures to the customer classes that receive the benefit of those measures.[21]

i. Define the roles and responsibilities of CSPs.[22]

j. Include procedures to measure, evaluate, and verify performance of the programs and the plan as a whole. (These procedures are described in PPL Electric's Evaluation Plans, which are submitted separately and approved by the SWE.)[23]

k. Define a mechanism for recovery of all applicable costs.[24]

PPL Electric's Plan satisfies all of the requirements noted above. The EE&C Plan contains all of the information requested by the Commission in the *2012 Implementation Order* (pp. 10-12) and has allocated costs associated with the EE&C measures to the customer class that receives the benefits.[25]

1. Overall Conservation Requirements

The Commission's *2012 Implementation Order* determined the required consumption reduction targets for each EDC and established guidelines for implementing Phase II (June 1,

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[17] *See* Section V.B.4, below; Phase II EE&C Plan, Section 9.1.3. *See also* PPL Electric St. 1, pp. 13-14.
[18] *See* Section V.B.4, below; Phase II EE&C Plan, Appendix E. *See also* PPL Electric St. 1, p. 14.
[19] *See* Section V.B.5, below; Phase II EE&C Plan, Sections 1.1.3, 3.1.4 and 3 (Program Descriptions). *See also* PPL Electric St. 1, p. 15.
[20] *See* Section V.E.2, below; Phase II EE&C Plan, Section 8. *See also* PPL Electric St. 2, 7-11.
[21] *See* Sections V.E.3 and V.E.4, below; Phase II EE&C Plan, Sections 1.8 and 7.5. *See also* PPL Electric St. 3, p.6.
[22] *See* Section V.F, below; Phase II EE&C Plan, Section 4.1. *See also* PPL Electric St. 1, pp. 25-27.
[23] *See* Sections V.G.1 to V.G.4, below; Phase II EE&C Plan, Sections 1.7.3 and 6. *See also* PPL Electric St. 1, pp. 16-17.
[24] *See* Section V.E.5, below; Phase II EE&C Plan, Section 7.4. *See also* PPL Electric St. 3, pp. 7-11.
[25] Specific cost allocations issues related to PPL Electric's Residential Retail and Residential Appliance Recycling Programs are discussed in Section V.E.3.a, below.

2013 – May 31, 2016) of the EE&C program. Pursuant to that Order, by May 31, 2016, PPL Electric must achieve a three-year reduction of 2.1% which translates to a three-year reduction of 821,072 MWh/yr. *2012 Implementation Order*, p. 24. In order to provide a reasonable margin for uncertainty, the Company's Phase II EE&C Plan is designed to achieve more than 841,000 MWh of energy savings by May 31, 2016, approximately 2.5% greater than the compliance target. Phase II EE&C Plan, p. 16. Phase II EE&C Plan, p. 12. In addition, PPL Electric estimates an approximate carryover[26] of 110,000 MWh/yr. from Phase I. *Id.* Maintaining these "cushions" is appropriate in light of the uncertainties of implementing the Phase II Plan, the possibility of changes in circumstances or assumptions during the three-year life of the Plan and the substantial penalties to meet the mandated energy reduction target. PPL Electric's Phase II Plan is well designed to meet the requirements of the *2012 Implementation Order*.

2. Requirements for a Variety of Programs Equitably Distributed

66 Pa.C.S. § 2806.1(a)(5) provides that the Commission shall implement standards 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. The Commission addressed this requirement in the *2012 Implementation Order*, and PPL Electric's Plan fully complies with this requirement by, among other things, offering a mix of energy efficiency programs for all customers and by having measures for low-income customers as well as for governments, schools and nonprofit organizations.

In compliance with the Secretarial Letter dated September 26, 2012 at Docket No. M-2012-2289411, PPL Electric has differentiated its programs according to the three customer classes defined in the EE&C Plan template, *i.e.*, Residential, Small C&I, and Large C&I. *See*

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[26] In the *2012 Implementation Order*, the Commission explained that it would allow EDCs that have achieved their Phase I three percent target before the end of Phase I to continue their programs and credit all of those savings above the three percent Phase I target towards Phase II targets. *2012 Implementation Order*, p. 58.

PPL Electric St. 1, p. 9; Phase II EE&C Plan, Section 3.2.[27] However, PPL Electric's programs are defined according to delivery strategies, the nature of customers' businesses, types of facilities, and types of energy-using equipment, rather than by the PPL Electric rate schedule for that customer. Phase II EE&C Plan, Section 3.1.2. In other words, where programs offer customer benefits across multiple classes, and where similar implementation, marketing, and administrative strategies may be utilized to capture functional efficiencies, those programs will be offered to all appropriate customer classes. *Id.* PPL Electric will document, track and report on its program results and progress by the five customer groups identified in its Phase II EE&C Plan – Residential, Low-income, Small C&I, Large C&I and GNI. *Id.*

3. 10% Government/Non-Profit Requirement

A minimum of 10% of the required reductions in consumption must be obtained from units of Federal, State and local government, including municipalities, school districts, institutions of higher education and nonprofit entities, *i.e.*, GNI customers. 66 Pa.C.S. § 2806.1(b)(i)(G); *2012 Implementation Order* at 45. The Phase II EE&C Plan is designed to achieve the 10% required reductions from GNI customers. For PPL Electric, this carve-out is 82,107 MWh/yr. from GNI customers. PPL Electric St. 1, p. 11. PPL Electric is offering a mix of programs providing GNI customers with an extensive selection of program opportunities, including savings from the Master Metered Low-Income Multifamily Housing Program, savings achieved from the Prescriptive Equipment Program, including incentives for customer owned area and LED street lighting and a wide array of other energy-efficiency measures, and from the Custom Incentive Program. *See* Phase II EE&C Plan, Sections 3.5 and 9.1.2.

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[27] PPL Electric defines residential customers as those customers served under Rate Schedules RS, RTS and RTD. Phase II EE&C Plan, p. 11. PPL Electric defines Large C&I customers as those customers served at primary and transmission voltage levels (Rate Schedules LP-4, LP-5, LP-6, IS-T, LPEP, ISA, PR-1, and PR-2). Small C&I customers include all non-residential accounts served at secondary voltage levels (Rate Schedules GS-1, GS-3, IS-1 (R), BL, GH-1 (R), and GH-2 (R)).

4. Low-Income Program Requirement

Regarding low-income customers, 66 Pa.C.S. § 2806.1(b)(i)(G) provides that an EDC's conservation plan shall include specific energy efficiency measures for households at or below 150% of the federal poverty income guidelines. According to § 2806.1(b)(i)(G), the number of measures shall be proportionate to those households' share of the total energy usage in the service territory. In the Company's case this requirement translates to having 9.95% of its energy efficiency measures available for low-income customers. Furthermore, an EDC's expenditures under § 2806.1(b)(i)(G) are in addition to expenditures made under 52 Pa. Code Ch. 58 (relating to residential low-income usage reduction programs). In its *2012 Implementation Order*, the Commission also directed that each EDC obtain a minimum of 4.5% of its total required consumption reduction from low-income customers by May 31, 2016. *2012 Implementation Order* at 54

As required in the Commission's *2012 Implementation Order*, PPL Electric has designed its Act 129 programs to achieve at least 4.5% of its required energy consumption from the low-income sector and at least 9.95% of its energy efficiency measures will be available for low-income customers.[28] These savings may be achieved directly from low-income sector programs, as well as low-income customer participation in general residential programs.

To meet the consumption reduction set aside for the low-income sector, PPL Electric will continue to leverage its existing delivery infrastructure, implement new social marketing efforts

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[28] As discussed in Section 9.1.3 of the Phase II EE&C Plan, PPL Electric designed its Plan to achieve 22,091 MWh/yr. from the low-income sector from low-income programs. In addition, PPL Electric estimates it will achieve 49,192 MWh/yr. from low-income participation in general residential programs. Therefore, the total savings expected from the low-income sector is 71,283 MWh/yr. which is 8.68% of the total required reductions (821,072 MWh/yr. compliance target) which exceeds the 36,948 MWh/yr. compliance requirement for the low-income sector. The actual savings from low-income participation in general residential programs will be determined by PPL Electric's independent evaluator during the yearly impact evaluation in accordance with the method approved by the Statewide Evaluator. The estimate included in the Phase II EE&C Plan is based on actual data from Phase I. As shown in Appendix E of the Phase II EE&C, the Plan has at least 19% of its total measures available to the low-income sector, which exceeds the compliance requirement of 9.95%.

targeted to low-income communities and community groups, reach out to new low-income market partners to develop and implement co-marketing strategies, and continue to reach out to low-income customers by offering the Low-Income WRAP program. Phase II EE&C Plan, Section 3, p. 69.

5. A Comprehensive Measure for Residential and Small Commercial Customers

The Commission's *2012 Implementation Order* requires that PPL Electric's Phase II EE&C Plan include at least one comprehensive measure for residential and small commercial rate classes. *2012 Implementation Order* at 20. PPL Electric has proposed to include a Home Comfort Program in its Phase II EE&C Plan. This program is designed for new and existing homes and will include an incentive for contractors building energy-efficient new homes and customer incentives for audits and weatherization for existing homes. To meet the requirement for the Small C&I sector, as part of the Prescriptive Equipment Program, PPL Electric is offering free audits and a comprehensive choice of measures specifically for farms. PPL Electric St. 1, p. 14.

C. ISSUES RAISED BY THE PARTIES REGARDING INDIVIDUAL CONSERVATION PROGRAMS

1. Residential and Low-Income Programs

a. Residential and Low-Income Energy Efficiency Behavior Program

PPL Electric has proposed to continue the operation of its Residential Energy-Efficiency Behavior & Education Program that was included in the Company's Phase I EE&C Plan. PPL Electric St. 1, p. 8. In addition, based on suggestions from several stakeholders, the Company has proposed to add a Low-Income Energy-Efficiency Behavior & Education Program as part of its Phase II EE&C Plan. PPL Electric St. 1, p. 9. Both programs will focus on providing eligible customers with ways to implement free or low-cost measures and behaviors that reduce energy consumption. *See* PPL Electric EE&C Plan, Section 3.2; PPL Electric St. 1-R, p. 13. This will be accomplished by providing approximately 110,000 high-usage residential customers and 50,000 eligible low-income customers with a series of "report cards" comparing their usage to similar customers. *Id.* These reports encourage customers to adopt energy-efficient behaviors, to install energy-efficiency measures, and to become more aware of how their behavior and practices affect their energy usage. In addition, the programs educate customers about free or low-cost measures and behavior changes that may reduce energy consumption. PPL Electric St. 1-R, p. 14.

OCA recommends that PPL Electric operate the program without interruption between Phase I and Phase II and continuously over a long enough period to allow the messaging to become ingrained. OCA St. 1, p. 10. CAUSE-PA recommends that this program not be funded, and its funding be shifted to provide additional heat pump water heaters or other Act 129 WRAP measures. CAUSE-PA St. 1, p. 15.

Response to OCA

As acknowledged by OCA, behavior modification programs produce tangible energy reductions for participating customers. *See* OCA St. 1, p. 9. PPL Electric expects to achieve approximately 32,000 MWh/yr. in savings for the Residential Efficiency Behavior & Education Program and 8,300 MWh/yr. in savings for the Low-income Efficiency Behavior & Education Program. PPL Electric St. 1-R, 15. However, the expected measure life of these programs is only one year, as in Phase I. *Id.* This means that the achieved savings for these programs expire after one year and therefore are not cumulative for each year of operation toward the May 31, 2016 compliance target. For this reason, PPL Electric has proposed that the programs begin in program year ("PY") 6 with savings recorded in PY7. If these programs were operated continuously for the three-year Phase II Plan, PPL Electric would incur the annual costs to operate the programs for those three years, but would not receive credit for any additional savings for these additional expenditures. Any savings realized in PY5 would expire in PY6 and would not count toward PPL Electric's compliance target at the end of PY7. Similarly, any savings realized in PY6 would expire in PY7, before the May 2016 compliance date. Thus, the continuous operation of these programs for the entirety of the Company's Phase II EE&C Plan would essentially triple the programs' cost, without producing any additional savings that PPL Electric can count toward meeting its Phase II consumption reduction target. *Id.*

It is the Company's view that such expenditures are not reasonable in the context of its Phase II EE&C Plan. Moreover, OCA has not attempted to quantify these costs, identify the source of the funds in the Company's Plan to pay for these costs, or assessed the potential impact that such expenditures would have upon the Company's ability to comply with its Act 129 requirements. Accordingly, OCA's proposal should be rejected.

OCA also recommends that PPL Electric's behavior modification programs provide links to the Company's other programs to install energy efficient hardware. OCA St. 1, p. 10. Presently, the Company's Residential Energy-Efficiency Behavior & Education Program home energy report is a paper report mailed to customers and these reports include internet addresses to the Company's other programs. PPL Electric St. 1-R, p. 19. During Phase II, PPL Electric will also e-mail reports to program participants that have provided the Company with e-mail addresses. For these customers, PPL Electric will include the links to the Company's other programs that install energy efficient hardware. PPL Electric St. 1-R, p. 19.

Response to CAUSE-PA

As noted above, CAUSE-PA recommends that PPL Electric not be permitted to fund the Low-income Energy-Efficiency Behavior & Education Program. Instead, CAUSE-PA recommends that the budget for this program be shifted over to the Company's EE&C Plan Low-income WRAP Program. PPL Electric does not support this recommendation as it would significantly increase the cost to achieve low-income savings and would seriously jeopardize PPL Electric's ability to meet its overall consumption reduction target. PPL Electric St. 1-R, p. 17.

CAUSE-PA is proposing that PPL Electric transfer the money from one program to another, which would substantially reduce savings, increase cost and increase the risk of non-compliance with Act 129. Based upon PPL Electric's experience in operating the EE&C Plan Low-income WRAP Program and the Residential Energy-Efficiency Behavior & Education Programs in its Phase I EE&C Plan, the program acquisition costs (program expenditures per annualized savings) for EE&C Plan Low-income WRAP is $1.39/kWh and the program acquisition cost for the behavior program is $0.14/kWh. PPL Electric St. 1-R, p. 17. Therefore, $1 of program funds for the behavior program provides approximately ten times the savings as $1 would for the Low-income WRAP Program. *Id.* If PPL Electric eliminated the Low-Income Energy-Efficiency & Behavior program and its 8,335 MWh/yr. savings and $1.2 million cost as recommended by CAUSE-PA, and transferred the funds for use in the Low-income WRAP Program, it would cost $11.6 million to achieve those 8,335 MWh/yr. savings in the Low-income WRAP Program, a cost increase of $10 million for no change in overall savings. CAUSE-PA's proposal would reduce the savings to be obtained under the Company's Phase II EE&C Plan and risk non-compliance with the reduction targets. Therefore, PPL Electric does not support the elimination of Low-Income Energy-Efficiency Behavior & Education Program.

CAUSE-PA contends that the Phase II EE&C Plan "overemphasize[s] customer education" and argues that PPL Electric already has adequate conservation education programs through its Commission-approved consumer education plan. CAUSE-PA St. 1, pp. 5-6, and 17. CAUSE-PA is incorrect. On December 28, 2012, the Commission entered its Opinion and Order in PPL Electric's most recent general rate increase proceeding at Docket No. R-2012-2290597.[29] In its Order, the Commission eliminated all funding for PPL Electric's existing Consumer Education Plan ("CEP"), representing over $5 million in annual funding for consumer education. Prior to the Commission's December 28th Order, PPL Electric used the CEP, in part, to promote and encourage conservation in its service territory. PPL Electric St. No. 1-R, p. 18. Due to the elimination of this funding, PPL Electric will terminate these programs, and they will no longer be available. Therefore, the educational components of the Company's Phase II EE&C Plan are even more important to ensure low-income customers are informed about energy efficiency measures and are educated about behaviors that will save energy and money. PPL Electric St. 1-R, p. 18.

b. E-Power Wise Program

CAUSE-PA recommends that PPL Electric be directed to scale back its E-Power Wise Program because it believes that the savings are insufficient to justify the proposed expenses of the program. CAUSE-PA St. 1, p. 15. This recommendation should be rejected for several reasons.

First, CAUSE-PA incorrectly states the proposed budget for the Company's proposed E-Power Wise Program. The proposed budget for this program is $735,000 not $2 million. *See*

[29] *Pa. P.U.C. v. PPL Electric Utilities*, Docket No. R-2012-2290597 (December 28, 2012), p. 54.

Phase II EE&C Plan, Table 5a, p. 26; PPL Electric St. 1-R, p. 33. Second, CAUSE-PA's assertion that the savings realized by customers participating in this program are not sufficiently "meaningful" is not based in fact or supported by Act 129 or the Commission's Orders. All savings resulting from the Phase II EE&C Plan are meaningful savings. PPL Electric St. 1-R, p. 33. The projected savings from the E-Power Wise Program at the proposed budget of approximately $735,000 result in a TRC of 3.09, which is the highest TRC of any of PPL Electric's proposed low-income programs. Phase II EE&C Plan, p. 81. Therefore, as proposed, the E-Power Wise Program provides significant savings for the proposed cost of this program. PPL Electric St. 1-R, pp. 33-34.

CAUSE-PA's citation to PPL Electric's PY3 Final Annual Report does not support its position. CAUSE-PA St. 1, p. 14. The referenced statement describes why an engineering calculation (equations or fully stipulated "deemed" savings) was the appropriate method to determine the savings for this measure instead of using a billing regression analysis based on customer's metered usage before and after installation of the measures. A billing regression analysis is not an appropriate method to estimate savings for the E-Power Wise program because it is not possible to isolate or discern the impact of the individual measures of that program from all of the other unrelated changes to a customer's bill. For similar reasons, engineering calculations (equations or fully stipulated "deemed" savings) are specified by the TRM for the measures provided as part of E-Power Wise and for most measures in other programs such as a CFLs, heat pumps, low flow showerheads, and many other measures. PPL Electric St. 1-R, p. 34. The PY3 Final Annual Report provides no support for CAUSE-PA's position.

OCA recommends that the Company work with its stakeholders to improve its installation rate realization rates for direct measures in the energy efficiency kits. OCA St. 1, p.

18. Specifically, regarding the energy efficiency kits provided by PPL Electric, OCA maintains that if the kits are authorized and provided to customers without heightened efforts to improve the realization rates, and the installation rates were low, this program element would be a questionable use of ratepayer funds. *Id.* OCA recommends that the Commission direct PPL Electric to work with the stakeholder group to improve the realization rate of the energy efficiency kits.

PPL Electric does not view this to be a proposed modification to the Company's proposed Phase II EE&C Plan. PPL Electric St. 1-R, p. 7. Instead, this appears to be a request that PPL Electric raise the realization rate issue at a future stakeholders meeting. Furthermore, OCA's recommendation is very general in nature. OCA has not asserted that the Company's existing realization rates related to the energy efficiency kits are presently too low. PPL Electric St. 1-R, p. 7. Rather, OCA is requesting that PPL Electric raise this issue with its stakeholders to avoid the potential for low realization rates. In fact, the installation rates for measures in PPL Electric's kits (for the E-Power Wise Program) have been robust. PPL Electric St. 1-R, p. 7. In PY3, PPL Electric's independent evaluator determined the installation rates for these measures were 70% to 96%. *Id.* The installation rates for low flow aerators and showerheads varied from 70% to 81%. *Id.* Regarding lighting, the installation rate for CFLs was 94% to 96%, which is substantially greater than the average installation rate specified by the Commission in its TRM (84%). PPL Electric does not see the need to further address the issue at this time.

c. Residential Retail Program and Prescriptive Equipment Program

OCA proposes that PPL Electric not be permitted to provide incentives for Standard T-8 systems or EISA compliant incandescent bulbs in its Retail Residential Program.[30] OCA St. 1, p.

[30] PPL Electric's Prescriptive Equipment Program provides incentives for T-8 lighting.

17-18. OCA's objections to the inclusion of projected savings from Standard T-8 systems in PPL Electric's Phase II EE&C Plan are not supportable. The projected savings included in the Company's proposed Plan are based upon the savings method specified in the Commission's 2013 Technical Reference Manual. PPL Electric St. 1, p. 35. That method is the difference in consumption between the customer's existing light fixtures (including T-12 bulbs) and the new fixtures (including T-8 bulbs). T-8 bulbs are not considered the baseline measure in the 2013 TRM and, therefore, are eligible for savings and rebates. *Id.* Furthermore, there is no evidence in the record as to the effect of OCA's proposal on PPL Electric ability to meet is reductions requirements.

d. Low-Income WRAP Program

i. Baseload WRAP Jobs.

CAUSE-PA supports the Phase II EE&C Plan WRAP, but criticizes the Company's plan to focus on baseload WRAP jobs. CAUSE-PA St. 1, p. 9. CAUSE-PA's criticisms are unwarranted. Baseload jobs include activities such as installing CFLs, refrigerator replacements and energy education in homes that do not have electric heat or electric water heating. PPL Electric St. 1-R, p. 22. PPL Electric has decided to focus its Phase II EE&C Plan Low-Income WRAP Program on baseload job types in order to maximize savings and minimize costs. Specifically, PPL Electric is employing proven measures, which provide eligible participating customers with the opportunity to achieve energy savings at the lowest cost per kWh savings ,*i.e.*, the best "bang for the buck," and highest cost-effectiveness. *Id.*

Furthermore, PPL Electric's decision to focus its EE&C Plan Low-Income WRAP Program on baseload jobs does not mean that the Company's low-income customers will no longer receive low-cost and full-cost WRAP jobs. First, PPL Electric plans to provide approximately 600 heat pump water heaters for low-cost WRAP jobs during its three-year Phase

II EE&C Plan. Therefore, the Company has not eliminated all low-cost jobs in its Phase II EE&C Plan Low-Income WRAP Program as asserted by CAUSE-PA. PPL Electric St. 1-R, p. 22.

Second, and even more importantly, PPL Electric has two WRAP programs: (1) the low-income usage reduction ("LIURP") WRAP program; and (2) the Act 129 Low-Income WRAP program. In 1988, the Commission required that all covered electric and gas utilities in Pennsylvania establish a LIURP program for customers in their service territories. WRAP became PPL Electric's LIURP program. The Company's LIURP Program is a Commission-approved component of PPL Electric's Universal Service & Energy Conservation Plan programs and is *not* part of PPL Electric's Phase II EE&C Plan. However, in its efforts to provide direct energy efficiency measures to the Company's low-income customers, PPL Electric included a WRAP component in the Company's Phase I EE&C Plan – Low-income WRAP Program. The Company has proposed to continue this program in its Phase II EE&C Plan, with modifications. PPL Electric St. 1, p. 20-21.

While PPL Electric is reducing the number of low-cost and full-cost jobs in its Act 129 EE&C WRAP program, it will correspondingly increase the number of low-cost and full-cost WRAP jobs undertaken in its non-Act 129 LIURP WRAP program. As a result, the total number and category of jobs will be approximately the.same. *See* CAUSE-PA Cross Examination Exhibit 1. For these reasons, CAUSE-PA's concerns are misplaced.

ii. Heat Pump Water Heaters

The proposed Low-Income WRAP offers qualified low-income customers, as part of the Act 129 Low-Income WRAP program, with the installation of an energy-efficient heat pump water heater ("HPWH"). As part of this program PPL Electric will offer a HPWH replacement component to qualified low-income customers with electric water heating at no cost as part of low-cost WRAP jobs.

CEO recommends that PPL Electric be required to increase the installation of HPWH in its EE&C Plan Low-income WRAP program from 200 to 500 per year. CEO St. 1, p. 8. This proposal should be rejected. The Company derived this estimate from the SWE's Market Potential Study, which was used by the Commission to determine the remaining level of opportunities for cost-effective energy savings in Pennsylvania. *2012 Implementation Order*, p. 12. CEO's speculation that there is sufficient market potential to support the installation of 500 HPWH per year directly conflicts with the SWE Market Potential Study and was not otherwise supported by CEO. However, during the course of its Phase II EE&C Plan, should the Company find that the potential exists for additional HPWH to be installed under this program, PPL Electric will consider revising its estimate. PPL Electric St. 1-R, p. 25.

iii. Electric Space Heaters

CAUSE-PA proposes that PPL Electric use its Phase II low-income program to repair or replace non-working gas heating units and to remove (or "buy back" if necessary) electric space heaters. CAUSE-PA St. 1, p. 13. As a general policy matter, PPL Electric supports the removal of electric space heaters; however, this is a complex matter that presents substantial and competing public policy issues that should be addressed through a broader statewide process and not in an individual EDCs EE&C Plan proceeding. Further, PPL Electric does not have a process or procedure in place to complete gas equipment of repairs or replacements. PPL Electric St. 1-R, p. 25. Additionally, repairing or replacing a gas heating unit, in and of itself, does not result in incremental reductions in the use of electricity. *Id.* Finally, the CAUSE-PA proposal would significantly increase the cost and reduce the cost-effectiveness of the Company's EE&C Plan Low-income WRAP Program. *Id.* CAUSE-PA has not provided an analysis as to the cost of the proposal, has not projected the amount of savings that could be achieved, has not identified how PPL Electric should fund this proposal in the context of its EE&C Plan budget, and has not provided an analysis as to how this proposal would impact the Company's ability to meet its Act 129 compliance target. Accordingly, the proposal should be rejected in the context of this proceeding.

Although PPL Electric does not agree with CAUSE-PA proposal in this proceeding, the Company has committed to consider a pilot program to address space heater issues in conjunction with its proposed 2014-2016 Universal Service & Energy Conservation Plan. *See* CAUSE-PA Cross-Examination Exhibit 1. All pilot programs, however, must meet the criteria in the LIURP policy statement.

iv. Natural Gas Distribution Company Coordination

In response to CAUSE-PA's concerns about coordination between PPL Electric's EE&C Plan WRAP program with those of natural gas distribution companies ("NGDCs") in its service territory, PPL Electric has stated that it is willing to set up to three conference calls with the NGDCs in its service territory during Act 129 PY5 (year 1 of Phase II) to discuss coordination of WRAP jobs. CAUSE-PA Cross Examination Exhibit 1. The Company will then determine if further meetings are needed.

e. Low-Income Participation Levels

OCA recommends that PPL Electric increase the participation of lowincome customers in its Low-Income Programs. OCA St. 1, p. 14. OCA's proposal should be rejected.

PPL Electric's Phase II EE&C Plan already has sufficient low-income participation levels. PPL Electric St. 1-R, p. 10. In the Company's Phase I EE&C Plan, participation in its energy efficiency programs totaled 20,798 low-income customers as of December 31, 2012. *Id.* As proposed, PPL Electric's Phase II energy efficiency programs will achieve participation by

69,100 low-income customers (9,500 EE&C Low-income WRAP, 50,000 energy reports, and 9,600 participants in E-Power Wise). *Id.* This is an increase of over three times the Phase I level.[31] PPL Electric St. 1-R, p. 10.

Moreover, if PPL Electric were to increase participation in its Phase II EE&C Plan Low-income WRAP Program, it would have to increase the costs of that Program. The Company then would have to reduce funding in other programs to offset these increased costs. PPL Electric St. 1-R, p. 11. OCA has not provided any analysis as to the impact its proposal would have on the cost of the Company's Phase II EE&C Plan, including the source of funding, projected savings, or the impact its proposal would have on the Company's ability to achieve its Act 129 compliance target. *Id.*

PPL Electric's Phase II EE&C Plan, as proposed, will achieve significant low-income customer participation. Furthermore, the overall EE&C Plan is designed to achieve 8.68% of its savings from low-income customers, nearly twice the Commission's minimum requirement. OCA's recommendation should be rejected.

f. Low-income Participation in General Residential Programs

CEO recommends that the Company obtain all low-income energy savings for Phase II from measures specifically targeted to low-income customers or that PPL Electric should be required to verify a customer as low-income to receive credit for low-income participation in non-low-income programs. CEO St. 1, pp. 11-12. CEO's recommendations should be rejected because the PPL Electric proposal is consistent with Commission precedent and sound public policy.

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[31] In addition, the savings from the Master Metered Low-Income Multifamily Housing Program will be accrued to the institutional sector; however, the program is focused on low-income buildings and an estimated 6,000 low-income tenants will benefit from energy efficiency measures installed in their apartments.

CEO's recommendation that all low-income energy savings for Phase II be obtained from measures specifically targeted to low-income customers has been rejected previously by the Commission, and the Commission has approved a specific method for estimating the low-income savings from non-low-income. The Commission's approval of a method to account for low-income customer participation in non-low-income programs directly contradicts CEO's recommendations. There is nothing barring low-income customers, for example, from participating in the Phase II EE&C Plan's non-low-income programs. Therefore, to the extent that these customers participate in any non-low-income programs, it is appropriate to record and account for these savings to the low-income customer group.

PPL Electric's proposed survey methodology for determining low-income participation in non-low-income programs was used and approved by the SWE in Phase I and reaffirmed by the Commission on the *2012 TRC Order*. Specifically, on August 30, 2012, the Commission reaffirmed the use of the survey by EDCs for Phase II. *2012 PA Total Resource Cost (TRC) Test*Docket Nos. M-2012-2300653 (Order entered August 30, 2012) ("2012 TRC Order"). In its *2012 TRC Order,* the Commission stated that:

> The EDCs will estimate low-income savings from non-low income programs using a survey method approved by the SWE. EDCs shall draft modifications to their annual impact evaluation surveys to capture and determine low-income participation in each non-low income residential program and to submit the modifications to the SWE for approval. Once approved by the SWE, the EDCs will conduct the survey and compile the data annually.

2012 TRC Order, pp. 49-50. The Commission further stated that by addressing this issue in its *2012 TRC Order,* it intended to standardize how EDCs determine low-income savings in non-low-income programs. *Id.* It is not appropriate for CEO to attempt to revisit this issue in the context of a single EDC EE&C Plan proceeding.

The Commission's decision on this issue is fair and appropriate for several reasons. First, income verification, as proposed by CEO, could be intrusive to all residential customers and delay rebate payments. PPL Electric St. 1-R, p. 9. Second, to confirm low-income status of customers participating in non-low-income programs could require that all rebate requests verify income, which would create a burden on all customers, could be viewed as an infringement of privacy, and would increase CSPs direct labor costs and PPL Electric EE&C Plan costs. Third, verifying a customer's income (as claimed on the application) could delay rebate payment to the customer, would delay recording the transaction in PPL Electric's tracking system, and would delay reporting of the savings. *Id.* Such a requirement would result in further administrative requirements and increase costs of the Company's EE&C Plan. Moreover, CEO has not attempted to quantify these costs, identify the source of the funds in the Company's Plan to pay for these costs, specify what other programs would be cut or reduced in scope, or assess the potential impact that such expenditures would have upon the Company's ability to comply with its Act 129 requirements. Accordingly, CEO's proposal should be rejected.

g. Role of Community Based Organizations

CEO states that PPL Electric should be required to continue to work with community based organizations ("CBOs") in the implementation of its Phase II EE&C Plan. CEO St. 1, p. 13. CEO's request is unwarranted and unnecessary, and should be rejected. PPL Electric has successfully worked with the CBOs in its service territory during the Company's Phase I EE&C Plan. PPL Electric St. 1-R, p. 12. PPL Electric will continue to meet and work with those CBOs during Phase II, including at stakeholder meetings and informal discussions. *Id.* In addition, those CBOs are responsible for delivering PPL Electric's WRAP programs (LIURP and Act 129) and for identifying customers for CFL giveaways and for E-Power Wise eligibility. Therefore, PPL Electric already works closely with those CBOs. A continuing dialogue with CBOs is important as CBOs are directly involved in implementing the Company's Low-Income WRAP and E-Power Wise programs. *Id.* However, mandating CBO involvement, as requested by CEO, is unnecessary and should be rejected.

h. Referrals to Other Universal Service Programs

CAUSE-PA requests that PPL Electric continue its commitment from Phase I to refer low-income households who participate in the Company's Act 129 program to its other low-income programs including OnTrack, Operation HELP, and LIHEAP. CAUSE-PA St. No. 1, pp. 12-13. PPL Electric will continue its practice of referring Act 129 WRAP participants to other universal service programs (*e.g.,* OnTrack and LIHEAP). PPL Electric St. No. 1-R, p. 12. Such referrals have proven successful, as approximately 65 percent of the Company's WRAP recipients participate in OnTrack. PPL Electric will refer all customers who participate in surveys and self-verify as low-income to PPL Electric's low-income program, to PPL Electric's Act 129 low-income programs and to the Company's Universal Service programs. *See* CAUSE-PA Cross-Examination Exhibit No. 1. In addition, PPL Electric's WRAP contractors (*e.g.,* auditors and energy educators) routinely provide information to low-income customers about the availability of PPL Electric's other universal service programs. *Id.*

i. Low-Income Businesses

SEF criticizes PPL Electric's proposal to offer incentives to businesses as part of PPL Electric's low-income programs. SEF St. 1, pp. 8 and 9. SEF's criticism is unwanted. As proposed, the only "businesses" that would be eligible for any of PPL Electric's low-income programs would be farms that are served under a residential rate schedule and meet the low-income qualification requirement. PPL Electric St. 1-R, p. 13. It is clearly appropriate for these customers to receive rebates as part of a residential program because these customers receive service under residential rate schedules (and meet the low income requirements), and therefore pay a portion of the cost of the EE&C programs via the Act 129 Compliance Rider.

a. Additional Direct Measures for Low-Income Customers Recommended by the Parties

CEO recommends four direct energy savings measures for low-income customers. CEO St. 1, pp. 9-10. As explained below, these measures should not be adopted.

First, CEO proposes a NEST "Learning Thermostat." PPL Electric evaluated the NEST thermostat in 2012 with the intent of conducting a pilot. PPL Electric St. 1-R, p. 26. At that time, however, the Company's evaluation concluded that the NEST was not configured to prevent the electric back-up resistance heaters in an air source heat pump from coming on as the thermostat ramps up from its setback mode. Without that capability, overall electric consumption would increase. The recently updated version of NEST claims to work properly with air source heat pumps. However, the SWE and Commission have maintained that the TRM does not allow heating mode savings for any type of programmable thermostat with an air source heat pump. *Id.* The TRM does allow savings from standard programmable thermostats for central air conditioning, but those savings are relatively small (the equivalent of 1 or 2 CFLs) which does not result in reasonable payback, especially for the NEST thermostat given its $200 price (excluding installation).

Further, PPL Electric has identified the following additional concerns:

> NEST thermostats cannot operate on the line voltage (120 volts) to control electric baseboard heaters. Even if they could, a separate thermostat would be required for each room of the house where the baseboard electric heater was located. That would be extremely costly at $200 per NEST thermostat;
>
> NEST thermostats are location sensitive. That is, to work properly, the thermostats must "sense" (via motion) if people are in the home. Therefore, location of the thermostat in traffic areas is critical and some locations would not be conducive for the installation of NEST thermostats; and

> NEST thermostats are not covered in the TRM[32] (they would be treated like a standard programmable thermostat even though they are significantly different), would require a complex, custom protocol to determine the savings for each specific home. A custom protocol with site inspections of residential homes to confirm the savings is not practical and could be intrusive to customers.

PPL Electric St. 1-R, p. 26-27. CEO's proposal should be rejected for the reasons noted above and because it is unsupported by record evidence.

Second, CEO proposes Infrared Guided Air Sealing. Specifically, CEO recommends that PPL Electric use infrared trained professionals at the time of an in-house audit in order to identify heat loss and to aide in sealing the customer's home. In response, PPL Electric noted that while infrared guided sealing does reduce infiltration, the cost ($400-$600 per home) to perform this service is prohibitive, and such services would not be part of the Company's baseload WRAP job. PPL Electric St. 1-R, p. 27. Because baseload jobs are intended for customers that do not have electric heat or electric water heating, reducing infiltration would not reduce electricity consumption and would significantly increase the program costs and the benefit to cost ratio of baseload jobs. CEO itself explains that the cost of an infrared camera ranges between $2,500-$5,000, and additional costs to train individuals to provide this service. Accordingly, PPL Electric does not support the adoption of this recommendation.

Third, CEO proposes a Smart Strips program. PPL Electric agrees that smart strips are effective when a number of items can be connected, for instance an entertainment center or a computer and peripherals. PPL Electric St. 1-R, p. 28. Therefore, to ensure the cost-effective use of smart strips, it is critical that smart strips be installed during the course of an in-home audit, which PPL Electric has included as part of baseload WRAP jobs. Although PPL Electric's plan calls it a power strip, a smart strip is what was intended. PPL Electric St. 1-R, p. 28.

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32 2013 TRM, section 2.11, p. 49.

Fourth, CEO proposes an Energy Information Display program. Specifically, CEO proposes that PPL Electric install energy information displays in low-income homes in order to assist customers in making educated decisions on how to save energy. PPL Electric completed a nine-month 104 unit pilot with "The Energy Detective" (TED) in 2010. The results of the Company's pilot were mixed. PPL Electric St. 1-R, p. 28. Customers liked the ability to see real time power usage, and it helped customers learn about how much, when and what consumes electricity in their homes. *Id.* However, the overall purchase and installation was costly, as proper and safe installation of the display required an electrician and in some jurisdictions required an electrical inspection, significantly adding to the cost of the measure. *Id.* In addition, pilot participants found it challenging to get the unit to function properly and support was less than desired. Moreover, the Commission's TRM currently does not provide for any savings for these devices, requiring PPL Electric to treat this as a custom measure. For these reasons, PPL Electric does not support the addition of energy information displays into its Phase II EE&C Plan at this time. However, the Company will continue to evaluate these devices for possible future inclusion.

2. Commercial

a. Master Metered Low-Income Multifamily Housing Program

PPL Electric's proposed Master Metered Low-Income Multifamily Housing Program currently includes a measure for LED exit sign lighting. See Phase II EE&C Plan, p. 137. OCA requests that the Commission direct PPL Electric to add a general LED lighting measure (interior and exterior). OCA St. 1, pp. 15-16. PPL Electric is amenable to approving the use of LED lighting on a case-by-case basis, such as hard to reach common areas or for some outside lighting applications which would have long hours of use. PPL Electric St. 1-R, p. 36. However, the Company does not support the inclusion of a general LED lighting measure in this program. *Id.*

LED is an emerging technology and, as such, is an expensive option for customers and for the Company. For the Company's Phase II EE&C Plan to offset 50% of the incremental costs associated with interior and exterior LED lighting would require a significant increase in the program's cost. PPL Electric St. 1-R, p. 36. This significant increase in costs would also reduce the cost-effectiveness of the program because the incremental cost of LEDs is significantly greater than other lighting at this time and the savings would not increase proportionally. Further, OCA has not supported its proposal and has not quantified the expected costs, identified the source of the funds in the Company's Plan to pay for these costs, or assessed the potential impact that such expenditures would have upon the Company's ability to comply with its Act 129 requirements. For these reasons, PPL Electric does not support including a general LED lighting measure but will continue to monitor the evolution and market pricing of LEDs during Phase 2, and will adjust its Plan if LEDs become more cost-competitive. PPL Electric St. 1-R, p. 37.

b. Data Center Energy Efficiency Program

OCA recommends that the Commission direct PPL Electric to work with the stakeholder group to develop a data center program with a target date of starting a program by September 2013. OCA St. 1, p. 8. PPL Electric does not support developing a specific program for data centers as the Company's proposed Phase II EE&C Plan addresses these facilities. PPL Electric St. 1-R, p. 38. As noted by OCA, much of the load in data centers is HVAC and lighting. OCA St. 1, p. 7. PPL Electric's Phase II EE&C Plan already addresses this load in its Prescriptive Equipment Programs through the provision of rebates for all types of buildings and space types, including data centers. PPL Electric St. 1-R, p. 38. In addition, to the extent that more efficient servers replace the energy intensive servers currently in place at data centers, such servers could qualify for incentives under the Company's Phase II Custom Incentives Program. *Id.* PPL

Electric expects its normal marketing to reach data centers as well as other customers responsible for other buildings/space types. *Id.* Adding a new program specifically for data centers, which would include the same measures available to all other building/space types, would unnecessarily increase administrative costs.

c. PPL Electric's Proposal For Combined Heat and Power Projects Is Reasonable And Should Be Approved.

UGI complains that PPL Electric has proposed unnecessary and unfair restrictions on Combined Heat and Power ("CHP") projects and that the same rules should apply to all Custom Incentive Programs. UGI St. 1, pp. 13-15. Specifically, UGI objects to the 1.25 TRC requirement and the \$0.05/kWh incentive payment for CHP Projects and proposes that all Custom projects, including CHP projects, should qualify based on a projected TRC of 1.0 or higher, and should receive an incentive payment of \$0.08/kWh. *Id.* These objections are without merit and should be rejected.

With respect to the 1.25 TRC requirement, Mr. Cleff explained, based on actual experience during Phase I, that the TRC for CHP projects is far less certain than for other projects and is subject to very substantial variation based on slight changes in major inputs such as estimated operating hours, estimated fuel cost, equipment efficiency, and other factors. PPL Electric St. 4-R, p. 15. It also takes substantial time to verify savings for CHP projects. *Id.* Importantly, CHP projects generally are quite large, and the differences between the estimated cost and savings when PPL Electric approves the CHP project compared to the actual results could have a significant impact on the TRC for the Custom Incentive Program as a whole. *Id.* at 16. For these reasons, it is critical to build in a reasonable margin of error for this type of uncertainty when approving CHP projects.

With respect to the level of incentive payments, CHP projects are much larger than other Custom Incentive projects. Even a few CHP projects can use up a substantial amount of the dollars budgeted for Customer Incentive projects. As Mr. Cleff explained:

> "In Act 129 Phase I, six (6) CHP projected have received incentives (4) or are under construction (2). Five of those projects received (or will qualify for) the $500,000 customer incentive rebate cap in place in Phase I. The other project, which is smaller capacity, will have a rebate that is capped at 50% of the total cost of the project. The rebates for those six customer projects accounted for 15% of the total Customer Program budget for Large C&I and Institutional customers and, on average, covered about 19% of the total project costs (as reported by the customers)."

PPL Electric St. 4-R, p. 16.

The cost of the incentives for the Custom Incentive Program is paid for by all Small C&I, Large C&I and Institutional customers. It would be unfair and inappropriate to let a few large CHP (or any other) projects consume a substantial portion of the total budget for the Custom Incentive Program and leave no money for other smaller projects. Based on this concern and the recommendations received during stakeholder meetings, PPL Electric has proposed to reduce the incentive payment and the cost cap for CHP Projects. This will help ensure that EE&C incentives are available to all interested customers on an equitable basis. This reasonable limitation should be approved.

3. Industrial Customer Programs

No party has raised issues regarding the Company's proposed programs for industrial customers.[33] Therefore, the Company's proposals should be approved. PPL Electric reserves the right to respond to arguments presented by parties during the briefing phase of this proceeding.

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[33] Issues related to the Customer Incentive Program for CHP are discussed in Section V.C.2.c, above and Section V.D, below.

D. FUEL SWITCHING

PPL Electric carefully examined fuel switching measures in preparing its Phase II EE&C Plan. Based on that review, PPL Electric decided to continue to include fuel switching measures within its Customer Incentive Program for CHP projects, but proposed to eliminate the Phase I EE&C fuel switching measure for residential (Rate RTS) customers. PPL Electric St. 4-R, p. 4. UGI and SEF each propose more extensive fuel switching programs in PPL Electric's Phase II EE&C Plan. UGI proposes that PPL Electric: (1) allow for installation of natural gas water heaters in the Residential Retail and Low-Income WRAP Programs; (2) provide incentives for the installation of a natural gas furnace or boiler in the Residential Home Comfort and Prescriptive Equipment Programs; and (3) provide incentives for CHP projects that are comparable to other measures eligible for the Custom Incentive Program. UGI St. 1, p. 4. SEF proposes that PPL Electric expand its heat pump water heater program to include all of the alternative energy sources listed in Tier I of Act 213 and natural gas. SEF St. 1, p. 5. UGI, OCA and CAUSE-PA propose that certain fuel switching measures be available to low-income customers. *See* UGI St. 1, p. 4; OCA St. 1, p. 21; CAUSE-PA St. 1, p. 13. PPL Electric reviewed these proposals and in its rebuttal testimony voluntarily proposed to establish a fuel switching pilot program for residential customers. PPL Electric St. 4-R, pp. 9-11. For the reasons set forth below, the mandated proposals presented by the various parties should be rejected, and PPL Electric's voluntary proposal should be approved.

1. The Commission Has Determined, In An Order Of Statewide Application, That EDCs Should Not Be Mandated To Include Fuel Switching Programs In Their Act 129 EE&C Plans.

Nothing in Act 129 or Commission implementing orders require EDCs to include fuel switching in their EE&C plans. PPL Electric St. 4-R, pp. 3-4. Moreover, the Commission has recognized that EDCs should be given substantial discretion in designing their EE&C programs, particularly because it is the EDC who has the obligation to meet the requirements of Act 129 within a hard cost cap or face substantial potential civil penalties.[34]

Moreover, the Commission has recognized that fuel switching is a complex issue presenting substantial and competing public policy issues that should be addressed through working groups on a statewide basis. In its 2009 TRM Order,[35] the Commission specifically addressed the issue of natural gas fuel switching. The Commission received comments from various parties supporting the inclusion of measures that count energy savings when electric equipment is removed and replaced with equipment that uses natural gas. 2009 TRM Order, p. 9. However, the Commission rejected these proposals, stating:

> The Commission recognizes that fuel switching is a complicated topic that will require additional time and effort to fully address. As the TRM will provide vital guidance to EDCs in developing their EE&C plans, which are due to be filed by July 1, 2009, there is not enough time to convene a working group to address all the related issues, fuel switching will not be included in this TRM.

2009 TRM Order, p. 9.

Instead, the Commission directed the establishment of a fuel switching working group to identify, research and address issues raised by including fuel switching measures in a future

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[34] *See, e.g., Petition of PPL Electric Utilities Corporation for Approval of its Energy Efficiency and Conservation Plan*, Docket No. M-2009-2093216, 2009 Pa. PUC LEXIS 2009 (Order Entered December 28, 2009), p. *8 ("Act 129 establishes certain requirements that must be met by electric distribution companies (EDCs), but gives the EDCs discretion (subject to Commission review) over the method by which the EDC will comply with those requirements."); *Petition of PECO Energy Company for Approval of its Act 129 Energy Efficiency and Conservation Plan and Expedited Approval of its Compact Fluorescent Lamp Program*, Docket No. M-2009-2093215 (Order Entered October 28, 2009) p. *88 ("Act 129 does not dictate how EDCs must meet these goals, only that they must meet them."); *Petition of PPL Electric Utilities Corporation for Approval of its Energy Efficiency and Conservation Plan*, Docket No. M-2009-2093216, 2009 Pa. PUC LEXIS 2242 (Order Entered October 26, 2009), p. *131 ("We are mindful, however, that PPL is the Party that bears the risk of penalties in the event of non-compliance with the mandates of Act 129. We will not micro-manage the Company's compliance efforts.").

[35] *Implementation of the Alternative Energy Portfolio Standards Act of 2004: Standards for the Participation of Demand Side Management Reserves – Technical Reference Manual Update*, Docket No. M-00051865 (Order entered June 1, 2009) ("2009 TRM Order").

TRM. The resulting Commission Staff Report on Act 129 Fuel Switching was issued on April 30, 2010, wherein, the Commission's Staff concluded, as follows:

> "Staff finds the position put forth by OCA, OSBA, FirstEnergy, Allegheny and PPL to be persuasive and believes that fuel switching measure should be available to EDCs and their stakeholders when considering the best means of achieving energy efficiency goals. However, just as no other particular energy efficiency program or measure has been mandated for implementation, fuel switching programs should not be mandated either."

The Act 129 Fuel Switching Working Group Staff Report, Docket No. M-00051865 (April 30, 2010), p. 6. The Commission, by Secretarial Letter, adopted the conclusions contained in the Staff Report, including the no mandate recommendation. The Commission first summarized the findings of the Staff Report, including the finding that: "Cost-effective fuel switching measures should be available to EDCs and their stakeholders when considering the best means of achieving EE&C plan goals. However, fuel switching programs should not be mandated." The Commission then stated that: "By adopting this Secretarial Letter, the Commission is releasing the Act 129 Fuel Switching Working Group Staff Report and adopting the recommendations presented therein." Secretarial Letter dated May 21, 2010, Docket No. M-00051865, pp. 2-3.

PPL Electric has reviewed the fuel switching proposals of the various parties in this proceeding and has determined not to include them in its Phase II Plan, but has voluntarily proposed to establish a fuel switching pilot program for residential customers. PPL Electric St. 4-R, pp. 9-11. This should be the end of the inquiry for this proceeding. EDCs should not be required to expend the time, expense and effort to repeatedly relitigate issues that have been resolved by the Commission. Parties, of course, are free to propose fuel switching measures in individual EDC EE&C Plans, and EDCs should carefully review such proposals and adopt or reject them as they see fit. Further litigation after that point is simply inconsistent with clear Commission policy and should not be sanctioned.

The opposing party testimonies are not entirely clear as to whether they are making recommendations to PPL Electric or whether they are asking the Commission to mandate implementation of their proposals. If the former, this issue is resolved, and no further action is required. If the latter, PPL Electric opposes these various proposals for the reasons that follow.

2. It Is Not Appropriate To Include Extensive Fuel Switching Measures In EDC EE&C Plans.

In PPL Electric's view it is not appropriate to include extensive fuel switching measures in its EE&C Plan. Act 129 requires EDCs to adopt "energy efficiency and conservation programs." 66 Pa.C.S. § 2806.1 (emphasis added). Specifically, Act 129 requires the Commission to "adopt an energy efficiency and conservation program to require electric distribution companies to adopt and implement cost-effective energy efficiency and conservation plans to reduce energy demand and consumption within the service territory of the electric distribution company in this Commonwealth." *Id.* As explained by Mr. Cleff, "fuel conversion contradicts the notion of improving energy efficiency because it would result in customers reducing their electric use, but increasing their consumption of natural gas." PPL Electric St. 4, p. 4. Act 129 is not a fuel switching bill. It was not intended to promote the use of one type of fuel over another as a means of reducing electric consumption. It was designed to reduce electric consumption through conservation measures. In PPL Electric's view, extensive fuel switching measures have no place in a properly designed EE&C Plan.

Promoting the increased usage of natural gas may be a valid policy goal, and PPL Electric takes no position on that issue in this proceeding, but it clearly is an issue that should be considered and reviewed in a gas proceeding, either for a specific NGDC or on a statewide basis, where all costs and benefits can be considered. Such issues should not be decided in an individual electric EE&C Plan proceeding.

In this regard, the Public Utility Code contains several references to gas conservation as a public policy goal. Section 1501(b) of the Public Utility Code authorizes the Commission to order a public utility to establish a conservation and load management program as part of determining or prescribing safe, adequate and sufficient service. 66 Pa.C.S. § 1501(b). In addition, Section 1319 provides that the Commission shall permit the recovery of conservation or load management programs implemented by a natural gas utility that are found to be prudent or cost effective. 66 Pa. C.S. § 1319. Similarly, Pennsylvania's restructuring of the natural gas industry provided for the establishment of a competitively neutral cost-recovery mechanism to recover an NGDC's energy conservation costs. 66 Pa. C.S. §§ 2203(6)-(8).

While many issues are disputed in this case, it is undisputed and obvious that the fuel switching programs proposed in this proceeding will <u>not</u> conserve natural gas. Moreover, achieving a proper balance between these conservation goals and the promotion of increased usage of natural gas clearly is a major policy issue that goes far beyond the proper scope of this proceeding.

3. Including Extensive Fuel Switching in EE&C Plans Is Unfair And Unreasonable For PPL Electric's Customers

It should be remembered that all of the costs incurred by PPL Electric to implement its EE&C Plan are paid for by its customers. Under the fuel switching proposals presented in this proceeding, PPL Electric's customers would be required to fund substantial rebates for electric customers who choose to convert to natural gas. This is fundamentally unfair, particularly where the lost revenues as a result of the conversion will ultimately be recovered from electric customers through higher rates. PPL Electric St. 3-R, p.5. If it were concluded that increased usage of natural gas is in the public interest, the cost of fuel switching measures should be paid for by natural gas companies or their customers and not by PPL Electric's electric customers. This is particularly true for PPL Electric, where less than half of its customers have access to natural gas and therefore cannot convert to natural gas service. PPL Electric St. 4-R, p. 5.

Relatedly, SEF argues that PPL Electric is biased against the use of alternative fuels because customer conversion to these alternative fuels would adversely affect its earnings. *See* SEF St. 1, pp. 2-3. This argument reflects a fundamental misunderstanding of Pennsylvania rate regulation. If PPL Electric's revenues fall due to decreased sales resulting from conservation, its earnings, all else equal, will decline. But, these lost sales will be reflected in PPL Electric's next base rate proceeding, and all else equal, will result in higher rates to customers. In fact, on December 28, 2010, the Commission entered a final Order granting PPL Electric a rate increase designed to produce approximately $ 71 million in additional annual distribution revenues. *Pa. PUC v. PPL Electric Utilities Corporation*, Docket No. R-2012-2290597 (Order entered December 28, 2012). Declining sales levels due to conservation were identified as one of the major drivers resulting in the need for this additional rate relief. PPL Electric St. 3-R, p. 4.

4. The Fuel Switching Proposals Of UGI And SEF Are Incomplete And Cannot Be Meaningfully Evaluated On This Record.

The proposals submitted by UGI and SEF deal primarily with rebates offered by PPL Electric for installation of high-efficiency electric water heaters and space heaters. UGI and SEF contend that these rebates (or higher rebates) should be available to those customers who install solar water heaters or high-efficiency gas water heaters or space heaters. In their view, such rebates should be equally available to gas and solar applications. While this appears "fair" on its face, the argument and analysis are incomplete. UGI's proposal fails to recognize or address the fact that there already may be rebates offered by natural gas companies or others for customers who switch to high-efficiency natural gas appliances or furnaces. If this is so and UGI's proposal were adopted, then the customer would receive two rebates to switch to a high-efficiency gas water heater or space heater, but only one rebate would be available to those who install a high-efficiency electric water heater or space heater. Similarly, incentives of various kinds may be available to install a solar hot water heater which are not available to customers who install a high-efficiency electric water heater. Without this information, it simply is not possible to meaningfully evaluate the fairness and reasonableness of the UGI and SEF proposals.

Similarly, UGI contends that PPL Electric's rebate structure is "biased," and SEF contends that PPL Electric's plan is not "fuel neutral" because rebates are not available to gas and solar applications. UGI St. 1, p. 13; *see* SEF St. 1, p. 2. On the contrary, it is the UGI and SEF proposals which are not fuel neutral, as they would limit the availability of rebates to specified alternative sources, *i.e.*, gas, solar and other Tier I sources. Other fuel sources, *e.g.*, oil, propane, wood, presumably would not be eligible. As Mr. Cleff explained:

> SEF's fuel neutrality argument appears to be limited to select non-electric energy sources (natural gas and solar) and UGI's argument is limited to natural gas. Neither SEF nor UGI includes other fuels such as oil, propane, and wood. PPL Electric defines "fuel neutral" in the following terms. Any Act 129 energy efficiency program that encourages switching from an electric device to non-electric device will not favor any one particular non-electric fuel, such as natural gas, over other fuels such as oil or propane. Absent information related to the potential incentives currently available or scheduled for the future and the availability of those incentives to all fuel sources, no conclusion can be drawn as the fuel neutrality of PPL Electric's EE&C Plan.

PPL Electric St. 4-R, p. 8. For these, reasons the arguments presented by UGI and SEF should be rejected.

5. The UGI and SEF Proposals For Higher Rebates Are Inappropriate And Calculated Incorrectly.

In addition to contending that incentives should be made available to natural gas and solar applications, UGI and SEF also contend that certain incentives should be substantially higher than those offered by PPL Electric for electric applications. For example, for the Residential Retail Program, UGI proposes "an incentive of $1,400 to every customer who installs a natural gas furnace with an annual fuel use efficiency (AFUE) greater than 95%, the new efficiency standard for a natural gas furnace, and a 15 SEER electric central air conditioning unit, as compared to the $50 to $150 rebate proposed by PPL Electric for installation of a high-efficiency air source heat pump. UGI St. 1, p. 19. UGI also proposes "an incentive of $2,400 to every customer who installs a natural gas furnace with an annual fuel use efficiency (AFUE) greater than 95% and a 6 SEER electric central air conditioning unit," as compared to PPL Electric's proposed $25 to $100 rebate. *Id.* Similarly, SEF proposes a rebate of $220 to $330 for solar hot water heaters as opposed to the $200 to $300 proposed by PPL Electric for high-efficiency electric hot water heaters. SEF St. 1, p. 5.

These proposals should be rejected for three reasons. First, they are discriminatory and unfairly favor natural gas and solar over electricity and other fuels and have no place in a properly designed EE&C Plan. Second, these proposals make no mention of other rebates that may be offered by others, *e.g.*, NGDCs or the government, for installation of high-efficiency gas furnaces or solar hot water heaters. Third, as explained by Mr. Cleff, the methodology used by UGI and SEF to calculate their proposed rebates is based on the level of expected savings rather than the incremental cost of the application. This approach is fundamentally inconsistent with PPL Electric and industry practice in calculating the proper level of incentive payments and would result in excessive and unnecessarily large rebates. PPL Electric St. 4-R, pp. 12-13. For these reasons, the rebates proposed by UGI and SEF should be rejected.

6. Solar Thermal Storage and Solar PV

PPL Electric offered a Renewable Energy Program in Phase I that included incentives for both solar thermal systems and solar photovoltaic systems ("solar PV"). PPL Electric St. 4-R, p. 13. In addition, as part of a settlement related to modifications to its Phase I EE&C Plan, PPL Electric agreed to offer a solar thermal domestic hot water pilot program for its remaining Residential Thermal Storage ("RTS") customers. As part of the pilot, the Company agreed to provide rebates toward the installation of Solar Thermal systems for up to 50 customers at the same rebate level approved for electric heat pump water heaters. *Id.*

PPL Electric is not proposing to provide rebates for solar thermal water heaters or solar PV in Phase II. PPL Electric has evaluated the potential for providing rebates for solar thermal water heaters and concluded that providing such rebates is simply not cost-effective. SEF disagrees that solar thermal systems are not cost effective from the TRC perspective per the SWE's Market Potential Study. SEF St. 1, pp. 7-8. SEF's assessment should be rejected.

Specifically, the payback period for a customer who installs a solar is more than 15 years which is the expected life of the solar equipment. PPL Electric St. 4-R, p. 13. It is not prudent to use ratepayer funds to encourage customers to install equipment with a payback that exceeds the useful life of the equipment. Further, the Commission's SWE Market Potential Study provides that the TRC for the solar thermal water heaters is 0.28. SEF has argued in this proceeding that the Commission's Market Potential Study is inaccurate. SEF St. 1, p. 7. However, this proceeding is not the appropriate forum to revise the Commission-approved Market Potential Study. Moreover, the incremental cost of a solar thermal water heater is more than $5,000, including any federal tax credit (the SWE's Market Potential Study determined that the incremental cost ranged from $4,050 for PECO to $8,164 for PPL Electric and the other Pennsylvania EDCs) and the annual savings are approximately 2000 kWh/yr. PPL Electric St. 4-R, p. 13. If the customer's total cost for electricity is $0.13/kWh, the customer's simple payback would be almost 20 years, which exceeds the 15-year life of the solar thermal water heater.[36] PPL Electric believes that, even a payback as low as 10 years would be too long for most customers. *Id.*

In PPL Electric's Phase I solar thermal pilot program, only two RTS customers have requested and received rebates since the program was implemented. PPL Electric St. 4-R, p. 14. Due to the low TRC value, unreasonably long payback period, and the lack of customer interest during Phase I, PPL Electric concluded not to offer a solar thermal system program in its Phase II EE&C Plan. *Id.*

As for solar PV, PPL Electric excluded solar PV because it is not cost-effective and has high free-ridership. PPL Electric St. 4-R, p. 14. *Id.* The TRC for PPL Electric's renewable program in Phase I (Solar Photovoltaic systems and ground source heat pumps) was only 0.33. Further, the renewable program had a very high free-ridership rate as documented in the Phase I Annual Reports for Program Years 2 and 3. *Id.* Continuation of the program clearly is not in the public interest.

7. Proposals For Low-Income Fuel Switching Programs Should Be Rejected.

UGI and CAUSE-PA each propose that fuel switching programs also be available to certain programs designed for low-income customers, *i.e.*, the Low-Income WRAP Programs UGI St. 1, p. 4; CAUSE-PA St. 1, pp. 13-14. CAUSE-PA also proposes a program to remove electric space heaters and repair inoperable gas furnaces. CAUSE-PA St. 1, p. 13. OCA

[36] 2000 kWh/yr. * $0.13/kWh avoided cost = $260 savings per year. $5000 incremental cost / $260 per year = 19 years. The measure life is 14 year per the TRM.

proposes that high-efficiency hot water heaters should not be installed under certain circumstances. OCA St. 1, pp. 20-21.

For the many reasons explained above, their mandated fuel switching measures should not be adopted in this proceeding. In addition, if fuel switching is implemented, it should not be limited to a specific fuel type. *See* PPL Electric St. 4-R, pp. 12-13. It is more appropriate for a customer to decide how to heat their home, *e.g.,* with gas, electric, oil, propane, or other energy sources. Since PPL Electric determines the work that will be done in a WRAP participant's home, it would be anti-competitive and inappropriate to select natural gas and exclude other fuels such as oil or propane. Further, it is not appropriate for PPL Electric to select a fuel source on behalf of the WRAP customer because that could be perceived as "forcing" the customer to use a specific fuel which could have more volatile pricing than electricity over time. PPL Electric St. 4-R, p. 12.

Finally, if PPL Electric were required to evaluate all other energy sources and determine which is "best" for each customer, such an approach would be costly, time consuming, would delay the installation of energy efficiency measures for the customer. Moreover, it could lead to inconsistencies or "competition" between the Act 129 WRAP Program and the LIURP WRAP Program which would significantly confuse customers, *i.e.,* if customers in LIURP WRAP are not eligible for fuel switching but Act 129 WRAP customers are. PPL Electric St. 4-R, p. 13. For these reasons, their low-income fuel switching measures and restrictiosn should be rejected.

8. Reporting of Electric to Natural Gas Fuel Switching

As discussed above, UGI's fuel switching proposal should be rejected. Assuming *arguendo*, that its proposal would be accepted, UGI recommends that PPL Electric should be required to report when a heat pump rebate has been paid to an existing natural gas customer (who replaces a central air conditioner), in addition to its current Commission-prescribed reporting requirements related to fuel switching. UGI St. 1, pp. 28-29. PPL Electric believes that more comprehensive reporting and tracking of possible fuel switching is not warranted. PPL Electric St. 4-R, p. 18. First, the additional reporting would require customers to provide more information with their rebate application, possibly discouraging their participation, especially if the additional information is mandatory in order to process the rebate. *Id.* Second, the additional reporting would impose additional administrative costs on the Company because the information would need to be tracked, verified, and evaluated. Third, there are limited or no benefits to tracking this information. *Id.*

It is unclear what would be gained from requiring PPL Electric to track this information. If a customer with an operational gas furnace elects to use an air source heat pump instead of their gas furnace, and the gas furnace provides more-efficient heat than an air-source heat pump, PPL Electric's $200-$300 incentive for an efficient heat pump will not be sufficient to encourage a customer to switch from gas to electric heat. If the gas furnace were not operational, it was the customer's decision to use a single device (the ASHP) for air conditioning and heat and thereby avoid spending $5,000 +/- on a new gas furnace in addition to $5,000 +/- for a new central air conditioner. PPL Electric St. 4-R, p. 18. If specified by the Commission as in Phase I, PPL Electric will continue to report the estimated number of customers who receive a rebate for an efficient electric device that replaces an existing gas device (such as a heat pump water heater that replaces a gas water heater for an air source heat pump that replaces a gas furnace).

9. PPL Electric's Voluntary Fuel Switching Pilot Program For Residential Customers Presented In Its Rebuttal Testimony Should Be Approved.

Consistent with Commission policy set forth above, PPL Electric carefully examined the fuel switching measures presented in this proceeding by UGI, SEF, OCA and CAUSE. Based upon that review, PPL Electric has voluntarily proposed to provide a pilot program within its

Home Comfort and Prescriptive Equipment programs which will offer rebates to a limited number of residential customers, on a first come first served basis, who elect to install qualifying water heaters and furnaces which use a fossil fuel. PPL Electric St. 4-R, p. 9. Specifically, PPL Electric proposes the following participation guidelines associated with these modifications:

> i. Residential and non-residential customers will be eligible.
>
> ii. Efficiency levels and other eligibility requirements will be determined by PPL Electric (see Exhibit METG-2R) which is a draft and will be subject to existing TRM requirements or subject to the Commission's approval of new non-electric fuel switching measures to the TRM (such as adding residential protocols for oil and propane, and for adding protocols for all non-residential fuel switching). PPL Electric will offer rebates only if the measure provides Act 129 electricity savings as permitted by the Commission/SWE.
>
> iii. Rebates will be the same as the comparable electric device (heat pump water heater, air source heat pump ("ASHP") because the incremental cost of the efficient measure is the same (i.e. rebate is based on a percentage of the incremental cost of the measure).
>
> iv. Customers will be eligible for a rebate only if their existing equipment is electric. Otherwise, PPL Electric cannot claim Act 129 electric savings. Therefore, customers cannot receive a rebate for replacing existing gas/oil/propane equipment for new construction.

PPL Electric St. 4-R, p. 10.

PPL Electric will use this pilot program to learn more about the potential for fuel switching in its service territory by evaluating market reaction, achieved savings and cost effectiveness. PPL Electric St. 4-R, pp. 9-10. PPL Electric requests that the Commission approval this proposal.

E. COST ISSUES

1. Plan Cost Issues

Section 2806.1(g) of Act 129 requires that the total cost of any EE&C Plan cannot exceed two percent (2%) of the EDC's total annual revenues as of December 31, 2006. PPL Electric's total annual revenues for calendar year 2006 were approximately $3 billion ($3,075,068,824), and two percent of this amount is approximately $61.5 million ($61,501,376). PPL Electric St. 3, p. 4. In the *2012 Implementation Order*, the Commission concluded that "[w]ith regard to the two percent limitation provision of the Act, we agree with PPL Electric that this limitation on the 'total cost of any plan' should be interpreted as an annual amount, rather than an amount for the full term of the Plan." *2012 Implementation Order*, p. 34. PPL Electric has relied on the Commission's determination regarding the total cost. If this determination is altered, it would seriously jeopardize the potential success of the Plan. Accordingly, the designated expenditure cap of 2% of 2006 Annual Revenues for each year of the three-year plan equates to an average of approximately $61.5 million per year for three years and approximately $184.5 million for the Phase II EE&C Plan. *Id., see also* Phase II EE&C Plan, Section 7.

PPL Electric will spend most of the $184.5 million to implement its Phase II EE&C Plan. However, this total cost also will include the costs that PPL Electric incurred to develop its EE&C Plan. PPL Electric St. 3, p. 5; Phase II EE&C Plan, Section 7.2. In the *2012 Implementation Order*, the Commission again found that EDCs should be permitted to recover the incremental cost incurred to design, create, and obtain Commission approval of a plan. *2012 Implementation Order* at 103. In addition, the Commission directed, for accounting purposes, that EDCs defer Phase II EE&C Plan development costs incurred during Phase I as a regulatory asset until Phase II cost recovery rates become effective. *2012 Implementation Order* at 114. Consistent with this directive, PPL Electric will defer its Phase II development costs until the June 1, 2013, and proposes to amortize and recover those deferred costs ratably over the 36-

month life of its Phase II EE&C Plan. The amortization of those costs will be included within the $187.5 million spending cap.[37]

2. Cost Effectiveness/Cost-Benefit Issues

PPL Electric's proposed Phase II Plan is cost effective based on a TRC criterion. *See* Phase II EE&C Plan, Section 8; PPL Electric St. 2, p. 8. No party challenged the Company's cost effectiveness/cost-benefit determinations set forth in its Phase II EE&C Plan. It therefore should be adopted.

Specifically, the TRC benefit-to-cost ratio for the overall Phase II EE&C Plan is 1.73. PPL Electric St. 2, p. 8. This significantly exceeds the value of 1.0 required by Act 129 and is consistent with the benefit-cost ratio of well-performing programs in other states, especially considering Pennsylvania's set-aside savings requirement for low-income customers. *Id.*; Phase II EE&C Plan, Table 1; *see also*, Phase II EE&C Plan, Tables 7 - 7E (providing the TRC benefit-to-cost ratio by program per year and by customer sector). Cost effectiveness of the Phase II EE&C Plan is demonstrated in data presented in Section 3.2., Program Descriptions and Tables 7 - 7E. PPL Electric St. 2, p. 8. PPL Electric determined the life-cycle costs, savings, and avoided cost benefits for each measure to compute the measure's cost effectiveness from a TRC perspective. Application of the TRC test identified some measures and programs that did not meet the cost-effectiveness threshold. However, to ensure a well-balanced and comprehensive mix of measures, and to meet the Commission's requirement to include "comprehensive" measures for customers, and to meet the Commission's requirement for low-income savings, certain measures and programs with a TRC lower than 1.0 were included in the Phase II EE&C Plan. PPL Electric St. 2, p. 8.

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[37] This $187.5 million funding cap includes $3 million in allowable costs for SWE, *i.e.*, $184.5 million plus $3 million. *See* PPL Electric St. 3, p. 5.

3. Cost Allocation Issues

a. Residential Retail and Residential Appliance Recycling Programs Cost Allocation

OCA states that despite the fact that Small C&I customers are eligible to participate in PPL Electric's Residential Retail and Residential Appliance Recycling Programs, the Company has not assigned any costs associated with these programs to Small C&I customers. OCA St. 1, pp. 22-23. The Company's Residential Retail and Residential Appliance Recycling Programs are available to all customers; however, the EE&C Plan did not include any estimated costs for non-residential customers in these programs. PPL Electric St. 3-R, p. 2. These estimated costs were not included because the Company expects that non-residential participation will be less than 1% of the total costs for these programs. *Id.* If any non-residential customers participate in these programs, PPL Electric will charge those actual costs to the same customer sector as the participant. *Id.* Furthermore, PPL Electric's ACR reconciliation at the end of Phase II will account for any differences between the actual costs incurred for each customer sector and the actual revenues collected from each sector. *Id.* Therefore, PPL Electric does not believe that it is appropriate to revise the EE&C Plan to include these very minor estimated costs as it would require revisions to every table and chart in the EE&C Plan that includes costs for these programs or customer sectors. PPL Electric St. 3-R, p. 2. PPL Electric will incorporate these non-residential cost estimates when and if it modifies its Phase II EE&C Plan for other reasons during the course of Phase II. *Id.*

4. Commercial and Industrial Cost Allocation

No other party served testimony relative to PPL Electric's proposed allocation of cost in its Phase II EE&C Plan. However, at hearing, PPLICA conducted limited cross-examination of one of PPL Electric's witnesses. Tr. 57-66. However, it is not clear at this point in the proceeding whether PPLICA will file a brief, and what issues PPLICA may raise. PPL Electric will respond fully in its reply brief to any issues raised by PPLICA, but also reserves the right to object to issues raised by PPLICA for the first time on brief.[38]

5. Cost Recovery Issues

The Company proposes to separately calculate the applicable EE&C costs for each of the three major customer classes on its system, *i.e.*, (1) residential, (2) small C&I, and (3) large C&I. PPL Electric St. 3, p. 7; Phase II EE&C Plan, Sections 1.7, 7.4. These costs will vary in each program year of the Phase II EE&C Plan. In some program years, they may be greater than the annual two percent (2%) cost cap; in other program years, they may be less than the cap. However, over the three program years, the total costs of the Phase II EE&C Plan for all customer classes will not exceed $184.5 million. *Id.*

Although costs will vary year-to-year, PPL Electric proposes to recover those costs on a levelized basis. PPL Electric St. 3, p. 8; Phase II EE&C Plan, Sections 1.8, 7.4. Annual budget amounts for each customer class will be developed on a levelized basis for the three years of the Company's proposed Phase II EE&C Plan. *Id.* Section 2806.1(h) of Act 129 provides that the Commission can recover such program implementation costs from EDCs, and it follows that EDCs can recover those costs from customers. However, the costs for the statewide Act 129 evaluator should not be included under the Company's two percent (2%) cost cap. In establishing that cost cap, Section 2806.1(g) specifically characterizes the cap as a limitation on the "total costs of any plan required under this section." Because the costs of the statewide Act 129 evaluator are not the costs of PPL Electric's Phase II EE&C Plan, they are not subject to the limitation set forth in Section 2806.1(g). PPL Electric St. 3, p. 8.

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[38] *See Pa. P.U.C. v. Philadelphia Electric Co.*, 56 Pa. PUC 191, 236 (1982) (it is highly inappropriate for a party to raise new issues for the first time in its brief).

In addition to the annual reconciliation, PPL Electric proposes to make "mid-course" corrections in the cost recovery mechanism, subject to Commission review and approval, to reflect any major changes to any of its EE&C programs. PPL Electric St. 3, p. 10; Phase II EE&C Plan, Sections 1.7, 7.4. Finally, at the end of the three-year Phase II EE&C Plan, the Company will reconcile, subject to Commission review and approval, total revenue collected to its total expenditures for the three-year Phase II EE&C Plan. PPL Electric St. 3, p. 10.

The Commission's *2012 Implementation Order* directed that each EDC develop a Phase II reconcilable adjustment clause tariff mechanism in accordance with 66 Pa C.S. § 1307 and include this mechanism in its Phase II EE&C Plan. *2012 Implementation Order* at 118. The Phase II recovery mechanism is to be a separate cost recovery mechanism from that used in Phase I and will be accounted for and reconciled separately from Phase I funds. *Id.* PPL Electric's Phase II cost recovery mechanism is set forth in its *pro forma* supplement to Tariff-Electric Pa. PUC No. 201 and included as Appendix G to the Phase II EE&C Plan.[39]

F. CONSERVATION SERVICE PROVIDERS ISSUES

PPL Electric's implementation strategy will rely on a broad range of contractors, partners, trade allies, community agencies, and other entities engaged in energy efficiency to promote, deliver, and support the effective deployment of the portfolio of programs. PPL Electric St. 1, p. 26; Phase II EE&C Plan, Section 1.6.4. PPL Electric expects to utilize CSPs to deliver services in support of its EE&C programs, with some CSPs operating as turnkey program delivery contractors, and others providing specific program functions across multiple programs.

[39] PPL Electric notes that its current Act 129 Compliance Rider ("ACR") provides the final reconciliation procedure for the Company's Phase I Plan. Specifically, at the conclusion of the Phase I Plan, and all subsequent Plans, collections under the ACR for each customer class will be reconciled to the total cost of that EE&C Plan allowed by the Commission for that customer class. Over collections or under collections will be reflected in the E factor, and will be refunded or recovered through the ACR calculated for the first compliance year of the subsequent EE&C Plan. If the Company does not implement a subsequent EE&C Plan, the current ACR will be continued for an additional year to refund any over collections or recover any under collections. PPL Electric has not proposed to modify this reconciliation procedure in this proceeding.

PPL Electric St. 1, p. 26. No party challenged the Company's proposal set forth in its Phase II EE&C Plan; therefore the proposal should be adopted.

Furthermore, PPL Electric anticipates retaining certain current CSPs. PPL Electric is permitted to "retain, along with justification for retaining, a CSP and the cost associated with that contract." *2012 Implementation Order* at 94. PPL Electric is choosing to retain its Act 129 Phase I Appliance Recycling CSP and submitted the re-negotiated contract and justification for retaining that CSP with the Phase II EE&C Plan. PPL Electric also is in negotiations with a number of other Phase I program CSPs that merit consideration based on their performance in Phase I. All other program CSPs for Phase II are being selected via a competitive bid process. PPL Electric has established a schedule (Figure 5 of the Phase II EE&C Plan) for issuing RFPs for new programs and re-negotiating current programs. CSP contracts will be effective upon Commission approval. As stated above, no party challenged the Company's proposal with regard to CSPs.

G. IMPLEMENTATION AND EVALUATION ISSUES

1. Stakeholder Meeting Issues

Consistent with the Commission's order approving the Company's Phase I EE&C Plan, PPL Electric held a minimum of two stakeholder meetings per year. PPL Electric St. 1-R, p. 5. In advance of each of its Phase I stakeholder meetings, the Company circulated materials for review and discussion by stakeholders to ensure that the stakeholder meetings resulted in productive discussions among the Company and the stakeholders. *Id.* The Company found the process to be both informative and productive, and based upon the feedback received, the stakeholders agree. *Id.* Consistent with the above description, OCA characterized the Company's Phase I stakeholder process as being "robust." OCA St. 1, p. 3. However, despite the positive description of the Company's process, OCA proposes that the Company hold quarterly stakeholder meetings.

The Company does not agree with OCA's proposal. First, PPL Electric believes that the stakeholder process used during Phase I of its EE&C Plan, and in the preparation of its Phase II EE&C Plan, was very successful. PPL Electric St. 1-R, p. 6. Second, PPL Electric believes that a minimum of two formal stakeholder meetings per year plus PPL Electric's Quarterly Act 129 EE&C Reports are sufficient to keep stakeholders informed of the progress of PPL Electric's EE&C programs. *Id.* This is particularly the case during Phase II of the Company's Plan, as both PPL Electric and the stakeholders have become familiar with the Commission's Act 129 processes and have garnered significant experience about the operation of the Company's EE&C Plan. *Id.* Third, if PPL Electric proposes significant changes to its EE&C Plan during the course of Phase I or Phase II, stakeholders will have the ability to discuss and/or comment on proposed changes via the stakeholder process or before the Commission, as applicable (and to the extent practicable). *Id.* Finally, it takes a considerable amount of time to prepare for and hold stakeholder meetings. PPL Electric does not believe that additional meetings are necessary and would only serve to increase administrative costs and take PPL Electric staff time away from implementing the Phase II EE&C Plan. *Id.* For these reasons, PPL Electric does not support requiring the scheduling of additional stakeholder meetings, especially given the lack of any demonstrated need for such meetings.

2. Quality Assurance/Quality Control Issues

A detailed description of PPL Electric's Quality Assurance/Quality Control ("QA/QC") process and standards is provided in Section 6.1.1 of the Phase II EE&C Plan. No party challenged the Company's proposal. It, therefore, should be adopted. Quality assurance/quality control is integral to implementation plans for each program. *See* Phase II EE&C Plan, Sections

1.7.2 and 6.1.1. QA/QC procedures have been deployed at various levels of program development and implementation, including CSP recruitment and training, program operations, and implementation. PPL Electric's internal QA/QC staff meets with PPL Electric Customer Program Specialists responsible for managing each Program. PPL Electric's internal QA/QC procedures for Act 129 include:

1. Focus on anticipating, detecting, and preventing problems or errors rather than reacting to them.
2. Strive to ensure work is done correctly the first time.
3. Ensure CSPs utilize qualified individuals to perform all work functions through:
   i) A thorough, competitive hiring process for each CSP that mandates the use of appropriately skilled personnel;
   ii) Proper training of personnel to maintain current knowledge and skills needed for their position;
   iii) Adequate planning, coordination, supervision, and technical direction; and
   iv) Proper definition and a clear understanding of job requirements and procedures.

Phase II EE&C Plan, Sections 1.7.2 and 6.1.1.

3. Monitoring and Reporting Issues

The proposed Phase II EE&C Plan's Data Management, Quality Assurance and Evaluation Processes include the Energy Efficiency Management Information System ("EEMIS"). The EEMIS allows program activities to be tracked in near real time. This system generates reports and queries to allow ongoing monitoring, management, analysis, and reporting of activities. A detailed description of PPL Electric's EEMIS is provided in Section 5.2 of the Phase II EE&C plan. *See* Phase II EE&C Plan, Sections 1.7.1 and 5.2. No party challenged the Company's proposal set forth in its Phase II EE&C Plan. It, therefore, should be adopted.

4. Evaluation Issues

The proposed Phase II EE&C Plan includes procedures to measure, evaluate, and verify performance of the programs and the Plan as a whole. No party challenged the Company's proposal set forth in its Phase II EE&C Plan. It, therefore, should be adopted. As discussed in Section 6 of the proposed Phase II EE&C Plan, the Plan includes procedures to evaluate, measure, and verify ("EM&V") performance of the programs and the Plan as a whole, including an impact evaluation, a process evaluation, a net-to-gross evaluation, and a cost-effectiveness evaluation. *See* PPL Electric St. 1, p. 16. These procedures are detailed in PPL Electric's Evaluation Plan for each program and are approved by the SWE. *Id.* The annual cost-effectiveness evaluation of the Plan is conducted in accordance with the Commission's 2013 Total Resource Cost Test Order. Furthermore, the proposed Phase II EE&C Plan will be cost effective, based on a TRC criterion. PPL Electric St. 2, p. 8. Marketing and education functions, customer care and quality assurance, program tracking, and measurement, verification, and evaluation will be common features of all programs. PPL Electric St. 1, p. 16. Implementation activities range from simple, common energy efficiency measures that can be installed with minimal documentation and EM&V to more complex measures that require more-extensive documentation and EM&V. *Id.*

PPL Electric will prepare an Evaluation Plan for each program and submit it to the SWE for approval. Each program will have an impact evaluation, a process evaluation, a net-to-gross evaluation and a cost-effectiveness evaluation. All of these evaluations will be conducted by PPL Electric's independent evaluator (EM&V CSP). Phase II EE&C Plan, Section 1.7.3.

The impact evaluation will be conducted yearly and will focus on developing accurate estimates of the program's actual savings, based on protocols developed by the SWE and the Commission. The process evaluation will focus on qualitative assessments of the program's design, operation, and implementation. The process evaluation also will include an assessment to ensure all data required for the impact evaluation are collected. The cost-effectiveness evaluation will be conducted yearly to determine the cost-effectiveness of the programs and portfolio using the TRC test method specified by the Commission. The net-to-gross evaluation will be conducted yearly to determine the net verified savings of each program. Net savings includes the effects of free-ridership and spillover. PPL Electric develops an Evaluation Plan that describes the EM&V requirements for each program. Phase II EE&C Plan, Section 1.7.3.

H. OTHER ISSUES

PPL Electric has attempted to address in this Brief all of the issues raised during this proceeding. PPL Electric reserves the right to respond to arguments presented by parties during the briefing phase of this proceeding.

VI. CONCLUSION

WHEREFORE, for all the foregoing reasons, the Phase II Energy Efficiency & Conservation Plan of PPL Electric Utilities Corporation, with the modifications discussed herein, should be approved.

VII. PROPOSED ORDERING PARAGRAPHS

1. PPL Electric's Phase II EE&C Plan satisfies the requirements of Act 129, 66 Pa.C.S. § 2806.1, and the Energy Efficiency and Conservation Program Implementation Order, Docket No. M-2012-2289411, entered on August 3, 2012, and is therefore approved.

2. The individual programs listed in the Phase II EE&C Plan are approved.

3. The cost recovery mechanism proposed by PPL Electric is approved.

4. The *pro foma* Act 129 Compliance Rider to Tariff Electric - Pa. P.U.C. No. 201 is approved.

5. PPL Electric shall file appropriate tariff supplements in accordance with the Phase II EE&C Plan and this Order, to be effective upon one day's notice.

6. The proceeding at Docket No. M-2012-2334388 shall be marked closed.

Respectfully submitted,

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