

**BEFORE THE  
PENNSYLVANIA PUBLIC UTILITY COMMISSION**

Pennsylvania Public Utility Commission	:	
	:	
v.	:	Docket No. R-2018-3000164
	:	
PECO Energy Company	:	

**DIRECT TESTIMONY**

**OF**

**CHRIS PETERSON**

**On Behalf of**

**NRG ENERGY, INC.**

Topic Addressed:

Allocation of Indirect Expenses Between Distribution Service and Default Service

June 26, 2018

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1 **I. INTRODUCTION AND BACKGROUND**

2 **Q. PLEASE STATE YOUR NAME, BUSINESS ADDRESS AND TITLE.**

3 A. My name is Chris Peterson and my business address is 27725 Stansbury Blvd., Suite 200,  
4 Farmington Hills, MI 48334. I am a Principal of UHY Advisers, Inc. (“UHY”) and lead  
5 the Fraud and Forensic Accounting Group in the Michigan offices. I have worked at UHY  
6 for twenty years, in various positions of increasing responsibility.

7 **Q. IN WHAT AREAS DO YOU SPECIALIZE?**

8 A. I specialize in providing fraud investigation, forensic accounting and expert services in  
9 both the private and government sectors. I also have extensive experience with accounting  
10 matters, audits of financial statements, and other attest engagements.

11 **Q. PLEASE DESCRIBE YOUR PROFESSIONAL EXPERIENCE.**

12 A. My professional experience includes the provision of forensic accounting and expert  
13 witness services for litigation and alternate dispute resolution cases. I serve as a court-  
14 appointed forensic accountant and conduct examinations for asset misappropriations and  
15 fraudulent financial reporting. Other areas in which I have professional experience include:  
16 (i) internal investigations involving corruption and governance concerns; (ii) hidden asset  
17 discovery and recovery/damage mitigation for victims of fraud; (iii) assessment of financial  
18 internal controls; (iv) defense of professional malpractice claims for auditors and  
19 accountants; and (v) defense of taxpayers in criminal investigations by the Internal  
20 Revenue Service. Additional information about my professional experience is included in  
21 NRG Exhibit CP-1.

1 **Q. PLEASE DESCRIBE YOUR RECENT WORK IN THE GOVERNMENT SECTOR**

2 A. I was engaged by the State of Michigan to provide accounting and financial reporting  
3 assistance to the Detroit Financial Review Commission (“DFRC”). The DFRC was created  
4 by State statute to provide financial oversight following the City of Detroit’s exit from  
5 bankruptcy, which was the largest municipal bankruptcy in United States history – in  
6 excess of \$18 billion. I served as a financial expert for the DFRC and provided an  
7 analytical cross-walk between the Emergency Manager’s budget for 2015-2016 and  
8 budgets prepared by the City of Detroit for 2016-2019.

9 In addition, I have assisted the General Retirement Systems of the City of Detroit  
10 with an internal investigation, governance and internal control structure enhancements in  
11 periods following the City’s bankruptcy.

12 I have also performed a forensic accounting investigation of the former director of  
13 the Macomb County Public Works Department, at the request of its current director,  
14 Candice Miller (the former U.S. Representative for Michigan and Michigan Secretary of  
15 State). A corruption probe by the Federal Bureau of Investigation of the former director  
16 is currently ongoing.

17 **Q. PLEASE DESCRIBE YOUR EDUCATIONAL BACKGROUND.**

18 A. I graduated from Grand Valley State University, cum laude, with a Bachelor of Arts degree  
19 in Accounting. I am also a licensed Certified Public Accountant in Michigan. In addition,  
20 I am a Certified Fraud Examiner and Certified Internal Auditor.

21 **Q. HAVE YOU EVER TESTIFIED BEFORE THE PENNSYLVANIA PUBLIC  
22 UTILITY COMMISSION (“COMMISSION”)?**

23 A. No.

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1 **Q. HAVE YOU PROVIDED TESTIMONY IN OTHER FORUMS?**

2 A. Yes. I have provided trial and deposition testimony in a number of proceedings, which are  
3 identified in NRG Exhibit CP-2. My testimony as an expert witness covers reports on  
4 fraud and forensic accounting examinations, internal audit investigations, and opinions on  
5 various accounting and auditing principles, standards and practices.

6 **Q. ON WHOSE BEHALF ARE YOU TESTIFYING IN THIS PROCEEDING?**

7 A. My testimony is submitted on behalf of NRG Energy, Inc. (“NRG”).

8 **Q. PLEASE DESCRIBE NRG.**

9 A. NRG has four affiliate companies that are licensed by the Commission as electric  
10 generation suppliers (“EGSs”) to provide electricity or electric generation supply services  
11 to retail customers throughout Pennsylvania.<sup>1</sup> These EGSs serve customers in the  
12 distribution service territory of PECO Energy Company (“PECO” or “Company”).

13 **Q. PLEASE STATE GENERALLY WHAT FORMS THE BASIS OF YOUR**  
14 **RECOMMENDATIONS IN THIS TESTIMONY.**

15 A. My recommendations are based on my review of PECO’s Cost of Service Study and the  
16 supporting testimony in this proceeding, as well as PECO’s responses to standard data  
17 requests and discovery requests submitted by NRG and other parties. In addition, I have  
18 reviewed PECO’s filings made with the Federal Energy Regulatory Commission (“FERC”)  
19 and the Energy Information Administration (“EIA”). I have also examined PECO’s  
20 residential price to compare (“PTC”) methodology, along with Commission orders,

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<sup>1</sup> *Reliant Energy Northeast LLC d/b/a NRG Home and NRG Business*, Docket No. A-2010-2192350 (December 2, 2010); *Green Mountain Energy Company*, Docket No. A-2011-2229050 (February 16, 2012); *Energy Plus Holdings LLC*, Docket No. A-2009-2139745 (January 15, 2010); *Independence Energy Group d/b/a Cirro Energy*, Docket No. A-2011-2262337 (October 31, 2011).

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1 regulations, policy statements and the shopping website administered by the Commission  
2 at [www.papowerswitch.com](http://www.papowerswitch.com).

3 **Q. DID YOU PRODUCE A STUDY FOR NRG ADDRESSING PECO'S**  
4 **RESIDENTIAL RATES?**

5 A. Yes. I produced a Utility Rate Study ("Study") dated June 18, 2018, which is attached to  
6 my testimony as NRG Exhibit CP-3. This Study examines PECO's residential rate  
7 allocations between distribution services and default service and contains the detail,  
8 calculations and schedules that I rely on and refer to in this testimony. It consists of: (i) a  
9 Narrative, which describes the purpose of the Study and summarizes the overall findings;  
10 (ii) Computations, which are set forth in Section I-Financial, Section II-Default Service  
11 (Price to Compare), and Section III-Distribution Service; and (iii) Appendices, which  
12 identify sources of information and additional support for the Study's findings.

13 **Q. WHAT IS THE PURPOSE OF YOUR TESTIMONY?**

14 A. The purpose of my testimony is to highlight a disproportionate allocation of costs by PECO  
15 to residential distribution service, which precludes customers from making apples-to-  
16 apples comparisons between the price to compare ("PTC") charged by PECO for default  
17 generation service and the prices offered by EGSs for competitive generation service.  
18 Because PECO annually recovers over one hundred million dollars of indirect costs  
19 through its distribution charges that should be recovered through its PTC for default  
20 service, it is providing misleading information to customers. As a result, customers are not  
21 able to make informed choices regarding the purchase of electricity services in the retail  
22 market. Absent significant modifications to PECO's cost allocations and recovery  
23 mechanisms, customers will not have fair and accurate information enabling them to

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1 compare prices and services on a uniform basis. Indeed, rather than having an opportunity  
2 to make apples-to-apples comparisons, or even apples-to-oranges comparisons, PECO  
3 consumers will continue to participate in the retail market making apples-to-cucumbers  
4 comparisons.

5 **Q. WHY DOES THIS DISPROPORTIONATE ALLOCATION OCCUR?**

6 A. PECO allocates only direct costs related to Production and Transmission to residential  
7 default service and allocates no indirect costs to residential default service. Specifically,  
8 rather than allocating a portion of indirect costs to residential default service, PECO  
9 allocates all indirect expenses for Customer Service, Sales, Administrative & General  
10 (“A&G”), and Intangible Plant, General Plant and Common Plant  
11 Depreciation/Amortization to residential distribution service. This approach is not  
12 appropriate because these expense items appear to support all of PECO’s residential  
13 operations, including both default service and distribution service. By allocating indirect  
14 expenses entirely to residential distribution services, PECO fails to address that a  
15 significant portion of these costs are incurred to provide residential default service. For  
16 instance, if PECO were to operate a separate functional division that provides default  
17 service, it would necessarily incur these types of expenses. It is my belief that out of a pool  
18 of \$196.6 million in indirect or common/shared residential distribution expenses that have  
19 been entirely allocated to distribution services, approximately \$101 million should be  
20 reallocated to residential default service to more accurately reflect the costs that PECO  
21 incurs to provide that service.

22 **Q. WHY WOULD PECO BE MOTIVATED TO DISPROPORTIONATELY**  
23 **ALLOCATE COSTS TO DISTRIBUTION SERVICES SO THAT THESE COSTS**

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1       **ARE RECOVERED THROUGH DISTRIBUTION CHARGES ON ALL**  
2       **CUSTOMERS' BILLS (DEFAULT AND SHOPPING)?**

3    A.    PECO may be motivated to recover all of these common or shared costs through its  
4       distribution charges because it is easier to recover them from all customers rather than  
5       through a charge that is imposed on default service customers - a fluctuating customer base.  
6       Also, by recovering all of these costs through distribution charges, PECO's PTC may be  
7       understated. Through understating its PTC, PECO may gain an unfair competitive  
8       advantage in the marketplace. Specifically, a lower PTC enhances PECO's ability to attract  
9       and retain residential default service customers. As a result of PECO's disproportionate  
10      allocations, shopping customers who receive their generation supply from EGSs, including  
11      NRG, are paying too much for distribution charges.

12   **Q.    WHAT STEPS DO YOU RECOMMEND TO CORRECT THIS**  
13   **DISPROPORTIONATE ALLOCATION OF COSTS TO DISTRIBUTION**  
14   **SERVICES?**

15   A.    I recommend that approximately \$101 million in indirect expenses that are currently  
16      allocated to residential distribution service be reallocated to residential default service. By  
17      allocating a reasonable portion of its indirect costs to default service, PECO's current PTC  
18      residential default service would be increased by 1.25 cents per kWh, to 8.40 cents per  
19      kWh. This is approximately a 15 percent increase. Additionally, through this reallocation  
20      process, PECO would recover a lower amount of costs through its distribution charges,  
21      which I have calculated to be .76 cents per kWh. A residential customer using 1,000 kWh  
22      per month would see a decrease in his or her monthly distribution charges in the amount  
23      of \$7.64, which would equate to \$91.68 over the course of a year.

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1 **Q. WHAT WOULD BE THE OUTCOME OF IMPLEMENTING YOUR**  
2 **RECOMMENDATIONS?**

3 A. The outcome of implementing my recommendations is that the information received by  
4 residential customers will allow for more meaningful comparisons between PECO's PTC  
5 and the prices offered by EGS. While the result will still not be a perfect apples-to-apples  
6 comparison, these adjustments would permit customers to compare prices and services on  
7 a more uniform basis and enhance their ability to make informed choices regarding the  
8 purchase of electricity services.

9 **II. PENNSYLVANIA'S RETAIL ELECTRICITY MARKET**

10 **(A) Restructuring and Unbundling**

11 **Q. ARE YOU GENERALLY FAMILIAR WITH PENNSYLVANIA'S RETAIL**  
12 **ELECTRICITY MARKET?**

13 A. Yes, I have a general familiarity with Pennsylvania's retail electricity market. Upon the  
14 advice of counsel, I have reviewed key provisions of the Electric Competition and Choice  
15 Act ("Competition Act"),<sup>2</sup> specific portions of the Commission's orders addressing  
16 PECO's restructuring plan in 1997 and 1998, the Commission's default service regulations,  
17 the Commission's policy statement addressing default service cost elements, and certain  
18 aspects of PECO's last two distribution rate cases. Based on the information I have  
19 gathered from a review of those documents, I generally understand Pennsylvania's  
20 restructuring process that was undertaken approximately twenty years ago, PECO's prior  
21 unbundling efforts, the differences between default service and competitive generation

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<sup>2</sup> 66 Pa. C.S. §§ 2801-2812.

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1 service and the Commission's directives for EDCs to recover default service costs through  
2 the PTC rather than through distribution charges.

3 **Q. PLEASE SUMMARIZE THE CHANGES TO THE PENNSYLVANIA'S**  
4 **ELECTRIC MARKET THAT OCCURRED AS A RESULT OF THE**  
5 **COMPETITION ACT.**

6 A. As a result of the enactment of the Competition Act, retail customers in Pennsylvania  
7 gained direct access to the competitive market for the generation and sale of electricity.<sup>3</sup>  
8 Prior to passage of the Competition Act, electric utilities provided generation, transmission  
9 and distribution services to retail customers through bundled rates regulated by the  
10 Commission.<sup>4</sup> Under the Competition Act, the generation of electricity is no longer  
11 regulated as a public utility function, while the provision of transmission and distribution  
12 ("T&D") functions continue to be regulated as a natural monopoly. In order to facilitate  
13 electric choice, the electric distribution companies ("EDCs"), including PECO, were  
14 required to unbundle their rates to show separate charges for transmission, distribution and  
15 generation services.<sup>5</sup>

16 **Q. IN GENERAL TERMS, HOW DID THE UNBUNDLING PROCESS WORK?**

17 A. PECO set forth a proposal for unbundling its rates through its restructuring plan, which  
18 was addressed by the Commission in 1997.<sup>6</sup> The Commission started with PECO's then  
19 existing bundled rate for transmission, distribution and generation services. From that

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<sup>3</sup> 66 Pa. C.S. § 2802(3).

<sup>4</sup> 66 Pa. C.S. § 2802(13).

<sup>5</sup> 66 Pa. C.S. § 2802(13) and (16).

<sup>6</sup> *Application of PECO Energy Company and Approval of Restructuring Plan Under Section 2806 of the Public Utility Code and Joint Petition for Partial Settlement*, Docket No. R-00973953 (Order entered December 23, 1997) ("1997 Restructuring Order").

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1 amount, the Commission subtracted T&D costs to arrive at a number that represented the  
2 costs of generation services. To calculate a shopping credit, which is now known as the  
3 PTC, the Commission determined an appropriate level of stranded costs for recovery  
4 through the competitive transition charge and subtracted that amount from the costs of  
5 generation services. The resulting shopping credit was the amount that a customer could  
6 avoid paying to PECO by choosing an EGS to provide electric generation service.<sup>7</sup>

7 **Q. DID THE COMMISSION REVIEW PECO'S ALLOCATION OF COSTS IN ITS**  
8 **1997 RESTRUCTURING ORDER?**

9 A. Yes. In the 1997 Restructuring Order, the Commission found that PECO's plan failed to  
10 properly assign certain general costs to generation and instead allocated 100 percent of  
11 those costs to T&D. Specifically, the Commission observed that PECO had assigned the  
12 vast majority of A&G, Overhead and General Plant expense to its T&D rates, without  
13 regard to whether there is a continuing generation component in the cost. Both the  
14 Commission and the Office of Consumer Advocate ("OCA") were concerned that the T&D  
15 rates were too high because of these cost allocations.<sup>8</sup> As a result, the Commission adopted  
16 the methodology and adjustments that OCA had presented in surrebuttal testimony and  
17 reduced the T&D rate accordingly.<sup>9</sup> The rationale for OCA's proposed methodology, with  
18 which the Commission agreed, was that the unbundling should produce results that  
19 resemble the functional costs that PECO would incur if it were to separate itself into

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<sup>7</sup> See, e.g., 1997 Restructuring Order.

<sup>8</sup> 1997 Restructuring Order at 53, 57-58.

<sup>9</sup> 1997 Restructuring Order at 59-61.

1 functionally separate divisions. For instance, OCA argued that clearly the generation  
2 division would require A&G services.<sup>10</sup> A relevant excerpt of the 164-page 1997  
3 Restructuring Order is attached as NRG Exhibit CP-4.<sup>11</sup>

4 **Q. DID THE COMMISSION MAKE ANY OTHER OBSERVATIONS IN THE 1997**  
5 **RESTRUCTURING ORDER ABOUT THE ALLOCATION OF COSTS TO**  
6 **DISTRIBUTION FUNCTIONS?**

7 A. Yes. The Commission highlighted a concern regarding the level of A&G expenses, which  
8 it said were not clearly generation (energy production) or clearly T&D (wires). However,  
9 since no party had presented any competing evidence relating to those cost levels, the  
10 Commission accepted them. In doing so, the Commission stated: “We note, however, that  
11 nothing precludes any person from later challenging PECO’s T&D rates under any  
12 applicable section of the Public Utility Code.”<sup>12</sup> The Commission also indicated that as  
13 functions continue to be unbundled, PECO’s rates may be reexamined to determine if they  
14 provide for charges which encompass generation or other unbundled services.<sup>13</sup>  
15 Importantly, the sentiments expressed in the 1997 Restructuring Order regarding the  
16 appropriate unbundling of costs remain as valid today as they were over twenty years ago.

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<sup>10</sup> 1997 Restructuring Order at 58.

<sup>11</sup> The full 1997 Restructuring Order is available on the Commission’s website. NRG Exhibit CP-4 includes the first page displaying the caption, pages 53-62 discussing the allocation of costs and the last page showing the entry date.

<sup>12</sup> 1997 Restructuring Order at 50.

<sup>13</sup> 1997 Restructuring Order at 61. Counsel advises that the 1997 Restructuring Order was not implemented because the parties later submitted a Joint Petition for Settlement which was approved by Order entered on May 14, 1998 at the same docket. My understanding is that the Commission did not discuss cost allocation issues in the May 14, 1998 Order and that the system average shopping credit produced by that order mirrored the result of the 1997 Restructuring Order.

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1           **(B)    Default Service Rates**

2   **Q.    HOW DO RETAIL ELECTRIC CUSTOMERS IN PENNSYLVANIA RECEIVE**  
3   **GENERATION SERVICE TODAY?**

4   A.    Since the implementation of the Competition Act by the Commission, customers receive  
5        electric generation supply from an EGS they choose in the competitive retail market. If  
6        they do not select an EGS, they receive such supply from the default service provider,  
7        which is currently the incumbent EDC in the particular service territory. When customers  
8        receive their generation supply from the default service provider, it is called default  
9        service.<sup>14</sup>

10 **Q.    HOW ARE THE RATES SET FOR DEFAULT SERVICE?**

11 A.    Default service providers, including PECO, are required to provide electric generation  
12        supply service under a Commission-approved competitive procurement process.<sup>15</sup> The rate  
13        that customers pay the EDC for the default service is called the PTC, which counsel advises  
14        must “be designed to recover all default service costs, including generation, transmission  
15        and other default service cost elements, incurred in serving the average member of a  
16        customer class.”<sup>16</sup>

17 **Q.    DO THE COMMISSION’S REGULATIONS PRECLUDE EDCS FROM**  
18 **RECOVERING DEFAULT SERVICE COSTS THROUGH THE DISTRIBUTION**  
19 **RATE?**

20 A.    Yes. Counsel advises that the Commission’s regulations prohibit EDCs from recovering  
21        default service costs through the distribution rate and require that such costs recovered

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<sup>14</sup> See 52 Pa. Code §§ 54.182-54.183.

<sup>15</sup> See 52 Pa. Code §§ 54.184-54.186, 54.188.

<sup>16</sup> 52 Pa. Code § 54.187(e) (emphasis supplied).

1 through the distribution rate must be reallocated to the default service rate, with the  
2 distribution rate reduced accordingly.<sup>17</sup>

3 **Q. HAS THE COMMISSION MADE ANY POLICY PRONOUNCEMENTS**  
4 **REGARDING THE COSTS THAT SHOULD BE REFLECTED IN DEFAULT**  
5 **SERVICE RATES?**

6 A. Yes. Through counsel, I am aware that on May 10, 2007, the Commission adopted a Policy  
7 Statement addressing elements of the default service regulatory framework, including  
8 default service program terms, electric generation supply procurement and competitive bid  
9 solicitation process.<sup>18</sup> One provision of the Policy Statement, which is codified at 52 Pa.  
10 Code § 69.1808, specifically addresses default service cost elements.

11 **Q. WHAT DID THE COMMISSION SAY AT THAT TIME?**

12 A. In reviewing the Commission's Order adopting the Policy Statement, I noted the  
13 Commission's discussion of default service cost elements. In that discussion, the  
14 Commission indicated that while utility rates were unbundled into transmission,  
15 distribution and generation components as part of the restructuring process, a significant  
16 concern still existed that some generation costs have been improperly allocated or  
17 embedded in EDC distribution rates. Noting that it had not undertaken a full-fledged  
18 review of distribution rates with the goal of resolving this issue, the Commission cited the  
19 continued existence of rate caps that were agreed to in the restructuring settlements. With  
20 the impending expiration of rate caps, the Commission determined that no obstacles existed

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<sup>17</sup> 52 Pa. Code § 54.187(e).

<sup>18</sup> *Default Service and Retail Electric Markets*, Docket No. M-00072009, 37 Pa. B. 5019 (Order entered May 10, 2007) ("Policy Statement Order").

1 to taking this issue up for consideration. To that end, the Commission expressed the  
2 preference for this issue to be addressed in the next distribution rate case for each EDC.  
3 For those EDCs that did not initiate base rate cases by 2007, the Commission reserved the  
4 right to initiate a cost allocation proceeding to resolve the issue.<sup>19</sup>

5 **Q. WHAT SPECIFIC COST ELEMENTS DID THE COMMISSION IDENTIFY FOR**  
6 **INCLUSION IN AN EDC'S PTC?**

7 A. Section 69.1808 (a) of the Policy Statement lists the cost elements that should be included  
8 in the PTC.<sup>20</sup> These elements include the costs for providing generation service, such as  
9 wholesale energy, capacity, ancillary, transmission and congestion costs, as well as  
10 applicable taxes and costs for alternative energy portfolio standard compliance. They also  
11 include supply management costs (i.e., bidding, contracting, hedging, scheduling and  
12 forecasting services), and A&G expenses related to those activities. In addition, the Policy  
13 Statement identifies several administrative costs for inclusion in the PTC, including billing,  
14 collection, education, regulatory, litigation, tariff filings, working capital, information  
15 system, and associated A&G expenses related to default service. The Policy Statement  
16 also states that "EDC rates should be scrutinized for any generation related costs that  
17 remain embedded in distribution rates."<sup>21</sup>

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<sup>19</sup> Policy Statement Order at 8-9.

<sup>20</sup> 52 Pa. Code § 69.1808 (a).

<sup>21</sup> 52 Pa. Code § 69.1808 (b).



1           **(C) PECO's 2010 Base Rate Proceeding**

2   **Q. FOLLOWING THE ISSUANCE OF THE COMMISSION'S POLICY**  
3   **STATEMENT, WHEN DID PECO NEXT FILE A BASE RATE CASE?**

4   A. PECO's next base rate case was filed in 2010.<sup>22</sup>

5   **Q. DID PECO UNBUNDLE ANY ADDITIONAL COSTS AT THAT TIME?**

6   A. Yes. Based on my review of public documents available for that proceeding, I am aware  
7   that PECO implemented a Transmission Service Cost ("TSC") Rider, which provides for  
8   recovery of transmission costs through the PTC, rather than through distribution charges.  
9   These costs include network service charges, regional transmission enhancement plan  
10   charges and any other load-serving entity transmission-related charges. Also during that  
11   case, the Commission approved Working Capital Riders, which reflect the working capital  
12   requirement associated with a portion of PECO's default generation supply and  
13   transmission costs.

14   **Q. ARE YOU AWARE OF ANY FURTHER UNBUNDLING EFFORTS BY PECO?**

15   A. No. I also reviewed publicly available information from PECO's 2015 base rate  
16   proceeding and observed no further efforts to unbundle rates.<sup>23</sup> I am aware from counsel,  
17   however, that the Commission has continued to recognize the possibility of a further  
18   unbundling of commodity costs from distribution rates to ensure that PTCs reflect all costs  
19   of default service. Specifically, during the electric retail markets investigation, the

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<sup>22</sup> *Pa. P.U.C. v. PECO Energy Company – Electric Division*, Docket No. R-2010-2161575 (Order entered December 21, 2010).

<sup>23</sup> *Pa. P.U.C. v. PECO Energy Company – Electric Division*, Docket No. R-2015-2468981 (Order entered December 17, 2015).

1 Commission noted that it “agrees with this concept and has strived to address these issues  
2 as they have arisen in distribution rate cases.”<sup>24</sup>

3 **III. PROPOSED ALLOCATION OF COSTS BETWEEN RESIDENTIAL**  
4 **DISTRIBUTION SERVICES AND DEFAULT SERVICE**

5 ***(A) PECO’s Proposed Allocations***

6 **Q. PLEASE DESCRIBE THE FOCUS OF YOUR EXAMINATION OF PECO’S**  
7 **PROPOSED ALLOCATION OF COSTS.**

8 A. PECO provides distribution services and default generation service to several customer  
9 classes. The focus of my testimony is on PECO’s distribution and default service for the  
10 residential (Rate R) and residential heating (Rate RH) classes, which are referred to  
11 throughout my testimony as the “residential” classes, customers or services.

12 **Q. PLEASE DISCUSS PECO’S PROPOSED ALLOCATION OF COSTS IN THIS**  
13 **PROCEEDING.**

14 A. Although PECO provides a great deal of information about cost allocations between rate  
15 classes, details regarding the assignment of costs between distribution services and default  
16 generation services within the rate classes are not displayed in a specific schedule but must  
17 be derived from various portions of PECO’s Cost of Service Study (“COSS”).<sup>25</sup> Based on  
18 my analysis of PECO’s COSS, I found that only the direct costs related to Production and  
19 Transmission are allocated to default service. These expense categories include the cost of  
20 purchasing power to provide service, direct expenses related to the purchasing of the  
21 power, the development of PECO’s procurement plan, and transmission charges incurred

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<sup>24</sup> *Investigation of Pennsylvania’s Retail Electricity Market: End State of Default Service*, Docket No. I-2011-2237952 (Order entered February 15, 2013) (“RMI End State Order”), at 21.

<sup>25</sup> PECO Exhibit JD-2.

1 when purchasing electricity from outside parties (i.e. PJM Interconnection LLC). A  
2 schedule provided as NRG Exhibit CP-5 shows this information.<sup>26</sup>

3 **Q. PLEASE DESCRIBE NRG EXHIBIT CP-5.**

4 A. NRG Exhibit CP-5 is titled “Total Electric Division: PECO’s Statement of Earnings  
5 (Before Interest and Income Taxes) Allocation to the Residential Class” and reflects the  
6 Fully Projected Future Test Year ending December 31, 2019 (“FPFTY 2019”). This chart  
7 shows PECO’s total expenses on lines 4 through 18, sets forth the total residential  
8 allocation in PECO’s COSS for each of these expense items and specifies the allocations  
9 to residential default service and to residential distribution service, as taken directly from  
10 the COSS. A review of the columns labeled “Total Residential Default Service (Price to  
11 Compare)” and “Total Residential Distribution Service (All Customers)” under “Service  
12 Type” shows that the only categories of costs that were allocated to default service are  
13 Production Expense (\$493.3 million) and Transmission Expenses (\$101 million).

14 **Q. WHAT ELSE DOES NRG EXHIBIT CP-5 SHOW?**

15 A. NRG Exhibit CP-5 also shows all of the expense categories that were allocated entirely to  
16 residential distribution services, including Distribution Operation, Distribution  
17 Maintenance, Customer Accounts, Customer Service, Sales, A&G, Intangible Plant,  
18 Transmission Plant, Distribution Plant, General Plant and Common Plant  
19 Depreciation/Amortization.

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<sup>26</sup> Although this schedule is included in NRG Exhibit CP-3, labeled as Chart 1.1, I am reproducing it as NRG Exhibit CP-5 for ease of reference.

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1 **(B) NRG's Challenges to PECO's Proposed Allocations**

2 **Q. WHICH OF THESE ALLOCATIONS ARE YOU CHALLENGING?**

3 A. I am challenging PECO's practice of allocating all costs to distribution services for the  
 4 following expense categories: Customer Service, Sales, A&G, Intangible Plant, General  
 5 Plant and Common Plant Depreciation/Amortization. As shown by NRG Exhibit CP-5,  
 6 which highlights in shading the expense categories I am challenging, the following  
 7 amounts are allocated entirely to residential distribution service:

<b>Expense Category</b>	<b>Amount Allocated Entirely to Residential Distribution Service (\$)</b>
Customer Service	10,857,163
Sales	793,507
Administrative & General	136,051,164
Intangible Plant	12,689,664
General Plant	11,629,436
Common Plant	24,595,247
Total Pool	196,616,182

8  
 9 **Q. WHAT IS THE BASIS FOR YOUR CHALLENGES TO THESE ALLOCATIONS?**

10 A. Many of these common and shared costs that I have identified, which appear to be fully  
 11 embedded in distribution rates, reasonably support residential default service. Indeed it is  
 12 illogical, from an accounting perspective, to allocate all of these indirect expenses to  
 13 distribution service. Particularly given that PECO provides default service to  
 14 approximately 66 percent of the residential population in its service area, a reasonable  
 15 portion of its indirect costs must necessarily support its operations for residential default  
 16 service customers.

1            Similar to what OCA contended in PECO's 1997 restructuring proceeding, PECO's  
2 expenses should be allocated in a way that resembles the costs that PECO would incur if it  
3 operated a separate default service division. PECO's expenses to operate such a division  
4 would necessarily include indirect costs of the type I am identifying in this testimony.  
5 Also, some of these expenses are specifically listed in the Commission's 2007 Policy  
6 Statement as costs that should be recovered through the PTC for default service, such as  
7 A&G expenses associated with providing default service and expenses incurred for  
8 regulatory and litigation activities. In short, despite the Commission's prior efforts to  
9 unbundle EDC rates, PECO's distribution charges continue to include certain indirect costs  
10 costs associated with providing residential default service.

11 **Q. DO YOU HAVE ANOTHER BASIS FOR HAVING THIS VIEW?**

12 A. Yes. Another basis for my view that PECO should recover some portion of these costs  
13 through its PTC rather than through distribution charges is a concept referred to as "full  
14 absorption costing," which is a term of art in financial accounting that refers to the  
15 assignment of all reasonable costs to an activity. Full absorption costing typically involves  
16 allocations of common costs between activities. A single universal convention for cost  
17 allocations does not exist. Rather, numerous cost allocation methods are commonly used  
18 and widely accepted to determine the entire cost of an activity. Common cost allocation  
19 drivers are revenues, number of customers, number of employees, labor hours, etc.  
20 Judgment is required to determine the reasonableness of a cost allocation methodology for  
21 a given activity.

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1           **(C) Specific Costs That Support Residential Default Service**

2   **Q. PLEASE PROVIDE ADDITIONAL DETAIL REGARDING THE SPECIFIC**  
3   **COSTS THAT PECO PROPOSES TO ENTIRELY ALLOCATE TO**  
4   **DISTRIBUTION SERVICES THAT YOU BELIEVE REASONABLY SUPPORT**  
5   **RESIDENTIAL DEFAULT SERVICE.**

6   A. After analyzing PECO's expense allocations in this proceeding, I have identified the  
7   following specific costs that are entirely allocated to distribution service and which  
8   reasonably support residential default service:

- 9           • Customer Service Expenses, including:
- 10               ○ Customer Assistance
  - 11               ○ Information Advertisement
  - 12               ○ Miscellaneous Customer Service
- 13           • Sales Expenses, including:
- 14               ○ Demonstrating & Selling
- 15           • A&G Expenses, including:
- 16               ○ Administrative Salaries
  - 17               ○ Office Supplies & Expense
  - 18               ○ Outside Services Employed
  - 19               ○ Property Insurance
  - 20               ○ Injuries and Damages
  - 21               ○ Employees Pensions & Benefits
  - 22               ○ Regulatory Commission
  - 23               ○ Duplicate Charges – Credit
  - 24               ○ Miscellaneous General
  - 25               ○ Maintenance of General Plant
- 26           • Depreciation & Amortization Expense relating to:
- 27               ○ Intangible Plant
  - 28               ○ General Plant
  - 29               ○ Common Plant
- 30

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1 **Q. WHAT IS THE LARGEST PORTION OF EXPENSES THAT PECO PROPOSES**  
2 **TO ALLOCATE IN THEIR ENTIRETY TO DISTRIBUTION SERVICES?**

3 A. The largest portion of expenses that are inappropriately allocated in their entirety to  
4 distribution services are A&G expenses, which total \$136 million for the residential  
5 classes. By proposing to allocate all indirect A&G expenses to distribution services,  
6 PECO seeks to recover costs from all customers that are incurred to support default service.  
7 Accordingly, EGS customers who do not buy electricity from PECO pay the full  
8 distribution charges but receive no benefit from the portion of A&G expenses that support  
9 default service. Stated differently, a functionally separate default service division would  
10 necessarily incur costs associated with administrative salaries, office supplies, property  
11 insurance, regulatory commission fees and other A&G expenses.

12 **Q. WHICH COST CATEGORY ACCOUNTS FOR A SIGNIFICANT PORTION OF**  
13 **THE TOTAL RESIDENTIAL A&G EXPENSE?**

14 A. Outside Services Employed of \$56.0 million is the single largest expense within the total  
15 residential A&G expense, as detailed in NRG Exhibit CP-6, which is labeled as “Detail of  
16 Administrative and General Expense.”<sup>27</sup> Data provided in FERC reports reveals the nature  
17 of some of the expenses in this category.<sup>28</sup> Outside services could include: business center,  
18 communication, executive, financial, human resources, information technology, legal  
19 government, legal, real estate, security, supply, utilities, advertising, promotional, public  
20 relations, and other services. It may also include regulatory and government affairs, AMI

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<sup>27</sup> Although this schedule is included in NRG Exhibit CP-3, labeled as Appendix D, I am reproducing it as NRG Exhibit CP-6 for ease of reference.

<sup>28</sup> PECO Attachment SDR-OM-16(a).

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1 deployment and information technology, project management office compliance and  
 2 program administration costs.

3 **Q. ARE THESE THE TYPES OF INDIRECT EXPENSES THAT WOULD BE**  
 4 **NEEDED BY A SEPARATE DEFAULT SERVICE DIVISION?**

5 A. Yes. Costs that are encompassed by the category Outside Services Employed are common  
 6 business expenses that are critical to day-to-day operations. If PECO had a separate  
 7 division providing default service, it would necessarily incur costs in all of these areas.

8 **Q. PLEASE DESCRIBE THE COST CATEGORIES OF COMMON PLANT,**  
 9 **GENERAL PLANT AND INTANGIBLE PLANT IN CONNECTION WITH**  
 10 **DEPRECIATION AND AMORTIZATION EXPENSE.**

11 A. PECO describes Common Plant as facilities, such as PECO's headquarters office building  
 12 in Philadelphia, that are used to provide both electric and gas service. General Plant is  
 13 described in PECO's filing as including primarily structures and improvements relating to  
 14 administrative activities, tools, and communications equipment, as well as other  
 15 miscellaneous assets. Intangible Plant, according to PECO, represents the costs of  
 16 franchises and consents and other intangible assets.<sup>29</sup>

17 The FERC descriptions are similar but more detailed as follows:<sup>30</sup>

18 Common Plant - If the utility is engaged in more than one utility service, such as  
 19 electric, gas, and water, and any of its utility plant is used in common for several  
 20 utility services or for other purposes to such an extent and in such manner that it is  
 21 impracticable to segregate it by utility services currently in the accounts, such as  
 22 property, with the approval of the Commission, may be designated and classified as  
 23 common utility plant.

24 General Plant – Land and land rights, Structures and improvements, Office furniture  
 25 and equipment, Transportation equipment, Stores equipment, Tools, shop and garage  
 26 equipment, Laboratory equipment, Power operated equipment, Communication

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<sup>29</sup> PECO Statement Nos. 4 and 6.

<sup>30</sup> CFR, Title 18, Chapter 1, Subchapter C, Part 101, Uniform System of Accounts.

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1 equipment, Miscellaneous equipment, Other tangible property, Asset retirement costs  
2 for general plant.

3 Intangible Plant – Organization, franchises and consents, miscellaneous intangible  
4 plant, which includes the cost of patent rights, licenses, privileges, and other intangible  
5 property necessary or valuable in the conduct of utility operations and not specifically  
6 chargeable to any other account.

7 **Q. WOULD PECO INCUR THESE EXPENSES IF IT WERE OPERATING A**  
8 **SEPARATE DEFAULT SERVICE DIVISION?**

9 A. Yes. As with any business with Common Plant, General Plant and Intangible Plant, PECO  
10 would incur these Depreciation and Amortization Expenses if it were operating a separate  
11 default service division.

12 **Q. PLEASE EXPLAIN WHY YOU ARE PROPOSING TO REALLOCATE A**  
13 **PORTION OF CUSTOMER SERVICE EXPENSES TO RESIDENTIAL DEFAULT**  
14 **SERVICE.**

15 A. Customer Service Expenses include customer assistance, information advertisement and  
16 miscellaneous customer service. A functionally separate division of PECO providing  
17 default service would necessarily incur some level of costs to provide customer services.  
18 Therefore, it is not appropriate to allocate all of these costs to distribution services.

19 **Q. WHY DO YOU PROPOSE TO ALLOCATE SALES EXPENSES TO**  
20 **RESIDENTIAL DEFAULT SERVICE?**

21 A. Sales Expenses include demonstrating and selling costs for PECO's services and products.  
22 In my view, providing residential default service entails sales expenses, such that it is  
23 unreasonable to allocate all of these costs to distribution services. For example, while  
24 PECO allocates no advertising or market costs to default service, it engages in messaging  
25 that is intended to retain customers on default service.<sup>31</sup>

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<sup>31</sup> <https://www.peco.com/WaysToSave/LearnMore/Pages/default.aspx> (“Take the first step in finding how PECO can help you save money and energy”).

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1 **Q. DO YOU BELIEVE THAT CERTAIN COSTS PECO CHARGED TO**  
2 **DISTRIBUTION SERVICE ARE PROPERLY ALLOCATED?**

3 A. Yes. I am not challenging PECO's allocation of all costs for Distribution Operation,  
4 Distribution Maintenance, Outside Services related to Advanced Metering Infrastructure,  
5 Transmission Plant and Distribution Plant to distribution service because I view those costs  
6 as being incurred solely for the purpose of providing T&D services.

7 **Q. ARE YOU ALSO ACCEPTING PECO'S ALLOCATION OF CUSTOMER**  
8 **ACCOUNTS EXPENSE?**

9 A. Yes. Customer accounts expense relates to PECO's billing and collection operations for  
10 all residential customers, including shopping customers who buy their generation service  
11 from an EGS. Since EGSs utilizing PECO's utility consolidated billing and participating  
12 in PECO's Purchase of Receivables program currently do not incur these costs, I deem the  
13 100 percent allocation to PECO's distribution service appropriate. However, if the billing  
14 and collection functions were to shift to EGSs for their customers, an allocation adjustment  
15 to PECO's costs in this regard may be necessary.

16 ***(D) NRG's Proposal to Reallocate Expenses to Residential Default Service***

17 **Q. HOW DO YOU PROPOSE TO ADDRESS THE FACT THAT PECO IS**  
18 **ALLOCATING ALL OF THESE INDIRECT EXPENSES TO DISTRIBUTION**  
19 **SERVICE?**

20 A. I propose to reallocate the indirect expenses in each of these categories in a way that more  
21 accurately reflects the costs that PECO incurs to support all of PECO's residential  
22 operations, both default service and distribution service. The total expenses that I deem  
23 necessary to reallocate total \$196,616,182, which is the sum of the amounts shown in NRG  
24 Exhibit CP-5 for Customer Service Expenses, Sales Expenses, A&G Expenses, Intangible

1 Plant Expense, General Plant Expense and Common Plant Depreciation/Amortization in  
2 the column labeled “PECO Energy Company Total Residential Class.”

3 **Q. OF THAT TOTAL, HOW MUCH DO YOU RECOMMEND ALLOCATING TO**  
4 **DEFAULT SERVICE?**

5 A. Of the total indirect expenses that I deem necessary to reallocate, I believe that  
6 \$101,951,549, which is currently allocated entirely to distribution service, should be  
7 attributed to default service. This represents approximately 51.5 percent of the total pool  
8 of indirect expenses.

9 **Q. HOW DID YOU ARRIVE AT THAT AMOUNT TO BE REALLOCATED?**

10 A. I considered three alternative methods for computing the amount of indirect expenses to be  
11 reallocated to PECO’s default service. Allocation Method A allocates costs to “generation”  
12 or default service on the basis of residential default service revenues divided by total  
13 residential revenues. Allocation Method B allocates these costs on the basis of residential  
14 default service customers divided by total residential customers. Allocation Method C  
15 allocates these costs on the basis of a hybrid of Allocation Methods A and B. The results  
16 of the three allocation methods are shown in NRG Exhibit CP-7.<sup>32</sup>

17 **Q. PLEASE DESCRIBE NRG EXHIBIT CP-7.**

18 A. NRG Exhibit CP-7 consists of two different schedules. The first one is labeled “Default  
19 Service: PECO’s Statement of Earnings – Summary of Residential Customer Cass and  
20 Recast Allocation Methods.” In the first column, this schedule shows PECO’s allocations  
21 of costs to default service, which are recovered through the PTC. The remaining three

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<sup>32</sup> Although these schedules are included in NRG Exhibit CP-3, labeled as Charts 1.2 and 1.3, I am reproducing it as NRG Exhibit CP-7 for ease of reference.

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1 columns show the results of each of my three allocation methods, under which some  
2 portion of Customer Service Expenses, Sales Expenses, A&G Expenses, Intangible Plant  
3 Expense, General Plant Expense and Common Plant Depreciation/Amortization are  
4 allocated to default service.

5 The second schedule in NRG Exhibit CP-7 is labeled “Distribution Service:  
6 PECO’s Statement of Earnings – Summary of Residential Customer Class and Recast  
7 Allocation Methods.” In the first column, this schedule shows PECO’s allocation of costs  
8 to distribution service, which are recovered through distribution charges. The remaining  
9 three columns show the results of each of my three allocation methods, under which a  
10 smaller portion of Customer Service Expenses, Sales Expenses, A&G Expenses, Intangible  
11 Plant Expense, General Plant Expense and Common Plant Depreciation/Amortization are  
12 allocated to distribution service.

13 **1) Allocation Method A**

14 **Q. PLEASE DESCRIBE ALLOCATION METHOD A.**

15 A. Allocation Method A uses residential sales revenues of both default service and distribution  
16 service. Per PECO’s filing in this proceeding, residential default service revenues for the  
17 FPFTY 2019 are \$636.9 million, or approximately 43 percent of the total projected  
18 residential sales of \$1.5 billion. Under Allocation Method A, I considered the percentage  
19 of residential sales as a method of reallocating costs attributable to default service because  
20 this is a commonly used and widely accepted methodology for financial allocations.

21 **Q. PLEASE EXPLAIN THE RESULTS OF ALLOCATION METHOD A.**

22 A. This methodology reallocates approximately \$84.5 million of expense currently allocated  
23 to residential distribution service to residential default service. In order to understand the

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1 impact of allocating this expense to PECO’s PTC, I converted the dollar amount to the  
 2 equivalent cents per kWh. PECO estimates the budgeted residential kWh used by default  
 3 service customers to be 8.56 million for the FPFTY 2019.<sup>33</sup> To be consistent with the other  
 4 line items on PECO’s PTC, I adjusted the rate per kWh for the gross receipts tax (“GRT”)  
 5 of 5.90 percent. I then converted the tax adjusted amount from dollars to cents. Using this  
 6 allocation methodology, I determined that PECO’s PTC is understated by approximately  
 7 1.05 cents per kWh. This calculation is summarized below, with additional details  
 8 provided in NRG Exhibit CP-9.<sup>34</sup>

<b>Allocation Methodology A - Percentage of Revenues</b>	
Total Residential Expenses to be Allocated	\$ 196,616,182
Allocation Factor	<u>43%</u>
Total Expenses Allocated to Residential Default Service	\$ 84,544,958
÷ Total annual kWh's for Default Residential Customers	<u>8,585,439,745</u>
Increase in Allocation to Default Service per kWh	\$ 0.009847
÷ Adjusted for Gross Receipts Tax Factor (1 - GRT Rate) @ 5.90%	<u>94.10%</u>
Recast Expenses to Residential Default Service (\$ per kWh)	\$ 0.010465
<b>Total Recast Expenses to Residential Default Service (¢ per kWh, Rounded)</b>	<b><u>¢ 1.05</u></b>

9

10 **2) Allocation Method B**

11 **Q. PLEASE DESCRIBE ALLOCATION METHOD B.**

12 A. Allocation Method B is based on the number of residential customers. Using actual 2017  
 13 EDC to EGS customer levels,<sup>35</sup> I estimate that approximately 66 percent of PECO’s total  
 14 residential customers will also be default service customers in 2019 (1.02 million/1.56  
 15 million). I consider the percentage of residential customers as a method for reallocating

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<sup>33</sup> NRG Exhibit CP-8 (PECO Response to NRG-II-2).

<sup>34</sup> Although this schedule is included in NRG Exhibit CP-3, labeled as Chart 2.1(A), I am reproducing it as NRG Exhibit CP-9 for ease of reference.

<sup>35</sup> NRG Exhibit CP-10 (PECO Response to NRG-I-7).

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1 costs attributable to default service because this is another commonly used and widely  
2 accepted methodology for financial allocations. Indeed, the Direct Testimony of Jiang  
3 Ding, Principal Regulatory and Rate Specialist at PECO, indicates that she classified  
4 certain costs in the Cost of Service Study by the number of customers being served.  
5 Allocation by customers is needed to allocate expenses which are not incurred as a function  
6 of usage on the customer's part. Ms. Ding explains as follows:

7 Customer-related costs are the expenditures made to attach a customer to  
8 the distribution system, to meter usage and to maintain the customer's  
9 account. Customer costs are a function of the number of costs served and  
10 continue to be incurred whether or not a customer uses any electricity. This  
11 classification includes capital costs associated with poles, wires, services  
12 and meters and operating expenses incurred for customer service, field  
13 service, billing, and accounting and related activities.<sup>36</sup>  
14

15 **Q. PLEASE EXPLAIN THE RESULTS OF ALLOCATION METHOD B.**

16 A. This methodology reallocates approximately \$129.8 million of expense currently allocated  
17 to residential distribution service to residential default service. As in Allocation Method  
18 A, I went through the same steps to derive the equivalent cents per kWh rate for this  
19 allocation methodology. Using this approach, I determined that PECO's PTC is  
20 understated by approximately 1.61 cents per kWh. This calculation is summarized below,  
21 with additional detail set forth in NRG Exhibit CP-11.<sup>37</sup>

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<sup>36</sup> PECO Statement No. 6 at 12.

<sup>37</sup> Although this schedule is included in NRG Exhibit CP-3, labeled as Chart 2.1(B), I am reproducing it as NRG Exhibit CP-11 for ease of reference.

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<b>Allocation Methodology B - Percentage of Customers</b>	
Total Residential Expenses to be Allocated	\$ 196,616,182
Allocation Factor	66%
Total Expenses Allocated to Residential Default Service	\$ 129,766,680
÷ Total annual kWh's for Default Residential Customers	8,585,439,745
Increase in Allocation to Default Service per kWh	\$ 0.015115
÷ Adjusted for Gross Receipts Tax Factor (1 - GRT Rate) @ 5.90%	94.10%
Recast Expenses to Residential Default Service (\$ per kWh)	\$ 0.016062
<b>Total Recast Expenses to Residential Default Service (¢ per kWh, Rounded)</b>	<b>¢ 1.61</b>

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**Q. WHICH METHOD, A OR B, DO YOU RECOMMEND?**

A. Neither, in its entirety. Ultimately, reallocating costs based on revenues makes sense for some expenses, while allocating expenses based on the number of customers makes sense for others. Therefore, I propose implementing a hybrid of the two allocation methods based on what is deemed most appropriate for each expense line. This hybrid is referred to in this testimony as Allocation Method C.

**3) Allocation Method C**

**Q. PLEASE DESCRIBE ALLOCATION METHOD C.**

A. This methodology is a hybrid that draws from both the revenue-based (A) and customer-based (B) allocation methods. While I consider the above methodologies to both be reasonable, I view Allocation Method A to be more appropriate to reallocate certain costs and Allocation Method B to be more applicable to reallocate others, based on the nature of each expense item.

**Q. WHICH TYPES OF COSTS DID YOU FIND APPROPRIATE TO ALLOCATE ON THE BASIS OF REVENUES?**

A. I considered the percentage of revenues method for reallocating expenses that are needed in order to support revenue generation. These are expenses that occur despite fluctuations in the level of customers that are receiving default service. For example, I reallocated

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1 administrative salaries based on the percentage of revenues method because a portion of  
2 administrative salaries must be incurred to support PECO's default service operations.  
3 Because administrative employees are clearly needed to maintain the levels of revenue  
4 achieved by both default service and distribution service operating divisions, I believe that  
5 percentage of revenues is an appropriate way to allocate these costs.

6 **Q. WHICH TYPES OF COSTS DID YOU FIND APPROPRIATE TO ALLOCATE ON**  
7 **THE BASIS OF THE NUMBER OF CUSTOMERS?**

8 A. For expenses that cannot be directly correlated to revenue generation, I believe it is  
9 appropriate to allocate the costs using the percentage of customers method. These expense  
10 items are either not directly related to revenues or are directly attributable to the number of  
11 customers served. Therefore, it is appropriate to allocate these expenses in a way that  
12 accurately reflects the Company's default to distribution customer mix. For example,  
13 customer assistance expense is incurred based on the need to serve the customer base and  
14 is commonly tracked by customer call volume. How often customers call is not directly  
15 correlated to increases or decreases in revenue. However, the number of customer calls  
16 received is reasonably a function of how many customers are being served.

17 **Q. HOW DID YOU REALLOCATE THE EXPENSE ITEMS UNDER THIS**  
18 **ALLOCATION METHOD?**

19 Utilizing these concepts for each line item, I reallocated compensation, outside services,  
20 and regulatory expenses based on percentage of revenue. Also, I reallocated customer  
21 service, sales, maintenance, insurance, damages, and depreciation & amortization expenses  
22 based on the number of customers.



1 **Q. PLEASE EXPLAIN THE RESULTS OF ALLOCATION METHOD C.**

2 This methodology reallocates approximately \$101.2 million of expense currently allocated  
 3 to residential distribution service to residential default service. Following the same steps  
 4 as above to derive a cent per kWh rate, I determined that PECO’s PTC is understated by  
 5 approximately 1.25 cents per kWh under Allocation Method C. This calculation is  
 6 summarized below and additional detail is set forth in NRG Exhibit CP-12.<sup>38</sup>

<b>Allocation Methodology C - Hybrid: Revenues and Customers</b>	
Total Residential Expenses to be Allocated	\$ 196,616,182
Allocation Factor	<u>51%</u>
Total Expenses Allocated to Residential Default Service	\$ 101,191,549
÷ Total annual kWh's for Default Residential Customers	<u>8,585,439,745</u>
Increase in Allocation to Default Service per kWh	\$ 0.011786
÷ Adjusted for Gross Receipts Tax Factor (1 - GRT Rate) @ 5.90%	<u>94.10%</u>
Recast Expenses to Residential Default Service (\$ per kWh)	\$ 0.012525
<b>Total Recast Expenses to Residential Default Service (¢ per kWh, Rounded)</b>	<b><u>¢ 1.25</u></b>

7

8 **Q. WHAT IS YOUR ESTIMATE OF THE COSTS THAT ARE IMPROPERLY**  
 9 **ALLOCATED TO DISTRIBUTION SERVICES?**

10 A. Of the total residential expenses of \$196,616,182 that I examined, and which are currently  
 11 allocated entirely to residential distribution services, I estimate that \$101,191,549 should  
 12 be reallocated to residential default service (51.5 percent of the total).

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<sup>38</sup> Although this schedule is included in NRG Exhibit CP-3, labeled as Chart 2.1(C), I am reproducing it as NRG Exhibit CP-12 for ease of reference.

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1 **IV. PROPOSED EFFECT OF REALLOCATION ON PRICE TO COMPARE**

2 **Q. IN PROPOSING ADJUSTMENTS TO THE VARIABLE DISTRIBUTION**  
 3 **CHARGE, ARE YOU SUGGESTING THAT PECO BE DENIED RECOVERY OF**  
 4 **THIS AMOUNT?**

5 A. No. While I am proposing a reallocation of costs in the amount of approximately \$101  
 6 million, I am not suggesting that PECO be denied recovery of this amount. Rather, similar  
 7 to the way the riders were developed during the 2010 distribution rate case to capture the  
 8 transmission service charges and the cash working capital requirements, I am proposing  
 9 that PECO recover this amount through the PTC for default service. Specifically, I  
 10 recommend that PECO be directed to adjust its PTC at the next quarterly adjustment  
 11 following the issuance of an order in this proceeding to reflect the reallocation of these  
 12 costs from distribution service to default service.

13 **Q. WHAT IS THE EFFECT OF YOUR RECOMMENDATION TO REALLOCATE**  
 14 **APPROXIMATELY \$101 MILLION TO RESIDENTIAL DEFAULT SERVICE?**

15 A. The effect of my recommendation to reallocate approximately \$101 million from  
 16 residential distribution services to residential default service is a proposal to increase  
 17 PECO's PTC for residential default service by 1.25 cents per kWh

18 **Q. WHY DO YOU BELIEVE IT IS APPROPRIATE TO INCREASE PECO'S PTC?**

19 A. As I discussed earlier, the Commission's regulations require an EDC's PTC to recover all  
 20 default service costs that are incurred to serve customers.<sup>39</sup> Further, in prohibiting EDCs  
 21 from recovering default service costs through the distribution rate, the Commission's

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<sup>39</sup> 52 Pa. Code § 54.187(e) (emphasis supplied).

1 regulations require that costs recovered through the distribution rate be reallocated to the  
 2 default service rate, with the distribution rate reduced accordingly.<sup>40</sup>

3 **Q. IS THERE ADDITIONAL RATIONALE TO SUPPORT INCREASING PECO'S**  
 4 **PTC?**

5 A. Yes. Such adjustment is necessary to ensure that customers who are shopping for electric  
 6 generation service in PECO's territory are being presented with offers from EGSs to which  
 7 they can make apples-to-apples comparisons with PECO's PTC. If a customer chooses an  
 8 EGS to provide generation supply service, I understand that the EGS sets the price that is  
 9 paid and includes that price in a contract to which the customer agrees.<sup>41</sup> Also, the electric  
 10 shopping website administered by the Commission encourages customers to review the  
 11 PTCs of the EDCs when shopping for a new supplier.<sup>42</sup> However, this is an unfair and  
 12 misleading comparison when an EDC recovers certain costs through its distribution  
 13 charges that are incurred to provide default generation service. It also creates a framework  
 14 where customers are not able to "compare prices and services on a uniform basis,"<sup>43</sup> or in  
 15 other words, to make apples-to-apples comparisons.<sup>44</sup> Counsel advises that in the Fixed  
 16 Means Fixed Order, the Commission stressed the importance of providing information to  
 17 consumers so that they can make accurate and fair comparisons to make informed shopping  
 18 decisions.

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<sup>40</sup> 52 Pa. Code § 54.187(e).

<sup>41</sup> 52 Pa. Code § 54.4(b)(10).

<sup>42</sup> <http://www.papowerswitch.com/>

<sup>43</sup> 66 Pa. C.S. 2807(d)(2); 52 Pa. Code § 54.1.

<sup>44</sup> *Guidelines for Use of Fixed Price Labels for Products With a Pass-Through Clause*, Docket No. M-2013-2362961 (Order entered November 14, 2013) ("Fixed Means Fixed Order"), at 28-29.

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1 **Q. PLEASE FURTHER EXPLAIN.**

2 A. Since an EGS is not providing distribution service, it has no way other way of recovering  
3 costs from customers and therefore its prices must necessarily reflect all costs incurred to  
4 provide competitive generation service. In fact, counsel advises that the Commission has  
5 recognized that although the primary price signal provided to consumers is the EDC's PTC,  
6 the PTC is "often not correlated to wholesale energy markets and may move in directions  
7 opposite that of wholesale energy market trends" due to "reconciliation and the mix of  
8 contracts that EDCs use to establish the PTC."<sup>45</sup> Not only does this present challenges to  
9 EGSs in operating in the retail market, the Commission has observed that it can also  
10 "inhibit consumers' ability to make informed decisions due to the receipt of false or  
11 misleading price signals."<sup>46</sup> As a result of these improper price signals and the mis-  
12 information I am highlighting here, consumers are left with an apples-to-cucumber  
13 comparison that is not consistent with my understanding of the Competition Act or the  
14 Commission's objectives of creating a robust, competitive market.

15 **Q. IF PECO'S INDIRECT COSTS THAT YOU HAVE IDENTIFIED ARE**  
16 **PROPERLY REALLOCATED TO DEFAULT SERVICE AND RECOVERED**  
17 **THROUGH THE PTC, WHAT WOULD THE EFFECT BE ON PECO'S PTC?**

18 A. Reviewing the PTC for June 2017 through August 2017, which was 7.11 cents per kWh,  
19 the effect on the PTC of adding 1.25 cents per kWh would be to increase it by 15 percent  
20 to 8.36 cents per kWh. Through my analysis, I observed that the Company's residential  
21 costs, number of annual residential customers served, and annual residential kilowatt hours

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<sup>45</sup> RMI End State Order at 12.

<sup>46</sup> RMI End State Order at 12.

1 used in its operating area are relatively stable for the years 2014 through 2017.  
2 Accordingly, I believe that the 1.25 cent per kWh increase is also applicable to PECO's  
3 current residential default service rate of 7.15 cents per kWh, which would rise by 14.9  
4 percent to 8.40 cents per kWh.

5 **Q. WHAT IS THE SIGNIFICANCE OF AN INCREASE OF 1.25 CENTS PER KWH**  
6 **IN THE PTC?**

7 A. I recognize that 1.25 cents may seem like a slight difference in price – merely a penny give  
8 or take – and it is when talking about most products. However, in relative terms, it indicates  
9 that PECO's PTC is understated by 15 percent. That kind of price differential is  
10 fundamentally misleading to consumers when they are looking at prices on  
11 www.papowerswitch.com and deprives them of the information that is needed to compare  
12 prices and services on an accurate and fair basis. As consumers shop for generation supply,  
13 they are constantly reminded of the price and when this price is inaccurate by nearly 15  
14 percent, many may choose not to make the switch. In short, PECO's default service  
15 customers are not being provided adequate information that is needed to enable them to  
16 make informed choices regarding the purchase of electricity services. Stated differently,  
17 they are unable to make apples-to-apples comparisons.

18 **Q. WHAT COSTS DOES PECO CURRENTLY IDENTIFY AS RECOVERING**  
19 **THROUGH ITS PTC?**

20 A. PECO's PTC is made up of a generation charge and transmission charge. The generation  
21 charge starts with the C Factor which contains: default supplier full requirements costs,  
22 block energy, spot market energy, capacity, ancillary service, and miscellaneous costs.  
23 These costs are multiplied by an overall line loss factor and adjusted for the gross receipts  
24 tax. Additionally, in the generation charge is the E Factor (the over/under collections from

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1 prior periods), administrative cost factor, working capital factor, and Alternative Energy  
 2 Portfolio Standards (“AEPS”) factor.

3 It is noteworthy that the administrative cost factor is very narrow and only reflects  
 4 “the costs of the auction or Request for Proposal (RFP) monitor, consultants providing  
 5 guidance on the development of the procurement plan, legal fees incurred gaining approval  
 6 of the plan, and any other costs associated with designing and implementing a procurement  
 7 plan.”<sup>47</sup> Notably, the administrative cost factor was 0.00 cents per kWh from June through  
 8 August 2017. Historically, it has been higher at 0.04 cents per kWh from June through  
 9 August 2013 and 0.01 cents per kWh from December 2015 through February 2016.  
 10 However, in all instances, the administrative cost factor did not account for a significant  
 11 portion of the PTC. PECO’s PTC methodology and the results of recasting the PTC  
 12 showing the three different allocation methods are shown in NRG Exhibit CP-13.<sup>48</sup>

13 **Q. IS THIS DESCRIPTION OF PECO’S PTC METHODOLOGY FURTHER**  
 14 **EVIDENCE OF THE NEED FOR YOUR PROPOSED REALLOCATIONS?**

15 A. Yes. This list of components that are included in the PTC demonstrates that indirect  
 16 expenses incurred to operate a business have been omitted from PECO’s methodology.  
 17 As I have discussed, a functionally separate division of PECO providing default service  
 18 would necessarily incur expenses that are not shown in this methodology, such as A&G  
 19 expenses and costs for communications, accounting and finance, legal and regulatory,  
 20 human resources and IT infrastructure.

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<sup>47</sup> See NRG Exhibit CP-3 at N-11 (PECO’s PTC Sample Calculation Methodology for June-August 2017, page 3). Source: <https://www.peco.com/SiteCollectionDocuments/Residential.pdf>

<sup>48</sup> Although this schedule is included in NRG Exhibit CP-3, labeled as Chart 2.1, I am reproducing it as NRG Exhibit CP-13 for ease of reference.

1 **Q. ARE THERE ANY OTHER FACTORS DEMONSTRATING THE IMPORTANCE**  
2 **OF INCREASING PECO'S PTC?**

3 A. Yes. During the course of my review of PECO's COSS, I determined that \$88.7 million  
4 of projected customer assistance costs were removed from PECO's cost projections for the  
5 FPFTY 2019 through an elimination adjustment. These costs relate to PECO's Energy  
6 Efficiency & Conservation ("EE&C") programs. Since EE&C costs are recovered through  
7 a surcharge mechanism pursuant to Act 129,<sup>49</sup> the expenses for these programs have been  
8 removed from the customer assistance category in PECO's COSS for this proceeding.  
9 NRG Exhibit CP-14 shows that of PECO's \$99.8 million in customer assistance expenses,  
10 only \$11 million has been allocated to distribution services.<sup>50</sup>

11 **Q. WHAT IS THE SIGNIFICANCE OF THIS FACTOR?**

12 A. The significance of PECO's removal of \$88.7 million from customer assistance expenses  
13 in its COSS in this proceeding is that this amount represents costs that PECO recovers  
14 through a surcharge on all customers, while some of these costs support PECO's default  
15 service operations. If these costs had remained in the COSS as being entirely allocated to  
16 distribution services, my recommended reallocation of costs to default service would have  
17 been much larger.

18 **Q. WHAT TYPES OF EXPENSES ARE INCLUDED IN THIS CATEGORY?**

19 A. In a discovery response, PECO provided detail of the types of expenditures that are  
20 included in the \$88.7 million of costs for the EE&C program. Of the total amount, \$10.8

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<sup>49</sup> 66 Pa.C.S. §§2806.1 and 2806.2.

<sup>50</sup> Although this schedule is included in NRG Exhibit CP-3, labeled as Appendix B, I am reproducing it as NRG Exhibit CP-14 for ease of reference.

1 million is allocated to Education, Awareness, and Marketing expenses.<sup>51</sup> These items may  
2 include advertising and other marketing activities that are branded using PECO's name.  
3 As a result, PECO may be able to unfairly promote its brand name, and thereby its  
4 residential default service, under the guise of marketing the EE&C program.

5 **Q. ARE YOU PROPOSING ANY ADJUSTMENTS TO ACCOUNT FOR EE&C**  
6 **PROGRAM?**

7 A. No. I am pointing out this issue as a way of emphasizing the importance of the Commission  
8 directing the adjustment of PECO's PTC for default service to reflect a reasonable portion  
9 of its indirect expenses so that it more accurately presents information that allows  
10 customers to make fairer comparisons between PECO's PTC and the prices charged by  
11 EGSs for competitive generation service.

12 **V. PROPOSED EFFECT OF REALLOCATION ON DISTRIBUTION CHARGES**

13 **Q. WHAT WOULD BE THE IMPACT ON DISTRIBUTION CHARGES OF**  
14 **REALLOCATING EXPENSES TO DEFAULT SERVICE?**

15 A. Reallocating expenses to default service would reduce the distribution charges paid by  
16 customers on their monthly bills since they would be recovered by PECO through the PTC.  
17 The distribution charge is broken into fixed and variable (per kWh) elements on each  
18 customer's bill, with the fixed portion labeled as "Customer Charge" and the variable  
19 portion labeled as "Distribution Charges." Because of the manner in which PECO derives  
20 the fixed Customer Charge, I recommend that PECO adjust the variable Distribution  
21 Charges to reflect the reallocation of expenses from distribution service to default service.

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<sup>51</sup> NRG Exhibit CP-15 (PECO Response to NRG-I-1).  
{L0763236.5}



1 **Q. PLEASE EXPLAIN WHAT YOU MEAN BY THE WAY IN WHICH PECO**  
2 **DERIVES ITS FIXED CUSTOMER CHARGE.**

3 A. The underlying premise of PECO's Customer Charge was explained by Mr. Mark Kehl's  
4 Direct Testimony, as follows:

5 Customer-classified costs are, by definition, costs that vary in relation to the  
6 number of customers, not usage or demand. Such costs include, principally,  
7 but not exclusively, the cost of meters, customer service lines, billing and  
8 meter reading. As a consequence, customer-classified costs are, on average,  
9 the same amount for each customer within a rate class. Accordingly,  
10 customer-classified costs are appropriately recovered in the fixed  
11 distribution service charge, which is the same for each customer served  
12 under a given rate schedule. A utility should, to the extent practicable, avoid  
13 including customer-classified costs in variable distribution charges [sic]  
14 because to do so would make the recovery of customer-related costs a  
15 function of customers' electric demand and/or usage, which they are not.<sup>52</sup>

16  
17 In response to discovery, Mr. Kehl further explained that the proposed \$12.50 customer  
18 charge is not based on a calculation, but rather was designed to increase the level of  
19 customer-related costs recovered through the customer charge.<sup>53</sup> Therefore, I recommend  
20 only adjusting the variable Distribution Charge to reflect the reallocation of expenses from  
21 distribution service to default service. Further, since I did not reallocate expenses related  
22 to metering, billing, and customer accounts, I do not deem any adjustment to the fixed  
23 Customer Charge necessary.

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<sup>52</sup> PECO Statement No. 7 at 7-8.

<sup>53</sup> NRG Exhibit CP-16 (PECO Response to NRG-I-2).

1 **Q. HOW DO YOU PROPOSE TO ADJUST THE VARIABLE DISTRIBUTION**  
 2 **CHARGE?**

3 In adjusting the variable Distribution Charge, I derived a reduction of the distribution  
 4 charge per bill and calculated this amount to be .76 cents per kWh using Allocation Method  
 5 C, which is described above and is shown in NRG Exhibit CP-17.<sup>54</sup> This amount was  
 6 calculated by dividing the total reallocated expense for each methodology by the total  
 7 number of residential and residential heating bills (approximately 18.7 million for the  
 8 FPFTY 2019). Under my proposed Allocation Method C (hybrid), I further determined  
 9 that my proposed adjustment to the variable distribution charge would result in an  
 10 estimated reduction, on average, of \$5.41 per monthly bill or \$64.89 on an annual basis.  
 11 This calculation is shown below and can be seen in greater detail in NRG Exhibit CP-18.<sup>55</sup>

Analysis of Reallocated Distribution Service Expenses			
	Allocation Method		
	A - % of Revenues	B - # of Customers	C - Hybrid
Total Distribution Service Expenses Reallocated to Price To Compare	\$84,544,958	\$129,766,680	\$101,191,549
÷ Number of Bills (Annual)	18,714,403	18,714,403	18,714,403
<b>Reduction to Distribution Service Revenue per Bill (Monthly)</b>	<b>\$4.52</b>	<b>\$6.93</b>	<b>\$5.41</b>
<b>Annual Reduction to Distribution Service Revenue per Customer</b>	<b>\$54.21</b>	<b>\$83.21</b>	<b>\$64.89</b>

12 **Q. HOW WOULD THIS REDUCTION AFFECT CUSTOMERS USING 500, 1000**  
 13 **AND 2000 KWH PER MONTH?**  
 14

15 **A.** The table below shows the effect of a reduction in the distribution charge in the amount of  
 16 .76 for customers using 500, 750, 1000 and 2000 kWh per month.<sup>56</sup>

17

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<sup>54</sup> Although this schedule is included in NRG Exhibit CP-3, labeled as Chart 3.2, I am reproducing it as NRG Exhibit CP-17 for ease of reference.

<sup>55</sup> Although this schedule is included in NRG Exhibit CP-3, labeled as Chart 3.1, I am reproducing it as NRG Exhibit CP-18 for ease of reference.

<sup>56</sup> I am aware that the Commission’s regulations require EGSs to show prices in marketing materials for average customers with usage levels of 500, 1000 and 2000 kwh per month. 52 Pa. Code § 54.7.

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Average Customer Usage	Distribution Charge Reduction
500 kWh	\$3.82
750 kWh	\$5.73
1000 kWh	\$7.64
2000 kWh	\$15.29

1

2 **Q. HOW WOULD THIS REDUCTION SPECIFICALLY AFFECT SHOPPING**  
3 **CUSTOMERS?**

4 A. This reduction would result in a fairer allocation between distribution service and default  
5 service. By lowering the distribution charges that are paid by both shopping and default  
6 service customers, shopping customers would no longer be subsidizing non-shopping  
7 customers through the payment of indirect expenses that are incurred by PECO in  
8 providing default service to those non-shopping customers.

9 **VI. CONCLUSION**

10 **Q. DOES THIS COMPLETE YOUR DIRECT TESTIMONY?**

11 A. Yes.

# NRG Exhibit CP-1

## CHRIS PETERSON



### PRINCIPAL, UHY ADVISORS MI, INC.

**Email:** cpeterson@uhy-us.com

**Direct:** (248) 204-9304

### INDUSTRY EXPERTISE:

- Manufacturing and Distribution
- Professional Services
- Government
- Not-For-Profit

### ACTIVE & PRIOR PROFESSIONAL AND CIVIC MEMBERSHIPS:

- Chair – Fraud Task Force, Michigan Association of Certified Public Accountants
- Member – Institute of Internal Auditors
- Member – Association of Certified Fraud Examiners
- Member – American Institute of Certified Public Accountants
- Treasurer, Board member - Oxford Kids Foundation
- Past Treasurer – Calvary Evangelical Lutheran Church (6 years)

Chris is a Principal of UHY LLP and leads the Fraud and Forensic Accounting Group in the Michigan offices. He specializes in providing fraud investigation, forensic accounting and expert services in both the private and government sector. Chris also has extensive experience with audits and other attest engagements.

### PROFESSIONAL EXPERIENCE:

- Forensic accounting and expert witness services for litigation and alternate dispute resolution cases
- Court-appointed forensic accountant
- Fraud examinations for asset misappropriations and fraudulent financial reporting
- Internal investigations involving corruption and governance concerns
- Hidden asset discovery; recovery and damage mitigation for victims of fraud
- Assessment of financial internal controls and fraud prevention
- Defense of professional malpractice claims for auditors and accountants
- Defense of taxpayers in criminal investigations by the Internal Revenue Service

### BACKGROUND:

- Licensed CPA in the state of Michigan
- Certified Fraud Examiner (CFE) and Certified Internal Auditor (CIA)
- BA in Accounting, Grand Valley State University, cum laude

### THOUGHT LEADERSHIP:

- "Profiles of 'Best in Class' Fraudsters", National Association of Professional Employer Organizations CFO/COO Seminar, July 2017
- "Key Fraud Examination Tool: Tax Returns", MICPA Anti-Fraud Issues Conference, May 2016
- "Concealment: Spotting Camouflaged Fraud", MICPA Anti-Fraud Issues Annual Conference, May 2015
- "Accounting Malpractice – Emerging Trends and How Not to Become One", ALFA International EPLI and Professional Liability Seminar, June 2014
- "Put Fraud in a Box", Detroit Treasury Management Association, May 2014
- "Critical Controls to Defer Fraud in Your Business", UHY LLP Accounting and Regulatory Update, December 2013
- "The Truth and Nothing but...Understanding Fraudulent Financial Reporting", CPA Mega Conference, MICPA, October 2011
- "The New Age of Fraud – How to detect Fraud in the 21st Century", Risk Management Association, SE MI Chapter, May 2010
- "Off-Book Corporate Corruption", Annual Chapter Meeting, Certified Information System Auditors and Certified Fraud Examiners, 2008
- "Organizing the Internal Investigation: Document Collection and Analysis" Corporate Internal Investigations Seminar, Institute of Continuing Legal Education - Georgia, March 2007

# NRG Exhibit CP-2

## Federal Rule 26 Disclosures

### CHRIS PETERSON – Trial and Deposition Testimony

<u>Date</u>	<u>Case</u>	<u>Venue</u>
June, July 2016	<b>VPH Pharmacy, Inc., and Deven Patel v Vincent Howard</b>	Court for the County of Oakland (MI) Court appointed expert (Judge: James Alexander)
May 2014	State of Oklahoma, ex rel. John Doak, Insurance Commissioner, as receiver for Pegasus Insurance Company, Inc. v Estate of William D. Thornell, Don Thornell, CPA, Inc., <b>Dianne Naler, and Dianne Naler, CPA, P.C.</b>	District Court for the Northern District Of Oklahoma
May 2014	<b>G. Wesley Blankenship</b> v Superior Controls, Inc., a Michigan corporation, Randall E. Brodzik, Mark E. Sobkow, Roderick L. Emery, Kevin T. Butler, Greg D. Cameron, Christopher J. Lake, Roger M. Templin, individuals	District Court Eastern District of Michigan Southern Division
December 2013, January 2014	<b>Amelia Quelas</b> v Daimler Trucks North America LLC, a Delaware limited liability company, Detroit Diesel Corporation, and Freightliner, LLC, jointly and severally	Circuit Court for County of Wayne (MI)
December 2013	CUMIS Insurance Society, Inc. and CINCO Family Financial Center Credit Union v <b>Gary Condit and Condit &amp; Associates, Inc. and GBQ Partners LLC</b> and Linda Fite	Court of Common Pleas – Hamilton County, OH
January 2012	Jennel M. Brockway v Todd J. Brockway, and <b>Regal Recycling, Inc. and Vern Brockway</b>	Circuit Court for County of Livingston (MI) (Judge: Michael P. Hatty)
April 2011	<b>S.L.C. Meter Service, Inc.</b> v Neptune Technology Group, Inc., RIO Supply Michigan Meter, et al	Atlanta, GA - Commercial Arbitration
October 2010	<b>Sault Ste. Marie Tribe of Chippewa Indians</b> v Bernard Bouschor, et al	50 <sup>th</sup> Circuit Court for Chippewa County (MI) (Judge: Charles Johnson)
2005	Glenn A. Sisk v <b>Elizabeth A. Sisk</b>	Wayne County (MI) Arbitration

\*Bold Case information signifies represented client

## Federal Rule 26 Disclosures (Cont'd)

### CHRIS PETERSON – Presentations

<u>Date</u>	<u>Topic</u>	<u>Organization</u>
July 2017	Profiles of 'Best in Class' Fraudsters	NAPEO 2017 CFO/COO Seminar
May 2016	Key Fraud Examination Tool: Tax Returns	Michigan Association of CPA's Anti-Fraud Issues Conference
May 2015	Concealment: Spotting Camouflaged Fraud	Michigan Association of CPA's Anti-Fraud Issues Conference
January 2015	Fraud Prevention & Detection: Staying Ahead of the Fraudster	Michigan Association of CPA's: CPE Event
June 2014	Accounting Malpractice – Emerging Trends and How Not to Become One	ALFA International Conference - Labor, Employment & Professional Liability Insurance Practice Group
May 2014	Put Fraud in a Box	Detroit Treasury Management Association
December 2013	Critical Controls to Deter Fraud in Your Business	UHY Annual Accounting & Regulatory Update
May 2013	Accounting Malpractice-Protect Yourself	Michigan Association of CPA's: Annual Anti-Fraud Issues Conference
October 2011	The Truth and Nothing But... Understanding Fraudulent Financial Reporting	Michigan Association of CPA's: CPE Mega Conference
June 2010	CPA Malpractice: When the Fraud bomb drops...	Oakland University: CPE Weekend Series
May 2010	The New Age of Fraud - How to Detect Fraud in the 21 <sup>st</sup> Century	Risk Management Association, SE MI Chapter
June 2009	How NOT to Investigate Suspected Fraud	Oakland University: CPE Weekend Series
May 2008	Corruption and Badges of Fraud	Michigan Association of CPA's: Annual Anti-Fraud Issues Conference
March 2008	Fraud in the Workplace	Detroit Area Chapter of the Labor and Employment Relations Association (LERA)
January 2008	Off-Book Corporate Corporation	SE Michigan Chapter of Association Certified Fraud Examiners and ISACA, joint annual meeting for Detroit area chapters
October, December 2007	Internal Control Communications: SAS 112 & SAS 99 Issues	Michigan Association of CPA's: CPE Mega Conferences
May, June 2007	Auditor's Consideration of Fraudulent Off-Book Activity	Michigan Association of CPA's: Current Accounting Issues & Summer Management Information Show
March 2007	Organizing the Internal Investigation: Document Collection and Analysis	Institute of Continuing Legal Education in Georgia: Corporate Internal Investigations seminar
May 2006	Income Tax Considerations in Fraud Investigations	Michigan Association of CPA's: Fraud Issues Conference
September 2003	Who's Hand is in Your Wallet? How to Prevent Fraud in your Business	Michigan Minority Business Development Council: Seminar for Small Business Owners, at Wayne State University.

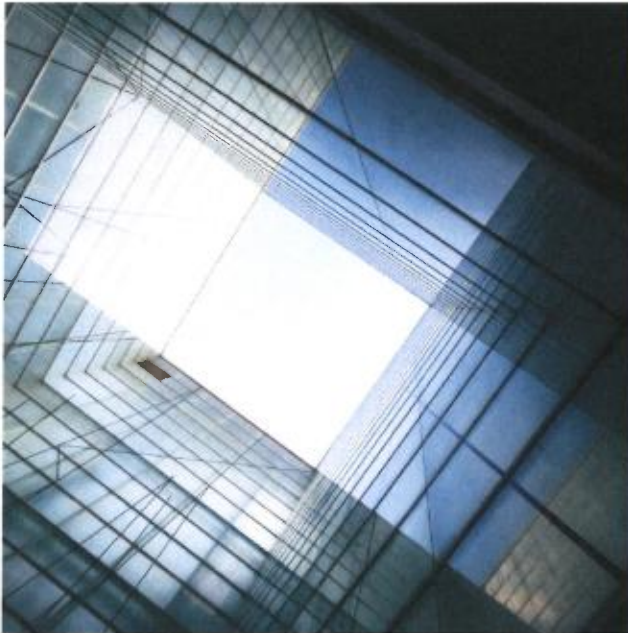


**Federal Rule 26 Disclosures (Cont'd)**

**CHRIS PETERSON – Publications**

<u>Date</u>	<u>Publication</u>	<u>Title</u>
May 2007	Fraud Magazine: May/June 2007	"Fraudsters Beware: The Taxman Cometh"

# NRG Exhibit CP-3



## Utility Rate Study

PECO Energy Company – Recast Residential Rate

June 18, 2018

THE NEXT  
LEVEL OF  
SERVICE

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**Utility Rate Study  
Narrative:  
Detailed Discussion  
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## Utility Rate Study - PECO Energy Company Residential Rate Recast

### Detailed Discussion

#### Reason for the Rate Study

##### Description of Engagement

UHY Advisors, Inc. ("UHY") was engaged by Barclay Damon, LLP on behalf of their client, NRG Energy, Inc. ("NRG") to assist in reviewing the methodology employed by PECO Energy Company ("PECO" or the "Company") in its allocation of expenses and buildup of rates with respect to residential distribution service in Pennsylvania. The issue is whether the distribution rate proposed in the 2018 Rate Case by PECO, the Electric Distribution Company ("EDC") utility in Pennsylvania, accurately reflects the costs of providing the distribution service.

This issue is a concern for NRG and other electric generation suppliers ("EGS's"). Utility distribution charges in Pennsylvania, despite prior efforts to unbundle, appear to include certain costs associated with purchasing power and transmission ("default service") operations. A more transparent unbundling of distribution charges involves identifying and reclassifying shared costs associated with residential default service as compared to costs solely attributable with distribution service.

PECO provides service to several customer classes; the focus of this study is solely related to PECO's default service and distribution service for the residential and residential heating (further referenced solely as "residential") classes.

##### Underlying Concerns

Public utilities may be motivated to disproportionately allocate costs to distribution services so that these costs are recovered through distribution charges on all customer's bills (both EDC and EGS). Recovering costs through distribution charges is favorable for the utility, because it is easier to recover these costs from all customers, rather than a service with a fluctuating customer base. As a result, the utility's proposed distribution rates may be overstated. Likewise, the default service rate, known as the Price To Compare ("PTC"), may be understated. By understating the PTC, a public utility may gain an unfair competitive advantage in the marketplace. A low PTC enhances the public utility's ability to attract and retain residential default service customers. Consequently, shopping customers who get electricity from EGS's, not the EDC, may be overpaying for distribution charges if the cost allocations are skewed towards distribution service.

##### Information Reviewed and Relied Upon in UHY's Residential Default Service Rate Study

As previously mentioned, PECO is a public utility with a significant amount information available to the public. While UHY reviewed many documents for purposes of this study, the key sources of information relied upon for purposes of the study include:

- Pennsylvania Public Utility Commission (“PUC”) – Rate Case R-2018-3000164 and Default Service Case P-2016-2534980 (“2018 Rate Case”)
- Federal Energy Regulatory Commission (“FERC”) – Financial report FERC Form 1 (2014 – 2017)
- Energy Information Administration (“EIA”) - Electric Power Sales Form EIA-861 Detailed Data Files – 2016
- PECO’s Price-to-Compare Residential Rate Methodology
- Various discovery request responses issued throughout the 2018 Rate Case
- Application of PECO Energy Company and Approval of Restructuring Plan Under Section 2806 of the Public Utility Code and Joint Petition for Partial Settlement; Docket No. R-00973953, Order entered December 23, 1997
- PUC Statement of Policy, Title 52, Default Service and Retail Electric Markets; Docket No. M-00072009, September 15, 2007
- Guidelines for Use of Fixed Price Labels for Products With a Pass-Through Clause; Docket No. M-2013-2362961, Order entered November 14, 2013 (“Fixed Means Fixed Order”)

A list of public documents we reviewed for purposes of this rate case study is provided in Appendix F – Public Documents Reviewed, Page 18.

### **Observations of PECO’s 2018 Rate Case**

Our analysis of PECO’s 2018 Rate Case found that only the direct costs related to purchased power and transmission expenses are allocated to default service customers. This includes the cost of purchasing power to provide service, direct expenses related to the purchasing of power, the development of PECO’s procurement plan, and transmission charges incurred when purchasing electricity from outside parties (i.e., PJM Interconnection LLC). However, all of PECO’s indirect expenses with respect to customer service, sales, administrative & general, and intangible plant, general plant, and common plant depreciation have been allocated to distribution service. PECO’s allocation of costs between default and distribution service can be found in detail in Section I, 1.1 - Statement of Earnings (before Interest and Income Taxes) – Page 1.

### **Prior Attempts to Unbundle Costs**

We are aware of prior instances where PECO was directed by the PUC to unbundle costs not deemed to be properly allocated. This includes:

1. Application of PECO Energy Company and Approval of Restructuring Plan Under Section 2806 of the Public Utility Code and Joint Petition for Partial Settlement; Docket No. R-00973953 (“1997 Restructuring Order”)
2. Statement of Policy on Default Service and Retail Electric Markets on May 10, 2007; Docket No. M-00072009 (“2007 Policy Statement”)

The 1997 Restructuring Order states the following regarding Administrative & General expenses related to Transmission & Distribution ("T&D"):

*"Although some parties have made suggestions regarding PECO's claimed level of expenses... no party has presented any competing evidence relating to those cost levels. Accordingly, although we are certainly permitted by the Act to examine the level of expenses claimed (the Act speaks of a "cap", not a floor), the record dictates that we accept the claimed levels. We note, however, that nothing precludes any person from later challenging PECO's T&D rates under any applicable section of the Public Utility Code."<sup>1</sup>*

In the 1997 Restructuring Order, both the PUC and the Office of Consumer Advocate ("OCA") were concerned that these T&D rates were too high. As a result, the PUC adopted methodology and adjustments, presented by the OCA, and reduced the T&D rate accordingly. The rationale for the OCA's proposed methodology, with which the PUC agreed, was that the unbundling should produce results that resemble the functional costs that PECO would incur if it were to separate itself into functionally separate divisions. For instance, OCA argued that the default service division would need A&G services to function.

In the 2007 Policy Statement, the PUC provides elements of costs that should be included in the PTC. Section 69.1808 of the Policy Statement specifically lists:

- 1) Wholesale energy, capacity, ancillary, applicable RTO or ISO administrative and transmission costs
- 2) Congestion costs will ultimately be recovered from ratepayers. Congestion costs should be reflected in the fixed price bids submitted by wholesale energy suppliers
- 3) Supply management costs, including supply bidding, contracting, hedging, risk management costs, any scheduling and forecasting services provided exclusively for default service by the EDC, and applicable administrative and general expenses related to these activities
- 4) Administrative costs, including billing, collection, education, regulatory, litigation, tariff filings, working capital, information system and associated administrative and general expenses related to default service
- 5) Applicable taxes, excluding Sales Tax
- 6) Costs for alternative energy portfolio standard compliance

The unbundling of some costs was addressed in PECO's 2010 rate case, specifically the "Transmission Service Cost" Rider and "Generation Supply Working Capital Rider." However, several of the costs identified in the 2007 Policy Statement for allocation to the PTC appear to still be fully allocated to distribution service in the 2018 Rate Case and have not been unbundled or placed in separate riders.

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<sup>1</sup> Section IV, C, 1 (Page 50) of the 1997 Restructuring Order.



## Recast Costs and Allocation Methodologies

PECO's 2018 Rate Case contains testimony and exhibits of cost allocations between rate classes (i.e., residential, residential heating, general service, primary distribution, etc.). However there is scarce detail on how costs are assigned between distribution and default services within the rate classes. We made no adjustments to PECO's methodology for allocating costs to its rate classes, but we find PECO's allocation of these rate class costs between distribution service and default service to be insufficient. Many common and shared costs appear to be fully embedded in distribution services.

In our study, we identified costs which appear to be fully embedded in PECO's distribution service per the Company's 2018 Rate Case. It should be noted that PECO provided default service to approximately 66% (on average) of the residential population in its service area during 2017. Some of PECO's indirect costs currently embedded in distribution service must support its operations for residential default service.

After analyzing PECO's expense allocation from the 2018 Rate Case, we identified specific costs wholly allocated to distribution service which reasonably support residential default service. Specifically:

- Customer Service Expenses, including:
  - Customer Assistance
  - Information Advertisement
  - Miscellaneous Customer Service
- Sales Expenses, including:
  - Demonstrating & Selling
- Administrative & General ("A&G") Expenses, including:
  - Administrative Salaries
  - Office Supplies & Expense
  - Outside Services Employed
  - Property Insurance
  - Injuries and Damages
  - Employee Pensions & Benefits
  - Regulatory Commission
  - Duplicate Charges – Credit
  - Miscellaneous General
  - Maintenance of General Plant
- Depreciation & Amortization Expense relating to:
  - Intangible Plant

- General Plant
- Common Plant

These expense items appear to support all of PECO's residential operations, both default service and distribution service. Some of the expense items are also expenses which were listed in the 2007 Policy Statement (as described on page N3). The total pool of indirect expenses we deem necessary to recast, are \$196,616,182 as presented in Computations, Section II, 2.1 (A), 2.1 (B), and 2.1 (C), Pages 5 - 7.

Full absorption costing is a term of art in financial accounting which refers to the assignment of all reasonable costs to an activity. Full absorption costing typically involves allocations of common costs between activities. A single universal convention for cost allocations does not exist. Numerous cost allocation methods are commonly used and widely accepted to determine the entire cost of an activity. Common cost allocation drivers are revenues, number of customers, number of employees, labor hours, etc. Judgement is required to determine the reasonableness of a cost allocation methodology for a given activity.

We considered three alternative methodologies for unbundling costs between the distribution service and default service lines. Methodology A is revenue based: residential default service revenues over the total residential revenue of the Company. Methodology B is based on customers: the number of residential default service customers served over PECO's total residential customer base.

Ultimately, recasting costs based on revenues makes sense for some expenses, while allocating expenses based on the number of customers makes sense for the others. Therefore, we implemented a third methodology. Methodology C is a hybrid of the other two allocation methods based on what we deemed most appropriate for each expense line.

This study presents the results of recasting applicable expenses from distribution services to default service for all three of the above mentioned methodologies. For each method, the adjustment to the PTC is presented first (both as a gross amount and as a per kWh figure), as this is the basis for how much expense is over-allocated to distribution service in PECO's 2018 Rate Case (presented in Computations, Section II, 2.1 (A), 2.1 (B), and 2.1 (C), Pages 5 - 7). We then present the impact that the recasting of expenses has on distribution service (Computations, Section III, 3.1 and 3.2, Pages 8 and 9).

**Allocation Methodology A – Sales Revenues**

This allocation methodology is based on residential sales revenues of both default service and distribution service. Per PECO’s 2018 Rate Case, residential default service for the Fully Projected Future Test Year (“FPFTY”) 2019 is projected to be \$636.9 million or approximately 43% of the total projected residential sales of \$1.5 billion. We considered the percentage of residential sales as a method for recasting costs attributable to default service because this is a commonly used and widely accepted methodology for financial allocations.

This methodology recasts approximately \$84.5 million of expense currently allocated to residential distribution service to residential default service. In order to understand the impact of this new allocation to PECO’s PTC rate, we converted the dollar amount to the equivalent cents per kilowatt hour. PECO estimates the residential kWh used by default service customers to be 8.56 billion for the FPFTY 2019<sup>2</sup>. In order to be consistent with the other line items on PECO’s PTC, we adjusted the rate per kWh for the Gross Receipts Tax (“GRT”) of 5.90%. We then converted the tax adjusted amount from dollars to cents. Using this allocation methodology, we determined PECO’s PTC is understated by approximately 1.05¢ per kWh. This calculation is summarized below, with additional detail in Computations, Section II, 2.1 (A), Page 5.

<b>Allocation Methodology A - Percentage of Revenues</b>	
Total Residential Expenses to be Allocated	\$ 196,616,182
Allocation Factor	<u>43%</u>
Total Expenses Allocated to Residential Default Service	\$ 84,544,958
÷ Total annual kWh's for Default Residential Customers	<u>8,585,439,745</u>
Increase in Allocation to Default Service per kWh	\$ 0.009847
÷ Adjusted for Gross Receipts Tax Factor (1 - GRT Rate) @ 5.90%	<u>94.10%</u>
Recast Expenses to Residential Default Service (\$ per kWh)	\$ 0.010465
<b>Total Recast Expenses to Residential Default Service (¢ per kWh, Rounded)</b>	<b><u>1.05</u></b>

<sup>2</sup> PECO’s budgeted FPFTY 2019 Retained (or EDC) and EGS kWh sales levels were provided by PECO through discovery.

### Allocation Methodology B - Customers

This allocation methodology is based on the number of residential customers. We utilized actual 2017 EDC to EGS customer levels<sup>3</sup> to approximate 66% of PECO's total residential customers will also be default service customers in 2019 (1.02 million / 1.56 million). We considered the percentage of residential customers as a method for recasting costs attributable to default service because this is another commonly used and widely accepted methodology for financial allocations.<sup>4</sup>

This methodology recasts approximately \$129.8 million of expense currently allocated to residential distribution service to residential default service. As in methodology A, we went through the same steps to derive the equivalent cents per kWh rate for this allocation method. Using this allocation methodology, we determined PECO's PTC is understated by approximately 1.61¢ per kWh. This calculation is summarized below, with additional detail in Computations, Section II, 2.1 (B), Page 6.

<b>Allocation Methodology B - Percentage of Customers</b>	
Total Residential Expenses to be Allocated	\$ 196,616,182
Allocation Factor	<u>66%</u>
Total Expenses Allocated to Residential Default Service	\$ 129,766,680
÷ Total annual kWh's for Default Residential Customers	<u>8,585,439,745</u>
Increase in Allocation to Default Service per kWh	\$ 0.015115
÷ Adjusted for Gross Receipts Tax Factor (1 - GRT Rate) @ 5.90%	<u>94.10%</u>
Recast Expenses to Residential Default Service (\$ per kWh)	\$ 0.016062
<b>Total Recast Expenses to Residential Default Service (¢ per kWh, Rounded)</b>	<b><u>1.61</u></b>

<sup>3</sup> Actual 2017 EDC to EGS customer levels were provided by PECO through discovery.

<sup>4</sup> PECO's 2018 Rate Case contained testimony of Jiang Ding, Principal Regulatory & Rate Specialist at PECO. Ms. Ding indicated that she classified certain costs by the number of customers being served in PECO's 2019 Cost of Service Study. Allocation by customers is needed to allocate expenses which are not incurred as a function of usage on the customer's part. On page 12 of Statement No. 6 of PECO's 2018 Rate Case, Ms. Ding states the following:

*"Customer-related costs are the expenditures made to attach a customer to the distribution system, to meter usage and to maintain the customer's account. Customer costs are a function of the number of customers served and continue to be incurred whether or not a customer uses any electricity. This classification includes capital costs associated with poles, wires, services and meters and operating expenses incurred for customer service, field service, billing, and accounting and related activities."*

### **Allocation Methodology C – Hybrid Approach**

This allocation methodology draws from both the revenue-based (A) and customer-based (B) allocation methods. While we considered the above methodologies to be reasonable, we deemed Method A to be more reasonable to recast certain costs and Method B to be more applicable to recast others, based on the nature of each expense item.

We considered the percentage of revenues method for recasting expenses which are needed in order to support revenue generation. These are expenses that occur despite fluctuations in the level of customers that are receiving default service.

For example, we recast administrative salaries based on the percentage of revenues method, as a portion of administrative salaries must be incurred to support PECO's default service operations. We were unable to find public information on how much time administrative employees spend on default service vs. distribution service related duties. However, administrative employees are clearly needed to maintain the levels of revenue achieved by both operating divisions.

We considered the percentage of customers method for recasting expenses that cannot be directly correlated to revenue generation. These expense items are not directly related to revenues or are directly attributable to number of customers served. Therefore, these expenses should be allocated to default service to accurately reflect the Company's default to distribution customer mix.

For example, customer assistance expense is incurred based on the need to serve the customer base, and is commonly tracked by customer call volume. How often customers call is not directly correlated to increases or decreases in revenue. However, the number of customer calls received is reasonably a function of how many customers are being served.

Utilizing these concepts for each line item, we recast compensation, outside services, and regulatory expenses based on percentage of revenue. Also, we recast customer service, sales, maintenance, insurance, damages, and depreciation & amortization expenses based on number of customers.

This methodology recasts approximately \$101.2 million of expense currently allocated to residential distribution service to residential default service. We utilized the same steps as previous our PTC calculations to derive a cent per kWh rate for allocation method C. Using this allocation methodology, we determined PECO's PTC is understated by approximately 1.25¢ per kWh. This calculation is summarized below and can be seen in detail in Computations, Section II, 2.1 (C), Page 7.

**Allocation Methodology C – Hybrid Approach (Cont.)**

<b>Allocation Methodology C - Hybrid: Revenues and Customers</b>	
Total Residential Expenses to be Allocated	\$ 196,616,182
Allocation Factor	<u>51%</u>
Total Expenses Allocated to Residential Default Service	\$ 101,191,549
÷ Total annual kWh's for Default Residential Customers	<u>8,585,439,745</u>
Increase in Allocation to Default Service per kWh	\$ 0.011786
÷ Adjusted for Gross Receipts Tax Factor (1 - GRT Rate) @ 5.90%	<u>94.10%</u>
Recast Expenses to Residential Default Service (\$ per kWh)	\$ 0.012525
<b>Total Recast Expenses to Residential Default Service (¢ per kWh, Rounded)</b>	<b><u>¢ 1.25</u></b>

Derivation of PECO's residential specific revenues and expenses and summaries of our recasting allocation methods are presented in Computations, Section I, 1.1 – 1.3, Pages 1 – 3.

### Impact of Recasting on Distribution Service

Recasting expenses to default service merits an assessment of the impact it would have on distribution charges paid by customers on their monthly bills. This charge is broken into fixed and variable (per kWh) elements on each customers' bill, with the fixed portion labeled as "Customer Charge" and the variable portion "Distribution Charges." The underlying premise for the customer charge is:

*"Customer-classified costs are, by definition, costs that vary in relation to the number of customers, not usage or demand. Such costs include, principally, but not exclusively, the cost of meters, customer service lines, billing and meter reading. As a consequence, customer-classified costs are, on average, the same amount for each customer within a rate class. Accordingly, customer-classified costs are appropriately recovered in the fixed distribution service charge, which is the same for each customer served under a given rate schedule. A utility should, to the extent practicable, avoid including customer-classified costs in variable distribution charges [sic] because to do so would make the recovery of customer-related costs a function of customers' electric demand and/or usage, which they are not."<sup>5</sup>*

However, per discovery response NRG Set I, NRG-I-2, Mark Kehl states:

*"The proposed \$12.50 customer charge is not based on a "calculation." The Company calculated the customer costs that are recoverable in the customer charge as set forth in the response to OCA-I-3 and Attachment OCA-I-3(a), which are \$15.47 and \$15.92 for rate classes R and RH, respectively. The proposed customer charge of \$12.50 was designed to increase the level of customer-related costs recovered in the customer charge giving consideration to the relatively low customer charge under PECO's current rates and the level of customer charges of other Pennsylvania electric distribution companies..."*

As there does not appear to be an exact calculation by PECO to derive the fixed Customer Charge, we must assume that this charge appropriately covers the fixed customer-classified expenses listed out in the 2018 Rate Case. Therefore, our study only adjusts the variable Distribution Charge to reflect the recasting of expenses from distribution service to the PTC. Since we did not recast expenses related to metering, billing, and customer accounts, no adjustment to the fixed Customer Charge was deemed necessary.

We derived the adjustment to the variable Distribution Charge by taking total recast expenses from each methodology and dividing by the estimated Residential kWh for the FPFTY 2019. Our estimated reduction to the proposed Distribution Charge for methodologies A, B, and C are \$0.0064, \$0.0098, and \$0.0076 per kWh, respectively.

Due to the variable nature of the Distribution Charge, the effect of the reduction to Residential customers is dependent on each individual's usage. In order to determine the potential impact of our recasting, we looked at a range of monthly usages (500 kWh, 750 kWh, 1,000 kWh, and 2,000 kWh). These ranges can be seen in detail in Computations, Section III, 3.1, Page 8.

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<sup>5</sup> Testimony of Mark Kehl, Principal Regulatory and Rate Specialist at PECO, from PECO's 2018 Rate Case, Statement No. 7, Pages 7 - 8.

We also derived a reduction of the Distribution Charge per bill. This was calculated by dividing the total recast expense for each methodology by the total number of Residential Customer bills (approximately 18.7 million for the FPFTY 2019). For methodologies A, B, and C we determined a reduction of \$4.52, \$6.93, and \$5.41 per bill, respectively. This calculation is summarized below and can be seen in detail in Computations, Section III, 3.1 and 3.2, Pages 8 and 9.

<b>Analysis of Reallocated Distribution Service Expenses</b>			
	<b>Allocation Method</b>		
	<b>A - % of Revenues</b>	<b>B - # of Customers</b>	<b>C - Hybrid</b>
Total Distribution Service Expenses Reallocated to Price To Compare	\$84,544,958	\$129,766,680	\$101,191,549
÷ Number of Bills (Annual)	18,714,403	18,714,403	18,714,403
<b>Reduction to Distribution Service Revenue per Bill (Monthly)</b>	<b>\$4.52</b>	<b>\$6.93</b>	<b>\$5.41</b>
<b>Annual Reduction to Distribution Service Revenue per Customer</b>	<b>\$54.21</b>	<b>\$83.21</b>	<b>\$64.89</b>

## Analysis Observations and Assumptions

### Default and Distribution Customers

We are aware that all default customers are charged by PECO for distribution service. However, a portion of the expenses currently allocated 100% to distribution service also supports PECO's default service. Regardless that PECO's default customers also receive distribution service, we take exception to PECO practice of associating 100% of the expenses identified in this study to distribution service.

### Price-To-Compare

Based on public information from PECO, including published tariffs, Price to Compare Sample Calculation (June – August 2017), and Generation Supply Adjustment (GSA) for Procurement Classes 1-4, we identified the expenses which are captured in PECO's published PTC. PECO's PTC is made up of a generation charge and transmission charge. The generation charge starts with the C Factor which contains: Default Supplier Full Requirements Costs, Block Energy, Spot Market Energy, Capacity, Ancillary Service, and Miscellaneous Costs. These costs are multiplied by an overall line loss factor and adjusted for the previously mentioned GRT. Additionally in the generation charge is the E Factor (the over/under collections from prior periods), Administrative Cost Factor, Working Capital Factor, and AEPS factor.

The Administrative Cost Factor included in the PTC is very narrow and only reflects:



*“...the costs of the auction or Request for Proposal (RFP) monitor, consultants providing guidance on the development of the procurement plan, legal fees incurred gaining approval the plan, and any other costs associated with designing and implementing a procurement plan.”* (PECO Energy Company Price to Compare (PTC) Sample Calculation Methodology for June – August 2017, Page 3)

The Administrative Cost Factor was 0.00¢ per kWh from June through August 2017. Historically, it has been higher at 0.04¢ per kWh from June through August 2013 and 0.01¢ per kWh from January through February 2016. In all instances, the Administrative Cost Factor did not account for a significant portion of the PTC.

In our study, the largest portion of recast expenses for each allocation method is A&G Expenses. The indirect A&G expenses needed to support default service are being recovered through the Distribution Charge to all customers. Accordingly, EGS customers who do not buy electricity from PECO, pay Distribution Charges but receive no benefit from the portion of A&G expenses that support PECO’s default service.

The electric service shopping website, PAPowerswitch.com, encourages customers to review the PTCs of the EDCs when shopping for a new supplier. In the Fixed Means Fixed Order, the PUC stressed the importance of providing information to consumers so that they can make accurate and fair comparisons to make informed shopping decisions. When an EDC allocated indirect expenses entirely through its distribution charges that are incurred to provide default service, its PTC is understated. By understating the PTC, customers are not able to compare prices and services on a uniform basis, or in other words, make an apples-to-apples comparisons.

### **Other Costs Not Allocated**

Our rate study recasts \$196.6 million of expenses we deem to be related to residential default service. However, we believe there are certain costs PECO charges to distribution service which should not be allocated to default service. We did not consider costs of distribution operation, distribution maintenance, customer accounts, outside services related to Advanced Metering Infrastructure, and distribution plant depreciation & amortization expenses as allocable expenses for purpose of our recast analysis. These costs appear to be explicitly allocable to distribution service.

Customer accounts expense relates to PECO’s billing and collection operations for all residential customers, including E customers that buy power through an EGS. EGS’s utilizing utility consolidated billing and participating in PECO’s Purchase of Receivables (“POR”) program currently do not incur these costs, so we deem the 100% allocation to PECO’s distribution service appropriate<sup>6</sup>.

The results of our recast rate study impacts the Distribution Charge incurred by all residential customers. As costs are shifted from distribution service to default service, the level of expenses attributable to the distribution service customer base decreases. The focus of our rate study

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<sup>6</sup> The approach to not allocate customer accounts expense related to billing and collection functions is based on EGS’s currently utilizing PECO’s POR program. If the billing and collection functions were to shift to EGS’s relating to their customers, an allocation adjustment to PECO’s costs in this regard may be necessary.

is the unbundling and recasting the costs between distribution and default services. As a result, we did not reallocate the revenues among these business lines to accommodate the indicated increase/decrease in expenses.

### **Use of Projected Data with Actual Data**

In our discovery requests, we asked for PECO's breakout between EDC and EGS customers for the FPFTY 2019. Per the discovery response NRG Set I, NRG-I-7, Phillip S. Barnett stated:

*"PECO does not forecast its total number of customers broken out between electric distribution customers that do not receive service from electric generation suppliers ("EGSs") and those that receive service from EGSs. Therefore, this information cannot be provided for the years 2018 and 2019."*

However, PECO did provide the actual breakout between EDC and EGS customers for 2017. Therefore, we utilized average ratio between EDC and EGS residential customer for 2017 and applied it to the average total residential customers for the FPFTY 2019. This yielded the percentages applied in our study of 66% EDC residential customers to 34% EGS residential customers for the FPFTY 2019.

We also reviewed several sources of public data related to actual year ended December 31, 2016 performance. These sources presented the same data points but provided marginally different figures (i.e., FERC vs EIA) on data points for revenues, number of customers, MWh, etc. PECO provides its data to both EIA and FERC and both are government sources of data. Therefore, we deemed these to be the most reliable sources of historical data.

### **Outside Services**

The Outside Services Employed of \$56.0 million accounted for a significant portion of the total residential A&G expense, as detailed in Exhibit D, Page 16.

Data provided in the FERC reports reveals the nature of some of the expenses in this category. Outside services could include: business center, communication, executive, financial, human resources, information technology (distributed, telecom, and non-telecom), legal government, legal, real estate, security, supply, utilities, advertising, promotional, public relations, and other services. It may also include regulatory and government affairs, advanced metering infrastructure deployment and information technology, project management office compliance, and program administration expenses.

### **Energy Efficiency & Conservation Program**

During the course of performing our rate study, we determined that \$88.7 million of projected customer assistance costs were adjusted out of the PECO's 2019 projections in the 2018 Rate Case. These costs relate to PECO's Energy Efficiency & Conservation programs ("EE & C").

Pennsylvania PA Act 129 (“Act 129”) mandates these expenditures and provides for a surcharge mechanism for the recovery of these costs in the future. Since EE & C costs are mandated to be funded through a surcharge, PECO adjusted these expenses out of the 2018 Rate Case.

After the adjustment, just \$11.0 million of projected Customer assistance expenses attributable to residential customers was included in the 2018 Rate Case; this amount is only 11 percent of the FPFTY 2019 amount (total of \$99.8 million). The EE & C adjustment is shown in Appendix B – Detail of Customer Service and Sales Expenses, Page 11.

Per discovery response NRG Set I, NRG-I-1, Benjamin S. Yin provided detail of the types of expenditures included in the \$88.7 million of costs for the EE&C program. Of the total amount, \$10.8 million is allocated to Education, Awareness, and Marketing expenses. These items may include advertising and other marketing activities which are branded using PECO’s name. As a result, PECO may be able to unfairly promote its brand name under the guise of marketing mandated by Act 129 the EE & C program.

It seems the public may be better served through EE & C program advertising that does not contain references to specific public utilities, since the programs are mandated by the PUC.

## Conclusions

Based on the available information and our work to date, we believe:

1. Reallocated costs in PECO's default service rate could fall in a range between \$84.5 million and \$129.8 million, depending on the cost allocation methodology used (Method A or Method B).
2. We believe the best estimate of reallocated costs to default service is \$101.2 million, using a hybrid cost allocation methodology (Method C). Accordingly, if \$101.2 million of cost is reallocated to default service, we believe PECO's PTC is understated by 1.25¢ per kWh.
3. We believe PECO's PTC for residential customers should be recast as follows:

	<u>June – Aug 2017 PTC</u>	<u>Current PTC</u>
PECO's Published PTC	7.11¢ per kWh	7.15¢ per kWh
<b>Recast PTC (1.25¢ per kWh increase)</b>	<b>8.36¢ per kWh</b>	<b>8.40¢ per kWh</b>
<b>Percentage PECO's Published PTC is Understated</b>	<b>15.0%</b>	<b>14.9%</b>

4. If costs are recast to default service, an equivalent amount should be considered as a reduction to distribution service. Utilizing the hybrid cost allocation methodology (Method C), we estimate that individual residential customers are being overcharged for distribution services by PECO as follows:

Proposed FPFTY 2019 Distribution Charge (R Class)	\$0.06115 per kWh
<b>Recast Distribution Charge (\$0.076 per kWh decrease)</b>	<b>\$0.05351 per kWh</b>
<b>Percentage PECO's Published Distribution Charge is Overstated</b>	<b>11.0%</b>
	<b>Per Bill</b>
<b>Distribution Service Expenses that Should be Reallocated to PTC</b>	<b>\$5.41</b>
	<b>Annual Per Customer</b>
	<b>\$64.89</b>

Throughout our analysis, we observed the Company's residential costs, number of annual residential customers served, and annual residential kilowatt hours used in its operating area are relatively stable for the years 2014 through 2017. Accordingly, we believe the 1.25¢ per kWh recast expenses are also applicable to PECO's current residential default service rate.

This study was performed solely in relation to the PECO's allocation of expenses between residential distribution and default service. The recasting of expenses presented in this study should produce a no net effect on PECO's operations as a whole. This study is not a commentary on the total projected level of each expense examined, nor the profitability of any of PECO's services.

During our study, we used and relied on the accuracy and completeness of various financial and other information produced by PECO and available through public sources.

Our report is based upon the information that was made available to us as of the date of this report. If additional information becomes available, we reserve the right to modify and/or supplement this report. We also reserve the right to modify and/or supplement our report with charts, graphs or other visual aids, if needed.

No one who worked on this engagement has any financial interest in the parties to the matter or the outcome of the analysis. Further, our fees are neither based, nor contingent upon, the results of the investigation. Our fees for this engagement are based on our Firm's standard hourly rates and any actual out-of-pocket expenses.

Our conclusions are applicable for the stated purpose only, and may not be appropriate for any other purpose. All narratives, computations, and appendices listed on the Table of Contents are collectively deemed to support our conclusion. This report is solely for the purpose stated herein, and is not to be referred to or distributed, in whole or in part, without prior consent.

Thank you for the opportunity to assist you in this matter.

**UHY Advisors, Inc.**

**June 18, 2018**

**Utility Rate Study**  
**Computations:**  
**Section I – Financial**  
**Section II – Default Service (Price to Compare)**  
**Sections III – Distribution Service**  
**Pages 1 – 9**

1.1 - Total Electric Division: PECO's Statement of Earnings (Before Interest & Income Taxes) Allocation to the Residential Customer Class - As Presented by PECO [a]  
For the Fully Projected Future Test Year Ending December 31, 2019

Line	Description [d]	PECO Energy Company		PECO Energy Company Total Residential Class (1) * (2)	Service Type	
		Total Electric Division [b] (1)	Total Residential Allocation % [c] (2)		Total Residential Default Service (Price-To-Compare)	Total Residential Distribution Service (All Customers)
<b>OPERATING REVENUES</b>						
1	SALES REVENUES	\$ 2,060,098,785	70.53%	\$ 1,453,018,599	\$ 636,874,322	\$ 816,144,277
2	OTHER OPERATING REVENUES	37,546,617	70.64%	26,522,616	-	26,522,616
3	<b>TOTAL OPERATING REVENUES</b>	<b>\$ 2,097,645,402</b>	<b>70.53%</b>	<b>\$ 1,479,541,214</b>	<b>\$ 636,874,322</b>	<b>\$ 842,666,893</b>
<b>OPERATION &amp; MAINTENANCE EXPENSE</b>						
4	PRODUCTION EXPENSE	610,818,463	80.76%	493,299,667	493,299,667	-
5	TRANSMISSION EXPENSES	172,218,339	58.66%	101,028,390	101,028,390	-
6	DISTRIBUTION OPERATION	92,426,518	67.05%	61,971,799	-	61,971,799
7	DISTRIBUTION MAINTENANCE	205,805,040	62.07%	127,743,091	-	127,743,091
8	CUSTOMER ACCOUNTS EXPENSES	116,984,776	87.10%	101,888,314	-	101,888,314
9	CUSTOMER SERVICE EXPENSES	12,062,308	90.01%	10,857,163	-	10,857,163
10	SALES EXPENSES	882,680	89.90%	793,507	-	793,507
11	ADMINISTRATIVE & GENERAL EXPENSE	191,655,473	70.99%	136,051,164	-	136,051,164
12	<b>TOTAL OPERATION &amp; MAINTENANCE EXPENSES</b>	<b>1,402,853,597</b>	<b>73.68%</b>	<b>1,033,633,095</b>	<b>594,328,057</b>	<b>439,305,038</b>
<b>DEPRECIATION / AMORTIZATION EXPENSE</b>						
13	INTANGIBLE PLANT EXPENSE	17,559,881	72.27%	12,689,664	-	12,689,664
14	TRANSMISSION PLANT EXPENSE	-	0.00%	-	-	-
15	DISTRIBUTION PLANT EXPENSE	166,494,869	65.32%	108,754,355	-	108,754,355
16	GENERAL PLANT EXPENSE	16,375,649	71.02%	11,629,436	-	11,629,436
17	COMMON PLANT DEPRECIATION/AMORTIZATION	34,633,075	71.02%	24,595,247	-	24,595,247
18	<b>TOTAL DEPRECIATION / AMORTIZATION EXPENSE</b>	<b>235,063,474</b>	<b>67.07%</b>	<b>157,668,703</b>	<b>-</b>	<b>157,668,703</b>
<b>TAXES OTHER THAN INCOME TAXES</b>						
19	PURCHASED POWER TOIT EXPENSES	38,572,400	80.76%	31,151,239	31,151,239	-
20	TRANSMISSION TOIT EXPENSES	10,951,280	58.66%	6,424,346	6,424,346	-
21	DISTRIBUTION TOIT EXPENSES	91,195,679	65.65%	59,868,327	-	59,868,327
22	<b>TOTAL TAXES OTHER THAN INCOME</b>	<b>140,719,359</b>	<b>69.25%</b>	<b>97,443,912</b>	<b>37,575,585</b>	<b>59,868,327</b>
23	<b>EARNING BEFORE INTEREST AND INCOME TAXES</b>	<b>\$ 319,008,972</b>	<b>59.81%</b>	<b>\$ 190,795,504</b>	<b>\$ 4,970,680</b>	<b>\$ 185,824,824</b>

Source: PECO Energy Company's 2018 Rate Case-Exhibit JD-2-Electric Class Cost of Service Study.  
Footnotes to this section can be found on Appendix A.

## Section I - Financial

## 1.2 - Default Service: PECO's Statement of Earnings - Summary of Residential Customer Class and Recast Allocation Methods

For the Fully Projected Future Test Year Ending December 31, 2019

Line	Description [d]	PECO Energy Company Rate Case Default Service (Price-To-Compare) [e] & [f]		Allocation Method A Recast Expense Allocation [g]		Allocation Method B Recast Expense Allocation [h]		Allocation Method C Recast Expense Allocation [i]	
			% of Total		% of Total		% of Total		% of Total
<b>OPERATING REVENUES</b>									
1	PURCHASED POWER REVENUES	\$ 527,987,105	82.9%	\$ 527,987,105	82.9%	\$ 527,987,105	82.9%	\$ 527,987,105	82.9%
2	TRANSMISSION REVENUES	108,887,216	17.1%	108,887,216	17.1%	108,887,216	17.1%	108,887,216	17.1%
3	<b>TOTAL OPERATING REVENUES</b>	<b>\$ 636,874,322</b>	<b>100.0%</b>	<b>\$ 636,874,322</b>	<b>100.0%</b>	<b>\$ 636,874,322</b>	<b>100.0%</b>	<b>\$ 636,874,322</b>	<b>100.0%</b>
<b>OPERATION &amp; MAINTENANCE EXPENSE</b>									
4	PRODUCTION EXPENSE	493,299,667	77.5%	493,299,667	77.5%	493,299,667	77.5%	493,299,667	77.5%
5	TRANSMISSION EXPENSES	101,028,390	15.9%	101,028,390	15.9%	101,028,390	15.9%	101,028,390	15.9%
6	DISTRIBUTION OPERATION	-	0.0%	-	0.0%	-	0.0%	-	0.0%
7	DISTRIBUTION MAINTENANCE	-	0.0%	-	0.0%	-	0.0%	-	0.0%
8	CUSTOMER ACCOUNTS EXPENSES	-	0.0%	-	0.0%	-	0.0%	-	0.0%
9	CUSTOMER SERVICE EXPENSES	-	0.0%	4,668,580	0.7%	7,165,728	1.1%	7,165,728	1.1%
10	SALES EXPENSES	-	0.0%	341,208	0.1%	523,715	0.1%	523,715	0.1%
11	ADMINISTRATIVE & GENERAL EXPENSE	-	0.0%	58,502,001	9.2%	89,793,768	14.1%	61,218,637	9.6%
12	<b>TOTAL OPERATION &amp; MAINTENANCE EXPENSES</b>	<b>594,328,057</b>	<b>93.3%</b>	<b>657,839,846</b>	<b>103.3%</b>	<b>691,811,268</b>	<b>108.6%</b>	<b>663,236,136</b>	<b>104.1%</b>
<b>DEPRECIATION / AMORTIZATION EXPENSE</b>									
13	INTANGIBLE PLANT EXPENSE	-	0.0%	5,456,555	0.9%	8,375,178	1.3%	8,375,178	1.3%
14	TRANSMISSION PLANT EXPENSE	-	0.0%	-	0.0%	-	0.0%	-	0.0%
15	DISTRIBUTION PLANT EXPENSE	-	0.0%	-	0.0%	-	0.0%	-	0.0%
16	GENERAL PLANT EXPENSE	-	0.0%	5,000,658	0.8%	7,675,428	1.2%	7,675,428	1.2%
17	COMMON PLANT DEPRECIATION/AMORTIZATION	-	0.0%	10,575,956	1.7%	16,232,863	2.5%	16,232,863	2.5%
18	<b>TOTAL DEPRECIATION / AMORTIZATION EXPENSE</b>	<b>-</b>	<b>0.0%</b>	<b>21,033,169</b>	<b>3.3%</b>	<b>32,283,469</b>	<b>5.1%</b>	<b>32,283,469</b>	<b>5.1%</b>
<b>TAXES OTHER THAN INCOME TAXES (TOIT)</b>									
19	PURCHASED POWER TOIT EXPENSES	31,151,239	4.9%	31,151,239	4.9%	31,151,239	4.9%	31,151,239	4.9%
20	TRANSMISSION TOIT EXPENSES	6,424,346	1.0%	6,424,346	1.0%	6,424,346	1.0%	6,424,346	1.0%
21	DISTRIBUTION TOIT EXPENSES	-	0.0%	-	0.0%	-	0.0%	-	0.0%
22	<b>TOTAL TAXES OTHER THAN INCOME</b>	<b>37,575,585</b>	<b>5.9%</b>	<b>37,575,585</b>	<b>5.9%</b>	<b>37,575,585</b>	<b>5.9%</b>	<b>37,575,585</b>	<b>5.9%</b>
23	<b>EARNING BEFORE INTEREST AND INCOME TAXES</b>	<b>\$ 4,970,680</b>	<b>0.8%</b>	<b>\$ (79,574,279)</b>	<b>-12.5%</b>	<b>\$ (124,796,000)</b>	<b>-19.6%</b>	<b>\$ (96,220,869)</b>	<b>-15.1%</b>
24	<b>CHANGE FROM RATE CASE</b>	<b>\$ -</b>		<b>\$ (84,544,958)</b>		<b>\$ (129,766,680)</b>		<b>\$ (101,191,549)</b>	

Source: PECO Energy Company's 2018 Rate Case-Exhibit JD-2-Electric Rate Class Cost of Service Study and UHY PECO Residential Default Rate Recast Analysis Section II, 2.1 (A), Section II, 2.1 (B), and Section II, 2.1 (C).  
Footnotes to this section can be found on Appendix A.



## Section I - Financial

## 1.3 - Distribution Service: PECO's Statement of Earnings - Summary of Residential Customer Class and Recast Allocation Methods

For the Fully Projected Future Test Year Ending December 31, 2019

Line	Description [d]	PECO Energy Company Rate		Allocation Method A		Allocation Method B		Allocation Method C	
		Case Distribution Service (All Customers) [e]	% of Total	Recast Expense Allocation [g]	% of Total	Recast Expense Allocation [h]	% of Total	Recast Expense Allocation [i]	% of Total
<b>OPERATING REVENUES</b>									
1	PURCHASED POWER REVENUES	\$ 816,144,277	96.9%	\$ 816,144,277	96.9%	\$ 816,144,277	96.9%	\$ 816,144,277	96.9%
2	TRANSMISSION REVENUES	26,522,616	3.1%	26,522,616	3.1%	26,522,616	3.1%	26,522,616	3.1%
3	<b>TOTAL OPERATING REVENUES</b>	<b>\$ 842,666,893</b>	<b>100.0%</b>	<b>\$ 842,666,893</b>	<b>100.0%</b>	<b>\$ 842,666,893</b>	<b>100.0%</b>	<b>\$ 842,666,893</b>	<b>100.0%</b>
<b>OPERATION &amp; MAINTENANCE EXPENSE</b>									
4	PRODUCTION EXPENSE	-	0.0%	-	0.0%	-	0.0%	-	0.0%
5	TRANSMISSION EXPENSES	-	0.0%	-	0.0%	-	0.0%	-	0.0%
6	DISTRIBUTION OPERATION	61,971,799	7.4%	61,971,799	7.4%	61,971,799	7.4%	61,971,799	7.4%
7	DISTRIBUTION MAINTENANCE	127,743,091	15.2%	127,743,091	15.2%	127,743,091	15.2%	127,743,091	15.2%
8	CUSTOMER ACCOUNTS EXPENSES	101,888,314	12.1%	101,888,314	12.1%	101,888,314	12.1%	101,888,314	12.1%
9	CUSTOMER SERVICE EXPENSES	10,857,163	1.3%	6,188,583	0.7%	3,691,435	0.4%	3,691,435	0.4%
10	SALES EXPENSES	793,507	0.1%	452,299	0.1%	269,792	0.0%	269,792	0.0%
11	ADMINISTRATIVE & GENERAL EXPENSE	136,051,164	16.1%	77,549,164	9.2%	46,257,396	5.5%	74,832,527	8.9%
12	<b>TOTAL OPERATION &amp; MAINTENANCE EXPENSES</b>	<b>439,305,038</b>	<b>52.1%</b>	<b>375,793,249</b>	<b>44.6%</b>	<b>341,821,827</b>	<b>40.6%</b>	<b>370,396,959</b>	<b>44.0%</b>
<b>DEPRECIATION / AMORTIZATION EXPENSE</b>									
13	INTANGIBLE PLANT EXPENSE	12,689,664	1.5%	7,233,108	0.9%	4,314,486	0.5%	4,314,486	0.5%
14	TRANSMISSION PLANT EXPENSE	-	0.0%	-	0.0%	-	0.0%	-	0.0%
15	DISTRIBUTION PLANT EXPENSE	108,754,355	12.9%	108,754,355	12.9%	108,754,355	12.9%	108,754,355	12.9%
16	GENERAL PLANT EXPENSE	11,629,436	1.4%	6,628,779	0.8%	3,954,008	0.5%	3,954,008	0.5%
17	COMMON PLANT DEPRECIATION/AMORTIZATION	24,595,247	2.9%	14,019,291	1.7%	8,362,384	1.0%	8,362,384	1.0%
18	<b>TOTAL DEPRECIATION / AMORTIZATION EXPENSE</b>	<b>157,668,703</b>	<b>18.7%</b>	<b>136,635,534</b>	<b>16.2%</b>	<b>125,385,234</b>	<b>14.9%</b>	<b>125,385,234</b>	<b>14.9%</b>
<b>TAXES OTHER THAN INCOME TAXES (TOIT)</b>									
19	PURCHASED POWER TOIT EXPENSES	-	0.0%	-	0.0%	-	0.0%	-	0.0%
20	TRANSMISSION TOIT EXPENSES	-	0.0%	-	0.0%	-	0.0%	-	0.0%
21	DISTRIBUTION TOIT EXPENSES	59,868,327	7.1%	59,868,327	7.1%	59,868,327	7.1%	59,868,327	7.1%
22	<b>TOTAL TAXES OTHER THAN INCOME</b>	<b>59,868,327</b>	<b>7.1%</b>	<b>59,868,327</b>	<b>7.1%</b>	<b>59,868,327</b>	<b>7.1%</b>	<b>59,868,327</b>	<b>7.1%</b>
23	<b>EARNING BEFORE INTEREST AND INCOME TAXES</b>	<b>\$ 185,824,824</b>	<b>22.1%</b>	<b>\$ 270,369,783</b>	<b>32.1%</b>	<b>\$ 315,591,505</b>	<b>37.5%</b>	<b>\$ 287,016,373</b>	<b>34.1%</b>
24	<b>CHANGE FROM RATE CASE</b>	<b>\$ -</b>		<b>\$ 84,544,958</b>		<b>\$ 129,766,680</b>		<b>\$ 101,191,549</b>	

Source: PECO Energy Company's 2018 Rate Case-Exhibit JD-2-Electric Rate Class Cost of Service Study and UHY PECO Residential Default Rate Recast Analysis Section II, 2.1 (A), Section II, 2.1 (B), and Section II, 2.1 (C).  
Footnotes to this section can be found on Appendix A.

PECO Energy Company Recast Residential Rate  
Section II - Default Service (Price To Compare)

Prepared by UHY Advisors, Inc.

2.1 - Actual vs Recast Price-To-Compare & Summary of Allocation Methods

Rates Effective as of June 2017 through August 2017

Line	Residential Class - Rate R Generation Charge = C Factor + E Factor + Administrative Cost Factor + Working Capital Factor + AEPS Factor	PECO Energy Company's		UHY Recast		UHY Recast		UHY Recast	
		Published Price-To Compare Figures	Price-To-Compare Allocation Method A [g]	Price-To-Compare Allocation Method B [h]	Price-To-Compare Allocation Method C [i]	Price-To-Compare Allocation Method C [i]	Price-To-Compare Allocation Method C [i]	Price-To-Compare Allocation Method C [i]	
1	Default Supplier Full Requirements Costs	c 3.807	c 3.807	c 3.807	c 3.807	c 3.807	c 3.807	cents / kWh	
2	Block Energy Costs	-	-	-	-	-	-	cents / kWh	
3	Spot Market Energy Costs	1.546	1.546	1.546	1.546	1.546	1.546	cents / kWh	
4	Capacity, Ancillary Service and Misc Costs	0.639	0.639	0.639	0.639	0.639	0.639	cents / kWh	
5	Subtotal, Line 5 = Line 1 + Line 2 + Line 3 + Line 4	5.992	5.992	5.992	5.992	5.992	5.992	cents / kWh	
6	Multiplied by Overall Line Loss Factor Ratio [j]	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000		
7	Subtotal, Line 7 = Line 5 X Line 6	5.99	5.99	5.99	5.99	5.99	5.99	cents / kWh	
8	Multiplied by Adjustment Factor for Gross Receipts Tax, 1 / (1 - T), T = 5.90%	1.0627	1.0627	1.0627	1.0627	1.0627	1.0627		
9	C Factor, Line 9 = Line 7 X Line 8 [k]	6.368	6.368	6.368	6.368	6.368	6.368	cents / kWh	
10	E Factor - Reconciliation [l]	(0.032)	(0.032)	(0.032)	(0.032)	(0.032)	(0.032)	cents / kWh	
11	Administrative Cost Factor [l]	-	-	-	-	-	-	cents / kWh	
12	Total Recast Expense to Residential Default Service [m]	-	1.046	1.606	1.253	1.253	1.253	cents / kWh	
13	Working Capital Factor [l]	0.034	0.034	0.034	0.034	0.034	0.034	cents / kWh	
14	AEPS Factor [l]	0.049	0.049	0.049	0.049	0.049	0.049	cents / kWh	
15	Generation Charge, Line 15 = Line 9 + Line 10 + Line 11 + Line 13 + Line 14	c 6.419	c 7.465	c 8.025	c 7.671	c 7.671	c 7.671	cents / kWh	
<b>PTC = Generation Charge + Transmission Charge</b>									
16	Generation Charge, from Line 15	c 6.419	c 7.465	c 8.025	c 7.671	c 7.671	c 7.671	cents / kWh	
17	Transmissions Charge [n]	0.688	0.688	0.688	0.688	0.688	0.688	cents / kWh	
18	Residential Class (Rate R) PTC, Line 18 = Line 16 + Line 17	<b>c 7.107</b>	<b>c 8.153</b>	<b>c 8.713</b>	<b>c 8.359</b>	<b>c 8.359</b>	<b>c 8.359</b>	cents / kWh	
19	Change from Published Rate	c -	c 1.05	c 1.61	c 1.25	c 1.25	c 1.25	cents / kWh	

Source: PECO Energy Company's Price to Compare (PTC) Sample Calculation Methodology and Sample Calculation for the Residential Class as of June 2017 - August 2017 and UHY PECO Residential Default Rate Recast Analysis Section II, 2.1 (A), Section II, 2.1 (B), and Section II, 2.1 (C).  
Footnotes to this section can be found on Appendix A.

PECO Energy Company Recast Residential Rate

Prepared by UHY Advisors, Inc.

Section II - Default Service (Price To Compare)

2.1 (A) - Allocation Method A - Buildup of Recast Expenses (Allocation - Sales Revenues)

For the Fully Projected Future Test Year Ending December 31, 2019

Line	Description	PECO Energy Company Total Residential Customer Class [e]	Residential Default Service Revenues / Total Residential Revenues [o]	Allocated to Residential Distribution Service
1	Allocation Factor - Sales Revenues		43%	
<b>Expenses to be Allocated:</b>				
2	Customer Service Expenses	\$ 10,857,163	\$ 4,668,580	\$ 6,188,583
3	Sales Expenses	793,507	341,208	452,299
4	Administrative & General Expenses	136,051,164	58,502,001	77,549,164
	Depreciation & Amortization Expenses			
5	Intangible Plant Expense	12,689,664	5,456,555	7,233,108
6	General Plant Expense	11,629,436	5,000,658	6,628,779
7	Common Plant Depreciation/Amortization	24,595,247	10,575,956	14,019,291
8	<b>Total</b>	<b>\$ 196,616,182</b>	<b>\$ 84,544,958</b>	<b>\$ 112,071,224</b>
9	Percent of Total	100.0%	43.0%	57.0%

Conversion of Increase in Allocation into Cents / Kilowatt Hours (kWh's)

Line	Description	Total Recast Allocation to Default Service
10	Total Increase in Allocation to Default Service	\$ 84,544,958
11	÷ Total annual kWh's for Default Residential Customers [q]	8,585,439,745
12	Increase in Allocation to Default Service per kWh	\$ 0.009847
13	÷ Adjusted for Gross Receipts Tax Factor (1 - GRT Rate) @ 5.90% - See Section II, 2.1	94.10%
14	<b>Recast Expenses to Residential Default Service (\$ per kWh)</b>	<b>\$ 0.010465</b>
15	Recast to Residential Default Service (¢ per kWh)	¢ 1.046491
16	<b>Total Recast Expenses to Residential Default Service (¢ per kWh, Rounded)</b>	<b>¢ 1.05</b>

[o] Expenses previously allocated to Distribution Service were recast to Default Service as a percentage of residential default service sales over total residential revenues for PECO Energy Company. The formula is as follows:  $\$636,874,322 / \$1,479,541,214 = 43\%$  (rounded to the closest 1%). Footnotes to this section can be found on Appendix A.

PECO Energy Company Recast Residential Rate

Prepared by UHY Advisors, Inc.

Section II - Default Service (Price To Compare)

2.1 (B) - Allocation Method B - Buildup of Recast Expenses (Allocation - Customers)

For the Fully Projected Future Test Year Ending December 31, 2019

Line Description	PECO Energy Company Total Residential Customer Class [e]	Default Residential Customers / Total Residential Customers [r]	Allocated to Residential Distribution Service
1 Allocation Factor - Customers		66%	
<b>Expenses to be Allocated:</b>			
2 Customer Service Expenses	\$ 10,857,163	\$ 7,165,728	\$ 3,691,435
3 Sales Expenses	793,507	523,715	269,792
4 Administrative & General Expenses	136,051,164	89,793,768	46,257,396
Depreciation & Amortization Expenses			
5 Intangible Plant Expense	12,689,664	8,375,178	4,314,486
6 General Plant Expense	11,629,436	7,675,428	3,954,008
7 Common Plant Depreciation/Amortization	24,595,247	16,232,863	8,362,384
8 Total	\$ 196,616,182	\$ 129,766,680	\$ 66,849,502
9 Percent of Total	100.0%	66.0%	34.0%

Conversion of Increase in Allocation into Cents / Kilowatt Hours

Line Description	Total Recast Allocation to Default Service
10 Total Increase in Allocation to Default Service	\$ 129,766,680
11 ÷ Total annual kWh's for Default Residential Customers [q]	8,585,439,745
12 Increase in Allocation to Default Service per kWh	\$ 0.015115
13 ÷ Adjusted for Gross Receipts Tax Factor (1 - GRT Rate) @ 5.90% - See Section II, 2.1	94.10%
14 Recast Expenses to Residential Default Service (\$ per kWh)	\$ 0.016062
15 Recast to Residential Default Service (¢ per kWh)	¢ 1.606242
16 Total Recast Expenses to Residential Default Service (¢ per kWh, Rounded)	¢ 1.61

[r] Expenses previously allocated to Distribution Service were recast to Default Service as a percentage of residential default service customers over total residential customers for PECO Energy Company. The formula is as follows: 1,022,911 / 1,559,534 = 66% (rounded to the closest 1%). Footnotes to this section can be found on Appendix A.

PECO Energy Company Recast Residential Rate

Prepared by UHY Advisors, Inc.

Section II - Default Service (Price To Compare)

2.1 (C) - Allocation Method C - Buildup of Recast Expenses (Allocation - Hybrid)

For the Fully Projected Future Test Year Ending December 31, 2019

Line Description	PECO Energy Company Total Residential Customer Class [e]	Allocation Basis to Default Service		Total Recast Allocation to Default Service	Remaining Expenses Allocated to Residential Distribution Service
		Residential Default Service Revenues / Total Residential Revenues [o]	Default Residential Customers / Total Residential Customers [r]		
1 Allocation Factor - Hybrid		43%	66%		
<b>Expenses to be Allocated:</b>					
2 Customer Service Expenses	\$ 10,857,163	\$ -	\$ 7,165,728	\$ 7,165,728	\$ 3,691,435
3 Sales Expenses	793,507	-	523,715	523,715	269,792
Administrative & General Expenses [s]					
4 Compensation, Outside Services, and Regulatory Expenses	124,239,702	53,423,072	-	53,423,072	70,816,630
5 Maintenance, Insurance, and Damages Expense	11,811,463	-	7,795,565	7,795,565	4,015,897
Depreciation & Amortization Expenses					
6 Intangible Plant Expense	12,689,664	-	8,375,178	8,375,178	4,314,486
7 General Plant Expense	11,629,436	-	7,675,428	7,675,428	3,954,008
8 Common Plant Depreciation/Amortization	24,595,247	-	16,232,863	16,232,863	8,362,384
9 Total	\$ 196,616,182	\$ 53,423,072	\$ 47,768,477	\$ 101,191,549	\$ 95,424,633
10 Percent of Total	100.0%			51.5%	48.5%

Conversion of Increase in Allocation into Cents / Kilowatt Hours

Line Description	Total Recast Allocation to Default Service
11 Total Increase in Allocation to Default Service	\$ 101,191,549
12 ÷ Total annual kWh's for Default Residential Customers [q]	8,585,439,745
13 Increase in Allocation to Default Service per kWh	\$ 0.011786
14 ÷ Adjusted for Gross Receipts Tax Factor (1 - GRT Rate) @ 5.90% - See Section II, 2.1	94.10%
15 Recast Expenses to Residential Default Service (\$ per kWh)	\$ 0.012525
16 Recast to Residential Default Service (¢ per kWh)	c 1.252541
17 Total Recast Expenses to Residential Default Service (¢ per kWh, Rounded)	c 1.25

[o] Expenses previously allocated to Distribution Service were recast to Default Service as a percentage of residential default service sales over total sales revenues for PECO Energy Company. The formula is as follows:  $\$636,874,322 / \$1,479,541,214 = 43\%$  (rounded to the closest 1%).

[r] Expenses previously allocated to Distribution Service were recast to Default Service as a percentage of residential default service customers over total residential customers for PECO Energy Company. The formula is as follows:  $1,022,911 / 1,559,534 = 66\%$  (rounded to the closest 66%).

Footnotes to this section can be found on Appendix A.

## Section III - Distribution Service

## 3.1 Summary of Impact on Distribution Revenues - Analysis of Reallocated Distribution Service Expenses

For the Projected Future Test Year Ending December 31, 2019

Line	Description	Proposed	Allocation Method		
			A	B	C
1	Total Implied 2019 Distribution Service Revenue Based on Proposed Rates [t]	\$ 918,265,466			
2	Total Distribution Service Expenses Reallocated to Price To Compare [u]		\$84,544,958	\$129,766,680	\$101,191,549
3	+ Total annual kWh's for Residential Customers [v]		13,239,855,417	13,239,855,417	13,239,855,417
4	Reduction to Distribution Service Expenses (\$ per kWh)		\$0.00639	\$0.00980	\$0.00764
5	Reduction to Distribution Service Expenses (¢ per kWh)		¢0.639	¢0.980	¢0.764
6	Total Reduction as a Percentage of Total Proposed Distribution Service Revenue (Line 1 ÷ Line 3)		9.21%	14.13%	11.02%
<b>Reduction of Distribution Service Expense Reallocation by Customer Class: [w]</b>		<b>% of Total</b>			
7	Reduction for all Electric Generation Supplier Customers	34.4%	\$29,091,239	\$44,651,669	\$34,819,197
8	Reduction for All Default Service Customers	65.6%	\$55,453,719	\$85,115,011	\$66,372,352
9	Total	100.0%	\$84,544,958	\$129,766,680	\$101,191,549
<b>Distribution Service Expense Reallocation by Monthly Usage:</b>		<b>kWh Usage</b>			
10	Monthly Reduction to Distribution Service Expense	500	\$3.19	\$4.90	\$3.82
11	Monthly Reduction to Distribution Service Revenue	750	\$4.79	\$7.35	\$5.73
12	Monthly Reduction to Distribution Service Revenue	1,000	\$6.39	\$9.80	\$7.64
13	Monthly Reduction to Distribution Service Revenue	2,000	\$12.77	\$19.60	\$15.29
<b>Distribution Service Expense Reallocation by Billings:</b>		<b># of Bills (Annual)</b>			
14	Reduction to Distribution Service Revenue per Bill - See Section III, 3.2	18,714,403	\$4.52	\$6.93	\$5.41
15	Annual Reduction to Distribution Service Revenue per Customer [x]		\$54.21	\$83.21	\$64.89
			707.47		

Source: PECO Energy Company's 2018 Rate Case-Exhibit MK-6-Proof of Revenues at Present and Proposed Rates.

Footnotes to this section can be found on Appendix A.

Section III - Distribution Service

3.2 Detail of Impact on Distribution Revenues - Allocation Methods A, B, & C Adjustments to Distribution Revenues

For the Projected Future Test Year Ending December 31, 2019

Calculation of Distribution Rate Adjustment per kilowatt hour

Line Description	Allocation Method		
	A	B	C
1 Total Distribution Expenses Reallocated to Price To Compare [u]	\$84,544,958	\$129,766,680	\$101,191,549
2 ÷ Total annual kWh's for Residential Customers [v]	13,239,855,417	13,239,855,417	13,239,855,417
3 Reduction to Distribution Revenues (\$ per kWh)	\$0.00639	\$0.00980	\$0.00764
4 Reduction to Distribution Revenues (¢ per kWh)	¢0.6386	¢0.9801	¢0.7643

Adjustment to Proposed Distribution Rates

Distribution Rate Detail for Residential (R) and Residential Heating (RH) Rate Classes

Description	Bills	PROPOSED RATES		METHOD A ADJUSTED		METHOD B ADJUSTED		METHOD C ADJUSTED	
		Rate	Revenue	Rate	Revenue	Rate	Revenue	Rate	Revenue
5 Customer Charges (Fixed) [y]									
6 Rate	17,854,459	\$ 12.50	\$ 223,180,736	\$ 12.50	\$ 223,180,736	\$ 12.50	\$ 223,180,736	\$ 12.50	\$ 223,180,736
7 Second Meter	859,944	\$ 1.94	\$ 1,668,291	\$ 1.94	\$ 1,668,291	\$ 1.94	\$ 1,668,291	\$ 1.94	\$ 1,668,291
8 Total Customer Charges	<b>18,714,403</b>		<b>\$ 224,849,027</b>		<b>\$ 224,849,027</b>		<b>\$ 224,849,027</b>		<b>\$ 224,849,027</b>
kWh-Based rates (Variable)									
	kWh	Rate	Revenue	Rate [z]	Revenue	Rate [aa]	Revenue	Rate [ab]	Revenue
9 Rate R	10,518,755,417	\$ 0.06115	\$ 643,221,894	\$ 0.05476	\$ 576,052,902	\$ 0.05135	\$ 540,125,302	\$ 0.05351	\$ 562,827,575
10 Rate RH Jun - Sept	665,139,000	\$ 0.06115	\$ 40,673,250	\$ 0.05476	\$ 36,425,911	\$ 0.05135	\$ 34,154,079	\$ 0.05351	\$ 35,589,626
11 Rate RH Oct - May	2,055,961,000	\$ 0.04696	\$ 96,547,929	\$ 0.04057	\$ 83,419,301	\$ 0.03716	\$ 76,397,011	\$ 0.03932	\$ 80,834,322
12 Total Distribution Charges	<b>13,239,855,417</b>		<b>\$ 780,443,072</b>		<b>\$ 695,898,114</b>		<b>\$ 650,676,392</b>		<b>\$ 679,251,523</b>
13 CAP Discounts, Load Reduction, and Annualization [ac]			\$ (87,026,633)		\$ (87,026,633)		\$ (87,026,633)		\$ (87,026,633)
14 Total Distribution Revenue (Line 8 + Line 12 + Line 13)			<b>\$ 918,265,466</b>		<b>\$ 833,720,508</b>		<b>\$ 788,498,786</b>		<b>\$ 817,073,918</b>
15 Total Change from Proposed Amount [ad]					\$ 84,544,958		\$ 129,766,680		\$ 101,191,549

Source: PECO Energy Company's 2018 Rate Case-Exhibit MK-6-Proof of Revenues at Present and Proposed Rates.  
Footnotes to this section can be found on Appendix A.

**Utility Rate Study**  
**Appendices:**  
**A through F**  
**Pages 10 – 18**



Footnote #	Section(s)	Footnote
[a]	1.1	The information presented in this schedule serves as the starting point of UHY's recast analysis' Allocation Methods A, B, and C.
[b]	1.1	Represents the entire operation of PECO Energy Company for the projected test year ending December 31, 2019.
[c]	1.1	Percentages are calculated utilizing Schedule numbers "RBC", "E", "D", "TO", and "TI" of PECO Energy Company's 2018 Rate Case-Exhibit JD-2-Electric Class Cost of ServiceStudy. Total residential percentages include figures for residential and residential heating customer classes over the total for PECO Energy Company in regards to each respective line item.
[d]	1.1	The highlighted lines represent expenses UHY focused on for its recasting analysis.
[e]	1.2, 1.3, 2.1 (A), 2.1 (B), & 2.1 (C)	See Section I, 1.1 for more detail.
[f]	1.2	The charges appearing on a PECO bill that are included in this allocation are "Generation charges" and "Transmission charges". Exhibit JD-2 of PECO Energy Company's 2018 Rate Case names the business lines included in this column as "Purchased Power" and "Transmission". The presented figures represent the revenues and expenses related to PECO Energy Company's total residential customer class.
[g]	1.2, 1.3, & 2.1	The change in expense allocation buildup is presented in detail in Section II, 2.1 (A).
[h]	1.2, 1.3, & 2.1	The change in expense allocation buildup is presented in detail in Section II, 2.1 (B).
[i]	1.2, 1.3, & 2.1	The change in expense allocation buildup is presented in detail in Section II, 2.1 (C).
[j]	2.1	Overall Line Loss Factor Ratio = (1 - ALL) / (1 - LL); ALL refers to the average line loss factor for the procurement class, LL refers to the line loss factor for the specific rate class. For purpose of forecasting, the transmission and distribution line loss percentages for Rate R is 9.35%, the average line loss factor for Residential class is 9.35%.
[k]	2.1	C Factor costs include energy, capacity, ancillary service and other costs.
[l]	2.1	E Factor and Administrative Cost Factor include the adjustments of overall line loss factor ratio and Gross Receipts Tax (GRT). Working Capital Factor and AEPS Factor include GRT adjustment.
[m]	2.1	This line contains the expenses recast by UHY because these expenses were determined to be applicable to Residential Default Service but are not currently being allocated. These expenses include: Customer Service, Sales, Administrative & General, and Depreciation / Amortization.
[n]	2.1	Transmission Charge includes GRT adjustment.
[o]	2.1 (A) & 2.1 (C)	Expenses previously allocated to Distribution Service were recast to Default Service as a percentage of residential default service sales over total residential revenues for PECO Energy Company. The formula is as follows: \$636,874,322 / \$1,479,541,214 = 43% (rounded to the closest 1%).
[p]	2.1 (A), 2.1 (B), & 2.1 (C)	Outside Service Employed-AMI (Advanced Metering Infrastructure) Related Costs was not included for reallocation of Administrative and General Expense as it was not deemed applicable to default service. See Appendix D for more detail.
[q]	2.1 (A), 2.1 (B), & 2.1 (C)	This line represents residential kWh sales for EDC customers. Through discovery, PECO provided budgeted levels of kWh sales for the R and RH classes for both the EDC (or Retained per PECO's provided tables) and EGS customers for the FPFTY 2019.
[r]	2.1 (B) & 2.1 (C)	Expenses previously allocated to Distribution Service were recast to Default Service as a percentage of residential default service customers over total residential customers for PECO Energy Company. The formula is as follows: 1,022,911 / 1,559,534 = 66% (rounded to the closest 1%).
[s]	2.1 (C)	The Administrative & General Expenses which are recast utilizing Methodology C total \$61.
[t]	3.1	Proposed distribution service revenue is calculated using the table found on PECO's 2018 Rate Case, Exhibit MK-6. See Section III, 3.2 for more detail.
[u]	3.1 & 3.2	See Section II, 2.1 (A), Section II, 2.1 (B), and Section II, 2.1 (C) for additional detail.
[v]	3.1 & 3.2	Total kWh usage in the FPFTY 2019 for the residential and residential heating rate classes per PECO's 2018 Rate Case, Exhibit MK-6.
[w]	3.1	PECO does not project the number of residential customers as either EDC or EGS. The separation of EDC and EGS customers was derived by utilizing the average 2017 split between customer types (approximately 66% for EDC and 34% for EGS customers) and applying it to the projected 2019 numbers. This calculation estimated EGS customers to average 536,623 and EDC customers to average 1,022,911 of the total customers averaging 1,559,534 for 2019.
[x]	3.1	Assuming one bill per customer per month, estimated annual charge per customer is calculated as the expense reallocation per customer bill (Line 14) multiplied by 12 months.
[y]	3.2	Fixed charges need to be increased periodically as they cover principally, but not exclusively, the cost of meters, customer service lines, billing and meter reading, which are not dependent on usage. This is indicated in the testimony of Mark Kehl from PECO's 2018 rate case, Statement VII, page 7. These costs were not adjusted within our allocation methodologies A, B, and C. Therefore, we made no adjustment to the fixed charge in this analysis.
[z]	3.2	Method A's rate is adjusted by taking the published variable rate and reducing it by the calculated reduction to revenues. (i.e., \$0.06825 - \$0.00607 = \$0.06218).
[aa]	3.2	Method B's rate is adjusted by taking the published variable rate and reducing it by the calculated reduction to revenues. (i.e., \$0.06825 - \$0.00839 = \$0.05986).
[ab]	3.2	Method C's rate is adjusted by taking the published variable rate and reducing it by the calculated reduction to revenues. (i.e., \$0.06825 - \$0.00692 = \$0.06133).
[ac]	3.2	This includes items identified in PECO's exhibit MK-6 relating to Customer Assistance Program (CAP) discounts related to non-distribution and distribution as well as regulatory initiatives, load reduction, and annualization charges
[ad]	3.2	Implied overcharge represents a minimum adjustment to distribution revenue, as the analysis does not consider the margin on the reallocated expenses.

PECO Energy Company Recast Residential Rate

Prepared by UHY Advisors, Inc.

Appendix B - Detail of Customer Service and Sales Expenses - As Presented by PECO

For the Fully Projected Future Test Year Ending December 31, 2019

Line	Description	PECO Energy Company Budget for 2019 FPFTY [ae]	Adjustments for Energy Efficiency and Conservation Costs [af]	PECO Energy Company Total Electric Division [ag]	Service Type	
					Default Service (Price-To-Compare) [ah]	Distribution Service (All Customers) [ai]
<b>CUSTOMER SERVICE EXPENSES</b>						
1	907-Supervision	\$ -		\$ -	\$ -	\$ -
2	908-Customer Assistance	99,761,784	(88,734,240)	11,027,544	-	11,027,544
3	909-Informational Advertisement	885,362	-	885,362	-	885,362
4	910-Miscellaneous Customer Service	149,402	226	149,402	-	149,402
5	<b>TOTAL CUSTOMER SERVICE EXPENSE</b>	<b>\$ 100,796,548</b>	<b>\$ (88,734,014)</b>	<b>\$ 12,062,308</b>	<b>\$ -</b>	<b>\$ 12,062,308</b>
<b>SALES EXPENSES [aj]</b>						
6	912-Demonstrating & Selling	\$ 883,197	\$ -	\$ 883,197	\$ -	\$ 883,197
7	916-Miscellaneous Sales	-	-	-	-	-
8	<b>TOTAL SALES EXPENSES</b>	<b>\$ 883,197</b>	<b>\$ -</b>	<b>\$ 883,197</b>	<b>\$ -</b>	<b>\$ 883,197</b>

Sources: PECO Energy Company's 2018 Rate Case-Exhibit BSY-1-Principal Accounting Exhibit Fully Projected Future Test Year (FPFTY) Ending December 31, 2019 and Exhibit JD-2-Electric Rate Class Cost of Service Study

[ae] FPFTY budgeted figures are from PECO Energy Company's 2015 Rate Case-Exhibit SY-1.

[af] The adjustment to budgeted Customer Assistance is presented in Exhibit BSY-1, Schedule D-4, Line 78. The fully projected gross expense for Account 908 is \$99.726 million.

[ag] Represents the entire operation of PECO Energy Company for the fully projected test year ending December 31, 2019.

[ah] The charges appearing on a PECO bill that are included in this allocation are "Generation charges" and "Transmission charges". Exhibit JD-2 of PECO Energy Company's 2018 Rate Case names the business lines included in this column as "Purchased Power" and "Transmission".

[ai] The charges appearing on a PECO bill that are included in this allocation are "Customer charge" (fixed per bill) and "Distribution charges" (variable per kWh). Exhibit JD-2 of PECO Energy Company's 2018 Rate Case names the business line included in this column as "Distribution".

[aj] All detail regarding sales expenses are from Exhibit BSY-1. These expenses are presented net of minor adjustments performed by PECO (\$18,000 upward adjustment to Demonstrating & Selling expenses) which are found on Exhibit BSY-1.

PECO Energy Company Recast Residential Rate

Prepared by UHY Advisors, Inc.

Appendix B - Detail of Administrative and General Expense - As Presented by PECO

For the Fully Projected Future Test Year Ending December 31, 2019

Line	Description	PECO Energy Company Total Electric Division [ag]	Service Type	
			Default Service (Price-To-Compare) [ah]	Distribution Service (All Customers) [ai]
<b>ADMINISTRATIVE &amp; GENERAL EXPENSE</b>				
1	920-Administrative Salaries	\$ 40,687,310	\$ -	\$ 40,687,310
2	921-Office Supplies & Expense	8,660,411	-	8,660,411
3	923-Outside Service Employed	78,834,579	-	78,834,579
4	923-Outside Service Employed-AMI Related Costs [ak]	-	-	-
5	924-Property Insurance	184,585	-	184,585
6	925-Injuries and Damages	9,903,997	-	9,903,997
7	926-Employee Pensions & Benefits	32,617,718	-	32,617,718
8	928-Regulatory Commission	12,684,301	-	12,684,301
9	929-Duplicate Charges-Credit	(1,496,458)	-	(1,496,458)
10	930.2-Miscellaneous General	3,013,096	-	3,013,096
11	932-Maintenance of General Plant	6,565,935	-	6,565,935
12	<b>TOTAL ADMINISTRATIVE &amp; GENERAL EXPENSE</b>	<b>\$ 191,655,473</b>	<b>\$ -</b>	<b>\$ 191,655,473</b>

Source: PECO Energy Company's 2018 Rate Case-Exhibit JD-2-Electric Class Cost of Service Study.

[ag] Represents the entire operation of PECO Energy Company for the fully projected test year ending December 31, 2019.

[ah] The charges appearing on a PECO bill that are included in this allocation are "Generation charges" and "Transmission charges". Exhibit JD-2 of PECO Energy Company's 2018 Rate Case names the business lines included in this column as "Purchased Power" and "Transmission".

[ai] The charges appearing on a PECO bill that are included in this allocation are "Customer charge" (fixed per bill) and "Distribution charges" (variable per kWh). Exhibit JD-2 of PECO Energy Company's 2018 Rate Case names the business line included in this column as "Distribution".

[ak] AMI = Advanced Metering Infrastructure.

Line	Description	PECO Energy Company		Service Type			
		Total Electric Division [ag]	Total %	Default Service (Price-To-Compare) [ah]	% of Total	Distribution Service (All Customers) [ai]	% of Total
<b>OPERATING REVENUES</b>							
1	SALES REVENUES	\$ 2,060,098,785	98.2%	\$ 839,384,400	40.0%	\$ 1,220,714,385	58.2%
2	OTHER OPERATING REVENUES	37,546,617	1.8%	-	0.0%	37,546,617	1.8%
3	<b>TOTAL OPERATING REVENUES</b>	<b>\$ 2,097,645,402</b>	<b>100.0%</b>	<b>\$ 839,384,400</b>	<b>40.0%</b>	<b>\$ 1,258,261,001</b>	<b>60.0%</b>
<b>OPERATION &amp; MAINTENANCE EXPENSE</b>							
4	PRODUCTION EXPENSE	610,818,463	29.1%	610,818,463	29.1%	-	0.0%
5	TRANSMISSION EXPENSES	172,218,339	8.2%	172,218,339	8.2%	-	0.0%
6	DISTRIBUTION OPERATION	92,426,518	4.4%	-	0.0%	92,426,518	4.4%
7	DISTRIBUTION MAINTENANCE	205,805,040	9.8%	-	0.0%	205,805,040	9.8%
8	CUSTOMER ACCOUNTS EXPENSES	116,984,776	5.6%	-	0.0%	116,984,776	5.6%
9	CUSTOMER SERVICE EXPENSES	12,062,308	0.6%	-	0.0%	12,062,308	0.6%
10	SALES EXPENSES	882,680	0.0%	-	0.0%	882,680	0.0%
11	ADMINISTRATIVE & GENERAL EXPENSE	191,655,473	9.1%	-	0.0%	191,655,473	9.1%
12	<b>TOTAL OPERATION &amp; MAINTENANCE EXPENSES</b>	<b>1,402,853,597</b>	<b>66.9%</b>	<b>783,036,802</b>	<b>37.3%</b>	<b>619,816,795</b>	<b>29.5%</b>
<b>DEPRECIATION / AMORTIZATION EXPENSE</b>							
13	INTANGIBLE PLANT EXPENSE	17,559,881	0.8%	-	0.0%	17,559,881	0.8%
14	TRANSMISSION PLANT EXPENSE	-	0.0%	-	0.0%	-	0.0%
15	DISTRIBUTION PLANT EXPENSE	166,494,869	7.9%	-	0.0%	166,494,869	7.9%
16	GENERAL PLANT EXPENSE	16,375,649	0.8%	-	0.0%	16,375,649	0.8%
17	COMMON PLANT DEPRECIATION/AMORTIZATION	34,633,075	1.7%	-	0.0%	34,633,075	1.7%
18	<b>TOTAL DEPRECIATION / AMORTIZATION EXPENSE</b>	<b>235,063,474</b>	<b>11.2%</b>	<b>-</b>	<b>0.0%</b>	<b>235,063,474</b>	<b>11.2%</b>
<b>TAXES OTHER THAN INCOME TAXES (TOIT)</b>							
19	PURCHASED POWER TOIT EXPENSES	38,572,400	1.8%	38,572,400	1.8%	-	0.0%
20	TRANSMISSION TOIT EXPENSES	10,951,280	0.5%	10,951,280	0.5%	-	0.0%
21	DISTRIBUTION TOIT EXPENSES	91,195,679	4.3%	-	0.0%	91,195,679	4.3%
22	<b>TOTAL TAXES OTHER THAN INCOME</b>	<b>140,719,359</b>	<b>6.7%</b>	<b>49,523,680</b>	<b>2.4%</b>	<b>91,195,679</b>	<b>4.3%</b>
23	<b>EARNING BEFORE INTEREST AND INCOME TAXES</b>	<b>\$ 319,008,972</b>	<b>15.2%</b>	<b>\$ 6,823,919</b>	<b>0.3%</b>	<b>\$ 312,185,053</b>	<b>14.9%</b>

Source: PECO Energy Company's 2018 Rate Case-Exhibit JD-2-Electric Class Cost of Service Study.

[ag] Represents the entire operation of PECO Energy Company for the fully projected test year ending December 31, 2019.

[ah] The charges appearing on a PECO bill that are included in this allocation are "Generation charges" and "Transmission charges". Exhibit JD-2 of PECO Energy Company's 2018 Rate Case names the business lines included in this column as "Purchased Power" and "Transmission".

[ai] The charges appearing on a PECO bill that are included in this allocation are "Customer charge" (fixed per bill) and "Distribution charges" (variable per kWh). Exhibit JD-2 of PECO Energy Company's 2018 Rate Case names the business line included in this column as "Distribution".

PECO Energy Company Recast Residential Rate

Appendix C - Crosswalk to 1.1 - Statement of Earnings: Detail of Default Service - As Presented by PECO

For the Fully Projected Future Test Year Ending December 31, 2019

Line	Description	Total	Allocation per Cost of Service	
		Default Service (Price-To-Compare) [al]	Purchased Power [am]	Transmission [an]
<b>SALES REVENUES</b>				
1	RESIDENTIAL SALES REVENUES	\$ 636,874,322	\$ 527,987,105	\$ 108,887,216
2	NON-RESIDENTIAL REVENUES	202,510,079	125,782,386	76,727,693
3	<b>TOTAL SALES REVENUES</b>	<b>\$ 839,384,400</b>	<b>\$ 653,769,491</b>	<b>\$ 185,614,910</b>
<b>OPERATION &amp; MAINTENANCE EXPENSE</b>				
4	PRODUCTION EXPENSE	610,818,463	610,818,463	-
5	TRANSMISSION EXPENSES	172,218,339	-	172,218,339
6	DISTRIBUTION OPERATION	-	-	-
7	DISTRIBUTION MAINTENANCE	-	-	-
8	CUSTOMER ACCOUNTS EXPENSES	-	-	-
9	CUSTOMER SERVICE EXPENSES	-	-	-
10	SALES EXPENSES	-	-	-
11	ADMINISTRATIVE & GENERAL EXPENSE	-	-	-
12	<b>TOTAL OPERATION &amp; MAINTENANCE EXPENSES</b>	<b>783,036,802</b>	<b>610,818,463</b>	<b>172,218,339</b>
<b>DEPRECIATION / AMORTIZATION EXPENSE</b>				
13	INTANGIBLE PLANT EXPENSE	-	-	-
14	DISTRIBUTION PLANT EXPENSE	-	-	-
15	GENERAL PLANT EXPENSE	-	-	-
16	COMMON PLANT DEPRECIATION/AMORTIZATION	-	-	-
17	<b>TOTAL DEPRECIATION / AMORTIZATION EXPENSE</b>	<b>-</b>	<b>-</b>	<b>-</b>
<b>TAXES OTHER THAN INCOME TAXES</b>				
18	PURCHASED POWER TOIT EXPENSES	38,572,400	38,572,400	-
19	TRANSMISSION TOIT EXPENSES	10,951,280	-	10,951,280
20	DISTRIBUTION TOIT EXPENSES	-	-	-
21	<b>TOTAL TAXES OTHER THAN INCOME</b>	<b>49,523,680</b>	<b>38,572,400</b>	<b>10,951,280</b>
22	<b>EARNING BEFORE INTEREST AND INCOME TAXES</b>	<b>\$ 6,823,919</b>	<b>\$ 4,378,628</b>	<b>\$ 2,445,291</b>

Source: PECO Energy Company's 2018 Rate Case-Exhibit JD-2-Electric Class Cost of Service Study.

- [al] This column represents the sum of the revenues and expenses allocated to the Purchased Power and Transmission business divisions as presented in Exhibit JD-2 of PECO Energy Company's 2018 Rate Case. These business divisions are represented on PECO's billings as "Generation charges" and
- [am] This column presents the breakout of revenues and expenses from Exhibit JD-2 of PECO Energy Company's 2018 Rate Case allocated to the Purchased Power business division.
- [an] This column presents the breakout of revenues and expenses from Exhibit JD-2 of PECO Energy Company's 2018 Rate Case allocated to the Transmission business division.

## Appendix C - Crosswalk to 1.1 - Statement of Earnings Allocation Between Customer Classes (%) - As Presented by PECO

For the Fully Projected Future Test Year Ending December 31, 2019

Line	Description	PECO Energy Company Total Electric Division [ag]	Allocation Basis						Total
			Residential	Residential Heating	Residential Subtotal	General Service	High Tension	Other [ao]	
<b>OPERATING REVENUES</b>									
1	SALES REVENUES	\$ 2,060,098,785	57.50%	13.03%	70.53%	17.21%	10.32%	1.94%	100.00%
2	OTHER OPERATING REVENUES	37,546,617	57.19%	13.44%	70.64%	16.94%	10.06%	2.36%	100.00%
3	<b>TOTAL OPERATING REVENUES</b>	<b>\$ 2,097,645,402</b>	<b>57.49%</b>	<b>13.04%</b>	<b>70.53%</b>	<b>17.21%</b>	<b>10.31%</b>	<b>1.94%</b>	<b>100.00%</b>
<b>OPERATION &amp; MAINTENANCE EXPENSE</b>									
4	PRODUCTION EXPENSE	610,818,463	63.95%	16.81%	80.76%	14.16%	4.84%	0.24%	100.00%
5	TRANSMISSION EXPENSES	172,218,339	46.57%	12.09%	58.66%	20.48%	19.25%	1.61%	100.00%
6	DISTRIBUTION OPERATION	92,426,518	55.22%	11.83%	67.05%	18.53%	11.63%	2.79%	100.00%
7	DISTRIBUTION MAINTENANCE	205,805,040	49.83%	12.24%	62.07%	19.41%	14.67%	3.85%	100.00%
8	CUSTOMER ACCOUNTS EXPENSES	116,984,776	74.23%	12.87%	87.10%	8.40%	3.56%	0.94%	100.00%
9	CUSTOMER SERVICE EXPENSES	12,062,308	78.27%	11.74%	90.01%	3.95%	5.51%	0.53%	100.00%
10	SALES EXPENSES	882,680	78.58%	11.32%	89.90%	9.17%	0.16%	0.77%	100.00%
11	ADMINISTRATIVE & GENERAL EXPENSE	191,655,473	58.99%	12.00%	70.99%	15.68%	10.90%	2.44%	100.00%
12	<b>TOTAL OPERATION &amp; MAINTENANCE EXPENSES</b>	<b>1,402,853,597</b>	<b>59.48%</b>	<b>14.20%</b>	<b>73.68%</b>	<b>15.63%</b>	<b>9.22%</b>	<b>1.47%</b>	<b>100.00%</b>
<b>DEPRECIATION / AMORTIZATION EXPENSE</b>									
13	INTANGIBLE PLANT EXPENSE	17,559,881	60.95%	11.32%	72.27%	17.43%	8.26%	2.05%	100.00%
14	TRANSMISSION PLANT EXPENSE	-	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
15	DISTRIBUTION PLANT EXPENSE	166,494,869	53.47%	11.85%	65.32%	19.72%	11.70%	3.26%	100.00%
16	GENERAL PLANT EXPENSE	16,375,649	59.14%	11.88%	71.02%	15.58%	10.93%	2.47%	100.00%
17	COMMON PLANT DEPRECIATION/AMORTIZATION	34,633,075	59.14%	11.88%	71.02%	15.58%	10.93%	2.47%	100.00%
18	<b>TOTAL DEPRECIATION / AMORTIZATION EXPENSE</b>	<b>235,063,474</b>	<b>55.26%</b>	<b>11.82%</b>	<b>67.07%</b>	<b>18.65%</b>	<b>11.28%</b>	<b>3.00%</b>	<b>100.00%</b>
<b>TAXES OTHER THAN INCOME TAXES</b>									
19	PURCHASED POWER TOIT EXPENSES	38,572,400	63.95%	16.81%	80.76%	14.16%	4.84%	0.24%	100.00%
20	TRANSMISSION TOIT EXPENSES	10,951,280	46.57%	12.09%	58.66%	20.48%	19.25%	1.61%	100.00%
21	DISTRIBUTION TOIT EXPENSES	91,195,679	54.45%	11.20%	65.65%	18.42%	12.99%	2.94%	100.00%
22	<b>TOTAL TAXES OTHER THAN INCOME</b>	<b>140,719,359</b>	<b>56.44%</b>	<b>12.80%</b>	<b>69.25%</b>	<b>17.41%</b>	<b>11.24%</b>	<b>2.10%</b>	<b>100.00%</b>
23	<b>EARNING BEFORE INTEREST AND INCOME TAXES</b>	<b>\$ 319,008,972</b>	<b>50.86%</b>	<b>8.95%</b>	<b>59.81%</b>	<b>22.99%</b>	<b>14.00%</b>	<b>3.20%</b>	<b>100.00%</b>

Source: PECO Energy Company's 2018 Rate Case-Exhibit JD-2-Electric Class Cost of Service Study.

[ag] Represents the entire operation of PECO Energy Company for the fully projected test year ending December 31, 2019.

[ao] "Other" includes Primary Distribution, Electric Propulsion, and Lighting services.

Line	Description	PECO Energy Company		
		Total Electric Division [ag]	Default Service (Price-To-Compare) [ah]	Distribution Service (All Customers) [ai]
<b>ADMINISTRATIVE &amp; GENERAL EXPENSE</b>				
1	920-Administrative Salaries	\$ 28,894,762	\$ -	\$ 28,894,762
2	921-Office Supplies & Expense	6,150,333	-	6,150,333
3	923-Outside Service Employed	55,985,671	-	55,985,671
4	923-Outside Service Employed-AMI Related Costs [ak]	-	-	-
5	924-Property Insurance	115,070	-	115,070
6	925-Injuries and Damages	7,033,486	-	7,033,486
7	926-Employee Pensions & Benefits	23,164,009	-	23,164,009
8	928-Regulatory Commission	8,972,145	-	8,972,145
9	929-Duplicate Charges-Credit	(1,058,508)	-	(1,058,508)
10	930.2-Miscellaneous General	2,131,290	-	2,131,290
11	932-Maintenance of General Plant	4,662,907	-	4,662,907
12	<b>TOTAL ADMINISTRATIVE &amp; GENERAL EXPENSE</b>	<b>\$ 136,051,164</b>	<b>\$ -</b>	<b>\$ 136,051,164</b>

Source: PECO Energy Company's 2018 Rate Case-Exhibit JD-2-Electric Class Cost of Service Study.

[ag] Represents the entire residential operation of PECO Energy Company for the fully projected test year ending December 31, 2019.

[ah] The charges appearing on a PECO bill that are included in this allocation are "Generation charges" and "Transmission charges". Exhibit JD-2 of PECO Energy Company's 2018 Rate Case names the business lines included in this column as "Purchased Power" and "Transmission".

[ai] The charges appearing on a PECO bill that are included in this allocation are "Customer charge" (fixed per bill) and "Distribution charges" (variable per kWh). Exhibit JD-2 of PECO Energy Company's 2018 Rate Case names the business line included in this column as "Distribution".

[ak] AMI = Advanced Metering Infrastructure.

Term	Description in FERC [ap]	Description from Rate Case Testimony [aq]
<b>Common Plant</b>	If the utility is engaged in more than one utility service, such as electric, gas, and water, and any of its utility plant is used in common for several utility services or for other purposes to such an extent and in such manner that it is impracticable to segregate it by utility services currently in the accounts, such property, with the approval of the Commission, may be designated and classified as common utility plant.	"Common plant" (i.e., facilities, such as PECO's headquarters office building in Philadelphia, that are used to provide both electric and gas service)
<b>General Plant</b>	Land and land rights, Structures and improvements, Office furniture and equipment, Transportation equipment, Stores equipment, Tools, shop and garage equipment, Laboratory equipment, Power operated equipment Communication equipment, Miscellaneous equipment, Other tangible property, Asset retirement costs for general plant.	Includes primarily structures and improvements relating to administrative activities, tools, and communications equipment, as well as other miscellaneous assets.
<b>Intangible Plant</b>	Organization, franchises and consents, miscellaneous intangible plant, which includes the cost of patent rights, licenses, privileges, and other intangible property necessary or valuable in the conduct of utility operations and not specifically chargeable to any other account.	Intangible plant represents the costs of franchises and consents and other intangible assets.

[ap] Code of Federal Regulations-Title 18-Chapter 1-Subchapter C-Part 101-Uniform System of Accounts

[aq] Statements No.4 and No. 6 of PECO-Rate Case Filing-R-2018-30001624



Line Document Title

Line	Document Title
<b>Pennsylvania Public Utility Commission Filings</b>	
1	PECO Energy Company - General Base Rate Filing For Electric Operations - Docket No. R-2010-2161575 - Volumes 1 through 14
2	PECO Energy Company - General Base Rate Filing For Electric Operations - Docket No. R-2015-2468981 - Volumes 1 through 11
3	PECO Energy Company - General Base Rate Filing For Electric Operations - Docket No. R-2018-3000164 - Volumes 1 through 11
4	Discovery Responses filed throughout the codification of PECO Energy Company - General Base Rate Filing For Electric Operations - Docket No. R-2018-3000164
5	Default Service Provider (DSP IV) - Docket No. P-2016-2534980 - Cover Letter
6	Default Service Provider (DSP IV) - Docket No. P-2016-2534980 - Exhibit ABC-1-Prior Case Testimony
7	Default Service Provider (DSP IV) - Docket No. P-2016-2534980 - Exhibit ABC-2-Electric Service Tariff Effective June 2017
8	Default Service Provider (DSP IV) - Docket No. P-2016-2534980 - Exhibit ABC-3-Electric Service Tariff with Tracked Changes
9	Default Service Provider (DSP IV) - Docket No. P-2016-2534980 - Exhibit ABC-4-Comparison of the Variability of Monthly vs Semiannual Reconciliation
10	Default Service Provider (DSP IV) - Docket No. P-2016-2534980 - Exhibit ABC-5-PECO DSP IV Estimated Costs
11	Default Service Provider (DSP IV) - Docket No. P-2016-2534980 - Exhibit ABC-6-Response to Questions in 52 PA Code Section 53.52a
12	Default Service Provider (DSP IV) - Docket No. P-2016-2534980 - PECO-Exhibit BDC-1-Prior Case Testimony
13	Default Service Provider (DSP IV) - Docket No. P-2016-2534980 - PECO-Exhibit CL-1-Chantale Lacasse Resume
14	Default Service Provider (DSP IV) - Docket No. P-2016-2534989 - PECO-Exhibit CL-2-Default Service Program-RFP
15	Default Service Provider (DSP IV) - Docket No. P-2016-2534980 - PECO-Exhibit CL-3-RFP Protocol
16	Default Service Provider (DSP IV) - Docket No. P-2016-2534980 - Exhibit JIM-1-Prior Case Testimony
17	Default Service Provider (DSP IV) - Docket No. P-2016-2534980 - Exhibit JIM-2-Procurement Schedule
18	Default Service Provider (DSP IV) - Docket No. P-2016-2534980 - PECO-Exhibit JIM-3-Pennsylvania Default Service Supplier Master Agreement
19	Default Service Provider (DSP IV) - Docket No. P-2016-2534980 - Exhibit JIM-4-Pennsylvania Default Service Supplier Master Agreement
20	Default Service Provider (DSP IV) - Docket No. P-2016-2534980 - Petition
21	Default Service Provider (DSP IV) - Docket No. P-2016-2534980 - PECO-Statement No. 1-Testimony of Brian Crowe
22	Default Service Provider (DSP IV) - Docket No. P-2016-2534980 - PECO-Statement No. 2-Testimony of JJ McCawley
23	Default Service Provider (DSP IV) - Docket No. P-2016-2534980 - Statement No. 3-Testimony of Scott G. Fischer
24	Default Service Provider (DSP IV) - Docket No. P-2016-2534980 - Statement No. 4-Testimony of Chantale Lacasse
25	Default Service Provider (DSP IV) - Docket No. P-2016-2534980 - PECO-Statement No. 5-Testimony of Alan B. Cohn
26	PECO Energy Company (PECO) Generation Supply Adjustment (GSA) - Procurement Classes 1-4, Effective January 1, 2016, Docket No. P-2014-2409962, Replacement Pages and Informational Calculation Pages
27	PECO Energy Company - Electric Service Tariff - Original Tariff - Pa PUC No. 5, Issued December 18, 2015 - to become effective January 1, 2016
28	PECO Energy Company - Electric Service Tariff - Supplement No. 1 to Tariff Electric-PA, PUC No. 5, Dated May 13, 2015
29	PECO Energy Company - Electric Service Tariff - Supplement No. 14 to Electric PA. P.U.C. NO. 5, Effective June 1, 2016, Dated May 20, 2016
30	PECO Energy Company - Electric Service Tariff - Supplement No. 34 to Electric PA. P.U.C. NO. 5, Effective April 1, 2017, Dated February 1, 2017
31	PECO Energy Company - Electric Service Tariff - Supplement No. 49 to Electric PA. P.U.C. NO. 5, Effective September 1, 2017, Dated July 17, 2017
32	PECO Energy Company - Electric Service Tariff - Supplement No. 53 to Electric PA. P.U.C. NO. 5, Effective December 1, 2017, Dated November 15, 2017
33	PECO Energy Company - Electric Service Tariff - Original Tariff - Pa PUC No. 6, issued March 29, 2018 - to become effective May 28, 2018
34	PUC Docket No. R-00973953 - Application of PECO Energy Company for Approval of its Restructuring Plan Under Section 2806 of the Public Utility Code and Joint Petition for Partial Settlement, Order entered December 23, 1997
35	PUC Docket No. M-00072009 - Statement of Policy, Title 52, Default Service and Retail Electric Markets (37 Pa.B. 5019), Dated September 15, 2007
36	PUC Docket No. M-2013-2362961 - Guidelines for Use of Fixed Price Labels for Products With a Pass-Through Clause, Order entered November 14, 2013
37	PUC Docket No. M-2015-2515691 - Phase III Energy Efficiency and Conservation Program Annual Report for June 1, 2016 through May 31, 2017
<b>Federal Filings</b>	
38	FERC FINANCIAL REPORT FERC FORM No. 1: Annual Report of Major Electric Utilities, Licensees and Others and Supplemental Form 3-Q: Quarterly Financial Report - End of Year 2017/4th Qtr
39	FERC FINANCIAL REPORT FERC FORM No. 1: Annual Report of Major Electric Utilities, Licensees and Others and Supplemental Form 3-Q: Quarterly Financial Report - End of Year 2016/4th Qtr
40	FERC FINANCIAL REPORT FERC FORM No. 1: Annual Report of Major Electric Utilities, Licensees and Others and Supplemental Form 3-Q: Quarterly Financial Report - End of Year 2015/4th Qtr
41	FERC FINANCIAL REPORT FERC FORM No. 1: Annual Report of Major Electric Utilities, Licensees and Others and Supplemental Form 3-Q: Quarterly Financial Report - End of Year 2014/4th Qtr
42	Exelon Form 10-K for the Period Ending 12/31/2017.
43	Exelon Form 10-K for the Period Ending 12/31/2016.
<b>Other Documents/Data</b>	
44	PECO Procurement for Default Supply - Background - PECO.com
45	Pennsylvania Code Chapter 54, Subchapter G, Default Service
46	Pennsylvania Office of Consumer Advocate-Residential Consumers Electric Shopping Guide
47	Energy Information Administration (EIA) - Electric Power Sales Form EIA-861 Detailed Data Files - 2016
48	Code of Federal Regulations - Title 18 - Chapter 1 - Subchapter C - Part 101 - Uniform System of Accounts
49	PECO Price to Compare Residential Rate Methodology
50	PECO Price to Compare Commercial and Industrial Rate Methodology
51	PECO Price to Compare Effective June 1, 2013 through August 31, 2013
52	PECO Price to Compare Effective January 1, 2016 through February 29, 2016
53	PECO Price to Compare Effective June 1, 2017 through August 31, 2017
54	PECO Price to Compare Effective June 1, 2018 through August 31, 2018

# NRG Exhibit CP-4

DOCUMENT  
FOLDER

PENNSYLVANIA  
PUBLIC UTILITY COMMISSION  
Harrisburg, PA 17105-3265

Public Meeting held December 11, 1997

Commissioners Present:

John M. Quain, Chairman, Joint Statement and Dissent attached  
Robert Bloom, Vice Chairman, Joint Statement and Dissent attached  
John Hanger  
David W. Rolka, Statement attached  
Nora Mead Brownell, Statement attached

Application of PECO Energy Company for  
Approval of its Restructuring Plan Under  
Section 2806 of the Public Utility Code and  
Joint Petition for Partial Settlement

R-00973953-7

Petition of Enron Energy Services Power, Inc.  
for Approval of an Electric Competition and  
Choice Plan and for Authority Pursuant to  
Section 2807(E)(C) of the Public Utility Code  
to Serve as the Provider of Last Resort in the  
Service Territory of PECO Energy Company

P-00971265

**DOCKETED**  
DEC 29 1997

OPINION AND ORDER

The Act also speaks in terms of rate levels per customer, customers or customer classes; not system wide averages. See 66 Pa. C. S. §§2804(4) and (7). We note that Section 2804(7) expressly provides that the Commission may not approve restructuring plans which provide for cost shifting among customer classes which unreasonably discriminate against one class to the benefit of another. We interpret these provisions of the Act to require that the rate caps as well as cost shifting concerns must be reviewed in the context of rate classes and/or rate schedules, not system wide averages.

### **3. PECO's Allocation of Costs**

Both PECO's original filing as revised and the Partial Settlement fail to meet the Act's requirements in several respects. The cost allocation methodology used by PECO in its initial filing fails to properly assign certain general costs to generation and allocates 100% of those costs to T&D. Although PECO revised this approach, the revisions only partially addressed the issue. The effect of PECO's misallocation drives the T&D rates above those levels which were in force on January 1, 1997. In addition to the misallocation of expenses, PECO's use (initially) of an artificially low kwh sales figure results in an incorrect revenue requirement which also has the effect of overstating the rate.

The record in this matter indicates that PECO has misallocated costs among the three unbundled services. Simply put, in its original filing, PECO assigned the vast majority of Administrative and General (A&G), Overhead and general plant expense to its T&D rates. This assignment occurred without regard to whether there is a continuing generation component in that cost.

PECO's Statement No. 12, Exh. RAC-1, pp. 56, 62, by Mr. Clemmer, includes the following costs as having been allocated 100% to T&D:

	(000)
Account 920 Administrative and General Salaries	72,808
Account 921 Office Supplies and Expenses	84,562
Account 923 Outside Services Employed	17,162
Account 935 Maintenance of General Plant	875

Several similar accounts were also included as having been allocated 100% to T&D. PECO's allocations were revised subsequent to the original filing, and revised again in rebuttal testimony. See, e.g., PECO St. No. 12-R and the Exhibits attached thereto. Despite the revisions, PECO's allocations still improperly allocate costs to its T&D services rather than properly reflecting that a generation component exists in those costs.

The basic failing in PECO's T&D cost allocation is determined by its approach. PECO's "new" approach to cost allocation is set forth in PECO Statement No. 12-R which described the revised allocation methodology. Witness Clemmer stated:

When logic and reason suggest that a current A&G function will still need to be performed by PECO even when all customers can choose their electricity supplier and PECO has become a regulated electric distribution company (EDC), then all of the associated A&G costs are distribution-related costs to be recovered through PECO's regulated distribution rates, or transmission-related costs to be recovered in accordance with FERC rules and requirements.

PECO Statement No. 12-R, p. 3.

Witness Clemmer further stated: "If the costs cannot be avoided as a result of the transition to competition, will still be incurred by the future EDC, and are properly allocable to the distribution function rather than the transmission function, then that future

company should be allowed to recover those costs through its regulated distribution rates.” Id.

In an effort to address other parties’ concerns, PECO revised its methodology on rebuttal. According to PECO, it followed a new procedure for Administrative and General expense allocation by reviewing separately tracked costs which were charged by “work centers.” PECO identified work centers as small, single function work groups which are functionally aligned by production, transmission and distribution, corporate central services and corporate center. However, PECO examined these costs to determine the following:

When all customers can choose their electricity supplier, would the function that resulted in the costs booked to the account still be required at the same overall cost levels for PECO as the EDC in fulfilling its obligation to deliver electricity? If the answer is yes, then the costs are transmission or distribution-related, and the distribution-related portion should be recovered through PECO’s regulated charges for its distribution services.

Clemmer St. No. 12-R, p. 4.

PECO’s recognition of the error in its initial filing resulted in the following adjustments noted by Mr. Clemmer: .

	<b>Production</b>	<b>Transmission</b>	<b>Distribution</b>
<b>4/1/97 study</b>	\$63,251,000	\$31,018,000	\$226,618,000
<b>Corrected 7/18/97</b>	\$94,335,000	\$27,228,000	\$199,323,000

Clemmer St. No. 12-R, p. 7.

However, despite the recognition of its initial error, PECO still failed to include other accounts in its allocation, or failed to properly allocate sums from accounts which were included.

One test of PECO's "revised" functional allocation methodology (the "work center" approach) was provided by Mr. Phillips on behalf of the United States Department of the Navy. Based upon his review of PECO's 1996 O&M expenses by function as set forth in PECO's 1996 FERC Form 1, as well as his analysis of the 1996 cost of service study submitted by PECO witness Clemmer, Mr. Phillips stated that the PECO revised approach yielded illogical results. According to Mr. Phillips, in the context of total operation and maintenance expense including fuel but excluding A&G, production expenses are more than 70% (close to 80% according to FERC Form 1) of the total operation and maintenance expenses booked by PECO. Subtracting fuel and purchased power results in an expense factor of approximately 59% of PECO's 1996 expenditures. However, using PECO's revised functional analysis as stated in Exhibit RAC-3, about 13% (\$26.6 million / \$202.9 million) of the assigned and allocated A&G expenses are related to production expenses. Phillips Surrebuttal, August 1997, p. 5.

Similarly, witness Reising reviewed Exhibits RAC-3 and RAC-4 and determined that PECO's revised functional analysis produced illogical results. For example, "Executive Department" and "CFO" functions were assigned 100% to T&D. Yet, as noted by Mr. Reising, those functions do not now limit their oversight to T&D.

Mr. Reising also stated that PECO's generation function will continue to require Executive Department and CFO attention after the onset of competition. Enron St. No. 3-SR, p. 10. We agree.

PECO's responses to criticisms of its allocation are, at best, weak. Clemmer St. No. 12-RJ merely states that the revised, new approach was justified. Therefore, according to Mr. Clemmer, its critics were in error. Also, Mr. Clemmer suggested that cross subsidization between PECO's generation and T&D functions could not occur because "PECO has not overstated transmission and distribution costs... ." Clemmer St. No. 12-RJ, p. 6. Clemmer argues that it would be false and illogical to suggest that PECO affiliates would intentionally sell below marginal cost. *Id.* Of course, the point of those arguing against PECO's allocations is that PECO would be covering its marginal costs, in part, through the improper cross-subsidy. Finally, Mr. Clemmer states that this Commission can scrutinize PECO's T&D rates to ensure cross-subsidization does not develop. We do not perceive any of these statements to be responsive to the criticisms of PECO's allocation of costs between T&D and generation.

Our review of the record in its entirety leads us to find that PECO's allocation of General and Administrative Costs requires significant adjustment. In order to comply with the Act's mandate that T&D rates remain capped at those levels in existence as of January 1, 1997, we must ensure that there is an appropriate allocation of all costs among generation and T&D. We must find that, based upon a preponderance of the evidence, PECO's allocation of general expenses will result in T&D rates which comply with the Act's rate cap provisions.

In reaching our determination on this issue, we are persuaded by the OCA witness who stated:



Even if the Company does need the same number of people in the payroll department and other A&G accounts, their cost should be allocated to the functions that they support. It is simply incorrect to allocate these dollars entirely to T&D.

Unbundling costs should produce results that should look like what functional costs would be if PECO were to separate itself into functionally separate divisions. Clearly the generation division would require administrative and general services.

OCA St. No. 4, p. 5.

We agree with the OCA, the Department of the Navy, Enron and the other parties who argued that the allocation methodology must be modified to correctly allocate costs.

#### **4. Directed Allocation Methodology**

As we determine the resulting allocation, we are extremely concerned that we not take any action which would jeopardize the continued reliability of PECO's T&D system. To that end, we have very carefully reviewed the methodology detailed below to ensure that it will provide for a continued efficient and reliable T&D system as required by the Act, while avoiding impermissible cost allocations prohibited by the Act. The resulting determination is a careful balancing of all factors in this record. A shift or change to one or more factors would require a reexamination of the whole and, quite possibly, dictate a different result. However, we have carefully reviewed this entire record in great detail and are satisfied that the methodology we have adopted strikes the appropriate and necessary balance among the varying interests and statutory requirements for this issue.

Based upon our review of the record, it appears that the methodology and adjustments advocated by the OCA in its surrebuttal testimony, OCA St. No. 4S, will provide a more accurate and appropriate T&D rate than that proposed by PECO. The resulting T&D rate satisfies the statutory rate cap while PECO's first, second or third iterations fail to do so by improperly assigning generation costs to T&D. We agree with OCA witness Lee Smith that PECO's general approach, while a reasonable effort in a very broad and general sense, did not ask the correct question. We also agree with Ms. Smith that PECO's proposal contains a significant error by failing to properly reconcile a credit account in the allocation. OCA St. No. 4S, pp. 4-5.

Our conclusion that this methodology will result in a rate which is closer to the statutory requirement than any of the rates suggested by PECO is born out by PECO's own testimony. PECO witness Cohn responded to a question of whether transmission and distribution rates were unlikely to rise above 2.63 cents per kwh over the next ten years as follows:

No. First, the 2.63 cent per kwh figure, which is Mr. Reising's estimate, is incorrect. The proper level for T&D costs is 3.11 cents per kwh, as noted in Schedule A of the Partial Settlement and supported in Mr. Clemmer's rebuttal and rejoinder testimony. Second, a comparison of T&D costs included in the Company's initial pilot filing in February 1997 with the current restructuring estimate will provide a guide for expected growth in T&D costs. As shown in Exhibit ABC-12, the T&D cost in the February 1997 filing was 2.60 cents per kwh based upon a 1990 test year. This compares to the 3.11 cents per kwh in the restructuring filing based upon a 1996 test year.

(PECO St. No. 3-RJ, pp. 8-9).

If we can assume that the figure of 2.60 cents per kWh referenced by Mr. Cohn includes the award in PECO's base rate case determined in 1990<sup>50</sup> then that figure would represent the Commission's approved rate in effect on January 1, 1997, after considering any adjustments which have been approved since our order in 1990. Those adjustments would not increase the T&D rate to the level of 3.11 cents. However, after adjusting general and overhead expenses with a proper allocation method, the OCA figure on surrebuttal of 2.93 cents<sup>51</sup> is closer to the statutorily required rate than that proposed by PECO.

The OCA methodology was generally described in its direct testimony as follows:

A substantial percentage of these costs [A&G] should be allocated to the production function as well. Costs in these accounts are not easily identifiable with particular operating functions. They include salaries and office supplies for personnel in administrative functions such as human resources, legal, or accounting. These activities contribute to the generation function as well as distribution and transmission. Generation planners and marketers make use of these administrative functions and expenses. An appropriate functionalization of these accounts is one based on the total labor costs in each utility function.

OCA St. No. 4, pp. 4-5.

The OCA adopted a labor allocation approach to A&G functions. In 1996, 66% of all directly functionalized labor was in the generation function. Accordingly, the

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<sup>50</sup> We are aware that PECO filed and was awarded an increase in base rates as a result of a single issue filing since 1990. See Order at Docket No. R-00922479 entered December 1, 1994. However, that proceeding did not result in a T&D rate of 3.11 cents. The 2.60 cent rate alluded to by Mr. Cohn is closer to the latest Commission approved T&D rate than 3.11.

<sup>51</sup> OCA Exh. LS-12.

OCA used a 66% allocation factor of A&G expense to generation. OCA St. No. 4, p. 6; OCA St. No. 4S, pp. 2-3.

In determining to adopt the OCA position on surrebuttal, we are mindful that we have not modified PECO's proposed allocations for uncollectibles, customer accounts, customer service and sales. Although several witnesses, notably Mr. Reising and Mr. Mitnik, make strong arguments for unbundling the customer accounts and customer services charges at this time, we will not do so. We also will not alter PECO's treatment of its sales expense. In this context we note that PECO's T&D rates continue to be subject to Chapter 13 of the Public Utility Code and, subject to the Act's rate caps, parties may challenge existing rates. Also, we would expect that as functions continue to be unbundled, PECO's rates may be reexamined to determine if they provide for charges which encompass generation or other unbundled services.

It is equally important to note that PECO's revised proposal has provided for the funding, in part, of its Universal Service program through its uncollectible expense. PECO St. No. 12-R, pp. 11-13; PECO St. No. 14-R. Although we are cognizant that consistent application of the methodology directed herein could also require allocation of a significant portion of the uncollectible expense, we believe that a careful balancing of the interests of the parties and the record in this case permit us to allow PECO's and the OCA's treatment of this expense. However, it is possible that a different result could occur if the balance were altered. At this time, however, we will accept PECO's treatment of the uncollectible expense given its role in the funding of the Universal Service program and the substantial public interest in that program. We are also mindful that Section 2804(9) of the Act, 66 Pa. C.S. §2804(9), requires appropriate funding of Universal Service mechanisms.

Our adoption of the OCA methodology and adjustments results in a reduction of the T&D rate from the PECO revised number of 3.11 cents/kWh, to the OCA adjusted figure of 2.93 cents/kWh. Exh. LS-12. Several parties assert that this reallocation of expense to generation does not increase PECO's stranded costs or should not be recovered. We disagree. See PECO St. No. 12-R, p. 9; PECO St. No. 1-R. Subject to receipt and review of PECO's compliance filing, we conclude that this will result in an increase to PECO's stranded costs of approximately \$460,691,000.<sup>52</sup> This amount is to be included as part of PECO's stranded cost recovery.<sup>53</sup>

The compliance filing must include one final adjustment to the T&D rate resulting from the OCA methodology. Further below in this Opinion and Order, we discuss our adoption of PECO's proposed alternative for funding nuclear decommissioning costs. In that discussion, we provide for an annuity approach which will be collected through regulated rates.

## 5. Conclusion

In this Section, we have described why PECO's proposed plan must be modified regarding the treatment of Transmission and Distribution rates. We have also provided specific direction to PECO on its allocation methodology to assist PECO in addressing our modification. Accordingly, PECO's compliance tariff is expected to incorporate these modifications.

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<sup>52</sup> In its compliance filing, PECO is directed to remove all return dollars from the A&G expense allocated to production in this Order. OCA Stmt. 4S, Exhibit LS-8, contains items to be presented in PECO's compliance filing on an expense or capitalized basis.

<sup>53</sup> This adjustment of approximately \$460,691,000 is included into the stated total of \$5.024 billion recoverable stranded costs, but not in the subtotal of \$2.679 for stranded generation assets. The accepted compliance filing will establish final numbers.

Finally, PECO's compliance filing must include a T&D revenue requirement and rate structure that will incorporate the adjustments directed herein and, on a rate class or rate schedule basis, provide for the rates directed herein. Transmission and distribution revenues shall be allocated consistent with the methodology for utility plant accepted by the Commission in the Company's 1990 general rate case proceeding, except as clarified in this Order. In this context we specifically note that this cannot be achieved by reference to a system-wide average. Accordingly, we caution PECO to avoid any impermissible cost shifting among and between classes and schedules as it provides for a rate design consistent with our adjustments herein.

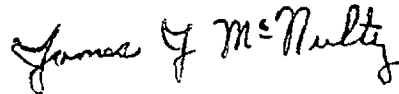
#### **D. TRANSITION OR STRANDED COSTS**

##### **1. Statutory Directives Concerning the Identification and Recoverability of Stranded Costs.**

While the parties advocate various proposals, the Act requires the Commission to determine an amount of stranded cost recovery that is just and reasonable. Section 2804(13) grants the Commission, consistent with the standards in Section 2808, the "power and the duty to approve a Competitive Transition Charge (CTC) for the recovery of transition or stranded costs it determines to be just and reasonable to recover from ratepayers." Section 2804(14) requires the Commission to establish a transition to a competitive market that shall be "orderly, protect electric system reliability, be fair to ratepayers, and provide the investors in Pennsylvania electric utilities with a fair opportunity to fully recover the amount of transition or stranded costs that the

21. That, in addition to the specific requirements contained in the foregoing ordering paragraphs, PECO Energy Company shall comply with all other directives contained in this Opinion and Order.

**BY THE COMMISSION,**



James J. McNulty  
Secretary

SEAL

ORDER ADOPTED: December 11, 1997

ORDER ENTERED: **DEC 23 1997**

# NRG Exhibit CP-5



PECO Energy Company Recast Residential Rate

Prepared by UHY Advisors, Inc.

Section I - Financial

1.1 - Total Electric Division: PECO's Statement of Earnings (Before Interest & Income Taxes) Allocation to the Residential Customer Class - As Presented by PECO [a]

For the Fully Projected Future Test Year Ending December 31, 2019

Line	Description [d]	PECO Energy Company		PECO Energy Company		
		Total Electric Division [b] (1)	Total Residential Allocation % [c] (2)	Total Residential Class (1) * (2)	Service Type	
					Total Residential Default Service (Price-To-Compare)	Total Residential Distribution Service (All Customers)
<b>OPERATING REVENUES</b>						
1	SALES REVENUES	\$ 2,060,098,785	70.53%	\$ 1,453,018,599	\$ 636,874,322	\$ 816,144,277
2	OTHER OPERATING REVENUES	37,546,617	70.64%	26,522,616	-	26,522,616
3	<b>TOTAL OPERATING REVENUES</b>	<b>\$ 2,097,645,402</b>	<b>70.53%</b>	<b>\$ 1,479,541,214</b>	<b>\$ 636,874,322</b>	<b>\$ 842,666,893</b>
<b>OPERATION &amp; MAINTENANCE EXPENSE</b>						
4	PRODUCTION EXPENSE	610,818,463	80.76%	493,299,667	493,299,667	-
5	TRANSMISSION EXPENSES	172,218,339	58.66%	101,028,390	101,028,390	-
6	DISTRIBUTION OPERATION	92,426,518	67.05%	61,971,799	-	61,971,799
7	DISTRIBUTION MAINTENANCE	205,805,040	62.07%	127,743,091	-	127,743,091
8	CUSTOMER ACCOUNTS EXPENSES	116,984,776	87.10%	101,888,314	-	101,888,314
9	CUSTOMER SERVICE EXPENSES	12,062,308	90.01%	10,857,163	-	10,857,163
10	SALES EXPENSES	882,680	89.90%	793,507	-	793,507
11	ADMINISTRATIVE & GENERAL EXPENSE	191,655,473	70.99%	136,051,164	-	136,051,164
12	<b>TOTAL OPERATION &amp; MAINTENANCE EXPENSES</b>	<b>1,402,853,597</b>	<b>73.68%</b>	<b>1,033,633,095</b>	<b>594,328,057</b>	<b>439,305,038</b>
<b>DEPRECIATION / AMORTIZATION EXPENSE</b>						
13	INTANGIBLE PLANT EXPENSE	17,559,881	72.27%	12,689,664	-	12,689,664
14	TRANSMISSION PLANT EXPENSE	-	0.00%	-	-	-
15	DISTRIBUTION PLANT EXPENSE	166,494,869	65.32%	108,754,355	-	108,754,355
16	GENERAL PLANT EXPENSE	16,375,649	71.02%	11,629,436	-	11,629,436
17	COMMON PLANT DEPRECIATION/AMORTIZATION	34,633,075	71.02%	24,595,247	-	24,595,247
18	<b>TOTAL DEPRECIATION / AMORTIZATION EXPENSE</b>	<b>235,063,474</b>	<b>67.07%</b>	<b>157,668,703</b>	<b>-</b>	<b>157,668,703</b>
<b>TAXES OTHER THAN INCOME TAXES</b>						
19	PURCHASED POWER TOIT EXPENSES	38,572,400	80.76%	31,151,239	31,151,239	-
20	TRANSMISSION TOIT EXPENSES	10,951,280	58.66%	6,424,346	6,424,346	-
21	DISTRIBUTION TOIT EXPENSES	91,195,679	65.65%	59,868,327	-	59,868,327
22	<b>TOTAL TAXES OTHER THAN INCOME</b>	<b>140,719,359</b>	<b>69.25%</b>	<b>97,443,912</b>	<b>37,575,585</b>	<b>59,868,327</b>
23	<b>EARNING BEFORE INTEREST AND INCOME TAXES</b>	<b>\$ 319,008,972</b>	<b>59.81%</b>	<b>\$ 190,795,504</b>	<b>\$ 4,970,680</b>	<b>\$ 185,824,824</b>

Source: PECO Energy Company's 2018 Rate Case-Exhibit JD-2-Electric Class Cost of Service Study.  
Footnotes to this section can be found on Appendix A.

# NRG Exhibit CP-6

Line	Description	PECO Energy Company	Service Type	
		Total Electric Division [ag]	Default Service (Price-To-Compare) [ah]	Distribution Service (All Customers) [ai]
<b>ADMINISTRATIVE &amp; GENERAL EXPENSE</b>				
1	920-Administrative Salaries	\$ 28,894,762	\$ -	\$ 28,894,762
2	921-Office Supplies & Expense	6,150,333	-	6,150,333
3	923-Outside Service Employed	55,985,671	-	55,985,671
4	923-Outside Service Employed-AMI Related Costs [ak]	-	-	-
5	924-Property Insurance	115,070	-	115,070
6	925-Injuries and Damages	7,033,486	-	7,033,486
7	926-Employee Pensions & Benefits	23,164,009	-	23,164,009
8	928-Regulatory Commission	8,972,145	-	8,972,145
9	929-Duplicate Charges-Credit	(1,058,508)	-	(1,058,508)
10	930.2-Miscellaneous General	2,131,290	-	2,131,290
11	932-Maintenance of General Plant	4,662,907	-	4,662,907
12	<b>TOTAL ADMINISTRATIVE &amp; GENERAL EXPENSE</b>	<b>\$ 136,051,164</b>	<b>\$ -</b>	<b>\$ 136,051,164</b>

Source: PECO Energy Company's 2018 Rate Case-Exhibit JD-2-Electric Class Cost of Service Study.

[ag] Represents the entire residential operation of PECO Energy Company for the fully projected test year ending December 31, 2019.

[ah] The charges appearing on a PECO bill that are included in this allocation are "Generation charges" and "Transmission charges". Exhibit JD-2 of PECO Energy Company's 2018 Rate Case names the business lines included in this column as "Purchased Power" and "Transmission".

[ai] The charges appearing on a PECO bill that are included in this allocation are "Customer charge" (fixed per bill) and "Distribution charges" (variable per kWh). Exhibit JD-2 of PECO Energy Company's 2018 Rate Case names the business line included in this column as "Distribution".

[ak] AMI = Advanced Metering Infrastructure.

# NRG Exhibit CP-7

PECO Energy Company Recast Residential Rate

Prepared by UHY Advisors, Inc.

Section I - Financial

1.2 - Default Service: PECO's Statement of Earnings - Summary of Residential Customer Class and Recast Allocation Methods

For the Fully Projected Future Test Year Ending December 31, 2019

Line	Description [d]	PECO Energy Company Rate Case Default Service (Price-To-Compare) [e] & [f]	% of Total	Allocation Method A Recast Expense Allocation [g]	% of Total	Allocation Method B Recast Expense Allocation [h]	% of Total	Allocation Method C Recast Expense Allocation [i]	% of Total
<b>OPERATING REVENUES</b>									
1	PURCHASED POWER REVENUES	\$ 527,987,105	82.9%	\$ 527,987,105	82.9%	\$ 527,987,105	82.9%	\$ 527,987,105	82.9%
2	TRANSMISSION REVENUES	108,887,216	17.1%	108,887,216	17.1%	108,887,216	17.1%	108,887,216	17.1%
3	<b>TOTAL OPERATING REVENUES</b>	<b>\$ 636,874,322</b>	<b>100.0%</b>	<b>\$ 636,874,322</b>	<b>100.0%</b>	<b>\$ 636,874,322</b>	<b>100.0%</b>	<b>\$ 636,874,322</b>	<b>100.0%</b>
<b>OPERATION &amp; MAINTENANCE EXPENSE</b>									
4	PRODUCTION EXPENSE	493,299,667	77.5%	493,299,667	77.5%	493,299,667	77.5%	493,299,667	77.5%
5	TRANSMISSION EXPENSES	101,028,390	15.9%	101,028,390	15.9%	101,028,390	15.9%	101,028,390	15.9%
6	DISTRIBUTION OPERATION	-	0.0%	-	0.0%	-	0.0%	-	0.0%
7	DISTRIBUTION MAINTENANCE	-	0.0%	-	0.0%	-	0.0%	-	0.0%
8	CUSTOMER ACCOUNTS EXPENSES	-	0.0%	-	0.0%	-	0.0%	-	0.0%
9	CUSTOMER SERVICE EXPENSES	-	0.0%	4,668,580	0.7%	7,165,728	1.1%	7,165,728	1.1%
10	SALES EXPENSES	-	0.0%	341,208	0.1%	523,715	0.1%	523,715	0.1%
11	ADMINISTRATIVE & GENERAL EXPENSE	-	0.0%	58,502,001	9.2%	89,793,768	14.1%	61,218,637	9.6%
12	<b>TOTAL OPERATION &amp; MAINTENANCE EXPENSES</b>	<b>594,328,057</b>	<b>93.3%</b>	<b>657,839,846</b>	<b>103.3%</b>	<b>691,811,268</b>	<b>108.6%</b>	<b>663,236,136</b>	<b>104.1%</b>
<b>DEPRECIATION / AMORTIZATION EXPENSE</b>									
13	INTANGIBLE PLANT EXPENSE	-	0.0%	5,456,555	0.9%	8,375,178	1.3%	8,375,178	1.3%
14	TRANSMISSION PLANT EXPENSE	-	0.0%	-	0.0%	-	0.0%	-	0.0%
15	DISTRIBUTION PLANT EXPENSE	-	0.0%	-	0.0%	-	0.0%	-	0.0%
16	GENERAL PLANT EXPENSE	-	0.0%	5,000,658	0.8%	7,675,428	1.2%	7,675,428	1.2%
17	COMMON PLANT DEPRECIATION/AMORTIZATION	-	0.0%	10,575,956	1.7%	16,232,863	2.5%	16,232,863	2.5%
18	<b>TOTAL DEPRECIATION / AMORTIZATION EXPENSE</b>	<b>-</b>	<b>0.0%</b>	<b>21,033,169</b>	<b>3.3%</b>	<b>32,283,469</b>	<b>5.1%</b>	<b>32,283,469</b>	<b>5.1%</b>
<b>TAXES OTHER THAN INCOME TAXES (TOIT)</b>									
19	PURCHASED POWER TOIT EXPENSES	31,151,239	4.9%	31,151,239	4.9%	31,151,239	4.9%	31,151,239	4.9%
20	TRANSMISSION TOIT EXPENSES	6,424,346	1.0%	6,424,346	1.0%	6,424,346	1.0%	6,424,346	1.0%
21	DISTRIBUTION TOIT EXPENSES	-	0.0%	-	0.0%	-	0.0%	-	0.0%
22	<b>TOTAL TAXES OTHER THAN INCOME</b>	<b>37,575,585</b>	<b>5.9%</b>	<b>37,575,585</b>	<b>5.9%</b>	<b>37,575,585</b>	<b>5.9%</b>	<b>37,575,585</b>	<b>5.9%</b>
23	<b>EARNING BEFORE INTEREST AND INCOME TAXES</b>	<b>\$ 4,970,680</b>	<b>0.8%</b>	<b>\$ (79,574,279)</b>	<b>-12.5%</b>	<b>\$ (124,796,000)</b>	<b>-19.6%</b>	<b>\$ (96,220,869)</b>	<b>-15.1%</b>
24	<b>CHANGE FROM RATE CASE</b>	<b>\$ -</b>		<b>\$ (84,544,958)</b>		<b>\$ (129,766,680)</b>		<b>\$ (101,191,549)</b>	

Source: PECO Energy Company's 2018 Rate Case-Exhibit JD-2-Electric Rate Class Cost of Service Study and UHY PECO Residential Default Rate Recast Analysis Section II, 2.1 (A), Section II, 2.1 (B), and Section II, 2.1 (C).  
Footnotes to this section can be found on Appendix A.

Section I - Financial

1.3 - Distribution Service: PECO's Statement of Earnings - Summary of Residential Customer Class and Recast Allocation Methods

For the Fully Projected Future Test Year Ending December 31, 2019

Line	Description [d]	PECO Energy Company Rate		Allocation Method A		Allocation Method B		Allocation Method C	
		Case Distribution Service (All Customers) [e]	% of Total	Recast Expense Allocation [g]	% of Total	Recast Expense Allocation [h]	% of Total	Recast Expense Allocation [i]	% of Total
<b>OPERATING REVENUES</b>									
1	PURCHASED POWER REVENUES	\$ 816,144,277	96.9%	\$ 816,144,277	96.9%	\$ 816,144,277	96.9%	\$ 816,144,277	96.9%
2	TRANSMISSION REVENUES	26,522,616	3.1%	26,522,616	3.1%	26,522,616	3.1%	26,522,616	3.1%
3	<b>TOTAL OPERATING REVENUES</b>	<b>\$ 842,666,893</b>	<b>100.0%</b>	<b>\$ 842,666,893</b>	<b>100.0%</b>	<b>\$ 842,666,893</b>	<b>100.0%</b>	<b>\$ 842,666,893</b>	<b>100.0%</b>
<b>OPERATION &amp; MAINTENANCE EXPENSE</b>									
4	PRODUCTION EXPENSE	-	0.0%	-	0.0%	-	0.0%	-	0.0%
5	TRANSMISSION EXPENSES	-	0.0%	-	0.0%	-	0.0%	-	0.0%
6	DISTRIBUTION OPERATION	61,971,799	7.4%	61,971,799	7.4%	61,971,799	7.4%	61,971,799	7.4%
7	DISTRIBUTION MAINTENANCE	127,743,091	15.2%	127,743,091	15.2%	127,743,091	15.2%	127,743,091	15.2%
8	CUSTOMER ACCOUNTS EXPENSES	101,888,314	12.1%	101,888,314	12.1%	101,888,314	12.1%	101,888,314	12.1%
9	CUSTOMER SERVICE EXPENSES	10,857,163	1.3%	6,188,583	0.7%	3,691,435	0.4%	3,691,435	0.4%
10	SALES EXPENSES	793,507	0.1%	452,299	0.1%	269,792	0.0%	269,792	0.0%
11	ADMINISTRATIVE & GENERAL EXPENSE	136,051,164	16.1%	77,549,164	9.2%	46,257,396	5.5%	74,832,527	8.9%
12	<b>TOTAL OPERATION &amp; MAINTENANCE EXPENSES</b>	<b>439,305,038</b>	<b>52.1%</b>	<b>375,793,249</b>	<b>44.6%</b>	<b>341,821,827</b>	<b>40.6%</b>	<b>370,396,959</b>	<b>44.0%</b>
<b>DEPRECIATION / AMORTIZATION EXPENSE</b>									
13	INTANGIBLE PLANT EXPENSE	12,689,664	1.5%	7,233,108	0.9%	4,314,486	0.5%	4,314,486	0.5%
14	TRANSMISSION PLANT EXPENSE	-	0.0%	-	0.0%	-	0.0%	-	0.0%
15	DISTRIBUTION PLANT EXPENSE	108,754,355	12.9%	108,754,355	12.9%	108,754,355	12.9%	108,754,355	12.9%
16	GENERAL PLANT EXPENSE	11,629,436	1.4%	6,628,779	0.8%	3,954,008	0.5%	3,954,008	0.5%
17	COMMON PLANT DEPRECIATION/AMORTIZATION	24,595,247	2.9%	14,019,291	1.7%	8,362,384	1.0%	8,362,384	1.0%
18	<b>TOTAL DEPRECIATION / AMORTIZATION EXPENSE</b>	<b>157,668,703</b>	<b>18.7%</b>	<b>136,635,534</b>	<b>16.2%</b>	<b>125,385,234</b>	<b>14.9%</b>	<b>125,385,234</b>	<b>14.9%</b>
<b>TAXES OTHER THAN INCOME TAXES (TOIT)</b>									
19	PURCHASED POWER TOIT EXPENSES	-	0.0%	-	0.0%	-	0.0%	-	0.0%
20	TRANSMISSION TOIT EXPENSES	-	0.0%	-	0.0%	-	0.0%	-	0.0%
21	DISTRIBUTION TOIT EXPENSES	59,868,327	7.1%	59,868,327	7.1%	59,868,327	7.1%	59,868,327	7.1%
22	<b>TOTAL TAXES OTHER THAN INCOME</b>	<b>59,868,327</b>	<b>7.1%</b>	<b>59,868,327</b>	<b>7.1%</b>	<b>59,868,327</b>	<b>7.1%</b>	<b>59,868,327</b>	<b>7.1%</b>
23	<b>EARNING BEFORE INTEREST AND INCOME TAXES</b>	<b>\$ 185,824,824</b>	<b>22.1%</b>	<b>\$ 270,369,783</b>	<b>32.1%</b>	<b>\$ 315,591,505</b>	<b>37.5%</b>	<b>\$ 287,016,373</b>	<b>34.1%</b>
24	<b>CHANGE FROM RATE CASE</b>	<b>\$ -</b>		<b>\$ 84,544,958</b>		<b>\$ 129,766,680</b>		<b>\$ 101,191,549</b>	

Source: PECO Energy Company's 2018 Rate Case-Exhibit JD-2-Electric Rate Class Cost of Service Study and UHY PECO Residential Default Rate Recast Analysis Section II, 2.1 (A), Section II, 2.1 (B), and Section II, 2.1 (C).  
Footnotes to this section can be found on Appendix A.

# NRG Exhibit CP-8

Pennsylvania Public Utility Commission  
v.  
PECO Energy Company – Electric Division

Docket No. R-2018-3000164

Response of PECO Energy Company  
To Interrogatories of the  
NRG Energy, Inc.  
NRG Set II  
Response Date: 06/18/2018

NRG-II-2

Reference SDR-RR-6 and 7, showing the monthly kWh Sales by rate schedule for 2017, 2018, and 2019. Please provide a breakout of Electric Distribution Company customers and Electric Generation Supplier kWh Sales by month for 2017, 2018, and 2019 by rate class.

RESPONSE:

Refer to the Company’s response to NRG-I-7 for customer numbers.

Refer to the schedules below for Electric Distribution Company (Retained) actual and budgeted kWh sales by rate class.

PECO Energy Company												
Electric Distribution Company (Retained) Actual Monthly kWh Sales by Rate Schedule												
Year	Month	R	CAP	RH	GS	POL	PD	HT	SL	EP	ID	Total
2017	1	470,066,355	127,980,695	178,505,861	185,613,229	598,021	1,967,379	23,224,657	1,184,603	-	(2,330,788)	986,810,013
2017	2	415,576,041	106,614,644	147,742,418	152,854,571	567,422	1,798,213	28,644,834	1,196,066	-	3,237,411	858,231,620
2017	3	442,512,370	93,353,731	167,251,754	185,168,642	586,328	1,811,879	34,350,028	1,157,664	-	(2,043,048)	924,149,348
2017	4	339,905,492	82,082,023	76,619,845	145,834,456	584,725	1,761,863	25,281,268	1,183,488	-	493,479	673,746,639
2017	5	381,239,196	65,018,656	77,244,332	152,425,744	577,660	1,617,295	31,575,247	1,179,721	-	(6,534)	710,871,317
2017	6	601,127,897	75,716,223	79,777,578	184,566,034	588,527	2,119,948	33,914,660	1,189,051	-	161,361	979,161,279
2017	7	728,091,648	109,219,984	108,565,897	206,926,801	583,339	2,508,496	43,385,146	1,168,434	-	(759,927)	1,199,689,819
2017	8	593,235,381	104,344,737	99,212,073	243,941,441	572,795	2,067,262	32,159,181	1,165,572	-	1,489,979	1,078,188,420
2017	9	495,941,398	81,721,042	78,885,771	109,695,944	585,068	1,826,992	32,964,340	1,143,992	-	585,200	803,349,747
2017	10	401,566,529	75,153,121	82,979,431	178,491,380	575,177	1,760,926	35,011,427	1,160,105	-	429,365	777,127,461
2017	11	410,793,546	68,523,506	120,836,223	152,847,681	575,705	1,520,850	30,630,968	1,112,849	-	(56,009)	786,785,319
2017	12	532,183,500	94,912,905	216,469,207	192,027,105	572,160	1,724,474	46,298,807	1,184,699	-	506,482	1,085,879,339
<b>Annual Total</b>		<b>5,812,239,354</b>	<b>1,084,641,267</b>	<b>1,434,090,390</b>	<b>2,090,393,028</b>	<b>6,966,927</b>	<b>22,485,577</b>	<b>397,440,563</b>	<b>14,026,244</b>	<b>-</b>	<b>1,706,971</b>	<b>10,863,990,321</b>





**PECO Energy Company**  
**Electric Generation Supplier Budgeted Monthly kWh Sales by Rate Schedule**

<b>Year</b>	<b>Month</b>	<b>R</b>	<b>RH</b>	<b>GS</b>	<b>POL</b>	<b>PD</b>	<b>HT</b>	<b>SL</b>	<b>EP</b>	<b>ID</b>	<b>Total</b>
2019	1	341,394,272	137,699,933	559,251,846	870,235	32,631,775	1,188,204,350	13,889,672	58,895,306	3,111,652	2,335,949,039
2019	2	276,711,225	112,247,346	499,424,624	825,309	29,354,182	1,072,332,341	13,745,620	49,631,162	3,111,652	2,057,383,462
2019	3	279,084,780	98,388,938	525,465,018	862,255	30,945,659	1,151,143,584	13,762,682	57,651,646	3,111,652	2,160,416,214
2019	4	236,355,573	61,772,935	472,542,387	833,911	29,005,671	1,097,869,590	13,986,884	50,014,705	3,111,652	1,965,493,307
2019	5	247,897,229	50,889,166	490,305,092	845,557	31,440,910	1,181,051,409	13,933,538	47,881,885	3,111,652	2,067,356,436
2019	6	348,078,732	57,540,213	562,638,434	879,275	33,306,859	1,229,105,319	13,936,981	53,650,190	3,111,652	2,302,247,653
2019	7	436,730,876	64,618,528	604,113,675	933,439	36,697,728	1,356,375,776	13,872,462	54,037,738	3,111,652	2,570,491,872
2019	8	408,685,657	60,968,714	599,846,137	918,239	35,567,466	1,325,851,988	13,921,880	53,210,958	3,111,652	2,502,082,691
2019	9	291,047,443	48,020,700	516,290,995	855,389	32,675,747	1,194,187,552	13,917,568	52,978,972	3,111,652	2,153,086,018
2019	10	248,848,046	52,171,379	483,313,785	844,854	30,634,263	1,162,738,629	13,878,728	52,470,470	3,111,652	2,048,011,805
2019	11	260,523,617	77,404,955	487,847,378	808,527	29,822,387	1,133,676,389	13,890,282	43,555,656	3,111,652	2,050,640,843
2019	12	333,425,427	123,909,859	579,301,123	924,203	30,604,063	1,160,690,585	14,088,098	51,656,069	3,111,652	2,297,711,079
<b>Annual Total</b>		<b>3,708,782,876</b>	<b>945,632,668</b>	<b>6,380,340,495</b>	<b>10,401,193</b>	<b>382,686,709</b>	<b>14,253,227,510</b>	<b>166,824,395</b>	<b>625,634,756</b>	<b>37,339,818</b>	<b>26,510,870,420</b>

Responsible Witness: Phillip S. Barnett

# NRG Exhibit CP-9

PECO Energy Company Recast Residential Rate

Prepared by UHY Advisors, Inc.

Section II - Default Service (Price To Compare)

2.1 (A) - Allocation Method A - Buildup of Recast Expenses (Allocation - Sales Revenues)

For the Fully Projected Future Test Year Ending December 31, 2019

Line	Description	PECO Energy Company Total Residential Customer Class [e]	Residential Default Service Revenues / Total Residential Revenues [o]	Allocated to Residential Distribution Service
1	Allocation Factor - Sales Revenues		43%	
	<b>Expenses to be Allocated:</b>			
2	Customer Service Expenses	\$ 10,857,163	\$ 4,668,580	\$ 6,188,583
3	Sales Expenses	793,507	341,208	452,299
4	Administrative & General Expenses	136,051,164	58,502,001	77,549,164
	Depreciation & Amortization Expenses			
5	Intangible Plant Expense	12,689,664	5,456,555	7,233,108
6	General Plant Expense	11,629,436	5,000,658	6,628,779
7	Common Plant Depreciation/Amortization	24,595,247	10,575,956	14,019,291
8	<b>Total</b>	<b>\$ 196,616,182</b>	<b>\$ 84,544,958</b>	<b>\$ 112,071,224</b>
9	Percent of Total	100.0%	43.0%	57.0%

Conversion of Increase in Allocation into Cents / Kilowatt Hours (kWh's)

Line	Description	Total Recast Allocation to Default Service
10	Total Increase in Allocation to Default Service	\$ 84,544,958
11	÷ Total annual kWh's for Default Residential Customers [q]	8,585,439,745
12	Increase in Allocation to Default Service per kWh	\$ 0.009847
13	÷ Adjusted for Gross Receipts Tax Factor (1 - GRT Rate) @ 5.90% - See Section II, 2.1	94.10%
14	<b>Recast Expenses to Residential Default Service (\$ per kWh)</b>	<b>\$ 0.010465</b>
15	Recast to Residential Default Service (¢ per kWh)	¢ 1.046491
16	<b>Total Recast Expenses to Residential Default Service (¢ per kWh, Rounded)</b>	<b>¢ 1.05</b>

[o] Expenses previously allocated to Distribution Service were recast to Default Service as a percentage of residential default service sales over total residential revenues for PECO Energy Company. The formula is as follows:  $\$636,874,322 / \$1,479,541,214 = 43\%$  (rounded to the closest 1%).

Footnotes to this section can be found on Appendix A.

# NRG Exhibit CP-10

Pennsylvania Public Utility Commission  
v.  
PECO Energy Company – Electric Division

Docket No. R-2018-3000164

Response of PECO Energy Company  
To Interrogatories of the  
NRG Energy, Inc.  
NRG Set I  
Response Date: 05/31/2018

NRG-I-7

Reference SDR-RR-4 and 5, showing the monthly customers by rate schedule for 2017, 2018, and 2019. Please provide a breakout of Electric Distribution Company customers and Electric Generation Supplier customers by month for 2017, 2018, and 2019 by rate class.

RESPONSE:

PECO does not forecast its total number of customers broken out between electric distribution customers that do not receive service from electric generation suppliers (“EGSs”) and those that receive service from EGSs. Therefore, this information cannot be provided for the years 2018 and 2019. For 2017, please refer to the two tables below that show respectively: (a) electric distribution customers that did not receive service from EGSs; and (2) electric distribution customer that received service from EGSs.

**PECO Energy Company**  
**Electric Distribution Company Customer Numbers**

Year	Month	R	CAP	RH	GS	POL	PD	HT	SL	EP	Total*
2017	1	718,079	131,708	103,615	77,563	1,746	57	188	2,121	-	1,033,331
2017	2	720,118	130,598	104,017	77,802	1,735	60	209	2,212	-	1,035,016
2017	3	720,866	129,930	104,282	78,028	1,731	61	207	2,099	-	1,035,473
2017	4	723,207	129,636	104,849	78,328	1,729	59	207	2,100	-	1,038,386
2017	5	725,425	129,121	105,505	78,513	1,723	61	220	2,098	-	1,040,943
2017	6	728,842	127,897	106,136	78,788	1,712	61	226	2,098	-	1,044,048
2017	7	732,166	126,343	107,018	78,900	1,704	58	214	2,097	-	1,046,796
2017	8	737,816	125,222	108,210	79,271	1,697	62	214	2,111	-	1,052,906
2017	9	742,462	123,840	108,899	79,592	1,695	61	218	2,109	-	1,057,181
2017	10	746,014	122,799	109,378	79,932	1,699	59	225	2,108	-	1,060,515
2017	11	750,016	121,149	110,072	80,495	1,691	56	232	2,116	-	1,064,136
2017	12	754,180	119,604	110,713	81,376	1,699	58	233	2,121	-	1,068,285

\* Total customers do not include POL customers to avoid double counting, as POL customers are also GS customers

**PECO Energy Company**  
**Electric Generation Supplier Customer Numbers**

Year	Month	R	CAP	RH	GS	POL	PD	HT	SL	EP	Total*
2017	1	440,246	-	64,673	72,691	893	405	2,440	7,689	5	588,149
2017	2	440,393	-	64,566	72,564	891	401	2,431	7,583	5	587,943
2017	3	441,826	-	64,758	72,552	894	399	2,433	7,694	5	589,667
2017	4	440,372	-	64,364	72,328	894	399	2,436	7,692	5	587,596
2017	5	437,933	-	63,709	72,088	889	395	2,430	7,693	5	584,253
2017	6	435,857	-	63,199	71,995	892	394	2,424	7,692	5	581,566
2017	7	432,782	-	62,195	71,847	895	396	2,431	7,691	5	577,347
2017	8	430,254	-	61,576	71,612	889	393	2,436	7,676	5	573,952
2017	9	427,580	-	61,125	71,372	886	393	2,440	7,551	5	570,466
2017	10	426,411	-	60,925	71,144	883	393	2,434	7,552	5	568,864
2017	11	425,560	-	60,759	70,869	884	394	2,430	7,472	5	567,489
2017	12	424,846	-	60,573	70,176	872	392	2,429	7,443	5	565,864

\* Total customers do not include POL customers to avoid double counting, as POL customers are also GS customers

Responsible Witness: Phillip S. Barnett

# NRG Exhibit CP-11



PECO Energy Company Recast Residential Rate

Prepared by UHY Advisors, Inc.

Section II - Default Service (Price To Compare)

2.1 (B) - Allocation Method B - Buildup of Recast Expenses (Allocation - Customers)

For the Fully Projected Future Test Year Ending December 31, 2019

Line	Description	PECO Energy Company Total Residential Customer Class [e]	Default Residential Customers / Total Residential Customers [r]	Allocated to Residential Distribution Service
1	<b>Allocation Factor - Customers</b>		<b>66%</b>	
	<b>Expenses to be Allocated:</b>			
2	Customer Service Expenses	\$ 10,857,163	\$ 7,165,728	\$ 3,691,435
3	Sales Expenses	793,507	523,715	269,792
4	Administrative & General Expenses	136,051,164	89,793,768	46,257,396
	Depreciation & Amortization Expenses			
5	Intangible Plant Expense	12,689,664	8,375,178	4,314,486
6	General Plant Expense	11,629,436	7,675,428	3,954,008
7	Common Plant Depreciation/Amortization	24,595,247	16,232,863	8,362,384
8	<b>Total</b>	<b>\$ 196,616,182</b>	<b>\$ 129,766,680</b>	<b>\$ 66,849,502</b>
9	Percent of Total	100.0%	66.0%	34.0%

Conversion of Increase in Allocation into Cents / Kilowatt Hours

Line	Description	Total Recast Allocation to Default Service
10	Total Increase in Allocation to Default Service	\$ 129,766,680
11	÷ Total annual kWh's for Default Residential Customers [q]	8,585,439,745
12	Increase in Allocation to Default Service per kWh	\$ 0.015115
13	÷ Adjusted for Gross Receipts Tax Factor (1 - GRT Rate) @ 5.90% - See Section II, 2.1	94.10%
14	<b>Recast Expenses to Residential Default Service (\$ per kWh)</b>	<b>\$ 0.016062</b>
15	Recast to Residential Default Service (¢ per kWh)	¢ 1.606242
16	<b>Total Recast Expenses to Residential Default Service (¢ per kWh, Rounded)</b>	<b>¢ 1.61</b>

[r] Expenses previously allocated to Distribution Service were recast to Default Service as a percentage of residential default service customers over total residential customers for PECO Energy Company. The formula is as follows:  $1,022,911 / 1,559,534 = 66\%$  (rounded to the closest 1%).

Footnotes to this section can be found on Appendix A.

# NRG Exhibit CP-12

PECO Energy Company Recast Residential Rate

Prepared by UHY Advisors, Inc.

Section II - Default Service (Price To Compare)

2.1 (C) - Allocation Method C - Buildup of Recast Expenses (Allocation - Hybrid)

For the Fully Projected Future Test Year Ending December 31, 2019

Line Description	PECO Energy Company Total Residential Customer Class [e]	Allocation Basis to Default Service		Total Recast Allocation to Default Service	Remaining Expenses Allocated to Residential Distribution Service
		Residential Default Service Revenues / Total Residential Revenues [o]	Default Residential Customers / Total Residential Customers [r]		
1 Allocation Factor - Hybrid		43%	66%		
<b>Expenses to be Allocated:</b>					
2 Customer Service Expenses	\$ 10,857,163	\$ -	\$ 7,165,728	\$ 7,165,728	\$ 3,691,435
3 Sales Expenses	793,507	-	523,715	523,715	269,792
Administrative & General Expenses [s]					
4 Compensation, Outside Services, and Regulatory Expenses	124,239,702	53,423,072	-	53,423,072	70,816,630
5 Maintenance, Insurance, and Damages Expense	11,811,463	-	7,795,565	7,795,565	4,015,897
Depreciation & Amortization Expenses					
6 Intangible Plant Expense	12,689,664	-	8,375,178	8,375,178	4,314,486
7 General Plant Expense	11,629,436	-	7,675,428	7,675,428	3,954,008
8 Common Plant Depreciation/Amortization	24,595,247	-	16,232,863	16,232,863	8,362,384
9 Total	<u>\$ 196,616,182</u>	<u>\$ 53,423,072</u>	<u>\$ 47,768,477</u>	<u>\$ 101,191,549</u>	<u>\$ 95,424,633</u>
10 Percent of Total	100.0%			51.5%	48.5%

Conversion of Increase in Allocation into Cents / Kilowatt Hours

Line Description	Total Recast Allocation to Default Service
11 Total Increase in Allocation to Default Service	\$ 101,191,549
12 ÷ Total annual kWh's for Default Residential Customers [q]	8,585,439,745
13 Increase in Allocation to Default Service per kWh	\$ 0.011786
14 ÷ Adjusted for Gross Receipts Tax Factor (1 - GRT Rate) @ 5.90% - See Section II, 2.1	94.10%
15 Recast Expenses to Residential Default Service (\$ per kWh)	<u>\$ 0.012525</u>
16 Recast to Residential Default Service (c per kWh)	c 1.252541
17 Total Recast Expenses to Residential Default Service (c per kWh, Rounded)	<u>c 1.25</u>

[o] Expenses previously allocated to Distribution Service were recast to Default Service as a percentage of residential default service sales over total sales revenues for PECO Energy Company. The formula is as follows:  $\$636,874,322 / \$1,479,541,214 = 43\%$  (rounded to the closest 1%).

[r] Expenses previously allocated to Distribution Service were recast to Default Service as a percentage of residential default service customers over total residential customers for PECO Energy Company. The formula is as follows:  $1,022,911 / 1,559,534 = 66\%$  (rounded to the closest 66%).

Footnotes to this section can be found on Appendix A.

# NRG Exhibit CP-13

PECO Energy Company Recast Residential Rate

Prepared by UHY Advisors, Inc.

Section II - Default Service (Price To Compare)

2.1 - Actual vs Recast Price-To-Compare & Summary of Allocation Methods

Rates Effective as of June 2017 through August 2017

Line	Residential Class - Rate R Generation Charge = C Factor + E Factor + Administrative Cost Factor + Working Capital Factor + AEPS Factor	PECO Energy Company's		UHY Recast		UHY Recast		UHY Recast	
		Published Price-To Compare Figures	Price-To-Compare Allocation Method A [g]	Price-To-Compare Allocation Method B [h]	Price-To-Compare Allocation Method C [i]				
1	Default Supplier Full Requirements Costs	c 3.807	c 3.807	c 3.807	c 3.807	c 3.807	c 3.807	cents / kWh	
2	Block Energy Costs	-	-	-	-	-	-	cents / kWh	
3	Spot Market Energy Costs	1.546	1.546	1.546	1.546	1.546	1.546	cents / kWh	
4	Capacity, Ancillary Service and Misc Costs	0.639	0.639	0.639	0.639	0.639	0.639	cents / kWh	
5	Subtotal, Line 5 = Line 1 + Line 2 + Line 3 + Line 4	5.992	5.992	5.992	5.992	5.992	5.992	cents / kWh	
6	Multiplied by Overall Line Loss Factor Ratio [j]	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000		
7	Subtotal, Line 7 = Line 5 X Line 6	5.99	5.99	5.99	5.99	5.99	5.99	cents / kWh	
8	Multiplied by Adjustment Factor for Gross Receipts Tax, 1 / (1 - T), T = 5.90%	1.0627	1.0627	1.0627	1.0627	1.0627	1.0627		
9	C Factor, Line 9 = Line 7 X Line 8 [k]	6.368	6.368	6.368	6.368	6.368	6.368	cents / kWh	
10	E Factor - Reconciliation [l]	(0.032)	(0.032)	(0.032)	(0.032)	(0.032)	(0.032)	cents / kWh	
11	Administrative Cost Factor [l]	-	-	-	-	-	-	cents / kWh	
12	Total Recast Expense to Residential Default Service [m]	-	1.046	1.606	1.253			cents / kWh	
13	Working Capital Factor [l]	0.034	0.034	0.034	0.034	0.034	0.034	cents / kWh	
14	AEPS Factor [l]	0.049	0.049	0.049	0.049	0.049	0.049	cents / kWh	
15	Generation Charge, Line 15 = Line 9 + Line 10 + Line 11 + Line 13 + Line 14	¢ 6.419	¢ 7.465	¢ 8.025	¢ 7.671			cents / kWh	
	<b>PTC = Generation Charge + Transmission Charge</b>								
16	Generation Charge, from Line 15	¢ 6.419	¢ 7.465	¢ 8.025	¢ 7.671			cents / kWh	
17	Transmissions Charge [n]	0.688	0.688	0.688	0.688			cents / kWh	
18	Residential Class (Rate R) PTC, Line 18 = Line 16 + Line 17	¢ 7.107	¢ 8.153	¢ 8.713	¢ 8.359			cents / kWh	
19	Change from Published Rate	¢ -	¢ 1.05	¢ 1.61	¢ 1.25			cents / kWh	

Source: PECO Energy Company's Price to Compare (PTC) Sample Calculation Methodology and Sample Calculation for the Residential Class as of June 2017 - August 2017 and UHY PECO Residential Default Rate Recast Analysis Section II, 2.1 (A), Section II, 2.1 (B), and Section II, 2.1 (C).  
Footnotes to this section can be found on Appendix A.

# NRG Exhibit CP-14

## Appendix B - Detail of Customer Service and Sales Expenses - As Presented by PECO

For the Fully Projected Future Test Year Ending December 31, 2019

Line Description	PECO Energy Company Budget for 2019 FPFTY [ae]	Adjustments for Energy Efficiency and Conservation Costs [af]	PECO Energy Company Total Electric Division [ag]	Service Type	
				Default Service (Price-To-Compare) [ah]	Distribution Service (All Customers) [ai]
<b>CUSTOMER SERVICE EXPENSES</b>					
1 907-Supervision	\$ -		\$ -	\$ -	\$ -
2 908-Customer Assistance	99,761,784	(88,734,240)	11,027,544	-	11,027,544
3 909-Informational Advertisement	885,362	-	885,362	-	885,362
4 910-Miscellaneous Customer Service	149,402	226	149,402	-	149,402
5 <b>TOTAL CUSTOMER SERVICE EXPENSE</b>	<b>\$ 100,796,548</b>	<b>\$ (88,734,014)</b>	<b>\$ 12,062,308</b>	<b>\$ -</b>	<b>\$ 12,062,308</b>
<b>SALES EXPENSES [aj]</b>					
6 912-Demonstrating & Selling	\$ 883,197	\$ -	\$ 883,197	\$ -	\$ 883,197
7 916-Miscellaneous Sales	-	-	-	-	-
8 <b>TOTAL SALES EXPENSES</b>	<b>\$ 883,197</b>	<b>\$ -</b>	<b>\$ 883,197</b>	<b>\$ -</b>	<b>\$ 883,197</b>

Sources: PECO Energy Company's 2018 Rate Case-Exhibit BSY-1-Principal Accounting Exhibit Fully Projected Future Test Year (FPFTY) Ending December 31, 2019 and Exhibit JD-2-Electric Rate Class Cost of Service Study

[ae] FPFTY budgeted figures are from PECO Energy Company's 2015 Rate Case-Exhibit SY-1.

[af] The adjustment to budgeted Customer Assistance is presented in Exhibit BSY-1, Schedule D-4, Line 78. The fully projected gross expense for Account 908 is \$99.726 million.

[ag] Represents the entire operation of PECO Energy Company for the fully projected test year ending December 31, 2019.

[ah] The charges appearing on a PECO bill that are included in this allocation are "Generation charges" and "Transmission charges". Exhibit JD-2 of PECO Energy Company's 2018 Rate Case names the business lines included in this column as "Purchased Power" and "Transmission".

[ai] The charges appearing on a PECO bill that are included in this allocation are "Customer charge" (fixed per bill) and "Distribution charges" (variable per kWh). Exhibit JD-2 of PECO Energy Company's 2018 Rate Case names the business line included in this column as "Distribution".

[aj] All detail regarding sales expenses are from Exhibit BSY-1. These expenses are presented net of minor adjustments performed by PECO (\$18,000 upward adjustment to Demonstrating & Selling expenses) which are found on Exhibit BSY-1.

## Appendix B - Detail of Administrative and General Expense - As Presented by PECO

For the Fully Projected Future Test Year Ending December 31, 2019

Line Description	PECO Energy Company Total Electric Division [ag]	Service Type	
		Default Service (Price-To-Compare) [ah]	Distribution Service (All Customers) [ai]
<b>ADMINISTRATIVE &amp; GENERAL EXPENSE</b>			
1 920-Administrative Salaries	\$ 40,687,310	\$ -	\$ 40,687,310
2 921-Office Supplies & Expense	8,660,411	-	8,660,411
3 923-Outside Service Employed	78,834,579	-	78,834,579
4 923-Outside Service Employed-AMI Related Costs [ak]	-	-	-
5 924-Property Insurance	184,585	-	184,585
6 925-Injuries and Damages	9,903,997	-	9,903,997
7 926-Employee Pensions & Benefits	32,617,718	-	32,617,718
8 928-Regulatory Commission	12,684,301	-	12,684,301
9 929-Duplicate Charges-Credit	(1,496,458)	-	(1,496,458)
10 930.2-Miscellaneous General	3,013,096	-	3,013,096
11 932-Maintenance of General Plant	6,565,935	-	6,565,935
12 <b>TOTAL ADMINISTRATIVE &amp; GENERAL EXPENSE</b>	<b>\$ 191,655,473</b>	<b>\$ -</b>	<b>\$ 191,655,473</b>

Source: PECO Energy Company's 2018 Rate Case-Exhibit JD-2-Electric Class Cost of Service Study.

[ag] Represents the entire operation of PECO Energy Company for the fully projected test year ending December 31, 2019.

[ah] The charges appearing on a PECO bill that are included in this allocation are "Generation charges" and "Transmission charges". Exhibit JD-2 of PECO Energy Company's 2018 Rate Case names the business lines included in this column as "Purchased Power" and "Transmission".

[ai] The charges appearing on a PECO bill that are included in this allocation are "Customer charge" (fixed per bill) and "Distribution charges" (variable per kWh). Exhibit JD-2 of PECO Energy Company's 2018 Rate Case names the business line included in this column as "Distribution".

[ak] AMI = Advanced Metering Infrastructure.



# NRG Exhibit CP-15

Pennsylvania Public Utility Commission  
v.  
PECO Energy Company – Electric Division

Docket No. R-2018-3000164

Response of PECO Energy Company  
To Interrogatories of the  
NRG Energy, Inc.  
NRG Set I  
Response Date: 05/31/2018

NRG-I-1

Reference PECO Exhibit BSY-1, Schedule D-3, page 2 of 2, line 64. Please provide detail, including all supporting documents and calculations, of the \$88,776,000 (or \$88,775,984.8869887 per IE-I-RS-1-D(c)) reduction to Total Customer Service & Information related to the Energy Efficiency Program, as categorized by the respective FERC accounts.

RESPONSE:

Refer to the table below for additional details related to the expenses related to PECO's Energy Efficiency Program for the FPPTY, which have been removed from its base rate revenue requirement:

<b>PECO Energy</b>	
<b>Act 129 EE Programs - Phase III</b>	
<b>2019 Budget</b>	
	<u><b>\$000</b></u>
<b>Equipment, Systems &amp; New Construction Solutions</b>	\$ 16,191
<b>Lighting, Appliance and HVAC Solutions</b>	9,228
<b>Low Income Solutions</b>	7,335
<b>Whole Home and Building Solutions</b>	8,026
<b>Appliance Recycling Solutions</b>	1,851
<b>Behavioral Solutions</b>	4,460
<b>Combined Heat &amp; Power Program</b>	9,053
<b>Demand Response Programs</b>	7,278
<b>Education, Awareness &amp; Marketing</b>	10,846
<b>Support Services</b>	14,508
	<u><b>\$88,776</b></u>

Responsible Witness: Benjamin S. Yin

# NRG Exhibit CP-16

Pennsylvania Public Utility Commission  
v.  
PECO Energy Company – Electric Division

Docket No. R-2018-3000164

Response of PECO Energy Company  
To Interrogatories of the  
NRG Energy, Inc.  
NRG Set I  
Response Date: 05/31/2018

NRG-I-2

Reference PECO Exhibit MK-6 at page 1 of 7, line 1 showing the \$12.50 Customer Charge under PROPOSED RATES.

- A. Please provide the calculation, including all background support, used to derive the exact \$12.50 rate or \$12.4999999038886 as provided in IE-I-RS-4-D(a).
- B. Please identify by type and amount the specific costs which are being recovered in whole or in part by the \$12.50 rate or \$12.4999999038886 as provided in IE-I-RS-4-D(a).

RESPONSE:

- A. The proposed \$12.50 customer charge is not based on a “calculation.” The Company calculated the customer costs that are recoverable in the customer charge as set forth in the response to OCA-I-3 and Attachment OCA-I-3(a), which are \$15.47 and \$15.92 for rate classes R and RH, respectively. The proposed customer charge of \$12.50 was designed to increase the level of customer-related costs recovered in the customer charge giving consideration to the relatively low customer charge under PECO’s current rates and the level of customer charges of other Pennsylvania electric distribution companies, as shown on PECO Exhibit MK-3.
- B. Refer to the Company’s response to OCA-I-3.

Responsible Witness: Mark Kehl

# NRG Exhibit CP-17

Calculation of Distribution Rate Adjustment per kilowatt hour

Line Description	Allocation Method		
	A	B	C
1 Total Distribution Expenses Reallocated to Price To Compare [u]	\$84,544,958	\$129,766,680	\$101,191,549
2 ÷ Total annual kWh's for Residential Customers [v]	13,239,855,417	13,239,855,417	13,239,855,417
3 Reduction to Distribution Revenues (\$ per kWh)	\$0.00639	\$0.00980	\$0.00764
4 Reduction to Distribution Revenues (c per kWh)	c0.6386	c0.9801	c0.7643

Adjustment to Proposed Distribution Rates

Distribution Rate Detail for Residential (R) and Residential Heating (RH) Rate Classes

Description	Bills	PROPOSED RATES		METHOD A ADJUSTED		METHOD B ADJUSTED		METHOD C ADJUSTED	
		Rate	Revenue	Rate	Revenue	Rate	Revenue	Rate	Revenue
5 Customer Charges (Fixed) [y]									
6 Rate	17,854,459	\$ 12.50	\$ 223,180,736	\$ 12.50	\$ 223,180,736	\$ 12.50	\$ 223,180,736	\$ 12.50	\$ 223,180,736
7 Second Meter	859,944	\$ 1.94	\$ 1,668,291	\$ 1.94	\$ 1,668,291	\$ 1.94	\$ 1,668,291	\$ 1.94	\$ 1,668,291
8 Total Customer Charges	18,714,403		\$ 224,849,027		\$ 224,849,027		\$ 224,849,027		\$ 224,849,027
kWh-Based rates (Variable)	kWh	Rate	Revenue	Rate [z]	Revenue	Rate [aa]	Revenue	Rate [ab]	Revenue
9 Rate R	10,518,755,417	\$ 0.06115	\$ 643,221,894	\$ 0.05476	\$ 576,052,902	\$ 0.05135	\$ 540,125,302	\$ 0.05351	\$ 562,827,575
10 Rate RH Jun - Sept	665,139,000	\$ 0.06115	\$ 40,673,250	\$ 0.05476	\$ 36,425,911	\$ 0.05135	\$ 34,154,079	\$ 0.05351	\$ 35,589,626
11 Rate RH Oct - May	2,055,961,000	\$ 0.04696	\$ 96,547,929	\$ 0.04057	\$ 83,419,301	\$ 0.03716	\$ 76,397,011	\$ 0.03932	\$ 80,834,322
12 Total Distribution Charges	13,239,855,417		\$ 780,443,072		\$ 695,898,114		\$ 650,676,392		\$ 679,251,523
13 CAP Discounts, Load Reduction, and Annualization [ac]			\$ (87,026,633)		\$ (87,026,633)		\$ (87,026,633)		\$ (87,026,633)
14 Total Distribution Revenue (Line 8 + Line 12 + Line 13)			\$ 918,265,466		\$ 833,720,508		\$ 788,498,786		\$ 817,073,918
15 Total Change from Proposed Amount [ad]					\$ 84,544,958		\$ 129,766,680		\$ 101,191,549

Source: PECO Energy Company's 2018 Rate Case-Exhibit MK-6-Proof of Revenues at Present and Proposed Rates.

Footnotes to this section can be found on Appendix A.

# NRG Exhibit CP-18

Section III - Distribution Service

3.1 Summary of Impact on Distribution Revenues - Analysis of Reallocated Distribution Service Expenses

For the Projected Future Test Year Ending December 31, 2019

Line Description	Proposed	Allocation Method		
		A	B	C
1 Total Implied 2019 Distribution Service Revenue Based on Proposed Rates [t]	\$ 918,265,466			
2 Total Distribution Service Expenses Reallocated to Price To Compare [u]		\$84,544,958	\$129,766,680	\$101,191,549
3 + Total annual kWh's for Residential Customers [v]		13,239,855,417	13,239,855,417	13,239,855,417
4 Reduction to Distribution Service Expenses (\$ per kWh)		\$0.00639	\$0.00980	\$0.00764
5 Reduction to Distribution Service Expenses (¢ per kWh)		¢0.639	¢0.980	¢0.764
6 Total Reduction as a Percentage of Total Proposed Distribution Service Revenue (Line 1 ÷ Line 3)		9.21%	14.13%	11.02%
<b>Reduction of Distribution Service Expense Reallocation by Customer Class: [w]</b>				
	% of Total			
7 Reduction for all Electric Generation Supplier Customers	34.4%	\$29,091,239	\$44,651,669	\$34,819,197
8 Reduction for All Default Service Customers	65.6%	\$55,453,719	\$85,115,011	\$66,372,352
9 Total	100.0%	\$84,544,958	\$129,766,680	\$101,191,549
<b>Distribution Service Expense Reallocation by Monthly Usage:</b>				
	kWh Usage			
10 Monthly Reduction to Distribution Service Expense	500	\$3.19	\$4.90	\$3.82
11 Monthly Reduction to Distribution Service Revenue	750	\$4.79	\$7.35	\$5.73
12 Monthly Reduction to Distribution Service Revenue	1,000	\$6.39	\$9.80	\$7.64
13 Monthly Reduction to Distribution Service Revenue	2,000	\$12.77	\$19.60	\$15.29
<b>Distribution Service Expense Reallocation by Billings:</b>				
	# of Bills (Annual)			
14 Reduction to Distribution Service Revenue per Bill - See Section III, 3.2	18,714,403	\$4.52	\$6.93	\$5.41
15 Annual Reduction to Distribution Service Revenue per Customer [x]		\$54.21	\$83.21	\$64.89

707.47

Source: PECO Energy Company's 2018 Rate Case-Exhibit MK-6-Proof of Revenues at Present and Proposed Rates.  
Footnotes to this section can be found on Appendix A.