PECO ENERGY COMPANY
STATEMENT NO. 1

BEFORE THE
PENNSYLVANIA PUBLIC UTILITY COMMISSION

PENNSYLVANIA PUBLIC UTILITY COMMISSION

v.

PECO ENERGY COMPANY – ELECTRIC DIVISION

DOCKET NO. R-2018-3000164

DIRECT TESTIMONY

WITNESS: MICHAEL A. INNOCENZO

SUBJECTS: DESCRIBING PECO'S ELECTRIC OPERATIONS; PROVIDING AN OVERVIEW OF PECO'S RATE FILING; EXPLAINING PECO'S CAPITAL INVESTMENT PROCESS; DESCRIBING FULFILLMENT OF 2015 RATE CASE COMMITMENTS; AND DISCUSSING STEPS TAKEN BY PECO TO ENHANCE THE QUALITY OF SERVICE, PROMOTE ECONOMIC DEVELOPMENT AND SUPPORT DIVERSITY AND INCLUSION

DATED: MARCH 29, 2018

TABLE OF CONTENTS

Page

DIRECT TESTIMONY
OF
MICHAEL A. INNOCENZO

I. INTRODUCTION AND PURPOSE OF TESTIMONY

1. Q. Please state your name and business address.

A. My name is Michael A. Innocenzo. My business address is PECO Energy Company, 2301 Market Street, Philadelphia, Pennsylvania 19103.

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

A. I am employed by PECO Energy Company ("PECO" or the "Company") as Senior Vice President and Chief Operating Officer. In that capacity, I lead PECO's electric and natural gas distribution and transmission operations. These operations include customer service, construction and maintenance, engineering and technical services, investment strategy, safety, environmental, training, fleet, supply operations, real estate and facilities, new business and human resources. These functions, in turn, are staffed by approximately 2,600 craft, professional and support employees. I also ensure that the operating groups are well integrated and focused on safety, reliability, customer satisfaction and diversity and inclusion. Effective March 31, 2018, I will become President and Chief Executive Officer at PECO.

3. Q. Please summarize your prior professional experience.

A. During the past 28 years, I have held numerous positions within PECO. I will highlight a few of my more recent positions.

Before becoming Chief Operating Officer of PECO, I served as Vice President, Distribution System Operations and Smart Grid/Smart Meter. In that role, I was responsible for the operation of the Company's electric and natural gas distribution systems as well as the design and deployment of PECO's Smart Grid and Smart Meter systems.

Prior to that, I was the Director of Gas Operations, Quality Services and Performance Improvement. I also served as a Regional Director in Philadelphia and Delaware and Chester County regions, as well as a Regional Engineering Manager for Delaware and Chester Counties. I also was the Emergency Services Supervisor in the Philadelphia Region and a Project Engineer in Philadelphia and Montgomery County Divisions.

4. Q. What is your educational background?

A. I earned my Bachelor's Degree in Electrical Engineering from Widener University and a Masters of Business Administration from Villanova University.

5. Q. What is the purpose of your direct testimony?

A. The several purposes of my direct testimony are as follows: (1) to generally describe PECO's electric distribution operations; (2) to provide an overview of this rate filing, including an introduction of the other witnesses who will present testimony in support of PECO's case-in-chief; (3) to explain PECO's capital investment process and to identify the types of projects that comprise PECO's claimed future test year ("FTY") and fully projected future test year ("FPFTY") plant additions; (4) to describe PECO's fulfillment of the commitments made by the Company as part of the settlement approved by the Pennsylvania Public Utility Commission (the "Commission") in PECO's 2015 electric base rate proceeding[1]; (5) to describe various measures undertaken by the Company to ensure system safety and reliability and further enhance the quality of its service; and (6) to discuss measures taken by the Company to enhance the communities in which it operates and to promote economic development.

II. DESCRIPTION OF PECO'S ELECTRIC OPERATIONS

6. Q. Please provide an overview of PECO's electric distribution operations.

A. PECO provides electric service to approximately 1.6 million retail customers located throughout a 2,100 square-mile area in southeastern Pennsylvania. The Company's electric service territory comprises all or portions of Bucks, Chester, Delaware, Montgomery, Philadelphia and York Counties and includes a total population served of approximately 4.0 million people.

7. Q. What services does PECO offer its electric customers?

A. PECO makes available electric distribution service and electric generation supply on an unbundled basis. In addition to those customers who have exercised their option to procure their own generation supply service and pay PECO for delivery (i.e., distribution) service only, the Company, as the default-service provider, procures and delivers power to the homes or places of business of residential, commercial and industrial customers not receiving service from an electric generation supplier ("EGS"). In addition to general service, and as set forth in our electric tariff,

[1] *See Pennsylvania Public Utility Commission vs. PECO Energy Company – Electric Division*, Docket No. R-2015-2468981 (Order entered December 17, 2015).

qualifying customers can avail themselves of a variety of outdoor-lighting, interruptible and other services.

8. Q. How does PECO's customer base break down by major customer classification?

A. As of December 31, 2017, we served 1,469,916 residential customers; 151,552 small commercial and industrial ("C&I") customers; and 3,112 large C&I customers.

9. Q. What are the major assets and facilities that PECO utilizes to provide electric service to its customers?

A. PECO is the largest combined electric and natural gas utility in Pennsylvania. To provide electric service to its customers, PECO operates and maintains 16,528 miles of underground distribution cable, 12,963 miles of aerial distribution lines and 1,092 miles of higher-voltage transmission lines. In addition, we operate and maintain 457 power substations.

It is important to note that, generally speaking, this infrastructure is a mix of reliable older and newer facilities and equipment. Consequently, a high level of expertise in a variety of areas, as well as a significant capital investment, are required to maintain and operate all of PECO's plant and equipment and to provide the service and reliability that our customers have come to expect.

III. OVERVIEW OF RATE FILING

10. Q. Please summarize the relief that PECO is requesting through this rate filing.

A. PECO is seeking an increase in its annual base rate electric operating revenues of approximately $82 million, or 2.2% on the basis of total jurisdictional operating revenue. PECO's proposed rate increase reflects $71 million savings in 2019 from changes in federal income tax law made by the Tax Cuts and Jobs Act (the "TCJA"), which became effective on January 1, 2018.

PECO is also proposing to refund the amount of its reduced tax expense from the TCJA in 2018 (which PECO projects to be approximately $68 million under its existing rates) to customers expeditiously through a reconcilable surcharge mechanism proposed as part of these proceedings (the Federal Tax Adjustment Credit or "FTAC").

As required by the Public Utility Code, PECO's proposed tariff has been filed on 60 days' notice and, therefore, bears an effective date of May 28, 2018. However, we recognize that our filing will likely be suspended and investigated.

11. Q. Why is PECO requesting a rate increase at this time?

A. Our last electric base rate filing was made in 2015. Since rates were established in that case, PECO has continued to make substantial investments in new and replacement utility plant to ensure that our customers can continue to receive the safe and reliable service they have come to expect. Indeed, between January 1, 2016 and December 31, 2019, the end of the FPFTY, we will have invested over $1.9 billion in additional electric distribution plant. Our measures of value will have increased by approximately 20% from $4.0 billion (as of December 31, 2016) to $4.8 billion (as of December 31, 2019). At the same time, while we continue to add new customers, our overall sales levels have remained relatively flat due, in large part, to our aggressive pursuit of energy efficiency and conservation through Commission-approved programs implemented in compliance with Pennsylvania's Act 129 of 2008 ("Act 129").

12. Q. Has PECO made efforts to control operating and maintenance ("O&M") expenses since its last approved base rate increase in 2015?

A. Yes, we have. As discussed by Mr. Barnett (PECO Statement No. 2), when adjusted for major storms, PECO projects a 0.4% compound annual growth rate in O&M expense from 2016 through the end of the FPFTY (2019). We have accomplished this through the careful management of bad debt expense, post-employment benefits, and other expenses.

13. Q. Please identify the other witnesses providing direct testimony on behalf of PECO in this proceeding.

A. In addition to myself, the following witnesses will be responsible for presenting PECO's case-in-chief:

Phillip S. Barnett (PECO Statement No. 2) is PECO's Senior Vice President, Chief Financial Officer and Treasurer. Mr. Barnett discusses the Company's efforts to control O&M expense; provides an overview of PECO's principal accounting exhibits; discusses PECO's budgeting process; and describes the services that PECO receives from the Exelon Business Services Company and the estimated cost of those services during the FPFTY.

Benjamin S. Yin (PECO Statement No. 3) is PECO's Manager of Revenue Policy. Mr. Yin sponsors PECO Exhibits BSY-1, BSY-2 and BSY-3, which set forth PECO's revenue requirement for the FPFTY ending December 31, 2019, FTY ending

December 31, 2018 and historic test year ("HTY") ended December 31, 2017, respectively. He specifically supports PECO's measures of value, revenue, operating expense and tax claims.

Scott A. Bailey (PECO Statement No. 4) is PECO's Vice President and Controller. Mr. Bailey describes PECO's accounting processes; supports the assignment and allocation of common costs between PECO's electric and gas operations; and explains the development of the depreciated original cost of the Company's utility plant in service and its claim for annual depreciation expense.

Paul R. Moul (PECO Statement No. 5) is the Managing Consultant of P. Moul & Associates, Inc. Mr. Moul presents testimony concerning the rate of return that PECO should be afforded an opportunity to earn on its measures of value. He supports PECO's claimed capital structure ratios, its embedded costs of debt, and its requested equity allowance.

Jiang Ding (PECO Statement No. 6) is a Principal Regulatory and Rates Specialist at PECO. Ms.Cpresents an unbundled, fully allocated, customer class cost of service study.

Mark Kehl (PECO Statement No. 7) is a Principal Regulatory and Rates Specialist at PECO. Mr. Kehl presents PECO's proposed tariff rates and explains how the results of Ms. Ding's customer class cost of service study, as well as the consideration of other factors, were utilized in the rate design process. Mr. Kehl also describes changes to several existing rates and riders and discusses PECO's proposal to recover a portion of the costs related to the Company's transition from a tiered discount to a Fixed Credit Option ("FCO") Customer Assistance Program ("CAP").

Richard A. Schlesinger (PECO Statement No. 8) is PECO's Manager, Retail Rates. Mr. Schlesinger discusses proposed changes and clarifications to PECO's tariff rules and regulations, proposed changes to several existing rates and riders, including the FTAC, and the commitment from PECO's 2015 electric base rate proceeding regarding the interconnection of customer-owned generation.

IV. PECO'S CAPITAL INVESTMENT PROCESS

14. Q. How does PECO determine its annual capital investment requirements?

A. PECO's capital investment plan begins with a detailed budgeting and long range plan ("LRP") development process. One of the key goals of that process is to integrate and align PECO's operational, regulatory and financial plans. Once major projects (i.e., capital expenditures exceeding $500,000) are budgeted, they must go through an additional, rigorous review-and-approval process. Major projects are approved by review committees, which include the appropriate Company executives, in three stages: conceptual design, detailed design, and construction. PECO utilizes these processes to achieve the optimal level of spending to achieve safety, reliability and customer service goals, and to achieve the optimal efficiency of PECO's operations.

15. Q. Please describe, in broad terms, the types of plant additions that PECO expects to place in service during the course of the FTY and FPFTY.

A. PECO's FPFTY and FTY plant additions are itemized by functional area and by FERC account in Schedule C-2, Page 3 of PECO Exhibits BSY-1 and BSY-2, respectively. In summary, our 2019 capital budget calls for overall electric plant additions of approximately $586 million, including, but not limited to, $465 million in new distribution facilities and nearly $121 million in new transmission facilities. For 2018, we have budgeted overall electric plant additions of approximately $514 million, including but not limited to $409 million in new distribution facilities and $105 million in new transmission facilities. For the most part, the projected expenditures are designed to maintain and/or enhance the safety and reliability of our backbone electric delivery system (*e.g.*, substation equipment, poles and towers, overhead and underground conduit and conductors, and line transformers), strengthen system resiliency and maintain and/or enhance physical security and cybersecurity.

16. Q. In your opinion, is all of the plant that PECO has included in its measures of value claim needed in order to provide safe and reliable electric service?

A. Yes, it is. The assets included in PECO's rate base are, or by the end of the FPFTY will be, in service and used by PECO to provide safe and reliable electric service to customers.

V. FULFILLMENT OF 2015 RATE CASE COMMITMENTS

17. Q. In the Joint Petition for Settlement of Rate Investigation ("Settlement Agreement") which the Commission approved in PECO's last electric base rate proceeding at Docket No. R-2015-2468981, the Company, at pages 6-11, made a number of commitments. Did PECO fulfill its commitments?

A. Yes, it did.

18. Q. The rates in the Settlement Agreement included the recovery of $7.0 million in annual operating expense requested by PECO for increased vegetation management. The Company agreed to provide a status report on its enhanced vegetation management initiative twelve and twenty-four months after the initiative began. What did the Company report?

A. This additional funding has been targeted at circuits with customers experiencing multiple interruptions ("CEMI pockets"), and PECO accelerated the maintenance cycle for 34 kV circuits within key CEMI pockets. In PECO's first status report, filed on April 3, 2017, PECO documented an improved System Average Interruption Frequency Index ("SAIFI") for the targeted CEMI pockets (from 1.46 to 1.12). The Company's second and final status report, due April of 2018, is expected to also show an improved SAIFI for a different group of targeted CEMI pockets (from 1.5 to 0.9).

19. Q. In the Settlement Agreement, PECO also agreed to report on various specific expenditures. Please describe each reporting requirement and PECO's compliance with this commitment.

A. First, PECO agreed to provide the Commission's Bureau of Technical Utility Services ("TUS"), the Commission's Bureau of Investigation and Enforcement ("I&E"), the Office of Consumer Advocate ("OCA"), and the Office of Small Business Advocate ("OSBA") with an update on its electric division's actual capital expenditures, plant additions, and plant retirements by month for the twelve months ending December 31, 2015. Second, the Company agreed to provide a similar update on or before April 1, 2017 to include actual capital expenditures, plant additions, and plant retirements by month for the twelve months ending December 31, 2016.

Finally, PECO agreed, in its next base rate proceeding, to prepare a comparison of its actual expenses and rate base additions for the twelve months ended December 31, 2016 to its projections in the 2015 electric base rate proceeding.

PECO met each of these reporting commitments, which Mr. Barnett describes in detail.

20. Q. The Company also committed to implement an In-Program Arrearage Forgiveness ("IPAF") program as part of its new CAP FCO. Has PECO satisfied this commitment?

A. Yes. In October of 2016, PECO began enrolling customers in its new CAP FCO program which is designed to significantly increase both the breadth and depth of affordability of service to PECO's low-income customers. As part of this program, CAP FCO participants may have a portion of their in-program arrearages forgiven, as described by Mr. Kehl in his direct testimony.

21. Q. The Company further agreed to provide semi-annual reports to the Commission on interconnection processing timelines. PECO also committed to revise its terms and conditions for interconnection of customer-owned generation, undertaking best efforts obligations to provide certificates of completion ("COCs") within specific time periods. Has the Company met these commitments?

A. Yes. PECO submitted its first semi-annual Interconnection Report to the Commission on December 22, 2016 and its most recent semi-annual report on December 14, 2017. PECO will continue to submit reports to the Commission on a semi-annual basis.[2] Mr. Schlesinger describes the Company's data with regard to COC processing time. As I discuss later in my testimony, more streamlined processes to provide COCs is just one of the Company's many recent enhancements targeting solar and other distributed generation ("DG") technologies.

22. Q. The rates in the Settlement Agreement reflected the roll-in of costs recoverable under PECO's Smart Meter Cost Recovery Surcharge ("SMCRS"). The Settlement Agreement also provided that the SMCRS would remain in place as the mechanism for refunding or recouping, as applicable, any over collection or under collection balance. Has PECO utilized the SMCRS to address over/under collection balances?

A. Yes. PECO rolled its smart meter costs into base distribution rates effective January 1, 2016 and set its SMCRS to zero. Beginning in March of 2016, PECO began to recover the remaining over/under collection balances. The Company performed a final accounting of its surcharge balances as of July 31, 2017 and had small undercollection balances for the residential, small C&I and large C&I classes. In August of 2017, PECO notified the Commission of the final undercollection balances and stated that the Company was considering recovering the balances through the Consumer Education Surcharge ("CES"). PECO plans to recover these final undercollections through the CES in 2018 and, as explained by Mr. Schlesinger, is proposing to eliminate the SMCRS from its tariff.

[2] These reports are in addition to the annual net metering reports that PECO is required to submit to the Commission by July 30 of each year in accordance with 52 Pa. Code §75.13(h) and which include information for the reporting period ending May 31 of that year. PECO filed its last two annual net metering reports on June 30, 2016 and June 30, 2017, respectively.

23. Q. Please describe the remaining Settlement Agreement commitments and how PECO has met them.

A. ***Revenue Decoupling Collaborative***. PECO agreed to hold a collaborative that would be open to all interested participants in order to seek input regarding revenue decoupling, and PECO hosted the collaborative on February 25, 2016. The Company provided an overview of PECO's views on decoupling issues. Three other stakeholders, including the OSBA, made brief presentations, and all interested stakeholders participated in a roundtable discussion.

Tax Repair Credit. PECO agreed that the customer bill credit related to the tax repair catch-up deduction would reflect "6% simple interest on the monthly unamortized balance of the tax-effected catch-up deduction." PECO modified the bill credit to reflect the 6% interest on the unamortized balance starting January 1, 2016.

Distribution System Improvement Charge ("DSIC"). In accordance with the Commission's approval of the Settlement Agreement, PECO was eligible to include plant additions in its proposed DSIC once eligible account balances exceed the levels projected by PECO at December 31, 2016. The Commission approved PECO's DSIC and Long-Term Infrastructure Improvement Plan ("LTIIP") on October 22, 2015 at Docket No. P-2015-2471423. The Company has since made quarterly filings showing the level of LTIIP investment that has been placed into service. PECO invested $22.4 million in 2016 and $52.4 million in 2017. On March 20, 2018, the Company filed to begin collecting under its DSIC effective April 1, 2018.

Pilot Capacity Reservation Rider ("CRR"). PECO agreed to collect additional data regarding coincident peaks of customer generation and other issues regarding the operation of the CRR. PECO also agreed to make the data available to the parties before submitting any proposal to renew or revise its CRR program. Mr. Schlesinger describes how PECO has met this data commitment and proposed clarifying changes to the CRR.

VI. QUALITY OF SERVICE, COMMUNITY SUPPORT, AND ECONOMIC DEVELOPMENT

24. Q. What steps has PECO taken in recent years to ensure system reliability?

A. Each year, PECO invests heavily in its electric system to increase safety and reliability and to enhance the quality of the service it provides. For example, in 2016 and 2017, PECO performed the following targeted system enhancements and corrective maintenance projects, several of which were implemented pursuant to the Company's LTIIP, to continue its strong electric reliability performance so that customers experience, on average, less than one service interruption per year outside of major storms:

- Infrastructure improvements focused on CEMI pocket areas where customers experience a higher number of sustained interruptions relative to the overall system average reliability.
- Construction of new distribution substations and the addition of several large transformers at distribution substations to support localized load growth.
- Implementation of large substation retirement projects to remove aging or obsolete equipment and to improve or upgrade surrounding distribution facilities.
- Replacement of underground cable that has exhibited a rising trend in failure rate.

- Identification of circuits throughout PECO's service territory as candidates for priority reliability improvements and installation of reclosers, sectionalizers and distribution automation in various locations throughout the Company's service area to pinpoint problems and quickly restore service.

- Integration of smart technology to combine information from AMI meters, communication infrastructure, and the Company's upgraded geographic information and distribution management systems to improve situational awareness, operations, safety, and communications outreach during outages.

- Continuation of PECO's five-year cycle of preventive vegetation-related maintenance work on approximately 2,600 miles of distribution and 200 miles of transmission lines each year, in combination with mid-cycle and data-driven corrective maintenance programs to improve reliability by enhanced vegetation management addressing pocket reliability. PECO increased vegetation-related maintenance on distribution circuits and lines and also increased the removal of dead and declining trees to improve performance in areas where multiple tree-related interruptions have occurred, especially in storms. Tree removals are increasingly oriented toward ash trees as the invasive insect called emerald ash borer ("EAB") causes accelerated ash tree mortality.

- Accelerated hardening and resiliency of the distribution system through circuit upgrades in areas where customers have experienced multiple interruptions and in support of retirement of substations, some of which have been subject to flooding.

25. Q. Mr. Innocenzo, please describe PECO's reliability performance since its last base rate proceeding.

A. As a result of the Company's investments, including the projects I described above, PECO's electric reliability continued to outperform the Commission's preferred target level in 2015, 2016, and 2017 in each of the measures for which the Commission has established standards. Indeed, PECO's average number of service interruptions was over 30 percent below the preferred benchmark level during this period and the average time customers were without power was 14 percent below the benchmark as measured by the following Commission reliability metrics.

- ***SAIFI***: The average number of sustained interruptions per customer during a year was 0.85 interruptions (2015-2017) compared to the benchmark of 1.23 interruptions.

- ***Customer Average Interruption Duration Index ("CAIDI")***: The average duration of interruptions that a PECO customer experiences during a year was 96 minutes (2015-2017) compared to the benchmark of 112 minutes.

- ***System Average Interruption Duration Index ("SAIDI")***: The sum of all sustained customer interruptions durations divided by the total number of PECO customers was 83 minutes (2015-2017) compared to the benchmark of 138 minutes.

According to the Commission's annual reports on electric service reliability in Pennsylvania for 2014 to 2016, PECO was the only large electric utility in Pennsylvania with reliability performance better than its baseline score prior to restructuring (i.e., 1994-1998 five-year average of annual system wide metrics) in every quarter from 2014 to 2016. This trend of continuous excellence in the key metrics of SAIFI, CAIDI and SAIDI is evidence of PECO's sound management of its electric distribution system.

26. Q. Does PECO have a commitment to continue to maintain and enhance reliability?

A. Yes. PECO will continue to invest in projects to improve its reliability in 2018, 2019 and beyond, including:

Aerial Cable Enhancement. The Company will install insulated aerial cable arranged in a special configuration to better withstand tree contact. PECO has already completed some installations in areas with dense tree coverage in an effort to strengthen its system against storms, increase reliability and reduce outages.

PECO's Top Priority Circuit Program. PECO analyzes and completes reliability enhancements on at least five percent of the system's worst performing circuits on an annual basis. Improvements include installing reclosers for distribution automation, identifying and repairing issues through visual thermographic inspections, increasing vegetation management activities, installing and upgrading fuses, and replacing cable and other equipment.

Distribution Automation. PECO will continue to add distribution automation equipment to its circuits, applying the latest technologies to reduce the impacts to customers when outages do occur.

Target CEMI Pockets. PECO will address CEMI pockets by reinforcing circuits with construction that can better withstand tree contact and storms as well as adding automated switching flexibility.

Storm Hardening and System Enhancement. PECO will replace aging equipment and upgrade facilities to the latest construction standards for improved distribution system reliability and resiliency to storms. PECO also plans to accelerate the installation of reclosers and perform other system enhancement work, which will reduce the number of customers and circuits affected by outage events and mitigate customer interruptions. Accelerating the installation of reclosers in problematic circuit sections will positively impact system SAIFI.

Hazard Tree Removal. PECO will continue with its hazard tree removal program, performing additional mid-cycle tree trimming, and in certain portions of its distribution system where the Company determines it to be appropriate, removing trees and branches growing above and below the Company's distribution facilities to achieve "ground-to-sky" clearance.

Managing EAB. PECO proposes to supplement its vegetation management program starting in 2018 to remove all or part of ash trees which are vulnerable to infestation by EAB and threaten damage to PECO electric facilities (estimated at approximately 30,000 trees). EAB is already present in PECO's service territory, and the Company saw significant ash tree mortality and increasing power interruptions caused by EAB-infested ash trees in 2017. It is projected that EAB infestation of ash trees in PECO's service territory will peak during the 2019-2025 period. Addressing EAB-vulnerable ash trees that threaten damage to PECO electric facilities will cost an estimated $30 million over the next five years, with 2018 as the "ramp up" year. In addition, PECO will accelerate its reliability programs, especially Distribution Automation, to minimize the impact of EAB-related power interruptions.

27. Q. What steps has PECO taken in recent years to enhance the quality of the service it provides?

A. Since its last electric base rate proceeding, PECO has executed several initiatives specifically designed to improve customer service.

First, the Company has expanded the ways that customers can interact with PECO on their mobile devices. For example, PECO deployed a mobile application with functionality that enables features such as slide-to-pay (credit card and echeck), outage reporting, and enrollment in electronic billing, automatic payments and budget billing. The Company has also added a two-way outage text feature that enables customers to text "OUT" to report an outage and "STAT" to receive an outage status update.

Second, PECO has upgraded the overall look and feel of its website and updated its website's content to be accessible to people with disabilities (consistent with applicable Web Content Accessibility Guidelines). The Company's Customer Preference Center now also provides notifications to customers for "Bill is Ready," "Payment Reminders," "Usage Alerts," "Budget Bill" and "Outages."

Finally, the Company remains focused on how customers interact with its Customer Care Center, as PECO refers to its call center. As a general matter, PECO staffs its Customer Care Center to meet customer demands and continues to invest in training programs to improve agent skills. Some recent enhancements related to the Customer Care Center include the following:

- In 2016, PECO began tracking how many calls are resolved during the first call. The Company's first call resolution improved from 77% in 2016 to 78.6% in 2017. PECO will continue to track first call resolution to evaluate future performance.
- In 2016 and 2017, the Company piloted an "at-home agents" program to have additional call center agents available for storm response especially during hazardous weather conditions. This pilot will continue in 2018.
- In 2017, the Company implemented post-call surveys to give agents real-time feedback directly from customers focused on resolution of issue, courteousness and knowledge.
- In 2017, PECO increased the number of bilingual Spanish-speaking agents to be more responsive to Spanish-speaking customers.
- The Interactive Voice Response ("IVR") includes a "Pay Now" feature on the Emergency Menu that enables customers to easily make a payment. As a result of this new functionality, PECO reduced the time of an average payment call by a minute and a half (from approximately 6 minutes to approximately 4.5 minutes).

28. Q. Have these enhancements helped PECO improve its performance in the area of customer service?

A. Yes, they have. The effectiveness of PECO's approach to customer service is reflected in the fact that, in 2017, the Company experienced improvements over its 2015 performance in the following key metrics:

- ***Overall Customer Satisfaction Index*** scores, as measured by our internal process, improved from 7.91 (2015) to 8.07 (2017). PECO's JD Power Residential Electric rating showed improvement from 659 (2015) to 718 (2017).
- ***Overall Call Center Satisfaction*** improved from 80.2% (2015) to 83.7% (2017).
- ***Our Service Level*** (calls answered in 30 seconds) improved from 89.5% (2015) to 90.2% (2017).
- ***Average Speed of Answer*** was reduced from 17 seconds (2015) to 16 seconds (2017).
- ***Abandon Rate*** improved from 1.32% (2015) to 1.2% (2017).
- ***Residential High Balance Accounts*** (>$5,000) continue to decline from 877 (2015) to 247 (2017) accounts.
- ***IVR Self-Service Transactions*** remained robust at 2.61 million in 2017, a slight decline from 2.68 million in 2015.
- ***Web Self-Service Transactions*** increased by 50% from 6.2 million in 2015 to 9.3 million (including mobile app uses since September of 2017).

With regard to Commission metrics, PECO achieved top-rankings in the 2015 and 2016 Annual PUC Utility Consumer Activities Report & Evaluation (UCARE) Report in the areas of Volume and Response Time and achieved its lowest PUC Informal Complaint volume (6,416) in 2017.

29. Q. Please describe PECO's leadership in the area of energy efficiency.

A. In 2009, PECO emerged as a leader with the early launch of its comprehensive "PECO Smart Ideas" portfolio of energy efficiency programs. These programs were designed to meet the retail energy consumption reduction requirements under the first phase of the Commission's energy efficiency and conservation program ("EE&C Program") established pursuant to Act 129. Since the EE&C Program's inception in 2009, PECO's residential and commercial customers have achieved energy savings worth more than $600 million and reflecting 2,964,000 MWh saved. PECO has been recognized repeatedly for its efforts, including receipt of the ENERGY STAR® Partner of the Year award for 2012, 2013, 2015, and 2016 for outstanding contributions to energy efficiency.

Now in the third phase of the EE&C Program, PECO continues to provide meaningful customer savings and comprehensive energy solutions. For example, in 2017, the Company hosted successful appliance recycling events (collecting over 725 appliances) and was recognized for its effective video communications with customers (as a 2017 finalist for a Chartwell People's Choice award).

30. Q. Has PECO deployed advanced metering infrastructure ("AMI") meters in accordance with Act 129?

A. Yes. PECO has completed the installation of more than 1.7 million electric AMI meters at customer premises and the reading of those meters has reached first quartile performance (99.75% as compared to the three-year industry average benchmark of 99.68%). Customers are increasingly taking advantage of AMI meter capabilities.

For example, during 2017, PECO customers with AMI meters utilized the interactive "My Usage" tool on the Company's website more than 1.5 million times.

The remote connect and disconnect function of AMI meters has significantly improved customer-requested connect and disconnect services as well as credit-related disconnect and restoration. In 2016 and 2017, 98% of customer-requested connects and disconnects were completed remotely and 99% of credit disconnects and restorations were completed remotely. This translates to an estimated 194,000 truck rolls and 77,000 Customer Care Center calls avoided in 2016 and 2017.

Deploying AMI technology across the Company's service territory has also enabled PECO to reduce restoration times during major storms. Improved storm restoration efforts have avoided an additional 10,000 truck rolls each year in 2016 and 2017.

PECO continues to explore innovative uses of its AMI technology. For example, PECO has installed over 600 distribution automation devices on the AMI network. Distribution automation provides the ability to re-route power during faults on the system to enhance performance and improve reliability. These devices also enhance the Company's ability to manage the communication system by allowing PECO to dedicate channels for unrestricted use during reliability events.

In addition, PECO installed over 70 LED Smart Street Lights ("SSLs") in Philadelphia on a pilot basis during the 2016 Democratic National Convention. The SSL platform enabled the City to manage and reduce energy usage, program customized lighting schedules and monitor the SSLs through a secure, web-based portal. Converting from traditional street lights to LEDs can reduce energy usage by approximately 50% and utilizing dimming capabilities can provide additional savings. Mr. Schlesinger describes a new rate that PECO is proposing in this proceeding for smart street lighting.

31. Q. What actions is the Company taking regarding physical security and cybersecurity?

A. PECO has made significant investments in physical security as part of the Exelon Utilities Facility Enhancement Program ("FEP"). On a three-year cycle, the Company engages in a risk-based review of critical assets and implemented physical security measures designed to reduce vulnerabilities associated with possible unauthorized access of personnel, equipment, systems, and material at critical sites. PECO also maintains a surplus of critical supplies and major equipment (e.g., transformers) at separate sites to facilitate system restoration following a disruption. In 2017 and 2018, the Company will procure twenty-two new transformers to support its resiliency efforts.

In the area of cybersecurity, the Company employs the latest technologies and has adopted the National Institute of Standards and Technology National Cybersecurity Framework to protect PECO's systems and networks. PECO provides training on security awareness and preventing cyber attacks and conducts annual internal drills on both physical and cyber threats. The Company has also made significant technology investments and operational improvements, primarily on the transmission side, to strengthen its program to comply with North American Electric Reliability Corporation ("NERC") Critical Infrastructure Protection Cybersecurity Standards.

Finally, PECO is an active participant in "Black Sky" exercises to test Pennsylvania's ability to respond to a large-scale disruption of power and utility services. The Black Sky initiative is coordinated by the Commission, the Governor's Office of Homeland Security and Pennsylvania Emergency Management Agency. I represent PECO as the electric industry lead on the Black Sky Steering Committee. PECO was also an active participant in the Commission's Critical Infrastructure Interdependency Working Group whose purpose and mission have been incorporated into the Black Sky initiative.

32. Q. How has PECO enhanced retail competition since its last electric base rate proceeding?

A. PECO has worked in a collaborative fashion with the Commission and its Office of Competitive Market Oversight ("OCMO") to advance the development of the competitive electric market, including regular calls concerning retail market initiatives and customer complaints. PECO also conducts webinars with suppliers to highlight new developments and handles approximately 5,000 supplier inquiries per year. Recent initiatives promoting the competitive electric market include the following:

- Implementation of "seamless moves" and "instant connect" beginning in June 2016 in accordance with the Commission's order at Docket No. M-2014-2401085. "Seamless moves" allows residential and small business customers to efficiently move their current EGS to a new location if certain qualifications are met. "Instant connect" capabilities permit EGSs to send the Company an enrollment transaction for a customer account that is still "pending," which means the customer has requested service from PECO but the service start date is in the future. "Instant connect" gives customers the opportunity to receive service from an EGS starting the first day a new account begins to receive distribution service from PECO.

- Providing EGSs with access to AMI historical interval usage data in accordance with the Commission's order at Docket No. M-2009-2092655. The data access project had three phases and the final phase was completed in December of 2016.

- Providing EGSs with the ability to use color logos on PECO-generated bills that include EGS charges starting in August of 2017. Previously, only black and white logos could be displayed.

33. Q. What is PECO's record with respect to the safety of its employees?

A. PECO continues to be an industry leader with respect to the Occupational Safety and Health Administration's ("OSHA") Recordable Incidence Rate. This statistic measures the number of work-related injuries per 100 employees that require more than first-aid treatment. PECO's 2015 OSHA recordable rate was in the first quartile and, in 2016 and 2017, improved to the first decile. PECO received multiple Pennsylvania Energy Association Job Safety Awards for its 2016 performance, including the Safety Achievement Award, Safety Improvement Award, and Safety Sustainability Award.

34. Q. Has the Company taken any recent actions with respect to distributed solar generation and other DG technologies?

A. Yes, the Company has implemented multiple initiatives to streamline the interconnection process, educate developers and potential solar/DG customers and improve the overall experience for solar/DG customers. These efforts are being managed by PECO's new Distributed Energy Group ("DEG"), which was launched in September of 2017 and is staffed by 14 PECO employees. The DEG, which serves as the single point of contact for solar developers, is tasked with the development of new and innovative ideas for DG and is in frequent contact with solar developers and other stakeholders.

To streamline the interconnection process and improve the customer experience, PECO launched a DG interconnection portal in November of 2017 that allows developers and customers to submit their applications online and track the progress and status of applications.

With regard to developer and customer education, PECO has created an interactive DG viability map that allows users to select a specific geographic area and check whether the area can support additional DG resources or if system upgrades may be necessary. The Company has developed educational materials on virtual metering and is developing materials on other solar/DG topics.

Finally, PECO has moved from a two-meter to a single-meter setup for new DG service up to 200 amps for residential and small C&I meter requests. The benefit of the single-meter setup is a reduction in DG service costs to customers because a second customer-owned meter board and additional wiring is eliminated. The Company is evaluating solutions for DG service greater than 200 amps and is also piloting the use of smart inverters as a means to minimize the costs of interconnection.

35. Q. Mr. Innocenzo, please describe PECO's energy efficiency and environmental efforts regarding its own land, buildings and emissions.

A. PECO's commitment to energy efficiency and environmental stewardship is also integrated in the Company's daily operations. PECO has established an environmental management system ("EMS") based on standards set forth in International Organization for Standardization ("ISO") 14001, which supports the development of performance-improvement goals and targets. Exelon, PECO's parent company, was recognized for sustainability leadership in Newsweek's 2017 Green Rankings.

With respect to land quality, PECO has obtained Conservation Certification from the Wildlife Habitat Council for approximately one quarter of its rights-of-way (3,626 acres), which are managed under an integrated vegetation management program, and from the National Wildlife Federation for eleven sites (96 acres).

PECO also is focused on being a low-carbon company. From 2014-2016, PECO reduced its greenhouse gas emissions by approximately 12% through infrastructure investments such as the replacement of first generation electrical breakers. With respect to Company buildings, PECO recently received the Groundbreaker Award from the Delaware Valley Green Building Council, reflecting a multi-year, $15.3 million environmental sustainability initiative. Twelve buildings and 1.5 million square feet of building space are Leadership in Energy and Environmental Design ("LEED") certified, representing 80% of PECO's total building space. PECO also maintains the largest urban green roof in Pennsylvania (approximately one acre) built on an existing building at its headquarters in Philadelphia.

Waste recycling continues to be a focus at PECO. Overall recycling increased from 90% (2015) to 95% (2017), and the Company recently launched a new municipal recycling campaign and wood pole recycling pilot.

Finally, the Company supports the use of alternative fuel vehicles and related technologies. PECO participates in the Edison Electric Institute's challenge to designate at least 5% of its Electric Operations' annual vehicle spending for plug-in technology. PECO's fleet currently has 835 green biodiesel vehicles, 23 plug-in hybrid power take-off heavy duty aerial bucket trucks, 42 hybrid electric vehicles (non plug-in), 2 battery vehicles (plug-in) and 17 natural gas vehicles. In 2018, PECO will be adding five plug-in electric trucks to be used for underground cable splicing for use in the City of Philadelphia. The Company also offers its employees electric vehicle charging stations at multiple locations.

36. Q. Finally, Mr. Innocenzo, please describe PECO's support for the communities in which it provides energy and the Company's overall commitment to diversity.

A. PECO has a dedicated Economic Development Team that works cooperatively with local, regional and state economic development officials as well as commercial and industrial real estate brokers and developers to assist businesses that are considering locating or expanding in southeastern Pennsylvania (like Amazon). The team provides information on electric and gas capacity availability and cost to help with location decisions. The team also identifies office and industrial space available for sale or lease, as well as land available for development. PECO was recognized in 2017 as one of the top ten utilities for economic development by Site Selection magazine.

As I discussed earlier, PECO continues to make very significant capital and infrastructure investments in its service territory every year to provide resilient and reliable service. Reliable and resilient service is a key consideration for businesses choosing sites to maintain, expand or locate their facilities. In these and other ways, our economic development work supports the retention and creation of jobs in the region.

In addition, PECO has a strong commitment to diversity, both among its workforce and in the communities it serves. For example, PECO has employed minority and women-owned businesses, contractors and vendors in its communities and has business relationships with local minority-owned banks. PECO also has a strong and continuing tradition of community involvement. The Company's corporate citizenship efforts are designed to improve the quality of life for the people who live and work in PECO's service territory providing support in education, the environment, arts and culture, and community development and including employee volunteer activities and executive involvement on outside nonprofit boards. The Company has been recognized for its efforts including, for example, being named as a "best place to work" for LGBT equality for eight consecutive years as measured by the Human Rights Campaign's corporate equality index. PECO was also named the best mid-size company in Philadelphia by Forbes magazine in 2017 based on survey responses from PECO employees about diversity, atmosphere and other work-related attributes.

37. Q. Does PECO's commitment to the local communities it serves have a significant economic impact on Southeastern Pennsylvania?

A. Yes. In 2016, the Economy League of Greater Philadelphia and Econsult Solutions, Inc. (collectively, "ELGP") used IMPLAN, an industry standard economic modeling program, to estimate the economic impact of PECO's operations. ELGP determined that, during 2015, PECO's operations generated $3.97 billion in total economic impact and supported a ripple effect of 7,300 jobs in Southeastern Pennsylvania.

In 2016 and 2017, PECO's Smart Ideas energy management programs helped customers reduce energy usage by approximately 764,000 MWh, resulting in $144 million in savings across PECO's service territory. These savings may increase the disposable income of our customers, which can be reinvested in the local economy.

Finally, in 2017, PECO supported communities in its service territory with more than $6 million in corporate contributions to over 500 charities and non-profit organizations (and such costs are not recovered from customers). Additionally, PECO employees served on the boards of more than 150 local non-profit organizations, recorded approximately 17,000 volunteer service hours and personally contributed and/or raised over $530,000 for a broad range of community organizations and programs.

38. Q. Mr. Innocenzo, based on the factors you discussed above, how do you characterize PECO's record with regard to the performance factor considerations of efficiency, effectiveness and adequacy of service identified in Section 523 of the Public Utility Code?

A. My assessment is based on PECO's demonstrated excellence with regard to the quality and reliability of its service, its commitment to energy efficiency and environmental stewardship, its willingness to embrace cost-effective new technologies, its dedication to retail competition, its vigilance in protecting the safety of its workers, and its strong promotion of community and economic development, all of which I have discussed above. It is also based on PECO's significant and successful efforts to manage and control its operating expenses since its last base rate case in 2015, as discussed by Mr. Barnett in PECO Statement No. 2. Based on all of those factors, PECO has exhibited, and continues to exhibit, superior management performance, which fully supports Mr. Moul's recommendation (PECO Statement No. 5) that PECO receive a rate of return on common equity at the upper end of the range of common equity return rates calculated by Mr. Moul.

VII. CONCLUSION

39. Q. Does that complete your direct testimony at this time?

A. Yes, it does.