POST & SCHELL PC
ATTORNEYS AT LAW

17 North Second Street
12th Floor
Harrisburg, PA 17101-1601
717-731-1970 Main
717-731-1985 Main Fax
www.postschell.com

Jessica R. Rogers

jrogers@postschell.com
717-612-6018 Direct
717-731-1985 Direct Fax
File #: 2507/140056

January 15, 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 a Distribution System Improvement Charge
Docket No. P-2012-2325034

Dear Secretary Chiavetta:

Enclosed please find the Petition of PPL Electric Utilities Corporation for Approval of a Distribution System Improvement Charge. Copies will be provided as indicated on the Certificate of Service.

Respectfully,

Jessica R. Rogers

JRR/skr
Enclosures

cc: Certificate of Service
Honorable Robert F. Powelson
Honorable Pamela A. Witmer
Honorable John F. Coleman, Jr.
Honorable James H. Cawley
Honorable Wayne E. Gardner
Bohdan Pankiw Esquire
Paul T. Diskin

CERTIFICATE OF SERVICE

I hereby certify that true and correct copies of the foregoing **Petition** have 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).

Via E-Mail

Tanya J. McCloskey, Esquire
Candis A. Tunilo, Esquire
Darryl Lawrence, Esquire
Office of Consumer Advocate
555 Walnut Street
5th Floor, Forum Place
Harrisburg, PA 17101-1923

Steven C. Gray, Esquire
Daniel G. Asmus, Esquire
Sharon E. Webb, Esquire
Office of Small Business Advocate
300 North Second Street
Harrisburg, PA 17101

Regina L. Matz, Esquire
Bureau of Investigation & Enforcement
PO Box 3265
Commonwealth Keystone Building
400 North Street, 2nd Floor West
Harrisburg, PA 17105-3265

Joseph L. Vullo, Esquire
Burke Vullo Reilly Roberts
1460 Wyoming Avenue
Forty Fort, PA 18704
Commission on Economic Opportunity

Adeolu A. Bakare, Esquire
Pamela C. Polacek, Esquire
McNees Wallace & Nurick LLC
100 Pine Street
P.O. Box 1166
Harrisburg, PA 17108-1166
PP&L Industrial Customer Alliance

Todd S. Stewart, Esquire
Hawke McKeon & Sniscak LLP
100 N. 10th Street
PO Box 1778
Harrisburg, PA 17101
Dominion Retail, Inc.
d/b/a Dominion Energy Solutions

Scott J. Rubin, Esquire
Public Utility Consulting
333 Oak Lane
Bloomsburg, PA 17815
International Brotherhood of Electrical Workers, Local 1500

Kenneth L. Mickens, Esquire
The Sustainable Energy Fund of Central Eastern Pennsylvania
316 Yorkshire Drive
Harrisburg, PA 17111
Sustainable Energy Fund of Central Eastern Pennsylvania

Daniel Clearfield, Esquire
Carl R. Shultz, Esquire
Eckert Seamans Cherin & Mellott, LLC
213 Market Street, 8th Floor
PO Box 1248
Harrisburg, PA 17108
Granger Energy of Honey Brook LLC &
Granger Energy of Morgantown LLC

Deanne M. O'Dell, Esquire
Eckert Seamans Cherin & Mellott, LLC
213 Market Street, 8th Floor
Harrisburg, PA 17101
Direct Energy Services LLC

Eric Joseph Epstein
4100 Hillsdale Road
Harrisburg, PA 17112

Edmund J. Berger, Esquire
Berger Law Firm PC
2104 Market Street
Camp Hill, PA 17011
Richards Energy Group, Inc.

Date: January 15, 2013

Jessica R. Rogers

10368169v1

BEFORE THE
PENNSYLVANIA PUBLIC UTILITY COMMISSION

Petition of PPL Electric Utilities	:	
Corporation for Approval of a Distribution	:	Docket No. P-2012-2325034
System Improvement Charge	:	

Petition of PPL Electric Utilities Corporation for Approval of a Distribution System Improvement Charge

---

Pursuant to the Public Utility Code ("Code"), 66 Pa. C.S. Section 1353, PPL Electric Utilities Corporation ("PPL Electric" or the "Company") hereby files this Petition seeking approval of a Distribution System Improvement Charge ("DSIC"). This filing is being made pursuant to the Final Implementation Order of the Pennsylvania Public Utility Commission (the "Commission") entered at Docket No. M-2012-2293611 on August 2, 2012.[1] As described in this Petition, and in the testimony and exhibits supporting it, PPL Electric has been in the process of evaluating, improving, repairing, and replacing its distribution related facilities and equipment at an accelerated rate. The DSIC will allow PPL Electric to maintain the accelerated schedule described in its Long-Term Infrastructure Improvement Plan ("LTIIP") without the risk of delay and uncertainty that would be associated with annual base rate filings to recover the costs of these investments.

By this Petition, the Company respectfully requests that the Commission approve PPL Electric's proposed DSIC to be effective May 1, 2013.

---

[1] *Implementation of Act 11 of 2012*, Docket No. M-2012-2293611, entered on August 2, 2012. ("Final Implementation Order").

I. INTRODUCTION

1. PPL Electric provides electric distribution, transmission and provider of last resort services to approximately 1.4 million customers in a certificated service territory that spans approximately 10,000 square miles in all or portions of 29 counties in eastern and central Pennsylvania. PPL Electric is a "public utility" and an "electric distribution company" as those terms are defined under the Code, 66 Pa. C.S. §§ 102 and 2803.

2. PPL Electric's attorneys are:

Paul E. Russell (I.D. #21643)
Associate General Counsel
PPL Services Corporation
Two North Ninth Street
Allentown, PA 18101
Voice: 610-774-4254
Fax: 610-774-6726
E-mail: perussell@pplweb.com

David B. MacGregor (I.D. #28804)
Post & Schell, P.C.
Four Penn Center
1600 John F. Kennedy Boulevard
Philadelphia, PA 19103-2808
Voice: 215-587-1197
Fax: 215-320-4879
E-mail: dmacgregor@postschell.com

Jessica R. Rogers (ID #309842)
Post & Schell, P.C.
17 North Second Street
12th Floor
Harrisburg, PA 17101-1601
Voice: 717-612-6018
Fax: 717-731-1985
E-mail: jrogers@postschell.com

PPL Electric's attorneys are authorized to receive all notices and communications regarding this filing.

3. On February 14, 2012, Governor Corbett signed into law Act 11 of 2012 ("Act 11"), which, among other things, amends Chapter 13 of Title 66 of the Code to allow the Commission to approve a DSIC for electric distribution companies ("EDCs"). The DSIC is designed to facilitate the recovery of reasonable and prudent costs incurred to repair, improve or replace certain eligible distribution property that is part of the EDC's distribution system. Eligible property for electric distribution companies is defined in Section 1351 of the statute. *See* 66 Pa. C.S. § 1351(1). As a precondition to the implementation of a DSIC, each utility must file an LTIIP with the Commission that is consistent with the provisions of Section 1352 of the statute. *See* 66 Pa. C.S. § 1352(a).

4. The Final Implementation Order establishes procedures and guidelines necessary to implement Act 11 and specifically adopts the requirements established in Section 1353 for the DSIC filing. In addition, the Commission provided a model tariff which the utilities were instructed to use in preparing their DSIC tariff.

5. Specifically, Section 1353 requires utilities to file a petition seeking Commission approval of a DSIC. The statute provides that such a petition must include the following:

> (a) An initial tariff that complies with the model tariff adopted by the Commission, which will include
>
> (i) A description of eligible property;
>
> (ii) The effective date of the DSIC;
>
> (iii) Computation of the DSIC;
>
> (iv) The method for quarterly updates of the DSIC; and
>
> (v) A description of consumer protections.
>
> (b) Testimony, affidavits, exhibits, and other supporting evidence demonstrating that the DSIC is in the public interest;
>
> (c) A LTIIP, as described in Section 1352; and

(d) Certification that a base rate case has been filed within five years.

6. For ease of reference, PPL Electric has structured its Petition in the same order as the statutory requirements.

II. PPL ELECTRIC'S DSIC

A. PPL ELECTRIC'S PROPOSED TARIFF COMPLIES WITH THE COMMISSION'S MODEL TARIFF

7. PPL Electric's proposed tariff is attached to this Petition as Exhibit No. 1, and is discussed in detail in the testimony of Bethany L. Johnson, PPL Electric Statement No. 3. PPL Electric developed its proposed tariff in compliance with the model tariff included in the Commission's Final Implementation Order, as required by Section 1353. As described below, PPL Electric's proposed tariff contains all of the statutory elements listed in Section 1353(b)(1), and, therefore, should be approved by the Commission.

1. Description of Eligible Property

8. On September 14, 2012, pursuant to the requirements of Section 1532(a) of the Code, 66 Pa. C.S. § 1352(a), PPL Electric filed a proposed LTIIP with the Commission. In the LTIIP, PPL Electric described its process of evaluating, improving, repairing and replacing its distribution related facilities and equipment; its plans to continue accelerated investments under this process; and the categories and estimated costs of DSIC-eligible property that the Company expects to install over the next five years. Several parties filed comments to PPL Electric's proposed LTIIP, but none of those comments recommended changes to it. In a final order entered on January 10, 2013, the Commission approved the Company's LTIIP. PPL Electric Exhibit No. 2 is a copy of its Commission-approved LTIIP.

9. PPL Electric has included the same eligible property, as that term is defined in Section 1351(1), in both its DSIC and its LTIIP. Eligible property includes the following: poles

and towers; overhead and underground conductors; transformers and distribution substation equipment; fixtures and devices related to the eligible property such as insulators, circuit breakers, fuses, reclosers, grounding wires, crossarms and brackets, relays, capacitors, converters and condensers; unreimbursed costs related to highway relocation projects; and other related capitalized costs.

10. The Company has broken down the categories of its eligible property to include: structures, overhead conductors and hardware, underground cables and hardware, switching devices, protective devices, and transformers. PPL Electric has adopted a number of specific programs to address the different types of DSIC-eligible property, all of which are described in extensive detail in PPL Electric's LTIIP.

2. Effective Date of the DSIC

11. PPL Electric is requesting permission to implement its DSIC on May 1, 2013. The Company is requesting the May 1, 2013 implementation date to avoid a gap in reflecting property in its jurisdictional rate base. PPL Electric's recently concluded distribution base rate case at Docket No. R-2012-2290597 was based upon a future test year ended December 31, 2012.

12. If PPL Electric is permitted to implement a DSIC on May 1, 2013, the initial charges under the DSIC will reflect property placed in service during the period January through March of 2013. The DSIC that becomes effective on August 1, 2013 will reflect property placed in service during the period April through June of 2013, as well as property previously placed in service. In this way, there will not be any gap in including DSIC eligible property in PPL Electric's rate base. Moreover, this proposed timing will enable PPL Electric to use end-of-quarter data for its capital structure and cost of long-term debt in the computation of the pre-tax return component of the DSIC.

13. The Company recognizes that complaints may be filed in this proceeding or the Commission may open its own investigation into the Company's proposed DSIC. Either event could lead to hearings and possibly an adjustment to DSIC charges. To address that possibility, PPL Electric proposes that, if the Commission permits the Company's initial DSIC to become effective on May 1, 2013, any charges under the DSIC will be subject to refund in the event the Commission orders such a result at the conclusion of any evidentiary hearings or investigation held in this matter.

3. Computation of DSIC

14. Computation of the DSIC is described in the Direct Testimony of Ms. Johnson, PPL Electric Statement No. 3. As explained in her testimony, in calculating an estimated initial DSIC rate, the Company carefully followed Section 2 of the Commission's model tariff and applied the formula set forth in subsection 2(D). The calculation, which is set forth in PPL Electric Exhibit BLJ-1, attached to PPL Electric Statement No. 3, produces an estimated initial DSIC rate of 0.15 percent. Ten days before May 1, 2013, the day the initial DSIC rate will become effective, PPL Electric will update this computation to reflect the cost of DSIC-eligible projects that were actually placed into service during the period January through March 2013, and PPL Electric's actual capital structure and cost of long-term debt as of March 31, 2013.

4. Quarterly Updates

15. The DSIC will be updated on a quarterly basis to reflect eligible plant additions placed in service during the three-month period ending one month prior to the effective date of each DSIC update. PPL Electric has provided a chart of the effective dates of its proposed DSIC updates, and the corresponding period for eligible plant additions that will be reflected in each update, as part of its DSIC tariff filing in Exhibit No. 1.

16. Once PPL Electric has implemented its DSIC, customers will receive notice of quarterly changes in the DSIC through an article in "Connect" -- the newsletter which the Company includes in each customer's monthly bill. This approach is consistent with Act 11 and the Commission's Final Implementation Order.

5. Consumer Protections

17. The Commission's model tariff includes customer safeguards in its structure which PPL Electric has adopted as part of its proposed tariff. These safeguards include: (1) a 5.0% cap on the total amount of distribution revenue that can be collected through the DSIC as determined on an annualized basis, (2) annual reconciliations performed by PPL Electric, (3) audits conducted by the Commission, (4) customer notice of any changes in the DSIC, and (5) a reset of the DSIC to zero if PPL Electric's return in any quarter exceeds the return used to calculate the DSIC.

B. PPL ELECTRIC'S DSIC IS IN THE PUBLIC INTEREST

18. PPL Electric is submitting the direct testimony of three witnesses with this petition. Dennis A. Urban, PPL Electric Statement No. 1, describes the history and background of PPL Electric's efforts to address its aging distribution infrastructure, and how PPL Electric's proposed DSIC meets the requirements of Act 11 of 2012 and the Commission's Final Implementation Order. Stephen J. Gelatko, PPL Electric Statement No. 2, describes the Company's Asset Optimization Strategy and the eligible property included in the Company's LTIIP and the DSIC. Bethany L. Johnson, PPL Electric Statement No. 3, describes PPL Electric's development of the DSIC, the proposed effective date for the DSIC and the calculation of an estimated initial DSIC charge.

19. Implementing PPL Electric's proposed DSIC tariff is in the public interest because the DSIC will ensure that customers will continue to receive safe and reliable service in

the future as required by 66 Pa. C.S. § 1501. Nearly half of PPL Electric's distribution system was constructed 40 or more years ago, as a result of the economic expansion and building boom of the 1960's and 1970's. This equipment is nearing or has surpassed its design lifetime. As this equipment deteriorates due to age, environmental exposure, and added load, it has become increasingly critical to plan for the repair, upgrade, and/or replacement of these assets.

20. PPL Electric conducted a major condition assessment and maintenance study of its distribution system in 2008-2009. The purpose of the study was to develop a strategy for accelerated capital replacement improvements that would combat the anticipated effects of aging infrastructure and bolster PPL Electric's ability to effectively maintain reliable electric service. The study found that programmatic and accelerated replacement of infrastructure would be the most cost-effective strategy to address aging infrastructure and ensure system reliability and integrity. The results of the study led PPL Electric to adopt an Asset Optimization Strategy which was fully implemented in 2011. PPL Electric's Commission-approved LTIIP is a continuation of the Asset Optimization Strategy's infrastructure replacements with other prudent capital investments.

21. The DSIC is an important tool in addressing the aging distribution infrastructure on PPL Electric's system, which has led to an increased number of outages in recent years. PPL Electric believes that repair, improvement, and replacement of aging distribution equipment and facilities will ensure that the Company can reduce the number of outages that are the result of equipment failure, which will directly improve the reliability of service provided by PPL Electric to its customers. PPL Electric is aware of the direct impact the equipment included in the LTIIP has on its reliability metrics. PPL Electric will use these metrics to monitor the success of its programs. The programs included in the LTIIP are expected to arrest the growth in failures

caused by aging equipment, and will eventually reduce the number of equipment failures experienced on PPL Electric's distribution system.

22. PPL Electric is undertaking a very aggressive infrastructure repair and replacement plan. The Company cannot maintain this level of investment without a secure revenue stream. Without the DSIC, the Company would need to consider a plan to either slow its level of investment or file annual base rate cases in order to secure the necessary increase in revenue to cover the significant costs associated with its program.

23. Annual base rate filings are unpredictable, and would add risk of delay and uncertainty in timing to PPL Electric's planning process. Moreover, annual rate cases can produce spikes in customer rates which, according to PPL Electric's customer satisfaction research, can result in customer dissatisfaction. On the other hand, the DSIC will result in gradual quarterly rate changes which should be more acceptable to customers over time. The DSIC, then, is a critical component in PPL Electric's efforts to reduce equipment failure on its distribution system, by ensuring the resources the Company needs to continue its accelerated investment.

C. PPL ELECTRIC'S LTIIP COMPLIES WITH § 1352

24. PPL Electric's LTIIP, which is attached as Exhibit No. 2 to this Petition, is in full compliance with the Commission's Implementation Order and the statute. In its January 10, 2013 Final Order approving PPL Electric's LTIIP, the Commission found that ". . . the PPL Electric Long-Term Infrastructure Improvement Plan and the manner in which it was filed conforms to the requirements of Act 11, the Final Implementation Order of Act 11 and 66 Pa.C.S. Section 1352. Moreover, the Commission has reviewed the filing and does not find it to be inconsistent with the applicable law or Commission policy." (LTIIP Order, pp. 15-16)

25. PPL Electric's LTIIP is based on the Company's Asset Optimization Strategy which was developed to address the predicted wave of equipment failures that would result due to the age distribution of the asset base. The plan included replacements in kind, as well as upgrades to current standards including new technologies. The plan was divided into two distinct replacement strategies. In some cases, such as with distribution substation components, PPL Electric determined that it was more economical to make replacements on an individual component basis. In other cases, such as with aging distribution lines, the Company determined that it was more economical and more effective to replace all equipment components on a complete unit basis.

26. The investments included in the LTIIP are expected to mitigate the growth in equipment failures in the short-term, and eventually reverse the trend in the long-term. PPL Electric continues to analyze equipment failure trends and asset-specific contributions to system-level reliability metrics on an ongoing basis to ensure that funding is invested appropriately.

27. For each individual program included in the LTIIP, PPL Electric has provided the following information: A description of the program and its purpose; a description of how PPL Electric identifies equipment for replacement within each program and the appropriate course of action to improve identified equipment; the scope of the program, including a reasonable estimate of the quantity of property to be improved where applicable; the location of planned replacements where applicable; and the total amount projected to be spent by the Company annually and over the life of the five-year plan.

28. The programs implemented by PPL Electric are subject to change, as additional analysis is done on the effectiveness of individual programs, or as new issues arise. Some programs may become obsolete, while new programs may become desirable as a result of the

evolution of new technologies. The effectiveness of these programs will be reviewed on a regular basis and programs will be added, cancelled, and/or modified, as necessary, to ensure that the expenditures are providing the desired benefits to customers at a reasonable cost.

29. Prior to the passage of Act 11, PPL Electric had already significantly increased its capital expenditures on distribution related infrastructure. From 2007 to 2012, PPL Electric more than doubled the amount it was investing in its distribution system infrastructure. Consistent with the Commission's Implementation Order, PPL Electric has projected additional accelerated investment as a result of the implementation of a DSIC. The Company will continue to sustain its accelerated investment in infrastructure over the next five years.

D. BASE RATE CASE CERTIFICATION

30. As part of its filing, a utility is required to certify that it has filed a base rate case within the five years prior to the date it files its DSIC petition. 66 Pa.C.S. §1353(b)(3).

31. PPL Electric has provided the required certification as Exhibit No. 3 to its Petition. PPL Electric filed its most recent base rate case on March 30, 2012. It was fully litigated. The Commission entered its Final Order in PPL Electric's rate case on December 28, 2012, at Docket No. R-2012-2290597.

E. CUSTOMER NOTICE

32. Consistent with Act 11 and the Commission's Final Implementation Order, customers will receive notice of the initial filing of the proposed DSIC through bill inserts beginning at the time of filing and continuing throughout a 30-day billing cycle. PPL Electric plans to commence the bill insert process on January 17, 2013.

III. CONCLUSION

WHEREFORE, PPL Electric Utilities Corporation respectfully requests that the Pennsylvania Public Utility Commission find that its Distribution System Improvement Charge contains all necessary items identified in § 1353, and that the Pennsylvania Public Utility Commission approve PPL Electric's Distribution System Improvement Charge with an effective date of May 1, 2013.

Respectfully submitted,

David B. MacGregor (ID # 28804)
Post & Schell, P.C.
Four Penn Center
1600 John F. Kennedy Boulevard
Philadelphia, PA 19103-2808
Phone: 215-587-1197
Fax: 215-320-4879
E-mail: dmacgregor@postschell.com

Jessica R. Rogers (ID # 309842)
Post & Schell, P.C.
17 North Second Street, 12th Floor
Harrisburg, PA 17101-1601
Phone: 717-612-6018
Fax: 717-731-1985
E-mail: jrogers@postschell.com

Paul E. Russell (ID #21643)
Associate General Counsel
PPL Services Corporation
Office of General Counsel
Two North Ninth Street
Allentown, PA 18106
Phone: 610-774-4254
Fax: 610-774-6726
E-mail: perussell@pplweb.com

Of Counsel:
Post & Schell, P.C.

Date: January 15, 2013

Attorneys for PPL Electric Utilities Corporation

VERIFICATION

I, Dennis A. Urban, Jr., being the Senior Director of Rates and Regulatory Affairs for PPL Electric Utilities Corporation, hereby state that the facts above set forth are true and correct to the best of my knowledge, information and belief and that I expect that PPL Electric Utilities Corporation to be able to prove the same at a hearing held in this matter. I understand that the statements herein are made subject to the penalties of 18 Pa. C.S. § 4904 relating to unsworn falsification to authorities.

Date: January 15, 2013

Dennis A. Urban, Jr.
PPL Electric Utilities Corporation
Senior Director, Rates and Regulatory Affairs

Exhibit No. 1

Supplement No. 127
Electric Pa. P.U.C. No. 201

PPL Electric Utilities Corporation

GENERAL TARIFF

RULES AND RATE SCHEDULES
FOR ELECTRIC SERVICE

In the territory listed on pages 4, 4A, and 4B
and in the adjacent territory served.

ISSUED: January 15, 2013

EFFECTIVE: May 1, 2013

GREGORY N. DUDKIN, PRESIDENT
Two North Ninth Street
Allentown, PA 18101-1179

NOTICE

THIS TARIFF MAKES (CHANGES) IN EXISTING RATES. SEE PAGE TWO.

PPL Electric Utilities Corporation

LIST OF CHANGES MADE BY THIS SUPPLEMENT

Rider Matrix Page No. 14D	The Rider Matrix was revised to show the applicable Riders in the Tariff.
Distribution System Improvement Charge (DSIC) Page Nos. 19Z.16, 19Z.17, 19Z.18, and 19Z.19.	The DSIC was added to provide recovery of the Company's cost to repair, improve, or replace eligible electric distribution facilities.

TABLE OF CONTENTS

(Continued)

TABLE OF CONTENTS (CONTINUED)

(Continued)

RIDER MATRIX **(C)**

Rate Schedule	EEC	USR	NM	MBC	ACR	MFC	SMR	CER	DSIC
RS		X	X	X	X	X	X	X	X
RTS (R)		X		X	X	X	X	X	X
GS-1			X	X	X	X	X	X	X
GS-3	X		X	X	X	X	X	X	X
LP-4	X		X	X	X		X	X	X
LP-5	X			X	X		X	X	X
LPEP	X			X	X		X	X	X
IS-1 (R)				X	X	X	X	X	X
BL				X	X	X	X	X	X
SA				X	X	X	X	X	X
SM (R)				X	X	X	X	X	X
SHS				X	X	X	X	X	X
SE				X	X	X	X	X	X
TS (R)				X	X	X	X	X	X
SI-1 (R)				X	X	X	X	X	X
GH-2 (R)				X	X	X	X	X	X
Rule 6/6A				X	X	X	X	X	X

Rider Titles

EEC = Emergency Energy Conservation Rider
USR = Universal Service Rider
NM = Net Metering for Renewable Customer-Generators
MBC = Metering and Billing Credit Rider
ACR = Act 129 Compliance Rider
MFC = Merchant Function Charge Rider
SMR = Smart Meter Rider
CER = Competitive Enhancement Rider
DSIC = Distribution System Improvement Charge

PPL Electric Utilities Corporation

DISTRIBUTION SYSTEM IMPROVEMENT CHARGE (DSIC)

In addition to the net charges provided for in this Tariff, a charge of 0.15% will apply consistent with the Commission Order dated August 2, 2012, at Docket No. M-2012-2293611, approving the DSIC.

GENERAL DESCRIPTION

A. Purpose: To recover the reasonable and prudent costs incurred to repair, improve, or replace eligible property which is completed and placed in service and recorded in the individual accounts, as noted below, between base rate cases and to provide PPL Electric with the resources to accelerate the replacement of aging infrastructure, to comply with evolving regulatory requirements and to develop and implement solutions to regional supply problems.

The costs of extending facilities to serve new customers are not recoverable through the DSIC.

B. Eligible Property: The DSIC-eligible property will consist of the following:

- Poles and towers (Account 364);
- Overhead conductors (Account 365) and underground conduit and conductors (Accounts 366 and 367);
- Line transformers (account 368) and substation equipment (Account 362);
- Any fixture or device related to eligible property listed above, including insulators, circuit breakers, fuses, reclosers, grounding wires, crossarms and brackets, relays, capacitors, converters and condensers;
- Unreimbursed costs related to highway relocation projects where an electric distribution company must relocate its facilities; and
- Other related capitalized costs.

C. Effective Date: The DSIC will become effective for bills rendered on and after May 1, 2013.

(Continued)

PPL Electric Utilities Corporation

DISTRIBUTION SYSTEM IMPROVEMENT CHARGE (DSIC) (Continued)

COMPUTATION OF THE DSIC

A. Calculation: The initial DSIC, effective May 1, 2013, shall be calculated to recover the fixed costs of eligible plant additions that have not previously been reflected in PPL Electric's rates or rate base and will have been placed in service between January 1 through March 31, 2013. Thereafter, the DSIC will be updated on a quarterly basis to reflect eligible plant additions placed in service during the three-month periods ending one month prior to the effective date of each DSIC update. Thus, changes in the DSIC rate will occur as follows:

Effective Date of Change	Date to which DSIC-Eligible Plant Additions Reflected
May 1, 2013	January 1 – March 31, 2013
August 1, 2013	April 1 – June 30, 2013
November 1, 2013	July 1 – September 30, 2013
February 1, 2014	October 1 – December 31, 2013

B. Determination of Fixed Costs: The fixed costs of eligible distribution system improvements projects will consist of depreciation and pre-tax return, calculated as follows:

1. Depreciation: The depreciation expense shall be calculated by applying the annual accrual rates employed in PPL Electric's most recent base rate case for the plant accounts in which each retirement unit of DSIC-eligible property is recorded to the original cost of DSIC-eligible property.

2. Pre-tax return: The pre-tax return shall be calculated using the statutory state and federal income tax rates, PPL Electric's actual capital structure and actual cost rates for long-term debt and preferred stock as of the last day for the three-month period ending one month prior to the effective date of the DSIC and subsequent updates. The cost of equity will be the equity return rate approved in PPL Electric's last fully litigated base rate proceeding for which a final order was entered not more than two years prior to the effective date of the DSIC. If more than two years shall have elapsed between the entry of such a final order and the effective date of the DSIC, then the equity return rate used in the calculation will be the equity return rate calculated by the Commission in the most recent Quarterly Report on the Earnings of Jurisdictional Utilities released by the Commission.

C. Application of DSIC: The DSIC will be expressed as a percentage carried to two decimal places and will be applied to the total amount billed to each customer for distribution service under PPL Electric's otherwise applicable rates and charges, excluding amounts billed for the State Tax Adjustment Surcharge (STAS). To calculate the DSIC, one-fourth of the annual fixed costs associated with all property eligible for cost recovery under the DSIC will be divided by PPL Electric's projected revenue for distribution service (including all applicable clauses and riders) for the quarterly period during which the charge will be collected, exclusive of the STAS.

(Continued)

DISTRIBUTION SYSTEM IMPROVEMENT CHARGE (DSIC) (Continued)

COMPUTATION OF THE DSIC (Continued)

D. Formula: The formula for calculation of the DSIC is as follows:

$$DSIC = \frac{((DSI \times PTRR)+Dep+e) \times \frac{1}{(1-T)}}{PQR}$$

Where:

DSI = Original cost of eligible distribution system improvement projects net of accrued depreciation.

PTRR = Pre-tax return rate applicable to DSIC-eligible property.

Dep = Depreciation expense related to DSIC-eligible property.

e = Amount calculated under the annual reconciliation feature or Commission audit, as described below.

PQR = Projected quarterly revenues for distribution service (including all applicable clauses and riders) from existing customers plus netted revenue from any customers which will be gained or lost by the beginning of the applicable service period.

T = Pennsylvania gross receipts tax rate in effect during the billing month, expressed in decimal form.

Minimum bills shall not be reduced by reason of the DSIC, nor shall charges hereunder be a part of the monthly rate schedule minimum. The DSIC shall not be subject to any credits or discounts. The State Tax Adjustment Surcharge (STAS) included in this Tariff is applied to charges under the DSIC.

QUARTERLY UPDATES

Supporting data for each quarterly update will be filed with the Commission and served upon the Commission's Bureau of Investigation and Enforcement, the Office of Consumer Advocate, and the Office of Small Business Advocate at least ten (10) days prior to the effective date of the update.

(Continued)

PPL Electric Utilities Corporation

DISTRIBUTION SYSTEM IMPROVEMENT CHARGE (DSIC) (Continued)

CUSTOMER SAFEGUARDS

A. Cap: The DSIC is capped at 5.0% of the amount billed to customers for distribution service (including all applicable clauses and riders) as determined on an annualized basis.

B. Audit/Reconciliation: The DSIC is subject to audit at intervals determined by the Commission. Any cost determined by the Commission not to comply with any provision of 66 Pa C.S. §§ 1350, *et seq.*, shall be credited to customer accounts. The DSIC is subject to annual reconciliation based on a reconciliation period consisting of the twelve months ending December 31 of each year. The revenue received under the DSIC for the reconciliation period will be compared to PPL Electric's eligible costs for that period. The difference between revenue and costs will be recouped or refunded, as appropriate, in accordance with Section 1307(e), over a one-year period commencing on May 1 of each year. If DSIC revenues exceed DSIC-eligible costs, such over-collections will be refunded with interest. Interest on over-collections and credits will be calculated at the residential mortgage lending specified by the Secretary of Banking in accordance with the Loan Interest and Protection Law (41 P.S. §§ 101, *et seq.*) and will be refunded in the same manner as an over-collection.

C. New Base Rates: The DSIC will be reset at zero upon application of new base rates to customer billings that provide for prospective recovery of the annual costs that had previously been recovered under the DSIC. Thereafter, only the fixed costs of new eligible plant additions that have not previously been reflected in PPL Electric's rates or rate base will be reflected in the quarterly updates of the DSIC.

D. Customer Notice: Customers shall be notified of changes in the DSIC by including appropriate information on the first bill they receive following any change. An explanatory bill insert also shall be included with the first billing.

E. All customer classes: The DSIC shall be applied equally to all customer classes.

F. Earning Reports: The DSIC also will be reset at zero if, in any quarter, data filed with the Commission in PPL Electric's then most recent Annual or Quarterly Earnings reports (Schedule D-2) show that PPL Electric would earn a rate of return that would exceed the allowable rate of return used to calculate its fixed costs under the DSIC as described in the pre-tax return section.

Exhibit No. 2

BEFORE THE
PENNSYLVANIA PUBLIC UTILITY COMMISSION

Petition of PPL Electric Utilities Corporation for Approval of its Long Term Infrastructure Improvement Plan	: : :	Docket No. P-2012-

---

Petition of PPL Electric Utilities Corporation for Approval of its Long-Term Infrastructure Improvement Plan

---

Pursuant to Act 11 of 2012 ("Act 11" or the "Act"), which amends Chapters 3, 13 and 33 of the Pennsylvania Public Utility Code ("Code"), PPL Electric Utilities Corporation ("PPL Electric" or the "Company") hereby files this Petition seeking approval of its Long-Term Infrastructure Improvement Plan ("LTIIP" or "Plan"). This filing is being made pursuant to the Final Implementation Order of the Pennsylvania Public Utility Commission (the "Commission") entered at Docket No. M-2012-2293611 on August 2, 2012.[1] As described herein and in the LTIIP, for several years PPL Electric has been in the process of evaluating, improving, repairing, and replacing its distribution related facilities and equipment. Under its LTIIP, the Company proposes to continue its accelerated investment under this process. The process is described below and in further detail in the LTIIP.

By this Petition, the Company respectfully requests that the Commission approve PPL Electric's Long-Term Infrastructure Improvement Plan.

I. INTRODUCTION

1. PPL Electric provides electric distribution, transmission and provider of last resort services to approximately 1.4 million customers in a certificated service territory that spans

approximately 10,000 square miles in all or portions of 29 counties in eastern and central Pennsylvania. PPL Electric is a "public utility" and an "electric distribution company" as those terms are defined under the Public Utility Code, 66 Pa. C.S. §§ 102 and 2803.

2. PPL Electric's attorneys are:

Paul E. Russell (I.D. #21643)
Associate General Counsel
PPL Services Corporation
Two North Ninth Street
Allentown, PA 18101
Voice: 610-774-4254
Fax: 610-774-6726
E-mail: perussell@pplweb.com

David B. MacGregor (I.D. #28804)
Post & Schell, P.C.
Four Penn Center
1600 John F. Kennedy Boulevard
Philadelphia, PA 19103-2808
Voice: 215-587-1197
Fax: 215-320-4879
E-mail: dmacgregor@postschell.com

Jessica R. Rogers (ID #309842)
Post & Schell, P.C.
17 North Second Street
12th Floor
Harrisburg, PA 17101-1601
Voice: 717-612-6018
Fax: 717-731-1985
E-mail: jrogers@postschell.com

PPL Electric's attorneys are authorized to receive all notices and communications regarding this filing.

3. On February 14, 2012, Governor Corbett signed into law Act 11 of 2012 ("Act 11"), which amends Chapters 3, 13 and 33 of Title 66 of the Code to allow: (1) jurisdictional utilities to make rate case claims based on a fully projected future test year; (2) wastewater

[1] *Implementation of Act 11 of 2012*, Docket No. M-2012-2293611, entered on August 2, 2012. ("Implementation

utilities to allocate a portion of their revenue requirement to the combined wastewater and water utility customer base; and (3) electric distribution companies ("EDCs"), natural gas distribution companies ("NGDCs"), water utilities, wastewater utilities and city natural gas distribution operations to establish a distribution system improvement charge ("DSIC").

4. Act 11 provides utilities with the ability to implement a DSIC to recover reasonable and prudent costs incurred to repair, improve or replace certain eligible distribution property that is part of the utility's distribution system. Eligible property for electric distribution companies is defined in Section 1351 of the statute. *See* 66 Pa.C.S. § 1351(1). As a precondition to the implementation of a DSIC, a utility must file an LTIIP with the Commission that is consistent with the provisions of Section 1352 of the statute. *See* 66 Pa.C.S. § 1352(a).

5. On April 5, 2012, the Commission held a working group meeting for discussion and feedback from stakeholders regarding its implementation of Act 11. The purpose of the meeting was to address certain key implementation issues in advance of the issuance of a Tentative Implementation Order. PPL Electric was one of the participants in the working group. On May 10, 2012, the Commission issued its Tentative Implementation Order addressing and incorporating input from the stakeholder meeting.

6. On August 2, 2012, the Commission issued the Implementation Order establishing procedures and guidelines necessary to implement Act 11. The Implementation Order adopts the requirements established in Section 1352, provides additional standards that each LTIIP must meet, and gives guidance to utilities for meeting the Commission's standards.

7. Specifically, on pages 12 and 18 of the Implementation Order, the Commission provides that the LTIIP must include the following seven major elements:

(a) Types and age of eligible property;

Order").

(b) Schedule for its planned repair and replacement;

(c) Location of the eligible property;

(d) Reasonable estimate of the quantity of property to be improved;

(e) Projected annual expenditures and measures to ensure that plan is cost effective;

(f) Manner in which replacement of aging infrastructure will be accelerated and how repair improvement or replacement will maintain safe and reliable service; and

(g) A workforce management and training program.

8. For ease of reference, PPL Electric has structured its LTIIP Petition in the same order as the Commission's Implementation Order.

II. PPL ELECTRIC'S LONG TERM INFRASTRUCTURE IMPROVEMENT PLAN

A. Property to be Improved, Repaired and Replaced

9. In accordance with the Commission's Implementation Order and the statute, PPL Electric has focused its LTIIP on distribution plant that is DSIC eligible. *Implementation Order* at 18. All of the property PPL Electric has included in its LTIIP meets the definition of eligible property found in Section 1351(1), which includes the following items: Poles and towers; overhead and underground conductors; transformers and distribution substation equipment; fixtures and devices related to the eligible property such as insulators, circuit breakers, fuses, reclosers, founding wires, crossarms and brackets, relays, capacitors, converters and condensers; unreimbursed costs related to highway relocation projects; and other related capitalized costs.

10. Nearly half of PPL Electric's distribution system was constructed 40 or more years ago, as a result of the economic expansion and building boom of the 1960's and 1970's. As this equipment deteriorates due to age, environmental exposure, and added load, it has become increasingly critical to plan for the repair, upgrade, and/or replacement of these assets.

11. In 2008-2009, PPL Electric conducted a major condition assessment and maintenance study of its distribution system. The purpose of the study was to develop a strategy for accelerated capital replacement improvements that would combat the anticipated effects of aging infrastructure and bolster PPL Electric's ability to effectively maintain reliable electric service. The study found that programmatic and accelerated replacement of infrastructure would be the most cost-effective strategy to address aging infrastructure and ensure system reliability and integrity. The results of the study led PPL Electric to implement an Asset Optimization Strategy ("AOS").

12. The AOS was developed to address the predicted wave of equipment failures that would result due to the age distribution of the asset base. The plan includes replacements in kind, as well as upgrades to current standards including new technologies. The plan was divided into two distinct replacement strategies. In some cases, such as with distribution substation components, PPL Electric determined that it was more economical to make replacements on an individual component basis. In other cases, such as with aging distribution lines, the Company determined that it was more economical and more cost effective to replace all equipment components on a complete unit basis.

13. As a result of the plan to accelerate capital replacements on its distribution system, PPL Electric began engineering efforts and initiated large material purchases for the identified proactive and accelerated equipment replacements in 2009, followed by a ramp up period during 2010, and full implementation of its plan in 2011. In developing its strategy to accelerate replacements, PPL Electric has refined the processes and planning efforts that will support sustained investment levels.

14. Figures 4 and 5 on page 10 of PPL Electric's LTIIP show the effects of the AOS study and accelerated replacement plan on PPL Electric's budget. Figure 4 reflects PPL Electric's planned five-year investment strategy as captured in its 2007 business plan, which was created prior to the AOS study. Figure 5 shows PPL Electric's accelerated planned expenditures, based on the results of the study. PPL Electric approximately doubled its planned investment in DSIC-eligible property since 2009, as a result of the AOS study.

15. The LTIIP includes a continuation of the AOS infrastructure replacements, in addition to various other prudent capital investments to ensure the safety and reliability of the distribution system. The investments captured in the LTIIP are expected to mitigate the growth in equipment failures in the short-term, and eventually reverse the trend in the long-term. PPL Electric continues to analyze equipment failure trends and asset-specific contributions to system-level reliability metrics on an ongoing basis to ensure that funding is invested appropriately.

16. The LTIIP covers a broad spectrum of distribution related equipment and facilities, which have been separated into two asset categories. These two categories are distribution assets and substation assets. A description of the items classified as distribution assets can be found on page 16 of the LTIIP, while a description of those items included in the Plan as substation assets is found on page 43. Within each of these categories, PPL Electric has identified specific programs to address the various elements, equipment, and facilities that make up each of the two asset classes. Each program is described individually, with an estimated replacement schedule and estimated costs as applicable or appropriate.

17. PPL Electric has provided a summary of the types and average age of eligible property to be replaced as Appendix A to its LTIIP, which is located at page 54 of the Plan. PPL Electric would note that, as a result of its implementation of the AOS, many of the average ages

of equipment types have been adjusted downward as old equipment has been replaced by new equipment.

18. PPL Electric has included an estimated schedule for the planned repair and replacement of DSIC eligible property. The estimated schedule has been provided on an individual program basis, and is included in the section of the Plan that provides individual program descriptions. PPL Electric has estimated the number of replacements in a variety of distribution asset categories over the five-year planning period covered by the Plan. In estimating its replacement schedule, a number of factors were considered. Some of the initiatives, such as animal guarding, clearly have implied end-points, where no further opportunities for improvement remain. Others, such as Circuit SAIDI improvements, eventually experience diminishing returns over time. Finally some programs, such as pole reinforcement and replacement, will be ongoing.

19. In addition, the programs implemented by PPL Electric are subject to change, as additional analysis is done on the effectiveness of individual programs, or as new issues arise. Some programs may become obsolete, while new programs may become desirable as a result of the evolution of new technologies. The effectiveness of these programs will be reviewed on a regular basis and programs will be added, deleted, and/or modified, as necessary, to ensure that the expenditures are providing the desired benefits to customers at a reasonable cost. Therefore, while PPL Electric has provided an estimated schedule for when certain replacements will take place, that schedule is subject to change as a result of PPL Electric's ongoing review process and emergent resource requirements.

20. For each individual program included in the LTIIP, PPL Electric has provided the following information: A description of the program and its purpose; a description of how PPL

Electric identifies equipment for replacement within each program and the appropriate course of action to improve identified equipment; the scope of the program, including a reasonable estimate of the quantity of property to be improved where applicable; the location of planned replacements where applicable; and the total amount projected to be spent by the Company annually and over the life of the five-year plan. These detailed profiles of the individual programs that comprise the PPL Electric LTIIP are provided at pages 17 through 42 of the Plan for distribution assets, and pages 44 through 53 of the Plan for substation assets.

B. Projected Annual Expenditures and Measures to Ensure that the Plan is Cost Effective.

21. PPL Electric has provided a table showing the projected annual expenditures over the Plan's five year period on page 14 of its LTIIP. The table on page 14 shows the projected expenditures on a yearly basis for each of the individual programs for the five-year period, the total projected expenditures for each program at the conclusion of the five-year period, and the overall projected annual and total expenditures for all DSIC eligible distribution property. Individual program expenditure information is included in the sections describing the individual programs.

22. In order to ensure that its individual programs are cost-effective investments, PPL Electric will routinely review the effectiveness of its programs. Program and project impacts on System Average Interruption Duration Index ("SAIDI") and System Average Interruption Frequency Index ("SAIFI"), in addition to potential reductions in outage response costs, are compared to the overall program and project costs. PPL Electric utilizes a project prioritization process that defines the cost-effectiveness of programs and projects to ensure effective optimization of reliability investments. PPL Electric is investigating the use of additional ongoing asset health indices to further refine asset replacement criteria.

23. PPL Electric utilizes the information from its ongoing reviews of the effectiveness of its programs to determine the most cost-effective strategy for replacing its distribution infrastructure on a going forward basis. Reliability metric performance may result in the redirection of spending to help ensure PPL Electric's ability to meet its identified reliability targets in a cost-effective manner.

C. Acceleration of Infrastructure Improvement

24. In its Implementation Order, the Commission noted that utilities should reflect and maintain an acceleration of infrastructure replacement. The Commission also noted that some utilities have already taken substantial steps toward increasing capital investment to address the issue of aging infrastructure. For those utilities, the Commission requested that the LTIIP "reflect how the DSIC will maintain or augment acceleration of infrastructure replacement and prudent capital investment." *Implementation Order* at 19.

25. As previously described in this Petition and as shown in Figures 4 and 5 on page 10, prior to the passage of Act 11, PPL Electric had already significantly increased its capital expenditures on distribution related infrastructure. From 2007 to 2012, PPL Electric more than doubled the amount it was investing in capital infrastructure.

26. Consistent with the Commission's order, PPL Electric has projected additional accelerated investment as a result of the implementation of a DSIC. The summary of estimated expenditures on page 14 of the LTIIP shows two important factors relevant to the Commission's review and approval of PPL Electric's LTIIP. First, the data summarized on page 14 shows that PPL Electric has accelerated its investment plans over the amount contained in the five-year plans shown in both Figure 4 and Figure 5. In addition, the data summarized on page 14 shows that PPL Electric will not only accelerate the level of distribution infrastructure investment that it

had established as part of the AOS, but that the Company is actually projecting a continued increase in the amount it invests each year throughout the five year period covered by the LTIIP.

27. PPL Electric's LTIIP reflects the fact that PPL Electric has advanced its already accelerated program to address its aging infrastructure, and that the Company will continue to sustain its accelerated its investment in infrastructure over the next five years.

28. PPL Electric believes that repair, improvement, and replacement of aging distribution equipment and facilities will ensure that the Company can reduce the number of outages that are the result of equipment failure, which will directly improve the reliability of service provided by PPL Electric to its customers. As shown in Appendix B, on page 55 of the Plan, PPL Electric is aware of the direct impact the equipment included in the LTIIP has on its reliability metrics. PPL Electric will use these metrics to monitor the success of its programs. The programs included in the LTIIP are expected to arrest the growth in failures caused by aging equipment, and will eventually reduce the number of equipment failures experienced on PPL Electric's distribution system.

D. Workforce Management And Training Plan

29. The Commission's Implementation Order requires utilities to include a workforce management and training plan as a necessary element of the LTIIP. *Implementation Order* at 17-18. A description of PPL Electric's programs for ensuring a qualified workforce are found on pages 11 through 13 of its LTIIP. PPL Electric's workforce is comprised of both those employees who work directly for PPL Electric, and the workers who are hired by contractors of PPL Electric. PPL Electric utilizes a wide variety of programs and tools to ensure that it has a qualified workforce.

30. PPL Electric administers a rigorous, formal training and evaluation process for all of its directly employed qualified electrical workers. Training is required before an employee

may perform work independently on exposed, energized electrical equipment greater than 50 volts, and these programs are unique to the job classification and work being performed by individual employees. The training is provided by experienced training professionals with developed curriculum. The extensive training may require up to five years to complete with regular assessment and incremental qualifications throughout the duration of the training program. Retraining is conducted on a periodic basis as required by OSHA or more frequently when determined necessary.

31. In 2009, PPL Electric began preparation of a long range Strategic Workforce Plan ("SWP"). The SWP provides a 15+ year analysis of the projected employee turnover by job category and year, projections on worker availability, and strategies for both sourcing and recruiting, in order to ensure the long-term ability of PPL Electric to attract, hire, develop, and retain qualified workers.

32. For its contractors, PPL Electric's Contract Management department administers a standard process for soliciting contractors to perform work identified to be completed by independent contractors. Part of that process includes evaluating the qualification of contractors to perform work (both technical and financial capabilities to meet the contractual commitments, and level of qualification of employees), and may include reference checks if appropriate. Most independent contractors employ personnel through the building trades, which includes Union apprenticeship programs to help ensure that employees are qualified to perform assigned work. Employee qualification programs for non-Union independent contractors are stringently reviewed to assess the contractor's training program, such as on-the-job training and certification programs.

33. PPL Electric monitors the contractors' performance through several activities that may include direct job oversight through on-site supervision, monthly scorecards that evaluate such areas as job quality, safety performance, cost, and validating billing activities that meet contractual expectations.

III. EVIDENTIARY HEARINGS

34. Neither Act 11 nor the Commission's Implementation Order require hearings on Long Term Infrastructure Improvement Plans. The Implementation Order provides that comments to the plans are to be filed within 20 days of the proposed LTIIP, and that comments that raise material factual issues will result in the LTIIP being referred to the Office of Administrative Law Judge. Therefore, it is not clear whether the Company's Plan will be subject to evidentiary hearings. If PPL Electric's Plan is set for hearings, the Company will file, in advance of the prehearing conference, written direct testimony to fully explain how the Plan was developed, and how it meets the requirements of Act 11 and the Commission's Implementation Order.

35. Pursuant to the Commission's Implementation Order, PPL Electric is serving its LTIIP on the statutory advocates as well as all of the active parties in the utility's current base rate proceeding at Docket No. R-2012-2290597.

IV. CONCLUSION

WHEREFORE, PPL Electric Utilities Corporation respectfully requests that the Pennsylvania Public Utility Commission approve PPL Electric's Long-Term Infrastructure Improvement Plan.

Respectfully submitted,

David B. MacGregor (ID # 28804)
Post & Schell, P.C.
Four Penn Center
1600 John F. Kennedy Boulevard
Philadelphia, PA 19103-2808
Phone: 215-587-1197
Fax: 215-320-4879
E-mail: dmacgregor@postschell.com

Jessica R. Rogers (ID # 309842)
Post & Schell, P.C.
17 North Second Street, 12th Floor
Harrisburg, PA 17101-1601
Phone: 717-612-6018
Fax: 717-731-1985
E-mail: jrogers@postschell.com

Paul E. Russell (ID #21643)
Associate General Counsel
PPL Services Corporation
Office of General Counsel
Two North Ninth Street
Allentown, PA 18106
Phone: 610-774-4254
Fax: 610-774-6726
E-mail: perussell@pplweb.com

Of Counsel:

Post & Schell, P.C.

Date: September 14, 2012

Attorneys for PPL Electric Utilities Corporation

PPL Electric Utilities Corporation

Long-Term Infrastructure Improvement Plan

PPL Electric Utilities Corporation

Table of Contents

Introduction

This document is being submitted pursuant to the requirements of Subchapter B, Distribution Systems, of the Public Utility Code, 66 Pa.C.S. §§ 1350-1360, and the Public Utility Commission's ("PUC") Implementation Order for Establishment of a Distribution System Improvement Charge, entered on August 2, 2012 at Docket No. M-2012-2293611. It addresses a broad spectrum of Distribution Asset Management initiatives which comprise PPL Electric Utilities Corporation's ("PPL Electric") Long-Term Infrastructure Improvement Plan.

PPL Electric strives to operate as efficiently as possible by performing the work required to maintain system integrity and reliability. Performance indicators such as System Average Interruption Frequency Index ("SAIFI"), Customer Average Interruption Duration Index ("CAIDI") and System Average Interruption Duration Index ("SAIDI") show that PPL Electric has been successful in its efforts. However, an increasing trend in equipment failures, combined with an aging infrastructure, indicate that PPL Electric has reached a point where extensive and accelerated investment in the distribution system is required. As equipment failures continue to rise, PPL Electric has been experiencing a significant increase in maintenance spending beyond normal inflationary pressures. The driver is a combination of both increased corrective and planned maintenance. PPL Electric has initiated and enhanced maintenance practices and programs to repair, improve, or replace certain distribution facilities in order to ensure adequate, efficient, safe and reliable service. PPL Electric began the implementation of the identified improvements in 2009 as a result of its "Asset Optimization Strategy" initiative, discussed later in this document.

Addressing aging infrastructure will require continuation of an accelerated level of investment. Such investment includes not only replacing aging equipment, but also investment in advanced equipment and communication technologies that can facilitate further system reliability improvements. If accelerated, proactive re-investment does not occur, it is expected that system reliability will degrade, while the overall cost to maintain the distribution system will continue to rise. By investing in its distribution system on an accelerated basis, PPL Electric will ensure that its system continues to be safe, reliable, and able to meet the growing needs and expectations of its customers.

PPL Electric believes that managing finite resources to produce optimal results is essential for maintaining customer satisfaction. Criteria for program inclusion into the Long-Term Infrastructure Improvement Plan is not whether any single activity produces a positive reliability result, but rather, which portfolio of accelerated activities produces the best result for a given expenditure. PPL Electric's goal is focused on results (i.e., the reliability experienced by customers and associated rate impacts), not the rote execution of particular tasks.

Reliability Experience

The Distribution Asset Planning process employed by PPL Electric has been focused on maintaining reliability at the level that existed prior to passage of the Electricity Generation Customer Choice and Competition Act ("Customer Choice Act"). Since the 1994-1998 benchmark period, which defines PPL Electric's reliability performance targets, PPL Electric's service reliability has experienced annual swings, positive and negative, resulting largely from varying weather conditions. Increased and accelerated levels of funding for distribution reliability programs will help to ensure more consistent performance below the PUC benchmark. Historical benchmark performance is illustrated in Figures 1 and 2.

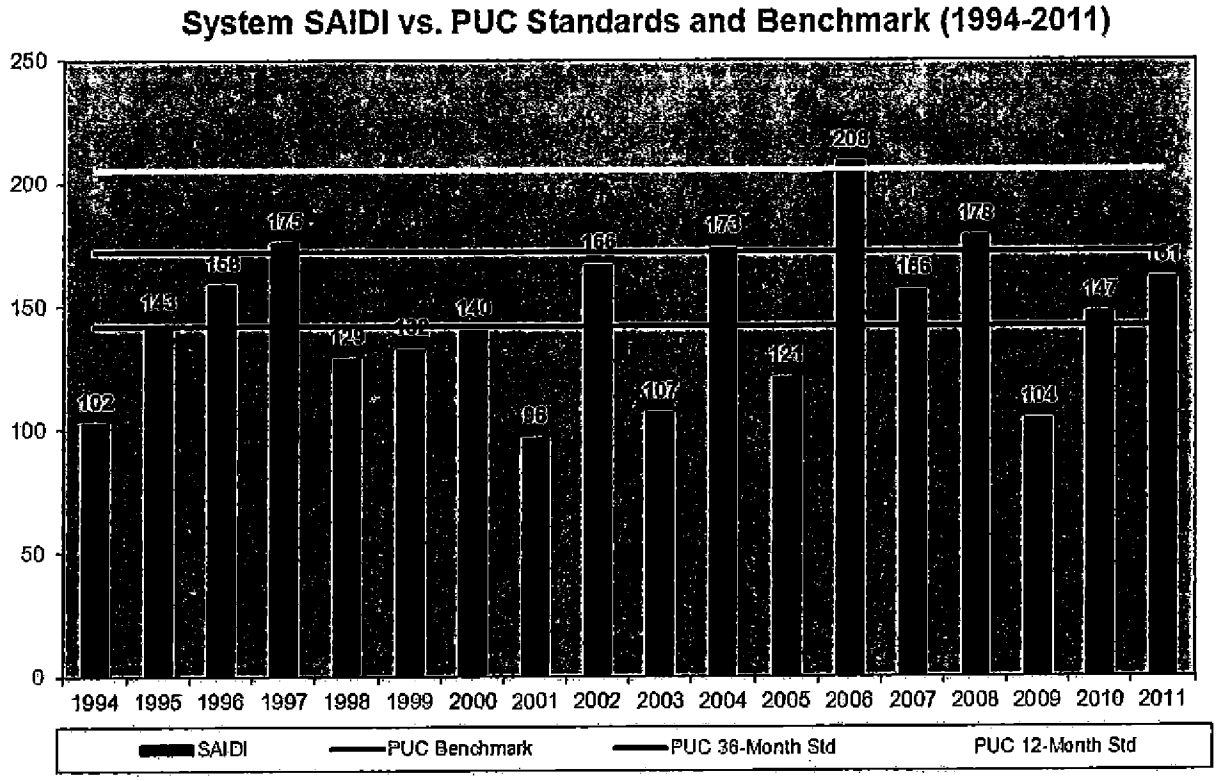

Figure 1: PPL Electric's SAIDI Performance

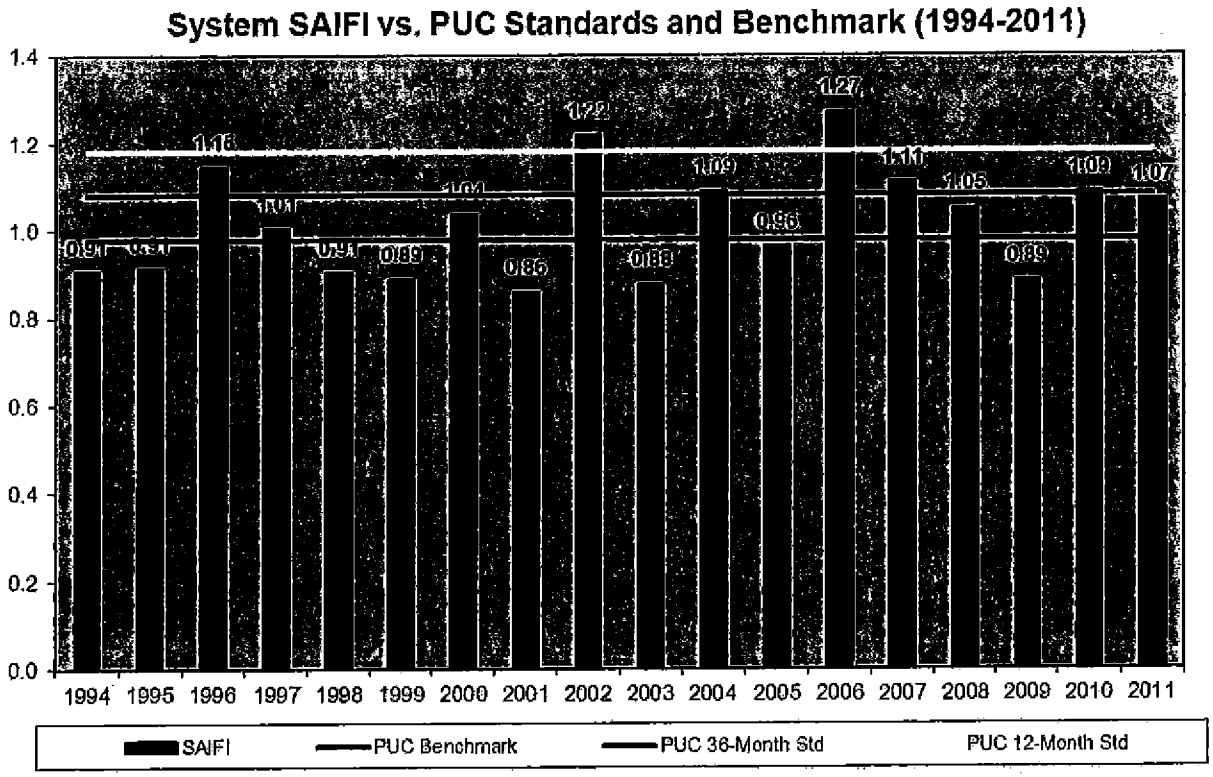

Figure 2: PPL Electric's SAIFI Performance

A significant risk to PPL Electric's ability to meet reliability benchmarks is the large portion of distribution facilities, which were installed in the 1960's and 1970's, that are now beyond or nearing the end of their design lifetime. See Appendix A for average age of major units of property. The resultant effect on non-storm-related equipment failures is illustrated by the chart in Figure 3 below.

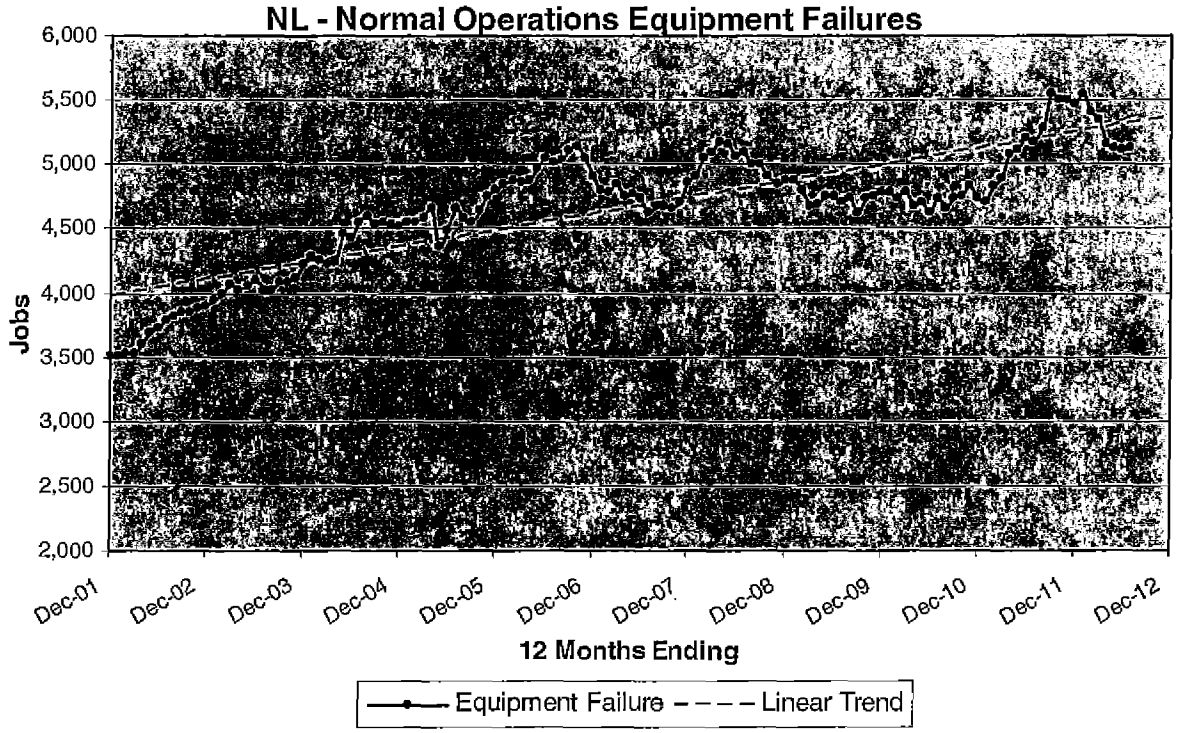

Figure 3: Equipment Failure Service Interruption Cases

The annual number of no-light cases due to equipment failures rose through 2006, stabilized for a time, and then resumed its upward trend in 2010. This trend clearly indicates the need to address the increasing rate of equipment failures. Components contributing the most significantly to distribution equipment failures include poles/arms/attachments, overhead conductors, and substation equipment. See Appendix B for further details on asset contribution to reliability metrics.

Response to Increasing Equipment Failure Rate

PPL Electric's reliability investment process is forward-looking and proactive. It consists of the following:

- Analyze the historical trends of causes of service outages and other power service problems.
- Identify the drivers of those trends.
- Forecast future reliability metrics (SAIDI, SAIFI, and CAIDI) given existing mitigation programs' effect on the identified drivers.

- Identify new programs, policies, and activities to enhance or accelerate existing mitigation programs to avoid forecasted gaps between future reliability and benchmark targets.

- Identify, evaluate, and implement new technologies that enhance the Company's condition monitoring strategy.

- Evaluate and adjust existing programs, policies, and activities to produce the desired future results.

- Incorporate the resulting portfolio of existing and new programs, policies, and activities in PPL Electric's five-year business plan.

In June 2011, PPL Electric's Reliability Principles and Practices ("P&P") were revised to help reduce the overall impact to our customers from outages due to various causes, including but not limited to, equipment failures. The P&P sets forth a set of Principles that PPL Electric follows to plan, protect and operate the Electrical Distribution System ("EDS"). These Principles are implemented through a set of standard Practices that are used as guidelines in designing the EDS. These Practices are reasonable, acceptable and are in accordance with leading utility practices. More specifically, to reduce the number of customers experiencing permanent outages and outage duration over the long term, the following circuit design guidelines are used wherever practical, starting with those identified as Worst Performing Circuits ("WPCs"):

- Limit the line length to approximately 50 circuit miles;

- Limit customer count to less than 1,300 customers per circuit;

- Ensure the circuit has three-phase tie lines, and these tie lines will support the transfer of 50% of the customers for at least 95% of the hours in a year; and

- Use line automation to restore at least 50% of the customers by System Operator-controlled switching or automated switching.

Prioritization utilizing these design criteria is based on the greatest expected improvement in reliability for the entire system.

Several other mitigation initiatives have been undertaken to reduce the forecasted short-term equipment failure growth rate.

- **Enhanced Pole Inspection/Treatment Program:** Beginning in 2010, the Company's wood pole maintenance program was enhanced from an inspection-only process to an inspection and treatment program, whereby all poles passing inspection are chemically treated to arrest decay and extend useful life at the same visit. The preservative treatment permits the next inspection to be at a uniform ten-year cycle. As an integral part of the ten-year pole inspection process, the inspector observes, notes, and reports at-risk conditions of all pole attachments, specifically crossarms, braces, conductors, transformers, fuse cutouts, lightning arresters, reclosers, regulators, capacitors, switches, wildlife protection, vegetation encroachment, guys, anchors, ground wires, and ground rods.

- **Increased Utilization of Infrared Inspections:** PPL Electric conducted a trial of infrared inspections of multi-phase lines in 2006. The trial inspections cost $122,500 and identified repairs costing $100,000, saving an estimated 1,460,000-2,600,000 Customer Minutes Interrupted ("CMI"). Funding of infrared

inspections and repairs was increased significantly during 2010 and has remained at a higher funding level. Infrared inspections occur on all 3-phase and 2-phase overhead lines adjacent to roadways every two years.

- **Expanded Operational Reviews ("EOR"):** EORs are performed on each feeder on a four-year cycle. The engineering review addresses both operational and reliability characteristics of each circuit. Voltage support, phase balancing, power factor maintenance and loading issues are addressed from an operational perspective. Service reliability analysis, exposure analysis, and field checks address reliability.

- **Distribution Automation Strategy:** In 2010, PPL Electric launched a "smart grid" pilot project that enables the Company to move power more efficiently, react instantaneously to changes on the delivery system, and automatically re-route power around problems that occur. The project focused mainly on the Harrisburg, Pa. area, although all customers will benefit from the introduction of a new centralized distribution management system. Future plans include the installation of hundreds of automated electrical devices through 2018. PPL Electric will upgrade approximately 146 substations and 543 circuits, and will create a secure communications framework to operate devices remotely. The end-result will be a delivery system that operates more efficiently, recognizes problems immediately, and responds in seconds to restore the service for many customers who otherwise need to wait minutes or hours.

Although these programs have successfully slowed failure growth rates in the short-term, PPL Electric faces a long-term issue regarding aging infrastructure. The surge in electrical construction in the 1960's and 1970's has resulted in a large number of assets that have reached or are nearing the end of their useful lifetime. Consequently, in 2008-2009, PPL Electric conducted a major condition assessment and maintenance study of its distribution system. The result was the implementation of the Asset Optimization Strategy ("AOS"). The study found that programmatic and accelerated replacement of infrastructure would be the most cost-effective strategy to address aging infrastructure and ensure system reliability and integrity.

Asset Optimization Strategy

The purpose of the AOS study was to develop a strategy for accelerated capital replacement improvements that would combat the anticipated effects of aging infrastructure and bolster PPL Electric's ability to effectively maintain reliable electric service. A plan was developed to address the predicted wave of equipment failures that would result due to the age distribution of the asset base. The plan includes replacements in kind, as well as upgrades to current standards.

For the distribution system, 17 asset classes were studied consisting of roughly 30 million units of equipment. PPL Electric defined an asset class as a collection of distribution assets grouped by their functional system purpose, such as sectionalizing devices, transformers, conductors, and cables. The distribution system assessment encompassed all distribution lines and associated equipment, equipment within area supply substations, and high voltage switching devices.

PPL Electric used data such as vendor support, availability of replacement parts, vintage performance, field experience, maintenance results, and equipment age, to derive the final health assessment of each asset. The assessment categorized the 17 asset classes into five states of health: 'poor,' 'marginal,' 'good,' 'very good,' and 'excellent.' For each asset class, individual assets were assigned to one of the five health categories.

The development team recommended a capital plan divided into two distinct replacement strategies. In some cases, such as with distribution substation components, it is more economical to replace on an individual component basis.

In other cases, such as aging distribution lines, it is more economical and more effective to replace all equipment components on a line section or complete line basis.

Accelerated Investment

Figure 4 below depicts PPL Electric's planned capital investment originally included in its 2008-2012 business plan for DSIC eligible property. This business plan was developed in 2007, prior to the AOS study.

	2008	2009	2010	2011	2012
Asset Optimization Strategy*	$ 1,305,907	$ 1,486,747	$ 761,235	$ 1,090,203	$ 1,284,506
Improve System Reliability	$ 10,613,221	$ 9,237,000	$ 8,742,719	$ 11,219,640	$ 11,792,252
Maintain System Reliability	$ 30,388,745	$ 30,148,238	$ 31,151,354	$ 31,939,787	$ 33,422,736
Unreimbursed Highway Relocations	$ 4,035,602	$ 3,528,317	$ 3,598,725	$ 3,677,628	$ 3,917,637
Total	**$ 46,343,476**	**$ 44,400,302**	**$ 44,254,033**	**$ 47,927,258**	**$ 50,417,131**

*Prior to the AOS Study, there was some work budgeted under other categories that were converted to the AOS category.

Figure 4: Original 2008-2012 Capital Investment Plan

Having concluded the AOS study, PPL Electric began engineering and making large material purchases for the identified proactive and accelerated replacements during 2009, followed by a ramp up period during 2010 and full implementation of the strategy in 2011. PPL Electric has refined processes and work planning efforts in support of the sustained investment levels. Acceleration of capital investment into the distribution infrastructure is illustrated in Figure 5 below. PPL Electric has approximately doubled its investment in DSIC-eligible property since 2009, as a result of the AOS study. The 2013-2017 business plan includes projections for expenditures on DISC-eligible reinvestment that approximates the 2010 through 2012 levels.

	2008	2009	2010	2011	2012*
Asset Optimization Strategy	$ 115,046	$ 5,115,041	$ 19,661,586	$ 32,667,111	$ 20,438,113
Improve System Reliability	$ 7,177,339	$ 12,470,418	$ 33,186,012	$ 39,598,466	$ 26,672,610
Smart Grid Investment		$ 100,193	$ 9,299,164	$ 7,320,142	$ 5,458,371
Maintain System Reliability	$ 33,648,603	$ 34,407,064	$ 46,388,673	$ 47,206,474	$ 51,980,585
Unreimbursed Highway Relocations	$ 3,082,209	$ 3,265,414	$ 2,521,236	$ 4,858,351	$ 2,254,769
Total	**$ 44,023,197**	**$ 55,358,131**	**$ 111,056,672**	**$ 131,650,544**	**$ 106,804,448**

*2012 is the forecasted capital spend.

Figure 5: Accelerated Capital Investment

The timely recovery of the costs associated with such a large capital appetite is key to ensuring access to the capital markets for financing. Prior to the enactment of Act 11, PPL Electric faced the possibility of requiring more frequents rate cases, perhaps as often as annual filings. The availability of the DSIC mechanism ensures the timely cost recovery of investments in DSIC-eligible property which could result in less frequent and smaller rate increase requests in the future.

Implementation of Long-Term Infrastructure Improvement Plan

The Long Term Infrastructure Improvement Plan is a continuation of the AOS infrastructure replacements, in addition to various other prudent capital investments to ensure the safety and reliability of the distribution system. The investments are expected to mitigate the growth in equipment failure projections in the short-term and eventually reverse the trend in the long-term. Equipment failure trends and asset-specific contributions to system-level reliability metrics are analyzed on an ongoing basis to ensure funding is invested appropriately.

PPL Electric routinely reviews the effectiveness of programs to ensure cost-effective investment. Program/project impact on SAIDI and SAIFI, in addition to potential reductions in outage response costs, are compared to the overall program/project costs. PPL Electric utilizes a project prioritization process that defines the cost-effectiveness of programs/projects to ensure effective optimization of reliability investments. PPL Electric currently is exploring the use of ongoing asset health indices to further refine asset replacement criteria.

Ongoing review of the effectiveness of investments to address equipment failure trends will likely result in adjustments to the strategy over time. Future Long Term Infrastructure Improvement Plans will reflect such adjustments. Additionally, work plans may fluctuate throughout a given year due to the need to reallocate resources in response to changing business needs. Some examples include shifting resources for storm response activities, project construction delays caused by a backlog of material deliveries, and the redirection of investment to cure costly equipment failures. In addition, during the project engineering phase , issues such as right-of-way requirements and environmental considerations can result in scope changes that also can delay actual construction. During construction of larger projects, additional scope needs can be identified, creating the need to defer other projects. Finally, reliability metric performance can result in redirection of spending to help ensure the ability to meet targets.

Projected expenditures for the replacement of failed equipment are based on a review of historical trends while considering current failure rates and proactive mitigating measures. For such programs, it is difficult to project the specific scope and location. Therefore, PPL Electric has provided only planned expenditures based on historical trending information.

Utilization of a Qualified Work Force

PPL Electric Workforce

As a measure to ensure the use of a qualified workforce, PPL Electric has adopted the definition of a Qualified Electrical Worker from the OSHA Regulation 29 CFR 1910.268 Electrical Power Generation, Transmission and Distribution, which is defined in the PPL Safety Rule Book and is provided to each employee. It is also incorporated into the training and qualification process for all electrical workers.

PPL Electric administers a rigorous, formal training and evaluation process for all qualified electrical workers. Training is required before an employee may perform work independently on exposed, energized electrical equipment greater than 50 volts. Training requirements and programs are unique to the job classification and work being performed. Curriculum documents, outlining subject areas and training durations by job classification have been developed. Training may require up to 5 years to complete and incremental qualifications, following assessment, are identified throughout the duration of the training program. Retraining is conducted on a periodic basis as required by OSHA or more frequently when determined necessary.

PPL's formal training programs are administered by the Technical Development & Improvement ("TD&I") group. The training section of the TD&I group is comprised of approximately 35 full time employees, both training

professionals and craft employees. Experienced training professionals lead the design and development of the training programs with input from subject matter expertise provided by craft employees from the field. Training program (curriculum) content is approved by a curriculum committee which is comprised of business line managers. The basic job requirement for an instructor includes 5-years of experience performing the work and attainment of Journeyman level (or equivalent) qualifications. Craft instructors are then trained and mentored. Training delivery is governed by PPL Electric policies and procedures to ensure quality and consistency.

Training is delivered in phases. A phase typically consists of a grouping of training modules into one training period of several days to several weeks. Training consists of both classroom theory and field work to gain hands-on practical learning experience. Trainees are evaluated throughout the program. Evaluation includes written examination and/or a performance examination. Employees must successfully complete each training module before progressing to the next phase of training.

In addition, trainees in key programs must complete an additional skills assessment prior to advancement to the next step. These assessments are coordinated by the TD&I group. The employees are evaluated (graded) by a panel comprised of knowledgeable field supervisors and experienced bargaining unit craft members. This independent evaluation serves as a quality control check on the TD&I training section.

In preparation for turnover associated with an aging workforce, PPL Electric is engaged in multiple initiatives to ensure a sustainable, knowledgeable, well-trained workforce. In 2009, PPL Electric began preparation of a long range Strategic Workforce Plan ("SWP"). The SWP provides a 15+ year analysis of the projected employee turnover by job category and year, projections on worker availability (resource pool), and strategies (both sourcing and recruiting) to ensure the long-term ability to attract, hire, develop, and retain qualified workers.

Contractor Workforce

PPL Electric's Contract Management department administers a standard process for soliciting contractors to perform work identified to be completed by independent contractors. The process includes issuance of a Request for Proposal ("RFP") to various contractors. That process includes a meeting to review the technical and administrative components of the work and normally a walk-down of the project area. Responses to the RFP are evaluated based on detailed financial and technical schedules that compare respondents' capabilities. Part of the RFP evaluation process includes evaluating the qualification of contractors to perform work (both technical and financial capabilities to meet the contractual commitments, and level of qualification of employees), and may include reference checks if appropriate. Any specific required qualifications of contractors would typically be outlined in the RFP and/or contract (for example: pole installation, permit and tag authorities, line construction by specific voltage, live line work, foundations, directional bore/trenching, underground networks).

Most independent contractors employ personnel through the building trades, which includes Union apprenticeship programs to help ensure that employees are qualified to perform assigned work. (This approach is comparable to PPL Electric's Union labor qualification training program.) Employee qualification programs for non-Union independent contractors are stringently reviewed to assess the contractor's training program, such as on-the-job training and certification programs.

Prior to award, contractors are screened for their safety performance and, if applicable, environmental record. Contractors that do not have an acceptable record receive no further consideration. In the event that a contractor working for PPL Electric incurs safety incidents and/or does not take appropriate safety measures, the contractor is terminated and prohibited from performing work for PPL Electric in the future.

PPL Electric has instituted a contractor orientation program that provides new contractors an opportunity to understand company expectations for performing work safely, mindful of public and private landowner considerations and administrative concerns (such as billing). PPL Electric also sponsors a monthly meeting, with all contractors required to attend, to review safety issues and other relevant topics.

PPL Electric sponsors a training program that allows the contractors' employees to become qualified in PPL Electric's permit-and-tag system. Contractor employees who successfully complete the training program can be permit holders on PPL Electric's system.

PPL Electric monitors the contractors' performance through several activities that may include direct job oversight through on-site supervision, monthly scorecards that evaluate such areas as job quality, safety performance, cost, and validating billing activities that meet contractual expectations. If safety concerns are identified at a job site, any person has the ability and express duty to cease work until the concerns have been appropriately addressed, and a safety review team could be assembled to formally request a contractor to respond to safety concern. Safety violations could result in immediate contractor termination.

Before final acceptance of the contractor's work, a project Construction Supervisor completes a "Project Quality Evaluation Form" that verifies pass or fail for applicable areas of the job (which may include inspection of grounding, trench, foundations, final grade, structural components, poles/towers, conduits, electrical equipment, primary conductor, wiring, designations, and final completion of the Acceptance of Facilities form). Any failures are described along with description and dates of corrections to resolve the areas of concern before final acceptance of the contractor's quality of work.

Summary

As a result of the economic expansion and building boom of the 1960's and 1970's, nearly half of PPL Electric's distribution system was constructed 40 or more years ago. As this equipment deteriorates due to age, environmental exposure, and added load, it becomes increasingly critical to plan for the repair, upgrade, and/or replacement of these assets through the initiatives described above. In the absence of these initiatives, the efficiency, safety, and reliability of the electric distribution system is expected to be increasingly compromised. PPL Electric believes that the expenditures for these initiatives constitute a prudent and reasonable investment for managing its distribution assets and that each of the listed programs will successfully achieve one or more of the following benefits:

- Maintaining public and employee safety;
- Reducing service outage durations and number of customers affected;
- Reducing service outage restoration times;
- Reducing service outage locating and repair times;
- Controlling service outage repair costs;
- Limiting failure-related damages and related costs; and
- Improving/maintaining power quality (voltage, flicker, etc.)

To achieve these results, PPL Electric anticipates the need for the following total capital expenditures over the 2013-2017 period. Note that planned expenditures for certain initiatives can fluctuate yearly due to the various factors identified previously.

PPL Electric Utilities Corporation

Infrastructure Initiative	Planned Asset Repair/Upgrade/Replacement Expenditures					
	2013	2014	2015	2016	2017	5 Year Total
Distribution Pole Replacements	$6.61M	$4.M	$4.4M	$4.43M	$4.64M	$24.08M
C-Truss Distribution Poles	$1.45M	$1.54M	$1.57M	$1.6M	$2.M	$8.16M
Fiber Wrap Distribution Poles	$3.36M	$1.58M	$1.57M	$1.62M	$1.5M	$9.63M
Recloser Replacements	$6.38M	$5.72M	$5.76M	$4.77M	$4.92M	$27.55M
Capacitors	$.24M	$.23M	$.28M	$.36M	$.26M	$1.38M
New Hydraulic Reclosers	$.81M	$.7M	$.62M	$.5M	$.4M	$3.03M
Distribution Animal Guarding	$1.06M	$1.5M	$1.52M	$.84M	$.86M	$5.77M
Distribution Failed Equipment	$13.35M	$13.17M	$13.88M	$14.01M	$14.57M	$68.98M
Replace Failed Underground Primary Cable	$3.6M	$3.48M	$3.5M	$3.62M	$3.68M	$17.88M
Replace Failed Underground Secondary Cable	$1.83M	$1.9M	$1.95M	$1.96M	$2.03M	$9.68M
Replace Failed 12kV Underground Getaway Cable	$.46M	$.47M	$.48M	$.49M	$.51M	$2.43M
Replace Deteriorated/Failed Low-Tension Network Equipment and Structures	$1.46M	$1.52M	$1.34M	$1.37M	$1.39M	$7.07M
Underground Residental Development Cable Replacement and Life Extension	$11.54M	$9.66M	$9.97M	$10.16M	$10.4M	$51.73M
Low Tension Network Primary Cable, Equipment and Structures	$4.41M	$8.56M	$4.61M	$4.64M	$5.61M	$27.83M
12 kV Underground Getaway Cables	$2.72M	$5.02M	$5.8M	$6.13M	$6.21M	$25.88M
Copper Weld Copper	$4.97M	$6.56M	$5.92M	$6.11M	$6.32M	$29.88M
Customers Experiencing Multiple Interruptions	$4.41M	$2.37M	$2.44M	$3.42M	$2.86M	$15.5M
Distribution Reliability Preservation	$10.81M	$7.39M	$7.27M	$9.62M	$9.81M	$44.91M
Reliability Preservation Emergent	$1.01M	$1.13M	$1.55M	$1.59M	$1.7M	$6.98M
Circuit SAIDI Improvement	$6.54M	$8.44M	$8.76M	$11.21M	$9.23M	$44.17M
Distribution Automation Development	$9.99M	$14.73M	$21.29M	$22.74M	$24.43M	$93.17M
Improve System Reliability Projects	$13.58M	$15.07M	$15.31M	$15.95M	$16.3M	$76.21M
Unreimbursed Highway Relocations	$2.83M	$2.96M	$3.05M	$3.14M	$3.33M	$15.31M
Distribution Substation Circuit Breakers	$5.74M	$3.24M	$4.3M	$4.27M	$3.64M	$21.2M
Substation 69/12 kV Transformer Replacement	$3.42M	$7.76M	$3.4M	$5.27M	$4.5M	$24.35M
Protection and Control	$1.41M	$.88M	$1.M	$1.M	$1.M	$5.3M
Cross-Yard 12 kV Underground Tie	$1.03M	$1.06M	$1.09M	$1.11M	$1.13M	$5.41M
Replace Deteriorirated/Failed Area Supply Substation Equipment	$1.05M	$1.09M	$1.12M	$1.15M	$1.19M	$5.59M
Repair Failed 138/69 12 kV Transformers	$1.07M	$1.1M	$1.14M	$.01M	$.01M	$3.33M
Distribution Substation DC Equipment	$.35M	$.37M	$.39M	$.39M	$.39M	$1.89M
Miscellaneous Substation Equipment	$1.93M	$1.06M	$1.67M	$.99M	$1.73M	$7.38M
Substation Animal Guarding	$3.25M	$2.46M	$2.55M	$2.57M	$2.68M	$13.51M
Grand Total	**$132.68M**	**$136.73M**	**$139.51M**	$147.02M	$149.23M	$705.17M

Almost all of the aforementioned initiatives take advantage of new technologies that did not exist when the associated assets were originally placed into service, and many of these technologies are very recent innovations. These technologies are expected not only to restore the assets to their original level of performance, but, in many cases, provide performance well beyond what previously was achievable in order to ensure and maintain adequate, efficient, safe, and reliable service.

Some of the initiatives, such as animal guarding, clearly have implied end-points, where no further opportunities for improvement remain. Others, such as Circuit SAIDI improvements, eventually experience diminishing returns over time. Other initiatives, such as pole reinforcement and replacement, will be ongoing. Finally, some programs may become obsolete, while new programs may become desirable as a result of the evolution of new technologies. Because of these and other variables, the effectiveness of these programs is reviewed on a regular basis – at least every two years – and programs are added, deleted, and/or modified, as necessary, to ensure that the expenditures are providing the desired benefits to customers at a reasonable cost.

Distribution Assets

The following pages detail 5-years projections for Long-Term Infrastructure Improvements initiatives that apply to distribution line assets. These assets include, but are not limited to, the following:

- Structures
  - Poles
  - Crossarms
  - Vaults
  - Manholes
- Overhead Conductors and Hardware
- Underground Cables and Hardware
- Switching Devices
  - Air Break Switches
  - Disconnect Switches
  - Switching Cabinets
- Protective Devices
  - Fuses
  - Reclosers
  - Network Protectors
  - Lightning Arresters
- Transformers
  - Overhead
  - Pad-Mounted
  - Submersible
  - Low Tension Network

Distribution Pole Replacements

Program Description and Purpose

Replacement of distribution wood poles identified as non-restorable (cannot be reinforced) during the annual inspect and treat program or during a spot inspection in an effort to improve public and employee safety, as well as service reliability. This program contributes to storm hardening efforts and aims to improve public and employee safety, as well as service reliability, by reducing potential pole failures.

Identification/Justification Process

PPL Electric inspects approximately 90,000 poles per year. Historical data suggests an approximate 5% rejection rate from the population of yearly inspections; of those rejected, 70% are candidates for reinforcement while 30% are candidates for replacement. PPL Electric is in the process of incorporating additional reinforcement technologies that are projected to reduce the replacement rate to approximately 15%. Replacing rejected poles avoids property damage and risk of accidental injury, and it mitigates the costs associated with extended service outages. Replacement rates are expected to fall as a result of PPL Electric's pole treatment program. The average age of an in-service wooden distribution pole is 35 years.

Scope

The scope of the program is a direct correlation to the number of wood pole inspections.

Planned Replacements in Units					
2013	2014	2015	2016	2017	Total Scope
900-1200	600-800	600-800	600-800	600-800	3300-4400

Locations

Specific locations are a direct correlation to the wood pole inspection plan. Inspection locations are identified yearly by reviewing potential SAIFI impacts of geographic areas, as well as ensuring cost-effectiveness of the program and minimizing inspection crew movements.

Planned Expenditures

Planned Expenditures					
2013	2014	2015	2016	2017	Total
$6.61M	$4.00M	$4.40M	$4.43M	$4.64M	**$24.08M**

C-Truss Distribution Poles

Program Description and Purpose

Steel reinforcement (C-Trussing) of deteriorated distribution wood poles in order to restore the pole's original strength, ensure public safety, and maintain reliable electric service through the reduction of potential pole failures. This program contributes to storm hardening efforts by reducing potential pole failures.

Identification/Justification Process

PPL Electric inspects approximately 90,000 poles per year. Historical data suggests an approximate 5% rejection rate from the population of yearly inspections, of which historically 70% are candidates for steel reinforcement. When applicable, this method achieves a significant savings over pole replacement.

Scope

Planned Reinforcements in Units					
2013	**2014**	**2015**	**2016**	**2017**	**Total Scope**
2800-3200	2800-3200	2800-3200	2800-3200	2800-3200	14000-16000

Locations

Locations identified for C-trussing are a direct correlation to the number of wood pole inspections.

Planned Expenditures

Planned Expenditures					
2013	**2014**	**2015**	**2016**	**2017**	**Total**
$1.45M	$1.54M	$1.57M	$1.60M	$2.00M	**$8.16M**

Fiber Wrap Distribution Poles

Program Description and Purpose

Fiber reinforcement of deteriorated distribution wood poles to improve the pole's strength, ensure public safety and maintain reliable electric service through the reduction of potential pole failures. Fiber wrapped poles are restored to 85% original strength. Fiber wrap is a reinforcement method by which a standing pole in Pennsylvania Department of Transportation (PennDOT) right of way is wrapped and cured in fiber reinforcement materials. This program contributes to storm hardening efforts and aims to improve public and employee safety, as well as service reliability, by reducing potential pole failures.

Identification/Justification Process

Fiber wrap candidates are selected from a pool of non-restorable poles in PennDOT's right-of-way on the basis of the condition of pole, the age of pole and the cost of replacement. Historically, reinforcement of poles within PennDOT right-of-way was not practiced and all poles that did not pass inspection were replaced. In an effort to increase cost-effectiveness, PPL Electric began fiber wrap reinforcement during 2012 and expects to reduce the number of pole replacements from 30% of rejected poles to 15%. Shifting capital from replacement to fiber wrap allows capital to be invested in more effective areas.

Scope

Planned Reinforcements in Units					
2013	**2014**	**2015**	**2016**	**2017**	**Total Scope**
1600-1900	700-900	700-900	700-900	700-900	4400-5500

Locations

Locations identified for fiber wrap are a direct correlation to the wood pole inspection plan.

Planned Expenditures

Planned Expenditures					
2013	**2014**	**2015**	**2016**	**2017**	**Total**
$3.36M	$1.58M	$1.57M	$1.62M	$1.50M	**$9.63M**

Recloser Replacements

Program Description and Purpose

Proactive refurbishment and replacement of oil-circuit reclosers ("OCRs") to improve reliable service by reducing equipment failures. OCRs are used on main 12 kV lines and on three-phase and single-phase taps to minimize the number of customers affected by a sustained outage. Devices are replaced through specific maintenance and required refurbishment/replacement schedules in an effort to reduce OCR failures.

Identification/Justification Process

Candidates are identified based on an adherence to an eight-year cycle, not the age of the device. An eight-year cycle ensures compliance with the PUC's Inspection & Maintenance Standards.

Scope

Planned Replacements in Units					
2013	**2014**	**2015**	**2016**	**2017**	**Total Scope**
800-1100	700-1000	700-1000	600-900	600-900	3400-4900

Locations (Approximate total over 5 year plan)

Region	Units
Lehigh	540 - 780
Northeast	610 - 880
Central	540 - 780
Susquehanna	650 - 930
Harrisburg	510 - 740
Lancaster	540 - 780

Planned Expenditures

Planned Expenditures					
2013	**2014**	**2015**	**2016**	**2017**	**Total**
$6.38M	$5.72M	$5.76M	$4.77M	$4.92M	**$27.55M**

Capacitors

Program Description and Purpose

Installation of capacitors on the 12 kV system to achieve a unity power factor on the high side of the distribution substation transformers ensuring required overall power quality.

Identification/Justification Process

Capacitors are installed on the 12 kV system using VAR requirements that are identified annually by PPL Electric's distribution planning resources. PJM requires a minimum power factor of 0.97 as measured at the transmission/distribution interface point. Scope is determined by MVAR requirements to support any system shortages. Regional splits are analyzed annually based on need.

Scope

Planned Installations in Units					
2013	**2014**	**2015**	**2016**	**2017**	**Total Scope**
17-23	17-23	17-23	17-23	17-23	85-115

Locations (Approximate total over 5 year plan)

Region	Units
Lehigh	27 - 36
Northeast	9 - 12
Central	9 - 12
Susquehanna	9 - 12
Harrisburg	18 - 24
Lancaster	13 - 18

Planned Expenditures

Planned Expenditures					
2013	**2014**	**2015**	**2016**	**2017**	**Total**
$.24M	$.23M	$.28M	$.36M	$.26M	**$1.38M**

New Hydraulic Reclosers

Program Description and Purpose

Proactive installation of new hydraulic reclosers to improve reliability performance by increasing circuit sectionalizing ability. Reclosers minimize the number of customers affected by a sustained outage.

Identification/Justification Process

Locations are requested by regional reliability engineers and prioritized annually based on anticipated SAIDI savings. A gradual scope reduction is assumed in the outer years as a result of saturation of reclosers and other distribution automation equipment.

Scope

Planned Installations in Units					
2013	**2014**	**2015**	**2016**	**2017**	**Total Scope**
23-27	20-25	15-20	10-15	10-15	115-135

Locations (Approximate total over 5 year plan)

Region	Units
Lehigh	22 - 26
Northeast	22 - 26
Central	22 - 26
Susquehanna	22 - 26
Harrisburg	18 - 21
Lancaster	9 - 10

Planned Expenditures

Planned Expenditures					
2013	**2014**	**2015**	**2016**	**2017**	**Total**
$.81M	$.70M	$.62M	$.50M	$.40M	**$3.03M**

Distribution Animal Guarding

Program Description and Purpose

Proactive installation of animal guards on existing distribution overhead transformers and air break switches to improve circuit reliability. Animal guards help prevent animal-related contacts which cause service interruptions.

Identification/Justification Process

Densities of transformers and air breaks are grouped together in a location. Locations are determined by a vectoring approach which identifies the most cost-effective locations, focusing on high-density outage areas susceptible to animal contacts.

Scope

Planned Areas To Address					
2013	**2014**	**2015**	**2016**	**2017**	**Total Scope**
30-50	40-60	40-60	20-40	15-35	145-245

Locations (Approximate total over 5 year plan)

Region	Areas
Lehigh	30 - 50
Northeast	15 - 25
Central	26 - 44
Susquehanna	19 - 31
Harrisburg	26 - 44
Lancaster	30 - 50

Planned Expenditures

Planned Expenditures					
2013	**2014**	**2015**	**2016**	**2017**	**Total**
$1.06M	$1.50M	$1.52M	$.84M	$.86M	**$5.77M**

Distribution Failed Equipment

Program Description and Purpose

Replacement or repair of failed or deteriorated capital units of distribution equipment, excluding underground cable, in order to maintain adequate service reliability.

Identification/Justification Process

Candidates are identified via inspections, both planned and ad-hoc, as well as actual outages and power service problems. Budget allocations are based on historical trends of hours charged to corrective work, in addition to projected trends of future equipment failures. Examples include, but are not limited to, failed reclosers, poles, capacitor banks, and air breaks.

Scope & Locations

Scope and locations are determined as equipment fails.

Planned Expenditures

Planned Expenditures					
2013	**2014**	**2015**	**2016**	**2017**	**Total**
$13.35M	$13.17M	$13.88M	$14.01M	$14.57M	**$68.98M**

Replace Failed Underground Primary Cable

Program Description and Purpose

Replacement of failed underground residential primary cables in order to maintain adequate service reliability.

Identification/Justification Process

Candidates are identified via actual failures. Cables which have failed for the second time in a calendar year, or for the third time in their lifetime are replaced instead of repaired. Cables which fail only once are typically repaired on-site. Budget recommendations are based on historical trends of hours charged to corrective work, in addition to projected trends of future equipment failures.

Scope & Locations

Scope and locations are determined as cable fails.

Planned Expenditures

Planned Expenditures					
2013	**2014**	**2015**	**2016**	**2017**	**Total**
$3.60M	$3.48M	$3.50M	$3.62M	$3.68M	**$17.88M**

Replace Failed Underground Secondary Cable

Program Description and Purpose

Replacement of failed underground residential secondary cables in order to maintain adequate service reliability.

Identification/Justification Process

Candidates are identified via actual failures, customer complaints and poor neutral test results. Budget recommendations are based on historical trends of hours charged to corrective work, in addition to projected trends of future equipment failures.

Scope & Locations

Scope and locations are determined as cable fails.

Planned Expenditures

Planned Expenditures					
2013	**2014**	**2015**	**2016**	**2017**	**Total**
$1.83M	$1.90M	$1.95M	$1.96M	$2.03M	**$9.68M**

Replace Failed 12 kV Underground Getaway Cables

Program Description and Purpose

Replacement of failed 12 kV underground getaway cables in order to maintain adequate service reliability. Getaway failures can result in long duration outages. Getaway cables connect substations to outgoing feeders beyond the substation perimeter.

Identification/Justification Process

Candidates are identified via actual failures. Budget recommendations are based on historical trends of hours charged to corrective work, in addition to projected trends of future equipment failures.

Scope & Locations

Scope and locations are determined as cable fails.

Planned Expenditures

Planned Expenditures					
2013	**2014**	**2015**	**2016**	**2017**	**Total**
$.46M	$.47M	$.48M	$.49M	$.51M	**$2.43M**

Replace Deteriorated/Failed Low Tension Network Equipment and Structures

Program Description and Purpose

Replacement or repair of deteriorated and failed equipment related to low-tension networks, including submersible transformers, network protectors, manholes, and vault tops in order to maintain adequate service reliability. Low-tension networks are low voltage underground distribution facilities found in urban areas.

Identification/Justification Process

Candidates are identified via actual failures, inspections, testing, or work on the system. Budget recommendations are based on historical trends of hours charged to corrective work, in addition to projected trends of future equipment failures.

Scope & Locations

Scope and locations are determined as cable fails.

Planned Expenditures

Planned Expenditures					
2013	**2014**	**2015**	**2016**	**2017**	**Total**
$1.46M	$1.52M	$1.34M	$1.37M	$1.39M	**$7.07M**

Underground Residential Development Cable Replacement and Life Extension

Program Description and Purpose

Programmatic replacement and treatment of deteriorated underground residential development ("URD") cable to maintain reliable electric service in residential developments. PPL Electric's course of action is to treat entire developments where possible.

Identification/Justification Process

Candidate developments are selected based on history of cable failures. Once the initial failure is treated, remaining cable sections in that development are tested. Test results drive the decision to either replace the cable or treat it with a compound to restore cable insulation, known as cable curing. The profile of URD cable varies across URDs, thus making it difficult to predict whether cable curing or replacement will be the prevalent course of action in a given URD. On a system-wide basis, however, historical experience indicates that of the total number of cables in troubled URD locations, typically 35% can be cured, 25% require replacement, and 40% do not require immediate remediation.

Regional allocation of cable remediation is based on historical regional percent contribution to system-wide cable failures.

Scope

	Planned Scope In Cable Sections					
Treatment	**2013**	**2014**	**2015**	**2016**	**2017**	**Total Scope**
Replacement After Test	550-600	350-400	350-400	400-450	400-450	2050-2300
Cure	750-800	750-800	750-800	750-800	750-800	3750-4000
Proactive Replacement	250-300	150-200	150-200	150-200	150-200	850-1100

Locations (Approximate total over 5 year plan)

Region	Units
Lehigh	1600 - 1800
Northeast	700 - 800
Central	500 - 500
Susquehanna	400 - 500
Harrisburg	2100 - 2300
Lancaster	1300 - 1500

Planned Expenditures

Planned Expenditures					
2013	**2014**	**2015**	**2016**	**2017**	**Total**
$11.54M	$9.66M	$9.97M	$10.16M	$10.40M	**$51.73M**

Low Tension Network Primary Cable, Equipment and Structures

Program Description and Purpose

Programmatic replacement of deteriorated equipment related to low-tension networks, including: paper insulated lead cable (PILC), submersible transformers, network protectors, manholes, and vault tops. The purpose of this program is to ensure public safety and service reliability through the replacement of underground facilities that have reached the end of their expected life or show signs of premature age from prolonged exposure to corrosive environments.

Identification/Justification Process

Vintage PILC cable has a documented history of problems and was deemed prudent to replace entirely. Replacement and repair of manhole and vault tops is determined by regular inspection. Transformer and network protector replacements are determined through inspection and age, where assets exceeding 40 years in service are considered highest priority.

Scope

	Planned Replacements in Units					
	2013	**2014**	**2015**	**2016**	**2017**	**Total Scope**
Lead Cable (miles)	0	4.75	0	0	0	4.75
LTN Equipment	50-70	70-90	50-70	50-70	50-70	270-370

Locations (Approximate total over 5 year plan)

Region	LTN Equipment	Cable
Lehigh	64 - 88	3 mi
Northeast	48 - 65	0
Central	29 - 39	0
Susquehanna	12 - 17	1.75 mi
Harrisburg	99 - 135	0
Lancaster	18 - 25	0

Planned Expenditures

Planned Expenditures					
2013	**2014**	**2015**	**2016**	**2017**	**Total**
$4.41M	$8.56M	$4.61M	$4.64M	$5.61M	**$27.83M**

12 kV Underground Getaway Cables

Program Description and Purpose

Programmatic replacement of aging 12 kV underground getaway cables, with an emphasis on conversion to overhead design, to prevent service outages and reduce outage durations for improved reliability.

Identification/Justification Process

Getaways are selected on a basis of failure history, cable test results, and age. Cables that are older than 40 years and serve a large number of customers, are given highest priority. The average age for UG cables identified for replacement is 38 years.

Scope

Planned Replacements in Units					
2013	**2014**	**2015**	**2016**	**2017**	**Total Scope**
25-30	50-55	60-65	60-65	60-65	255-280

Locations (Approximate total over 5 year plan)

Region	Units
Lehigh	52 - 57
Northeast	52 - 57
Central	28 - 31
Susquehanna	38 - 41
Harrisburg	38 - 41
Lancaster	47 - 52

Planned Expenditures

Planned Expenditures					
2013	**2014**	**2015**	**2016**	**2017**	**Total**
$2.72M	$5.02M	$5.80M	$6.13M	$6.21M	**$25.88M**

Copper Weld Copper Replacement

Program Description and Purpose

Programmatic replacement of overhead #6 Copper, and #6, #6A and #7A Copper Weld overhead conductor to improve reliability of service by reducing potential for long-duration conductor failures. Such vintages of conductor are known to anneal and are often found in heavily wooded areas of the service territory where relocation, along with reconductoring, help to ensure future outages can be restored more quickly. PPL Electric currently is evaluating expanding this program to include other types of vintage cables/conductors.

Identification/Justification Process

Circuits are prioritized by an algorithm that weighs the amount of copper on the line and historic customer service interruptions.

Scope

Planned Replacements in Miles					
2013	**2014**	**2015**	**2016**	**2017**	**Total Scope**
24-26	31-34	29-31	30-32	31-34	265-290

Locations (Approximate total over 5 year plan)

Region	Miles
Lehigh	57 - 62
Northeast	47 - 52
Central	38 - 41
Susquehanna	38 - 41
Harrisburg	33 - 36
Lancaster	52 - 57

Planned Expenditures

Planned Expenditures					
2013	**2014**	**2015**	**2016**	**2017**	**Total**
$4.97M	$6.56M	$5.92M	$6.11M	$6.32M	**$29.88M**

Customers Experiencing Multiple Interruptions

Program Description and Purpose

Improve reliability for customers experiencing multiple interruptions ("CEMI") via upgrades to their circuits. The purpose of the program is to prevent future outages from occurring and to increase communication with customers who experience five or more service outages within a one year period.

Identification/Justification Process

Projects are identified by regional distribution planners and regional reliability supervisors once a circuit has customers who exceed a threshold of five or more service interruptions within a calendar year. Projects are vetted at a cross-functional task force meeting for approval and ranked systematically based on historical CEMI performance, year-to-date CEMI performance, cost per customer benefit, and expected reliability improvements. Examples include, but are not limited to, reconductoring lines, replacing and/or relocating protective equipment with new equipment, and building new tie lines to improve switching capabilities. It should be noted that sizes of projects vary significantly which can result in material swings in the number of planned projects.

Scope

Planned Projects					
2013	**2014**	**2015**	**2016**	**2017**	**Total Scope**
10-20	15-35	15-35	15-35	15-35	70-160

Locations

Locations are identified based upon emergent reliability needs.

Planned Expenditures

Planned Expenditures					
2013	**2014**	**2015**	**2016**	**2017**	**Total**
$4.41M	$2.37M	$2.44M	$3.42M	$2.86M	**$15.5M**

Distribution Reliability Preservation

Program Description and Purpose

Upgrades to the distribution system as justified by regional reliability supervisors to improve reliability. Improvements are targeted towards WPCs, circuits with a history of customer complaints, or recommendations as a result of EORs. EORs are detailed reliability and operational analysis performed on 25% of a region's distribution circuits per year.

These projects are outside the scope of the Worst Performing Circuit program because they are smaller in nature and can be more quickly engineered and constructed.

Identification/Justification Process

Regional reliability supervisors identify and submit requests for small-scale circuit improvement projects. Projects under $50,000 are directly identified by the regions, approximately 60% of the budget is allotted towards these small improvements. Projects over $50,000 are ranked utilizing PPL Electric's investment prioritization tool to ensure funds are directed towards the most cost-effective projects. The number of projects and locations may vary depending on areas with reliability concerns. Examples include, but are not limited to, installation of fuses, fault indicators, reconductoring of vintage conductor, upgrading conductor to reduce impact of vegetation related service outages, and relocating sections of lines that may be inaccessible or prone to vegetation related service outages.

It should be noted projects vary significantly in size, which can result in material swings in the number of planned projects.

Scope

Planned Projects					
2013	**2014**	**2015**	**2016**	**2017**	**Total Scope**
150-300	150-300	150-300	150-300	150-300	750-1500

Locations

Locations are identified based upon emergent reliability needs.

Planned Expenditures

Planned Expenditures					
2013	**2014**	**2015**	**2016**	**2017**	**Total**
$10.81M	$7.39M	$7.27M	$9.62M	$9.81M	**$44.91M**

Reliability Preservation Emergent

Program Description and Purpose

Remediation of issues primarily associated with secondary voltage and emergent small-scale customer reliability needs in order to improve reliability.

Identification/Justification Process

Work is identified by line crews, as well as through customer calls, and is completed to avoid potential service outages, power quality concerns and safety issues. Examples include, but are not limited to, modifying capacitance to address voltage concerns, installing fusing to aid in sectionalizing, installing animal guards after multiple animal caused outages, and replacing transformers to resolve transformer overload. Budget recommendations are based on historical trends of hours charged.

Scope & Locations

Scope and locations are determined as emergent needs arise.

Planned Expenditures

Planned Expenditures					
2013	**2014**	**2015**	**2016**	**2017**	**Total**
$1.01M	$1.13M	$1.55M	$1.59M	$1.70M	**$6.98M**

Circuit SAIDI Improvement

Program Description and Purpose

Proactive installation of reclosers and air breaks with communications capabilities or the upgrade of existing reclosers and air breaks to include communication capability. Such installations allow for remote operation and monitoring of circuit sectionalizing equipment. This program also includes installation of manual switches to address emergent reliability issues. The results of these improvements are threefold:

- Reduce the number of upstream customers affected by a service outage.
- Reduce the time necessary to restore customers by transferring circuit sections to alternate sources and limiting long-duration service outages to smaller circuit sections involving fewer customers.
- Facilitate fault location and reduce the time necessary for repair and restoration.

Identification/Justification Process

Candidate locations are those that have experienced substandard reliability, as determined by system SAIDI contribution, and could benefit from improved sectionalizing capability.

It should be noted that projects vary significantly in size, which can result in material swings in the number of planned projects.

Scope

Planned Installations in Units					
2013	**2014**	**2015**	**2016**	**2017**	**Total Scope**
150-300	150-300	150-300	150-300	150-300	750-1500

Locations (Approximate total over 5 year plan)

Region	Units
Lehigh	125 - 250
Northeast	125 - 250
Central	125 - 250
Susquehanna	125 - 250
Harrisburg	125 - 250
Lancaster	125 - 250

Planned Expenditures

Planned Expenditures					
2013	**2014**	**2015**	**2016**	**2017**	**Total**
$6.54M	$8.44M	$8.76M	$11.21M	$9.23M	**$44.17M**

Distribution Automation Deployment

Program Description and Purpose

Upgrade existing air breaks, vacuum circuit reclosers ("VCRs"), and SCADA ("Supervisory Control and Data Acquisition") at distribution substations, and identify new locations to install automated air breaks and VCRs to improve circuit reliability. This will allow for automatic sectionalizing and restoration of customers during service outage conditions. This plan meets the recommendation the Commission issued on August 7, 2012 regarding outage mitigation techniques during storm events.

Identification/Justification Process

Areas selected for deployment:

- Have concentrations of distribution feeders that have been identified as WPCs.
- Have the operational flexibility to allow transfers and restoration of customers when service outages occur.
- Have significantly contributed to system SAIDI and SAIFI.

Customer Benefits:

- 500,000 customers (36%) will be covered under the distribution automation deployment.
- Significant reductions in system SAIDI and SAIFI.
- Reduction of the number of customers experiencing long duration service interruptions. Distribution automation will sectionalize the service interruption to the smallest possible area in under five minutes.
- Major Event improvements:
    - Fewer resources needed for switching (trouble crews can focus on cutting loops and performing repairs).
    - Reduction in call volume due to automatic restoration of customers.

Approximately 16-28 distribution substations will be upgraded per year and approximately 223-532 distribution devices will be upgraded per year.

PPL Electric Utilities Corporation

Scope

	Planned Substation Upgrades					
Voltage	2013	2014	2015	2016	2017	Total Scope
138/69-12 kV	16	17	24	25	28	110

	Planned Distribution Device Upgrades					
Voltage	2013	2014	2015	2016	2017	Total Scope
12 kV	215-230	275-295	350-375	505-530	525-550	1870-1980

Distribution devices include reclosers, air breaks, and communication infrastructure.

Locations (Approximate total over 5 year plan)

Region	Distribution Substations
Lehigh	35
Northeast	25
Central	12
Susquehanna	15
Harrisburg	11
Lancaster	12

Region	Distribution Devices
Lehigh	633 - 670
Northeast	341 - 361
Central	219 - 232
Susquehanna	253 - 268
Harrisburg	248 - 263
Lancaster	175 - 186

Planned Expenditures

Planned Expenditures					
2013	2014	2015	2016	2017	Total
$9.99M	$14.73M	$21.29M	$22.74M	$24.43M	**$93.17M**

System Reliability Improvement Projects

Program Description and Purpose

Large-scale improvements to distribution circuits with a history of poor reliability. This program addresses long-term projects, primarily aimed at WPCs. However, other proactive long-term projects with proven reliability benefit are included.

Identification/Justification Process

Each quarter, distribution planners and regional reliability supervisors meet to propose projects to improve WPCs. Projects are approved by distribution planning supervisors and vetted against other projects for scheduling based on historical reliability, potential benefit, and cost. Projects may span multiple years and are listed in the years they are planned to go in service. Scope is expected to increase in outer years as circuits and projects are identified. Examples include, but are not limited to, circuit reconfigurations with new tie lines, new lines and terminals, or the installation of substations for increased reliability.

Additionally, PPL Electric monitors large customer impact outages on a daily basis. A circuit that begins to show reliability deterioration and notable impact on reliability metrics requires a root cause analysis. Such analysis can result in the identification of a long-term project.

Note that the projects vary significantly in size, which can result in material swings in the number of planned projects.

Scope

Planned Projects					
2013	**2014**	**2015**	**2016**	**2017**	**Total Scope**
10-16	10-20	10-25	10-25	10-25	52-111

Locations (Approximate total over 5 year plan)

Region	Projects
Lehigh	9 - 19
Northeast	9 - 19
Central	9 - 19
Susquehanna	9 - 19
Harrisburg	9 - 19
Lancaster	9 - 19

Planned Expenditures

Planned Expenditures					
2013	**2014**	**2015**	**2016**	**2017**	**Total**
$13.58M	$15.07M	$15.31M	$15.95M	$16.30M	**$76.21M**

Unreimbursed Highway Relocations

Program Description and Purpose

Unreimbursed customer requested relocations of PPL Electric distribution facilities in support of highway and bridge projects throughout service territory.

Identification/Justification Process

The customers (project sponsors) include PennDOT, the PA Turnpike Commission, and various counties and municipalities. PPL Electric and the project sponsor execute a reimbursement agreement, and PPL Electric is reimbursed for its work based on the "pole count method", as defined in PennDOT's DM-5 manual. Historically, reimbursement for distribution projects is approximately 35%.

To accommodate highway relocations and other municipal projects, approximately 70-120 projects per year are placed in service. PPL Electric typically is notified of distribution relocation work 12 months or less before the start of requested utility relocation activities.

Scope & Locations

Scope and locations are determined as requests are received.

Planned Expenditures

PPL Electric's expenditures to complete highway relocation projects are the net of total expenditures minus the project sponsor's reimbursements.

Planned Expenditures "Net Spend"					
2013	**2014**	**2015**	**2016**	**2017**	**Total**
$2.83M	$2.96M	$3.05M	$3.14M	$3.33M	**$15.31M**

Substation Assets

The following pages detail 5-year projections for Long-Term Infrastructure Improvements initiatives that apply to distribution substation assets. These assets includes, but are not limited to, the following:

- Structures
  - Enclosures
  - Fences
- Overhead Conductors and Hardware
- Underground Cables and Hardware
- Switching Devices
  - Air Break Switches
  - Disconnect Switches
- Protective Devices
  - Circuit Breakers
  - Fuses
  - Reclosers
  - Lightning Arresters
- Transformers
  - Power
  - Station Service
  - Instrument

Distribution Substation Circuit Breakers

Program Description and Purpose

Programmatic replacement of substation circuit breakers ("CBs") based on age and other factors to ensure reliable service. This program includes the replacement of 12 kV circuit breakers, as well as 69 kV circuit breakers that are classified as distribution facilities and equipment.

Identification/Justification Process

Candidates for replacement are identified based on age, operating issues, availability of spare/repair parts, and the availability of vendor technical support. Once identified, replacement of these facilities are coordinated and aligned with the replacement of other assets at the same substation within the five-year planning window.

The average age of the 12 kV circuit breakers that have been identified for replacement through 2017 is 48 years; the life expectancy is 50 years.

The specific type of 12 kV circuit breakers that have been targeted in this replacement program are the GE type FKD and FK oil CBs, Allis Chalmers type OZ and FZO oil CBs, Federal Pacific type AF and JCE oil CBs, McGraw Edison type VAC vacuum CBs, IT type VBK vacuum CBs, and GE type VIB vacuum CBs.

The average age of the 69 kV circuit breakers that have been identified for replacement through 2017 is 47 years; the life expectancy is 50 years.

The specific type of 69 kV circuit breakers that have been targeted for replacement in this program are the Allis Chalmers type FZO oil CBs and the GE type FK oil CBs.

Scope

	Planned Projects					
Voltage	**2013**	**2014**	**2015**	**2016**	**2017**	**Total Scope**
12 kV	60-65	30-35	32-37	31-37	32-37	185-211
69 kV	0-3	0-4	1-5	1-5	0-3	2-20

Locations (Approximate total over 5 year plan)

Region	Projects
Lehigh	28 - 35
Northeast	28 - 35
Central	28 - 35
Susquehanna	37 - 46
Harrisburg	37 - 46
Lancaster	28 - 35

Planned Expenditures

Planned Expenditures					
2013	2014	2015	2016	2017	Total
$5.74M	$3.24M	$4.30M	$4.27M	$3.64M	**$21.2M**

Substation 69/12 kV Transformer Replacement

Program Description and Purpose

Programmatic replacement of distribution substation transformers to maintain reliable service.

Identification/Justification Process

Candidates for replacement are identified based on age and/or maintenance condition, both indicators of potential failure. Once identified, replacement of these facilities is coordinated and aligned with the replacement of other assets at the same substation within the five-year planning window. Replace approximately 12 per year, averaged over a five-year period.

The average age of assets identified for replacement is 52 years; 14 of these are beyond their expected life. These assets are of vintages between 1947 and 1973, manufactured by Westinghouse, U S Transformer, RTE-Asea, Moloney, Hevi-Duty, General Electric and Allis Chalmers.

Scope

Planned Projects					
2013	**2014**	**2015**	**2016**	**2017**	**Total Scope**
13-17	3-7	13-17	3-7	13-17	45-65

Locations (Approximate total over 5 year plan)

Region	Projects
Lehigh	7 - 9
Northeast	8 - 12
Central	7 - 11
Susquehanna	8 - 12
Harrisburg	10 - 14
Lancaster	5 - 7

Planned Expenditures

Planned expenditures fluctuate due to timing of long lead material purchases.

Planned Expenditures					
2013	**2014**	**2015**	**2016**	**2017**	**Total**
$3.42M	$7.76M	$3.40M	$5.27M	$4.50M	**$24.35M**

Protection and Control

Program Description and Purpose

Programmatic replacement of protection and control equipment to maintain reliable distribution service to customers. Replacement of relays with modern microprocessor relays will enhance the ability for self-diagnostics, as well as continuous monitoring of the health of the device.

Identification/Justification Process

Candidates for replacement are identified based on obsolescence, availability of vendor support, and age. Once identified, replacement of these facilities is coordinated and aligned with the replacement of other assets at the same substation within the five-year planning window. The specific type of relays that have been targeted for early replacement in this program are the Agastat 2400 Series, Westinghouse COI, General Electric IAC, General Electric CFF, General Electric NLR, ABB DPU 245/445, and Westinghouse COM.

Scope

Planned Projects					
2013	**2014**	**2015**	**2016**	**2017**	**Total Scope**
5-8	5-8	5-8	5-8	5-8	25-40

Locations (Approximate total over 5 year plan)

Region	Projects
Lehigh	5 - 8
Northeast	2
Central	5 - 8
Susquehanna	3 - 5
Harrisburg	3 - 5
Lancaster	7 - 11

Planned Expenditures

Planned Expenditures					
2013	**2014**	**2015**	**2016**	**2017**	**Total**
$1.41M	$.88M	$1.00M	$1.00M	$1.00M	**$5.3M**

Cross-Yard 12 kV Underground Ties

Program Description and Purpose

Programmatic replacement of underground substation cables to maintain reliable service.

Identification/Justification Process

Candidates for replacement are identified based on age and/or maintenance condition, both indicators of potential failure. Assets with an age significantly greater than 29 years are deemed good candidates for replacements. In addition, assets with unfavorable test results, which indicate the likelihood of failure, are prioritized for replacement. Currently, there is an average of 23 replaced per year over a five-year period. The average age of assets identified for replacement is 40 years. These assets were installed between 1960 and 1989; 85 of these assets are over 40 years old.

Scope

Planned Projects					
2013	**2014**	**2015**	**2016**	**2017**	**Total Scope**
15-25	15-25	15-25	15-25	15-25	75-125

Locations (Approximate total over 5 year plan)

Region	Projects
Lehigh	14 - 23
Northeast	11 - 18
Central	10 - 17
Susquehanna	12 - 20
Harrisburg	13 - 22
Lancaster	15 - 25

Planned Expenditures

Planned Expenditures					
2013	**2014**	**2015**	**2016**	**2017**	**Total**
$1.03M	$1.06M	$1.09M	$1.11M	$1.13M	**$5.41M**

Replace Deteriorated/Failed Area Supply Substation Equipment

Program Description and Purpose

Replacement of failed or deteriorated equipment at area supply substations with in-kind equipment to maintain safe and reliable service.

Identification/Justification Process

Candidates are identified via actual failures, inspections, testing or work on the system. Budget recommendations are based on historical trends of hours charged to corrective work, in addition to projected trends of future equipment failures.

Scope & Locations

Scope and locations are determined as equipment fails.

Planned Expenditures

Planned Expenditures					
2013	**2014**	**2015**	**2016**	**2017**	**Total**
$1.05M	$1.09M	$1.12M	$1.15M	$1.19M	**$5.59M**

Repair Failed 138/69/12 kV Transformers

Program Description and Purpose

Repair of failed distribution substation power transformers to "like new" condition to maintain safe and reliable service in a more cost-effective manner than the purchase of new units. Program only includes costs associated with the overhaul of the failed unit.

Identification/Justification Process

Budget projections include a failure rate of three transformers per year based upon a ten-year rolling average. Individual units are selected based upon the cost-effectiveness of rebuilding the unit when compared to scrapping.

Scope & Locations

Scope and locations are determined as equipment fails.

Planned Expenditures

Planned Expenditures					
2013	**2014**	**2015**	**2016**	**2017**	**Total**
$1.07M	$1.10M	$1.14M	$.01M	$.01M	**$3.33M**

Distribution Substation DC Equipment

Program Description and Purpose

Programmatic replacement of distribution substation DC equipment to maintain reliable service. This program includes the replacement of 24V, and 48V batteries, as well as battery chargers.

Identification/Justification Process

Candidates for replacement are identified based on age, operating issues, and availability of spare parts. Once identified, replacement of these facilities are coordinated and aligned with the replacement of other assets at the same substation within the five-year planning window. Currently, there is an average of 25 pieces of DC equipment scheduled to be replaced per year over the next six-year period. The average age of the DC equipment scheduled to be replaced through 2017 is 31 years; life expectancy of this type of equipment is 20 years. Of the devices being replaced, 96 devices will be beyond their expected life by the time of replacement.

Scope

Planned Projects					
2013	**2014**	**2015**	**2016**	**2017**	**Total Scope**
22-28	22-28	22-28	22-28	22-28	110-140

Locations (Approximate total over 5 year plan)

Region	Projects
Lehigh	21 - 27
Northeast	15 - 19
Central	24 - 30
Susquehanna	17 - 21
Harrisburg	16 - 20
Lancaster	18 - 22

Planned Expenditures

Planned Expenditures					
2013	**2014**	**2015**	**2016**	**2017**	**Total**
$.35M	$.37M	$.39M	$.39M	$.39M	**$1.89M**

PPL Electric Utilities Corporation

Miscellaneous Substation Equipment

Program Description and Purpose

Programmatic replacement of older substation equipment, including air breaks, potential transformers ("PTs"), capacitance-coupled voltage transformers ("CCVTs"), circuit switchers, 120V batteries, lightning arresters, and DC panels in order to prevent future maintenance concerns and to maintain reliable service.

Identification/Justification Process

Candidates for replacement are identified based on age and/or maintenance condition, both indicators of potential failure. Once identified, replacement of these facilities is coordinated and aligned with the replacement of other assets at the same substation within the five-year planning window. Currently, there is an average of 24 pieces of equipment scheduled to be replaced per year over the next six-year period. The average age of assets identified for replacement is 47 years. These assets are of vintages between 1947 and 2000. Approximately 90 of these assets are projected to have exceeded their expected life by the time they are replaced.

Scope

Planned Projects					
2013	**2014**	**2015**	**2016**	**2017**	**Total Scope**
30-35	15-20	20-25	20-25	22-27	107-132

Locations (Approximate total over 5 year plan)

Region	Projects
Lehigh	17 - 21
Northeast	9 - 11
Central	33 - 41
Susquehanna	24 - 30
Harrisburg	14 - 18
Lancaster	10 - 12

Planned Expenditures

Planned Expenditures					
2013	**2014**	**2015**	**2016**	**2017**	**Total**
$1.93M	$1.06M	$1.67M	$.99M	$1.73M	**$7.38M**

Substation Animal Guarding

Program Description and Purpose

Improvements to existing distribution substation equipment via the proactive installation of animal guards. Guarded equipment includes transformer bushings, circuit breakers, fuse/disconnect switches, bus supporting insulators, surge arresters, station service transformers, PTs, and cable terminators.

Identification/Justification Process

Distribution substations are regionally prioritized based on historical animal-related service outages, number of customers served, substation load, and substation type. High priority substations are animal guarded first with the lower priority substations guarded in outer years.

Scope

Planned Installations in Units					
2013	**2014**	**2015**	**2016**	**2017**	**Total Scope**
50-60	45-55	45-55	45-55	35-45	220-270

Locations (Approximate total over 5 year plan)

Region	Units
Lehigh	40 - 50
Northeast	45 - 55
Central	40 - 50
Susquehanna	18 - 22
Harrisburg	36 - 44
Lancaster	40 - 50

Planned Expenditures

Planned Expenditures					
2013	**2014**	**2015**	**2016**	**2017**	**Total**
$3.25M	$2.46M	$2.55M	$2.57M	$2.68M	**$13.51M**

Appendix A : Average Age of Major Units of Property

The below chart is a summary of key distribution assets, targeted for planned replacement and proactive installation.

Average Age of Major Units of PPL Electric's Distribution Property		
[illegible]	Description	[illegible] Age*
362.0 - Station Equipment	DC System Equipment	20
362.0 - Station Equipment	Substation Animal Guards	4
362.0 - Station Equipment	Power Circuit Breakers	32
362.0 - Station Equipment	Power Transformers	36
362.0 - Station Equipment	Protection and Control Equipment	43
364.4 - Poles and Fixtures	Distribution Wood Poles	37
365.0 - Overhead Conductors, Device	Distribution Animal Guards	1
365.0 - Overhead Conductors, Device	OH Primary Conductor	42
365.0 - Overhead Conductors, Device	Air Break Switches	11
365.0 - Overhead Conductors, Device	Automatic Switches (Primarily OCRs/VCRs)	5
365.0 - Overhead Conductors, Device	Disconnect Switches	46
366.0 - Underground Conduit	UG Primary Conductor (includes Getaways and Cross Yard Ties)	30
366.0 - Underground Conduit	Equipment Foundation, Man Holes, Transformer Vaults	21
368.4 - Submersible or Padmt Type	UG Transformers (Includes LTN Transformers & Network Protectors)	20

* Note that the average age of several classifications is skewed by recent increased installations. For example, automatic switches and animal guards.

PPL Electric Utilities Corporation

Appendix B : Asset Contribution To Reliability Metrics

The below table provides a summary of customers interrupted and Customer Minutes Interrupted ("CMI") by component. Note that both transmission and distribution substation outages are included in the Substation component asset type.

Outage Contribution By Component - Equipment Failure Cause - Non Major Events

Component Asset Type	Component	2007		2008		2009		2010		2011	
		# Customers (Permanent)	CMI (Permanent)	# Customers (Permanent)	CMI (Permanent)	# Customers (Permanent)	CMI (Permanent)	# Customers (Permanent)	CMI (Permanent)	# Customers (Permanent)	CMI (Permanent)
Distribution	OH-Pole/Arms Attachments	55,503	7,852,001	62,387	7,602,197	63,361	5,474,070	74,472	10,359,827	51,446	5,362,487
	OH-PRI Splices and Connectors	16,455	1,100,345	10,111	1,479,278	11,129	1,391,998	12,755	1,862,049	9,010	1,167,864
	OH-Lightning Arrester	12,765	1,798,144	13,262	1,268,391	4,294	539,617	7,389	715,809	12,148	1,139,743
	OH-Primary/Neutral	129,128	20,118,051	141,349	17,175,386	127,138	15,486,250	128,121	15,506,499	151,487	22,716,345
	OH-Capacitor Bank			174	4,875	895	34,229	12	2,640	4,784	164,255
	OH-Switch/Manual/AB/Disc/OS/LBD	3,834	504,632	13,624	1,293,100	16,546	1,869,534	13,771	1,227,946	11,011	1,064,042
	OH-Switch/Automatic	23,887	3,009,382	15,151	1,624,440	18,295	1,835,918	23,737	3,197,397	33,196	3,786,423
	OH-Tap Fuse/Cutout	11,731	1,871,420	15,851	2,043,692	13,878	1,334,946	11,531	1,543,587	11,233	1,202,273
	OH-Transformer Fuse	7,277	742,464	14,704	1,855,432	20,707	1,862,240	18,663	2,223,796	27,056	3,134,127
	OH-Transformer	8,360	1,851,653	6,804	1,490,960	5,093	1,073,496	9,934	1,690,496	11,736	2,190,276
	OH-Secondaries/Services	4,391	549,428	3,533	436,100	2,178	214,687	3,007	368,046	3,008	325,284
	OH-SEC Splices and Connectors	592	45,795	644	69,898	680	57,569	1,571	92,096	1,207	64,664
	OH-Other Equipment	20,570	2,092,055	6,760	767,981	8,284	1,184,186	5,351	485,684	10,262	1,134,482
	UG-Riser Pole Equip & Devices	978	164,425	1,409	388,797	1,727	188,417	4,116	475,306	3,267	288,688
	UG-PRI Splices and Connectors	94	48,882	163	68,418	469	80,365	1,421	201,718	2,378	187,036
	UG-Lightning Arrester	137	26,949	74	6,233	61	5,534	118	21,917	82	31,981
	UG-Primary Cable/Neutral	23,971	4,905,521	26,766	5,136,677	22,123	3,647,145	17,479	4,019,207	19,307	3,622,397
	UG-Switchgear	1,902	193,604	3,931	730,722	4,496	371,080	4,528	457,390	8,727	1,097,034
	UG-Elbows	380	91,099	538	212,537	497	81,404	962	107,841	323	111,037
	UG-Load Break Junctions	381	73,101	224	56,555	59	12,271	172	34,465	271	60,109
	UG-Transformer/Transformer Fuse	2,339	362,348	1,893	607,611	1,774	500,589	2,027	762,926	2,086	589,224
	UG-Secondaries/Services	1,463	173,294	659	169,617	433	94,313	339	65,014	542	87,134
	UG-Pads/Vaults/MHs & Splice Boxes	1,892	199,265	1,443	39,773	74	15,687	1,459	369,020	1,923	238,393
	UG-SEC Splices and Connectors	8	1,291	1	135	3	251	41	2,940	47	12,564
	UG-Other Equipment	447	21,667	6	2,475	548	103,221	28	1,062	1,858	93,891
Substation	SUB-Power Fuse	14,724	1,508,663	2,216	305,320	6	942	4,430	239,587	1,752	90,899
	SUB-Structure					319	28,012				
	SUB-Power Wiring			1,507	162,756	4,923	339,812	1,635	109,027		
	SUB-Insulator	8,218	690,903	162	34,509	3,278	91,028	49	33,491	700	52,497
	SUB-Switch/Manual/AB/Disc/LBD	1	146	11,508	1,321,850	7,808	596,138	2,513	163,375	11,160	953,097
	SUB-Switch/Automatic	7,420	561,695	14,133	1,090,727	4,724	268,957	16,764	1,627,045	11,353	753,270
	SUB-Transformer	15,481	1,364,112	3,340	381,755	1,723	94,024	6,489	347,568	22,204	2,598,591
	SUB-Lightning Arrester	12,275	1,094,382	2,282	91,971	2,015	59,255			21	2,046
	SUB-Control/Relay	3,498	174,900	168	26,890	7,901	577,276	15,565	454,630		
	SUB-Circuit Breaker	53,235	4,749,599	31,569	2,696,735	27,635	1,457,567	45,215	3,488,333	32,681	3,505,632
Total		**466,204**	**61,428,204**	**410,346**	**50,643,796**	**385,074**	**40,972,226**	**435,664**	**52,257,735**	**458,266**	**57,827,777**

Exhibit No. 3

CERTIFICATION OF BASE RATE PROCEEDING

I, Dennis A. Urban, Jr., pursuant to 66 Pa. C.S. § 1353(b)(4), hereby certify that PPL Electric Utilities Corporation has filed a base rate proceeding within five years prior to January 15, 2013, which is the date of filing of its Petition of PPL Electric Utilities Corporation for Approval of a Distribution System Improvement Charge at Docket No. P-2012-2325034. PPL Electric Utilities Corporation's current base rates were established in Docket No. R-2012-2290597, which was filed on March 30, 2012 and was approved by the Commission in an order entered on December 28, 2012.

Date: January 15, 2013

Dennis A. Urban, Jr.
PPL Electric Utilities Corporation
Senior Director, Rates and Regulatory Affairs

BEFORE THE
PENNSYLVANIA PUBLIC UTILITY COMMISSION

Docket No. P-2012-2325034

PPL Electric Utilities Corporation

Statement No. 1

DIRECT TESTIMONY OF DENNIS A. URBAN, JR.

Q. Please state your name and business address.

A. My name is Dennis A. Urban, Jr. My business address is Two North Ninth Street, Allentown, Pennsylvania 18101.

Q. On whose behalf are you providing direct testimony in this proceeding?

A. I am providing Direct Testimony on behalf of PPL Electric Utilities Corporation ("PPL Electric" or the "Company").

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

A. I am employed by PPL Electric, a subsidiary of PPL Corporation, as Senior Director, Rates and Regulatory Affairs.

Q. What are your duties as the Senior Director, Rates and Regulatory Affairs?

A. As Senior Director, Rates and Regulatory Affairs, I have overall responsibility for PPL Electric's Federal Energy Regulatory Commission ("FERC") and Pennsylvania Public Utility Commission ("Commission") jurisdictional regulatory matters.

Q. What is your educational background?

A. I have an Associate degree in Electrical Technology from the Dean Institute of Technology, a Bachelor of Science degree in Accounting from Point Park University, and a Master of Business Administration degree from Robert Morris University.

Q. Please describe your professional experience.

A. In 1982, I began my career with Duquesne Light Company ("Duquesne"), a Pittsburgh, PA based electric utility. Through 1996, I held various bargaining unit operations and maintenance positions including full certification as a journeyman lineworker. In 1997, I moved into a management role in the accounting department where I held the position of Senior Accountant until May 1999. From June 1999 to October 2001, I held the position of Manager of Financial Reporting where I had responsibility for all internal and external financial reporting requirements. In November of 2001, I was transferred to Duquesne's parent company, DQE, Inc., as the Manager of Corporate Development where I had responsibility for the development and recommendation of strategic alternatives. In May of 2004 I was promoted to Director of Corporate Development with the additional responsibility for the development of a strategic energy sourcing strategy to fulfill Duquesne's default service obligation. In June 2007, after Duquesne was purchased by a group of private equity investors, I became Manager, Financial Planning and Risk Analysis where I had responsibility for Duquesne's budgeting, planning and financial forecasting functions as well as its risk management functions including internal audit and corporate insurance programs. I joined PPL Electric in November 2008 as Manager, Energy Acquisition where I had responsibility for the development and implementation of the functional requirements to fulfill its default service obligation. In November 2010, I assumed my current role as Senior Director, Rates and Regulatory Affairs.

Q. Mr. Urban, briefly describe the subject matter of your testimony in this proceeding.

A. My testimony describes the history and background of PPL Electric's efforts to address its aging distribution infrastructure through its Asset Optimization Strategy, and how PPL Electric's Distribution System Improvement Charge ("DSIC") meets the requirements of Act 11 of 2012 ("Act 11") and the Commission's Implementation Orders at Docket M-2012-2293611. Stephen J. Gelatko, PPL Electric Statement No. 2, will describe the eligible property included in the Company's Long Term Infrastructure Improvement Plan ("LTIIP") and the DSIC. Bethany L. Johnson, PPL Electric Statement No. 3, will describe PPL Electric's development of the DSIC, the proposed effective date for the DSIC and the calculation of an estimated initial DSIC charge.

Q. Are you sponsoring any exhibits in this proceeding?

A. Yes. I am sponsoring PPL Electric Exhibit No. 3 which is a certification that PPL Electric's last distribution rate case was filed within five years.

ASSET OPTIMIZATION STRATEGY

Q. Is aging distribution infrastructure a concern for PPL Electric?

A. Yes, it is. PPL Electric's reliability performance targets are defined by its 1994-1998 benchmark period. Since that time, PPL Electric's service reliability has experienced annual swings, positive and negative, resulting largely from varying

weather conditions. In recent years, PPL Electric has experienced an increasing and consistent trend in equipment failures, combined with an aging infrastructure. Specifically, a large portion of the Company's distribution facilities were installed in the 1960's and 1970's, and are now at, near or past their useful lives. Based on these trends, PPL Electric determined that extensive and accelerated investment in the distribution system was required.

As equipment failures have continued to rise, PPL Electric has been experiencing a significant increase in maintenance spending beyond normal inflationary pressures. The driver is a combination of both increased corrective and planned maintenance. In response to these increasing distribution system maintenance requirements, PPL Electric undertook a study to develop a strategy for proactively addressing its infrastructure issues in a cost-effective manner. This produced the "Asset Optimization Strategy" which PPL Electric began to implement in 2009. The Asset Optimization Strategy enhanced maintenance practices and implemented programs to repair, improve, or replace certain distribution facilities on an accelerated basis in order to ensure adequate, efficient, safe and reliable service to customers.

Q. What is the Asset Optimization Strategy?

A. Starting in 2007, PPL Electric undertook a study to develop a cost-effective strategy to combat the anticipated effects of aging infrastructure and bolster PPL Electric's ability to effectively maintain reliable electric service. The Asset Optimization Strategy was developed to address the predicted wave of

equipment failures that would result due to the aging distribution asset base. The plan includes accelerated replacements in kind, as well as upgrades of equipment and facilities to current standards. In his direct testimony, Mr. Gelatko describes the development of the Asset Optimization Strategy in more detail.

Q. How has PPL Electric implemented the Asset Optimization Strategy?

A. PPL Electric began engineering and large material purchases for the identified proactive and accelerated replacements during 2009, followed by a ramp up period during 2010 and full implementation in 2011. In 2008, prior to implementation of the Asset Optimization Strategy, PPL Electric invested approximately $44 million in distribution infrastructure repair and replacement. In 2009, the Company increased that amount to approximately $55 million. In 2010, PPL Electric doubled its investment in infrastructure repair and replacement, spending more than $111 million during the ramp up to the full implementation of the Asset Optimization Strategy. Finally, in the first full year of implementation, PPL Electric invested approximately $132 million in distribution infrastructure repair and replacement. In his direct testimony, Mr. Gelatko describes implementation of the Asset Optimization Strategy in more detail.

PPL Electric has refined its processes and work planning efforts in support of the sustained investment levels identified in the Asset Optimization Strategy. The Company intends to continue the accelerated level of investment for the five year period covered in PPL Electric's LTIIP.

Q. Has PPL Electric observed any effects as a result of the implementation of the Asset Optimization Strategy?

A. Executing the Asset Optimization Strategy requires an extended period of proactive infrastructure replacement in order to be effective in arresting, and in the future, reducing equipment failures on the Distribution System. PPL Electric's analysis indicates that the Company will continue to see a rise in equipment failures in the near term as the average age of its assets continues to rise. The Company expects proactive infrastructure replacement to reach a critical mass in roughly five years at which time equipment failures should start to levelize, and soon after decrease over time. While the proactive infrastructure replacements are gaining critical mass, the Company's business plan reflects additional strategies focused on reducing the average impact of each outage through prudent investments in new protection infrastructure and technology, which is included in the LTIIP.

DEVELOPMENT OF THE DSIC

Q. Please describe the history of events that led PPL Electric to develop the DSIC proposed in its petition.

A. On February 14, 2012, Governor Corbett signed Act 11 into law, which amends Chapters 3, 13 and 33 of Title 66 of the Pennsylvania Consolidated Statutes ("Code") to allow, among other things, the Commission to approve a DSIC for electric distribution companies ("EDCs). Section 1353 of the Act provides the requirements for implementing a DSIC to allow the recovery of "reasonable and

prudent costs incurred to repair, improve or replace eligible property in order to ensure and maintain adequate, efficient, safe, reliable and reasonable service."

On August 2, 2012, the Commission issued a Final Implementation Order at Docket No. M-2012-2293611, establishing procedures and guidelines to implement the ratemaking provisions of Act 11 ("Final Implementation Order"). The Final Implementation Order tracks the ratemaking provisions of Act 11, discussed below, and requires that a petition to implement a DSIC must include the information identified in the Act.

Section 1353(b) of Act 11 outlines the requirements a utility must meet in order to have a DSIC approved by the Commission. In particular, the utility must file an initial tariff that complies with the Commission's model tariff. That tariff must include a description of eligible property, the effective date of the DSIC, how the DSIC will be calculated, and a description of consumer protections. I would note that PPL Electric has included all of these items in its tariff. The individual components of the tariff are discussed in greater detail in the testimony that accompanies PPL Electric's petition. Specifically, eligible property is discussed in the testimony of Stephen J. Gelatko, and the DSIC effective date and method of calculation are discussed in the testimony of Bethany L. Johnson. Later in my testimony I will discuss the consumer protections that PPL Electric has included in the tariff.

In addition, Section 1353(b) requires the utility to demonstrate that the DSIC is in the public interest and facilitates compliance with Federal, State, and Commission regulations relating to safe and reliable utility service, that it has a

Commission approved LTIIP, and certify that a base rate case has been filed within the past five years. I will address all of these issues in my testimony. PPL Electric's LTIIP, which was filed with the Commission on September 18, 2012 at Docket No. P-2012-2325034, is discussed in detail in Mr. Gelatko's direct testimony.

Q. What process did PPL Electric use to develop its DSIC?

A. The first step in developing PPL Electric's plan for seeking to implement a DSIC was to use the results of its Asset Optimization Strategy, described previously in my testimony, to develop its LTIIP. As discussed in greater detail in Mr. Gelatko's testimony, the LTIIP is a continuation of the accelerated infrastructure replacements that were identified in the Asset Optimization Strategy, in addition to various other prudent capital investments to ensure the safety and reliability of the distribution system. The investments are expected to mitigate the growth in equipment failure projections in the short-term and eventually reverse the trend in the long-term. As part of its LTIIP, PPL Electric will monitor system-level reliability metrics and equipment failure trends on an ongoing basis to ensure funding is invested appropriately. The Commission approved PPL Electric's LTIIP, without modification, in a final order entered on January 10, 2013. The LTIIP is a prerequisite for Commission approval of the DSIC.

Finally, PPL Electric utilized the Commission's model tariff, which was included as Appendix A to the Commission's Final Implementation Order, to develop its own tariff. As described in the testimony of Ms. Johnson, PPL

Electric has designed a tariff that complies with all of the Commission's requirements and, in conjunction with PPL Electric's LTIIP, will allow PPL Electric to sustain an accelerated level of investment in its distribution infrastructure. The Company believes that the DSIC will allow it to invest appropriately to ensure and maintain adequate, efficient, safe, and reliable service.

PUBLIC INTEREST CONSIDERATIONS

Q. Do you believe that the proposed DSIC is in the best interest of PPL Electric's customers?

A. Yes. The proposed DSIC is in the best interest of PPL Electric's customers. The DSIC is an important tool in combating the aging distribution infrastructure on PPL Electric's system, which has led to an increased number of outages in recent years. The DSIC is in the best interest of customers by ensuring that they will continue to receive safe and reliable service in the future as required by 66 Pa. C.S. § 1501. As described in PPL Electric's LTIIP and in Mr. Gelatko's testimony, PPL Electric is undertaking a very aggressive infrastructure repair and replacement plan. The Company cannot maintain this level of investment without a secure revenue stream. Without the DSIC, the Company would need to consider a plan to either slow the level of its investment, or file annual base rate cases in order to recover, in a timely manner, the necessary revenue to cover the significant costs associated with its program. Annual base rate filings are unpredictable, costly, and would add risk of delay and uncertainty in timing to PPL Electric's planning process. Moreover, annual rate cases can produce

spikes in customer rates which, according to PPL Electric's customer satisfaction research, can result in customer dissatisfaction. On the other hand, the DISC will result in smaller, more gradual quarterly rate changes which should be more acceptable to customers over time. Therefore, the DSIC is a critical component in PPL Electric's efforts to reduce equipment failure on its distribution system, by ensuring the resources the Company needs to continue its accelerated investment.

Q. How will PPL Electric ensure that revenues associated with the DSIC will be used on infrastructure investments that are cost-effective?

A. PPL Electric has adopted an ongoing review process where it considers a variety of metrics associated with the performance of the distribution system. By reviewing equipment failure trends and other ongoing asset health indices, PPL Electric will be able to determine if its infrastructure investment programs are cost-effective and providing the desired improvements in the quality of service. If PPL Electric's analysis shows that a program is not producing the desired results, then PPL Electric will be able to adjust its programs or funding for programs accordingly. In addition, PPL Electric is in the process of developing ongoing indices to further refine asset replacement criteria. This will allow PPL Electric to use its resources more precisely to target the most immediate risks to customer service.

Q. Did PPL Electric consider how to protect consumers when implementing the model tariff?

A. Yes, PPL Electric did. The Commission's model tariff includes customer safeguards in its structure which PPL Electric has adopted as part of its proposed tariff. The most significant safeguards include: (1) a 5.0% cap on the total amount of distribution revenue that can be collected through the DSIC as determined on an annualized basis, (2) annual reconciliations performed by PPL Electric and reviewed by the Commission, (3) audits conducted by the Commission, (4) customer notice of any changes in the DSIC, and (5) a reset of the DSIC to zero if PPL Electric's return in any quarter exceeds the return used to calculate the DSIC. All of these elements are discussed in greater detail by Ms. Johnson in her direct testimony.

OTHER REQUIREMENTS

Q. When was PPL Electric's last base rate case?

A. PPL Electric's last base rate case was filed on March 30, 2012, and was fully litigated. The Commission entered its Final Order in PPL Electric's rate case on December 28, 2012, at Docket No. R-2012-2290597.

Q. Did PPL Electric provide certification that its last base rate case was filed within five years, as required by Section 1353?

A. Yes, it did. The certification is included as Exhibit No. 3 to PPL Electric's petition for approval of its DSIC.

Q. Does this complete your direct testimony?

A. Yes, it does.

BEFORE THE
PENNSYLVANIA PUBLIC UTILITY COMMISSION

Docket No. P-2012-2325034

PPL Electric Utilities Corporation

Statement No. 2

DIRECT TESTIMONY OF STEPHEN J. GELATKO

Q. Please state your name and business address.

A. My name is Stephen J. Gelatko. My business address is Two North Ninth Street, Allentown, Pennsylvania 18101.

Q. On whose behalf are you providing direct testimony in this proceeding?

A. I am providing Direct Testimony on behalf of PPL Electric Utilities Corporation ("PPL Electric" or the "Company").

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

A. I am employed by PPL Electric, a subsidiary of PPL Corporation, as Manager - Distribution Asset Management. I assumed this position on May 2, 2011.

Q. What are your duties as the Manager - Distribution Asset Management?

A. I am responsible for the Distribution Asset Management function which includes Distribution Capacity Planning, System Reliability and Work Scope Development, and Research and Development. I am accountable for the performance and results of system reliability improvement initiatives, compliance with Pennsylvania Public Utility Commission ("Commission") reliability benchmarks, and development of the five year Distribution direct work business plan.

Q. What is your educational background?

A. I graduated from DeSales University with a Bachelor of Science Degree in Computer Science.

Q. Please describe your professional experience.

A. In 2001, I began my professional career with PPL Services, where I was responsible for managing the test environment for software changes to PPL Electric's Customer Service System. In 2002, I changed positions to support and build PPL Electric's advanced contact center call handling infrastructure and associated computer applications. My responsibilities included project management of large IT infrastructure projects, development of advanced call handling systems and routing, and end user support. In 2007, I joined PPL Electric as the Manager of Technology Development and Application support. In this role I was responsible for maintaining and optimizing the major enterprise engineering software applications for PPL Electric by developing work process improvements and synergies between systems. In 2011, I became the Manager of Distribution Asset Management and assumed my current position.

Q. Mr. Gelatko, briefly describe the subject matter of your testimony in this proceeding.

A. In my testimony, I will be describing PPL Electric's Long Term Infrastructure Improvement Plan ("LTIIP") which was filed with the Commission on September 18, 2012, at Docket No. P-2012-2325034, and approved in a Final Order entered on January 10, 2013 ("LTIIP Order"). Specifically, I will discuss how PPL Electric developed its LTIIP, describe the individual components of the LTIIP, and discuss how the LTIIP adopts and improves upon the accelerated program PPL

Electric had already implemented to proactively address the concerns related to its aging distribution infrastructure.

Q. Are you sponsoring any exhibits in this proceeding?

A. Yes. I am sponsoring PPL Electric Exhibit No. 2 which is a copy of the Company's Commission-approved LTIIP.

DEVELOPMENT OF THE LTIIP

Q. Prior to the passage of Act 11 of 2012, how did PPL Electric approach replacement of its distribution assets?

A. Prior to the Asset Optimization Strategy study, the Company would primarily repair or replace equipment as it failed, upgrade or replace assets as required to meet customer demand, or replace equipment based on unsatisfactory facility inspection results. During periods of protracted system growth and for some time afterwards, this methodology was sufficient to maintain adequate levels of system reliability. Over time the Company began to experience a decline in system reliability primarily due to an increasing trend in equipment failures. Left unmitigated, the decline was projected to significantly impair the Company's future ability to meet benchmarks and standards. Research showed that a significant portion of PPL Electric's equipment was nearing or had reached the end of its expected design lifetime. As equipment nears or reaches the end of its design lifetime, it becomes increasingly critical to plan for the repair, upgrade, and/or replacement of the assets to ensure reliability of service. Aging

equipment has spent years deteriorating as a result of environmental exposure and added load. In the absence of efforts to repair or replace aging equipment, the efficiency, safety, and reliability of the electric distribution system will be compromised.

This combination of increased failure rates and aging infrastructure indicated that PPL Electric had reached a point where extensive and accelerated investment in the distribution system was required. As equipment failures continued to rise, in order to maintain the quality of service required by 66 Pa.C.S. § 1501, PPL Electric experienced a significant increase in maintenance spending beyond normal inflationary pressures. This spending includes both planned maintenance and corrective maintenance.

Q. Prior to the LTIIP, did PPL Electric undertake any projects to plan for the replacement of, and to actually replace, its aging distribution infrastructure?

A. Yes, it did. In 2008, PPL Electric undertook a comprehensive assessment of its distribution infrastructure to determine how to repair and replace its aging infrastructure in a cost and resource effective manner. PPL Electric studied 30 million units of equipment from the distribution system spread across 17 asset classes, and then categorized the asset classes so that PPL Electric could determine where resources were most needed or would be best used.

PPL Electric assessed asset classes defined as collections of distribution assets grouped by their functional system purpose, such as sectionalizing devices, transformers, conductors, and cables. The distribution system

assessment encompassed all distribution lines and associated equipment, equipment within area supply substations, and high voltage switching devices. Additionally, PPL Electric used data such as vendor support, availability of replacement parts, model performance, field experience, maintenance results, and equipment age, to derive the final health assessment of each asset. The assessment assigned the asset classes into one of five categories: poor, marginal, good, very good, and excellent. For each asset class, individual assets were assigned to one of the five categories.

Based on this study, PPL Electric developed its Asset Optimization Strategy. Under its Asset Optimization Strategy, PPL Electric implemented a programmatic and accelerated replacement of infrastructure as a cost-effective strategy to address aging infrastructure and ensure system reliability and integrity. Almost all of the initiatives included in the Asset Optimization Strategy take advantage of new technologies that did not exist when the associated assets were originally placed into service, and many of these technologies are very recent innovations. These technologies are expected not only to restore the assets to their original level of performance, but, in many cases, provide performance well beyond what previously was achievable in order to ensure and maintain adequate, efficient, safe, and reliable service.

To implement the Asset Optimization Plan, PPL Electric adopted a capital plan divided into two distinct replacement strategies. In some cases, such as with distribution substation components, it is more economical to replace equipment on an individual component basis. In other cases, such as aging

distribution lines, it is more economical and more effective to replace all equipment components on a line section or complete line basis. PPL Electric determined that a multi-faceted approach to distribution infrastructure repair and replacement was, and continues to be, the most cost-effective method for reducing the number of outages related to failing distribution infrastructure.

Q. As a result of adopting the Asset Optimization Strategy, how much has PPL Electric invested in the replacement and repair of its distribution infrastructure since 2008?

A. In 2008, prior to its implementation of the Asset Optimization Strategy, PPL Electric spent approximately $44 million in distribution infrastructure repair and replacement. Approximately 50% of spending was corrective in nature in 2008, and focused on pole replacement and reinforcement, as well as replacement of failed and deteriorated equipment.

In 2009, the Company increased the amount spent on distribution infrastructure repair and replacement to approximately $55 million. An additional $3.5 million was added to the 2009 business plan to allow for engineering and large material purchases in support of proactive replacements scheduled to begin in 2010. Additionally, the maintenance business plan was increased by $4.3 million to support more robust inspection and repair activities focused on identifying equipment in need of remediation. Finally, an additional $3.2 million was directed towards other proactive reliability improvements such as the installation of sectionalizing devices and animal guards.

In 2010, during the ramp up for implementation of PPL Electric's Asset Optimization Strategy, the Company doubled its investment in infrastructure repair and replacement. In 2010, the Company spent more than $111 million. The most notable increases were in the following proactive programs: circuit breaker replacements, large power transformer replacements, distribution pole improvements, recloser installations and replacements, underground cable rejuvenation and replacement, low tension network equipment replacements, projects to address Worst Performing Circuits, and distribution automation deployment. Both PPL Electric and contractor resources were used for engineering and construction activities.

Finally, in the first full year of the Asset Optimization Strategy, PPL Electric invested approximately $132 million in distribution infrastructure repair and replacement. The increase from 2010 to 2011 was primarily attributable to an increase in pole replacements resulting from a refined inspection program as well as an increase in proactive cable replacements, circuit breaker replacements and Worst Performing Circuit reliability projects.

Q. What is the importance of addressing the aging distribution infrastructure?

A. As PPL Electric's equipment deteriorates due to age, environmental exposure, and added load, it becomes increasingly critical to plan for the repair, upgrade, and/or replacement of distribution assets. In the absence of detailed and comprehensive plans for repair and replacement, the efficiency, safety, and

reliability of the electric distribution system is expected to be increasingly compromised.

PPL Electric believes that the expenditures for the programs included in its LTIIP constitute a prudent and reasonable investment for managing its distribution assets and that each of the listed programs will successfully achieve many benefits, including: reducing service outage durations, restoration times, and the number of customers affected; controlling service outage repair costs and failure related damages and costs; and maintaining public and employee safety.

Q. How did PPL Electric utilize the Asset Optimization Strategy in preparing its LTIIP?

A. The LTIIP is a continuation of the infrastructure replacements of the Asset Optimization Strategy, with additional prudent capital investments to ensure the safety and reliability of the distribution system. Such investments are primarily related to increased sectionalizing capabilities and automation as well as a focus on the Company's top 5% of Worst Performing Circuits. These measures are effective at reducing the number of customers who experience an outage and the duration of an outage experience. Further, PPL Electric is required to take action on its Worst Performing Circuits based on 52 Pa. C.S. § 57.195.

Q. What impact does PPL Electric project the implementation of the LTIIP will have on quality of service?

A. Based on its projections both before and after the implementation of the Asset Optimization Strategy, PPL Electric believes that implementation of the LTIIP will result in significant improvements in its reliability performance. The primary outage driver on PPL Electric's system is equipment failures. As a result of the age of its facilities, the number of outages resulting from equipment failures was increasing exponentially. Therefore, as PPL Electric projected its anticipated outages in the future, the number of customer outages increased at a very rapid pace. While the data for outage predictions is volatile, PPL Electric's accelerated infrastructure investment is expected to eliminate the projected increases in outage numbers, and reduce those numbers in the future.

Q. What has PPL Electric included as "eligible property" in its LTIIP?

A. PPL Electric has included eligible property, as that term is defined in § 1351(1), in its LTIIP. Specifically, the Company has broken down the categories of its eligible property to include: structures, overhead conductors and hardware, underground cables and hardware, switching devices, protective devices, and transformers. Some of these categories are further subdivided. Structures include poles, crossarms, vaults, and manholes. Switching devices include air break switches, disconnect switches, and switching cabinets. Protective devices include fuses, reclosers, network protectors, and lightning arresters. Finally, transformers include overhead transformers, pad-mounted transformers, submersible transformers, and low tension network transformers. PPL Electric has adopted a number of specific programs to address the different types of

DSIC-eligible property, all of which are described in extensive detail in PPL Electric's LTIIP.

Q. Does PPL Electric use the same eligible property for the DSIC as that which is identified in its LTIIP?

A. Yes, it does.

Q. Based on the LTIIP approved by the Commission, what are PPL Electric's projected annual expenditures over the five year period covered by the plan?

A. PPL Electric's planned expenditures per program are summarized on page 14 of the LTIIP. PPL Electric anticipates spending between $132 million and $149 million per year over the five year life of the plan. This exceeds the accelerated spending originally identified under PPL Electric's Asset Optimization Strategy.

Q. How will PPL Electric ensure that the individual components and programs described in the LTIIP are cost effective?

A. PPL Electric utilizes a project prioritization process that defines the cost-effectiveness of programs/projects to ensure effective optimization of reliability investments. PPL Electric currently is exploring the use of ongoing asset health indices to further refine asset replacement criteria. The investments are expected to mitigate the growth in equipment failure projections in the short-term and eventually reverse the trend in the long-term. PPL Electric will analyze equipment failure trends and asset-specific contributions to system-level

reliability metrics on an ongoing basis to ensure funding is being invested appropriately.

Ongoing review of the effectiveness of investments to address equipment failure trends will likely result in adjustments to the strategy over time. Future LTIIPs will reflect such adjustments. Additionally, work plans may fluctuate throughout a given year due to the need to reallocate resources in response to changing business needs. This may include shifting resources for project construction delays and the redirection of investment to cure costly equipment failures. In addition, during the project engineering phase, issues such as right-of-way requirements and environmental considerations can result in scope changes that also can delay actual construction. During construction of larger projects, additional scope needs can be identified, creating the need to defer other projects. Finally, reliability metric performance can result in redirection of spending to help ensure the ability to meet targets.

PPL Electric will undertake these review efforts in order to implement the LTIIP in a cost effective manner.

Q. Does this complete your direct testimony?

A. Yes, it does.

BEFORE THE
PENNSYLVANIA PUBLIC UTILITY COMMISSION

Docket No. P-2013-2325034

PPL Electric Utilities Corporation

Statement No. 3

Direct Testimony of Bethany L. Johnson

Q. Please state your name and business address.

A. My name is Bethany L. Johnson. My business address is Two North Ninth Street, Allentown, Pennsylvania 18101.

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

A. I am employed by PPL Electric Utilities Corporation ("PPL Electric" or the "Company"), a subsidiary of PPL Corporation, as Manager – Regulatory Compliance. I assumed this position on August 6, 2012.

Q. What are your duties as Manager – Regulatory Compliance?

A. I am responsible for activities associated with the assembly and analysis of test period-related cost-of-service information for the preparation of distribution rate cases before the Pennsylvania Public Utility Commission ("Commission"). As part of this function, I am responsible for the preparation and analysis of rate-related information for budget preparation, forecasts, and variance analysis. In addition, I am responsible for the preparation and coordination of cost recovery mechanisms and the management of Commission audits of these cost recovery mechanisms.

Q. What is your educational background?

A. I graduated from King's College in 1999 with a Bachelor of Science Degree in Finance, and from Moravian College in 2003 with a Master of Business Administration.

Q. Please describe your professional experience.

A. In 2000, I was employed by PPL Global Operations, where I supported the accounting and financial reporting activities of the company's domestic activities. In 2001, as a result of realignment, I joined PPL Generation. In this position, my responsibilities included cost control, budgeting, reporting and management of the forecasting process for large construction projects, as well as the administration of construction and financing contracts. In 2004, I rejoined PPL Global as a Senior Business Analyst with responsibility for maintaining, analyzing, consolidating, and presenting the business plans and operational performance reviews of the international affiliates. In 2008, I joined PPL Energy Services Group as a Business Analyst providing financial modeling and analytical support for the evaluations of acquisition, development, and divestiture opportunities. In 2009, I joined PPL Electric as a Project Controls Specialist providing advanced cost analysis for distribution and transmission projects. Later in 2009, I assumed the position of Financial Business Planning Specialist in the Regulatory Compliance Department. In August, 2012, I was named to my current position as Manager – Regulatory Compliance for PPL Electric.

Q. Have you previously testified as a witness on rate development, reconciliation and ratemaking-related issues?

A. Yes, I testified before this Commission in PPL Electric's most recent base rate case at Docket No. R-2012-2290597. In addition, I have testified in several Section 1307(e) reconciliation hearings regarding PPL Electric's Smart Meter Rider and its Universal Service Rider.

Q. Ms. Johnson, briefly describe the subject matter of your testimony in this proceeding.

A. In my testimony, I will be describing the calculation and implementation of the Distribution System Improvement Charge ("DSIC") proposed by PPL Electric in its Petition and its impact on customers' rates.

Q. Are you sponsoring any exhibits in this proceeding?

A. Yes. I am sponsoring PPL Electric Exhibit No. 1, which is a copy of the Company's proposed DSIC, and Exhibit BLJ-1, which is a detailed calculation of an estimated initial DSIC rate.

CALCULATION OF THE DSIC

Q. Please describe the tariff PPL Electric has included as Exhibit No. 1 to its Petition.

A. In its Final Implementation Order entered on August 2, 2012 at Docket No. M-2012-2293611 ("Final Implementation Order"), the Commission set forth, as

Appendix A, a model DSIC tariff. With one exception which I discuss later in my testimony, PPL Electric Exhibit No. 1 precisely tracks the Commission's model tariff with only minor editorial changes necessary to make the DISC part of PPL Electric's tariff, e.g., addition of PPL Electric's name, tariff number and page numbers, and deletion of references to other utility types. In Section 2(A) of the tariff, PPL Electric has provided a proposed effective date of May 1, 2013, the initial period for the charge, which is January through March 2013, and has filled in the chart with the subsequent effective dates and dates to which DSIC-eligible plant additions will be reflected. In Section 1(C), PPL Electric has inserted a proposed effective date of May 1, 2013. I discuss the proposed effective date in more detail later in my testimony.

Q. Has PPL Electric proposed any modification of the formula for the computation of the DSIC?

A. Yes, it has. As set forth in the model DSIC tariff attached to the Commission's Final Implementation Order, the formula for the computation of the DSIC does not properly reflect a tax component related to Pennsylvania Gross Receipt Tax ("GRT"). Because electric distribution companies, such as PPL Electric, are subject to GRT on all rate-related revenue billed, the formula set forth in the Final Implementation Order would not provide for the proper calculation of the total revenue requirement associated with the cost components of DSIC-eligible property, as set forth in PPL Electric Exhibit No. 1. Therefore, PPL Electric

believes that it is appropriate to modify the proposed formula for the computation of the DSIC to include the applicable GRT cost component.

Q. Please describe the computation of the DSIC charge.

A. Computation of the DSIC charge is described in Section 2 of the tariff. PPL Electric Exhibit BLJ-1 is a detailed calculation of an estimated initial DSIC rate. As shown on that exhibit, PPL Electric has carefully applied the computations prescribed by Section 2 of the tariff and the formula set forth in subsection 2(D). The Company began by identifying the net original cost of DSIC-eligible property that is scheduled to be placed into service during the period January through March 2013, as described in in its Long Term Infrastructure Improvement Plan ("LTIIP"). PPL Electric then calculated the depreciation expense associated with that property by applying the annual accrual rates, which were employed in its most recent base rate case at Docket No. R-2012-2290597, and which are consistent with its current depreciation life study. Finally, the Company calculated the pre-tax return using statutory federal and state income tax rates, PPL Electric's projected capital structure and cost of long-term debt as of March 31, 2013 and the 10.4 percent return on equity approved in its last fully litigated base rate case at Docket No. R-2012-2290597. Because this is an initial DSIC rate, there are no reconciliation values to include. When the sum of these values is divided by the projected quarterly revenues for the application period, adjusted for the GRT, the result is an estimated initial DSIC rate of 0.15 percent.

Ten days before the initial DSIC rate becomes effective on May 1, 2013, PPL Electric will update this computation to reflect the cost of DSIC-eligible projects that were actually placed into service during the period January through March 2013, and its actual capital structure and cost of long-term debt as of March 31, 2013.

Q. How will PPL Electric calculate the Projected Quarterly Revenues component of the DSIC?

A. PPL Electric has elected to base the Projected Quarterly Revenues ("PQR") component of its DSIC on the summation of projected revenues for the applicable three-month period. PPL Electric believes that using this method for determining the PQR component will more closely match the sales used to calculate the DSIC with the actual sales during the application period, which should reduce the amount of any over recoveries or under recoveries during the quarter.

Q. What is the impact of the DSIC on customer rates?

A. Based on the estimated initial DSIC rate that I previously described in my testimony, PPL Electric estimates that application of the DSIC will increase customers' rates by approximately 0.15 percent. Pursuant to Section 4(A) of the tariff, the DSIC cannot exceed 5.0% of the amount billed to customers for distribution service. Pursuant to Section 4(B) of the tariff, PPL Electric will reconcile the revenue received under the DSIC annually. Any over- or under-

collections will be recouped or refunded, as appropriate, in accordance with Section 1307(e), over a one-year period commencing on May 1 of each year.

Q. What customers will be charged the DSIC?

A. PPL Electric's DSIC will be applied equally to all customer classes, consistent with Section 4(E) of the tariff.

Q. Will the DSIC appear as a separate charge on a customer's bill?

A. Yes, it will.

Q. When will PPL Electric's DSIC go into effect?

A. PPL Electric is requesting permission to implement its DSIC on May 1, 2013. The Company is making this request to avoid the possibility of a gap in reflecting property in its jurisdictional rate base. PPL Electric's recently concluded distribution base rate case at Docket No. R-2012-2290597 was based upon a future test year ended December 31, 2012. If PPL Electric is permitted to implement a DSIC on May 1, 2013, the initial charges under that DSIC will reflect eligible property placed in service during the period January through March 2013. The DSIC that becomes effective on August 1, 2013 will reflect the property placed in service during the period April through June 2013, as well as the property placed in service from January through March 2013. In this way, there

will not be any gap in the inclusion of DSIC-eligible property in PPL Electric's rate base. Moreover, this proposed timing will enable PPL Electric to use end-of-quarter data for its capital structure and cost of long-term debt in the computation of the pre-tax return component of the DSIC.

The Company recognizes that complaints may be filed in this proceeding or the Commission may open its own investigation of the Company's proposed DSIC. Either event could lead to hearings and possibly an adjustment to DSIC charges. To address that possibility, PPL Electric proposes that, if the Commission permits the Company's initial DSIC to become effective on May 1, 2013, any charges under the DSIC will be subject to refund in the event the Commission orders such a result at the conclusion of any evidentiary hearings or investigation held in this matter.

Q. How often will PPL Electric adjust the DSIC?

A. Pursuant to Section 3 of the tariff, the DSIC will be updated on a quarterly basis to reflect eligible plant additions placed in service during the three-month period ending one month prior to the effective date of any DSIC update. In Section 2(A) of the tariff, PPL Electric has provided a chart of the effective dates of its proposed DSIC updates, and the corresponding period for eligible plant additions that will be reflected in each update. Ten days prior to each quarterly update, PPL Electric will file supporting data for the update with the Commission and serve the data upon the Commission's Bureau of Investigation and Enforcement, the Office of Consumer Advocate, and the Office of Small Business Advocate.

Q. How will PPL Electric determine what costs are recovered in the DSIC?

A. PPL Electric has identified DSIC-eligible property in accordance with its LTIIP, and has developed a process to track this specific property throughout its life cycle. The quarterly rate will reflect only eligible plant additions placed in service during the appropriate time period and as recorded on the Company's books and records.

Q. How does PPL Electric intend to inform the public of changes in the DSIC?

A. Consistent with Act 11, the Commission's Final Implementation Order and Section 4(D) of the tariff, customers will receive notice of the initial filing of the proposed DSIC through bill inserts beginning at the time of filing and continuing throughout a 30-day billing cycle. Again, consistent with Act 11, the Commission's Final Implementation Order and Section 4(D) of the tariff, customers will receive notice of quarterly changes in the DSIC through an article in "Connect" -- the newsletter which the Company includes in each customer's monthly bill.

Q. Does this conclude your direct testimony at this time?

A. Yes, it does.

Exhibit BLJ-1

PPL ELECTRIC UTILITIES CORPORATION
SCHEDULE 1 - COMPUTATION OF CUMULATIVE PROPOSED DSIC
APPLICATION PERIOD: MAY 1, 2013 THROUGH JULY 31, 2013

Line No.		Total
	Distribution System Improvement Charge	
1	Applicable Plant (Schedule 2, Line 2, Column M)	$ 18,260,267
	Less:	
2	Accumulated Depreciation (Schedule 2, Line 3, Column M)	62,843
3	Retirements (Schedule 2, Line 4, Column M)	-
4	DSI = Distribution System Improvement Projects net of accumulated depreciation and retirements (Line 1 - Line 2 - Line 3)	18,197,424
5	PTRR = Pre-tax return rate applicable to DSIC-eligible property (Schedule 2, Line 6, Column M)	248,969
6	Dep = Depreciation Expense (Schedule 2, Line 7, Column M)	62,843
7	Net Amount to be Recovered (excludes Over/(Under) Collection) (w/o GRT) (Line 5 + Line 6)	309,812
8	Net Amount to be Recovered (excludes Over/(Under) Collection) (w/ GRT) (Line 7 x Line 10)	329,237
9	PQR = Projected Quarterly Distribution Revenue (Schedule 2, Line 10, Columns E through G)	218,435,669
10	DSIC = Distribution System Improvement Rider	
	Rate % of Billed Revenues (w/ GRT) (Line 8 / Line 9)	0.15%
	Note: $\frac{1}{(1 - T)}$ = (T = 5.9% Gross Receipts Tax)	1.0627

PPL ELECTRIC UTILITIES CORPORATION
SCHEDULE 2 - COMPUTATION OF CUMULATIVE PROPOSED DSIC by MONTH
APPLICATION PERIOD: MAY 1, 2013 THROUGH JULY 31, 2013

Line No.			(A) Jan-13	(B) Feb-13	(C) Mar-13	(D) Apr-13	(E) May-13	(F) Jun-13
1	Incremental Plant Additions		$ 6,532,956	$ 5,640,555	$ 6,086,756			
2	Cumulative Plant		6,532,956	12,173,512	18,260,267			
	Less:							
3	Accumulated Depreciation		11,105	31,801	62,843			
4	Retirements		-	-	-			
5	DSI = Distribution System Improvement Projects net of accumulated depreciation (Line 2 - Line 3 - Line 4)		6,521,850	12,141,711	18,197,424	-	-	-
6	PTRR = Pre-tax return rate applicable to DSIC-eligible property (1) (Line 5 x 0.67%)	0.6700%	43,696	81,349	121,923			
7	Dep = Depreciation Expense		11,106	20,695	31,042	-	-	-
8	Net Amount to be Recovered (excludes Over/(Under) Collection) (w/o GRT) (Line 6 + Line 7)		54,802	102,044	152,965	-	-	-
9	Net Amount to be Recovered (excludes Over/(Under) Collection) (w/ GRT) (Line 8 x (1/(1-T)) (2)		$ 58,239	$ 108,443	$ 162,556			
10	Projected 2013 Distribution Revenues						$ 70,964,263	$ 71,145,399

(1) See Schedule 3, Line 4

(2) Gross Receipts Tax (T) = 5.9%

PPL ELECTRIC UTILITIES CORPORATION
SCHEDULE 2 - COMPUTATION OF CUMULATIVE PROPOSED DSIC by MONTH
APPLICATION PERIOD: MAY 1, 2013 THROUGH JULY 31, 2013

Line No.			(G) Jul-13	(H) Aug-13	(I) Sep-13	(J) Oct-13	(K) Nov-13	(L) Dec-13	(M) Total
1	Incremental Plant Additions								$ 18,260,267
2	Cumulative Plant								18,260,267
	Less:								
3	Accumulated Depreciation								62,843
4	Retirements								-
5	DSI = Distribution System Improvement Projects net of accumulated depreciation (Line 2 - Line 3 - Line 4)								18,197,424
6	PTRR = Pre-tax return rate applicable to DSIC-eligible property (1) (Line 5 x 0.67%)	0.6700%							246,969
7	Dep = Depreciation Expense		-	-	-	-	-	-	62,843
8	Net Amount to be Recovered (excludes Over/(Under) Collection) (w/o GRT) (Line 6 + Line 7)		-	-	-	-	-	-	309,812
9	Net Amount to be Recovered (excludes Over/(Under) Collection) (w/ GRT) (Line 8 x (1/(1-T)) (2)								$ 329,237
10	Projected 2013 Distribution Revenues		$ 76,326,006	$ 78,213,990	$ 75,410,974	$ 70,482,327	$ 71,465,508	$ 81,794,627	

(1) See Schedule 3, Line 4

(2) Gross Receipts Tax (T) = 5.9%

PPL ELECTRIC UTILITIES CORPORATION
SCHEDULE 3 - COMPUTATION OF CUMULATIVE PROPOSED DSIC PRE-TAX RATE OF RETURN
APPLICATION PERIOD: MAY 1, 2013 THROUGH JULY 31, 2013

Line No.	(A) Description	(B) Capitalization Ratio	(C) Embedded Cost	(D) Pre-Tax Rate of Return (ROR)
1	Long-Term Debt	49.22%	5.50%	2.71%
2	Common Equity	50.78%	10.40%	5.28%
3	Total	100.00%		7.99%
4	7.99% Annual ROR/12 months = 0.67% Monthly ROR			