

BEFORE THE
PENNSYLVANIA PUBLIC UTILITY COMMISSION

PENNSYLVANIA PUBLIC UTILITY	:	
COMMISSION	:	
	:	DOCKET NO. R-2014-2428743
v.	:	
	:	
PENNSYLVANIA ELECTRIC COMPANY :	:	

SURREBUTTAL TESTIMONY
OF
CLARENCE L. JOHNSON

ON BEHALF OF THE
PENNSYLVANIA OFFICE OF CONSUMER ADVOCATE

JANUARY 6, 2015

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1 **I. INTRODUCTION**

2 **Q. PLEASE STATE YOUR NAME AND ADDRESS.**

3 A. My name is Clarence L. Johnson. My business address is 816 Congress Avenue, Suite
4 1900, Austin, Texas 78701.

5 **Q. ARE YOU THE SAME CLARENCE L. JOHNSON WHO SUBMITTED DIRECT**
6 **AND REBUTTAL TESTIMONY IN THIS PROCEEDING ON BEHALF OF THE**
7 **OFFICE OF CONSUMER ADVOCATE?**

8 A. Yes.

9 **Q. WHAT IS THE PURPOSE OF YOUR SURREBUTTAL TESTIMONY?**

10 A. My testimony will respond to rebuttal testimony of Company witnesses Ms. Stewart and
11 Mr. Siedt, and the following intervenor witnesses: Mr. Kalcic and Mr. Knecht, on behalf
12 of the Office of Small Business Advocate (“OSBA”), Mr. Baudino, on behalf of
13 AKSteel, and Mr. Pollock on behalf of industrial intervenors (“WPPII”, “PICA,” and
14 ”MEIUG”). My rebuttal testimony’s omission of any subject addressed by an intervenor
15 or Company witness’ testimony should not be construed as agreement with the witness’
16 testimony.

17 **Q. PLEASE DESCRIBE HOW YOU ADDRESSED THE VARIOUS WITNESSES’**
18 **TESTIMONY AS IT AFFECTS THE FOUR FIRSTENERGY (FE) COMPANIES**
19 **REQUESTING A RATE INCREASE.**

20 A. Like my direct and rebuttal testimony, the surrebuttal testimony will address issues which
21 are common to all four FE companies. If numerical values are specific to each utility, the
22 values will be presented in a manner which clearly identifies the associated company.
23 Most of the witnesses filed testimony addressing issues common to all of the companies.

1 Issues which are specific to a company will be addressed and identified separately.
2 Given the number of witnesses and companies, I grouped positions advocated by multiple
3 witnesses together in order to facilitate an orderly response to those issues.

4 **Q. CAN YOU SUMMARIZE YOUR CONCLUSIONS?**

5 A. Yes. My conclusions are summarized below.

- 6 • Criticisms of my recommendation to reject the minimum distribution system fail to
7 evaluate the flaws in the Companies' methodology.
- 8 • I disagree with the Companies' revision to the adjustment I made to the minimum
9 grid study for demand-related devices.
- 10 • My alternative CCOS study recommendation, which reduces the percent of
11 distribution infrastructure classified as customer-related, is a reasonable middle
12 ground if the Commission is reluctant to classify distribution infrastructure on a 100%
13 demand basis as suggested by my primary recommendation.
- 14 • Mr. Siedt's rebuttal of my customer charge recommendation should be rejected.
- 15 • Mr. Siedt's rebuttal of my recommendation on Met-Ed Rate RT is based on an
16 erroneous view of the impact on Rate RS.
- 17 • My West Penn CCOS study and revenue allocation is revised in response to changes
18 made by West Penn witness Stewart.

19 **II. MINIMUM DISTRIBUTION COSTS IN THE CLASS COST OF SERVICE**
20 **(CCOS) STUDY**

21 ***A. MY CRITICISM OF THE MINIMUM DISTRIBUTION METHOD***

22 **Q. YOUR PRIMARY RECOMMENDATION IS TO REJECT THE COMPANIES'**
23 **USE OF A MINIMUM DISTRIBUTION SYSTEM TO CLASSIFY**
24 **DISTRIBUTION INFRASTRUCTURE COSTS AS CUSTOMER-RELATED. DID**
25 **ANY REBUTTAL WITNESSES DISAGREE WITH YOUR POSITION?**

26 A. Yes. Ms. Stewart, Mr. Pollock, Mr. Baudino, Mr. Knecht, and Mr. Kalcic all filed
27 testimony disagreeing with my recommendation to reject the minimum distribution study
28 (called a "minimum grid study" by the Companies) and classify basic jointly used

1 distribution infrastructure on a demand basis. Mr. Knecht and Ms. Stewart were the only
2 witnesses who attempted to address any of the detailed flaws in the Companies'
3 minimum distribution study identified in my testimony. In addition, as I will discuss
4 later, my direct testimony presented an alternative recommendation which revised the
5 customer classification percentage based on modification of the Companies' minimum
6 distribution studies. Only Mr. Knecht and Ms. Stewart addressed this alternative.

7 **Q. IS THERE A COMMON PROBLEM WITH THESE CRITICISMS?**

8 A. Yes. The witnesses assume that any factor affecting the incurrence of distribution
9 infrastructure which is not fully demand-related must be customer-related. My direct
10 testimony acknowledges that many factors affect the incurrence of distribution costs
11 which are not completely caused by demand. The lists of factors can be quite long:
12 geographic circumstance, topology, soil conditions, location of roads and highways,
13 economies of scale, customer density, load forecasting uncertainty, safety standards,
14 minimization of energy losses, corporate standards, etc. But it is incorrect to take the cost
15 impacts of these factors and dump them in the bin of customer costs solely because they
16 are not directly linked to demand. There is no attempt by the witnesses to demonstrate
17 that the supposed non-demand costs actually vary in proportion to customer count.

18 Some of these factors, in my opinion, are closer to demand causation than
19 customer causation. For example, economies of scale motivate a utility to install larger
20 facilities, which facilitates serving future load growth and reducing energy losses. Future
21 load growth is related to demand, and reduction of energy losses benefits customers in
22 proportion to their demand and energy consumption. And some of the factors are
23 unrelated to any allocation basis. Although the rebuttal witnesses like to cite the NARUC

1 Electric Utility Allocation Manual, they do not recognize that the Manual defines
2 customer costs as “costs that are directly related to the number of customers served.”¹
3 Professor Bonbright observed that the cost analyst preparing a fully distributed cost of
4 service study is “under impelling pressure to ‘fudge’ his cost apportionments by using the
5 category of customer costs as a dumping ground for costs that he cannot plausibly impute
6 to any of his other categories.”² To the extent that a portion of distribution costs are not
7 directly allocable, my proposal is to classify the costs as demand-related because, first,
8 the remaining allocable costs are principally demand related; and, second, the customer
9 allocator is not an equitable methodology for apportioning unallocable costs, because of
10 the degree that it shifts costs to one class (residential). The Companies allocate the vast
11 majority of jointly used distribution plant on a customer basis, As a result, the smallest
12 apartment dweller is allocated the same amount of cost for that portion of distribution
13 facilities as a manufacturer or large commercial customer who uses vast quantities of
14 power.

15 **Q. COMPANIES’ WITNESS STEWART CONCEDES THAT THE MINIMUM GRID**
16 **IS, IN PART, A FUNCTION OF GEOGRAPHIC SIZE, BUT THAT**
17 **GEOGRAPHIC SIZE IS A FUNCTION OF THE NUMBER OF CUSTOMERS**
18 **THAT HAVE TO BE CONNECTED TO THE SYSTEM. DO YOU AGREE WITH**
19 **HER ARGUMENT?**

20 **A.** No. This is an example of the attempts to attribute customer causation to unallocable
21 factors. Distribution utilities are awarded a monopoly to provide distribution service
22 within a defined geographic area. The shape and size of the geographic area obviously

¹ NARUC Electric Utility Cost Allocation Manual at 20 (emphasis added).

² Bonbright, James, *Principles of Public Utility Rates*, at 349, Columbia University Press, 1961.

1 influences the design of the system and the costs of installing facilities. Facilities
2 installed near the jurisdictional border of another utilities' service area may have different
3 cost and service characteristics than facilities installed in the center of the network, as just
4 one example. These are circumstances inherent in the monopoly service area, and are not
5 "caused" by customers. I am not sure I understand the claim that the geographic area is
6 dependent on the number of customers. I assume that this contention means the utility is
7 required to provide facilities for customers, regardless of their location in the service
8 area. In my view, this is part of the "obligation to serve" which accompanies a monopoly
9 franchise, not a customer cost. Ms. Stewart states that the determining factor is the
10 "presence of customers who must be connected to the grid, not the demand on the
11 system..." However, customers who have no demand for electricity would have no need
12 to be connected to the system. The presence of a customer creates a demand which must
13 be carried by the distribution system. This in no way proves that minimum grid costs
14 vary in direct relation to the number of customers.

15 **Q. MR. POLLOCK DISPLAYS A PICTURE DIAGRAM TO DEMONSTRATE**
16 **THAT A LARGE INDUSTRIAL CUSTOMER MAY BE CHEAPER TO SERVE**
17 **THAN AN AGGREGATION OF MANY SMALL CUSTOMERS WITH AN**
18 **EQUIVALENT DEMAND. DOES THIS PROVE THAT A MINIMUM SYSTEM**
19 **IS JUSTIFIED?**

20 **A.** No. A picture is not a substitute for empirical evidence that the minimum distribution
21 system costs directly vary with the number of customers. Mr. Pollock attempts to portray
22 that the miles of lines and poles must be longer for the aggregation of customers than a
23 single large customer. Setting aside that Mr. Pollock's contention is based on how he

1 chooses to draw the diagram, his argument misses the mark. Mr. Knecht makes the same
2 mistake, arguing “from a common sense perspective...it costs more in terms of poles,
3 conductors, conduit and transformers to serve 50 residential customers, each with 5 kW in
4 maximum demand, than to serve one medium sized customer with 250 kW of maximum
5 demand.” However, a comparison of total costs or total mileage of infrastructure is less
6 relevant than the cost per customer or the feet of length per customer. After all, the
7 customer allocator is assigning costs on a per customer basis. And, one can easily
8 imagine situations in which the footage or costs per customer, as spread across a large
9 number of customers, is lower for the aggregation of smaller customers than the single
10 customer. If the cost per customer is lower for the aggregation of small customers, then a
11 customer allocation factor will overallocate costs to the small customers and
12 underallocate costs to the large customer. For this reason, my direct testimony suggested
13 that the customer allocators for minimum grid costs should be weighted by each class’
14 average number of transformers per customer, average length of secondary wire per
15 customer, and average length of underground conduit per customer, depending on the
16 FERC plant account. Because the Companies apparently do not have this data on a class
17 basis, there is no assurance that the customer allocator reasonably represents cost
18 causation.

19 **Q. MR. KNECHT DISMISSES PROFESSOR BONBRIGHT’S TEXTBOOK ON**
20 **PUBLIC UTILITY RATES AND ASSERTS THAT ONE OF HIS STATEMENTS**
21 **IS SIMPLY WRONG. DO YOU AGREE?**

22 A. No. James Bonbright’s *Principles of Public Utility Rates* is an authoritative source in the
23 field of rate making; later authors, such as Alfred Kahn, point out that it has stood the test

1 of time. Based on my 31 years experience in electric utility rate making, Bonbright's
2 textbook is frequently cited by cost allocation and rate design experts. Moreover, I don't
3 agree with Mr. Knecht's claim that Professor Bonbright's statement is wrong. Mr.
4 Knecht paraphrases Professor Bonbright's statement, "The professor argues that if a
5 utility service stays fixed, there would be no increase in the minimum system when new
6 customers are attached." However, his paraphrase omits the word "necessarily,"
7 changing the context of the statement.³ Moreover, the statement is correct from the
8 standpoint of marginal costs. The NARUC Electric Utility Cost Allocation Manual
9 includes essentially the same statement:

10 Similarly, if the customer component of the marginal distribution
11 cost is described as the cost of adding a customer, but no energy
12 flows to the system, there is no reason to add to the distribution
13 lines that serve customers collectively or to increase the optimal
14 investment in the lines that are carrying combined loads of all
15 customers. Therefore, the marginal customer cost of the jointly
16 used distribution system is zero.⁴

17 Therefore, Mr. Knecht's commentary regarding Professor Bonbright's critique of
18 the minimum distribution methodology should be rejected.

19 **Q. SEVERAL OF THE REBUTTAL WITNESSES CITE THE NARUC ELECTRIC**
20 **UTILITY COST ALLOCATION MANUAL ("NARUC MANUAL") AS SUPPORT**
21 **FOR THE COMPANIES' MINIMUM DISTRIBUTION SYSTEM. PLEASE**
22 **RESPOND TO THEIR RELIANCE ON THE MANUAL.**

23 A. First, reliance upon the NARUC Manual should be placed in appropriate perspective.
24 The NARUC Manual is useful as an informative guide, but it is not intended to be

³ The sentence quoted in my testimony: "Indeed, if the company's entire service area stays fixed, an increase in number of customers does not necessarily betoken any increase whatever in the costs of a minimum-sized distribution system."

⁴ NARUC Electric Utility Cost Allocation Manual at 136.

1 applied in an unquestioned manner. The preface to the NARUC Manual sets out its
2 objectives, including:

3 The writing style should be non-judgemental, not advocating any
4 one particular method, but trying to include all currently used
5 methods with pros and cons.

6 The NARUC Manual was prepared in 1991 and probably reflected prevailing
7 distribution classification practices at that time. However, “currently used methods” may
8 have changed since that time. Nine years later, NARUC commissioned a report on
9 distribution pricing methods which concluded that the majority of state commissions used
10 a distribution classification method consistent with my recommendation (100% demand
11 for joint distribution facilities and 100% customer for meters and services):

12 The most common method [for apportioning distribution facilities
13 between demand and customer] used is the “basic customer
14 method” which classifies all wires, transformers, and poles as
15 demand-related, and meters, meter reading, and billing as
16 customer-related.” This general approach is used by more than 30
17 states.⁵

18 Unbundled electric utility rates became more prevalent during this period due to
19 increased emphasis on competition, and this may have influenced some regulatory
20 commissions to re-examine their distribution cost allocation methods. Based on my
21 experience in Texas, electric utilities in that state began to replace minimum distribution
22 systems with the basic customer method in that same time frame, coinciding with the
23 initiation of competition.

24 Furthermore, the rebuttal witnesses generally ignore cautionary statements in the
25 NARUC Manual regarding the application of minimum distribution system methods,
26 such as:

⁵ “Charges for Distribution Service: Issues in Rate Design,” Regulatory Assistance Project, Dec. 2000, page 30, Weston, Harrington, Cowart, Moskowitz, and Shirley.

1 Cost analysts disagree on how much of the demand costs should be
2 allocated to customers when the minimum-size distribution method
3 is used to classify distribution plant. *When using this distribution*
4 *method, the analyst must be aware that the minimum-size*
5 *distribution equipment has a certain load-carrying capability,*
6 *which can be viewed as a demand-related cost.*

7 As discussed in my initial testimony, the minimum size components used in the
8 Companies' minimum distribution system studies contain considerable load carrying
9 capability and, therefore, result in the double recovery of demand costs under the label of
10 customer costs. Mr. Baudino and Mr. Pollock state that my testimony is inconsistent
11 with the NARUC Manual, yet neither witness considers whether the Companies'
12 methodology is consistent with the NARUC Manual's admonition above.

13 **Q. COMPANIES' WITNESS STEWART CONTENDS THAT THE MINIMUM GRID**
14 **STUDY SHOULD BE BASED ON CURRENTLY INSTALLED COMPONENT**
15 **SIZES RATHER THAN THE "ABSOLUTE MINIMUM SIZE ON THE**
16 **SYSTEM." PLEASE RESPOND TO HER POSITION.**

17 A. I disagree that her position is appropriate for implementing a minimum grid study. This
18 approach results in the study incorporating demand costs into the minimum grid, thereby
19 inflating the percentage of distribution infrastructure allocated on a customer basis. The
20 NARUC Manual discusses the minimum grid study variant of minimum size studies.

21 The description contains the following limitation on minimum size components:

22 When applying this approach, it is necessary to take care that the
23 minimum size equipment being analyzed is, in fact, the minimum
24 size equipment available, and not merely the minimum size
25 stocked by or usually installed by the company. To the extent that
26 the equipment being costed is larger than a true minimum, the
27 minimum grid cost will include costs more properly allocated to
28 demand.⁶

⁶ NARUC Electric Utility Cost Allocation Manual at 138.

1 This statement contradicts Ms. Stewart's contention regarding the appropriate
2 selection of minimum size equipment in the minimum grid study.

3 **Q. MR. BAUDINO, MR. POLLOCK, MR. KNECHT, AND MS. STEWART POINT**
4 **TO THE PPL 2012 BASE RATE CASE AS SUPPORT FOR THE COMPANIES'**
5 **USE OF A MINIMUM DISTRIBUTION SYSTEM STUDY. PLEASE COMMENT**
6 **ON THEIR POSITION THAT THE PPL DECISION IS DETERMINATIVE OF**
7 **THE RULING WHICH SHOULD BE APPLIED IN THE FIRSTENERGY RATE**
8 **CASES.**

9 A. I was not involved in the PPL rate case, but I am skeptical of their view that the decision
10 in that case should govern different facts in the instant proceedings. A critical element of
11 my recommendation is based on the specific deficiencies in the Companies' application
12 of the minimum grid study. Mr. Knecht's rebuttal testimony relies on the 2012 PPL rate
13 case, even though his direct testimony found inconsistencies between the PPL customer
14 classification method and the FirstEnergy minimum grid studies. In particular, he noted
15 that the FirstEnergy minimum grid studies resulted in a higher proportion of customer
16 costs, compared to the PPL base rate case. Furthermore, I presented an alternative
17 recommendation in this case which limited minimum size components to the labor
18 portion of installed costs. PPL was unable to provide information on labor installation
19 costs, thereby precluding the presentation of that alternative benchmark to the
20 Commission.

1 Q. CAN YOU CONFIRM MR. KNECHT'S CONCLUSION THAT THE
2 COMPANIES IN THIS PROCEEDING CLASSIFY A LARGER PERCENTAGE
3 OF COSTS AS CUSTOMER-RELATED THAN PPL?

4 A. Yes. OCA's witness in the PPL case testified that the PPL CCOS study classified 62% of
5 the facility costs between substation output and the customer service drop (i.e., poles,
6 lines, and transformers) as customer-related. I calculated the Companies' comparable
7 percentage customer classification as follows⁷:

8 **Customer Classification Percent**

9		
10	MetEd	73%
11	Penn Power	80%
12	Penelec	80%
13	West Penn	84%

14 Clearly the Companies have developed exceptionally high classification
15 percentages of customer cost for jointly used distribution plant. This fact, alone, should
16 be sufficient for the Commission to reconsider the minimum distribution system in the
17 FirstEnergy rate cases, and carefully examine the assumptions underlying the minimum
18 grid studies.

19 ***B. DEMAND-RELATED DEVICES***

20 Q. PLEASE SUMMARIZE YOUR RECOMMENDATION REGARDING CERTAIN
21 DEMAND-RELATED DEVICES INCLUDED IN FERC ACCOUNTS 365, 367,
22 AND 368.

23 A. These accounts principally encompass underground and overhead conductors and
24 transformers. The Company's minimum grid study establishes customer/demand

⁷ The calculation is based on distribution plant in service, excluding services, meters, substations, and structures, based on the data in the plant-in-service tab of each Companies' CCOS study.

1 percentages based on minimum size conductors and transformers; these classification
2 percentages are applied to the actual plant account balances. However, certain devices
3 which are demand-related--capacitors, voltage regulators, faulted circuit indicators (FCI)
4 and reactors—are recorded in accounts 365, 367, and 368. As a result, a very high
5 percentage of these devices are classified as customer-related, even though they are
6 principally demand-related. My recommendation set out a procedure for correcting this
7 overstatement of customer costs by reducing the customer classifications for these
8 accounts by 3% - 5%.

9 **Q. HOW DID MS. STEWART RESPOND TO THIS RECOMMENDATION?**

10 A. She states that “there may be some theoretical validity” to my position. However, she
11 concludes that only voltage regulators should be considered a purely demand-related cost.
12 She considers FCI to be installed in proportion to customers, capacitors to be both
13 demand and customer related, and reactors to be related to the design of the circuit and,
14 therefore, a customer cost. As a result of her position, Ms. Stewart revises my proposed
15 adjustment downward to 0.2% - 3.6%.

16 **Q. DO YOU AGREE WITH THE COMPANIES’ CONTENTION THAT ONLY**
17 **REGULATOR DEVICES ARE DEMAND-RELATED?**

18 A. No. I contend that capacitors, reactors, and FCI should be considered demand-related. In
19 developing a CCOS study, cost analysts frequently refer to demand classified costs as
20 part of the utility’s reliability function. The reliability objective—avoiding outages,
21 blackouts, brownouts, and voltage outside of design criteria—is one of the chief functions
22 of the utility. In order to provide reliable service, the utility must maintain sufficient
23 capacity in its generation, transmission, and distribution systems to meet load. For the

1 distribution system, the utility can achieve its reliability objective both through the sizing
2 of equipment and the deployment of devices which mitigate outages arising on the
3 distribution system. If distribution outages occur, the EDC will be unable to meet
4 instantaneous demand.

5 In response to interrogatories, Ms. Stewart confirms that the primary purpose of
6 both FCI and reactors is to improve reliability on the distribution system.⁸ I requested
7 engineering planning guidelines for deploying FCI, and the documents provided by the
8 Companies did not mention that the devices should be deployed in proportion to
9 customers, as asserted in Ms. Stewart's testimony. Instead, the criteria addresses
10 deployment to address past reliability issues and maximize outage reductions.⁹ Given the
11 reliability function of these devices, the equipment should be considered demand-related
12 rather than customer-related.

13 **Q. DO YOU AGREE WITH MS. STEWART'S CLAIM THAT CAPACITORS**
14 **SHOULD NOT BE CONSIDERED PURELY DEMAND-RELATED?**

15 A. No. The Companies provided distribution planning documents which indicate that
16 capacitors are deployed to release capacity, i.e., allowing additional load to be met
17 without the construction of additional distribution capacity.¹⁰ This is clearly a demand
18 function. The same documents indicate that capacitors play a role in reducing energy
19 losses. Costs for reducing energy losses are normally classified as energy or demand
20 related. Ms. Stewart apparently labels capacitors as customer-related because the devices
21 are necessary to correct the power factors of certain types of customers. Because low

⁸ ME, PN, PP, WPP-Response to OCA Interrogatory No. XXII-1 (c)(e).

⁹ ME, PN, PP, WPP-Response to OCA Interrogatory No. XXII-1, Attachments A, B, C.

¹⁰ Ibidem, Attachment D.

1 power factor typically is caused by electric industrial motors, certain commercial and
2 industrial customers are likely to cause the installation of capacitors.¹¹ A customer
3 classification is unreasonable, since it imposes a disproportionate share of capacitor costs
4 on residential customers.

5 **Q. DO YOU CONTINUE TO RECOMMEND A REDUCTION IN THE CUSTOMER**
6 **CLASSIFICATION OF FERC ACCOUNTS 365, 367, AND 368?**

7 A. Yes. Capacitors, voltage regulators, reactors, and FCI should be considered demand-
8 related, resulting in a reduction in the customer classification for these accounts.

9 ***C. OCA'S ALTERNATIVE CCOS STUDY***

10 **Q. DID YOU PRESENT AN ALTERNATIVE CCOS STUDY IN YOUR INITIAL**
11 **TESTIMONY?**

12 A. Yes. The alternative CCOS results reflect a modification to the Companies' minimum
13 distribution system. While OCA's principal recommendation applies a 100% demand
14 classification to jointly used distribution infrastructure, the alternative CCOS applies a
15 customer percentage classification which is significantly less than the Company's
16 proposal. As discussed in my initial testimony, this alternative minimum distribution
17 system is based on two modifications to the Companies' methodology: (1) the relatively
18 small adjustment for demand-related devices discussed in (B) reduces the customer
19 classification by 3% – 5% for accounts 365, 367, and 368; and (2) the minimum sized
20 components in the Companies' minimum grid study are reduced to reflect only the labor
21 portion of the installation cost. This latter adjustment is intended to remove demand-
22 related costs from the customer classification, thereby eliminating the double counting of

¹¹ For this reason, the Companies have proposed reactive demand charge riders in the commercial/industrial rate design in order to incentivize power factor improvement by medium and large commercial and industrial users.

1 demand costs. Because the load carrying capability is assumed to be associated with the
2 material component of costs, basing the minimum system costs only on the labor portion
3 of minimum equipment costs should partially correct one of the main criticisms of the
4 methodology.

5 **Q. DID THE OTHER PARTIES EVALUATE THIS ALTERNATIVE**
6 **RECOMMENDATION?**

7 A. Not in any meaningful way. Mr. Baudino and Mr. Knecht concluded that OCA's
8 alternative CCOS study is irrelevant because my testimony did not include a proposed
9 revenue allocation based on this alternative. Mr. Knecht says that I did not state whether
10 I agree with this methodology. This criticism is perplexing, since I presented and
11 recommended the method as an alternative to OCA's primary recommendation. Ms.
12 Stewart's rebuttal states that this method is not consistent with the NARUC Manual.¹²

13 **Q. PLEASE RESPOND TO THE CRITICISM THAT YOUR ALTERNATIVE**
14 **RECOMMENDATION IS IRRELEVANT.**

15 A. Although I continue to believe that it is preferable to reject the minimum distribution
16 system method in its entirety, the alternative method is a reasonable adjustment if the
17 Commission is inclined to adopt the minimum distribution approach as it did in the PPL
18 base rate case. Despite my preference for the basic customer classification method, the
19 proposed alternative CCOS studies are significantly more reasonable than the CCOS
20 studies based on the minimum grid studies presented by the Companies. The

¹² However, this approach is a proxy for the zero intercept methodology, which is described in the NARUC Manual.

1 Pennsylvania Commission has previously adopted a minimum distribution system based
2 only on the labor costs associated with minimum size components.¹³

3 I did not present a separate set of revenue allocation proposals, in part, because
4 the alternative recommendation produced results in the same direction as OCA's primary
5 CCOS recommendation. For instance, the following table shows the relative rate of
6 return (RROR) for the residential class, compared to the Companies' CCOS studies. A
7 RROR above 100% indicates that the customer class is currently producing returns above
8 the system average, thereby implying that the class should be assigned a below average
9 percentage share of the revenue allocation. A RROR below average reflects the opposite,
10 supporting an above average percentage share of the revenue allocation.

11 **Residential RROR at Present Rates**

	RROR Per Company	RROR Per Alternative
13 ME	71%	111%
14 PN	77%	108%
15 PP	88%	122%
16 WPP	71%	107%

17 The alternate modified minimum grid CCOS studies produce results for the
18 residential class which represent a clearly above-cost position (relative to other classes).
19 As a result, the alternate CCOS study provides additional support for the direction of
20 relative revenue change relationships shown in my revenue allocation proposal which is
21 based on the OCA's preferred CCOS (100% demand). As a practical matter, if the
22 Commission adopts the alternate CCOS, various revenue distribution methodologies
23 (such as Mr. Pollock's and Mr. Seidt) could be applied to the alternate CCOS results.

¹³ Duquesne Light Co. R-8435583, 59 Pa PUC 57 (1985) at 74-75.

1 **III. RESIDENTIAL CUSTOMER CHARGE**

2 **Q. DO YOU AGREE WITH MR. SIEDT'S CRITICISM OF YOUR RESIDENTIAL**
3 **CUSTOMER CHARGE PROPOSAL?**

4 A. No. My primary recommendation is to reduce the MetEd, Penelec, and Penn Power
5 customer charges and increase the West Penn customer charge by less than 25 cents. Mr.
6 Siedt proposes significant increases in the monthly customer charge.

7 **Q. PLEASE RESPOND TO HIS POSITION THAT YOUR PROPOSED ANALYSIS**
8 **OMITS MANY CUSTOMER-RELATED COSTS WHICH HE INCLUDED IN HIS**
9 **ANALYSIS.**

10 A. The objective of my analysis is to limit the customer charge to costs which vary directly
11 with changes in the number of customers on the system. I&E witness Apetoh expressed
12 support for a similar objective in analyzing the customer charge. A large part of the costs
13 in Mr. Siedt's testimony are indirect costs which do not vary with the number of
14 customers. A substantial portion of the costs are unallocable on any direct basis and are
15 simply spread across CCOS classifications so that 100% of the revenue requirement is
16 recovered. An example is administrative and general expense, which, by definition, is
17 not attributable to any particular function of the EDC. The issue is not whether all
18 customer-related costs in the CCOS study should be used to establish the residential
19 customer charge. As shown by Mr. Siedt's analysis attached to his rebuttal testimony,
20 Mr. Siedt has already excluded customer-related minimum grid costs from his evaluation.
21 Thus, he has already accepted the fact that classification of a cost as customer-related in
22 the CCOS study does not deem the cost as recoverable through the customer charge. The
23 remaining question is whether a substantial sum of customer classified expenses which

1 have a weak or non-existent relationship to the number of customers should be recovered
2 through the customer charge. As a matter of policy, my answer is “no.”

3 Because Mr. Siedt does not exclude those expenses, a portion of executive
4 salaries and parent corporation costs are recovered through his proposed customer charge.
5 His recommended customer charge also recovers a portion of storm damage costs, a large
6 share of rate case expenses and other regulatory expenditures, and general advertising
7 expense. None of these costs vary with the addition of a customer to the system.

8 **Q. DO YOU AGREE WITH MR. SIEDT’S CONTENTION THAT THE CUSTOMER**
9 **CHARGE HAS NO EFFECT ON ENERGY EFFICIENCY BEHAVIOR?**

10 A. No. As shown in my initial testimony, holding residential revenue requirement constant,
11 the difference resulting from adopting Mr. Siedt’s proposed customer charge, instead of
12 my recommended customer charge, will materially reduce the net benefit, and increase
13 the payback period, associated with the purchase of new high efficiency appliances. This
14 conclusion is supported by comparisons using energy efficiency spreadsheets produced
15 for the U.S. Department of Energy and Environmental Protection Agency.

16 Mr. Siedt argues that the distribution customer charge is a relatively small
17 proportion of the residential customer’s total bill. This may be true, but it misses the
18 point. The choice in this case is between two customer charge proposals, and the
19 decision to adopt OCA’s or the Company’s recommendation will affect the distribution
20 energy charge. The marginal difference between the two choices will affect the
21 attractiveness of energy efficiency decisions.

22 Mr. Siedt also responds that the Companies engage in mandated energy efficiency
23 programs and make a significant portion of those benefits available to low income

1 customers. However, this also misses the point. The fact that a utility sponsors demand
2 side savings programs should not preclude the utility from considering energy efficiency
3 impacts in the rate design process. The two approaches to promoting energy efficiency
4 should be complementary. Recognizing energy efficiency through the utility's rate
5 design may increase the effectiveness of incentive programs and extend the benefits of
6 the utility's energy efficiency budget.

7 **IV. COMPANY-SPECIFIC ISSUES**

8 **Q. MR. SIEDT OPPOSES YOUR RECOMMENDATION TO MODERATE THE**
9 **EFFECT OF RESIDENTIAL RATE CONSOLIDATION ON MET ED'S RATE**
10 **RT CUSTOMERS. DO YOU HAVE ANY COMMENT ON HIS POSITION THAT**
11 **THE EFFECT ON EXISTING RS CUSTOMERS IS TOO LARGE?**

12 A. Yes. Mr. Siedt claims that the effect of my proposal is to increase RS revenue
13 requirement by \$10.5 million, resulting in a 1.76% increase. However, a review of his
14 spreadsheet supporting the testimony indicates that the revenue effect is only \$1.8
15 million, resulting in an impact of less than 1% on RS customers.¹⁴ The Company's
16 interrogatory response indicates that the spreadsheet corrects an error in his testimony.
17 Thus, the effect of moderating the Rate RT revenue increase has a much smaller impact
18 than he stated in his rebuttal testimony. Furthermore, as I stated in response to Met Ed's
19 interrogatory II-10, the increase for the RS class will be less than \$1 million if the Rate
20 RT revenue percent increase is capped at the percent increase for the overall RS
21 consolidated class (and not just existing RS customers).

¹⁴ ME Response to OCA Interrogatory XXII-5, Attachment A.

1 **Q. DID WEST PENN WITNESS STEWART PREPARE ANOTHER REVISION OF**
2 **THE CLASS COST OF SERVICE STUDY FOR THAT COMPANY?**

3 A. Yes. As discussed in my rebuttal testimony, West Penn's CCOS study had several errors
4 which were addressed in interrogatory answers. I provided a revised OCA CCOS study
5 for West Penn in my rebuttal testimony based on the model provided in response to
6 interrogatories. In her rebuttal testimony, Ms. Stewart made an additional revision to the
7 CCOS study pertaining in part to the treatment of subtransmission allocations. I have
8 revised the OCA CCOS study pertaining to West Penn, which is attached as Schedule CJ-
9 SR-2 (WPP). In addition, I have modified my recommended revenue increase allocation
10 for West Penn to reflect these changes.

11 **Q. DOES THIS CONCLUDE YOUR SURREBUTTAL TESTIMONY AT THIS**
12 **TIME?**

13 A. Yes.

14 200011

SCHEDULES

ILLUSTRATION OF REVENUE ALLOCATION: BASED ON OCA'S ALTERNATE CCOS STUDY
 CLASS REVENUE INCREASE BASED ON PERCENT OF CLASS EQUALIZED REV REQ

MET ED		RS	GSV	GSS	GSM	GSL	GP	TP	BRD	MS	POL	STLT	TOTAL
Percent of Total at Equalized		66.68%	0.09%	3.60%	15.41%	4.24%	6.89%	1.58%	0.01%	0.12%	0.24%	1.15%	1.00
Increase Per OCA Alternate		101781	133	5496	23527	6469	10511	2408	12	187	365	1753	152642
Percentage Increase		55%	39%	61%	54%	108%	79%	101%	56%	39%	55%	38%	57.3%
Ratio of Class Percent Increase to System Increase		95.47%	67.63%	106.91%	94.60%	188.62%	137.08%	175.49%	98.15%	68.26%	95.36%	65.87%	100.00%

PENELEC		RS	GSV	GSS	GSM	GSL	GP	LP	BRD	H	POL	STLT	TOTAL
Percent of Total at Equalized		57.8%	0.2%	5.1%	18.9%	6.0%	5.6%	3.4%	0.0%	0.3%	0.8%	2.1%	1.00
Increase Per OCA Alternate		69487	198	6162	22714	7250	6728	4031	6	311	949	2480	120316
Percentage Increase		35.5%	30.3%	52.5%	52.5%	58.4%	52.5%	58.4%	30.3%	52.5%	30.3%	58.4%	38.8%
Ratio of Class Percent Increase to System Increase		91.71%	78.08%	135.51%	135.51%	150.57%	135.51%	150.57%	78.08%	135.51%	78.08%	150.57%	100.00%

PENN POWER		RS	GSR	GSS	GSM	GSL	GP	OH	PNP	POL	STLT	GT	TOTAL
Percent of Total at Equalized		65.99%	0.05%	4.78%	15.32%	4.58%	6.02%	0.83%	0.09%	0.47%	1.17%	0.69%	1.00
Increase Per OCA Alternate		19505	15	1414	4529	1354	1780	244	25	140	347	203	29556
Percentage Increase		34.4%	31.1%	40.6%	39.6%	52.3%	110.9%	58.1%	36.5%	51.0%	32.3%	15.8%	37.4%
Ratio of Class Percent Increase to System Increase		91.91%	83.29%	108.55%	105.84%	139.97%	296.55%	155.42%	97.69%	136.42%	86.50%	42.26%	100.00%

WEST PENN POWER		RS	GS10	GSS	GSM	PP10	GSL	POL	PSU	PP48	PP48	AGS	STLT	TOTAL
Percent of Total at Equalized		0.631	0.001	0.060	0.169	0.031	0.067	0.005	0.005	0.000	0.010	0.000	0.022	1.00
Increase Per OCA Alternate		49591	100	4710	13284	2438	5264	355	371	6	751	5	1748	78,623
Percentage Increase		24.3%	20.2%	41.0%	22.4%	35.7%	27.6%	9.0%	34.2%	22.1%	31.3%	34.0%	29.0%	25.0%
Ratio of Class Percent Increase to System Increase		97.28%	80.97%	164.27%	89.74%	142.91%	110.26%	35.97%	136.9%	88.6%	125.3%	136.24%	116.00%	100.00%

Note: If percentage caps are found to be appropriate, amounts in excess of cap should be redistributed in proportion to percent of total for remaining classes.

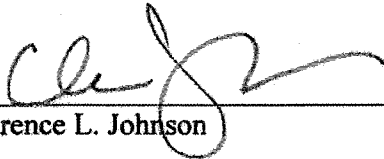
BEFORE THE
PENNSYLVANIA PUBLIC UTILITY COMMISSION

Pennsylvania Public Utility Commission :
v. : Docket No. R-2014-2428743
Pennsylvania Electric Company :
:

VERIFICATION

I, Clarence L. Johnson, hereby state that the facts above set forth in my Surrebuttal Testimony, OCA Statement No. 3SR, are true and correct and that I expect to be able to prove the same at a hearing held in this matter. I understand that the statements herein are made subject to the penalties of 18 Pa.C.S. § 4904 (relating to unsworn falsification to authorities).

Signature:


Clarence L. Johnson

Consultant Address: 3707 Robinson, Austin TX 78722

DATED: 1/2/15

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