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August 29, 2012

Rosemary Chiavetta, Secretary
PA Public Utility Commission
Commonwealth Keystone Bldg.
400 North Street
Harrisburg, PA 17101

Re: Pa. Public Utility Commission
v.
PPL Electric Utilities
Docket No. R-2012-2290597

Dear Secretary Chiavetta:

Enclosed please find the Office of Consumer Advocate's Main Brief in the above-referenced proceeding.

Copies have been served upon all parties of record as shown on the attached Certificate of Service.

Sincerely yours,

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cc: Honorable Susan D. Colwell
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155413.DOC

BEFORE THE
PENNSYLVANIA PUBLIC UTILITY COMMISSION

Pennsylvania Public Utility Commission,	:	
	:	
v.	:	Docket No. R-2012-2290597
	:	
PPL Electric Utilities Corporation	:	

MAIN BRIEF
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I. INTRODUCTION

A. History of Proceedings.

On March 30, 2012, PPL Electric Utilities Corporation (PPL or the Company) filed Supplement No. 118 to Tariff Electric - Pa. P.U.C. No. 201 (Supplement No. 118) to become effective June 1, 2012, seeking Commission approval of rates and rate changes that would modify existing tariff provisions and increase the level of rates that PPL charges for providing electric distribution service to its customers. If Supplement No. 118 had become effective as proposed, the Company would have had an opportunity to recover an estimated annual increase in operating revenues of $104.6 million based on a test year ending December 31, 2012, an approximate increase of 13% over the Company's present distribution rates. PPL serves more than 1.4 million residential, commercial and industrial customers in over twenty-nine counties throughout Pennsylvania.

On April 23, 2012, the OCA filed a Formal Complaint against the proposed rate increase and a Public Statement. Numerous other parties filed Petitions to Intervene or Formal Complaints against the proposed rate increase, including: the Bureau of Investigation and Enforcement (I&E), the Office of Small Business Advocate (OSBA), the PPL Industrial Customer Alliance (PPLICA), the International Brotherhood of Electrical Workers Local 1600 (IBEW), the Commission on Economic Opportunity (CEO), Mr. Eric Epstein, Richards Energy Group (REG), the Sustainable Energy Fund (SEF), Dominion Retail, Inc. d/b/a Dominion Energy Solutions (Dominion), Granger Energy of Honeybrook, LLC and Granger Energy of Morgantown, LLC (Granger), and Direct Energy Services, LLC (Direct Energy).

The Commission suspended the Company's proposed tariff supplement pending investigation. The proceeding was assigned to the Office of Administrative Law Judge and

specifically assigned to Administrative Law Judge Susan D. Colwell (ALJ Colwell). On May 31, 2012, ALJ Colwell held an initial prehearing conference in this matter. Subsequently, ALJ Colwell issued a prehearing order establishing a procedural schedule and also setting forth certain modifications to the Commission's regulations regarding discovery matters. Public Input Hearings were convened in this matter in Scranton and Wilkes-Barre on June 18, 2012, in Bethlehem and Allentown on June 20, 2012, and in Harrisburg on June 21, 2012.

On June 22, 2012, the OCA submitted the Direct Testimonies of: Richard J. Koda, OCA Statement No. 1; Stephen G. Hill, OCA Statement No. 2; Glenn A. Watkins, OCA Statement No. 3 and Roger D. Colton, OCA Statement No. 4. On June 25, 2012, the OCA submitted the REVISED Direct Testimony, OCA Statement No. 1-REVISED, of Richard J. Koda. On July 16, 2012, the OCA submitted the Rebuttal Testimony of Glenn A. Watkins, OCA Statement No. 3-R. On August 1, 2012, the OCA submitted the Surrebuttal Testimony of: Richard J. Koda, OCA Statement No. 1-SR; Stephen Hill, OCA Statement No. 2-SR; Glenn A. Watkins, OCA Statement No. 3-SR and Roger D. Colton, OCA Statement No. 4-SR. All parties in this matter agreed to stipulate admission of the OCA Statement Nos. 1-REVISED, 1-SR, 4 and 4-SR, as identified herein into the record without the need for cross-examination. Tr. at 199-200, 508. A list of testimony and exhibits sponsored by the OCA is attached hereto as Appendix B.

The OCA hereby provides this Main Brief in support of its positions on the following: accounting adjustments and policy matters; capital structure and cost of equity; rate design and allocation; and universal service programs and consumer education.

B. Burden Of Proof.

1. PPL's Proposed Supplement No. 118 To Tariff – Electric Pa. P.U.C. No. 201.

PPL bears the burden of proof to establish the justness and reasonableness of every element of its requested rate increase. As set forth in Section 315(a) of the Public Utility Code:

> Reasonableness of rates – In any proceeding upon the motion of the Commission, involving any proposed or existing rate of any public utility, or in any proceedings upon the complaint involving any proposed increase in rates, the burden of proof to show that the rate involved is just and reasonable shall be upon the public utility.

66 Pa. C.S. § 315(a). The Commonwealth Court interprets this principle as follows:

> Section 315(a) of the Public Utility Code, 66 Pa. C.S. § 315(a), places the burden of proving the justness and reasonableness of a proposed rate hike squarely on the utility. It is well-established that the evidence adduced by a utility to meet this burden must be substantial.

Lower Frederick Twp. v. Pa. PUC, 48 Pa. Commw. 222, 226-27, 409 A.2d 505, 507 (1980) (citations omitted). See also Brockway Glass v. Pa. PUC, 63 Pa. Commw. 238, 437 A.2d 1067 (1981).

The Pennsylvania Supreme Court has stated that the party with the burden of proof has a formidable task to show that the Commission may lawfully adopt its position. Even where a party has established a *prima facie* case, the party with the burden must establish that "the elements of that cause of action are proven with substantial evidence which enables the party asserting the cause of action to prevail, precluding all reasonable inferences to the contrary." Burleson v. Pa. PUC, 461 A.2d 1234, 1236 (Pa. 1983). Thus, a utility has an affirmative burden to establish the justness and reasonableness of every component of its rate request.

The OCA points out that Pennsylvania law is clear that there is no similar burden for a party proposing an adjustment to a utility base rate filing. See e.g. Berner v. Pa. PUC, 382 Pa. 622, 116 A.2d 738 (1955). In Berner, the Pennsylvania Supreme Court stated:

> [T]he appellants did not have the burden of proving that the plant additions were improper, unnecessary or too costly; on the contrary, that burden is, by statute, on the utility to demonstrate the reasonable necessity and cost of the installations and that is the burden which the utility patently failed to carry.

Berner, 382 Pa. at 631, 116 A.2d at 744. The Commission recognizes this standard in its rate determinations. Pa. PUC v. Equitable Gas Co., 57 Pa. PUC 423, 471 (1983). See also University of Pennsylvania v. Pa. PUC, 86 Pa. Commw. 410, 485 A.2d 1217 (1984); Pa. PUC v. PPL Electric Utilities Corp., 237 P.U.R. 4th 419 (Pa. PUC 2004). Thus, it is unnecessary for the OCA to prove that PPL's proposed rates are unjust, unreasonable, or not in the public interest.

In conclusion, PPL must affirmatively demonstrate the reasonableness of every element of its claims and demonstrate that its proposed rates are just, reasonable and in the public interest. The OCA will show that PPL has failed to satisfy its statutory burden with regard to its proposed revenue requirement and allocation thereof, residential rate design, return on equity and capital structure, and universal service programs. Therefore, the Company's proposal must be rejected.

2. Proposals Not Included In PPL's Filing.

A party proposing a change that PPL did not include in its filing has the burden of proving its proposal is just and reasonable and in the public interest. See e.g. Pa. PUC v. Metropolitan Edison Co., 2007 Pa. PUC LEXIS 5, *187 (Met-Ed 2007); Pa. PUC v. Columbia Gas of Pennsylvania, Inc., Docket No. R-2010-2215623, Order at 16 (March 15, 2012) (Columbia Gas 2010). When a party in a rate case proposes a new program that will place new costs upon the Company, for which the Company has not requested recovery in its case-in-chief,

it is the party making the proposal that bears the burden of proving that the new costs are just and reasonable by a preponderance of the evidence. See Met-Ed 2007 at *187. Further, when a party raises an issue not raised in the company's case-in-chief relating to a previously approved tariff provision, that party "bears the burden to demonstrate the Commission's prior approval is no longer justified." Columbia Gas 2010 at 16.

In Met-Ed 2007, PennFuture proposed that the companies implement a variety of renewable energy initiatives, which the companies opposed because there was no proposal addressing the recovery of costs associated with the initiatives. Met-Ed 2007 at *183-84. In their Recommended Decision (R.D.), Administrative Law Judges Wayne L. Weismandel and David A. Salapa (ALJs) noted that even in light of Section 315(a), the burden of proof was on PennFuture as to its proposals to have the companies incur expenses not included in the companies' filings. Id. at *184. Specifically, the ALJs stated:

> The provisions of 66 Pa.C.S. §315(a) cannot reasonably be read to place the burden of proof on the utility with respect to an issue the utility did not include in its general rate case filing and which, frequently, the utility would oppose. Inasmuch as the Legislature is not presumed to intend an absurd result in interpretation of its enactments, the burden of proof must be on a party to a general rate increase case who proposes a rate increase beyond that sought by the utility.

Pa. PUC v. Metropolitan Edison Co., Docket No. R-00061366, R.D. at 79-80 (Oct. 31, 2006). (Citations omitted).

In this case, Direct Energy proposes that the Company alter its exiting, Commission-approved Purchase of Receivables program (POR) and Merchant Function Charge (MFC). Direct Energy proposed that PPL collect all of its projected uncollectibles accounts expense, presently collected through the MFC, via a nonbypassable charge to all distribution ratepayers. Direct Energy's proposal would essentially result in a rebundling of uncollectibles costs into

base rates, the unbundling of which was approved by the Commission in a prior case at Docket No. P-2009-2129502. The burden of proof is on Direct Energy to prove that its POR/MFC proposal is just and reasonable and in the public interest by a preponderance of the evidence.

II. SUMMARY OF ARGUMENT

The OCA submits that PPL has not met its burden of proof for several claims it sets forth in support of its request for a $104.6 million base rate increase from the Commission. As explained above, the burden of proof that applies in this rate proceeding is PPL's to show that its base rate increase request is just and reasonable. The OCA submits that PPL has failed to make this showing. PPL's claim requires adjustments in the areas of accounting, cost of capital, cost of service, rate design and universal service programs. Based upon the expert testimony of the OCA's witnesses, the OCA submits that an overall distribution revenue increase of $41,752,000 is justified, based on a 7.19% overall rate of return. This reflects necessary adjustments to claims, a more reasonable capital structure and a return on equity of 9.0%. An increase of $41,752,000, allocated to customers as recommended by the OCA, results in rates that are just and reasonable.

With regard to accounting, OCA witness Koda recommended adjustments to PPL's proposed rate base, expenses and taxes. As explained in this Main Brief, Mr. Koda's adjustments are based on sound ratemaking principles and should be adopted. A summary of Mr. Koda's adjustments are provided on Tables I and II, which are attached hereto as Appendix A.

With regard to cost of capital, OCA witness Hill testified that PPL's proposed capital structure and return on common equity were excessive and should be rejected. Mr. Hill recommended that the Commission adopt a capital structure that does not unfairly burden

ratepayers, as PPL's proposed capital structure would. Further, the OCA submits that Mr. Hill's capital structure is more similar to the manner in which PPL has been capitalized over the last several years. Using his capital structure, PPL's proposed embedded cost of long-term debt and Mr. Hill's cost of equity of 9.0%, Mr. Hill recommended that the Commission permit PPL the opportunity to earn a 7.19% overall rate of return. The OCA submits that PPL's requested management efficiency adder and its requested leverage adjustment used to increase any return on equity must be rejected as unsupported by the record. The OCA submits that Mr. Hill's recommendations will provide PPL with an opportunity to earn a reasonable return on equity and attract capital in these challenging economic times.

Based on the facts of this case, OCA witness Watkins performed a reasonable and appropriate Cost of Service Study (COSS). Specifically, Mr. Watkins' COSS classified primary distribution plant exactly how PPL did prior to 2010 – 100% demand related. Mr. Watkins then classified secondary distribution plant as partially demand and partially customer related, as PPL proposed, but Mr. Watkins used a more appropriate customer component than PPL based on his revisions to Mr. Kleha's minimum size study. As discussed herein, the OCA's COSS reflects accepted cost of service principles and should be used as the primary guide for setting rates in this proceeding. The OCA's COSS shows that the major residential rate schedule, Rate RS, is providing a return at present rates that is 112% of the system average return. Based on these results and recognizing the principles of gradualism, rate continuity and fairness, Mr. Watkins recommended a more appropriate revenue allocation that removed any rate decreases for customer classes, moderated the increases to the residential rate schedules and moved all classes toward the system average rate of return.

With regard to rate design, OCA witness Watkins recommended that PPL's proposed 83% increase to the residential Rate RS customer charge be rejected and that the $8.75 monthly customer charge be maintained. Mr. Watkins performed a direct customer cost analysis, which included only those costs required to connect a customer and maintain a customer's account, which concept has been accepted practice by this Commission. OCA witness Colton provided an in-depth analysis of how PPL's substantial proposed increase to the fixed customer charge for Rate RS would disproportionately negatively affect low-income households. These households can least afford a significant increase to fixed costs and would not have an opportunity to lower such costs through energy efficiency or conservation measures. As discussed herein, Mr. Watkins' recommendation to maintain PPL's fixed customer charge for Rate RS at its current level of $8.75 per month is supported by the evidence and should be adopted.

With regard to universal service programs, OCA witness Colton made several recommendations to strengthen PPL's Customer Assistance Program (CAP) outreach efforts, to recognize a possible change in the application of Low-Income Home Energy Assistance Program (LIHEAP) funds to CAP customers' accounts and to target low-income customers with consumer education efforts. PPL agreed to implement a recommendation of Mr. Colton to modify the Company's termination notice to include information about CAP. The OCA submits that PPL should be directed to implement Mr. Colton's other recommendations regarding CAP outreach. Specifically, the Company should be directed to engage in direct contact outreach to its confirmed low-income customers with 120 or more days of arrears and also engage in a direct contact outreach program focused on <u>all</u> of its customers with 120 or more days or arrears.

With regard to Mr. Colton's recommendation for PPL to direct a portion of its consumer education funding toward assisting Local Housing Authorities (LHAs) to implement energy

efficiency measure in Section 8 and public housing, PPL indicated its partial agreement and the Company's commitment to incorporate a program for LHAs in its Consumer Education Plan. The OCA supports PPL's commitment to allow its Consumer Education Plan to evolve and supports the Company's proposal on this issue as described further herein.

In its filing, PPL proposed to implement a Competitive Enhancement Rider (CER) to collect the costs of following: (1) consumer education; (2) consumer mailings required by the Commission through the Retail Markets Investigation (RMI) and other non-capital operating costs that arise from the RMI; and (3) any retail enhancement program costs not recovered from Electric Generation Suppliers. With regard to the CER, OCA witness Watkins recommended that the Rider be named the Consumer Education Rider and limit recovery through the Rider to consumer education costs only. Mr. Watkins also recommended that certain safeguards be implemented regarding the costs recovered through the Rider. Also, Mr. Watkins recommended that the Rider be structured on a class by class kWh charge basis, rather than on a per customer basis as proposed by PPL. As discussed herein, Mr. Watkins' recommendations regarding the proposed Rider are reasonable and appropriate and should be adopted.

In this Main Brief, the OCA also addresses an issue raised by Direct Energy, which was not included in PPL's filing. Direct Energy proposed two changes to PPL's existing Purchase of Receivables (POR) program. In this matter, the burden is on Direct Energy to prove that such changes are necessary and that its proposal is just and reasonable. The OCA submits that Direct Energy failed to meet its burden of proof, and the proposal should, therefore, be rejected.

III. RATE BASE

In his direct testimony, OCA witness Richard J. Koda[1] recommended adjustments to PPL's proposed rate base in the following areas: (1) Plant in Service; (2) Accumulated Reserve for Depreciation; (3) Cash Working Capital; and (4) Accumulated Deferred Taxes. See OCA St. 1-REV. at 8-15. After review of the Company's rebuttal testimony and additional discovery responses, OCA witness Koda determined to withdraw his recommended adjustments to Plant in Service for post-future test year additions and for the capitalized portion of PPL Services' incentive compensation plan expense. See OCA St. 1-SR at 3; Exh. KC-1-SR Sched. 1 at 2. After review of the Company's rebuttal testimony, Mr. Koda also withdrew his recommended adjustment to Accumulated Deferred Taxes and to those Accumulated Deferred Taxes specifically relating to post-future test year additions and PPL Services' incentive compensation plan expense. See OCA St. 1-SR at 5; Exh. KC-1-SR Sched. 1 at 2.

PPL agreed to make downward adjustment to the Company's proposed Cash Working Capital requirements to reflect an error in the Company's data on monthly revenues as a percent of annual revenues. The Company indicated in its response to OCA-VI-3(e) that it would make the adjustment to its final accounting exhibit. See OCA Exh. KC-1-SR Sched. 2 at 4 (line 5).

Mr. Koda's remaining recommended adjustments to PPL's proposed rate base resulted in a cumulative downward adjustment to PPL's proposed rate base in the amount of $10,953,000. OCA Exh. KC-1-SR Sched. 1 at 2.

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[1] Mr. Koda established Koda Consulting, Inc. in 1999, and his firm offers consulting services in financial and management consulting, particularly in the area of utility regulation. Prior to beginning his own consulting firm, Mr. Koda held positions at private consulting firms and at Citizens Utilities Company. Mr. Koda was awarded a MBA degree from the University of Connecticut and a B.S. in Business Administration with a major in Accounting from Seton Hall University. Mr. Koda's curriculum vitae is attached to OCA St. 1-REV. as Appendix A.

A. Measures Of Value.

For the reasons discussed below in this Section III on rate base adjustments, OCA witness Koda recommended that the Measures of Value of PPL's proposed rate base be reduced by $10,953,000. See OCA Exh. KC-1-SR Sched. 1 at 2.

B. Plant In Service.

In his direct testimony, OCA witness Koda recommended an adjustment be made to PPL's proposed Plant in Service because it appeared that anticipated in-service dates for some of the projects were outside the end of the future test year. See OCA St. 1-REV. at 9. Section 1315 of the Public Utility Code, 66 Pa. C.S. § 1315, prohibits non-used and useful projects in Plant in Service. Mr. Koda also recommended that PPL's proposed Plant in Service be reduced to reflect the capitalized portions of his recommended adjustments to employee levels and incentive compensation. See OCA St. 1-REV. at 10; Exh. KC-1-REV. Sched. 1 at 2; Sched. 2 at 2.

In his surrebuttal testimony, OCA witness Koda testified that after reviewing the rebuttal testimony of PPL witness Banzhoff, he determined it would be appropriate to withdraw his recommended adjustment to Plant in Service based on post-future test year projects. See OCA St. 1-SR at 3; Exh. KC-1-SR Sched. 2 at 2. Mr. Koda also withdrew his recommended adjustment to Plant in Service for the capitalized portion of PPL Services' incentive compensation plan. See OCA Exh. KC-1-SR Sched. 1 at 2.

OCA witness Koda, however, continued to recommend adjustments to Plant in Service that reflect the capitalized portions of his recommended adjustments to employee levels and PPL's incentive compensation plan. See OCA Exh. KC-1-SR Sched. 1 at 2. These adjustments are discussed in more detail below in Sections V.A and V.B, respectively. The capitalized portion of Mr. Koda's recommended adjustment to employee levels results in a downward

adjustment to PPL's proposed rate base of $1,883,000. OCA Exh. KC-1-SR Sched. 1 at 2. The capitalized portion of Mr. Koda's recommended adjustment to PPL's incentive compensation plan results in a downward adjustment to PPL's proposed rate base of $1,678,000. OCA Exh. KC-1-SR Sched. 1 at 2.

C. Accumulated Reserve For Depreciation.

In its filing, the Company claimed $1,812,612,000 in its Accumulated Reserve for Depreciation, based on Plant in Service and amortization of net salvage, for the pro-forma test year ending December 31, 2012. See PPL Exh. Future D-1 at 1. PPL reflected depreciation accruals of only $155,248,000, although PPL proposed that the Commission recognize annual depreciation expenses of $168,920,000. Id.

As a result, OCA witness Koda recommended that the Company's proposed level of Accumulated Reserve for Depreciation be increased by $10,417,000 (rounded to the nearest $1,000) to better match the claimed depreciation expense, which resulted in a corresponding reduction to PPL's rate base of $10,417,000 (rounded to the nearest $1,000). See OCA St. 1-REV. at 11-12; Exh. KC-1-REV. Sched. 2 at 3.

As explained by Mr. Koda:

> Because the reserve for depreciation is built-up by recording depreciation expense related to plant in service, the reserve should reflect the depreciation expense claimed as a reduction of operating income in the rate proceeding consistent with the period ending plant in service claimed in the proceeding.

OCA St. 1-REV. at 11.

In rebuttal, PPL witness Spanos took issue with Mr. Koda's adjustment. See PPL St. 13-R. Mr. Spanos asserted that no adjustment is necessary to PPL's claimed Accumulated Reserve for Depreciation even though the Company's claimed depreciation accruals were not equal to its depreciation expenses in the filing. PPL St. 13-R at 4. Mr. Spanos further asserted that it is

appropriate to utilize an annualized pro forma depreciation expense at the end of the future test year in this proceeding, but it is not appropriate to adjust the accumulated depreciation accordingly because it is not the level of the depreciation accrual that PPL will experience during the future test year. Id.

Mr. Spanos claimed that such methodology was approved in PPL's 2010 base rate proceeding. PPL St. 13-R at 4. The revenue requirement portion of PPL's 2010 base rate proceeding, however, was the subject of a black box settlement. See Pa. PUC v. PPL Electric Utilities Corporation, Docket No. R-2010-2161694, Order at 9, 19, 21 (Dec. 21, 2010) (PPL 2010). No specific accommodation was made in PPL 2010 regarding Accumulated Reserve for Depreciation. Id. Mr. Spanos also asserted that his methodology has been accepted by this Commission, but he failed to provide any citation to support this claim.

In surrebuttal, OCA witness Koda further explained his position that proposed depreciation accruals should be synchronized with proposed depreciation expense, as follows:

> In the revenue requirement calculation setting rates, ratepayers are being asked to pay for the full level of depreciation expense, including that applicable to future test year additions during the rate year. Therefore, I believe that it is appropriate for ratepayers to have the full portion of that expense applied to accumulated depreciation. I believe that the full level of depreciation expense proposed to be reflected in rates should also be synchronized and applied to the accumulated reserve.
>
> * * *
>
> In setting utility rates, it is important that the accrued depreciation expense being claimed and reserve on which rates will be set are appropriately synchronized.

OCA St. 1-SR at 4. In other words, the depreciation expense included in the cost of service and the additions to the depreciation reserve, which are deducted from rate base, should both be based on the level of plant that the Company claims will be in service at the end of the future test year.

The Commission should modify the Company's claim for Accumulated Reserve for Depreciation by recognizing that ratepayers are paying the full level of depreciation expense. Therefore, the Commission should adopt Mr. Koda's adjustment to increase depreciation accruals by $10,417,000 to correspond to the depreciation expense for which ratepayers are responsible. OCA St. 1-REV. at 11-12; Exh. KC-1-REV. Sched. 2 at 3. See also OCA St. 1-SR at 4; Exh. KC-1-SR Sched. 1 at 2; Sched. 2 at 3. This results in a downward adjustment to PPL's rate base of $10,417,000 (rounded to the nearest $1,000). OCA St. 1-REV. at 12; Exh. KC-1-REV. Sched. 1 at 2. See also OCA St. 1-SR at 3-5; Exh. KC-1-SR Sched. 1 at 2.

D. Additions To Rate Base.

OCA witness Koda's recommended adjustments to Operation and Maintenance Expenses also had an impact on PPL's Accumulated Deferred Taxes, which is a function of the accounting model used to determine a utility's revenue requirement. See OCA Exh. KC-1-SR Sched. 2 at 6. As discussed below in Section V.A, Mr. Koda recommended an adjustment to PPL's proposed payroll expense based on PPL's employee complement. Mr. Koda's recommended adjustment to PPL's proposed payroll expense affected PPL's Accumulated Deferred Tax requirements, which increased PPL's proposed rate base by $781,000. See OCA Exh. KC-1-SR Sched. 1 at 2 (line 11).

Also, as discussed below in Section V.B, Mr. Koda recommended an adjustment to PPL's proposed incentive compensation plan expense. Mr. Koda's recommended adjustment to PPL's proposed incentive compensation plan expense affected PPL's Accumulated Deferred Tax requirements, which increased PPL's proposed rate base by $696,000. See OCA Exh. KC-1-SR Sched. 1 at 2 (line 12).

OCA witness Koda's recommended adjustments to Accrued Taxes and Interest Payments also had an impact on PPL's proposed Cash Working Capital requirements. See OCA St. 1-REV. at 13. The recommended adjustments relating to Accrued Taxes are based on Mr. Koda's computation of PA gross receipts tax and PA capital stock taxes, which he recalculated using his recommended adjustments. Id. See also OCA Exh. KC-1-SR Sched. 4 at 8, 9. Mr. Koda's recommended adjustment to PPL's proposed Cash Working Capital based on Accrued Tax adjustments resulted in an increase to PPL's proposed rate base of $3,480,000. OCA Exh. KC-1-SR Sched. 1 at 2 (line 7).

Mr. Koda recommended an upward adjustment to PPL's proposed Cash Working Capital Interest to reflect changes in Measures of Value Rate Base and OCA witness Hill's recommended Long-Term Debt Ratio and embedded cost of Long-Term Debt. See OCA St. 1-REV. at 13. See also OCA Exh. KC-1-SR Sched. 2 at 7. Mr. Koda's adjustment to PPL's proposed Cash Working Capital based on Interest Payments results in an increase to PPL's proposed rate base of $488,000. OCA Exh. KC-1-SR Sched. 1 at 2 (line 8).

E. Deductions From Rate Base.

In addition to the downward adjustments to rate base discussed above in other portions of this Section III on rate base, OCA witness Koda's recommended adjustments to Operation and Maintenance Expenses also had an impact on PPL's Cash Working Capital requirements. See OCA St. 1-REV. at 12-13. See also Exh. KC-1-SR Sched. 2 at 5. Mr. Koda explained:

> The level of cash working capital needed by the Company is affected by the adjustments adopted by the Commission in this proceeding. The level of cash working capital that I am recommending the Commission adopt in this proceeding reflects the test-year operating and maintenance expense and tax adjustments that I am recommending within the body of this testimony. It is appropriate that the cash working capital in this proceeding fully reflect any and all adjustments adopted by the Commission in this proceeding. Combining my recommended changes to the Company's proposed components of cash working capital,

> including the operating expense portion of cash working capital, accrued taxes, interest payments and a stale data adjustment, yields what I believe to be the Company's appropriate cash working capital requirement.

OCA St. 1-REV. at 12. Mr. Koda's recommended adjustments to PPL's proposed operating expenses resulted in a downward adjustment to PPL's proposed rate base of $1,020,000. See OCA Exh. KC-1-SR Sched. 1 at 2 (line 6).

Mr. Koda also noted a downward adjustment to PPL's proposed Cash Working Capital requirements to reflect an error in the Company's data, which adjustment the Company indicated in its response to OCA-VI-3(e) it would make to its final accounting exhibit. See OCA Exh. KC-1-SR Sched. 2 at 4 (line 5). The adjustment was reflected in the Company's data on monthly revenues as a percent of annual revenues. The updated data resulted in a downward adjustment to PPL's proposed rate base of $1,400,000. OCA Exh. KC-1-SR Sched. 1 at 2 (line 9).

F. Conclusion.

As discussed above, the Commission should modify the Company's rate base claim. Mr. Koda's recommended adjustments to PPL's proposed rate base resulted in a cumulative downward adjustment to PPL's proposed rate base in the amount of $10,953,000. OCA Exh. KC-1-SR Sched. 1 at 2. Mr. Koda's adjustments are reasonable and should be adopted.

IV. REVENUES

A. Reconnection Fees.

PPL has proposed an increase to its reconnection fees from $15.00 to $30.00 during normal business hours and from $21.00 to $50.00 during non-business hours. OCA St. 3 at 47. After review, OCA witness Watkins concluded that:

> While I am concerned that these increases will largely fall on those customers who can least afford to pay these fees; i.e., low-income customers, I also recognize that these fees should be reflective of the costs incurred by PPL to reconnect customers due to failure to pay their bills or make alternative payment

> arrangements. Considering the approved reconnection fees for other Pennsylvania utilities, and the cost support provided by PPL in response to I&E Data Request RS-27-D and OCA Data Request V-46, I do not oppose these increases at this time. However, with the continued installation and implementation of smart meters and smart metering technology, there is a likelihood that the costs to connect and reconnect customers in the future will decrease substantially due to technological changes. In this regard, I recommend that the Commission direct PPL to monitor the costs of reconnections and provide a detailed cost analysis of such reconnections (with and without smart metering) in its next general rate case.

OCA St. 3 at 48. In the OCA's view, some level of operational efficiencies and synergies should develop from the use of technology such as smart meters. Consistent with Mr. Watkins' testimony, the OCA recommends that the Commission direct PPL to provide a study as described above in its next base rate case.

V. EXPENSES

OCA witness Koda recommended adjustments to PPL's Operation and Maintenance Expenses in the following areas: (1) Payroll Expense; (2) Incentive Compensation Plans of PPL and PPL Services; (3) Rate Case Expense; and (4) Consumer Education. See OCA St. 1-SR at 5-10; OCA Exh. KC-1-SR Sched. 1 at 2. As discussed below in Section V.C, the Company accepted Mr. Koda's recommended disallowance of its claimed Rate Case Expense for PPL's 2010 base rate case. See PPL St. 8-R at 42; PPL Exh. Future 1-REV.

OCA witness Koda's recommended adjustments to PPL's Expenses resulted in a downward adjustment to PPL's proposed expenses of $7,685,000. See OCA Exh. KC-1-SR Sched. 1 at 2.

A. Payroll Expense.

PPL based its payroll and related benefits expenses for the future test year on 2,002 active employees. See PPL Future Exh. D-5, PPL St. 2 at 9-10. As noted by OCA witness Koda, however, PPL's actual number of employees for the first quarter of the test year (January 1, 2012

– March 31, 2012) is 71 fewer than the Company projected for the same period. OCA. St. 1-REV. at 17. Therefore, Mr. Koda recommended that PPL's payroll and related benefits expenses for the future test year be based on 1,943 employees, which is PPL's average number of employees over the past sixteen months. See OCA St. 1-REV. at 17-18; Exh. KC-1-REV. Sched. 4 at 3.

In rebuttal, PPL witness Banzhoff asserted that PPL employed 1942 employees as of June 30, 2012, and had 106 positions in the process of being filled. See PPL St. 2-R at 8. Mr. Banzhoff testified that Mr. Koda's recommended number of employees failed to account for "appropriate levels of staffing required to manage and maintain PPL Electric's transmission and distribution system to meet customer needs." Id.

This Commission has stated that budgeted employee levels should be reasonably based on historic data. See e.g. Pa. PUC v. PPL Gas Utilities Corporation, 255 P.U.R. 4th 209, 242 (Pa. PUC 2007) (PPL Gas 2007). In PPL Gas 2007, the ALJ accepted the company's employee complement claim, stating that it was reasonable and supported by the record. Id. at 241. The record evidence showed the PPL Gas's employee complement had been less than 1/5 of one position below the company's budgeted amount of employees, and at times, the company's employee complement was greater than budgeted. Id. The Commission adopted the ALJ's recommendation, reasoning that the company's budgeted employee complement was reasonably accurate and supported by historic data. Id. at 242. The Commission also noted that over time, the difference between PPL Gas's actual employee complement and its budgeted employee complement had been insignificant. Id.

In the present matter, however, the difference in PPL's budgeted employees and actual employees has been historically significant. PPL has exhibited a pattern of significantly over-

budgeting its employee levels in its future test year. See OCA Exh. KC-1-REV. Sched. 4 at 3. For January 2012, PPL budgeted for 1,989 employees but actually employed only 1,929 people (a difference of 60 employees) for that month. Id. For February 2012, PPL budgeted for 1,991 employees but actually employed only 1,920 people (a difference of 71 employees) for that month. Id. For March 2012, PPL budgeted for 2,000 employees, but PPL actually employed only 1,917 people (a difference of 83 employees) for that month. Id. In fact, PPL's employee complement has been steadily declining since December 2010, when it had 1,974 employees, to its 16-month low of 1,917 employees in March 2012. Id. Mr. Koda noted that PPL's employee level as of June 30, 2012 (1,942 employees), is still below the number on which Mr. Koda recommended that PPL's payroll be based (1,943 employees). OCA St. 1-SR at 5-6. Based on this pattern and because the Company did not substantiate its claim of adding 106 additional positions by the end of 2012, Mr. Koda asserted that his recommendation to use an employee complement of 1,943 to determine payroll expense is valid. See OCA St. 1-SR at 6.

Further, Mr. Koda recognized:

> [T]he Company has not provided any evidence that, during the period of December 2010 through March 2012 when it averaged 1,943 employees, the management and maintenance of PPL Electric's transmission and distribution systems were inadequate to meet customer needs.

OCA St. 1-SR at 6. In other words, PPL failed to provide evidence that it must add employees to meet its obligation to provide adequate service even though the Company's employee complement has been steadily decreasing since December 2010.

The Commission should adopt Mr. Koda's adjustment to PPL's proposed payroll expense based on Mr. Koda's recommended adjustment to PPL's employee complement. The Commission should use an average of PPL's employee complement from December 2010, which is a month before PPL's last base rate increase took effect, to March 2012 to calculate PPL's

payroll expense. The resulting average number of employees for this timeframe is 1,943 employees. See OCA St. 1-REV. at 16-18; Exh. KC-1-REV. Sched. 4 at 3. See also OCA St. 1-SR at 5-6; Exh. KC-1-SR Sched. 4 at 3. This adjustment resulted in a downward adjustment to PPL's payroll expense in the amount of $3,740,000. OCA St. 1-SR at Exh. KC-1-SR Sched. 4 at 3, Sched. 1 at 2.

B. Incentive Compensation.

In this case, PPL claimed $8,937,000 in incentive compensation expense directly incurred by the Company and $9,803,000 in incentive compensation expense embedded in its PPL Services[2] costs. OCA witness Koda recommended that two-thirds of PPL's incentive compensation expense for both PPL and PPL Services be apportioned to shareholders. See OCA St. 1-REV. 18-21. Mr. Koda asserted the basis for his recommendation relating to PPL as follows:

> I believe that the descriptions of the Plans provided by the Company indicate that the purpose, goals and targets of these incentive programs are not focused on improving the operational fitness of the electric distribution company to the betterment of customers and ratepayers. Instead, the incentive plans primarily focus on the corporate and financial objectives of the corporate parent and electric distribution company in Pennsylvania. Therefore, it is appropriate that a major portion of incentive compensation costs be borne by the Company's shareholders, who benefit the most from the achievement of certain performance criteria which form the basis of the Plans. I believe that a lack of apportionment between ratepayers and shareholders is both inappropriate and inequitable given the criteria on which the incentive compensation payments are made.

OCA St. 1-REV. at 18-19. With regard to the PPL Services incentive compensation plan, Mr. Koda asserted:

> [T]he incentive pay is based on having a similar purpose and meeting corporate and financial performance targets, which mostly benefit shareholders. For the same reasons cited above for the Company's internal incentive plan, I recommend

[2] PPL Services is a corporate affiliate to PPL that provides legal, accounting and a variety of administrative services to regulated and non-regulated subsidiaries of PPL Corporation, PPL's parent company. See OCA St. 1-REV. at 20. See also PPL St. 3-R at 2.

> that a similar adjustment be made to eliminate a major portion of the PPL Services incentive pay from the determination of rates in this case.

OCA St. 1-REV. at 20.

I&E witness Morrissey recommended that PPL's incentive compensation expense be apportioned equally between ratepayers and shareholders. See I&E St. 2 at 16-17. Ms. Morrissey explained: "the Company has failed to support its claimed position that ratepayers exclusively benefit from the achievement of the unspecified [Earnings Per Share], Financial Objectives and Operating Goals." Id. at 17.

In rebuttal, PPL witness Cunningham asserted that the incentive compensation plans are part of PPL's total compensation package, which motivates employees to perform, and such plans are prevalent industry practice. PPL St. 3-R at 15-16, 23. Ms. Cunningham testified that the entire budgeted incentive compensation amounts should be permitted in rates. PPL St. 3-R at 20, 24-25.

UGI Utilities, Inc. – Electric Division (UGI Electric) made a very similar argument in its 1994 rate case, and the Commission rejected UGI Electric's attempt to charge its incentive compensation package solely to ratepayers. See Pa. PUC v. UGI Utilities, Inc.-Electric Division, 82 Pa. PUC 488, 508 (1994) (UGI Electric 1994). In UGI Electric 1994, the Office of Trial Staff (OTS, now I&E) recommended that a portion of the company's two incentive compensation programs be charged to shareholders because (1) the programs were directed at corporate financial goals and market performance rather than improved ratepayer service; (2) the company had not quantified either productivity savings to ratepayers or the incentive expenses themselves; and (3) the company had not shown that such incentives were necessary for providing public utility service. Id. at 504.

UGI Electric asserted that incentive compensation constitutes a component of total compensation, and base salaries would have to be higher without it. Id. Also, the company argued that incentive compensation programs are appropriate and effective management tools widely utilized by regulated and non-regulated companies. Id.

In recommending disallowance of the entire expense related to UGI Electric's incentive compensation plans, the administrative law judge noted how disturbing it is when the focus of incentive compensation plans is the parent company's profitability rather than focusing on the operational effectiveness of the subsidiary. Id. at 505. See also Pa. PUC v. Roaring Creek Water Co., 81 Pa. PUC 285 (1994) (RCWC 1994); Pa. PUC v. Philadelphia Gas Works, 2007 Pa. PUC LEXIS 45 (2007) (PGW 2007). The Commission adopted the ALJ's recommendation to disallow the company's incentive compensation plan expense. UGI Electric 1994 at 508.

In RCWC 1994, the company sought recovery of an incentive bonus program for management. 81 Pa. PUC at 297. OTS (now I&E) recommended disallowance of the entire expense claim because the main goals of the program involved meeting income and earnings targets. Id. The OCA also recommended disallowance of the entire claim because the program goals were the enhancement of earnings, not company improvements in service to ratepayers. Id. The ALJ recommended that OCA's proposal to disallow the expense be adopted because RCWC's incentive bonus program was not aimed at enhancing productivity and efficiency of the company. Id. at 298. The ALJ went on to note that it was conceivable that RCWC management could receive incentive bonuses because the parent company's profitability was enhanced at the expense of needed service improvements. Id. The Commission agreed with the ALJ and denied RCWC's incentive bonus expense, stating that it was disturbed by RCWC's "errant focus on profitability over operational effectiveness." Id. at 299.

In PGW 2007, PGW sought to include a $500,000 management incentive compensation program in rates. Id. at *68. OCA and OTS objected to the expense because PGW failed to provide documentation showing that the program actually achieved its stated goal of attracting and retaining its 55 top managers. Id. at *69-70. In denying the expense, the Commission noted that the program's clearly articulated, well-defined, quantitative goals and criteria, as are used in private industry for such 'pay-for-performance' programs, are absent. Id. at *76.

In his surrebuttal testimony in the present matter, OCA witness Koda recognized that PPL witness Cunningham provided additional information regarding PPL's and PPL Services' incentive compensation plans in her rebuttal testimony, but a significant goal of the plans continued to be benefitting shareholders. See OCA St. 1-SR at 6-7. Specifically, Mr. Koda testified:

> It appears that the focus of the incentive plan has shifted from the incentive compensation information originally provided by the Company in response to data requests. From the information provided by Ms. Cunningham in her rebuttal, there appears to be more emphasis being placed on utility operations and workforce readiness. However, I still maintain that a significant goal of the incentive compensation of both plans benefits shareholders more than ratepayers albeit to a lesser degree overall. Therefore, rather than the two-thirds exclusion, I am now recommending that only one-half of the incentive compensation program costs be disallowed for ratemaking by the Commission. I am not saying that the one-half of incentive compensation expense should not be incurred, but that it should be funded by shareholders.

OCA St. 1-SR at 7. As Mr. Koda stated, his recommendation is that the Commission disallow 50% of PPL's proposed incentive compensation expense for PPL and PPL Services.

In surrebuttal, I&E witness Morrissey testified that she continued in her recommendation stated in her direct testimony that 50% of PPL's incentive compensation plan expense be disallowed. See I&E St. 2-SR at 10. Ms. Morrissey stated that PPL witness Cunningham failed to disclose in her rebuttal testimony the target goals of the plan or the calculations that result in

the Company's incentive compensation plan claim. Id. Ms. Morrissey also testified that the omission of these detailed calculations and goals do not allow the Commission to scrutinize the plan's prudence and priorities. Id. at 11. Instead, as noted by Ms. Morrissey, the plans show that the focus of PPL's mission includes giving best-in-sector returns to its shareholders and that generally, shareholder value must be first achieved before any incentive payout occurs, with the level of shareholder value achieved being the driving payout factor. Id.

PPL's incentive compensation plans in the present case are similar to those claimed in UGI Electric 1994, RCWC 1994 and PGW 2007. Like UGI Electric's claimed plan in its 1994 base rate case, PPL's incentive compensation plans are, for the most part, directed at corporate financial goals and market performance rather than improved ratepayer service. Further, the plans' goals are not quantified in either productivity savings to ratepayers or the incentive expenses themselves, and PPL has not shown that such incentives were necessary for providing public utility service. Like RCWC's claimed plan in its 1994 base rate case, the profitability of PPL's parent company, PPL Corporation, is a large factor in incentive compensation payments. Earlier this year, PPL Corporation Chairman, President and Chief Executive Officer William H. Spence stated in a press release that he forecasted that 70% of PPL Corporation's ongoing earnings "will come from our rate-regulated businesses in the United Kingdom, Kentucky and Pennsylvania." See I&E Cross Exh. 5 at 1. Like PGW's claimed plan in its 2007 base rate case, PPL failed to provide clearly articulated, well-defined, quantitative goals and criteria for its plans. Likewise, in the present matter, the Commission should disallow at least a portion of the claimed expense of PPL's claimed incentive compensation plan expense.

The Commission should adopt Mr. Koda's adjustment to disallow 50% of the claimed expense for PPL's and PPL Services' incentive compensation plan expense. OCA St. 1-SR. at 6-

8; Exh. KC-1-SR, Sched. 4 at 4. See also OCA St. 1-REV at 18-21. Mr. Koda's recommendation resulted in a downward adjustment to PPL's proposed expenses of $4,468,000 related to PPL's incentive compensation plan and $4,902,000 related to PPL Services' incentive compensation plan. See OCA Exh. KC-1-SR Sched. 4 at 4. See also OCA Exh. KC-1-SR, Sched. 1 at 2 (lines 19 and 20).

C. Rate Case Expense.

In this matter, PPL sought to amortize its remaining rate case expense of $674,000 from its prior base rate case and normalize its rate case expense for the present case of $1,013,000 over a two-year period. PPL Exh. JMK-2 at 20; PPL Exh. Future 1, Sched. D-6.

OCA witness Koda recommended disallowance of PPL's request for an amortization of rate case expense from the Company's prior base rate case. See OCA St. 1-REV. at 21. I&E witness Morrissey similarly recommended that the expense be disallowed. I&E St. 2 at 15. In his rebuttal testimony, PPL witness Kleha agreed with Mr. Koda and Ms. Morrissey and withdrew PPL's claim for amortization of PPL's 2010 rate case expense. PPL St. 8-R at 42; PPL Exh. Future 1-REV. This resulted in a downward adjustment of $674,000 to PPL's proposed expenses. PPL St. 8-R at 42; OCA St. 1-REV. at 21; OCA Exh. KC-1-SR Sched. 4 at 5; I&E St. 2 at 15.

With regard to PPL's rate case expense for the present matter, OCA witness Koda recommends that the normalization period should be three years rather the two-year period that PPL proposes because three years is consistent with the time between PPL's rate case filing history. OCA St. 1-REV. 21-22. See also OCA St. 1-SR at 10. The Commission has consistently held that rate case expenses are normal operating expenses, and normalization should, therefore, be based on the frequency of the utility's rate filings. See e.g. Pa. PUC v.

Columbia Water Co., 2009 Pa. PUC LEXIS 1423 (2009); Pa. PUC v. City of Lancaster Sewer, 2005 Pa. PUC LEXIS 44 (2005); Popowsky v. Pa. PUC, 674 A.2d 1149, 1154 (Pa. Commw. 1996); Pa. PUC v. Roaring Creek Water Co., 73 Pa. PUC 373, 400 (1990); Pa. PUC v. National Fuel Gas Dist. Corp., 84 Pa. PUC 134, 175 (1995); Pa. PUC v. West Penn Power Co., 119 P.U.R. 4th 110, 149 (Pa. PUC 1990).

In his rebuttal testimony, PPL witness Kleha maintains that PPL's claimed rate case expense for the present matter should be normalized over two years, but he does not address the issue that a two-year normalization period is inconsistent with PPL's actual base rate case filing history or provide any other reasoning in support of a two-year normalization period. PPL St. 8-R at 42. In recent cases the Commission reiterated that the normalization period is determined "by examining the utility's actual historical rate filings, not upon the utility's intentions." Pa. PUC v. City of Lancaster, 2011 Pa. PUC LEXIS 1685 (2011); Pa. PUC v. Metropolitan Edison Co., 2007 Pa. PUC LEXIS 5 (2007). OCA witness Koda's adjustment is based on PPL's actual historical frequency of filing base rate cases since 2004. Id. at 21. PPL's prior three rate cases were filed at the end of March 2004, 2007 and 2010 – exactly three years apart. Id.

Mr. Koda provided the following additional reasons why PPL is unlikely to file another base rate case in less than three years:

> [T]he Company has the potential to file for a Distribution System Improvement Charge Rider ("DSIC"), which may add to its ability to derive revenues from a mechanism outside of a base rate proceeding.
>
> Another reason for a normalization period of more than two years pertaining to rate case expense is that I believe the current slow economy will allow the Company to go more than two years before having to file another base rate case. In my opinion it is unlikely that there will be increased expense pressures placed on the Company during this period to file another base rate case before three years have elapsed.

OCA St. 1-REV. at 22.

Consistent with Commission precedent on this issue, Mr. Koda's recommendation to normalize PPL's rate case expense claim over three years in order to match PPL's historical rate case filing history should be adopted. Mr. Koda's adjustment is detailed in OCA Exhibit KC-1-REVISED, Schedule 4, Page 5 and OCA Exhibit KC-1-SR, Schedule 4, Page 5. Mr. Koda's recommended adjustment to the normalization period for PPL's rate case expense resulted in a downward expense adjustment of $338,000. See OCA Exh. KC-1-SR Sched. 4 at 5. The cumulative effect of Mr. Koda's rate case expense adjustments, which includes disallowance of PPL's claim for its 2010 base rate case expense discussed above, was a downward adjustment to PPL's proposed expenses of $1,012,000. See OCA Exh. KC-1-REV, Sched 1 at 2 (line 21).

D. Consumer Education.

The Company proposed recovering its annual non-capital consumer education costs of $8,623,330 through a new reconcilable rider called the Competitive Enhancement Rider (CER).[3] See PPL St. 5 at 33. As amended, PPL's consumer education costs were approximately $6,082,220 annually. See PPL St. 5-R at 29. The Company collected its approved consumer education expenses of approximately $5 million per year for its 2008-2012 Consumer Education Plan through base rates pursuant to the Commission's Final Order entered May 17, 2007, at Docket M-00061957.[4] See PPL St. 5 at 31. PPL witness Krall testified that PPL proposed to recover these costs through a reconcilable rider for three reasons: (1) absent a mandate from the Commission to continue the Consumer Education Plan for a specified period of time, a reconcilable rider provides a more flexible approach that can be adjusted should the need for consumer education, programs and spending levels change; (2) other electric distribution

[3] Other aspects of the CER, including the structure of the rider and other costs proposed to be recovered through the rider, are discussed below in Section IX.D.

[4] Recommendations regarding specific types of consumer education programs are discussed below in Section IX.C.

companies recover consumer education costs through a reconcilable rider; and (3) some actions arising from the Retail Markets Investigation[5] could be labeled consumer education. Id. at 37-38.

PPL witness Krall specifically identified and quantified three costs to be included in the total CER claim of $8,623,330. See PPL St. 5 at 38-39. Regarding the first claimed cost, Mr. Krall testified that the Company included its ongoing annual consumer education expense claim of $5,482,220. PPL St. 5 at 39. Regarding the second claimed cost, PPL proposed to recover its 2012 consumer education costs of $5,482,220 in the CER using an amortization period of two years (or $2,741,110 per year for two years). Id. at 39. Regarding the third claimed cost, PPL proposed to also include in the CER $400,000 in estimated costs to print and mail a postcard to customers annually encouraging them to participate in the retail electricity market pursuant to the RMI Final Order entered March 2, 2012.[6] PPL St. 5 at 38.

In his rebuttal testimony, however, Mr. Krall revised the costs that PPL intended to recover through the CER as follows: $5,482,220 annually for ongoing consumer education programs, $400,000 for annual RMI postcard, and $400,000 for the RMI postcard sent to customers in 2012 amortized over two years (or $200,000 per year for two years). PPL St. 5-R at 29. Additionally, other costs proposed to be collected through the CER were of unspecified, non-estimated amounts. PPL St. 5-R at 29.

OCA witness Koda recommended that the Commission maintain the Company's consumer education costs at $5,400,000 annually based on the approved amounts for PPL's 2008-2012 Consumer Education Plan. OCA St. 1-REV at 25. Mr. Koda incorporated the

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[5] See Investigation of Pennsylvania's Retail Electricity Market: Intermediate Work Plan, Docket No. I-2011-2237952 (RMI).

[6] See Investigation of Pennsylvania's Retail Electricity Market: Intermediate Work Plan, Docket No. I-2011-2237952, Order at 10 (March 2, 2012) (IWP Final Order).

recommendations of OCA witness Colton, regarding specific consumer education programs to be offered, and OCA witness Watkins, regarding structure of the CER, in arriving at his $5,400,000 annual consumer education cost recommendation. Id. at 24. In his surrebuttal testimony, after considering PPL's amended consumer education claim, OCA witness Koda maintained his recommendation to keep consumer education funding at $5,400,000 annually. See OCA St. 1-SR at 8-9. Taking into account OCA witness Colton's recommendations regarding form, content and audience of PPL's consumer education programs, which are discussed below in Section IX.C, Mr. Koda stated that his recommended adjustment is appropriate. Id. at 9. The effect of Mr. Koda's adjustment is a downward adjustment of $2,576,000 to PPL's proposed expenses. See OCA Exh. KC-1-SR, Sched. 1 at 2.

VI. TAXES

The OCA has not recommended any adjustments to taxes in this matter, with the exception of payroll taxes as they relate to individual expense adjustments. Such adjustments are discussed within their corresponding expense sections above. Also, the OCA recommended adjustments to PPL's proposed Federal and State Taxes applicable to interest synchronization and to PPL's proposed Capital Stock Tax. OCA's proposed downward adjustment to interest synchronization is in the amount of $18,469,000. See OCA Exh. KC-1-SR Sched. 4 at 7. OCA's proposed adjustment for Capital Stock Tax was an upward adjustment to PPL's proposed revenue requirement in the amount of $107,000. See OCA Exh. KC-1-SR Sched. 4 at 8; Sched. 1 at 2 (line 25).

VII. COST OF CAPITAL

A. Introduction.

PPL seeks an 8.47% overall rate of return, including an 11.25% return on common equity. PPL St. 11, Exh. PRM-1 at 1. The Company's proposed capital structure is 51.02% equity/48.98% debt. Id. The Company's proposed cost of capital claims are excessive, as both the testimony of OCA witness Stephen G. Hill[7] and the following discussion demonstrate. Mr. Hill's testimony shows that a fair overall rate of return for the Company is no more than 7.19%, which includes a cost of common equity of 9.00%. OCA St. 2, Exh. SGH-1, Sched. 11 at 1. As discussed below, Mr. Hill's recommendations make proper use of accepted financial theory and realistically reflect today's low capital cost environment. In addition, Mr. Hill's proposed capital structure of 47.16% equity/52.84% debt is reasonable, consistent with how PPL has been capitalized over the last few years prior to its current rate case filing, and similar to the manner in which the electric utility industry is capitalized. OCA St. 2, Exh. SGH-1, Sched. 11 at 1.

The OCA submits that Mr. Hill has presented a reasonable cost of capital proposal that accurately portrays the current low cost capital environment and reflects reasonable returns for investors. The PPL, OCA and I&E proposals as presented in this matter are summarized below.

PPL presented the testimony of Paul R. Moul to support its rate of return request. The following summarizes the Company's request:

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[7] Mr. Hill is a financial consultant and principal of Hill Associates, a consulting firm specializing in financial and economic issues of regulated utilities. Mr. Hill received his Bachelor of Science degree in Chemical Engineering from Auburn University, and his M.B.A. from Tulane University. Mr. Hill has been awarded the professional designation "Certified Rate of Return Analyst" by the Society of Utility and Regulatory Financial Analysts. Mr. Hill has also been a member of the Board of Directors of that national organization for several years, and is currently the Vice-President. Mr. Hill has testified previously before this Commission and has testified on cost of capital, corporate finance, and capital market issues in more than 275 regulatory proceedings before other state regulatory bodies. Appendix A of OCA St. 2 provides a more detailed description of Mr. Hill's education and experience.

Capital Type	Percent of Total (%)	Cost Rate (%)	Weighted Cost (%)
Debt	48.98	5.58	2.73
Common Equity	51.02	11.25	5.74
Total	100		8.47

PPL St. 11, Exh. PRM-1, Sched. 1. PPL witness Moul has included unnecessary adders to his cost of common equity determination in this matter, based on his "leverage" adjustment and an additional adder for PPL's "exemplary management performance." PPL St. 11 at 2-6.

The OCA presented the testimony of Stephen G. Hill, an economic consultant specializing in utility regulation, to support its rate of return allowance. The recommendation of the OCA is as follows:

Capital Type	Percent of Total (%)	Cost Rate (%)	Weighted Cost (%)
Debt	52.84	5.58	2.95
Common Equity	47.16	9.00	4.24
Total	100		7.19

OCA St. 2, Exh. SGH-1, Sched. 11 at 1.

I&E presented the testimony of Emily Sears, Fixed Utility Financial Analyst with I&E to support its rate of return recommendation. The recommendation of I&E is as follows:

Capital Type	Percent of Total (%)	Cost Rate (%)	Weighted Cost (%)
Long-term Debt	54.89	5.58	3.07
Common Equity	45.11	8.38	3.77
Total	100		6.84

I&E St. 1 at 12.

The OCA submits that the Company's 11.25% cost of common equity request is well in excess of an objective assessment of investor market requirements in the current economic environment and should be rejected. As OCA witness Hill also testified, the additional return on

equity (ROE) adders proposed by Mr. Moul are inappropriate, unnecessary and only serve to inflate the Company's equity cost estimate, and if included in the cost of equity determination, will substantially increase costs for ratepayers. OCA St. 2 at 68. The OCA opposes the inclusion of any of these ROE adders.

The Company's proposed capital structure is also unnecessarily burdensome to ratepayers, contains more common equity capital than the electric industry on average, and is inconsistent with how PPL has been capitalized over the last several years prior to this rate case being filed. The OCA is opposed to the use of PPL's proposed capital structure for setting rates in this matter. The OCA submits that the cost of capital proposal presented by OCA witness Hill is reasonable, consistent with the law and the facts of this matter, accurately recognizes the low cost capital environment at this time and should be adopted as the fair rate of return used to set rates in this proceeding.

B. Legal Standards Regarding Fair Rate of Return.

The law charges the Commission with the duty of protecting the rights of the public. City of Pittsburgh v. Pa. PUC, 126 A.2d 777, 785 (Pa. Super. 1956) (City of Pittsburgh II). As a general rule, a public utility, whose facilities and assets have been dedicated to public service, is entitled to *no more than* a reasonable opportunity to earn a fair rate of return on shareholder investment. Discussing rate of return, the City of Pittsburgh II court wrote that "[i]t is the function of the commission in fixing a fair rate of return to consider not only the interest of the utility but that of the general public as well. The commission stands between the public and the utility." Id.

Along with other factors, cost of capital is a part of all ratemaking determinations. Pa. PUC v. Philadelphia Suburban Water Co., 71 Pa. PUC 593, 623 (1989) (PSW 1989). The Commission has defined rate of return as:

> [T]he amount of money a utility earns, over and above operating expenses, depreciation expense, and taxes, expressed as a percentage of the legally established net valuation of utility property, the rate base. Included in the 'return' are interest on long-term debt, dividends on preferred stock, and earnings on common equity. In other words, the return is the money earned from operations which is available for distribution among the various classes of contributors of money capital.

PSW 1989, 71 Pa. PUC at 622-23, quoting Public Utility Economics, Garfield and Lovejoy, 116 (1964). Further, "[t]he return authorized must not be confiscatory, and must be based upon the evidence presented." PSW 1989, 71 Pa. PUC at 623, citing Pittsburgh v. Pa. PUC, 165 Pa. Super. 519, 69 A.2d 844 (1949).

A public utility with facilities and assets used and useful in the public service is entitled to no more than a reasonable opportunity to earn a fair rate of return on its investment. The United States Supreme Court established the standard with which to evaluate whether a rate of return is fair in Bluefield Waterworks & Improvement Co. v. Public Service Comm'n of West Virginia, 262 U.S. 679 (1923) (Bluefield), stating:

> The return should be reasonably sufficient to assure confidence in the financial soundness of the utility, and should be adequate, under efficient and economical management… to raise the money necessary for the proper discharge of public duties.

Bluefield, 262 U.S. at 693. The Court also said that allowed rates of return should reflect:

> [A] return on the value of the [utility's] property which it employs for the convenience of the public equal to that… being made at the same time… on investments in other business undertakings which are attended by corresponding risks and uncertainties.

Bluefield, 262 U.S. at 692. Twenty-one years later, the Court reviewed the issue of fair rate of return in Federal Power Commission v. Hope Natural Gas Company, 320 U.S. 591 (1944) (Hope). In Hope, the Court held a fair rate of return "should be commensurate with returns on

investments in other enterprises having corresponding risks" while being sufficient "to assure confidence in the financial integrity of the enterprise, so as to maintain its credit and attract capital." Hope, 320 U.S. at 603. The Court noted that "[t]he rate-making process under the Act, i.e., the fixing of 'just and reasonable' rates, involves a balancing of the investor and the consumer interests . . . and does not insure that the business shall produce net revenues." Id. The Court has also stated that consumers are obliged to rely upon regulatory commissions to protect them from excessive rates and charges. See Permian Basin Area Rate Cases, 390 U.S. 747, 794-95 (1968) citing Atlantic Refining Co. v. Public Service Comm'n, 360 U.S. 378, 388 (1959).

Finally, in Duquesne Light Co. v. Barasch, the Court stated:

> [W]hether a particular rate is 'unjust' or 'unreasonable' will depend to some extent on what is a fair rate of return given the risks under a particular rate setting system, and on the amount of capital upon which the investors are entitled to earn that return.

Duquesne Light Co. v. Barasch, 488 U.S. 299, 310 (1989). In determining a fair rate of return, this Commission has described its task as follows:

> A fair rate of return for a public utility, however, is not a matter which is to be determined by the application of a mathematical formula. It requires the exercise of informed judgment based upon an evaluation of the particular facts presented in each proceeding. There is no one precise answer to the question as to what constitutes the proper rate of return. The interests of the Company and its investors are to be considered along with those of the customers, all to the end of assuring adequate service to the public at the least cost, while at the same time maintaining the financial integrity of the utility involved.

Pa. PUC v. Pennsylvania Power Co., 55 Pa. PUC 552, 579 (1982). See also Pa. PUC v. National Fuel Gas Dist. Corp., 73 Pa. PUC 552, 603-605 (1990).

In the present matter, the OCA's recommended rate of return, including its 9.00% cost of common equity, represents a fair rate of return for the Company. That rate of return will provide the Company's shareholders with a reasonable opportunity to earn a market-based return on their

investment, will provide for the financial integrity of the Company and will protect ratepayers from excessive and unjustified rates.

C. The Commission Should Carefully Consider The Current Economic Environment In Reaching Its Decision As To A Reasonable Cost Of Capital For PPL.

In his Direct Testimony, OCA witness Hill provided a thorough discussion as to the current economic climate and how such an environment related to the cost of capital for a regulated firm such as PPL. OCA St. 2 at 11-19. Notably, Mr. Hill concluded that capital costs for firms such as PPL are low and are projected to remain low for the foreseeable future. OCA St. 2 at 19. In approving a 9.25% return on equity in a July 2012 decision, the South Dakota Public Service Commission recognized the current economic climate by providing:

> The Commission finds that, especially in the current turbulent economic environment, the four indicator average projected growth input employed by Staff in its DCF model is a more conservative and reliable methodology for projecting probable growth rates at this point in time, and the Commission adopts Staff's DCF model approach and its conclusions for purposes of its decision on ROE in this case. The Commission finds that use of this more conservative approach in this case is a proper application of the principle that regulatory commissions are to effect a "balancing of the investor and the consumer interests." Hope, supra, at 603. There is no evidence in the record that Xcel will be unable to raise capital through equity issuances as a result of a return on equity at the rate recommended by Staff.

In re Xcel Energy, 2012 S.D. PUC Lexis 137, *18-19 (S.D. PUC 2012). In another July 2012 decision, the Public Service Commission of Maryland provided the following in approving a 9.31% return on equity in its Order as to the rate increase request of the Potomac Electric Power Company (PEPCO):

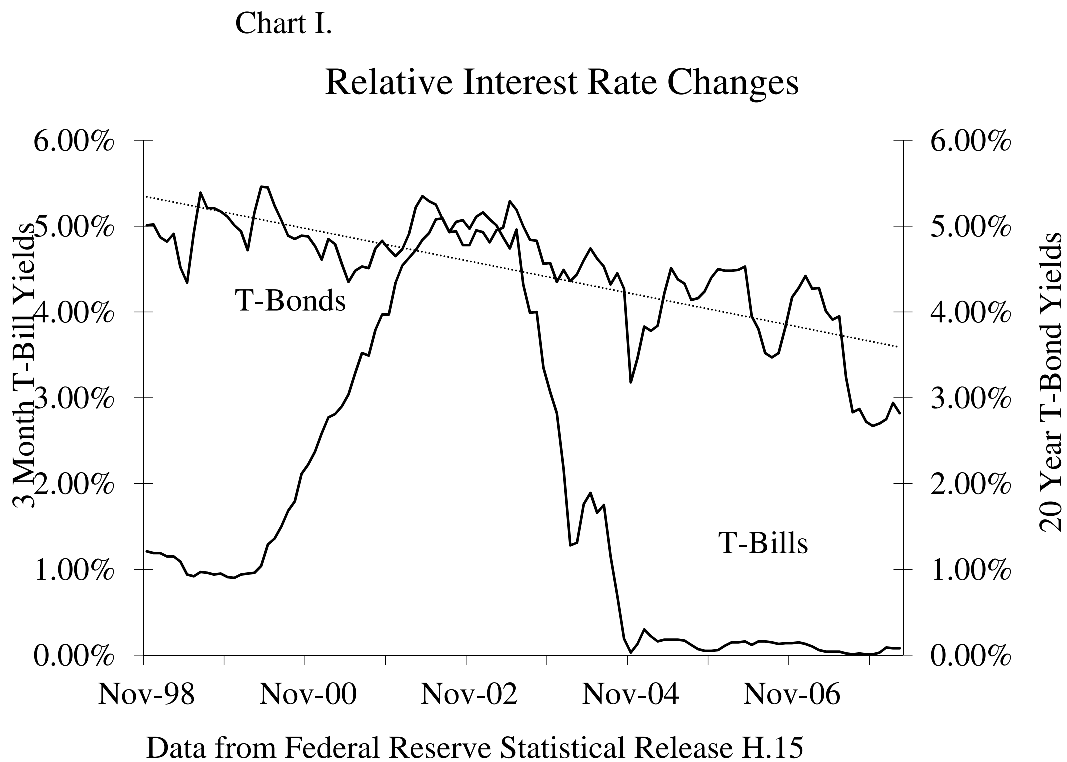
> We have no doubt that a monopoly company in a stable service territory with the potential of earning 9.31% on its equity will be able to attract the necessary capital in the current low interest rate environment to meet its statutory requirements to provide safe and reliable service to its customers.

In re PEPCO, Order No. 85028 at 109 (MD PSC, July 20, 2012).

Based on current conditions, PPL's proposed 11.25% ROE and its proposed equity-rich capital structure are particularly inappropriate. Specifically, Mr. Hill testified that:

> [T]he Fed lowered short-term interest rates to near zero to attempt to lessen the impact of the recession and, continues to take a very accommodative stance regarding monetary policy, with short-term T-Bills yielding a near zero. (The average 3-month T-Bill rate in April 2012 was 0.08%.) As a result, fundamental long-term capital costs have not increased as a result the financial crisis in 2008/09 and, in fact, are currently somewhat below the long-term downward trend in capital costs begun prior to the financial crisis.

Chart I.



OCA St. 2 at 13. As Mr. Hill testified, capital costs are low and have continued to trend downward. In addition to Mr. Hill's testimony on this issue, evidence was adduced at the hearings as further support for the current low cost capital environment. During the cross examination of PPL witness Clelland, it was determined that PPL plans to issue $250 million of long-term debt at a cost rate of 2.39%. Tr. at 263. In fact, it was further elicited that between the time that Mr. Moul provided his direct testimony and the time of the hearings when Mr. Clelland

was cross examined, the interest rate for such planned debt issuance had dropped from 2.95% to 2.39%. Tr. at 263-264. Moreover, the difference between the Company's embedded cost of debt, 5.58%, which is a historical average of PPL's debt costs and its current cost of debt, 2.39%, shows the dramatic decline in capital cost rates over the last few years, and underscores the low capital cost environment in which the Company now operates.

Mr. Hill testified as to the continuing drop in capital costs, in relevant part, as follows:

> For example, for BBB-rated utilities, Value Line reports that 25/30-year bonds are yielding an average of 4.65% over the most recent six-week period. One year ago, BBB-rated utility bonds were providing average yields of 5.78%—more than 100 basis points higher. Therefore, in terms of relative capital costs, the broad economic environment currently is more benign than it was prior to the financial crisis—capital costs are lower—and, thus, more favorable for capital intensive industries like utilities.

OCA St. 2 at 16. (Footnote omitted). As Mr. Hill testified, and as underscored by PPLEU's current cost of debt (2.39%), the cost of capital at the present time is low. Mr. Hill also provided a detailed discussion as to what the projections are for the next several years, indicating that the current low cost capital environment is projected to remain relatively stable in the near term future. See OCA St. 2 at 17-19. Mr. Hill concluded his discussion of the current economic outlook, as follows:

> Therefore, the indicated expectation with regard to long-term interest rates is that they are expected to move somewhat higher in the future, provided the economic recovery continues to advance at a moderate pace. Simply put, due to the moderate pace of the economy and relatively low core inflation, capital costs are low and are expected to remain low until the economy shows more rapid growth, which Value Line now expects to occur in the 2015-2017 period, at which time interest rates and capital costs are expected to increase moderately.

OCA St. 2 at 19.

Additional support for the fact that capital costs are low and the OCA's 9.0% cost of equity is reasonable is provided by the Company itself. As OCA witness Hill points out in his

direct testimony, the Company has substantial equity investments of its own in its retirement investment portfolio. OCA St. 2 at 8-10. The return the Company expects to earn on its equity investments in the U.S. ranges from approximately 9% to 9.5%. Because utilities have lower investment risk than the stock market generally, a reasonable expected return for distribution utility operations like PPL would certainly be lower than the 9% to 9.5% return PPL expects to make on its own equity investments in the stock market. Therefore, the Company's expectations confirm: 1) that equity capital costs (expected equity returns) are currently low and 2) that the OCA's equity cost estimate of 9.0% is reasonable. See OCA St. 2 at 8-10.

As Mr. Hill's testimony and the record in this matter show, the current cost of capital for a regulated firm such as PPL is low. The record evidence on this issue provides no support for PPL's 11.25% ROE proposal or its equity-rich capital structure, but does provide support for the reasonableness of OCA's capital cost recommendations in this proceeding. The OCA respectfully submits that the Commission should consider the entire body of evidence as to the current and projected economic outlook when deciding on the appropriate cost of capital in this matter.

D. Capital Structure.

1. Introduction.

The following table summarizes the capital structure proposals of the parties:

Capital Type	**PPL**	**OCA**	**I&E**
Debt	48.98	52.84	54.89
Common Equity	51.02	47.16	45.11
Total	100%	100%	100%

Source: PPL St. 11, Sched. 1; OCA St. 2 at 25; and I&E St. 1 at 12.

As to PPL's proposed capital structure in this matter, the level of common equity is well above what is has been in recent years for PPL. OCA St. 2 at 19-20. The equity-rich capital structure as proposed by PPL will cost ratepayers significantly more than the capital structure that has been successfully employed by PPL for the last number of years. Id. at 20. The proposed equity ratio is also substantially higher than the industry norm for similar utility operations. Id. at 22-23. Because common equity capital is a much more expensive type of capital, that fact means that, if PPL's requested capital structure is approved, the Company will be capitalizing its electric distribution operations more expensively than the electric utility industry (which is populated with companies that have generation assets and higher operating risk).

Because the utility's capital structure is the starting point in the estimation of the overall allowed return, it is proper to ascertain whether the utility's proposed capital structure is appropriate and reasonable for rate-setting purposes. Of particular concern here is the percentage of common equity in the capital structure, since common equity commands a higher return than debt financing. As the Commission has observed: "[a]t its most fundamental level, the determination of a proper rate of return requires calculation of the utility's capital structure (either actual or hypothetical) and, with respect to that type of capital during the period at issue." Pa. PUC v. Pennsylvania-American Water Co., 99 Pa. PUC 4, 13-14 (2004) (PAWC 2004), aff'd Popowsky v. Pa. PUC, 868 A.2d 606 (Pa. Commw. Ct. 2004).

Consistent with the discussion that follows and the record evidence in this proceeding, the OCA submits that the Commission should exercise its discretion to protect consumers against excessive costs and set rates based on the capital structure as recommended by OCA witness Hill.

2. PPL's Proposed Equity-Laden Capital Structure Would Impose An Unfair Cost Burden On Ratepayers.

PPL has proposed a capital structure in this proceeding that contains significantly higher equity ratios than the Company has used in the near recent past. As OCA witness Hill testified:

> According to data from the Company's Filing Exhibit B-8 (Historical), the ratemaking capital structure contains considerably more common equity than the capital structure appearing on the Company's books, on average, since 2007. As shown on page 1 of Schedule 1 attached to this testimony, the capital structure that appears on the balance sheet of PPL Electric Utilities from 2007 through 2011 consisted of 44.00% common equity, 9.09% preferred stock and 46.91% long-term debt, on average. Also, Mr. Moul's Exhibit PRM 1, Schedule 2 shows the Company's average common equity ratio from 2006 through 2010 to be 43.7% of permanent capital. Therefore, the Company's requested ratemaking capital structure contains considerably more common equity than the manner with which it has been successfully capitalized historically.

OCA St. 2 at 19-20. As Mr. Hill explained, PPL's proposed 51.02% equity ratio in this proceeding is substantially higher than the manner in which the Company has been capitalized over the last several years.[8] The fact that PPL is expected to issue long-term debt with a 2.39% embedded cost rate is ample evidence that the Company's historical common equity ratio provides sufficient financial strength to enable PPL to cost-effectively access capital markets.

PPL's proposed, unnecessary level of equity in the capital structure would be unreasonably expensive for ratepayers. As Mr. Hill explained:

> Because of the income tax responsibility associated with the use of common equity in the capital structure, that form of capital is three times more costly than debt capital on a pre-tax ratemaking basis, and the increase in the ratemaking common equity ratio would be costly for ratepayers. For example, PPL has requested an 11.25% return on common equity, but when ratepayers have to provide the additional monies to account for the income taxes on that common equity capital, the annual rate of return on equity ratepayers will ultimately provide is approximately 19% (11.25% x revenue conversion factor of 1.7092 (Moul Exhibit PRM 1, Schedule 1) = 19.23%), while the cost rate of the

[8] During the cross examination of PPL witness Clelland, he agreed that over the last five years PPL has been capitalized with a common equity ratio of approximately 48.5%. Tr. at 261.

> Company's debt is 5.58%—less than one-third of the pre-tax cost of common equity.

OCA St. 2 at 20.[9] As to the actual dollar impacts on ratepayers from PPL's proposed high level of equity, Mr. Hill testified that:

> [T]he Company's equity-rich common equity ratio would cost its ratepayers an additional $10.6 Million *annually* compared to the more economically-efficient capital structure it has employed in previous years.

OCA St. 2 at 22. (Emphasis in original). Much more than the choice of a particular accounting convention, PPL's proposed capital structure, if accepted, would have a substantial impact on its customers.

PPL's proposed capital structure also contains significantly more equity than comparable utilities. As Mr. Hill discussed:

> Page 3 of Schedule 1 shows the common equity averages for the electric utility and combination gas and electric utility industry, as reported by AUS Utility Reports in its May 2012 publication. That average common equity ratio for publicly-traded electric and combination gas and electric utilities is 45.9% of total capital.
>
> …
>
> Also, the data shown on Mr. Moul's Schedules 3, 4 and 5 show that the average common equity ratio of his integrated electric sample group, and the S&P Public Utilities was 44.4%, and 45% in 2010, respectively. Those average common equity ratios are far below the 51.01% common equity ratio requested for PPL—a lower-risk electric delivery company. Those data indicate that the Company's actual historical common equity ratio (approximately 44%) was in line with that of the publicly-traded electric utility industry.

OCA St. 2 at 22-23.

The Commission should reject PPL's proposed capital structure in this matter. The Company's proposed capital structure is unnecessary to attract capital, and would create an

[9] During cross examination, PPL witness Clelland acknowledged that debt is cheaper for ratepayers than equity. Tr. at 271.

unreasonable cost burden for ratepayers. The OCA submits that the Commission should adopt the OCA capital structure as testified to by Mr. Hill.

3. PPL's Criticisms Of The OCA Recommended Capital Structure Are Without Merit.

In his rebuttal testimony, PPL witness Moul responded to Mr. Hill's capital structure recommendations. See PPL St. 11-R. Mr. Moul argued that hypothetical capital structures are inappropriate for use in setting rates, the equity ratios relied on by Mr. Hill belong to utility holding companies and not operating companies like PPL, Mr. Hill included short-term debt in his calculations and that the historical equity ratios relied on by Mr. Hill are inappropriate for setting rates on a future test year basis. PPL St. 11-R at 6-8. Prior to addressing the specifics of Mr. Moul's rebuttal comments, and as a necessary component of his response to PPL, Mr. Hill discussed the determination of a capital structure for ratemaking purposes for PPL, as PPL is a subsidiary of a public utility holding company. Mr. Hill testified in relevant part, as follows:

> Capital structure, especially the capital structure of the utility subsidiary of a parent holding company, is the direct result of decisions made by company management. As such, capital structure is no different from management decisions regarding staffing levels, tree-trimming costs, or other operating costs. Management makes choices regarding the level of costs it will incur and the regulatory body reviews those management choices to determine if they are reasonable.
>
> …
>
> The Company plans to shift its capital structure to one that contains more common equity than it has used in the past and more common equity than is used in the electric utility industry, on average. As shown on Mr. Moul's Schedule 6 attached to his Direct Testimony, the Company plans to reduce its reliance on preferred stock and increase its reliance on more expensive common equity, by means of a $150 million capital contribution to PPL Electric by its parent company. Again, this is simply a management decision at PPL Corp., to attempt to change the regulated capital structure of PPL Electric.
>
> …
>
> The Company asks this Commission to adopt its expensive capital structure simply because it was used to project a rate-year capitalization, without any

> review of the reasonableness of its increased cost to customers. I do not believe this Commission would treat other management decisions that caused substantial cost increases in that manner, and I do not believe this Commission should treat PPL's capital structure decision that way either. The Company maintained its "BBB" corporate credit rating (and an "A-" secured debt rating) during the time it was capitalized more cost effectively, i.e., with a much lower common equity ratio.

OCA St. 2-SR at 11-12.

Mr. Hill also responded to the specific criticism leveled by PPL that the OCA's proposed capital structure is "hypothetical." As to the creation of a hypothetical capital structure, Mr. Hill explained that:

> As shown on page 4 of Schedule 1 attached to my Direct Testimony, I have constructed a recommended ratemaking capital structure in *exactly the same manner* as PPL. In fact, as noted on that page, the source of the information for my capital structure recommendation is Mr. Moul's own Schedule 6.
>
> My capital structure recommendation begins with the Company's actual year-end 2011 capital structure (just as the Company's recommendation does), assumes all the projected capital changes through year-end 2012 (additional paid in capital, retained earnings, total long term debt and preferred stock). The *only* difference between my projected year-end 2012 forward rate year capital structure and that requested by the company is that I assume PPL parent company management elects to classify the $150 Million capital contribution to PPL Electric Utilities as debt rather than equity. This is a simple task for the parent.
>
> Therefore, if my capital structure recommendation in this proceeding is "hypothetical" as Mr. Moul claims, then so, too, is that of PPL, because they are based on the very same projected data. As I noted above, I have merely made a different projection as to how PPL parent company management should treat its $150 million capital contribution to PPL. I project that the year-end 2012 capital structure will provide a better balance between ratepayers and investors than that assumed by the Company.

PPL St. 2-SR at 12. (Emphasis in original).

In his rebuttal testimony, PPL witness Moul also claimed that Mr. Hill included short-term debt in his capital structure recommendation. PPL St. 11-R at 58. In his surrebuttal testimony, Mr. Hill responded on this issue as follows:

> Mr. Moul is factually incorrect on this point. As I noted above, the data I used to derive my recommended rate year capital structure is drawn from Mr. Moul's own capital structure schedule (Exhibit__PRM 1, Schedule 6), which contains no short-term debt. My Schedule 1, page 4 derivation of the projected December 2012 capital structure contains the heading: "Ratios—Excluding Short Term Debt."

OCA St. 2-SR at 13. As Mr. Hill testified, the capital structure recommended by OCA was constructed in the exact same manner as that of PPL.

Mr. Moul also questioned Mr. Hill's use of capital structures for holding companies instead of making direct comparisons to utility operating companies such as PPL. Mr. Hill responded, in relevant part as follows:

> Simply put, we are setting a market-based cost of equity capital in this proceeding and the capital structure the investor "sees" and the one that determines the financial risk of his/her investment is the capital structure of the market-traded entity—the holding company. The investor is exposed to all of that financial risk of the holding company, including short-term debt, which is publicly reported and can be substantial for some companies.
>
> Also, as discussed above, the capital structures of the utility holding companies are subject to "financial engineering" by the parent company. Precisely the type of over-capitalization that PPL Corp. attempts in the instant proceeding.

OCA St. 2-SR at 14. Mr. Moul's comments in his rebuttal testimony did not counter Mr. Hill's main points on the capital structure issue. As Mr. Hill testified during the hearings:

> The average equity ratio for a fully integrated electric company is about 46 percent in this country, 46 percent. The company is asking for a 51 percent equity ratio. This is a less risky company asking for more equity capital. I don't think that's fair for ratepayers.

Tr. at 326. Mr. Hill's capital structure recommendation is reasonable, consistent with how PPL has been capitalized in recent times, consistent with the capitalization of the electric utility industry and strikes the appropriate balance between the ratepayers and the shareholders of PPL.

4. The Capital Structure Recommended By The OCA Is Consistent With The Law And Supported By The Record.

Mr. Hill properly recommends adoption of a different capital structure than that proposed by PPL, based on the facts presented in this case. As Mr. Hill explained, any capital structure recommendation in this case, be it the OCA's or PPL's, is technically not an "actual" capital structure but a hypothetical one because such recommendations are based on projected changes through year-end 2012. OCA St. 2-SR at 12. In Lower Paxton Township v. Pa. PUC, 317 A.2d 917 (Pa. Commw. Ct. 1974) (Lower Paxton), the Commonwealth Court upheld the Commission's adoption of such a capital structure adjustment for ratemaking. The Court stated:

> In some cases where the public utility is a wholly owned subsidiary, its capital structure may not be comparable to another public utility, which is obligated to obtain its equity and debt financing in the open market. In other words, it may have on balance a too heavily weighted debt or equity…. Under circumstances, the PUC must make adjustments based upon the substantial evidence in order to reach a fair result.

Id. at 921.

Mr. Hill's recommended capital structure reasonably protects ratepayers from excessive costs for equity while providing PPL with a return based on capital structure ratios more typical of other electric utilities. Pennsylvania courts have upheld the use of a hypothetical capital structure where the utility's management adopts an actual capital structure that imposes an unfair cost burden on ratepayers. See T.W. Phillips Gas and Oil Co. v. Pa. PUC, 81 Pa. Commw. 205, 217, 474 A.2d 355, 362 (1984) (T.W. Phillips); Carnegie Natural Gas Co. v. Pa. PUC, 61 Pa. Commw. 436, 433 A.2d 938 (1981) (Carnegie). The Commission has explained its rationale several times. It has stated:

> [T]he Commission has the duty to regulate utilities in a manner which provides customers with reliable service at reasonable cost. This is not to say that we may mandate to regulated utilities the proportions of debt and equity contained in their capital structures. Rather, the actual capital structure is a matter within the discretion of corporate management; however, this does not preclude the

> commission from determining that a particular utility's capital structure is unreasonable or uneconomical when balancing the goals of safety, prudent management, and economy and utilize a hypothetical capital structure for rate-making purposes.

Pa. PUC v. Carnegie Natural Gas Co., 54 Pa. PUC 381, 393 (1980) aff'd on appeal Carnegie, supra, followed Pa. PUC v. Peoples Natural Gas , 69 Pa. PUC 138, 164 (1989).

In Lower Paxton, the Court recognized that the Commission may, where the utility is a wholly owned subsidiary, look to the capital structure employed by other publicly traded utilities in the same industry. Lower Paxton, 317 A.2d at 921-22. The Commission has since used an industry-based hypothetical capital structure for ratemaking purposes in numerous cases where the utility's proposed capital structure is atypical. See Carnegie, 433 A.2d at 441-42; T.W. Phillips, 474 A.2d at 359; Pa. PUC v. Equitable-Energy Co., 68 Pa. PUC 438, 452 (1988); Pa. PUC v. Citizens Utilities Water Co. of Pa., 86 Pa. PUC 51, 94-96 (1996) (Citizens 1996).

The record in this case clearly supports adoption of the capital structure that Mr. Hill recommends. The actual capital structure of PPL is the result of decisions by PPL Corporation, is atypical and PPL is not publicly traded. The Commission has an obligation to balance the interests of ratepayers in the rate of return determination to protect against excessive costs. The Commission should adopt the capital structure recommended by Mr. Hill as supported by both the law and record.

E. Cost Of Debt.

The OCA has accepted the Company's embedded long-term cost of debt of 5.58%.[10]

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[10] The OCA notes that the evidence of record in this matter continues to show the prevailing low-cost capital environment that exists at this time. For example, PPL's embedded cost of long-term debt is 5.58%, yet PPL plans to issue $250 million of long-term debt at 2.39%. Tr. at 263-64. This represents a difference of over 300 basis points from PPL's embedded cost of long term debt and provides additional support for the OCA's recommended 9.0% ROE based on the facts of this case and the current economic conditions.

F. Cost Of Common Equity.

1. Introduction.

The OCA submits that the Company's request for an 11.25 % return on common equity is excessive; it would result in a shareholder windfall at the expense of ratepayers and would result in rates that are unjust and unreasonable. As Mr. Hill testified, the current and near-term future economic outlook is one that includes a low cost of capital. OCA St. 2 at 11-19. The current economic conditions and outlook produce a favorable cost of equity environment for PPL.

Considering these facts, it would be unreasonable to burden PPL's ratepayers with higher costs based on the Company's 11.25% ROE proposal. As OCA witness Hill explains:

> The most recent data from the U.S. Bureau of Labor statistics puts Pennsylvania's unemployment level at 7.2% in December of 2011, roughly 60% higher than the average of 4.5% in 2006 and 2007. With the economy expected to continue a slow recovery (if international troubles do not derail such progress) and interest rates and inflation expected to continue at relatively low levels, the available returns on financial assets (from checking accounts to common stocks) are low.
>
> Therefore, in this economic environment, it would be especially burdensome to ratepayers to pay higher utility rates based on equity returns in excess of returns that investors require (the cost of equity capital). Company witness Moul recommends that PPL be allowed to earn an equity return *higher* than his indicated market-based return for other electric distribution utilities. As I will demonstrate in Section IV of my testimony, the Company's equity return request substantially overstates investors' required returns, which would be unduly burdensome and unfair for ratepayers. Any additional increase above the market-based cost of equity in the Company's request is unwarranted. To the contrary, given the difficult economy, the Commission should consider the lower end of a reasonable range of equity capital costs.

OCA St. 2 at 6. (Footnotes omitted). As Mr. Hill testified, the Commission should consider the lower end from a reasonable range of the cost of common equity proposals submitted in this proceeding, based primarily on the DCF methodology. In addition, the Commission should review and consider recent ROE determinations from other jurisdictions as a further indication of the current low-cost capital environment. See e.g., In re PEPCO, Order No. 85028 (MD PSC,

July 20, 2012) (a 9.31% ROE was authorized); In re Xcel Energy, 2012 S.D. PUC Lexis 137, 18-19 (2012) (a 9.25% ROE was authorized); In re Petition of Indiana-American Water Company, Inc., 2012 Ind. PUC LEXIS 178, *107 (2012) (a 9.7% ROE was granted); In re Puget Sound Energy, Inc., 2012 Wash. UTC LEXIS 423, *66 (2012) (a 9.8% ROE was authorized); In re Bluefield Gas Company, 2012 W. Va. PUC LEXIS 123, *23 (2012) (a 9.75% ROE was authorized).

In In re Puget Sound Energy, Inc., where in June 2012, granting an ROE of 9.8%, the Washington Commission stated:

> We are not persuaded by Dr. Olson and Mr. Gaines that PSE's authorized ROE should be set at a level above 10.1 percent, the level set in PSE's 2010 general rate case. We find two reasons. First, the Company has not provided persuasive evidence that market conditions and investor confidence have changed sufficiently, or in a manner, that requires any increase, much less the ROE it seeks. Rather, Treasury and utility bond yields have decreased, and interest rates are expected to remain low for some time. Utility stocks enjoy favorable market sentiment in such an environment. There is no apparent need to increase ROE in these circumstances.

2012 Wash. UTC LEXIS 423, *69. Perhaps, the Maryland Commission most accurately assessed the current cost of common equity for an electric distribution company, as follows:

> We conclude that the 8.43% - 9.85% ROE range recommended by the other parties represents a reasonable range of potential returns for Pepco. In determining Pepco's actual ROE within that range, we note that Pepco owns no generation, being only a distribution company, has no competition, and serves a heavily residential customer base. Its customer base is not subject to closing or wholesale relocation, thus significantly reducing the level of Pepco's economic risk.
>
> …
>
> The final ROE of 9.31% recognizes the less risky nature of Pepco's operations, is based on a wide and varied range of methodologies, and balances the interests of Pepco's ratepayers and shareholders. The return Pepco's investors will be allowed to earn in this case is appropriate, particularly under the present economic climate. We have no doubt that a monopoly company in a stable service territory with the potential of earning 9.31% on its equity will be able to attract the necessary

capital in the current low interest rate environment to meet its statutory requirements to provide safe and reliable service to its customers.

In re PEPCO at 108-109.

As will be discussed in the following sections, however, PPL witness Moul has artificially inflated his ROE recommendation in this matter through a variety of methods. The OCA submits that such unnecessary and unsupported "adjustments" to the DCF should not be considered.

The following table summarizes the parties' findings based on the DCF methodology and the parties' subsequent ROE recommendations:

Party	**DCF Results**	**Recommended ROE**
PPL	9.68%	11.25 %
OCA	8.97%	9.00%
OTS	8.38%	8.38%

Source: OCA St. 2 at 4, 38, and 71; I&E St. 1 at 7 and I&E Exh. 1, Sch. 8.

To be clear on this point, the OCA's recommended 9.0% ROE is based on the adoption of the OCA's recommended capital structure in this case, as discussed in detail above. As Mr. Hill explained in his direct testimony:

> However, if the Commission elects to utilize the Company's requested ratemaking capital structure, which would contain approximately 51% common equity, that would impart significantly lower financial risk than that of the average capital structure of the similar-risk sample groups. In that case an equity return at the lower end of the current cost of equity range, 8.75%, would be reasonable.

OCA St. 2 at 53.

Consistent with the testimony of Mr. Hill, the record in this case and the discussion that follows, the OCA submits that its 9.00% cost of common equity recommendation is just and reasonable and should be adopted by the Commission in this proceeding.

2. The OCA Has Derived Its Common Equity Cost Recommendations From The Commission's Preferred Method Of Setting Common Equity Cost Rates – The Discounted Cash Flow Model.

The testimony of OCA witness Hill clearly indicates that he developed a market-based cost of common equity recommendation using the DCF model, which is the method relied upon by this Commission. In January 2004 in its Opinion and Order in Pa. PUC v. Pennsylvania American Water Company, the Commission wrote:

> Historically, we have primarily relied on the DCF methodology in arriving at our determination of the proper cost of common equity. We have, in many recent decisions, determined the cost of common equity primarily based upon the DCF method and informed judgment. *See Pennsylvania Public Utility Commission v. Philadelphia Suburban Water Company*, 71 Pa. PUC 593, 623-632 (1989); *Pennsylvania Public Utility Commission v. Western Pennsylvania Water Company*, 67 Pa. PUC 529, 559-570 (1988); *Pennsylvania Public Utility Commission v. Roaring Creek Water Company*, 150 PUR4th 449, 483-488 (1994); *Pennsylvania Public Utility Commission v. York Water Company,* 75 Pa. PUC 134, 153-167 (1991); *Pennsylvania Public Utility Commission v. Equitable Company*, 73 Pa. PUC 345-346 (1990). We determine that the DCF method is the preferred method of analysis to determine a market based common equity cost rate.

Pa. PUC v. Pennsylvania American Water Company, 99 Pa. PUC 38, 42 (2004) (PAWC 2004), aff'd on other grounds, Popowsky v. Pa. PUC, 868 A.2d 606 (Pa. Commw. Ct. 2004); accord Pa. PUC v. Aqua Pa, Inc., 99 Pa. PUC 204, 233 (2004). This Commission has stated that determining a fair rate of return is an exercise of informed judgment, based upon the facts of each case. Pa. PUC v. Pennsylvania Power Co., 55 Pa. PUC 552, 579 (1982). "The interests of the Company and its investors are to be considered along with those of the customers, all to the end of assuring adequate service to the public at the least cost, while at the same time maintaining the financial integrity of the utility involved." Pa. PUC v. Pennsylvania Power Co., 55 Pa. PUC at 579. In coming to this informed judgment, the Commission has stated on numerous occasions its preference to rely upon the DCF methodology over other methods such as the Risk Premium (RP) and Capital Asset Pricing Model (CAPM) in determining the rate of

return. In PPL's 2004 base rate case, the Commission reaffirmed its reliance upon the DCF method. Pa. PUC v. PPL Electric Utilities Corp., 237 P.U.R. 4th 419, 2004 Pa. PUC LEXIS 40 (Dec. 2, 2004) (PPL 2004). The Commission additionally noted, however, that while it is not required, other methodologies can be used to check DCF results. PPL 2004 at 67.

As to determining a reasonable cost of common equity for PPL, it should be noted that the Company also sponsored the testimony of Ms. Cannell on this issue. See PPL St. 12. Ms. Cannell testified on the investors' expectations concerning electric utility risk in general, the risk associated with the current macroeconomic environment and the expectations of investors that PPL will have continued access to the capital markets. PPL St. 12 at 3. In regards to Ms. Cannell's testimony, OCA witness Hill responded in relevant part that:

> It is neither surprising, nor probative of any issue regarding the actual cost of capital, that an investor-representative supports the highest return available in the record, i.e., that of the Company. However, Ms. Cannell's testimony does not provide any evidence as to what level of allowed return approximates the cost of equity capital and is most appropriate in meeting the requirements of *Hope* and *Bluefield*, while balancing the interests of ratepayers and investors. That issue is addressed in the cost of capital testimony before the Commission in this proceeding, not in the testimony of Ms. Cannell.

OCA St. 2 at 5. As Mr. Hill testified, Ms. Cannell provides no technical discussion or analysis as to the actual cost of capital in this matter, but rather reveals that investors would prefer the highest return possible. The OCA submits that in determining what is a reasonable cost of common equity for PPL, the Commission should place little, if any, weight on the testimony of Ms. Cannell.

The OCA submits that there can be no serious disagreement that the Commission employs the DCF model, along with informed judgment, as the preferred approach to determine a market-based common equity cost rate. The Commission should carefully review the DCF results submitted in this case and, in applying its informed judgment, consider the current macro-

economic environment and the current economic conditions in Pennsylvania as it considers a reasonable cost of common equity for PPL.

3. Mr. Hill's Analysis Of The Cost Of Common Equity For Similar Risk Utility Operations Supports A Cost Of Equity Of 9.00%.

In this case, Mr. Hill conducted DCF, Capital Asset Pricing Model (CAPM), Modified Earnings-Price Ratio (MEPR), and Market-to-Book Ratio (MTB) analyses. OCA St. 2 at 3. Mr. Hill primarily relied on the DCF method, using the CAPM, MEPR and MTB methods as a check, and has recommended a 9.0% return on common equity. OCA St. 2 at 4.

In the PAWC 2004 case, the ALJ quoted the following description of the DCF model from a leading treatise on public utility rate making:

> The DCF method is derived from valuation theory, and rests on the premise that the market price of a stock is the present value of the future benefits of holding a stock. Those benefits are the future cash flows provided by holding the stock. They are, quite simply, the dividends paid and the proceeds from the ultimate sale of the stock. Since dollars to be received in the future are not worth as much as dollars received today, the cash flows must be discounted back to the present at the investor's required rate of return. The most basic form of this model assumes that dividends grow at a constant rate each year (g), and that the stock is held "forever". Since the stock is not sold, the only relevant contribution to its value is the dividends to be received. The basic theoretic difficulties are the assumption of a constant or fixed retention or payout rate and the assumption that dividends will grow at a constant "g" rate in perpetuity.
>
> The first point to remember in evaluating the growth rate is that it is not what a witness thinks the growth rate should be that matters. What matters is what investors expect the growth rate to be. The rate of return analyst is really trying to (or should be trying to) replicate the thinking of investors in developing their expectations regarding the growth in dividends. In all, the DCF method takes into account several factors important in the determination of the fair rate of return: (1) preferences of investors; (2) equity financing; (3) risk, and (4) inflation.

PAWC 2004, Docket No. R-00038304, R.D. at 65 (Nov. 26, 2003) quoting J. Bonbright, A. Danielsen & D. Kamerschen, Principles of Public Utility Rates 318 - 319 (2d ed. 1988).

a. Mr. Hill's Proxy Group Is Similar To PPL.

To estimate the cost of equity using the DCF method, a proxy (or barometer) group of similar companies is used. Mr. Hill testified that:

> I analyzed the market data of electric and combination electric and gas companies that had at least 70% of revenues from electric operations, did not have a pending merger, did not have a recent dividend cut, had stable book values and a senior bond rating between "A" and "BBB-". The screening process for electric utilities is summarized on Schedule 2 attached to my testimony. I included "wires companies" like PPL as well as companies with generation, because the sub-set of electric distribution companies (2) is too small for a reliable result. All of the electric utilities followed by Value Line are shown, as well as the screening parameters and the parameter values for each company.

OCA St. 2 at 29. Mr. Hill's proxy group included 16 companies. Id. As Mr. Hill further explained his choices for a proxy group:

> While most of the companies listed above have generation assets and would have operating risks attendant to generation that PPL does not have, these utilities are, otherwise, relatively similar in overall investment risk to PPL and will serve to make the cost of equity determination more statistically reliable.

OCA St. 2 at 30. The OCA submits that Mr. Hill's proxy group is reasonable and should be accepted for purpose of calculating the DCF in this matter.

b. Mr. Hill's Dividend Yield Calculations And Results Are Reasonable.

Mr. Hill explained his methodology for calculating the dividend yield, as follows:

> I have estimated the next quarterly dividend payment of each firm analyzed and annualized them for use in determining the dividend yield. If the quarterly dividend of any company was expected to be raised in the next quarter (2rd quarter 2012), I increased the current quarterly dividend by (1+g). Because most of the companies had recently increased dividends or were not expected to increase dividends in 2012, for the utility companies in the sample groups, a dividend adjustment was necessary for only two companies: Portland General (POR) and Xcel Energy (XEL).
>
> The next quarter annualized dividends were divided by a recent daily closing average stock price to obtain the DCF dividend yields. I use the most recent six-week period to determine an average stock price in a DCF cost of

> equity determination because I believe that period of time is long enough to avoid daily fluctuations and recent enough so that the stock price captured during the study period is representative of current investor expectations.

OCA St. 2 at 38-39. Regarding the dividend yield (Do/Po) component in the DCF analysis, Mr. Hill employed a 4.44% DCF adjusted yield, based upon the average dividend yield of his proxy group of similar companies. OCA St. 2 at 38. The OCA submits that Mr. Hill's method and results of his dividend yield analysis are reasonable and should be accepted for the purpose of calculating the DCF in this matter.

c. Mr. Hill's DCF Growth Rate Analysis And Results Are Reasonable.

Mr. Hill explained his approach to arriving at a reasonable DCF growth rate (g), in relevant part as follows:

> While I have calculated both the historical and projected sustainable growth rates for a sample of utility firms with similar-risk operations to PPL, I have not relied solely on that type of growth rate analysis. To estimate an appropriate DCF growth rate, I have also relied on published data regarding both historical and projected growth rates in earnings, dividends, and book value for a sample group of utility companies. Through an examination of all of those data, which are available to and used by investors, I estimate investors' long-term growth rate expectations. To that long-term growth rate estimate, I add any additional growth that is attributable to investors' expectations regarding the on-going sale of stock for each of the companies under review.

OCA St. 2 at 28. And, as Mr. Hill further testified:

> I have used the "similar sample group" approach to cost of capital analysis because it yields a more accurate determination of the cost of equity capital than does the analysis of the data of one individual company. Any form of analysis in which the result is an estimate, such as growth in the DCF model, is subject to measurement error, i.e., error induced by the measurement of a particular parameter or by variations in the estimate of the technique chosen. When the technique is applied to only one observation (e.g., estimating the DCF growth rate for a single company) the estimate is referred to, statistically, as having "zero degrees of freedom." This means, simply, that there is no way of knowing if any observed change in the growth rate estimate is due to measurement error or to an actual change in the cost of capital. The degrees of freedom can be increased and exposure to measurement error reduced by applying any given estimation

> technique to a sample of companies rather than one single company. Therefore, by analyzing a group of firms with similar characteristics, the estimated value (the growth rate and the resultant cost of capital) is more likely to equal the "true" value for that type of operation.

OCA St. 2 at 28-29. Regarding the estimate for the growth rate component of the DCF analysis, Mr. Hill testified that:

> As shown on page 2 of Schedule 4, my DCF growth rate estimate for all the electric utility companies included in my analysis is 4.94%. This figure exceeds Value Line's projected average growth rate in earnings, dividends and book value for those same companies (4.48%) and is also above the five-year historical average earnings, dividend and book value growth rate reported by Value Line for those companies (4.74%). My growth rate estimate for the electric companies under review is above the IBES analysts' earnings growth rate projections—4.39%, and above the average earnings growth estimate of those polled by Zack's (4.5%). Also, my growth rate estimate is well above the projected dividend growth rate of the sample companies, 3.72%. Therefore, my average DCF growth rate is similar to the growth rate data available to investors and provides a reliable assessment of investors' long-term sustainable growth rate expectations for the companies under review.

OCA St. 2 at 33.[11] The OCA submits that Mr. Hill's method and results of his DCF growth rate analysis are reasonable and should be accepted for the purpose of calculating the DCF in this matter.

d. Mr. Hill's DCF Analysis Is Reasonable And Should Be Accepted As The Primary Basis In Determining A Reasonable Cost Of Common Equity For PPL.

Regarding the results of his DCF analysis, Mr. Hill testified that:

> Schedule 6 shows that the overall average DCF cost of equity capital for the group of electric utilities is 9.35%. For the companies with generation, the average DCF result is 9.41%, and for the companies with little or no generation (the "wires companies") the average DCF result is 8.97%.

OCA St. 2 at 38. Based on the above DCF analysis, Mr. Hill found a range for a return on equity of 8.75 to 9.50%.[12] OCA St. 2 at 4.

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[11] In his direct testimony, Mr. Hill explained in detail why projected earnings growth rates should not be used as the primary source of a DCF growth rate, as Mr. Moul has done in this proceeding. OCA St. 2 at 33-37.

Mr. Hill recommended a return on equity of 9.0% for the Company due to PPL's status as a less risky, "wires only" company. Id. Mr. Hill went on to explain how his overall cost of capital recommendation is reasonable for PPL, in relevant part as follows:

> Applying that 9.00% equity capital cost to a cost-effective capital structure containing 47.16% common equity, 52.84% long-term debt, produces an overall cost of capital of 7.19% (Exhibit_(SGH-1), Schedule 11, page 1). That overall cost of capital affords the Company an opportunity to achieve a pre-tax interest coverage level of 3.46 times.
>
> That level of pre-tax interest coverage (3.46 times) is above the actual average pre-tax interest coverage realized by PPL over the past five years. According to Exhibit 12c filed with PPL Corporation's 2011 S.E.C. Form 10-K, the average pre-tax interest coverage for PPL Electric Utilities Corporation from 2007 through 2011 was 3.04 times, with the highest pre-tax interest coverage level being 3.4 times. Therefore, the capital structure and overall return I recommend is sufficient not only to support but also improve the Company's financial health and fulfills the requirement of providing the Company the opportunity to earn a return which is commensurate with the risk of the operation while maintaining the Company's ability to attract capital.

OCA St. 2 at 4.

It is clear that this Commission has determined that the DCF model, combined with informed judgment, is its preferred method to set the cost of common equity in rate proceedings. The 9.00% cost of equity, which Mr. Hill recommended, is based primarily on his DCF analysis. Mr. Hill testified as to the results of his complete common equity cost analysis, in relevant part:

> The results indicate that the cost of equity capital for the electric utility sample group lies generally below the standard DCF results for the electric companies, and within a reasonable range, the equity cost for the wires companies is clearly at the lower end of the range. Moreover, while the CAPM results, especially at the lowest end, are unlikely to represent investor equity return expectations, they are informative, are based on widely-accepted theory and observable risk-free rates of return, and provide an indication that the current cost of equity is lower than that represented by the DCF. Reviewing the results cited above, and taking into account that when and if the U.S. economic pace increases, interest rates are

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[12] Mr. Hill's CAPM analysis resulted in a common equity cost rate estimate of 8.14%. OCA St. 2 at 38-44. Mr. Hill's MEPR analysis provided a current cost of common equity of 8.31% and a projected value of 8.55%. OCA St. 2 at 45-49. Mr. Hill's MTB analysis provided a cost of common equity in the range of 9.27% to 9.36%. OCA St. 2 at 49-51.

> likely to rise, it is my opinion that the current cost of equity for the entire sample groups of utilities studied ranges from 8.75% to 9.50%.

OCA St. 2 at 52-53.

Mr. Hill's 9.0% ROE recommendation is representative of market expectations and will provide ratepayers with just and reasonable rates and shareholders with a fair return; the Commission should rely upon his recommendation in this proceeding.

4. Mr. Moul's Various Financial Adders And Attempts To Artificially Inflate The Cost Of Common Equity As Established By The DCF Method Should Be Disregarded.

a. Introduction.

As an initial matter, it is important to understand where the true differences lie between Mr. Hill and Mr. Moul as to their recommendations for a cost of common equity in this matter. Both witnesses have performed various cost of equity analyses using the DCF and several other methodologies. Mr. Hill primarily relied on the DCF and used the other methods as a check on the DCF results. Accordingly, Mr. Hill's 9.0% ROE recommendation is well supported by his thorough, complete DCF analysis. The differing ROE recommendations between Mr. Hill and Mr. Moul are not based on the DCF analyses in this matter, as Mr. Hill testified:

> Mr. Moul's DCF result for his sample companies averages 9.68% without "financial risk adders." When combined with an overstatement in the expected growth rate of at least 30 to 50 basis points as well as an overstatement in dividend yield of another 8 basis points, Mr. Moul's DCF results in this proceeding tend to support the reasonableness of the 8.75% to 9.5% range of equity cost estimates I recommend.

OCA St. 2 at 71. As Mr. Hill testified, and even without consideration of Mr. Moul's overstatement of certain DCF components, Mr. Moul's DCF results are very similar in value to those of Mr. Hill. The crux of the dispute between Mr. Hill and Mr. Moul centers on Mr. Moul's overreliance on other cost of equity analyses and the use of "financial adders" in order to distort

and artificially enhance the cost of equity for PPL.[13] The OCA discussion of these issues follows.

b. Mr. Moul's Reliance On Non-DCF Methodologies To Support His 11.25% Cost Of Equity Recommendation Should Be Disregarded.

As discussed in detail above, this Commission primarily relies on the DCF method to establish reasonable common equity costs. Mr. Moul, however, has chosen to disregard this clear, long-established precedent and has sought to amplify his own DCF results by an overreliance on other costing methodologies. The OCA submits that the Commission should give little, if any weight to Mr. Moul's RP, CAPM and Comparable Earnings (CE) analyses.[14]

As Mr. Hill discussed in his surrebuttal testimony, Mr. Moul recommended that the Risk Premium method be given equal weight to the DCF in arriving at a cost of common equity. OCA St. 2-SR at 19-20. The OCA submits that such a recommendation should not be entertained. The inherent flaws contained in the RP method have led the Commission to reject this method as a primary, reliable indicator of the cost of equity. See Pa. PUC v. National Fuel Gas Dist. Corp., 62 Pa PUC 407, 441-442 (1986); accord Barasch v. Bell Tele. Co. of Pa., 67 Pa. PUC 195, 217, 94 P.U.R. 4th 12, 35 (1988); accord RCWC 1994 at 319-20.

Mr. Moul's use of a CAPM analysis in this proceeding is also flawed. As Mr. Hill testified, Mr. Moul unnecessarily included certain "upward adjustments" in his CAPM analysis, which tend to overstate his results. OCA St. 2 at 76-80. Specifically, Mr. Hill testified that:

> In his CAPM analysis Mr. Moul used betas that are unnecessarily adjusted for differences in leverage between market capital structures and book value capital

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[13] In his rebuttal testimony, Mr. Moul raised a number of critiques as to Mr. Hill's DCF methodology. See PPL St. 11-R. In his surrebuttal testimony, Mr. Hill responded on these issues regarding his DCF analysis. OCA St. 2-SR at 14-20. As discussed above, there are no large differences between the DCF analyses in this proceeding and detailed discussions of the various, minor differences in the particular components of the DCF are unnecessary and tend to detract from the real issues that are driving Mr. Moul's 11.25% cost of equity recommendation.

[14] Mr. Hill provided a thorough discussion of Mr. Moul's alternative costing methodologies and the shortcomings of each method as employed by Mr. Moul in this proceeding. See OCA St. 2 at 72-83.

> structures. As I have described in detail above, that "adjustment" is theoretically unsound and serves, here, to unnecessarily inflate the CAPM result.
>
> …
>
> Mr. Moul uses only the arithmetic average and ignores the geometric average market risk premium also published by the same source, thereby overstating his resulting CAPM cost of equity estimate.
>
> …
>
> Mr. Moul has also unnecessarily adjusted his CAPM equity cost estimates upward by more than a full percentage point (1.20%) for a "small firm" effect. That adjustment is unnecessary, for several reasons.

OCA St. 2 at 76-78. Mr. Hill then went on to explain the particular difficulties with Mr. Moul's "size effect" adjustment, and concluded that:

> [T]he types of analyses performed by scholars that study the "size effect" examine market aggregates without regard to whether or not the companies included are from regulated or competitive industries. Even if one assumes the "size effect" is a valid theory, research has shown that it does not apply to regulated utility operations (Wong, A., "Utility Stocks and the Size Effect: An Empirical Analysis," Journal of the Midwest Finance Association, 1993, pp. 95-101).
>
> In sum, Mr. Moul's upward adjustment to his cost of equity estimate for firm size, is unnecessary and serves to overstate his cost of equity estimate.

OCA St. 2 at 80. Similar to Mr. Moul's use of the Risk Premium method, his CAPM results should not be relied on to arrive at a reasonable cost of common equity for PPL.

Mr. Moul's CE analysis was equally less than persuasive as a measure of PPL's cost of common equity in this proceeding. As Mr. Hill explained:

> Mr. Moul notes in his Rebuttal that the *Hope* decision holds that the returns allowed in utility rate proceedings should be commensurate with returns earned by firms of similar risk. Mr. Moul has not provided any substantial evidence that Weis Markets (one of the unregulated companies in his comparable earnings group) has similar overall investment risk to PPL Electric Utilities. Therefore, even if accounting returns (ROEs) were indicative of the market-based cost of equity capital (which they are not) there is no nexus between the risk of unregulated firms like a grocery store company and PPL, and *Hope* requires the review of similar risk firms. Mr. Moul's Comparable Earnings fails on that aspect alone.

OCA St. 2-SR at 22-23. The OCA submits that, consistent with Commission precedent, the DCF method should be the primary indicator for establishing a reasonable cost of common equity for PPL in this proceeding.

c. Mr. Moul's Leverage Adjustment Is Unsupported, Unreasonable And Should Not Be Adopted.

The OCA submits that no ROE-enhancing adder is needed or appropriate for PPL based on the facts of this matter. As OCA witness Hill testified:

> While there are certainly many aspects of rate of return analysis that are subject to judgment and, thus, debate regarding the proper application of a particular technique, Mr. Moul's use of an imaginary risk difference between a market-based capital structure and a book value capital structure is not one of them. There is no evidence available in the literature of financial economics to support any risk difference between market-value and book-value capital structures. Miller and Modigliani (supposedly the source of Mr. Moul's "leverage" adjustment) do *not* compare market-value and book value capital structures.

OCA St. 2-SR at 4. (Emphasis in original). Unlike the Company, Mr. Hill provided support for his 9.00% cost of equity recommendation primarily based on the DCF model, including a full range of indicators of dividend yields and growth rates intended to reflect what investors actually use and consider. The Company's claim that Mr. Moul's DCF results should be increased by anywhere from 70-118 basis points due to his leverage adjustment, is not sound ratemaking. See PPL St. 11 at 41. The 9.00% cost of equity recommended by Mr. Hill is appropriate and reasonable to determine an appropriate rate of return for PPL.

PPL witness Moul testified that when utility market prices exceed book values, a risk difference exists between market-value capital structures and book-value capital structures, and market-based cost of equity estimates should therefore be adjusted upwards to account for that risk difference. This is the basis for Mr. Moul's "leverage adjustment." OCA St. 2 at 55-56. OCA witness Hill testified as to the flawed nature of this theory, in relevant part:

> There simply is no difference in financial risk when the market-value capital structure of a firm is different from the book-value capital structure. Financial risk is a function of the interest payments on the debt issued by the firm. That is, a firm's debt payments create financial risk and when the amount of debt used to finance plant investment increases relative to common equity the financial risk increases. Whether the capital structure is measured with market values or book values, the debt interest payments do not change and, therefore, financial risk does not change. As a result, market-value capital structures are useful as indicators of financial risk only when they are compared with other market-value capital structures (as Miller and Modigliani do in their treatise), and Mr. Moul's mixed-metaphor comparison of market-value and book-value capital structures has no economic meaning.

OCA St. 2 at 56. As Mr. Hill further explained:

> The Company is making an improper comparison between market value capital structures and book value capital structures in order to claim that a financial risk difference exists. When utility common equity market prices are above book value, the capital structure measured with market values will have a higher equity percentage and lower debt percentages than the capital structure measured with book value. That does not mean, as the Company claims, that those different capital structure measures signify any difference whatsoever in financial risk.

OCA St. 2 at 61.

The OCA acknowledges that in some cases the Commission made an adjustment to a DCF based cost of equity such as that proposed by Mr. Moul. More recently, however, the Commission has not adopted Mr. Moul's leverage adjustment, as Mr. Hill testified:

> [I]t is important to note that this Commission has rejected "financial risk adders" in Docket No. R-00061366 (Metropolitan Edison (Met Ed), Pennsylvania Electric, Opinion and Order, January 11, 2007, p. 136). The "financial risk adders" in the Met Ed case were based on the leverage/risk difference between market-value capital structures and book value capital structures, just as Mr. Moul's are. In addition, in Docket No. R-00072711, Aqua Pennsylvania, Inc., July 17, 2008, at pages 35 through 39, this Commission specifically rejected Mr. Moul's leverage/risk analysis—the same leverage/financial risk adjustment Mr. Moul uses in his testimony in this proceeding.

OCA St. 2 at 57. Other state commissions have uniformly recognized this type of adjustment as unwarranted in their decisions. The West Virginia Public Service Commission (PSC) has strongly rejected this type of adjustment. In January 2004 the West Virginia PSC concluded:

> Additional examples of the Company witness raising his sights above what a reasonable analysis produces can be found in the market value adjustments he makes. His water group DCF analysis would be only 8.98; however, he leverages this number up by 54 basis points, or .54% to reflect the fact that stockholders pay market prices for stock and those market prices may exceed the book value of a utility's rate base. Thus, the Company asks us to effectively depart from our long-standing use of an original cost rate base. We could do this simply by applying the derived rate of return, before market price leveraging, to an inflated rate based that exceeds book value or, in the alternative chosen by the Company, we can continue to use original cost rate base and apply an inflated rate of return to that rate base.

West Virginia Public Service Comm'n v. West Virginia-American Water Works, 2004 W. Va. PUC LEXIS 6, *18 (2004). In addition to the West Virginia PSC, other Commissions have rejected similar market-to-book adjustments to the DCF model. The District of Columbia Public Service Commission rejected a company's arguments that an adjustment to the DCF was appropriate to meet investors' requirements. In the Matter of the Application of Washington Gas Light Company, District of Columbia Division, for Authority to Increase Existing Rates and Charges for Gas Service, 2003 D.C. PUC LEXIS 220, *72 (2003). The D.C. Commission rejected such adjustment, reasoning as follows:

> [t]he record in this proceeding does not support WGL's prediction that, without such an adjustment, investors will sell their stocks. Investors know that the returns allowed by public service commissions are applied to book value/rate base. An adjustment of the type witness Olson recommends would provide excessive returns to the Company's shareholders at the expense of ratepayers.

Id. at *72. The Public Service Commission of the State of Missouri rejected a utility's argument for a market-to-book adjustment to the DCF-derived return on equity. In the Matter of St. Louis, Missouri, for Authority to File Tariffs to Increase Water Service Provided to Customers in the Missouri Service Area of the Company, 1998 Mo. PSC LEXIS 13, *17 (1988). In rejecting the adjustment, the Missouri Commission concluded that investors are aware that returns on equity for regulated utilities are "based on assets valued at original cost, and they take this factor into

account in their investment decisions." Id. Finally, the Michigan Public Service Commission also rejected a market-to-book adjustment in excess of DCF results. See gen'ly In the Matter of the Application of Wisconsin Electric Power Company for Authority to Increase its Rates for the Sale of Electricity in Michigan, 2002 Mich. PSC LEXIS 294, *37-38 (2002).

Mr. Hill testified on this issue, in relevant part as follows:

> [E]ven though Mr. Moul began to employ his leverage/risk adjustment in 1997, and this Commission, for a period of time, utilized that adjustment, Mr. Moul notes in his testimony (Moul Direct, p. 37) that the last time this Commission utilized that adjustment was 2007. As I noted above, since that time this Commission has rejected that adjustment. Moreover, since 2007 Mr. Moul has testified in 24 regulatory jurisdictions, and no regulatory jurisdiction (including Pennsylvania) has specifically accepted and utilized Mr. Moul's "leverage/risk" adjustment.

OCA St. 2 at 59. During the cross-examination of Mr. Moul, it was confirmed that the only regulatory jurisdiction to accept Mr. Moul's leverage adjustment proposal has been Pennsylvania. Tr. at 251.

Perhaps, the most telling factor as to the need for a leverage adjustment as proposed by Mr. Moul is what has happened in all of the other regulatory jurisdictions where such an adjustment was not authorized. As Mr. Hill explained:

> When investors are unable to earn their required returns, utilities will not be able to attract capital. However, the Company has not made the case, or provided any evidence to show that in all the jurisdictions in which Mr. Moul's leverage/risk adjustment has been rejected, utilities are unable to attract the capital necessary to fulfill their regulatory obligation to serve. Absent such a showing, it is reasonable to believe that the standard regulatory practice (applying cost of equity estimates to book value capital structures) enables investors to realize the returns they require and, concomitantly, enables regulated utilities to attract capital. Standard regulatory practice should be applied here in Pennsylvania as well—Mr. Moul's financial/risk adjustment, a "financial risk adder" should be rejected.

OCA St. 2 at 59.

At page 11 of his surrebuttal testimony in this proceeding, Mr. Hill summarized the reasons this Commission should reject Mr. Moul's fictional "leverage" adjustment:

- The comparison of market value capital structures and book value capital structure to measure financial risk differences, is not supported in the literature of finance;
- There is no financial risk difference between market value and book value capital structures because interest expense (the actual source of financial risk) doesn't change, regardless of the capital structure measurement perspective;
- One company cannot have two levels of financial risk (i.e., one based on book value and one based on market value);
- The DCF model does not "mis-specify" the cost of equity when market prices are different from book value, and utilities are able to attract capital on reasonable terms absent any so-called "leverage" adjustment;
- Moul's "leverage" adjustment is, fundamentally, a market-to-book ratio adjustment, and this Commission has rejected market-to-book ratio adjustments in the past;
- The "leverage" adjustment is based on the "fair value" of the capital employed in financing the utility operation, as such it is a surrogate for "fair value" rate base, which results in a revenue requirement higher than that required by law in a regulatory jurisdiction in which rates are to be based on original cost (depreciated book value);
- A utility market price significantly above book value indicates that investors expect that firm to earn a return above its cost of equity, but according to Mr. Moul's "leverage" adjustment the higher the market price, the greater the upward adjustment necessary, which would exacerbate the over-recovery;
- The "leverage" adjustment recommended by Mr. Moul has been presented in dozens of regulatory jurisdictions. It has been rejected by all of those jurisdictions (including, recently, Pennsylvania).

OCA St. 2-SR at 11. The OCA submits that for the reasons just discussed, and taking the record as a whole, such an adjustment should not be considered in this matter.

5. The Company's Request For A Higher Cost Of Equity In Recognition Of Management Performance Is Without Merit.

The Company has requested that the Commission adopt a cost of equity for PPL, which includes an additional 12 basis points for what has been described as PPL's "exemplary management performance." PPL St. 11 at 6. The OCA opposes the Company's request for a higher equity cost rate. The Company's ratepayers have a right to receive safe and adequate service at rates which are just and reasonable. 66 Pa. C.S. §§ 1301, 1501. The OCA recognizes

that the Public Utility Code allows the Commission to "consider, in addition to all other relevant evidence of record, the efficiency, effectiveness and adequacy of service of each utility when determining just and reasonable rates." 66 Pa. C.S. § 523(a). The evidence of record here, however, simply does not support PPL's request.[15]

During the hearings, PPL witness Moul was questioned about his personal knowledge relating to PPL's management performance. Mr. Moul testified that he had not done any investigation or analysis of same, and stated for instance, he had no knowledge of how many storm-related outages PPL had incurred or how long it may have taken to restore power after such outages. Tr. at 244. Mr. Moul was further questioned about the Company's response to the OCA's Set IX Interrogatory, marked as OCA Cross Exhibit 1. Mr. Moul verified that the sole question in OCA Set IX was:

> For the last four years, please provide a list of every instance where the Pennsylvania Public Utility Commission ordered PPL or PPL agreed to pay a fine.

Tr. at 245. Mr. Moul verified that the chart on page 3 of OCA Cross Exhibit 1 indicated several docket numbers and that in conjunction with those Commission proceedings, PPL either agreed to or was ordered to pay $832,000 in fines and penalties. Tr. at 246. From his testimony, it is clear that Mr. Moul had no knowledge of these proceedings when he made his recommendation that an additional 12 basis points be added to PPL's cost of common equity for exemplary management performance.

In addition, page 3 of OCA Cross Exhibit 1 lists 5 separate dockets where the Commission's Prosecutory Staff has investigated PPL for potential violations of the Public Utility Code. OCA Cross Exh. 1. In at least one of those dockets, the Commission stated that

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[15] At the hearings, Mr. Hill testified that based on a 15-basis point adder, PPL's request, if granted, would cost ratepayers an additional $2.9 million annually. Tr. at 335-336. Although the actual adder PPL requests is 12 basis points, the OCA submits that Mr. Hill's calculation indicates an amount well in excess of $2 million annually.

"PPL's alleged conduct was of a serious nature." Pa. PUC v. PPL Electric Utilities Corp., Docket No. M-2008-2057562, Order at 11 (May 31, 2009).

The OCA submits that the record in this matter does not support the award of an additional financial adder based on management performance. Accordingly, the Commission should reject PPL's request for an additional 12-basis point ROE adder.

G. Conclusion.

For all of the foregoing reasons, the OCA submits that PPL has failed to meet its burden of proof in support of its request for this Commission to allow it the opportunity to earn a return on equity of 11.25%. Further, PPL has failed to show that its proposed capital structure containing 51% common equity should be adopted. The OCA recommends that this Commission adopt the cost of capital recommendations of Mr. Hill, and allow PPL the opportunity to earn a 9.00% return on common equity and a 7.19% overall return on its rate base.

VIII. RATE STRUCTURE

For the second time in two years, PPL Electric Utilities Corporation (PPL) has requested that its distribution rates be increased by over $100 million. PPL St. 1 at 2; Pa. PUC v. PPL Electric Utilities Corp., Docket No. R-2010-2161694, Order (Dec. 16, 2010) (PPL 2010). In addition, for the second time in two years, PPL proposed to allocate nearly the entire revenue increase to the residential and residential thermal storage rate classes. PPL St. 5 at 9-10; PPL 2010. PPL's current request asked for an increase of $104.6 million, or thirteen percent of overall distribution revenues. OCA St. 1-REV. at 6. Of the $104.6 million, PPL proposed to allocate over $99 million to the residential class and over $3.5 million to the residential thermal storage (RTS) class, an annual increase to distribution rates of 20.9% and 77.6%, respectively for

these customers. OCA St. 1-REV. at 6. Yet, PPL proposed to allocate only nominal increases, and even proposed decreases, to the remaining rate classes. PPL St. 1 at 4.

The OCA presented the testimony of Glenn A. Watkins[16] that challenged PPL's cost of service methodology, the proposed revenue allocation to the rate classes, and the proposed rate design for the residential and RTS classes. Mr. Watkins' testimony demonstrates that the Company's cost of service study inappropriately assumes that the majority of both primary and secondary distribution plant should be classified as customer related. Mr. Watkins testified, and the OCA submits, that classifying PPL's primary distribution plant costs and the majority of secondary distribution plant costs as demand related is a better reflection of cost causation principles. Further, the OCA submits that using a cost of service study that classifies the majority of distribution costs as demand related is consistent with the methodology used by PPL, prior to its 2010 rate case.

In addition, Mr. Watkins testified that classifying primary distribution plant as customer related resulted in an unsupportable allocation of the revenue increase to the residential classes. Using PPL's cost of service study at present rates, the residential service classes' indexed rate of return is only 63%, resulting in PPL proposing that nearly all of the revenue increase be allocated to the residential classes in order to bring them at or near the system average. Yet, when using the cost of service study that more appropriately classifies primary distribution plant as demand related, and therefore more equitably attributes distribution costs to the customer classes causing the costs, Mr. Watkins determined that the Rate RS residential service class has an indexed rate

[16] Mr. Watkins is a Principal and Senior Economist with Technical Associates, Inc., an economics and financial consulting firm. Mr. Watkins has conducted marginal and embedded cost of service, rate design, cost of capital, revenue requirement, and load forecasting studies involving numerous electric, gas, water/wastewater, and telephone utilities, and has provided expert testimony in Alabama, Arizona, Georgia, Illinois, Kansas, Kentucky, Maine, Maryland, Massachusetts, Michigan, New Jersey, North Carolina, Ohio, Pennsylvania, Vermont, Virginia, South Carolina, Washington, and West Virginia. A more complete description of Mr. Watkins education and experience is provided in Schedule GAW-1, attached to OCA St. 3.

of return of 112%. Under Mr. Watkins' study, at present rates, the rate of return for the RS class was 6.90%, well above the system average return of 6.14%. Consequently, the OCA submits that the proposal by PPL to allocate practically the entire revenue increase to the residential service classes for the second time in two years is unsupportable and inequitable. As discussed below, Mr. Watkins' cost of service study is reasonable and his revenue allocation results in fair rates and should be adopted for use in this proceeding.

A. Cost Of Service Study.

1. The OCA's Cost Of Service Study Should Be Accepted As A Guide To Set Rates In This Proceeding.

a. Introduction.

The Company has filed a Pennsylvania jurisdictional cost of service study for both the historic and future test year as required by the Commission's regulations. PPL St. 8 at 18-19. According to the Company, "the fundamental purpose of a cost allocation study is to aid in the design of rates to be charged by identifying all of the capital and operating costs incurred by a utility to provide service to all of its customers, and then assigning or allocating those costs to individual rate classes on the basis of how those rate classes cause the cost to be incurred." PPL St. 8 at 22. OCA witness Glenn Watkins explained the concept of a class cost of service study, as follows:

> Embedded cost of service studies are often referred to as fully allocated cost studies. This is because the vast majority of an electric utility's plant investment serves all customers, and the majority of expenses are incurred in a joint manner such that these costs cannot be specifically attributed to any individual customer or group of customers. To the extent that certain costs can be specifically attributable to a particular customer (or group of customers), these costs are directly assigned in a CCOSS. However, the vast majority of PPL's distribution plant and expenses are incurred jointly to serve all (or most) customers. These company-wide joint costs are then allocated to rate classes. It is generally recognized that to the extent possible, joint costs should be allocated to classes based on the concept of cost causation; i.e., costs are allocated based on specific

> factors that cause costs to be incurred by the utility. Although cost analysts generally strive to abide by the concept of cost causation to the greatest extent practical, some costs cannot be attributed to specific exogenous factors and must be subjectively assigned or allocated to rate classes. With regards to those costs in which cost causation can be attributed, cost of service experts often disagree as to what is the most cost causative factor; e.g., peak demand, energy usage, number of customers, etc.

OCA St. 3 at 3-4.

Both Company witness Kleha and OCA witness Watkins testified that the process of developing a cost of service study is subject to considerable discretion. As Company witness Kleha testified, the "process inherently requires a substantial level of judgment and can be more accurately described as engineering/accounting art, rather than science." PPL St. 8 at 22. OCA witness Watkins explained that, "Cost allocation studies involve art as much as science and are subjective by their very nature." OCA St. 3 at 4. As both OCA witness Watkins and PPL witness Kleha testified, the cost of service study should serve as a guide and one of a number of tools in assigning revenue responsibility. OCA St. 3 at 4; PPL St. 8-R at 3.

The Company presented two cost of service studies, one based on costs and operating conditions for the historic test year that ended December 31, 2011, and one based on the costs and operating conditions for the future test year ending December 31, 2012. PPL St. 8, Exh. JMK 1, JMK 2. Using the historic test year study, the Company classified approximately 63% of primary distribution plant as customer related and sixty two percent of secondary distribution plant as demand related.[17] OCA St. 3 at 16, Table 7. In the rebuttal phase of the proceeding, PPL witness Kleha testified that "consistency is an important factor in the preparation of a cost allocation study," and that "PPL Electric generally has used the same allocation criteria and parameters for many years." PPL St. 8-R at 4. In fact, prior to its 2010 base rate case PPL

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[17] The calculation of these percentages does not include meters and service drops, which the OCA accepts as customer related.

allocated primary distribution plant costs as 100% demand related, as recommended by OCA witness Watkins. In the 2010 case, however, PPL changed its methodology and started allocating a large percentage of primary distribution plant based on the number of customers.

The OCA submits that there are significant flaws in the PPL cost of service study that make it an unreliable indicator of the cost to serve any particular class. Most notably, PPL's methodology for classifying and allocating a large portion of its total distribution plant investment as customer related has a major impact on the results of the cost of service study, and has a particularly negative impact on the residential service classes. Under PPL's current method of classifying the majority of primary and secondary plant as customer related, Rate RS has an indexed rate of return of 63%. OCA St. 3 at 37, Table 16. Under Mr. Watkins' recommended approach, where primary distribution plant is classified as 100% demand related and secondary distribution plant is partially customer and partially demand related, Rate RS would have an indexed rate of return of 112%. OCA St. 3 at 37, Table 16. Mr. Watkins' classification of primary distribution plant as 100% demand related, and secondary plant as partially demand/partially customer related is consistent with PPL's method prior to its 2010 base rate case. The OCA submits that PPL's current cost of service study results in anomalous rates of return and improper allocation of the revenue increase.

To be clear, prior to 2010, PPL classified <u>primary</u> distribution plant as 100% demand related. PPL at that time classified <u>secondary</u> distribution plant as partially demand and partially customer related. In the 2010 case, and here, PPL has classified <u>primary</u> distribution plant as 63% customer and 37% demand related. PPL has classified <u>secondary</u> distribution plant as 62% customer and 38% demand related. Mr. Watkins provided substantial evidence to show that

primary and secondary distribution plant should be classified as 100% demand related, consistent with how regulatory bodies in over 30 states classify such plant. See e.g. OCA St. 3 at 20-21.

Based on the facts of this case, however, Mr. Watkins has recommended a reasonable and appropriate compromise COSS that maintains a customer/demand split for the secondary distribution plant. Specifically, Mr. Watkins cost of service study (COSS) classifies primary distribution plant exactly how PPL did prior to 2010 – 100% demand related. Mr. Watkins then classifies secondary distribution plant as partially demand and partially customer related, just like PPL's current and prior COSSs, but Mr. Watkins uses a more appropriate customer component than PPL based on his revisions to Mr. Kleha's minimum size study and consistent with how such a study is to be performed as per the 1992 NARUC Manual. Mr. Watkins' COSS, with an appropriate customer/demand split for secondary distribution plant shows the RS class at an indexed rate of return of 112%. OCA St. 3 at 37, Table 16.

As discussed, the OCA has proposed an alternative to the Company's cost of service study that more accurately reflects the cost to serve the various classes. The OCA's cost of service study reflects accepted cost of service principles and should be used as the primary guide for setting rates in this proceeding. Additionally, the OCA's recommended cost of service study produced results that are more closely aligned with the method historically used by PPL and produced fair and reasonable results for all rate classes.

b. The Cost Of Service Study Recommended By OCA Witness Watkins Should Be Used As The Primary Guide In Setting Rates Because It Better Reflects Cost Causation, Is Reasonable, And Is Equitable To All Customer Classes.

OCA witness Watkins performed a thorough review of all relevant information in this matter before coming to his recommendations, as he testified:

> PPL witness Joseph Kleha indicates in his direct testimony that the CCOSS he prepared for this case follows and uses the same allocation methods as used in Docket No. R-2010-2161694 ("2010 case"). During the 2010 case, CCOSS issues were particularly controversial, particularly as they related to the classification and allocation of distribution plant between number of customers and class non-coincident peak ("NCP") demand. As a result, I began my investigation in this case with a thorough review of the various CCOSS evidence and conceptual discussions from the 2010 case as well as a review of all post hearing briefs, the ALJ's Recommended Decision, and the Commission's Final Order relating to CCOSS and class revenue allocations. I then reviewed the structure and organization of the Company's CCOSS. Once the basic structure was understood, I reviewed the accuracy and completeness of the primary drivers (classifications and allocators) used to assign costs to rate schedules and classes. Then, I examined PPL's classification studies used as a basis to weight the allocation of distribution plant and expenses between number of customers and maximum demands. Next, I reviewed PPL's selection of allocators used to assign costs of specific rate base, revenue and expense accounts to jurisdictional classes. I then verified the accuracy of the Company's CCOSS model by replicating its results using my own computer model. Finally, I adjusted certain aspects of the Company's study to better reflect cost causation and cost incidence by rate schedule and customer class.

OCA St. 3 at 5. Further, as Mr. Watkins explained:

> PPL's class revenue allocations are largely driven by its class cost of service study results. My review and analysis of the Company's studies produces significantly different results than those portrayed by Company witness Joseph Kleha. In this regard, Mr. Kleha's class cost of service study results are driven by his classifications of distribution plant between customer-related and demand-related. My studies indicate that a much higher proportion of plant should be classified, and ultimately, allocated to classes based on class peak demands rather than customer counts. As a result, I recommend a materially different allocation of any authorized overall revenue increase to customer classes than does PPL. A comparison of my class revenue allocations to those proposed by under the Company's proposed revenue requirement PPL is provided below:

Table 1

Comparison of OCA and PPL Proposed Increases
($000)

Class	OCA Increase $	PPL Increase $
RS	$65,854	$101,088
RTS	$961	$3,568
GS-1	$0	$815

GS-3	$25,045	-$4,674
LP-4	$7,266	$7
LP-5	$258	$712
LPEP	$0	$0
GH-2	$290	$323
SL/AL	$4,943	$2,779
Total	$104,617	$104,618

OCA St. 3 at 2-3. Mr. Watkins' recommendations and COSS results in this proceeding are consistent with the methodology used by PPL prior to its 2010 base rate case and consistent with the core principle of cost causation. In addition, Mr. Watkins' methodology in this proceeding is consistent with the 2000 NARUC Report, which as discussed in detail throughout this Main Brief, provides updated guidance on the classification of distribution plant in a post-restructured environment where electric utilities like PPL no longer own generation assets.

Mr. Watkins performed a COSS that allocated primary distribution plant as 100% demand related, and after correcting certain errors in PPL's minimum-size study, allocated secondary distribution plant as partially customer and partially demand related. Mr. Watkins' COSS, which is consistent with the method PPL used prior to 2010, accurately reflects costs causation principles, is reasonable, and is equitable to all customer classes. Mr. Watkins further explained his recommendation as follows:

> While my density/class customer mix study indicates that PPL jointly serves all customer classes proportionate to their respective peak load requirements, it does not reflect the location specific nature of Line Transformers serving secondary voltage customers. Moreover, because PPL's secondary voltage facilities serve small geographic areas, a reasonable "middle of the road" approach is to classify PPL's primary distribution system as 100% demand-related and its secondary system as partially demand-related and partially customer-related. In this regard, and even though my adjustments to Mr. Kleha's minimum size analyses for Conductors and Conduit still overstate a reasonable customer percentage to some degree, these adjusted secondary classifications can be used within the CCOSS to provide meaningful guidance for class revenue allocation purposes. In this regard, I recommend the use and recognition of the following distribution plant classifications:

Table 15

Account	OCA Recommended Distribution Plant Classifications			
	Primary System		Secondary System	
	% Customer	% Demand	% Customer	% Demand
364 Poles, Towers & Fixtures	0%	100%	58.58%	41.42%
365 Overhead Conductors	0%	100%	37.33%	62.67%
366 Underground Conduit	0%	100%	23.14%	76.86%
367 Underground Conductors	0%	100%	23.14%	76.86%
368 Line Transformers	--	--	53.62%	46.38%
369 Services	--	--	98.52%	1.48%
370 Meters	100%	0%	100.00%	0.00%

OCA St. 3 at 36-37. As Mr. Watkins explained, his recommendations are tempered with a reasonable balance of all class' interests in this matter. The results of Mr. Watkins recommended study at current rates are as follows:

Table 16

Class	OCA CCOSS Results At Current Rates	
	ROR	Indexed ROR
RS	6.90%	112%
RTS	-5.71%	-93%
GS-1	11.05%	180%
GS-3	6.38%	104%
LP-4	-0.81%	-13%
LP-5	-5.37%	-88%
LPEP	24.48%	399%
GH-2	1.86%	30%
SL/AL	5.58%	91%
Total Jurisdictional	6.14%	100%

OCA St. 3 at 37; Sched. GAW-7.

Mr. Watkins' recommended COSS study uses the same method utilized by PPL prior to 2010, with certain necessary adjustments in order to provide reasonable and fair results in this matter. As a result, Mr. Watkins' recommended study maintained the historical consistency that PPL has maintained is imperative. Tr. at 394-397. Mr. Watkins' COSS also follows accepted cost of service principles employed throughout the nation. The OCA recommends that the Commission place primary reliance on the OCA's COSS study in this proceeding.

2. The Company's Cost Of Service Study Must Be Rejected.

a. PPL's Classification Of Primary Distribution Plant As Partially Customer-Related And Partially Demand-Related Is Unsupportable.

i. Introduction.

PPL has assigned its distribution costs on two bases. First, PPL has classified the costs of "Service and Meters" plant on a customer basis.[18] Services and meters are the actual service line used to connect the customer and the meter used to record usage. The residential classes, having by far the greatest number of customers in PPL's service territory, were assigned the greatest share of these costs. The OCA does not object to the Company's assignment of "service and meters" plant on a customer basis.

Second, and more significantly, PPL has classified the joint costs of both its primary and secondary[19] distribution plant partially on the basis of number of customers and partially on the

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[18] PPL has classified a very small portion of Services as demand-related (1.5%).

[19] As Mr. Watkins explained:

> PPL's overall distribution system is comprised of a primary voltage system and a secondary voltage system. The primary system operates at higher voltage levels than the secondary system and generally consists of plant and equipment between the substations and transformers. The lower voltage secondary system can be thought of as operating downstream from the primary system and delivers electricity to small end-users.

OCA St. 3 at 14-15.

basis of demand. For its Primary System accounts, PPL classified 63% of its system, or $1.1 billion of investment, as customer related. OCA St. 3 at 16, Table 7. For the Secondary System, PPL classified 62% of its system, or $587 million, as customer related. Id. Taking the Primary and Secondary Systems together, PPL classified 62.5%, or $1.7 billion, as customer related costs. The bulk of all customer-related costs in PPL's study are assigned to the residential classes due to the large number of customers in those classes. This assignment of primary system costs based on a customer component is directly contrary to the method used by PPL prior to 2010. In addition, assigning primary distribution plant based on a customer component is contrary to the method used in over thirty states in which all primary distribution plant is allocated on a demand basis.

PPL arrived at the customer/demand split in its 2010 rate case and in this matter by performing a minimum system study. Under the minimum study, costs associated with the minimum sized system components currently installed by PPL were deemed to be customer related, and the remainder of the costs in Common Distribution plant accounts were deemed to be demand related.

The OCA submits that the Company's classification of a majority of both its primary and secondary distribution plant on a customer basis is flawed in several respects and must be rejected. First, the underlying assumption in the Company's study that primary and secondary distribution plant has a customer component is unsupported and inconsistent with PPL's actual service territory. Second, even if there were a customer component to these facilities, PPL's minimum system study to determine that component is significantly flawed. Third, the Company's methodology in this proceeding has major impacts on the results of the Company's

cost of service study particularly for the residential customer class that has by far the greatest number of customers.

ii. There Is No Support For Classifying Primary Distribution Plant Investment Based On Customer Counts.

OCA witness Watkins explained how the Company assigned distribution costs to individual customer classes as follows:

> Mr. Kleha classified and allocated distribution plant and expenses partially on the basis of number of customers and partially on the basis of peak demand. With respect to distribution plant allocations, recognition has been given to the fact that some large customers are either not connected to PPL's distribution system because these customers take power at the sub-transmission level or higher, or are directly assigned distribution costs. Furthermore, to recognize the diversity of localized demands throughout the Company's distribution system, Mr. Kleha allocated the demand-related portion of distribution plant on the basis of class NCP demands.

OCA St. 3 at 7. Underlying the Company's cost of service study is an assumption that it is appropriate to allocate some joint costs based on customer counts, and other joint costs based on the demands placed by customers on the distribution system. OCA St. 3 at 17. As OCA witness Watkins testified, the issue of the classification and allocation of distribution plant can be critical:

> The classification of distribution plant may be the single most important factor affecting class rates of return. To illustrate the importance of this issue, consider the Residential class: whereas this class may account for only 40% to 50% of energy usage or peak demand, it is responsible for about 90% of the number of customers. Therefore, given the level of investment associated with distribution plant, wide variations in class rates of return usually result from different customer/demand classifications.

OCA St. 3 at 8. The wide variation in Rate of Return referenced by Mr. Watkins can clearly be seen in comparing the cost of service study performed by PPL and the cost of service study analysis performed by OCA witness Watkins. Using the method that has been accepted in over

30 other states, where primary and secondary distribution plant is classified as 100% demand related, the indexed rate of return for the RS class, at present rates, would be 124%. OCA St. 3 at 36, Table 14. Using the method that PPL proposes in this proceeding, where primary distribution plant is classified substantially as customer related and only partially as demand related, the indexed rate of return for the residential class return would only be 63%. Id. Based on the facts of this case, Mr. Watkins chose a compromise COSS that classifies all primary distribution plant as demand related and classifies secondary distribution plant as partially customer related and partially demand related. Mr. Watkins, after making the necessary corrections to PPL's minimum size study, appropriately assigned more of the secondary plant costs as demand related as opposed to PPL's customer weighted method. OCA St. 3 at 35-37.

In determining the classification for primary distribution plant, however, the Company failed to account for how the distribution system is engineered and designed to work on a day-to-day basis. As OCA witness Watkins explained:

> There are several factors the analyst should keep in mind when classifying distribution plant. First, much of an electric utility's primary distribution system is interconnected to prevent outages. That is, a large percentage of the system is interconnected so that when a circuit (line) is interrupted, the flow of electricity can be diverted to other facilities in order to prevent a black out of the entire system downstream from the break in the circuit. As a result, facilities (conductors, switches, etc.) are sized to meet not only the loads normally placed on a particular segment, but are also capable of carrying additional load in the case of emergencies and interruptions from other line segments.

OCA St. 3 at 24. The OCA submits that the PPL primary distribution system is not built such that the majority of costs are incurred simply to connect customers, and accordingly, there is no reasonable basis to assign Primary distribution plant based on a customer component.

Moreover, OCA witness Watkins testified that the only reason to classify a portion of primary or secondary distribution plant expenses based on customer counts as PPL did in this

proceeding, rather than based on demands placed on the system, would be due to the customer mix and density in the service territory. Mr. Watkins explained:

> Even though investment is made in distribution plant and equipment to meet the energy needs of its customers at their required power levels, there may be considerable differences in both customer densities and the mix of customers throughout a utility's service area. As a hypothetical, suppose a utility serves both an urban area and a rural area. In this situation, many customers' electrical needs are served with relatively few miles of conductors, few poles, etc. in the urban area, while many more miles of conductors, more poles, etc. are required to serve the requirements of relatively few customers in the rural area. If the distribution of classes of customers (class customer mix) is relatively similar in both the rural and urban areas, there is no need to consider customer counts (number of customers) within the allocation process, because all classes use the utility's joint distribution facilities proportionately across the service area. However, if the customer mix is such that Commercial and Industrial customers are predominately clustered in the urban area, while the rural portion of the service territory consists almost entirely of Residential customers, it may be unreasonable to allocate the total Company's investment based only on demand; i.e., a large investment in many miles of line is required to serve predominately Residential customers in the rural area while the Commercial and Industrial electrical needs are met with much fewer miles of lines in the urban area. Under this circumstance, an allocation of costs based on a weighting of customers and demand can be considered equitable and appropriate.

OCA St. 3 at 8-9.

As explained by Mr. Watkins, however, if all customer classes are equally represented in all portions of a utility's service territory, there is no basis for classifying or allocating primary or secondary distribution plant on customer counts. Id. at 13. OCA witness Watkins' testimony regarding customer densities and class customer mixes is supported in the field of academia by Professor James Bonbright. Mr. Watkins testified that Professor Bonbright, in his treatise Principles of Public Utility Rates, states:

> [there] is the very weak correlation between the area (or the mileage) of a distribution system and the number of customers served by this system. For it makes no allowance for the density factor (customers per linear mile or per square mile). Our casual empiricism is supported by a more systematic regression analysis in (Lessels, 1980) where no statistical association was found between distribution costs and number of customers. Thus, 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.

OCA St. 3 at 14; James Bonbright, Principles of Public Utility Rates, at 491 (2d ed. 1988).

OCA witness Watkins conducted an analysis of the mix of PPL's customers across the service territory in order to assess whether an allocation based on customer counts is supported by PPL's actual distribution system. Mr. Watkins explained the process by which he reviewed PPL's customer mix, as follows:

> PPL's customers are dispersed in a reasonably proportional manner throughout its service area. That is, there is no distinct differences in the mix of customers (by class) across the rural and urban portions of PPL's service area. The relationship of Residential customers relative to non-Residential customers is relatively constant throughout PPL's service area. While the rural areas of PPL's service area are comprised mainly of Residential customers, this relationship also remains true for the more dense population areas of PPL's territory as well. More importantly, in the less dense portions of PPL's service territory (rural areas), PPL serves a proportionate number of GS-1, GS-3, GH-2, and LP-4 (non-Residential) customers.
>
> In summary, each customer class is represented in a reasonably proportional manner in both rural and urban areas within PPL's service area. As a result, it cannot be said that the less populated portions of PPL's service area (which require significant investment to serve few customers) are dedicated to any one class of customers. As such, PPL's distribution plant and expenses should be assigned to classes based only on utilization and any consideration of customer counts is improper for the allocation of distribution plant, as such, this study indicates that PPL's distribution plant should be classified as 100% demand-related.

OCA St. 3 at 18.

The OCA submits that PPL's mix of customers throughout its service territory, does not provide support for classifying or allocating primary and secondary distribution plant on a customer-count basis as PPL has proposed in this proceeding. While customer counts may be used as a proxy to represent the costs of connecting customers throughout a utility's service territory, it should not replace actual analysis of customer density and mix necessary to

determine if a customer classification of distribution plant is appropriate. As Mr. Watkins noted in his surrebuttal testimony:

> Neither Mr. Kleha nor Mr. Baudino offer any technical criticism of my customer mix/density study which is used to test whether any percentage of PPL's distribution plant should be classified and allocated based simply on customer count. Instead, these witnesses claim that my density study is only aimed at rural versus urban cost assignment. In this regard, these witnesses are clearly incorrect in that they do not recognize the conceptual basis for the study which was discussed in my direct testimony and unrebutted by either witness. Furthermore, and as also noted in my direct testimony, my density study is supported by authoritative academic studies and literature including Dr. James Bonbright in his well known treatise Principles of Public Utility Rates, as well as the 2000 NARUC report Charging for Distribution Service: Issues in Rate Design.

OCA St. 3-SR at 4.

In 2010, the Company relied on quotations from the 1992 NARUC Electric Utility Cost Allocation Manual to argue that primary and secondary distribution plant must be classified as partially customer related and partially demand related. In this proceeding, Mr. Watkins testified that:

> These quotes come from the section of the Manual that discusses the mechanics of conducting two specific methods used after a determination is made that it is appropriate to allocate distribution plant on both customer and peak demand. However, in my opinion, the quotes were taken out of context in that the NARUC Manual contains the following passages regarding the need to classify any distribution plant as partially customer-related:
>
>> To ensure that costs are properly allocated, the analyst must first classify each account as demand-related, customer-related, or a combination of both. The classification depends upon the analyst's evaluation of how the costs in these accounts were incurred. In making this determination, supporting data may be more important than theoretical considerations.
>> Allocating costs to the appropriate groups in a cost study requires a special analysis of the nature of distribution plant and expenses.
>
> Indeed, like all reference guides, the NARUC Manual is not intended to be a one-size-fits-all cookbook, but rather a guide to the application of various procedures depending on specific circumstances.

OCA St. 3 at 19; National Association of Regulatory Utility Commissioners, Electric Utility Cost Allocation Manual (1992 NARUC Manual), 89 (January 1992).

OCA witness Watkins further testified that the portions of the 1992 NARUC Manual that the Company relied on in 2010, and relies on in this proceeding, are outdated. Mr. Watkins explained:

> [t]he 1992 NARUC Manual was written in an era when all retail utility services were bundled (generation, transmission and distribution). Subsequent to the unbundling of retail rates in the mid to late 1990's by several state jurisdictions, NARUC commissioned a study to examine the costing and pricing of electric distribution service in further detail. In December 2000, NARUC published a report entitled: Charging For Distribution Services: Issues in Rate Design. As part of the Executive Summary this report states:
>
> The usefulness of cost analyses of the distribution system in designing rate structures and setting rate levels depends in large measure upon the manner in which the studies are undertaken. Cost studies (both marginal and embedded) are intended, among other things, to determine the nature and causes of costs, so that they can then be reformulated into rates that cost-causers can pay. Such studies must of necessity rely on a host of simplifying assumptions in order to produce workable results; this is especially true of embedded cost studies. Moreover, it is often the case that many of the costs (*e.g.,* administrative and general) that distribution rates recover are not caused by provision of distribution service, but are assigned to it arbitrarily. Too great dependence on cost studies is to be captured by their underlying assumptions and methodological flaws. Utilities and commissions should be cautious before adopting a particular method on the basis of what may be a superficial appeal. More important, however, is the concern that a costing method, once adopted, becomes the predominant and unchallenged determinant of rate design.

OCA St. 3 at 20.

As Mr. Watkins further explained, not only does the more recent 2000 NARUC report (2000 NARUC Report) not indicate that distribution plant must be classified as partially demand-related and partially customer-related, but the 2000 NARUC Report indicates that the majority of states use a basic customer method in which all distribution costs, except for service and meters, are classified as demand related. As OCA witness Watkins testified:

With respect to embedded cost analyses, the 2000 NARUC Report provides:

> There are a number of methods for differentiating between the customer and demand components of embedded distribution plant. The most common method used is the basic customer method, which classifies all poles, wires, and transformers as demand-related and meters, meter-reading, and billing as customer-related. This general approach is used in more than thirty states. A variation is to treat poles, wires, and transformers as energy-related driven by kilowatt-hour sales but, though it has obvious appeal, only a small number of jurisdictions have gone this route.
>
> …
>
> Any approach to classifying costs has virtues and vices. The first potential pitfall lies in the assumptions, explicit and implicit, that a method is built upon. In the basic customer method, it is the *a priori* classification of expenditures (which may or may not be reasonable). In the case of the minimum-size and zero-intercept methods, the threshold assumption is that there is some portion of the system whose costs are unrelated to demand (or to energy for that matter). From one perspective, this notion has a certain intuitive appeal [sic] these are the lowest costs that must be incurred before any or some minimal amount of power can be delivered but from another viewpoint it seems absurd, since in the absence of any demand no such system would be built at all. Moreover, firms in competitive markets do not indeed, cannot price their products according to such methods: they recover their costs through the sale of goods and services, not merely by charging for the ability to consume, or access. (pages 29 & 30)

In summary, when all of the facts and guidelines are known, it is clear to me that: (a) there is no NARUC mandate in which all distribution plant must be classified as both customer-related and demand-related; (b) data and analysis specific to each utility is more appropriate and preferred over an *a priori* assumption; and, (c) many (if not most) state regulatory commissions endorse a method in which all distribution plant from substations through line transformers is classified and allocated based solely on demand. A copy of the entire Chapter (IV) from the 2000 NARUC Publication discussing costing studies is provided in my Schedule GAW-4.

OCA St. 3 at 20-21. (Emphasis added).[20]

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[20] Despite suggestions to the contrary, the 2000 NARUC Report above is an official NARUC publication. As OCA witness Watkins stated during cross examination, the 2000 NARUC Report resulted from a NARUC commissioned study to update and provide additional information on, *inter alia*, cost allocations related to electric distribution plant. Tr. 515-17. Further, after the study was complete, NARUC adopted the report and the 2000 NARUC Report currently can only be obtained from NARUC or the authors. Id.

OCA witness Watkins analyzed the density and mix of customers throughout PPL's territory and found that the distribution of customer classes was relatively consistent in both urban and rural communities. In addition, PPL's electric system is engineered to meet goals that are not limited to connecting customers. As a result, the underlying rationale for allocating costs substantially on a customer basis as PPL proposes is not present here. PPL's cost of service study that classifies 63% of its primary system as customer-related and 62% of its secondary system as customer-related must be rejected.

Mr. Watkins' COSS provides that primary distribution plant should be assigned based only on demand. As to the assignment of secondary distribution plant, Mr. Watkins has provided ample evidence to show that, here too, assignment of these costs should be based only on demand. Based on the facts of this case, however, and in order to produce fair and reasonable results for all rate classes, Mr. Watkins recommended a middle of the road approach, as described above, where secondary distribution plant costs are assigned partially on a demand basis and partially on a customer basis. Mr. Watkins has corrected the errors in Mr. Kleha's minimum size study used to determine the customer component, and its inconsistencies with the 1992 NARUC Manual, and assigned secondary distribution plant based on a more reasonable and appropriate customer/demand split. Importantly, as agreed to by Mr. Kleha, the major disagreement between the position of PPL and the OCA is the classification of primary distribution plant. Tr. at 385. PPL has assigned 63% of primary distribution plant based on a customer component. Mr. Watkins, consistent with PPL's method prior to 2010, consistent with the approach used in over 30 other states, has classified primary distribution plant as 100% demand related. Mr. Watkins' COSS should be accepted as a guide to set rates in this proceeding.

iii. Even If A Partial Customer Classification Is Appropriate, The Company's Minimum System Study Used To Determine The Customer Percentage Is Flawed.

As detailed by the customer density analysis undertaken by OCA witness Watkins, the classification of the majority of primary and secondary costs based on the number of customers is not supported for PPL. Even if there is a reasonable basis to use a customer component for secondary distribution plant, however, the Company's minimum size study is incorrect in determining the appropriate level of the customer/demand split. The Company's classification of primary distribution plant substantially on a customer basis is unreasonable for a number of reasons, as discussed above.

In determining how much of the distribution plant to classify as customer related, the Company performed a minimum system study. OCA Witness Watkins explained this method as follows:

> The minimum-size method rests on the premise that the minimum, or smallest size, installed equipment makes up the distribution network to connect customers to the distribution system, and that all larger sizes of equipment serve peak demands. In practice, the cost per unit of the smallest sized installed equipment is often determined as a surrogate for the cost per foot of equipment just large enough to connect customers and meet only minimal or no load. This minimum cost per unit is then multiplied by the total number units in the system to arrive at a total customer amount. The total customer amount is then divided by the total cost for the account to determine the customer percentage. Obviously, one minus the customer percentage equals the demand percentage.

OCA St. 3 at 23. Mr. Watkins explained that the other method commonly used is the zero intercept method. Both methods suffer from several weaknesses. Mr. Watkins further explained the weaknesses with both methods:

> The major criticisms I have regarding the minimum-size method are that unless adjusted, this method overstates the customer percentage because even the smallest installed size is used to meet the required level of peak demand. The primary weakness of the zero-intercept method is that more data and a good working knowledge of statistical linear regression analyses are required.

OCA St. 3 at 24.

The minimum system study used by Mr. Kleha to reach his customer/demand split suffers from several, serious shortcomings. First, Mr. Watkins explained that the "minimum system" approach used by Mr. Kleha was not a true minimum system, stating that "the minimum sizes of plant selected by Mr. Kleha serve significant load requirements of consumers and are universally considered to be demand-related, such that the customer portion of a distribution system should reflect only those costs required to connect a customer with no load placed on the system." OCA St. 3 at 26. Mr. Watkins' testimony is directly on point with the precedent of the Pennsylvania Public Utility Commission. The Commission has stated that:

> [t]he customer component of distribution plant is a theoretical minimum size system that is required to serve a customer with infinitely small load and represents the costs of just being a customer. This system can be represented as a wet thread supported by long tooth picks to serve a Christmas tree light.

<u>Pa. PUC v. Duquesne Light Co.</u>, 59 Pa. PUC 67, 160-61 (1985); OCA St. 3 at 26. Further, Mr. Watkins explained that the 1992 NARUC Manual recognizes the need to remove costs associated with load carrying capability, stating:

> [T]he NARUC Electric Utility Cost Allocation Manual also recognizes the load carrying capability of the minimum-size equipment installed in a distribution system as follows:
>
>> When using this [minimum-size] distribution method, the analyst must be aware that the minimum-size distribution equipment has a certain load-carrying capability, which then can be viewed as a demand-related cost (page 95).
>
> With the exception of Line Transformers (which represents less than 10% of PPL's gross investment in distribution plant), Mr. Kleha's classification studies make no attempt in correcting for, or adjusting this bias.

OCA St. 3 at 26.

One example of PPL failing to remove costs associated with load carrying capability is Mr. Kleha's inclusion of certain overhead conductors as part of the minimum system. OCA witness Watkins explained the error as follows:

> The average embedded cost per linear foot of "1/0 and below" aluminum wire serves as the basis for Mr. Kleha's customer component for both primary and secondary voltage systems. In this regard, it is important to understand that 1/0 aluminum conductors have a very large load carrying capacity, and in fact, are used to meet the majority of PPL's distribution customers' demands. To explain further, the vast majority of PPL's distribution system is energized with three-phase circuits at primary voltage (12.4 to 23.0 KV). At these voltages, 1/0 aluminum wire has a load carrying capacity ranging from about 5.1 MVA to 9.5 MVA, which is enough power to supply well over 1,000 homes. Indeed, PPL's primary system is comprised of more than 382 million linear feet of energized conductor cables. Size 1/0 and below constitutes more than 280 million feet (73%) of this amount. A similar relationship exists for PPL's secondary system. In other words, about three-quarters of PPL's distribution system, with a combined NCP distribution load of about 7.1 MW is comprised of conductors that Mr. Kleha's analysis assumes is required simply to connect customers with no load carrying capability. As demonstrated above, this aspect of Mr. Kleha's analysis severely overstates the customer percentage of conductors and results in a significant cost allocation bias against Residential and Small Commercial customers.

OCA St. 3 at 30. Not only does PPL fail to make the required adjustments for the load carrying capability of overhead conductors, but the quantity of overhead conductors included in the minimum system is inconsistent with the 1992 NARUC Manual. Mr. Watkins illustrated the inconsistency as follows:

> For a minimum-system, a circuit requires two conductors. However, because electric utilities distribute power using single and three-phase circuits, and because of grounding practices, three-wire and four-wire circuits are often utilized. With this understanding, PPL maintains its property records on a linear foot of cable, not circuit basis such that the quantity (feet) and cost of conductors is not maintained on a size of circuit basis. The above circuitry discussion is important as it relates to the calculations required to perform a minimum-size analysis as per the NARUC Manual.
>
> When a minimum-size study is performed, the 1992 NARUC Manual states as follows:

> Multiply average installed book cost per mile of minimum size conductor by the number of **circuit miles** to determine the customer component. Balance of plant account is demand component. **(Note: two conductors in minimum system).** [Page 91 (emphasis added)]

OCA St. 3 at 31. Similarly, the quantity of underground conductors included in Mr. Kleha's minimum system study is inconsistent with the 1992 NARUC Manual. Mr. Watkins testified that the relevant portion of the 1992 NARUC Manual states as follows:

> multiply average installed book cost per mile of minimum size cable by the **circuit** miles to determine the customer component. Balance of plant account 367 is demand component. (**Note: one cable with ground sheath is minimum system**). [Page 91 (emphasis added)]

OCA St. 3 at 32.

The inconsistency with the 1992 NARUC Manual regarding the quantity of overhead and underground conductors included in the minimum system over classifies conductors as customer related and therefore, greatly biases the study results against the residential class. Mr. Watkins demonstrated Mr. Kleha's inconsistency with the 1992 NARUC Manual and its impact on Residential customers as follows:

Table 11

	Overhead Conductors (Account 365)			
	Kleha Analysis		OCA Adjusted [a]	
Category	% Customer	% Demand	% Customer	% Demand
Primary Voltage	56.53%	43.47%	34.44%	65.56%
Secondary Voltage	64.45%	35.55%	37.33%	62.67%

[a] Does not reflect adjustment required to reflect load carrying capability of "minimum-size" conductor.

OCA St. 3 at 31.

Table 12

	Underground Conductors (Account 367)			
	Kleha Analysis		OCA Adjusted [a]	
Category	% Customer	% Demand	% Customer	% Demand

Primary Voltage	82.30%	17.70%	45.40%	54.60%
Secondary Voltage	54.60%	45.40%	23.14%	76.86%

[a] Does not reflect adjustment required to reflect load carrying capability of "minimum-size" conductor.

OCA St. 3 at 32.

In addition to these errors, OCA witness Watkins expressed serious concerns with the inclusion of fiber optic telecommunication wires in the minimum system study, and the inclusion of 40' poles as the "minimum" size pole, when in fact PPL is installing 25', 30', and 35' poles. OCA St. 3 at 31; Id. at 28-29. As Mr. Watkins demonstrated, the correct application of the "minimum" sized pole that PPL is actually using has a significant impact on the customer/demand split for Account 364, as shown:

Table 10

	Account 364 (Poles) Minimum-Size Study			
	PPL Results		OCA Results	
	Customer	Demand	Customer	Demand
Primary System	51.38%	48.62%	40.13%	59.87%
Secondary System	75.00%	25.00%	58.58%	41.42%

Id. at 29. Based on the support above, Mr. Watkins made adjustments to PPL's minimum size system calculations to recognize the 1992 NARUC Manual's prescription for circuits and circuit meters. Specifically, and in accord with the 1992 Manual, Mr. Watkins made adjustments to PPL's minimum size study as to Account No. 364 (poles), Account No. 365 (overhead conductors), Account No. 366 (underground conduit), Account No. 367 (underground conductors and Account No. 368 (line transformers). OCA St. 3 at 28-36. The adjustments, which did not reflect any modification to account for the load carrying capability of conductors, resulted in a substantial difference in class rates of return. Mr. Watkins demonstrated the difference by testifying:

When these adjusted plant classifications are utilized, the following class ROR's at current rates are produced:

Table 13

	ROR At Current Rates			
	Kleha CCOSS Results		OCA Adjusted Classification CCOSS Results	
Class	ROR	Indexed ROR	ROR	Indexed ROR
RS	3.87%	63%	4.93%	80%
RTS	-4.01%	-65%	-4.85%	-79%
GS-1	8.20%	134%	9.32%	152%
GS-3	17.51%	285%	11.49%	187%
LP-4	10.03%	163%	4.15%	68%
LP-5	-5.57%	-91%	-5.37%	-88%
LPEP	21.68%	353%	24.22%	394%
GH-2	5.32%	87%	3.72%	61%
SL/AL	6.17%	100%	5.92%	96%
Total Jurisdictional	6.14%	100%	6.14%	100%

OCA St. 3 at 35, Table 13.[21]

The OCA submits that the above examples demonstrate the technical flaws in Mr. Kleha's minimum system study, and its inconsistency with the 1992 NARUC Manual, which renders it unsuitable for determining a customer/demand split. As such, PPL's minimum system study must be rejected.

Mr. Watkins systematically analyzed and corrected these flaws in PPL's minimum size study, in accord with the 1992 NARUC Manual. Mr. Watkins then applied the results to obtain a reasonable allocation of secondary distribution plant costs as customer related. Mr. Watkins' chosen customer/demand split for the secondary distribution plant is accurate and reasonable.

b. Conclusion.

[21] Table 13 illustrates the difference in the indexed rate of return for the RS class when the 1992 NARUC Manual guidelines for creation of a minimum size study are correctly applied, as Mr. Kleha failed to do in his minimum size study. Table 13 should not be construed as an acceptance by the OCA of a customer component as to Primary distribution plant, as the OCA's position is that Primary distribution plant is 100% demand related.

As detailed above, the Company's cost of service study improperly classifies primary and secondary distribution plant based on customer counts. As demonstrated through OCA witness Watkins' customer density study, the facts on the ground do not justify PPL's decision to classify a large portion of the entire distribution system on a customer basis. In addition, the design and actual day-to-day use of PPL's distribution system does not support PPL's proposed customer/demand split. Moreover, to the extent a customer allocation for secondary distribution plant is reasonable, the Company's minimum size system study contains fundamental flaws and displays serious inconsistencies with the 1992 NARUC Manual that make it an unreliable measure for determining the customer-related portion of the secondary distribution system. For these reasons, the OCA submits that the Company's study should not be accepted.

3. Conclusion.

PPL's cost of service study is flawed because it does not accurately reflect cost causation, is inconsistent with the 1992 NARUC Manual, the updated 2000 NARUC Report and with the historical method that PPL has used prior to 2010. OCA witness Watkins' study properly allocates costs in a more accurate and reasonable manner that is reflective of cost causation on the PPL system. For these reasons, the OCA proposes that the Commission reject the Company's study and rely primarily on OCA witness Watkins' cost analysis as a guide to set rates in this matter.

B. Revenue Allocation.

Based on its flawed cost of service study that shows the residential class with a rate of return of 3.87% at current rates (compared to a 6.14 system average rate of return), the Company proposed to place virtually the entire revenue increase on residential customers for the second time in two years. PPL St. 5 at 9-10. PPL argues that its revenue allocation is designed to

achieve the goals set forth in the prior settlement to move each class at or near cost of service. PPL St. 5 at 8. PPL also argues that its proposed allocation is in accord with the Commonwealth Court's decision and remand settlement in the matter of Lloyd v. Pa. PUC, 904 A.2d 1010 (Pa. Commw. Ct. 2004) (Lloyd).[22] The OCA does not object to PPL's principles and goals for the revenue allocation, but PPL's reliance on its flawed cost of service study as a guide to designing its revenue allocation renders the allocation unreasonable.

The OCA submits that the revenue allocation proposed herein by Mr. Watkins meets the legal requirements for determination of revenue allocation. The Commonwealth Court of Pennsylvania provided that the "polestar" for determining the level of revenue for the different rate cases should be the cost of providing service to those different rate classes. Lloyd at 1020. "Polestar" is a literary reference meaning "directing principle" or a "guide."[23] As the Commission has found, a COSS is to serve as a guide in setting rates. Pa. PUC v. Pennsylvania Gas & Water Co., 1993 Pa. PUC LEXIS 61, *161 (1993).

The Commission has long regarded cost of service studies as more of an art form and a guide rather than as a source of actual data. Application of Metropolitan Edison Company for Approval of Restructuring Plan Under Section 2806 of the Public Utility Code, 1998 Pa. PUC LEXIS 160, *159 (1998); Pa. PUC v. Pa. Power & Light, 55 P.U.R. 4th 185, 249 (Pa. PUC 1983); Pa. PUC v. Aqua Pa, Inc., Docket No. R-00072711, Order (July 31, 2008). Similarly, the Recommended Decision from Peoples' 2010 base rate proceeding stated that "[t]he Commission has concluded further that there is no single absolutely correct method for preparing cost of service studies." Pa. PUC v. Peoples Natural Gas Company, Docket No. R-2010-220172, R.D.

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[22] The Lloyd decision and subsequent settlement, *inter alia*, resulted in PPL agreeing to move its distribution rates to "at or near" the full cost of providing service over the next three rate cases. Lloyd v. Pa. PUC, 904 A.2d 1010 (Pa. Commw. Ct. 2004).

[23] The American Heritage Dictionary, Houghton Mifflin Co. (1985).

at 26 (Order adopting R.D. entered June 9, 2011). Cost of service studies are often disputed, making it an area of compromise within the decision making process. Other factors such as gradualism, rate shock, rate continuity, competitive concerns, and principles of fundamental fairness must also weigh in the determination. Lloyd at 1020-1021. Mr. Watkins has included these important considerations in developing his COSS and his recommendations concerning allocation. OCA St. 3 at 39-40. It is important to note, however, that under the OCA's COSS, at present rates, the Rate RS class has already achieved an indexed rate of return of 112%, i.e., the Rate RS class is currently fully covering its cost to serve. OCA St. 3 at 37, Table 16.

The OCA has recommended an alternative revenue allocation that reflects the results of a properly conducted, reasonable and equitable cost of service study. In addition, the OCA submits that while cost of service should guide the Commission when setting rates in this proceeding, other ratemaking principles such as gradualism, avoidance of rate shock and basic fairness must not be abandoned. The Commission must consider the reasonable cost of service evidence presented in this proceeding as a guide for achieving the goal of the Lloyd settlement to move classes "at or near" cost of service while respecting principles of gradualism.

In accord with his COSS results, Mr. Watkins discussed how any revenue increases or decreases should be viewed in this matter, as follows:

> Utilizing my recommended CCOSS and the Company's proposed revenue requirement, the following increases (decreases) in revenue would be required to achieve equal rates of return for all classes. It should be noted that the following changes in revenues do not represent my recommendations which follow, but rather, reflect the calculated requirement to bring each class exactly to equal rates of return:

Table 17

	Increase At Equal ROR ($000)		
Class	Current Distribution Rate Revenue [a/]	Required Increase At Equal ROR	Percent Increase

RS	$471,834	$40,661	8.62%
RTS	$4,482	$11,336	252.91%
GS-1	$71,906	-$9,509	-13.22%
GS-3	$123,431	$18,468	14.96%
LP-4	$33,874	$38,642	114.08%
LP-5	$1,201	$708	58.96%
LPEP	$443	-$262	59.10%
GH-2	$1,354	$807	59.62%
SL/AL	$23,043	-$3,766	16.34%
Total Jurisdictional	$731,568	$104,617	14.30%

[a/] Excludes late payment fees.

OCA St. 3 at 38.

A comparison of the revenue allocations presented by OCA and PPL at the filed increase is provided below:

Table 20
Comparison of OCA and PPL Proposed Increases
($000)

	OCA Increase		PPL Increase	
Class	$	Percent	$	Percent
RS	$65,854	13.96%	$101,088	21.42%
RTS	$961	21.45%	$3,568	79.61%
GS-1	$0	0.00%	$815	1.13%
GS-3	$25,045	20.29%	-$4,674	-3.79%
LP-4	$7,266	21.45%	$7	0.02%
LP-5	$258	21.45%	$712	59.28%
LPEP	$0	0.00%	$0	0.00%
GH-2	$290	21.45%	$323	23.86%
SL/AL	$4,943	21.45%	$2,779	12.06%
Total	$104,617	14.30%	$104,618	14.30%

OCA St. at 41, Table 20.[24]

[24] OSBA witness Knecht generally supports the Company's class revenue allocation at its as-filed overall increase. See OSBA St. 1 at 11, lines 17-24. However, OSBA recommends a scale-back approach should the Commission authorize an overall increase less than the full amount requested by PPL as set forth in Mr. Knecht's Direct Testimony, page 12, line 28 through page 13, line 11. OCA does not support the OSBA's scale-back proposal as discussed in the rebuttal testimony of OCA witness Watkins and in this Main Brief. Furthermore, I&E witness Hubert does not comment or opine on the Company's class revenue allocation at the overall increase requested. However, I&E witness Hubert does offer a scale-back proposal which utilizes PPL's revenue allocation

The major difference in revenue allocation between OCA and PPL are in the Residential rate classes, GS-3, LP-4, and LP-5. As discussed above, for these classes the results of the OCA's recommended cost of service methodology is substantially closer to the method historically used by PPL from 1995 through 2007 (including the base rate case that gave rise to the Lloyd decision) than is the method proposed by PPL in this proceeding. The OCA submits that the Commission should reject the Company's revenue allocation in favor of the OCA's recommended allocation approach.

1. The Commission Should Adopt The Revenue Allocation Methodology Proposed By OCA Witness Watkins.

Recognizing that PPL's cost of service study is unduly discriminatory against Residential customers, and that PPL's proposed revenue allocation is based on that study, OCA witness Watkins developed a revenue allocation that relies on his reasonable cost of service results and recognizes gradualism and fairness. OCA St. 3 at 39. In explaining his revenue allocation, Mr. Watkins testified as follows:

> [G]iven the magnitude of PPL's proposed overall increase, I recommend no revenue decreases such that there will be no change in revenue for the GS-1 and LPEP classes even though their ROR's at current rates exceed those of PPL's proposed 8.46% cost of capital. Next, consistent with gradualism, I recommend that no class sustain an increase greater than 150% of the system-wide percentage increase in distribution base rates; i.e., no more than 21.45% (150% of 14.30%). These capped increases are applied to those classes that are significantly deficient in terms of ROR at current rates and include rates RTS, LP-4, LP-5 and GH-2. The remaining classes (rates RS, GS-3 and SL/AL) are then first brought up to full cost of service; i.e., ROR equals 8.46%. The remaining required increase is then distributed to rates RS, GS-3 and SL/AL based on current rate revenues.

OCA St. 3 at 39-40. OCA witness Watkins provided the following table of his allocation at the Company's full request:

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as a starting point (I&E St. 3 at 15, line 1 through page 17, line 19). Because I&E witness Hubert's scale-back recommendation is predicated upon the Company's class revenue allocation as a starting point, OCA does not support I&E's scale-back recommendation.

Table 20

Comparison of OCA and PPL Proposed Increases
($000)

Class	OCA Increase $	OCA Increase Percent	PPL Increase $	PPL Increase Percent
RS	$65,854	13.96%	$101,088	21.42%
RTS	$961	21.45%	$3,568	79.61%
GS-1	$0	0.00%	$815	1.13%
GS-3	$25,045	20.29%	-$4,674	-3.79%
LP-4	$7,266	21.45%	$7	0.02%
LP-5	$258	21.45%	$712	59.28%
LPEP	$0	0.00%	$0	0.00%
GH-2	$290	21.45%	$323	23.86%
SL/AL	$4,943	21.45%	$2,779	12.06%
Total	$104,617	14.30%	$104,618	14.30%

OCA St. 3 at 41. As to the indexed rate of return at present rates and under the proposed increase, using Mr. Watkin's COSS and allocation provides the following results:

Table 16

Class	OCA CCOSS Results At Current Rates ROR	Indexed ROR
RS	6.90%	112%
RTS	-5.71%	-93%
GS-1	11.05%	180%
GS-3	6.38%	104%
LP-4	-0.81%	-13%
LP-5	-5.37%	-88%
LPEP	24.48%	399%
GH-2	1.86%	30%
SL/AL	5.58%	91%
Total Jurisdictional	6.14%	100%

Table 21

Class	OCA Revenue Allocation ROR	Relative ROR

RS	9.42%	111%
RTS	-4.51%	-53%
GS-1	11.05%	131%
GS-3	9.20%	109%
LP-4	0.93%	11%
LP-5	-0.34%	-4%
LPEP	24.48%	289%
GH-2	4.24%	50%
SL/AL	9.36%	111%
Total	8.46%	100%

OCA St. 3 at 37, 41. As the Tables above show, using Mr. Watkins COSS and revenue allocation method results in a reasonable movement of all classes to cost of service at PPL's proposed revenue increase, while also recognizing the need for gradualism.

Mr. Watkins recommended that the same methodology be used to allocate the rate increase even if the amount of the increase is reduced. OCA St. 3 at 42. The mathematical effect of this recommendation is to proportionally scale back Mr. Watkins' proposed revenue allocation at the Company's full request. Id. As Mr. Watkins testified:

> I recommend that my proposed class revenue allocation be scaled-back proportionately across all classes, such that those classes with no change in revenues (GS-1 and LPEP) will clearly remain at zero with a lower overall increase and each class with a recommended increases would be scaled-back proportionately.

OCA St. 3 at 42.

2. The Company's Revenue Allocation Is Based On An Unreasonable Cost Of Service Study And Violates Traditional Ratemaking Principles.

The OCA submits that PPL has inappropriately assigned virtually the entire rate increase in this case to the residential class. The Company argues that its proposed allocation is consistent with past practice and precedent, balances the interests of the rate classes, and is not unduly discriminatory. PPL St. 5 at 8-9. PPL also argues that its proposed allocation will move

the customer classes to "at or near" cost of service at the end of this rate case in accord with the plan set forth in the prior settlement. PPL St. 5 at 10. The OCA disagrees with the Company's assessment of its proposed revenue increase.

In the 2010 rate case, the ALJ and the Commission accepted that PPL's COSS was consistent with the 1992 NARUC Manual. PPL 2010 at 35-36. In the present case, the OCA has presented substantial evidence to show that PPL's COSS method does not follow the 1992 NARUC Manual in many respects, and is inconsistent with the more recent 2000 NARUC Report. In the 2010 rate case, PPL's recommended allocation of the $77.5 million increase was adopted by the ALJ and the Commission, at least in part because the Commission found the OCA's approach did not accurately reflect the costs incurred to serve the residential class. PPL 2010 at 46. In the present case, the OCA has provided substantial evidence that its recommended COSS is accurate, reasonable, in accord with the 1992 NARUC Manual and the 2000 NARUC Report, as well as PPL's prior methodology. The OCA's COSS serves as a reasonable guide in determining rates in this proceeding.

In prior PPL rate cases, Mr. Kleha has strongly advocated for a consistent methodology and argued against making substantial changes to his COSS methods, at least in part due to the ability to track each class' movements toward unity over a span of several rate cases. Tr. at 396-401. In fact, PPL committed to bring all rate classes to at or near unity with the close of the 2010 rate case. Id. When viewed from the perspective of the COSS that formed the basis for the 2004 Lloyd decision, consistent with the COSS recommended by Mr. Watkins in this proceeding, the Rate RS class has achieved unity. As such, PPL's proposal to allocate virtually the entire rate increase to the residential class cannot be supported. Rather, the OCA submits that this substantial movement to unity for the Rate RS class should be preserved here, while respecting

other principles such as gradualism and fairness, as Mr. Watkins' revenue allocation accomplishes. Based on the substantial record evidence in the present case, PPL's proposed revenue allocation should not be accepted.

PPL has proposed a revenue allocation that PPL witness Kleha verified on cross examination is based on a cost of service study that utilized a methodology different from the methodology used by PPL prior to 2010. Tr. 394-401. As OCA witness Watkins demonstrated, the Company's current methodology improperly and disproportionately assigns costs to the residential class which makes it appear as if the residential class is providing a lower rate of return than under a properly conducted study. Mr. Kleha acknowledged that the method used by PPL in 2010 and this proceeding resulted in a greater increase to the residential class than would have resulted under his prior methodologies when he testified as follows:

> Q. So, in the 2010 case, the way you allocated costs to the residential class would have caused the residential class to have a greater increase in that case than would have been the case had you continued using your 2007 methodology?
>
> A. That probably was the case, but overall, the residential customer class from my recollection was still paying less than the system average rate of return.

Tr. at 401.

The allocation of primary plant as 63% customer related as proposed by PPL is detrimental and unfair to residential ratepayers. In PPL's 2004 and 2007 base rate proceedings, the Company allocated 100% of the primary distribution plant on a demand basis. In 2010, and in this proceeding, the Company classified a majority of its primary distribution plant on a customer basis, resulting in a shift of over $1 billion of primary distribution costs to a customer count basis. Because residential customers greatly outnumber consumers in the other rate classes, the residential classes bear the vast majority of these costs. OCA St. 3 at 16, Table 7.

The OCA submits that PPL has not remained consistent with its historical cost of service methodology, and as a result, is unable to track the movement of various rate classes to cost-based rates over time. In his rebuttal testimony, Company witness Kleha recognized that methodology in cost of service studies must remain consistent when he stated, "[t]he important point is that one should not adopt fundamental changes to established cost allocation methods without a compelling reason." PPL St. 8-R at 5. Further, Mr. Kleha alleged that "PPL Electric generally has used the same allocation criteria and parameters for many years . . . ." PPL St. 3-R at 4. Yet, starting with the 2010 rate case, PPL substantially changed its method by classifying the majority of its primary distribution plant as customer related.

In recognizing that PPL has failed to remain consistent, OCA witness Watkins stated as follows in his surrebuttal testimony:

> As discussed in my direct testimony and acknowledged by the other cost allocation witnesses in this case, allocated costs in this case are driven by the classification and allocation of distribution costs between customer and demand. Indeed, significantly different results are obtained when alternative approaches are utilized. Toward this end, prior to the 2010 rate case, PPL allocated distribution plant in a much different manner than that used in its current study. The new method has shifted a much higher cost burden on residential customers, and a correspondingly smaller cost assignment placed on large commercial and industrial customers. Specifically, the method used by PPL for many years (prior to 2010) allocated primary distribution plant totally based on relative class non-coincident peak ("NCP") demands. Beginning with PPL's last rate case, the Company materially changed its consistent approach by allocating primary distribution plant 37% based on NCP demands and 63% based on customer costs. This change in methodology has had a profound impact on allocated costs and PPL's approach to assign class revenue responsibility.

OCA St. 3-SR at 4.

During his cross examination testimony, PPL witness Kleha agreed that the change in methodology in 2010 resulted in a greater allocation of distribution costs to the residential class. Tr. 401. As a result, it is not possible for PPL to accurately and equitably "track the movement

of various rate classes to cost-based rates over time." The inconsistency in PPL's cost of service methodology makes its current study an unreliable and unreasonable indicator of the movement that the various classes have made toward the system average revenue allocations. It is one thing to say that residential customers should be moved to "at or near" cost of service over three cases, and quite another to move the goal line in midstream and assign hundreds of millions of dollars of additional costs to those customers. It bears noting that in the present case, PPL proposes to allocate almost the entire revenue increase to the residential class, including a nearly 80% increase to the Rate RTS class, while at the same time proposing very minimal increases to other classes and even rate decreases to others. See OCA St. at 41, Table 20. In PPL 2010, the Commission expressed its concern over allocation recommendations where one rate class was essentially being asked to absorb the entire rate increase, whereas other classes were getting a rate decrease. PPL 2010 at 42-47. The OCA submits that the resulting revenue allocation proposed by the Company is unreasonable and should be rejected. The OCA's proposed revenue allocation should be adopted.

3. The OSBA Scale Back Proposal Must Be Rejected.

The OSBA proposed to allocate the full request in a manner similar to the Company. OSBA St. 1 at 11. The OSBA proposed to change that allocation methodology, however, for any amount lower than that originally requested by the Company. Id. at 12. For all the reasons just discussed as to why PPL's allocation methodology should be rejected, the OSBA's similar proposal on allocation should also be rejected.[25] OCA witness Watkins described OSBA witness Knecht's "scale-back" proposal as follows:

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[25] Mr. Watkins recommended that the same methodology he recommends for revenue allocation be used to allocate the rate increase even if the amount of the increase is reduced. OCA St. 3 at 42. The mathematical effect of this recommendation is to proportionally scale back Mr. Watkins' proposed revenue allocation at the Company's full request. Id. As Mr. Watkins testified:

> He then recommends that any reduction to this $104.6 million amount be shared in proportion to the Company's proposed distribution revenues. In other words, Mr. Knecht's scale-back recommendation is not based on the relative proportions of the Company's requested increase, but rather on the level of PPL's proposed revenues after the increase. Because Mr. Knecht's scale-back proposal is based on total distribution revenues, his recommendation produces further rate reductions (beyond those proposed by PPL) to the GS-3 class and also results in ultimate rate reductions to other commercial/industrial classes depending on the final authorized overall increase. As an illustration, Mr. Knecht provided an example of his scale-back proposal assuming an overall authorized increase of $74.6 million ($30.0 million scale-back) on page 14 of his direct testimony. As can be seen in this example, although the total jurisdictional increase is $74.6 million, Mr. Knecht's recommended scale-back would result in a residential revenue increase (RS, RTD and RTS) of $84.773 million ($80.497 + $3.276). At the same time, the GS-1, GS-3, and LP-4 classes would enjoy rate reductions of $1.793, $8.914, and $1.199 million, respectively.

OCA St. 3-R at 2-3.

OCA witness Watkins provided an example of the impact of the OSBA's recommended revenue allocation at $74.6 million. The results demonstrate the dramatic impact such an allocation would produce:

> I recommend that my proposed class revenue allocation be scaled-back proportionately across all classes, such that those classes with no change in revenues (GS-1 and LPEP) will clearly remain at zero with a lower overall increase and each class with a recommended increase[] would be scaled-back proportionately.

OCA St. 3 at 42.

Table 1-R		
	OSBA Scale-Back At $74.6 Million Increase	
Class	Percent Increase (Decrease)	Percent Of System Average
RS	17.0%	167%
RTS	71.4%	700%
GS-1	-2.5%	-24%
GS-3	-7.3%	-71%
LP-4	-3.6%	-35%
LP-5	53.4%	524%
LPEP	-3.6%	-35%
GH-2	19.0%	186%
SL/AL	8.1%	80%
Total	10.2%	100%

Id. at 3. In addition, OCA witness Watkins calculated the relative class revenue changes, using Mr. Knecht's proposed scale-back method, under authorized increases of $52.3 million and $21 million. The results are as follows:

Table 2-R
OSBA Scale-Back Under Alternative Overall Authorized Increases

	Overall $52.3 Million Increase			Overall $21.0 Million Increase		
Class	Revenue Change $ (Million)	% Change	% Of System Average	Revenue Change $ (Million)	% Change	% Of System Average
RS	$62.5	13.8%	193%	$43.7	9.2%	322%
RTS	$3.1	66.7%	933%	$2.8	60.0%	2,090%
GS-1	-$3.7	-5.2%	-73%	-$6.5	-9.0%	-312%
GS-3	-$12.1	-9.8%	-137%	-$16.5	-13.4%	-467%
LP-4	-$2.1	-6.2%	-87%	-$3.3	-10.0%	-347%
LP-5	$0.6	49.1%	688%	$0.5	43.2%	1,504%
LPEP	$0.0	-6.3%	-87%	$0.0	-10.0%	-348%
GH-2	$0.2	15.7%	219%	$0.2	11.0%	385%
SL/AL	$1.2	5.1%	72%	$0.2	0.9%	33%
Total	$52.3	7.2%	100%	$21.0	2.9%	100%

OCA St. 3-R at 4. In other words, under OSBA's methodology, residential customers would pay $62.5 million out of a $52.3 million overall rate increase. Residential customers would pay not only the entire rate increase to PPL, but an additional $10 million per year to permit distribution rate cuts for other rate classes. In the context of a lower, $21 million increase, the residential

customers would pay $43.7 million out of a $21 million increase, $23 million above the rate increase.

Not only would the OSBA allocation produce unreasonable results in absolute dollar terms, but the OSBA allocation would result in major classes moving away from the system average rate of return when viewed in light of an appropriate cost of service study. OCA witness Watkins concluded his analysis of OSBA's scale-back proposal as follows:

> I conclude that Mr. Knecht's recommendation is unreasonable and should not be considered regardless of any overall revenue increase authorized in this case. However, when Mr. Knecht's scale-back mechanism is applied to more likely final outcomes of an overall jurisdictional authorized increase, it is apparent that his approach violates the majority of the recognized ratemaking principles discussed earlier in this testimony. As examples, and notwithstanding other criteria, consider the gradualism principle and a class limit of 150% of the system average percentage increase discussed by Mr. Knecht in his direct testimony under lower overall revenue requirement increases. We can see that under his scale-back mechanism, some classes would receive increases of upwards of 1,000% of the system average percentage increase, while other classes would enjoy rate reductions of several hundred percent of the system average. In my opinion, such results are well beyond any reasonable definition of gradualism and clearly are at odds with Mr. Knecht's acknowledgement of limiting class increases to 150% of the system-wide percentage increase.

OCA St. 3-R at 4-5. Based on the above information, the OCA submits that OSBA's scaleback methodology is not reasonable from a cost causation standpoint. In addition, the OSBA's recommendations for how to allocate any revenue increase that is less than the total amount requested by PPL were directly addressed and rejected in PPL 2010. In that case, the ALJ concluded that "a reduced amount of a rate increase does not provide a source of funding as OSBA assumes." PPL 2010 at 43. The Commission agreed with the ALJ on this issue and provided that:

> to ask one class to shoulder more of an increase than the final total increase in revenue would constitute unjust and unreasonable rates.

PPL 2010 at 46-47. The OSBA's proposal on this issue should be rejected.

4. Conclusion.

The OCA submits that Mr. Watkins' revenue allocation provides an appropriate allocation that moves classes closer to the system average return based on the results of reasonable cost of service studies and applies principles of gradualism and avoidance of rate shock in a reasonable way. Additionally, Mr. Watkins' revenue allocation meets the standards set forth in Lloyd and in the prior settlement. Specifically, as required by Lloyd, the allocation proposed by Mr. Watkins is guided by the cost of service studies performed in this case that are more consistent with the 2004 cost of service study that gave rise to the original Lloyd appeal. Principles of gradualism and avoidance of rate shock also have been applied only to the extent necessary to alleviate major disruptions in customer service for those classes that are producing revenue substantially below the system average. As a result, the only allocation in evidence in this proceeding that recognizes PPL's historic methodology is that proposed by OCA witness Watkins.

The OCA submits that Mr. Watkins' revenue allocation respects cost of service principles, achieves the goals of the settlement, respects the traditional ratemaking principles of gradualism and is in accord with the Lloyd decision. Under Mr. Watkins' allocation of the revenue requirement, residential classes would continue to bear the great majority of the increase, but not virtually all of the increase as proposed by PPL, or even more than 100% of the increase as contained in the OSBA scaleback proposal. The OCA's recommend allocation methodology is reasonable, based on cost causation, and should be adopted in this proceeding.

C. Tariff Structure Issues.

1. Rate Design.

The sole issue addressed by OCA in this section is PPL's proposed customer charge for the Rate RS class.

2. Customer Charge.

a. PPL's Proposed Customer Charge For Residential Customers Should Be Rejected.

PPL has proposed to significantly increase its customer charge for Rate RS customers. The following is a summary of PPL's current and proposed residential distribution rates:

Table 22

	Current	PPL Proposed	Percent Change
Rate RS:			
Customer Charge	$8.75	$16.00	83%
Energy Charge/KWH	$0.02556	$0.02526	-1%
Rate RTS:			
Customer Charge	$18.06	$18.06	0%
Energy Charge/KWH	$0.00617	$0.01790	190%

OCA St. 3 at 42-43. As shown, PPL proposes to collect virtually all of its requested increase in residential (RS) revenue from an 83% increase in the fixed monthly customer charge. The OCA opposes such a drastic change in the residential customer charge.[26] The OCA submits that PPL's proposed customer charge is based on its flawed COSS results, would disproportionally impact low-income, low-usage customers, and would result in a significant disincentive for customers to engage in conservation activities. Accordingly, the OCA recommends, consistent with Mr. Watkins' testimony and the discussion to follow, that the Rate RS customer charge continue to be set at its correct level of $8.75.

[26] As Mr. Watkins testified, the OCA is not contesting PPL's proposal to keep the RTS class customer charge at its current level. OCA St. 3 at 46-47.

PPL witness Krall testified that customers should be paying a customer charge in excess of $30 per month, as "a matter of correct economics." PPL St. 5 at 12. As OCA witness Watkins testified, however, Mr. Krall's calculations in this regard are based on PPL's flawed COSS results in this proceeding, which, as the OCA discussed above, should not be used as a guide to set rates in this matter. OCA St. 3 at 43-44. Mr. Watkins conducted a direct customer costs analysis in accordance with the Commission's prior Orders, as he explained:

> I have conducted a direct customer cost analysis that includes only those costs required to connect a customer and maintain a customer's account. This concept has been widely used and ordered by the Commission for many years. As an example, prior to PPL's sale of its natural gas operations to UGI, I conducted a direct customer cost analysis in Docket No. R-00061398. In that case, the Commission accepted my direct customer cost analysis and my recommended Residential customer charge.
>
> Specifically, as shown in my Schedule GAW-8, my direct customer cost analysis includes the capital costs (return, depreciation, and income taxes) associated with service lines and meters, and operating and maintenance expenses associated with services and meters, customer installations, meter reading, customer records and collections, and other customer account expenses.

OCA St. 3 at 44.

In several base rate cases, the Commission has clearly defined what is included in the basic customer costs for determining the customer charge – (only) those costs which directly relate to the Company's investment in services and meters as well as the operating expenses associated with meter reading, customer service, accounting and customer records and collections. See Pa. PUC v. Metropolitan Edison Co., 60 Pa. PUC 349 (1985); Pa. PUC v. West Penn Power Co., 59 Pa. PUC 552 (1985); Pa. PUC v. West Penn Power Co., 1994 Pa. PUC LEXIS 144, *154 (1994). In a 1994 National Fuel Gas Distribution Company base rate proceeding, the Commission provided further guidance as follows:

> Commission precedent is clear that indirect customer costs are not properly included in the customer charge. Only those costs which represent items that the

> utility must have in place each month for each customer are 'basic customer costs" which are properly recovered in the customer charge.

Pa. PUC v. National Fuel Gas Dist. Corp., 83 Pa. PUC 262, 371 (1994).

Mr. Watkins' study shows "that the direct Residential customer costs range from $7.70 per month (OCA capital costs) to $8.24 per month (PPL capital costs)." Id. As Mr. Watkins testified, a study of direct customer costs, as this Commission has endorsed in the past, shows a much lower customer charge is in order for the Rate RS class.

Moreover, PPL's proposed customer charge would distort the price signals that are necessary in order to promote efficiency and the conservation of scarce resources as Mr. Watkins explained:

> the most important and efficient tool this, or any, regulatory Commission has to promote conservation is the development of rates that send proper pricing signals to conserve and utilize resources efficiently. In this regard, a pricing structure that is largely fixed in nature such that customers' effective prices do not vary with consumption, promotes the inefficient utilization of resources. Similarly, pricing structures that are weighted heavily on fixed charges are much inferior from a conservation and efficiency standpoint than pricing structures that require consumers to incur more cost with additional consumption.

OCA St. 3 at 46. Based on his direct cost analysis, and the record in this matter, Mr. Watkins recommended that:

> Although my customer cost analysis indicates that a decrease is warranted to PPL's Residential rate RS customer charge, given the likely increase to be authorized in this case, I recommend that the current rate of $8.75 be maintained for rate RS.

Id.

In rebuttal, PPL witness Kleha responded to Mr. Watkins' customer charge recommendation by stating that he believed the customer charge analysis should include both direct and indirect costs. PPL St. 8-R at 30. In his surrebuttal testimony, Mr. Watkins responded, as follows:

> Over the past decade or so, I have participated in several dozen rate cases in Pennsylvania involving electric distribution, natural gas distribution and water utilities. It has been my experience that this Commission's policies and practices regarding those costs considered in developing residential customer charges has been clear and consistent in that only those "direct" customer-related costs are included such that indirect and overhead costs are appropriately collected from variable usage or energy charges.

OCA St. 3-SR at 6. As Mr. Watkins testified, the Commission has previously relied on direct customer cost analyses in order to set a reasonable customer charge.

The OCA also presented the testimony of Roger Colton as to the impact on low-income and low-usage customers that would occur if PPL's proposed customer charge was authorized. See OCA St. 4. Mr. Colton performed a thorough, in-depth study to examine the relationships between household income and electricity usage in PPL's service territory. See OCA St. 4 at 5-12. Mr. Colton found that:

> The Company's proposed increase in its monthly fixed distribution charge will adversely affect low-income, low use customers to a far greater degree than the higher-income, higher-use customers. Schedule RDC-7 provides sample monthly billing calculations at differing consumption levels at the Company's existing and proposed standard residential rates. As can be seen, customers with monthly consumption at or below 350 kWh will experience average bill increases of 40% or more under the Company's rate proposal. Customers with monthly consumption of 600 kWh will experience an average bill increase of 30%; customers with monthly consumption between 350 and 750 kWh will average bill increases of between 25% and 40%. Overall, for the months May 2011 through April 2012, as is shown in Schedule RDC-8, 20% of all residential bills will experience bill increases of more than 50%; 40% of all residential bills will experience bill increases of more than 40%; 50% of all residential bills will experience bill increases of more than 25%.

OCA St. 4 at 10-11. (Footnote omitted). As Mr. Colton further explained:

> Not only does the change in rate design place a disproportionate adverse impact on the low-income, low-use customer, but it also makes it more difficult for that customer to control his or her bill by reducing his or her consumption levels. Schedule RDC-9 presents the percentage of the total bill represented by unavoidable fixed monthly charges under the Company's proposed rate structure. Under the Company's proposed rate design, fixed monthly charges represent more than 70% of the total bill for every customer with consumption of 250 kWh

> or less; represent more than 60% of the total bill for every customer with consumption of 300 kWh to 400 kWh or less; and represent nearly half of the total bill for every customer with consumption of 650 kWh. All customers with monthly consumption of 1,000 kWh pay nearly 40% of their total bill in fixed charges.

OCA St. 4 at 11-12. Mr. Colton concluded that:

> The level of the Company's proposed rate increase, exacerbated by its proposed change in its rate design, will disproportionately impose adverse impacts on the customers least able to afford those bill increases. It is critical for the recommendations of OCA witness Watkins to be adopted not only for the cost reasons articulated in his testimony, but also to mitigate these harms.

OCA St. 4 at 12. Mr. Colton's testimony and thorough analysis of the customer charge issue, combined with this Commission's prior Orders on this topic as discussed by Mr. Watkins support the OCA proposal to set the RS customer charge at $8.75.

In addition, I&E presented the testimony of Jeremy Hubert as to the customer charge issue. Mr. Hubert testified that:

> I do not believe that this type of rate structure represents sound regulatory policy or best serves the public interest. Significantly higher monthly fixed charges typically present public acceptability problems. Customers resist paying a high monthly charge month after month regardless of use, especially if it does not reflect changes in their use of the product. In other words, if customers try to reduce their energy consumption as a means of reducing their energy expense, they will expect, reasonably so, to see that reflected on their bill. With the Company's proposed rate design, that will not happen to the full extent that it could. In addition, low usage customers within a customer class would experience a greater percentage increase than high usage customers. This seems almost punitive to customers who attempt to control their usage.

I&E St. 3 at 6. Mr. Hubert further explained that:

> While the Company provided a cost of service study, it did not conduct a specific customer cost analysis, which uses data from but is different from the cost of service study.

I&E St. 3 at 10. After conducting his own customer cost analysis, using only direct customer costs consistent with prior Commission decisions, Mr. Hubert concluded that the customer charge for the RS class should remain unchanged at $8.75. I&E St. 3 at 10-12.

Based on the evidence of record, the OCA submits that Mr. Watkins direct customer cost analysis and recommendations should be accepted in this proceeding, and PPL's customer charge for the RS class should be set at $8.75.

D. Tariff Rules And Riders.

The OCA addressed the Competitive Enhancement Rider (CER) in the Miscellaneous Issues Section, specifically in Section IX.D, below.

E. Summary and Alternatives.

For all the reasons discussed above, the OCA's COSS should be used as a guide to set rates in this matter, the OCA's revenue allocation, based on its COSS, should be accepted, the OSBA scaleback proposal should be rejected and the customer charge for the Rate RS class should be set at $8.75.

IX. MISCELLANEOUS ISSUES

A. Purchase of Receivables.

Direct Energy witness Cerniglia took issue with certain aspects of PPL's Purchase of Receivables (POR) program. In his rebuttal testimony, OCA witness Watkins explained Mr. Cerniglia's first proposal, as "Direct Energy witness Mr. Cerniglia proposes that PPL collect its projected uncollectibles accounts expense through a nonbypassable charge that applies to all distribution customers." OCA St. 3-R at 6. The OCA opposes this recommendation, as Mr. Watkins explained:

> Direct Energy entered into a Settlement at Docket No. P-2009-2129502, wherein the parties agreed that PPL would unbundle its generation-related uncollectible

> accounts expense from its distribution base rates and collect them through a Merchant Function Charge ("MFC"). The Commission approved the Settlement via Order dated November 19, 2009. The purpose behind this change was so that the MFC could be added to the Price to Compare ("PTC"), and EGSs could then reflect uncollectible costs in competitive supply offers. Mr. Cerniglia does not provide any evidence or analysis that the current use of the MFC to collect uncollectible accounts expense is not working properly. Further, Mr. Cerniglia does not provide any compelling reason to change the current method of collecting uncollectible accounts expense.

OCA St. 3-R at 7. As Mr. Watkins testified, the evidence of record in this matter does not support Mr. Cerniglia's proposed changes.

Mr. Cerniglia also proposed an alternative to his first POR recommendation, as OCA witness Watkins explained:

> Mr. Cerniglia provides an alternative proposal should the Commission reject his primary proposal discussed above. In his alternative proposal, Mr. Cerniglia recommends that PPL's POR discount rate be adjusted in two ways: (1) a credit (reduction) to the POR discount rate to reflect the amount of late payment fees that PPL collects from customers; and, (2) a credit (reduction) to the POR discount rate by reflecting a retroactive refund associated with amounts PPL has collected for POR program administrative costs that PPL has failed to track or identify. With regard to the second adjustment, Mr. Cerniglia states that PPL never incurred the anticipated incremental expenses and would not incur any future incremental administrative expenses for the POR program. He also states that these costs are already collected from customers through distribution rates, and a double recovery of these costs (from customers through distribution rates and from EGSs through the POR program discount) should be prohibited.

OCA St. 3-R at 7. The OCA disagrees with this alternative proposal. Mr. Watkins testified that:

> With regard to the first adjustment, Mr. Cerniglia essentially is seeking monetary compensation to EGSs for services not rendered. That is, EGSs are not at risk for collecting any of their revenue and therefore, have no collection-related expenses. On the other hand, PPL clearly incurs all collection-related expenses (including those associated with billed revenue that will be forwarded to EGSs) pertaining to overdue (late payment) accounts. As such, if late payment fees associated with expenses incurred by PPL were then credited to EGSs, this would result in compensation to EGSs for costs that they have not incurred.
>
> Mr. Cerniglia's recommendation for PPL to return the amounts it has collected through the administrative adder portion of the POR discount should not be adopted. In its response to DES I-3(a) (attached to Direct Energy St. 1 at Exh. RMC-5), PPL states that its evaluation of the administrative costs of the POR

> program "identified several administration and monitoring requirements," and PPL has incurred incremental administrative costs related to its POR program. These costs should be recovered from EGSs. The Company also stated that it implemented a formal tracking mechanism in April 2012 and plans to monitor POR program administration costs going forward. (See PPL response to DES I-3(b), attached to Direct Energy St. 1 at Exh. RMC-5). To the extent that PPL identifies these costs, they should also be collected from EGSs via a POR discount. In no event should these costs be included in base rates. Therefore, Mr. Cerniglia's recommendation to return administrative amounts collected from EGSs is not supported.

OCA St. 3-R at 8. (Emphasis added). The OCA submits that PPL should only collect the incremental POR costs incurred that it can provide support for. As Mr. Watkins explained, however, in no case should such costs be included in base rates. For the reasons set forth above, the Direct Energy POR proposal should be rejected at this time.

B. CAP.

1. CAP Outreach.

In his direct testimony, OCA witness Roger D. Colton[27] recommended that PPL engage in additional targeted Customer Assistance Program (CAP) outreach to payment-troubled low-income customers. See OCA St. 4 at 4, 26-37. The qualifications for participation in PPL's CAP (called OnTrack) are that a customer be both: (1) at or below 150% of the Federal Poverty Level (FPL) and (2) payment troubled. OCA St. 4 at 26. See also PPL St. 9 at 4. According to Mr. Colton:

> The need for this additional activity is based not only on the adverse impact that the Company's proposed rate increase, and proposed change in rate structure, will have on low-income customers, but also on the historic low enrollment in PPL's CAP relative to the CAP enrollment by other Pennsylvania utilities. The additional outreach also is designed to help the Company respond to its increasing level and incidence of long-term arrears in its residential customer base.

[27] Mr. Colton is a principal of Fisher Sheehan & Colton, Public Finance and General Economics in Belmont, Massachusetts. He provides technical assistance to public utilities and primarily works on low income utility issues. Mr. Colton has devoted his professional career to helping public utilities, community-based organizations and state and local governments design, implement and evaluate energy assistance programs to help low income households better afford their home energy bills. He has been involved with the development of the vast majority of ratepayer-funded affordability programs in the nation. His curriculum vitae is attached to OCA St. 4 as Appendix A.

OCA St. 4 at 26.

Mr. Colton testified that as of December 2011, PPL had 313,241 estimated low-income customers and 153,487 confirmed low-income customers but only 34,308 CAP participants. OCA St. 4 at 26. PPL's CAP participation rate for 2010, measured as a percentage of confirmed low-income customers, was 23%, which was less than one-half of the participation rate for the next lowest utility (Allegheny Power with 49%) and much lower than the statewide average participation rate of 55%. Id. at 27; OCA St. 4 at Sched. RDC-13. OCA witness Colton noted that while PPL's CAP participation rate is low compared to other EDCs in Pennsylvania, over the past two heating seasons, PPL has also experienced an increase in the number of customers with long-term arrears (120+ days), and the amount of long-term arrears has also increased. OCA St. 4 at 28-29; OCA St. 4 at Sched. RDC-14.

Additionally, according to the Current Population Survey (CPS),[28] households with incomes below 200% of FPL, with the exception of households with incomes between 75% and 100% of FPL, have seen their incomes deteriorate since 2008. OCA St. 4 at 30-32; OCA St. 4 at Sched. RDC-15, RDC-16. Mr. Colton testified that PPL's proposed rate increase and proposed rate design to substantially increase the customer charge will impact PPL's low-income customers harshly because they will face a higher proportion of fixed costs with ever lower incomes to make ends meet. OCA St. 4 at 30, 32.

PPL does not conduct targeted outreach to its payment-troubled low-income customers even in light of this evidence of increasing payment difficulties among its customers. OCA witness Colton testified:

> The Company undertakes no particular outreach to payment-troubled customers to promote the availability of CAP. For example, it does not include a

[28] The CPS is published by the U.S. Census Bureau. Annual data is available through 2011 in the CPS.

> bill message for customers with either short-term (30-day) arrears or long-term (90-day) arrears informing customers of the availability of CAP. On shutoff notices issued during the winter months, the Company includes a notice of the availability of LIHEAP, but never mentions the availability of the CAP.

OCA St. 4 at 28. (Internal citations omitted). Therefore, Mr. Colton recommended that PPL be directed to engage in a targeted outreach program to promote the availability of CAP and educate customers regarding the benefits of participating in CAP. OCA St. 4 at 32. Specifically, Mr. Colton recommended that PPL be directed to take the following specific actions:

> First, I recommend that the Company engage in a direct-contact outreach program aimed at a population of customers that meet *both* of two criteria: (1) the customer is a confirmed low-income customer; and (2) the customer is 120 or more days in arrears. Second, in addition to this targeted outreach, I recommend that all shutoff notices to confirmed low-income customers be modified so that they *also* contain a notice of the availability of CAP and the means of accessing CAP. Third, I recommend that the Company engage in a direct-contact outreach program focused on customers 120 or more days in arrears whether or not those customers are "confirmed" low-income customers.

OCA St. 4 at 33-34. (Footnote omitted).

In rebuttal testimony, PPL witness Dahl testified that while PPL does not have an enrollment limit on its CAP and follows the Commission's policy statement at 52 Pa. Code § 69.264 by targeting low-income, payment-troubled customers for its CAP, PPL has implemented steps to improve referrals to CAP. PPL St. 9-R at 14-15. Mr. Dahl provided the example that PPL has, since 2009, used an automated process to refer payment-troubled customers that call PPL to establish a payment arrangement to CAP. Id. at 15-16. This automated process also automatically issues a work order to appropriate CAP agencies to follow-up with customers. Id. at 16. According to Mr. Dahl, PPL also provides information to various social service agencies and community organizations and participates in community forums and workshops about programs and services for low-income customers. Id. at 17-18. Additionally, PPL disseminates

CAP information to customers receiving other universal service program benefits, and PPL maintains CAP information on the Company's website. Id. at 18-19.

Mr. Dahl testified that there is no need to conduct further CAP outreach because the Company already targets payment-troubled customers for enrollment in CAP and because "almost all residential customers who have received various Chapter 56 collection notices or who have had their service terminated, readily call PPL Electric." PPL St. 9-R at 17. Mr. Dahl noted that as of June 30, 2012, PPL had 226,847 residential overdue accounts, and of these accounts, PPL had household income data on 159,328 accounts, or 70.2%. PPL St. 9-RJ at 2. However, the Commission's 2010 report on Universal Service Programs & Collections Performance (2010 BCS Report) does not show that this household income data or these contacts are resulting in needed services for customers. See OCA St. 4-SR 4-5, 6-7; Tr. at 563-65. For instance, the 2010 BCS Report provided the following:

> - The Company reconnects fewer than 70% of the confirmed low-income customers [it] disconnects. ([2010 BCS Report] at 12).
>
> - Twice as many confirmed low-income customers with arrears do *not* have their arrears subject to a payment agreement as do have their arrears subject to an agreement. ([2010 BCS Report] at 54).
>
> - Those customers with arrears not subject to agreement have nearly three times the arrears as do customers with arrears that are subject to agreement. ([2010 BCS Report] at 55).

OCA St. 4-SR at 4. When questioned further about when and how the Company obtained information on 159,328 of its 226,847 residential overdue accounts, Mr. Dahl could not provide details on the age of the household income information (*i.e.,* whether it was from a prior overdue period or the current overdue period). Tr. 563-65.

Despite PPL witness Dahl's explanation in his rebuttal testimony regarding PPL's efforts to increase its CAP referrals and disseminate information about CAP to low-income customers,

Mr. Dahl stated that PPL is not opposed to implementing additional targeted outreach to promote the availability of CAP in a cost-beneficial manner. PPL St. 9-R at 19. Mr. Dahl recommended, however, that the Commission reject OCA witness Colton's first and third recommendations and adopt Mr. Colton's second recommendation to include a notice of the availability of CAP and the means of accessing CAP on shutoff notices to confirmed low-income customers only on if certain conditions are met. Id. at 21-24. With regard to OCA witness Colton's second recommendation, PPL witness Dahl testified that PPL is willing to modify its termination notice to include information about CAP so long as it does not add another page to the termination notice because that would increase costs. PPL St. 9-R at 22. Further, Mr. Dahl recommended that PPL not be required to have two separate termination notices – one for confirmed low-income residential customers and one for all other residential customers. Id. at 23. Mr. Dahl noted that PPL is willing to propose the content and format of the new information on the termination notice and review it with Commission staff and interested parties. Id. The OCA agrees that Mr. Colton's second recommendation should be adopted.

With regard to OCA witness Colton's first recommendation that PPL should engage in direct contact outreach to confirmed low-income customers with 120 or more days of arrears, PPL witness Dahl testified that the Commission should reject this recommendation because Mr. Colton has not provided evidence that more outreach is needed. PPL St. 9-R at 21-22. With regard to OCA witness Colton's third recommendation that PPL should engage in a direct-contact outreach program focused on all customers with 120 or more days in arrears, PPL witness Dahl asserted that the recommendation should be rejected. PPL St. 9-R at 23-24. In sum, PPL would rather use its existing collection processes to focus on those customers, many of

whom might be eligible for CAP, and contact the Company as a result of its collection efforts. Id.

In his surrebuttal testimony, OCA witness Colton took issue with PPL witness Dahl's characterization of his recommendations as "broad-based outreach efforts to promote the [CAP] program." OCA St. 4-SR at 5. Mr. Colton noted that not all confirmed low-income customers need to participate in CAP, and as a result, his recommendations are narrowly targeted to confirmed low-income customers with substantial arrears. Id. Mr. Colton also took issue with PPL witness Dahl's statement that PPL follows the Commission's CAP Policy Statement at 52 Pa. Code § 69.264, stating specifically:

> As Mr. Dahl concedes, "PPL Electric has chosen a different path in order to target the most vulnerable customers (i.e., those facing termination of service). . ." ([PPL] Statement 9-R, at 15). In contrast to this approach, the PUC has *never* expressed a principle to limit CAP targeting only to those who are "facing termination of service." Instead, the PUC has allowed a utility to prioritize enrollment to a customer "who has received a termination notice" (52 Pa. Code 59.265) or a customer "who has an arrears" (with the utility allowed to define the level of arrears). At no point, however, has the PUC authorized a utility to limit CAP targeting only to those customers who actually face the termination of service.

OCA St. 4-SR at 6.

In conclusion, Mr. Colton asserted that his recommendations are appropriate for the following reasons:

> Mr. Dahl seeks to continue a set of OnTrack outreach procedures that do not appear to be working. PPL has a higher percentage of confirmed low-income customers in debt than other electric utilities. Fewer of those PPL low-income customers in debt are on payment plans than for other electric utilities. A higher proportion of those PPL low-income customers have their service disconnected for nonpayment than for other electric utilities. Those confirmed low-income customers of PPL in debt are further in debt than confirmed low-income customers for other electric utilities. Those PPL low-income customers in debt generate a higher percentage of gross write-offs than for other electric utilities. If PPL were doing an adequate and appropriate outreach effort directed toward its low-income payment-troubled customers, given the higher relative level of

payment-troubles within its confirmed low-income population, it would not have one of the lowest CAP participation rates in the state.

OCA St. 4-SR at 7-8. Mr. Colton's recommendations are appropriate and should be adopted. The Commission should direct PPL to: (1) engage in a direct-contact outreach program aimed at confirmed low-income customers with 120 or more days in arrears; (2) modify its termination notices to confirmed low-income customers to include information about the availability of Cap and means of accessing the program; and (3) engage in a direct-contact outreach program focused on all customers 120 or more days in arrears. The OCA would be happy to assist the Company in developing additional outreach initiatives. The OCA is also willing to work with the Company to modify its termination notice as suggested by PPL witness Dahl.

2. Application Of LIHEAP Funds To CAP Customers' Accounts.

In his direct testimony, OCA witness Colton noted that the Pennsylvania Department of Public Welfare (DPW) released its draft 2013 Low-Income Home Energy Assistance Program (LIHEAP) State Plan, which includes a change in the way that utilities apply LIHEAP amounts to CAP bills. See OCA St. 4 at 23. In 2010, DPW had changed the way by which utilities could apply LIHEAP amounts to CAP bills. Specifically, under the 2010 policy change, ratepayer-supplied funds[29] were to be used to reach the affordable burden for a CAP customer, and then LIHEAP funds were to be applied to further reduce that burden. OCA St. 4 at 22. After the 2010 change to DPW's policy on the application of LIHEAP funds to CAP accounts, PPL obtained Commission approval to implement a CAP-Plus program.[30] See PPL 2010 at 11-12.

[29] Ratepayer-supplied funds refers to what is known as the CAP shortfall. The CAP shortfall is the difference between a CAP customer's full bill and his asked-to-pay amount. The CAP shortfall is collected from non-CAP residential ratepayers.

[30] In direct testimony, Mr. Colton asked that the Company confirm that pursuant to the settlement in Koons v. PPL Electric Utilities Corporation Universal Service and Energy Conservation Plan for 2011 through 2013, Docket No. M-2010-2179796, Joint Petition for Settlement of All Issues at ¶ 24, PPL does not include the Plus amount of CAP customers' bills that is not charged to CAP customers under certain conditions to ratepayers through the

DPW's proposed change in its 2013 LIHEAP State Plan could restore application of LIHEAP amounts to CAP bills to procedures similar to those in use prior to 2010.[31] The newly proposed changes were summarized by Mr. Colton as follows:

> Public utilities that operate CAPs on a Percent of Income Payment Plan (PIPP) model may apply the LIHEAP cash component benefits to the customer's PA CAP Credit that they receive based on the following guidelines:
>
> - First, the utility will determine the customer's affordable annual bill, which is the amount the customer is responsible for, based on the customer's income, not any anticipated LIHEAP grant.
>
> - To determine the customer's CAP Credit that they will receive, the utility will take the estimated annual usage bill and subtract the customer's affordable annual bill.
>
> - After the CAP Credit is determined, any LIHEAP Cash component benefit received will be credited to the customer's monthly bill incrementally to the CAP Credit.
>
> - Utilities agree that when LIHEAP funds are provided on behalf of a customer, the utility will use those funds only for that specific customer and not for any other customer.
>
> - It will be clearly shown on the LIHEAP client's utility bill that their LIHEAP Cash grant was credited towards their CAP Credit under the PIPP program.
>
> - If the LIHEAP benefit is greater than the annual CAP Credit, the remaining LIHEAP balance will be first applied to the customer's pre-existing bill arrearages and second to the customer's utility account.
>
> (Pennsylvania LIHEAP State Plan (Draft), Program Year 2013, Section 601.45, page B-11).

OCA St. 4 at 23-24. Mr. Colton testified that the foregoing draft changes are a "welcome development" and "an improved approach to integrating the provision of public funds through LIHEAP and the provision of ratepayer funds (through the CAP credit)." OCA St. 4 at 24.

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universal service surcharge or in distribution rates. OCA St. 4 at 37-39. PPL witness Dahl confirmed such in his rebuttal testimony. PPL St. 9-R at 25.

[31] DPW's 2013 LIHEAP State Plan is not yet final but a final plan is expected by this Fall.

Based on the foregoing draft changes, OCA witness Colton recommended that PPL reconsider its adoption of the CAP-Plus program if the draft 2013 LIHEAP State Plan is adopted. Id. Mr. Colton also recommended that PPL commit to evaluating the impact of an adoption of the process for applying LIHEAP to CAP credits as published in the draft 2013 LIHEAP State Plan and present an implementation plan to the Commission and other stakeholders as soon as feasible. OCA St. 4 at 25.

In his rebuttal testimony, PPL witness Dahl stated that DPW's draft 2013 LIHEAP State Plan is a positive development and agreed with OCA witness Colton's recommendation that PPL may want to reconsider its CAP-Plus program if the Plan is implemented. PPL St. 9-R at 8. Mr. Dahl noted that PPL would like to implement any changes to its CAP by November 1, 2012, but it may be difficult for the Company to meet this deadline due to some uncertainty in how DPW will interpret its Percentage of Income Payment Plan (PIPP) requirement for the changes in the draft Plan. Id. at 8-9.

In light of the foregoing concerns, Mr. Dahl testified that the Company is "reluctant to move forward with the necessary programming enhancements and process changes without timely direction and clarification from DPW and the Commission." PPL St. 9-R at 12. If timely guidance is not obtained, Mr. Dahl recommended that the Company continue with CAP-Plus as it is currently implemented. Id.

The OCA submits that the Company's proposal to obtain guidance from DPW and the Commission has merit and should be adopted. Additionally, the OCA agrees that if PPL does not obtain timely guidance prior to the start of the 2013 LIHEAP program year, that PPL's recommendation to continue with its approved CAP-Plus should be adopted.

C. Consumer Education.

OCA witness Colton recommended that PPL direct a portion of its consumer education funding[32] toward assisting Local Housing Authorities (LHAs) implement energy efficiency measures in Section 8 and public housing. OCA St. 4 at 4, 16. According to Mr. Colton, there are nearly 24,000 Section 8 units and nearly 20,000 public housing units in PPL's service territory. Id. at 16. Mr. Colton referenced a survey[33] that showed that public and assisted housing in Pennsylvania uses an older housing stock, with more than 60% of the housing stock being at least 50 years old. Id. at 18. The housing stock also contains aged heating units, hot water heaters and refrigerators. Id. at 18-19.

Mr. Colton testified that this housing stock could substantially benefit from weatherization of a type that PPL's Low-Income Usage Reduction Program (LIURP) is not designed to address. OCA St. 4 at 18, 19. Specifically, Mr. Colton stated:

> The need in the Section 8 and public housing units I discuss above is not a need for direct install assistance [that LIURP provides], but rather energy education that would generate non-utility (i.e., LHA) investment in electricity usage reduction measures. A variety of educational messages exist that would promote and support this investment in public and assisted housing that would both fulfill the objectives of the education programs and help remedy the effective exclusion of low-income households that would otherwise exist … .

OCA St. 4 at 19-20. Yet, PPL's consumer education programs on energy efficiency are not targeted toward low-income customers in public housing. OCA St. 4 at 13-15.

The Company provided a customer segmentation report, wherein the Company created lists of different segments of consumers in order to deliver tailored messages to more effectively motivate energy savings behaviors. OCA St. 4 at 14. OCA witness Colton, however, noted that

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[32] As discussed above in Section IV.D, the OCA recommended that PPL's consumer education funding level remain at $5.4 million annually.

[33] Mr. Colton consulted the U.S. Department of Energy's Residential Energy Consumption Survey (RECS), which reports data on several aspects of assisted housing and reports the information by four census regions and nine census divisions. OCA St. 4 at 17.

none of the customer segments identified by PPL in its customer segmentation report were low-income customers. Id. at 15. Mr. Colton concluded:

> Using consumer "energy education" directed to Local Housing Authorities is an important, even if not an exclusive, tool to help bring the benefits of energy efficiency to a large segment of Pennsylvania's low-income rental housing market. Unlike the current menu of consumer education programs proposed by PPL, which includes nothing focused on or targeted toward low-income customers, the promotion of energy efficiency investments through an energy education program for LHAs would deliver important benefits to the Company and toward its ratepayer population. Finally, incorporating an energy education program component to promote energy efficiency investments by LHAs is a way to reach many of the lowest income Pennsylvania residents through an education program while acknowledging and continuing to rely on the findings of the Company's customer segmentation study.

OCA St. 4 at 20-21.

In his rebuttal testimony, PPL witness Stathos testified that OCA witness Colton's reliance on the information in the customer segmentation report was flawed because that report was developed in relation to PPL's Act 129 Energy Efficiency and Conservation (EE&C) Plan and was not used as the basis for PPL's Consumer Education Plan. PPL St. 6-R at 10. Instead, according to Mr. Stathos, PPL's Consumer Education Plan was developed to address the eight standards listed in the Commission's Order entered on July 18, 2008 at Docket No. M-2008-2032279. Id. Mr. Stathos explained that the Company's messages regarding energy efficiency are relevant to all residential customers including low-income customers. Id. at 11. Mr. Stathos testified that PPL is effectively reaching low-income households because it provides information to children at schools with high rates of free or federally subsidized school lunches and at community forums in low-income areas. PPL St. 6-R at 11-12.

Regardless, Mr. Stathos testified that he partially agreed with OCA witness Colton's recommendation to offer educational programs to LHAs. PPL St. 6-R at 14. Mr. Stathos noted that this approach could provide LHAs with information about how their buildings use energy,

how to evaluate the energy performance of their buildings and opportunities to lower energy bills. Id. Mr. Stathos, however, asserted that OCA witness Colton's recommendation should supplement PPL's Consumer Education Plan, not supplant it. Id. Mr. Stathos stated: "the Company will commit to incorporating in its Consumer Education Plan a program for LHA administrators along the lines of what we previously provided to school districts and municipalities" to "further the objectives of the Plan while allowing the Company to continue to reach all customer segments … ." PPL St. 6-R at 15.

The OCA welcomes PPL's commitment to incorporate LHA administrators in its energy efficiency consumer education programs. In his surrebuttal testimony, OCA witness Colton encouraged PPL to "broadly define the concept of 'consumer education' to include technical assistance with performing specific tasks needed to design and deliver energy efficiency measures" and recommended that the Company "establish a measurable objective to target a prescribed portion of its school-based programs to school districts with high penetrations of students in the national free lunch and reduced school lunch/school breakfast program." OCA St. 4-SR at 9-10.

The OCA welcomes PPL's commitment to allow its Consumer Education Plan to evolve and would be happy to work with PPL and provide comments to the Company's LHA program design. The OCA submits that PPL's commitment to implement a program for LHAs as part of its Consumer Education Plan is reasonable and should be adopted.

D. Competitive Enhancement Rider/Retail Market Investigation.

PPL submitted a Competitive Enhancement Rider (CER) for approval in this matter. OCA witness Watkins described the CER, as follows:

> PPL is proposing a reconcilable rider mechanism to reimburse the Company for expenses incurred relating to: (1) specific consumer education programs; (2)

> consumer mailings required by the Commission in the Retail Market Investigation ("RMI") and other non-capital operating costs that arise from the RMI; and, (3) any retail enhancement program costs not recovered from suppliers.

OCA St. 3 at 48. The OCA opposes the implementation of the CER as it is currently being proposed. As Mr. Watkins discussed with respect to this issue:

> This rider should be limited to the recovery of consumer education costs, as it is not appropriate at this time or in this distribution rate proceeding to establish a recovery mechanism or provide cost recovery for competitive enhancements associated with the RMI. Therefore, this rider mechanism should only reflect consumer education program costs. Such consumer education costs could encompass the Commission-approved consumer education mailings from the RMI if allowed by the Commission. Given this change in focus, the rider should be renamed the "Consumer Education Rider."

OCA St. 3 at 48-49. The OCA submits that consistent with the Commission's recent directives on this issue, competitive enhancement costs should not be collected from ratepayers. Indeed, in a recent FirstEnergy decision, the Commission held that EGSs should pay for retail market enhancement costs. <u>Petition of FirstEnergy</u>, Docket No. P-2011-2273650, Order at 136 (Aug. 16, 2012) (<u>FirstEnergy Order</u>). The <u>FirstEnergy Order</u> is consistent with the Commission's decision to require EGSs to pay for the costs of opt-in auction programs in <u>Investigation of Pennsylvania's Retail Electricity Market: Intermediate Work Plan</u>, Docket No. I-2011-2237952, Order at 79 (March 2, 2012).

As Mr. Watkins further testified on this issue:

> Given the Commission's directives concerning mandated consumer education plans, I have no objection to the recovery of approved specific consumer education program costs through a reconcilable rider mechanism. However, if a consumer education rider is approved, there should be at least three safeguards established.

OCA St. 3 at 49. As to the three safeguards:

1. [T]he costs allowed and included in any approved consumer education rider must conform to the standards as set forth in the Commission's May 10, 2007 Order in Docket No. M-00061957;

2. [C]ompetitive enhancements costs incurred by PPL, consistent with the Commission's directive, must be collected from EGSs; and

3. [T]here must be quantifiable assurances that there is no double recovery of these costs, such as through the CER and also included within the approved revenue requirement in this case.

OCA St. 3 at 49-50. In addition, Mr. Watkins testified as to his disagreement with the structure of the CER as proposed, in relevant part:

> As indicated earlier, the Company proposes to structure its rider on a flat rate per customer per month. I recommend that if a rider is approved, it be structured on a class by class per KWH charge basis. Specifically, the costs associated with specific rate classes should be directly assigned to those classes.
>
> …
>
> Consumers that use more energy clearly have much more potential to benefit from these customer education programs than consumers who use very little electricity. As such, a per KWH based rider better equates costs and benefits of these programs.

OCA St. 3 at 51-52.

In rebuttal, PPLICA witness Baudino testified that PPLICA "takes no position" on the proposed CER, but did comment on Mr. Watkins' proposal to structure the CER on a KWH charge basis. PPLICA St. 1-R at 8. In his surrebuttal testimony, Mr. Watkins responded that:

> Mr. Baudino does not appear to object to my proposal that CER costs should be: (1) directly-assigned to customer classes when possible; and, (2) allocated to customer classes based on customer counts when a particular program cannot be directly attributed to a single class. However, Mr. Baudino does oppose the collection of such costs on a KWH basis within each class. So that it is clear, my recommendation would have a different per KWH CER charge for each major customer class such that the industrial CER rate would be miniscule. More importantly, and as mentioned in my direct testimony, a CER rate based on KWH usage is more appropriate than a flat per customer charge (by class) because those customers (within a class) that consume more energy stand to reap more benefits from effective consumer education programs than do much smaller energy consumers.

OCA St. 3-SR at 7.[34]

The OCA submits that the Commission should accept the OCA's recommendations on the CER issue, as consistent with the Commission's prior Orders and directives, and consistent with the evidence of record in this matter.

E. Other Issues.

The OCA does not have any other issues to discuss at this time.

X. CONCLUSION

For the reasons set forth above, the Office of Consumer Advocate respectfully submits that PPL's proposal to increase rates as set forth in Supplement No. 118 to Tariff – Electric Pa. P.U.C. No. 201 should be denied. The adjustments to PPL's proposed revenue requirement outlined and discussed in this Main Brief should be adopted. In particular, PPL's requested return on equity is excessive. A fair return on equity, as discussed in this Main Brief, should be

[34] Mr. Watkins additionally noted that although PPL witnesses provided substantial amounts of rebuttal testimony on the CER issue, PPL witnesses voiced no objections to Mr. Watkins' proposed structure of the CER as set out in his direct testimony at 51-52. See OCA St. 3-SR at 7-8.

adopted. Additionally, PPL's proposed allocation of rates and rate design are not just and reasonable and should be adjusted as recommended herein.

Respectfully Submitted,

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Dated: August 29, 2012
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APPENDIX A

PPL Electric Utilities Corporation
Docket No. R-2012-2290597

Table I

Income Summary

	Pro Forma Present Rates	Company Pro Forma Adjustments	Company Adjusted Present Rates	OCA Adjustments	OCA Total Recommended Revenue
Operating Revenues	$ 789,663	$ (5,201)	$ 784,462	$ -	$ 784,462
Deductions:					
O&M Expenses	354,600	62,371	416,971	(16,698)	400,273
Depreciation	130,650	9,069	139,719	-	139,719
Regulatory Debits/Credits	2,285	-	2,285	-	2,285
Other Taxes	54,568	(779)	53,789	57	53,846
Income Taxes-Federal	(42,690)	35,921	(6,769)	12,370	5,601
Income Taxes-State	-	-	1,759	3,513	5,272
Deferred Income Taxes	110,645	(81,784)	28,861	(1,477)	27,384
Investment Tax Credit	(1,078)	163	(915)	-	(915)
Total Deductions	$ 608,980	$ 24,961	$ 635,700	$ (2,235)	$ 633,465
Net Income Available for Return	$ 180,683	$ (30,162)	$ 148,762	$ 2,235	$ 150,997
Rate Base	$ 2,257,801	$ 164,305	$ 2,422,106	$ (10,952)	$ 2,411,154
Rate of Return Available	8.00%		6.14%		6.26%
Proposed Cost of Capital			8.46%		7.19%
Operating Income Required			$ 204,910		$ 173,362
Operating Income Deficiency (Required minus Available)			$ 56,148		$ 22,365
Revenue Conversion Factor			1.86324953		1.86680964
Proposed Rev. Requirement			$ 104,618		$ 41,752

PPL Electric Utilities Corporation
Docket No. R-2012-2290597

Table II

Summary of Adjustments

Recommended Adjustment	Reference	Rate Base Effect	Revenue Effect	O&M/A&G Expense Effect	Depreciation Expense Effect	Income Tax Effect 41.4933% Capital Stock Tax	Net Operating Income Effect
Capitalized Portion of Employee Reductions	OCA St. 1-SR at KC-1SR, Schedule 4, Page 3	$ (1,883)					$ (297)
Capitalized Portion of Incentive Payroll	OCA St. 1-SR at KC-1SR, Schedule 4, Page 4	(1,678)					(264)
Accumulated Provision for Depreciation Reserve	OCA St. 1-SR at KC-1SR, Schedule 2, Page 3	(10,417)					(1,640)
Cash Working Capital - Operating Expenses	OCA St. 1-SR at KC-1SR, Schedule 2, Page 4	(1,020)					(161)
Cash Working Capital - Accrued Taxes	OCA St. 1-SR at KC-1SR, Schedule 2, Page 4	3,480					548
Cash Working Capital - Interest Payments	OCA St. 1-SR at KC-1SR, Schedule 2, Page 4	488					77
Cash Working Capital - Accrued Taxes Co. error	OCA St. 1-SR at KC-1SR, Schedule 2, Page 4	(1,400)					(221)
Accumulated Deferred Taxes	OCA St. 1-SR at KC-1SR, Schedule 2, Page 8	781					123
Accumulated Deferred Taxes	OCA St. 1-SR at KC-1SR, Schedule 2, Page 8	696					110
Cost of Equity Differential	OCA St. 1-SR at KC-1SR, Schedule 3, Page 1						(67,296)
Cost of Debt Differential	OCA St. 1-SR at KC-1SR, Schedule 3, Page 1						10,319
Employee Reduction Expense	OCA St. 1-SR at KC-1SR, Schedule 4, Page 3			$ (3,740)			(5,535)
Incentive Payroll - Company	OCA St. 1-SR at KC-1SR, Schedule 4, Page 4			(4,468)			(6,171)
Incentive Payroll - Services	OCA St. 1-SR at KC-1SR, Schedule 4, Page 4			(4,902)			(5,346)
Rate Case Expense 3 v.2 year normal	OCA St. 1-SR at KC-1SR, Schedule 4, Page 5			(1,012)			(1,103)
Consumer Education Program Expense	OCA St. 1-SR at KC-1SR, Schedule 4, Page 6			(2,576)			(2,810)
Federal & State Taxes Applicable to Interest Synch.	OCA St. 1-SR at KC-1SR, Schedule 4, Page 2*					$ 8,955	16,694
Capital Stock Tax	OCA St. 1-SR at KC-1SR, Schedule 4, Page 8	-	-	-	-	57	107
		$ (10,953)	$ -	$ (16,698)	$ -	$ 9,012	$ (62,866)

* The Adjustment st OCA St. 1-SR at KC-1SR, Schedule 4, Page 7 refects the Interest Expense on which the Interest Synch. Adjustment is based.

APPENDIX B

Statements and Exhibits Sponsored by OCA

Exhibit ID	Description	Date Identified	Date Admitted
OCA St. 1-REVISED	Direct Testimony of Richard J. Koda on behalf of the OCA	August 6, 2012	August 6, 2012
OCA St. 1-REVISED, Appendix A	List of Testimonies of Richard J. Koda	August 6, 2012	August 6, 2012
OCA Exhibit KC-1-REVISED	OCA accounting adjustments	August 6, 2012	August 6, 2012
OCA St. 2	Direct Testimony of Stephen G. Hill on behalf of the OCA	August 7, 2012	August 7, 2012
OCA St. 2, Appendix A	Curriculum Vitae of Stephen G. Hill	August 7, 2012	August 7, 2012
OCA St. 2, Appendix B	Summary of Growth Rate Analysis	August 7, 2012	August 7, 2012
OCA St. 2, Appendix C	Sample Company Growth Rate Analyses	August 7, 2012	August 7, 2012
OCA Exhibit SGH-1	OCA capital structure and cost of capital summary of adjustments	August 7, 2012	August 7, 2012
OCA St. 3	Direct Testimony of Glenn A. Watkins on behalf of OCA	August 9, 2012	August 9, 2012
OCA Schedule GAW-1	Curriculum Vitae of Glenn A. Watkins	August 9, 2012	August 9, 2012
OCA Schedule GAW-2	Summary of PPL Distribution System Customer Density Analysis	August 9, 2012	August 9, 2012

Exhibit ID	Description	Date Identified	Date Admitted
OCA Schedule GAW-3	Chapter 6 of NARUC Electric Utility Cost Allocation Manual, Jan. 1992	August 9, 2012	August 9, 2012
OCA Schedule GAW-4	Portion of Dec. 2000 Frederick Weston paper "Charging for Distribution Utility Services: Issues in Rate Design"	August 9, 2012	August 9, 2012
OCA Schedule GAW-5	Summary of Overhead Conductors & Devices	August 9, 2012	August 9, 2012
OCA Schedule GAW-6	Summary of Underground Conductors & Devices	August 9, 2012	August 9, 2012
OCA Schedule GAW-7	OCA's Electric Cost of Service Study	August 9, 2012	August 9, 2012
OCA Schedule GAW-8	Residential (Rate RS) Customer Cost Analysis	August 9, 2012	August 9, 2012
OCA St. 4	Direct Testimony of Roger D. Colton on behalf of OCA	August 9, 2012	August 9, 2012
OCA Schedule RDC-1	2011 Average kWh Usage by Income for PPL	August 9, 2012	August 9, 2012
OCA Schedule RDC-2	Residential Electricity Consumption (kWh) for Applicances by Income	August 9, 2012	August 9, 2012

Exhibit ID	Description	Date Identified	Date Admitted
OCA Schedule RDC-3	Residential Total Electricity Consumption (kWh) by Income	August 9, 2012	August 9, 2012
OCA Schedule RDC-4	Percentage of Housing Units by Number of Bedrooms and Poverty Level	August 9, 2012	August 9, 2012
OCA Schedule RDC-5	Percentage of Housing Units by Number of Rooms and Poverty Level	August 9, 2012	August 9, 2012
OCA Schedule RDC-6	Percentage of Housing Units by Units in Structure and Poverty Level	August 9, 2012	August 9, 2012
OCA Schedule RDC-7	Monthly Bills at Existing and Proposed Standard Residential Rates	August 9, 2012	August 9, 2012
OCA Schedule RDC-8	Monthly Bills at Existing and Proposed Standard Residential Rates	August 9, 2012	August 9, 2012
OCA Schedule RDC-9	Fixed Monthly Charges as Percent of Total Charges at Existing and Proposed Standard Residential Rates	August 9, 2012	August 9, 2012
OCA Schedule RDC-10	Start and End Dates for Customer Education Programs	August 9, 2012	August 9, 2012

Exhibit ID	Description	Date Identified	Date Admitted
OCA Schedule RDC-11	Distribution of Income: Section 8 and Public Housing Units: Counties Comprising PPL Service Territory (May 31, 2012)	August 9, 2012	August 9, 2012
OCA Schedule RDC-12	Energy Efficiency Attributes: Assisted Housing by Census Division and Census Region (2005)	August 9, 2012	August 9, 2012
OCA Schedule RDC-13	CAP Participation Rates (PA EDCs) (2008-2010)	August 9, 2012	August 9, 2012
OCA Schedule RDC-14	Residential Arrears by Age Bucket (PPL)	August 9, 2012	August 9, 2012
OCA Schedule RDC-15	Mean Income by Poverty Level (PA) (2008-2011)	August 9, 2012	August 9, 2012
OCA Schedule RDC-16	Mean Income by Income Quintile (2007-2010)	August 9, 2012	August 9, 2012
OCA Schedule RDC-17	Level of Arrears: Accounts in Arrears and Accounts Shutoff for Nonpayment (PPL)	August 9, 2012	August 9, 2012
OCA St. 4, Appendix A	Curriculum Vitae of Roger D. Colton	August 9, 2012	August 9, 2012
OCA St. 3-R	Rebuttal Testimony of Glenn A. Watkins on behalf of the OCA	August 9, 2012	August 9, 2012

Exhibit ID	Description	Date Identified	Date Admitted
OCA St. 1-SR	Surrebuttal Testimony of Richard J. Koda on behalf of the OCA	August 6, 2012	August 6, 2012
OCA Exhibit KC-1-SR	OCA accounting adjustments (final)	August 6, 2012	August 6, 2012
OCA St. 2-SR	Surrebuttal Testimony of Stephen G. Hill on behalf of the OCA	August 7, 2012	August 7, 2012
OCA St. 2-SR, Exhibit A	FINRA Guide to Understanding Securities Analyst Recommendations	August 7, 2012	August 7, 2012
OCA St. 2-SR, Exhibit B	Arithmetic and Geometric Averages	August 7, 2012	August 7, 2012
OCA St. 3-SR	Surrebuttal Testimony of Glenn A. Watkins on behalf of the OCA	August 9, 2012	August 9, 2012
OCA St. 4-SR	Surrebuttal Testimony of Roger D. Colton on behalf of the OCA	August 9, 2012	August 9, 2012
OCA Cross Exhibit 1	PPL response to OCA-IX-1 (without Attachments 2-6)	August 7, 2012	August 9, 2012
OCA Cross Exhibit 2	PPL response to OCA-II-1 (without Attachment 1)	August 7, 2012	August 7, 2012

Exhibit ID	Description	Date Identified	Date Admitted
OCA Cross Exhibit 3	Computation of Ratio of Earnings to Combined Fixed Charges and Preferred Stock Dividends (PPL Electric Utilities Corp. and Subsidiaries)	August 7, 2012	August 7, 2012

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CERTIFICATE OF SERVICE

Re:	Pennsylvania Public Utility Commission	:	
	v.	:	
	PPL Electric Utilities	:	Docket No. R-2012-2290597

I hereby certify that I have this day served a true copy of the Office of Consumer Advocate's Main Brief, upon parties of record in this proceeding in accordance with the requirements of 52 Pa. Code §1.54 (relating to service by a participant), in the manner and upon the persons listed below:

Dated this 29th day of August 2012.

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