

**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

PPL Electric Utilities Corporation

Statement No. 1

Direct Testimony of Mary Elizabeth Thompson Grassi

Date: December 4, 2012

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1 **Direct Testimony of Mary Elizabeth Thompson Grassi**

2 **Q. Please state your full name and business address.**

3 A. My name is Mary Elizabeth Thompson Grassi and my business address is 2 North Ninth
4 Street, Allentown, Pennsylvania 18101.

5
6 **Q. By whom are you employed and in what capacity?**

7 A. I am employed by PPL Electric Utilities Corporation (“PPL Electric” or the “Company”)
8 as a Customer Program Specialist.

9
10 **Q. What are your duties as Customer Program Specialist?**

11 A. I am responsible for coordinating the development of PPL Electric’s Phase II Act 129
12 Energy Efficiency and Conservation Plan (“Phase II EE&C Plan”).

13
14 **Q. What is your educational background?**

15 A. I hold a BS from State University of New York Plattsburgh, Plattsburgh, New York and a
16 MEd. from McGill University, Montreal, Canada.

17
18 **Q. Please describe your professional experience.**

19 A. Since 2007, I have been Customer Program Specialist at PPL Electric. In that capacity I
20 have been responsible for the development, deployment and management of a wide range
21 of energy efficiency, energy education and customer communication programs. I have
22 also been responsible for the drafting requests for proposals (“RFP”) and have negotiated
23 contract for Act 129 of 2008 (“Act 129” or the “Act”) energy efficiency program

1 services. Prior to joining PPL Electric, I was a Project Manager at the New York State
2 Energy Research and Development Authority where I, among other things, managed the
3 Low Income Forum on Energy (“LIFE”), a statewide program designed to gather
4 information used to develop public policy and design low income energy programs. I was
5 also the member of a team participating in New York Public Service Commission
6 proceedings on utility energy efficiency programs. Prior to that I was a Manager,
7 Consumer Advocacy at KeySpan Corporation, where I managed the Consumer Advocacy
8 Department. In that capacity I was responsible for its electric and gas customer
9 assistance and community outreach programs in New York and low income gas program
10 in New England. I also represent PPL Electric on the Board of the National Low Income
11 Energy Consortium (NLEEC).

12
13 **Q. Briefly describe the subject matter of your testimony in this proceeding.**

14 A. I will explain the objectives, philosophy, and process that PPL Electric applied to the
15 preparation of its Phase II EE&C Plan filed on November 15, 2012, as required by Act
16 129, and the Implementation Order issued by the Commission on August 3, 2012.
17 *Energy Efficiency and Conservation Program*, Docket Nos. M-2012-2289411, M-2008-
18 2069887, 2012 Pa. PUC LEXIS 1259 (Implementation Order entered on August 3, 2012)
19 (“*2012 Implementation Order*”).

20
21 **Q. Please describe the direct testimony submitted by the Company in this proceeding.**

22 A. PPL Electric has submitted 3 statements of direct testimony in support of its Petition filed
23 on November 15, 2012 and the Phase II EE&C Plan.

- 1 • The direct testimony of Mary Elizabeth Thompson Grassi (PPL Electric
2 Statement No. 1);
- 3 • The direct testimony of Dr. Hossein Haeri (PPL Electric Statement No. 2); and
- 4 • The direct testimony of Joseph M. Kleha (PPL Electric Statement No. 3).
- 5

6 **Q. Are you sponsoring any exhibits in this proceeding?**

7 A. Yes. Dr. Haeri, Mr. Kleha and I are co-sponsoring PPL Exhibit No. 1, PPL Electric's
8 Phase II EE&C Plan. Within that exhibit, I am primarily responsible for and am
9 sponsoring Sections 1, 4, 5, 6 and 9. Dr. Haeri is primarily responsible for and is
10 sponsoring Sections 2, 3 and 8. Furthermore, Mr. Kleha is primarily responsible for cost
11 recovery issues and is sponsoring Sections 1.8 and 7 of PPL Electric Exhibit No. 1.

12
13 **Summary of PPL Electric's Phase II EE&C Plan and its Objectives**

14 **Q. Please describe how PPL Electric's Phase II EE&C Plan is organized.**

15 A. The Phase II EE&C Plan is structured consistent with the template provided in the
16 September 26, 2012, Secretarial Letter, issued by the Commission at Docket No. M-
17 2012-2289411. The Phase II EE&C Plan is divided into the following ten sections: (1)
18 Overview of Plan; (2) Energy-Efficiency Portfolio/Program Summary Tables and Charts;
19 (3) Program Descriptions; (4) Program Management and Implementation Strategies; (5)
20 Reporting and Tracking Systems; (6) Quality Assurance and Evaluation, Measurement
21 and Verification; (7) Cost-Recovery Mechanism; (8) Cost-Effectiveness; (9) Plan
22 Compliance Information and Other Key Issues; and (10) Appendices.

23
24 **Q. Please provide a summary of PPL Electric's Phase II EE&C Plan.**

1 A. PPL Electric's Phase II EE&C Plan includes a broad portfolio of energy efficiency and
2 energy education initiatives and includes opportunities for participation by every
3 customer segment. PPL Electric's portfolio of programs is designed to meet the
4 Company's Phase II consumption reduction target and to comply with the other
5 requirements set forth in the Commission's *2012 Implementation Order*. As discussed
6 below, the Phase II EE&C Plan includes a range of energy efficiency programs that
7 include every customer segment in PPL Electric's service territory. These programs are
8 the key components of a comprehensive electric energy efficiency initiative designed to
9 achieve the required 821,072 MWh/yr.¹ of reduced energy consumption.

10

11 **Q. What are the primary objectives of the Phase II EE&C Plan?**

12 A. PPL Electric's primary objective is to deliver a portfolio of cost effective programs that
13 will meet customers' needs, fulfill the Company's Phase II EE&C Plan objectives, as
14 defined in Section 8 of the Phase II EE&C Plan, and achieve the results required by Act
15 129 and the Commission's *2012 Implementation Order*. Specifically, in the *2012*
16 *Implementation Order*, the Commission established the following consumption reduction
17 target for PPL Electric:

18 **Act 129 Phase II Three-Year Energy Efficiency Reduction Compliance Target**

19

EDC	Three-Year % of 2009/10 Forecast Reductions	Three-Year MWh Value of 2009/10 Forecast Reductions
PPL Electric	2.1	821,072

¹ The savings (consumption reductions) discussed herein are expressed as an annualized number (MWh/yr) regardless of whether it is an annual target or a cumulative target, *i.e.*, a three year target. This is because the savings occur every year the measure is installed.

1 This goal will be accomplished by offering customers cost-effective choices to reduce
2 their electricity consumption and to reduce their energy costs.

3 The Phase II EE&C Plan is also designed to meet the other requirements set forth by the
4 *2012 Implementation Order*. Specifically, those requirements are:

- 5 • Comply with the designated expenditure cap which is approximately \$184.5
6 million for the Phase II period.² The three-year plan will start on June 1, 2013
7 and conclude on May 31, 2016.
- 8
- 9 • Achieve a total overall energy reduction of at least 821,072 MWh/yr. by May 31,
10 2016.³ At least 25% of the energy reduction target must be achieved in each of
11 the three program years.⁴
- 12
- 13 • Achieve a minimum of 10% (82,107 MWh/yr.) of the total required energy
14 reductions from the institutional customer sector by May 31, 2016. The
15 institutional sector includes government, education, non-profit, and multifamily
16 housing (collectively referred to as “GNI” customers).⁵
- 17
- 18 • Achieve a minimum of 4.5% (36,948 MWh/yr.) of the total required energy
19 reductions from the low-income customer sector (<= 150% of Federal Poverty
20 Income Guidelines) by May 31, 2016. This includes savings from low-income
21 programs and low-income participation in general residential programs.⁶
- 22
- 23 • Ensure that the proportion of measures available to the low-income sector is at
24 least 9.95% of the total measures available to all customer sectors.⁷
- 25
- 26 • Offer at least one energy-efficiency program for each customer sector and offer a
27 reasonable mix of energy-efficiency programs for all customer sectors. Offer at
28 least one comprehensive measure for residential and commercial customer
29 sectors.⁸
- 30
- 31 • Ensure that the portfolio is cost-effective based on the Total Resource Cost Test
32 (“TRC”).⁹

² See p. 10, 22 and 24, *infra*; PPL Electric Statement No. 2 at 11; PPL Electric Statement No. 3 at 4-5.

³ See p. 5-6, *infra*; PPL Electric Statement No. 2 at 5-6.

⁴ See p. 11-12, *infra*.

⁵ See p. 11-13, *infra*.

⁶ See p. 13-14, *infra*.

⁷ See p. 14, *infra*.

⁸ See p. 15, *infra*.

⁹ See PPL Electric Statement No. 2 at 7-11.

- 1
- 2 • Allocate the cost of measures to the customer class(es) that receive(s) the
- 3 benefit of those measures.¹⁰
- 4
- 5 • Define the roles and responsibilities of Conservation Service Providers
- 6 ("CSP").¹¹
- 7
- 8 • Include procedures to measure, evaluate, and verify performance of the
- 9 programs and the plan as a whole. These procedures are described in PPL
- 10 Electric's Evaluation Plans, which are submitted separately and approved by
- 11 the Commission's Statewide Evaluator ("SWE").¹²
- 12
- 13 • Define a mechanism for recovery of all applicable costs.¹³
- 14

15 **Q. Please describe PPL Electric's overall strategy to achieve these objectives.**

16 A. PPL Electric's portfolio reflects a strategic approach that is targeted, yet flexible enough
17 to adjust, expand and contract, as warranted, to meet changing market conditions and
18 progress toward the Phase II EE&C Plan goals. The portfolio builds on customer, trade
19 ally, and stakeholder relationships established during Phase I through training, education,
20 installation of energy efficient measures, marketing strategies, and customer support.
21 PPL Electric's proposed portfolio will capitalize on energy efficiency initiatives
22 developed in Phase I coupled with existing programs, market knowledge, and community
23 presence to efficiently meet program goals and target market sectors.

24 To create a transition from Phase I to Phase II that is as quick and seamless as
25 possible for customers and trade allies, PPL Electric carefully evaluated each Phase I
26 program to determine its viability for Phase II. For programs and measures offered in
27 Phase I, PPL Electric program staff reviewed data to compare what was achieved against

¹⁰ See PPL Electric Statement No. 3 at 6.

¹¹ See p. 25-27, *infra*.

¹² See p. 16-17, *infra*.

¹³ See PPL Electric Statement No. 3 at 7-11.

1 what had been expected. Information from the SWE Electric Energy Efficiency Potential
2 for Pennsylvania Final Report (released by the Commission on May 10, 2012) (“Market
3 Potential Study”) was reviewed, including achievable potential, incremental costs,
4 kWh/yr. savings, and TRCs. Measures with a low savings and a low TRC were generally
5 excluded from the Phase II EE&C Plan. PPL Electric also considered market
6 transformation and free-ridership during the program planning process and excluded
7 some measures accordingly.

8 In summary, PPL Electric’s strategy to achieve the objectives is to maintain Phase
9 I measures and programs that had high customer acceptance and a high TRC value and to
10 add cost effective programs that were identified by the Company, the SWE Market
11 Potential Study, stakeholder input and general changes in technology.

12
13 **Q. Please describe the programs in the Phase II EE&C Plan that are part of the**
14 **Company’s portfolio approach.**

15 A. The proposed Phase II EE&C Plan includes a comprehensive portfolio of energy
16 efficiency and energy education initiatives. Specifically, the proposed portfolio consists
17 of the following programs:

18 **Continued from Phase I to Phase II:**

- 19 • Appliance Recycling
- 20 • Residential Retail Program (combines residential lighting and the portion of
21 the Residential Efficient Equipment program that includes appliances,
22 electronics, and water heating)
- 23 • Residential Energy-Efficiency Behavior & Education
- 24 • Low-income WRAP Program (with changes)
- 25 • E-Power Wise Program
- 26 • Prescriptive Equipment Small C&I, Large C&I and GNI Program (with
27 changes)
- 28 • Custom Incentive Small C&I, Large C&I and GNI Program (with changes)

1 **New Programs in Phase II:**
2

- 3 • Residential Home Comfort Program (hybrid combining the Phase I Audit and
4 Weatherization Program; the portion of Phase I Residential Efficient
5 Equipment program that includes HVAC and insulation; pool pumps; and a
6 new home component)
7 • Student and Parent Energy-Efficiency Education Program
8 • Low-income Energy-Efficiency Behavior & Education Program
9 • Master Metered Low-Income Multifamily Housing Program
10 • Continuous Energy Improvement Program
11 • School Benchmarking Program
12

13 A full description of each of these programs is set forth in Section 3.2 of the Phase II
14 EE&C Plan.

15 All of the Company's programs are voluntary for customers and, subject to the budget
16 limitations for each program, customers can elect to participate in any program for which
17 they are eligible. These programs include a range of energy-efficiency programs targeted
18 to every customer segment in PPL Electric's service territory. In compliance with the
19 Secretarial Letter dated September 26, 2012 at Docket No. M-2012-2289411, PPL
20 Electric has differentiated its programs according to the customer classes defined in the
21 EE&C Plan template. *See* Phase II EE&C Plan Section 3.2. However, PPL Electric's
22 programs are designed and implemented according to program delivery channels, the
23 nature of customers' businesses, types of facilities, and types of energy-using equipment,
24 rather than by the PPL Electric rate schedule for that customer. In other words, where
25 programs offer customer benefits across multiple classes, and where similar
26 implementation, marketing, and administrative strategies may be utilized to capture
27 functional efficiencies, those programs will be offered to all appropriate customer classes.
28 However, PPL Electric will document, track and report on its program results and
29 progress by the customer classes identified in its Phase II EE&C Plan.

1 **Compliance with the Requirements of Act 129 and 2012 Implementation Order**

2 **Q. Is the Phase II EE&C Plan designed to meet the consumption reduction target**
3 **within the designated expenditure cap?**

4 A. Yes. PPL Electric's portfolio of programs is designed to provide customer benefits and
5 to meet the Company's Phase II consumption reduction target and other program
6 requirements set forth in Act 129 and the *2012 Implementation Order*, within the
7 designated expenditure cap of two percent (2%) of 2006 annual revenues for each year of
8 the three-year plan, which equates to approximately \$184.5 million. The calculation of
9 this funding cap is discussed by Mr. Kleha in PPL Electric Statement No. 3.

10
11 **Q. Please describe the Company's strategy to ensure at least 25% of the total**
12 **consumption reduction target is achieved each program year.**

13 A. Consistent with the Commission's *2012 Implementation Order*, PPL Electric developed a
14 strategy to ensure at least 25% of the total consumption reduction target is achieved each
15 program year. However, as EDCs may not start implementing Phase II programs until
16 June 1, 2013 and retroactive transactions are not permitted (the measure must be installed
17 and operable no earlier than June 1, 2013), the first year of Phase II poses ramp-up
18 challenges. It is very difficult for PPL Electric to directly control actual participation
19 rates (e.g. market forces) with tight precision. PPL Electric has addressed these
20 challenges through the following activities and its Phase II Plan has approximately 30%
21 of its savings in PY5, 40% in PY6, and 30% in PY7. In an attempt to ensure that the
22 25% reduction target is met in PY5, PPL Electric identified and evaluated programs that
23 were successful in Act 129 Phase I, and is negotiating contracts with CSPs, as well as

1 making arrangements to continue those programs on June 1, 2013. Those programs are
2 expected to have a seamless and quick transition from Phase I to Phase II. PPL Electric
3 will monitor actual performance in near “real time” and will adjust marketing,
4 advertising, and incentives to increase or decrease participation levels as necessary to
5 ensure at least 25% of the savings in each year.

6
7 **Q. Please describe how the Company projects to achieve a minimum of 10% of the**
8 **total required energy reductions from GNI customers.**

9 A. As stated above, the *2012 Implementation Order* requires PPL Electric achieve a
10 minimum of 10% of the total required energy reductions from the Institutional customer
11 sector by May 31, 2016. The institutional sector includes government, education, non-
12 profit, and multifamily housing. For PPL Electric, that target is 82,107 MWh/yr. PPL
13 Electric’s EE&C Plan is designed to achieve 92,835 MWh/yr. savings from the GNI
14 sector (*see* Table 5a of the Phase II EE&C Plan) excluding carryover of excess GNI
15 savings from Phase I, which will exceed the compliance target. PPL Electric is offering a
16 mix of programs providing GNI customers with an extensive selection of program
17 opportunities. Savings from the Low-Income Multifamily Master Metered Program will
18 make up a portion of the GNI reduction target. The Continuous Energy Improvement
19 Program, working with schools, will also contribute to the GNI compliance target. The
20 remainder of compliance targets for GNI will be achieved from the Prescriptive Incentive
21 Program, including incentives for customer-owned area and LED street lighting, direct
22 installation of lighting and refrigeration (including promoting this component to schools)
23 and a wide array of other energy-efficiency measures, and from the Custom Incentive

1 Program. See Section 3.5 for a complete listing of GNI programs. Act 129 Phase I
2 provided PPL Electric staff and CSPs the opportunity to work directly and develop solid
3 relationships with school facility managers, staff from municipalities and government
4 offices, and from non-profit agencies. These effective relationships and GNI programs
5 were instrumental in helping PPL Electric to achieve its Phase I GNI compliance target a
6 year ahead of the deadline.¹⁴ PPL Electric plans to capitalize on these relationships and
7 GNI program implementation experiences when marketing and implementing the Phase
8 II programs designed for this sector.

9
10 **Q. Does the Phase II EE&C Plan emphasize multifamily housing within the GNI**
11 **sector?**

12 A. Yes. The Commission also encouraged EDCs to give special emphasis to multifamily
13 housing within the GNI sector in the Phase II EE&C Plans. *2012 Implementation Order*
14 at 49. PPL Electric has designed a program to address energy-efficiency within
15 multifamily low-income master metered buildings. The Multifamily Master Meter Low-
16 Income Program will use direct installation and rebates to encourage electric efficiency in
17 multifamily buildings and will provide between 6,000 and 10,000 MWh/yr. toward the
18 required GNI ten percent (10%) reduction goal.

19
20 **Q. Please describe how the Company projects to achieve a minimum of 4.5% of the**
21 **total required energy reductions from the low-income customer sector.**

¹⁴ See "Final Annual Report to the PA PUC for Program Year 3," dated November 15, 2012, page 10.

1 A. As stated above, the *2012 Implementation Order* requires PPL Electric to achieve a
2 minimum of 4.5% (36,948 MWh/yr.) of the total required reductions from the low-
3 income customer sector (\leq 150% of Federal Poverty Income Guidelines) by May 31,
4 2016. This includes savings from low-income programs and low-income participation in
5 general residential programs. As shown in Table 5a of the Phase II EE&C Plan, PPL
6 Electric has designed its plan to achieve 22,091 MWh/yr. from low-income programs. In
7 addition, PPL Electric estimates it will achieve 49,192 MWh/yr. from low-income
8 participation in general residential programs. Therefore, the total savings expected from
9 the low-income sector is 71,283 MWh/yr. which is 8.68% of the total required reductions
10 (821,072 MWh/yr. compliance target) which exceeds the 36,948 MWh/yr. compliance
11 requirement for the low-income sector.

12 The actual savings from low-income participation in general residential programs
13 will be determined by PPL Electric's independent evaluator during the annual impact
14 evaluation in accordance with the method approved by the SWE. The estimate included
15 in the Phase II EE&C Plan is based on actual data from Phase I. PPL Electric determines
16 the number of low-income households participating in programs open to all residential
17 customers using the methodology approved by the Commission and outlined in the PPL
18 Electric memo, *Method to Estimate Low-Income Savings in Non-Low-Income Programs*,
19 dated June 1, 2011.

20
21 **Q. Please describe the programs available to the low-income sector.**

22 A. As described in Section 3.2.1 of the Phase II EE&C Plan, PPL Electric is offering various
23 programs designed for low-income customers. The specific programs designed for low-

1 income customers are: Low-Income WRAP; E-Power Wise Program; and, Low-Income
2 Energy-Efficiency Behavior & Education Program. In addition to its low income
3 programs, all low-income customers are eligible to participate in all general residential
4 programs.

5
6 **Q. Does PPL Electric's Phase II EE&C Plan meet the requirement in the 2012**
7 ***Implementation Order* that the proportion of measures available to the low-income**
8 **sector is at least 9.95% of the total measures available to all customer sectors?**

9 A. Yes. As shown in Appendix E of the Phase II EE&C Plan, PPL Electric's proposal has at
10 least 19% of its total measures available to the low-income sector.

11
12 **Q. Does the Phase II EE&C Plan include at least one comprehensive measure for**
13 **residential and small commercial rate classes.**

14 A. Yes. The Commission's 2012 *Implementation Order* requires that PPL Electric's Phase
15 II EE&C Plan include at least one comprehensive measure for residential and small
16 commercial rate classes. 2012 *Implementation Order* at 20. PPL Electric has proposed
17 to include a Home Comfort Program in its Phase II EE&C Plan. This program is
18 designed for new and existing homes and will include an incentive for contractors
19 building energy-efficient new homes and customer incentives for audits and
20 weatherization for existing homes. To meet the requirement for the Small Commercial
21 and Industrial ("C&I") sector, as part of the Prescriptive Energy Efficiency Program, PPL
22 Electric is offering free audits and a comprehensive choice of measures specifically for
23 farms and the Continuous Energy Improvement Program and the Benchmarking Program

1 for schools. In addition, customers can implement other comprehensive measures through
2 PPL Electric's Custom Incentive Program.

3
4 **Q. Does the Phase II EE&C Plan offer at least one energy-efficiency program for each**
5 **customer sector?**

6 A. Yes. As illustrated in Section 3, Table C, of the Phase II EE&C Plan, the Company is
7 ~~offering at least one energy-efficiency program for each customer sector, i.e., the~~
8 residential, Small C&I and Large C&I customers sectors, as well at the low-income
9 customers and the GNI costumers.

10
11 **Q. Does the Phase II EE&C Plan contain a variety of energy-efficiency and**
12 **conservation measures for all customer sectors and an equitable distribution of**
13 **measures and programs**

14 A. Yes. PPL Electric developed a plan that would satisfy and balance the requirements of
15 Act 129. Each customer class has an opportunity to choose from a variety of energy-
16 efficiency and conservation programs. As reflected in the proposed Phase II EE&C Plan,
17 the proportions among the different sectors and classes demonstrate an equitable
18 distribution of savings among customer sectors and are reasonably close to the
19 percentages of market potential attributable to these sectors (residential and non-
20 residential) per the SWE's Market Potential Study. As shown in Table 3 of the Phase II
21 EE&C Plan, the proportion of the Phase II EE&C Plan's budget for each customer sector
22 is reasonably distributed and reasonably close to each sector's share of total PPL Electric
23 revenue and reasonably close to the percentage of savings for each sector described

1 above, given that the program acquisition cost for residential programs is less than non-
2 residential programs.

3 There are numerous program choices for each customer sector and within those
4 programs, there is a variety of measures available. For example, within the Prescriptive
5 Equipment Small C&I there are 20 measures that provide incentives. In the Residential
6 Retail Program, rebates are available for ENERGY STAR® refrigerators, televisions and
7 heat pump water heaters as well as receive CFLs and specialty bulbs at a discount.

8
9 **Evaluating the Performance of the Programs in the Phase II EE&C Plan**

10 **Q. What procedure is the Company proposing to measure, evaluate, and verify**
11 **performance of the programs in the Phase II EE&C Plan?**

12 A. As discussed in Section 6 of the proposed Phase II EE&C Plan, the Plan includes
13 procedures to evaluate, measure, and verify (“EM&V”) performance of the programs and
14 the Plan as a whole, including an impact evaluation, a process evaluation, a net-to-gross
15 evaluation, and a cost-effectiveness evaluation. These procedures are detailed in PPL
16 Electric’s Evaluation Plan for each program, and are approved by the SWE. The annual
17 cost-effectiveness evaluation of the Plan is conducted in accordance with the
18 Commission’s 2013 Total Resource Cost Test Order. Furthermore, Dr. Haeri, in PPL
19 Electric Statement No. 2, concludes that the proposed Phase II EE&C Plan will be cost
20 effective, based on a TRC criterion.

21 Marketing and education functions, customer care and quality assurance, program
22 tracking, and measurement, verification, and evaluation will be common features of all
23 programs. Implementation activities range from simple, common energy efficiency

1 measures that can be installed with minimal documentation and EM&V to more complex
2 measures that require more-extensive documentation and EM&V.

3

4 **Q. What is the Company's approach to quality assurance and quality control?**

5 A. Each program is managed by a Customer Program Specialist who is responsible for the
6 quality assurance and quality control of the services or products being offered. CSPs
7 working with trade allies have a clause in their Statements of Work requiring them to
8 conduct quality control or quality assurance on a specific number of projects or jobs that
9 are completed. In addition, PPL Electric retains a percentage of each monthly invoice
10 submitted by a CSP against achievement of plan year goals which include, in part,
11 customer satisfaction levels which include the quality of work performed. Lastly, PPL
12 Electric's EM&V contractor evaluates the quality of program delivery at the end of each
13 plan year and provides a report on each program that includes deficiencies in quality and
14 recommendations for improvement.

15 Furthermore, as discussed in Section 6 of the Phase II EE&C Plan, a continuous
16 improvement process ("CIP") is the framework for PPL Electric's management of its
17 Phase II Plan portfolio. The basic principle in CIP is the establishment of effective
18 quality assurance and quality control ("QA") and EM&V procedures to track program
19 activities, monitor performance and progress toward targets, and take corrective measures
20 when warranted. The CIP will consist of three essential elements: (1) activity tracking,
21 (2) QA/QC, and (3) process and impact evaluations.

22

23 **Q. Please describe the reporting and tracking mechanisms in the Phase II EE&C Plan.**

1 A. PPL Electric will provide quarterly, annual, and ad hoc reports to the Commission and
2 the SWE in accordance with the schedule, format, and content prescribed by the
3 Commission/SWE for those reports. Furthermore, PPL Electric will continue to use its
4 Energy Efficiency Management Information System (“EEMIS”) to record energy-
5 efficiency transactions and calculate reported savings. PPL Electric uses its corporate
6 accounting system to track all energy-efficiency program cost information. PPL Electric
7 uses its corporate business intelligence system (MicroStrategy) for internal analysis and
8 internal reporting of energy-efficiency programs. PPL Electric will modify EEMIS as
9 necessary to incorporate Phase II changes to programs and the Commission/SWE’s
10 reports, data extracts, *etc.* For internal management purposes, a monthly report that
11 includes cost to date, savings to date, current initiatives or issues, and upcoming
12 initiatives for that program is generated. This monthly report provides timely
13 information with which to identify potential program problems or under or over
14 performance so that appropriate action can be taken.

15
16 **Q. What uncertainties may affect PPL Electric’s ability to meet these objectives?**

17 A. As discussed in Section 1.2. of the Phase II EE&C Plan, the major uncertainties fall into
18 the following categories: (1) the state of the economy is constraining customer’s
19 willingness to make investments in energy-efficiency measures; (2) the impact of future
20 changes to the Technical Resource Manuals (“TRM”), TRC or other market forces that
21 reduce the savings attributable to energy efficiency measures; and (3) the limited time
22 available to design and implement the Phase II EE&C Plan, particularly to launch new
23 programs. PPL Electric has developed its Phase II EE&C Plan to exceed its Phase II

1 consumption reduction target by approximately 2.5% (without the Phase I carryover) to
2 16% (including the Phase I carryover) in order to provide a reasonable margin for
3 uncertainty. PPL Electric estimates a carryover of 110,000 MWh/yr. from Phase I. The
4 over-compliance and carryover provides the flexibility to accommodate lower per-
5 measure savings or to provide additional savings to customers. However, there are
6 several uncertainties associated with PPL Electric's ability to achieve these targets within
7 the constraints of the Act 129 requirements.

8 Although the Phase II EE&C Plan has taken these uncertainties into
9 consideration, the ability to meet the projected targets ultimately is a function of
10 consumers' willingness to participate in specific programs. In order to make the energy
11 efficient measures attractive, PPL Electric has set incentives at a level that offsets much
12 of the incremental cost of the more energy efficient measure. Further, PPL Electric has
13 designed its programs to engage trade allies in promoting energy efficiency to their
14 customers. The incentive levels offered by the PPL Electric Utility programs have
15 proven to be effective for trade allies to offer the more energy efficient options to their
16 customers to the mutual benefit of all parties.

17
18 **Q. What steps has the Company taken to address the uncertainties with the timing of**
19 **customer participation and to ensure a minimum of 25% of the savings in each plan**
20 **year?**

21 **A.** To address the uncertainties associated with the timing of customer participation and to
22 ensure a minimum of 25% of the savings in each plan year in the Phase II EE&C Plan,
23 PPL Electric, CSPs, and trade allies have worked together to develop strategies that

1 mitigate the delivery programs in a manner that levelized the pace at which savings will
2 be accrued throughout the three year Plan. Specifically, PPL Electric has worked with
3 trade allies to assess and expedite, where necessary, the availability of trained and
4 qualified personnel to deliver services, especially in the early stages of the Phase II
5 EE&C Plan

6 In addition, PPL Electric's Phase II EE&C Plan includes ranges for incentives.
7 ~~PPL Electric can adjust the incentives within those ranges to help maintain participation~~
8 levels within the estimated ranges included in the EE&C Plan to help ensure a minimum
9 of 25% of the savings occurs in each program year.

10 Additionally, PPL Electric will continue some of its Phase I programs and CSPs
11 for Phase II. That is expected to provide a relatively seamless transition for customers
12 and trade allies for some programs, and that will help to mitigate some of the normal
13 "ramp rate" limitations in the first program year (PY5) of Phase II. PPL Electric will
14 included a required minimum energy savings objective of 25% of the total savings for the
15 contract in each of the CSP contracts that span three years. Failure to meet the 25%
16 savings requirement would result in the CSP forfeiting some or all of the retention
17 amount PPL Electric withholds from each monthly invoices during the plan year true up
18 of the CSPs goal attainment.

19
20 **Q. What steps has the Company taken to address the likelihood of future changes to**
21 **the TRM, TRC and other market forces, that have the potential to result in further**
22 **downward adjustments to savings in the future?**

1 A. To address the likelihood of future changes to the TRM, TRC and other market forces
2 that have the potential to result in further downward adjustments to savings in the future,
3 PPL Electric designed its Phase II EE&C Plan to use the savings assumptions from the
4 Commission's proposed 2013 TRM. As noted previously, from this vantage point it is
5 not possible to know how changes in the 2014 or 2015 TRM may decrease savings, but
6 such change could negatively impact the success of the Phase II EE&C Plan. PPL
7 Electric will utilize savings in excess of the Phase I compliance requirement as a hedge
8 against additional unforeseen changes to the TRM in 2014 and 2015. *See* Phase II EE&C
9 Plan Section 9.1.2.

10 PPL Electric will continue to use the protocols established in Phase I to
11 effectively monitor progress toward meeting the Phase II EE&C Plan goals, to detect
12 problems quickly, and take corrective action, and to continually and quickly adjust the
13 Phase II EE&C Plan prospectively over time.

14

15 **Development of the Phase II EE&C Plan**

16 **Q. What process did PPL Electric use to develop its Phase II EE&C Plan?**

17 A. The requirements of Act 129 and the Commission's *2012 Implementation Order* formed
18 the basis for development of the Phase II EE&C Plan. The Company, along with The
19 Cadmus Group ("Cadmus"), a nationally recognized energy consulting firm, carefully
20 reviewed Act 129, the *2012 Implementation Order*, and the Phase I EE&C Plan to
21 identify the broad requirements, energy savings and allowable annual expenditures, and

1 other requirements for PPL Electric. The maximum allowable budget identified in the
2 *2012 Implementation Order* for PPL Electric is \$184.5 million.¹⁵

3 The process for developing the Phase II EE&C Plan consisted of establishing a set
4 of guiding principles, including: (1) using a top-down approach to establish possible
5 targets based on Phase I achieved performance by sector; (2) evaluating energy-
6 efficiency measures by potential, cost, and TRC, using the SWE Market Potential Study;
7 (3) developing and balancing the portfolio to meet all of the requirements of Act 129; (4)
8 providing opportunities for stakeholders to participate and contribute to plan development
9 by having them review plans, assumptions and program concepts; and (5) making
10 adjustments based on what is affordable, customer feedback, stakeholder input, and the
11 requirements set forth in the Act 129. The consumption reduction target, the 2%
12 expenditure cap, TRC cost-effectiveness of the portfolio, and the GNI and low-income
13 set-asides all played a role in defining the major parameters and constraints for
14 developing the portfolio.

15 PPL Electric's development of the portfolio and subsequent revisions began by
16 thoroughly evaluating what was being achieved in Phase I for each customer sector. In
17 addition, PPL Electric Program Staff identified possible programs for consideration in
18 Phase II, including, those that were successfully being offered by other utilities and those
19 programs recommended by stakeholders, trade allies, and CSPs. Based on this review,
20 PPL Electric developed a portfolio of programs, targeting different customer classes,
21 designed to achieve the consumption reduction target set by the Commission. The

¹⁵ Funding cap excludes \$3 million estimated cost for SWE.

1 programs were formulated in a manner to ensure that program options are available for
2 all customer classes and market segments.

3
4 **Q. Did PPL Electric solicit input from and inform stakeholders of the Company's**
5 **efforts to develop its Phase II EE&C Plan?**

6 A. Yes. During the preparation of this Phase II EE&C Plan, PPL Electric held numerous
7 stakeholder meetings with average attendance of 35 to solicit input from and inform
8 stakeholders of the Company's progress, to seek their input and reaction to possible
9 programs, and to benefit from their suggestions about new programs or new approaches.
10 At each stakeholder meeting, questions and suggestions raised from the previous meeting
11 were addressed. In addition, PPL Electric maintained an email mailbox to which
12 stakeholders could send additional comments or suggestions at any time. Furthermore,
13 the Company maintained communications with a wide range of interested parties,
14 including other investor-owned utilities, consumer advocates, environmental advocates,
15 non-utility parties, governmental and non-governmental organizations, potential trade
16 allies and CSPs.

17 PPL Electric considered input of participating stakeholders, and, where further
18 research and analysis deemed appropriate, added new programs/measures and refined
19 others contained in its Phase II EE&C Plan. Key information about stakeholder
20 participation, including meeting dates and topics discussed with the participants is
21 summarized in Section 1.2.6. of the Phase II EE&C Plan. Although it was not possible to
22 include every recommendation received through the stakeholder process due to budget
23 constraints or benefit to cost concerns, the Company carefully considered the input it

1 received from its stakeholders. PPL Electric intends to meet with stakeholders, as
2 needed, but not less than twice annually until May 31, 2016 and use their input to help
3 identify modifications that would improve the efficiency or cost effectiveness of the
4 Phase II EE&C Plan (subject to regulatory approval where required).

5
6 **Q. How did the Company develop the portfolio of programs in its EE&C Plan?**

7 A. As discussed in Section 1.2.4. of the Phase II EE&C Plan, the energy-saving targets, the
8 expenditure cap, cost-effectiveness of the portfolio, the GNI and low-income set-asides,
9 and the customer equity guidelines established by Act 129 defined the major parameters
10 and constraints for developing the portfolio. Development of the portfolio and
11 subsequent revisions began with a “top-down” process that involved evaluating each
12 sector based on what was being achieved in Act 129 Phase I. At the same time, PPL
13 Electric Program Staff evaluated program and measure levels from the “bottom up” and
14 identified possible programs for consideration in Phase II: those that were innovative,
15 those that were successfully being offered by other utilities and those programs requested
16 by customers, trade allies, CSPs, and stakeholders.

17
18 **Implementation Strategy**

19 **Q. Please summarize PPL Electric’s strategy to implement the plan after Commission
20 review and approval.**

21 A. The proposed Phase II EE&C Plan includes a three-year implementation schedule to
22 achieve its Phase II consumption reduction target. PPL Electric’s implementation
23 strategy is based on several key features that the Company has identified as critical to

1 achieving the objectives of the proposed Phase II EE&C Plan. Phase II EE&C Plan
2 Section 1.6. Furthermore, PPL Electric intends to issue CSP RFPs for programs prior to
3 final program approval from the Commission with the understanding that all programs
4 are subject to modification by the Commission and that work may not begin on the
5 program until Commission approval is received in mid March 2013. Final approval of
6 PPL Electric's plan will trigger a period of time during which the CSP will begin
7 ~~preparations for program implementation on June 1, 2013. It is critical that CSPs begin~~
8 program implementation quickly because a minimum of 25% of the total plan savings is
9 due in each plan year. CSP preparations may include some or all of the following:
10 development and review of marketing plans and materials, development of systems to
11 upload savings to PPL Electric's tracking system, staffing up and/or providing training to
12 staff; and, developing trade ally networks.

13 As noted above, PPL Electric intends to implement a strategy to ensure at least
14 25% of the Company's total consumption reduction target is achieved each program year.
15 The Phase II EE&C Plan also includes a detailed budget, which includes milestones and
16 anticipated delivery dates for each program.

17
18 **Q. Please explain key features that the Company identified as critical to achieving the**
19 **objectives of the proposed Phase II EE&C Plan?**

20 A. The first feature is continuous customer support, guidance and follow up to encourage
21 customers to choose energy efficiency and conservation options and to adopt energy
22 efficient practices. The second feature is the flexibility to allow customers to use their
23 own resources and combine incentives from multiple programs or from other sources to

1 create the best solution for any facility or system. The third feature is precision
2 marketing that blends PPL Electric's in-house resources with the external expertise of
3 program CSPs and trade allies to match specific program outreach to the unique needs of
4 various customer classes and market segments. The final feature is to engage trade allies,
5 community-based organizations, and other local market participants through outreach,
6 training, and potential co-marketing to ensure that they are aware of PPL Electric's
7 programs, are able to articulate program features and benefits to potential customers, and
8 can support customers in their decision to take energy efficiency reduction actions.

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

16
17 **Q. Does PPL Electric anticipate retaining any current CSPs?**

18 A. Yes. PPL Electric is permitted to "retain, along with justification for retaining, a CSP and
19 the cost associated with that contract." *2012 Implementation Order* at 94. PPL Electric is
20 choosing to retain its Act 129 Phase I Appliance Recycling CSP and, submitted the re-
21 negotiated contract and justification for retaining that CSP with the Phase II EE&C Plan.
22 At the time of filing this testimony, PPL Electric is in preliminary negotiations with two
23 other Phase I program CSPs that merit consideration based on their performance in Phase

1 I. All other program CSPs for Phase II are being selected via a competitive bid process.
2 No determination has been made yet on CSPs that serve common functions attributable to
3 multiple programs. PPL Electric has established a schedule (Figure 5 of the Phase II
4 EE&C Plan) for issuing RFPs for new programs and re-negotiating current programs.
5 CSP contracts will be effective upon Commission approval of PPL Electric's Phase II
6 EE&C Plan, to ensure a smooth transition and start of programs on June 1, 2013.

7
8 **Public Interest**

9 **Q. Do you believe that the Company's proposed Phase II EE&C Plan is in the public**
10 **interest?**

11 A. Yes. The requirements of Act 129 are consistent with PPL Electric's overall business
12 philosophy. PPL Electric has a history of promoting energy-efficiency and conservation
13 and striving for excellence in customer service. PPL Electric's implementation and
14 management of its Act 129 Phase I EE&C Plan reflected this philosophy. PPL Electric
15 believes that the proposed Phase II EE&C Plan is in the public interest and in compliance
16 with the requirements of Act 129 and all of the Commission's applicable Act 129 Orders.
17 The Phase II EE&C Plan includes a broad range of cost effective energy efficiency
18 programs that are targeted to every customer segment in PPL Electric's electric service
19 territory. Moreover, these programs are the key components of a comprehensive electric
20 energy efficiency initiative designed to achieve energy consumption reductions required
21 by Act 129 and the Commission's *2012 Implementation Order* within the cost cap
22 established by Act 129. PPL Electric's energy efficiency programs provide a cohesive
23 structure intended to support residential, low-income, commercial and industrial, and

1 government and non-profit sector customers through a logical continuum of energy
2 efficiency actions, starting with facility review and analysis and ending with
3 implementation, verification, and evaluation. Marketing and education functions,
4 customer care and quality assurance, and program tracking, evaluation, monitoring, and
5 verification will be common features of all programs in the Phase II EE&C Plan.
6 Furthermore, the programs are supported by financial incentives and a delivery approach
7 focused on providing customers with the support they need to achieve their efficiency
8 objectives.

9

10 **Q. Does this conclude your direct testimony?**

11 **A. Yes, it does.**