



Department of Energy
Washington, DC 20585

December 19, 2016

Morris Woodruff
Secretary of the Commission
Missouri Public Service Commission
200 Madison Street, PO Box 360
Jefferson City, MO 65102-0360

Re: Corrected Direct Testimony of Michael R. Schmidt on Behalf of the United States Department of Energy and Federal Executive Agencies in Missouri PSC Docket No. ER-2016-0285; In the Matter of Kansas City Power & Light Company's Request for Authority to Implement A General Rate Increase for Electric Service

Mr. Woodruff,

1. Pursuant to 4 CSR 240-2.130, prepared testimony of each witness shall be filed separately and be accompanied by an affidavit providing the witness' oath.
2. On December 13th, 2016, the United States Department of Energy filed the Direct Testimony of Michael R. Schmidt, which failed to include the affidavit prepared by Mr. Schmidt and duly notarized on December 12, 2016.
3. Please accept the Corrected Direct Testimony of Michael R. Schmidt on Behalf of the United States Department of Energy and Federal Executive Agencies.
4. The only change made to this document is the addition of the Affidavit of Mr. Schmidt after the title page.
5. The United States Department of Energy apologizes for any inconvenience.

Respectfully Submitted,

A handwritten signature in black ink, appearing to read "J. Van Biber", written over a horizontal line.

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Exhibit No.:
Issue: Rate Design/Class COS
Witness: Michael R. Schmidt
Type of Exhibit: Direct Testimony
Sponsoring Party: U.S. Department of Energy
Case No.: ER-2016-0285
Date Testimony Prepared: December 14, 2016

**BEFORE THE PUBLIC SERVICE COMMISSION
OF THE STATE OF MISSOURI**

In the Matter of Kansas City Power & Light)
Company's Request for Authority to Implement) Case No. ER-2016-0285
A General Rate Increase for Electric Service)

CORRECTED DIRECT TESTIMONY

OF

MICHAEL R. SCHMIDT

ON BEHALF OF THE

**UNITED STATES DEPARTMENT OF ENERGY
AND ALL OTHER FEDERAL EXECUTIVE AGENCIES**

December 14, 2016

BEFORE THE PUBLIC SERVICE COMMISSION
OF THE STATE OF MISSOURI

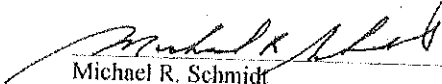
In the Matter of Kansas City Power & Light)
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A General Rate Increase for Electric Service)

AFFIDAVIT OF MICHAEL R. SCHMIDT

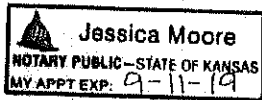
STATE OF KANSAS)
) SS
COUNTY OF SHAWNEE)

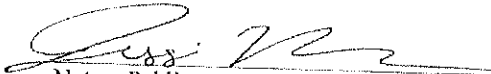
Michael R. Schmidt, being first duly sworn, on his oath states:

1. My name is Michael R. Schmidt. I am an independent utility consultant and my principle place of business is 3322 SW Rolling Ct. Topeka, Kansas 66610.
2. Attached hereto and made a part hereof for all purposes is my Direct Testimony on behalf of the United States Department of Energy which was prepared in written form for introduction into evidence in the above-captioned docket.
3. I hereby swear and affirm that my answers contained in the attached testimony to the questions therein propounded, including any attachments thereto, are true and accurate to the best of my knowledge, information and belief.


Michael R. Schmidt

Subscribed and sworn before me this 12th day of December, 2016.




Notary Public

My commission expires 9-11-19

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1 **I. INTRODUCTION AND QUALIFICATIONS**

2 Q. PLEASE STATE YOUR NAME AND BUSINESS ADDRESS.

3 A. My name is Michael R. Schmidt. My business address is 3322 SW Rolling Ct., Topeka,
4 Kansas 66610.

5 Q. PLEASE DESCRIBE YOUR PROFESSIONAL AND EDUCATIONAL
6 BACKGROUND.

7 A. I have been a self-employed public utility economist since retiring from San Diego Gas
8 & Electric Company (“SDG&E”) in 2008. Before joining SDG&E in 1998, I held
9 management and technical positions with Nevada Power Company (Director of Pricing
10 and Economic Analysis); Resource Management International (Consultant and
11 Director of Regulatory Economics); R.W. Beck and Associates (Consultant and
12 Manager of Analytics); and the Illinois Commerce Commission (Manager of Policy
13 Analysis and Research). Before attending graduate school, I was an Assistant Engineer
14 at Minnesota Power & Light Company.

15 I have over 30 years of experience in utility ratemaking, cost of service, project
16 analysis, finance, forecasting and capital budgeting in the natural gas, electric, and
17 water industries. I have managed numerous energy-related consulting projects both
18 domestically and overseas including experience with the financing of public facilities.
19 Recently, I completed two 18-month rate case consulting assignments with Cleco
20 Power and Liberty Utilities, respectively. I also completed 18 months in an appointed
21 position as Director of Utilities at the Kansas Corporation Commission.

22 My experience includes testifying in over 60 natural gas and electric utility
23 pricing cases before various state commissions; the Alberta Energy Board; the Energy
24 Regulatory Board of the Philippines; the Federal Energy Regulatory Commission

1 (“FERC”); the U.S. Court of Claims; the Illinois State Legislature; the Kansas State
2 Legislature; the Superior Court of the State of Washington; and preparing countless
3 testimony, cross-examination questions, and briefing papers for others. I have taught
4 undergraduate and graduate level courses in public utility economics, microeconomics,
5 macroeconomics, law and economics, managerial economics, health economics, small
6 business development, finance, and financial management as an Adjunct Professor at
7 Golden Gate University in San Francisco and the University of Phoenix in Sacramento,
8 Las Vegas, and San Diego.

9 My doctorate degree is from the Indiana University Kelley Graduate School of
10 Business with a double major in Transportation/Public Utilities and Business
11 Economics/Public Policy with a supporting field in Finance. I also earned a Master’s
12 degree in Business Administration (“MBA”) with majors in Public Utility Management
13 and Finance from Indiana University Kelley Graduate School of Business. Before
14 transferring to Indiana University, I completed all the course work for the MBA degree
15 at the University of Wisconsin. I hold two undergraduate degrees from the University
16 of Minnesota: a Bachelor of Arts in Business Administration with an emphasis in
17 finance, accounting, and management; and a Bachelor of Science in Physics/Math with
18 an emphasis in electronics, electrical theory, and mathematics.

19 I have published six books related to utility pricing matters: *Automatic*
20 *Adjustment Clauses, Theory and Practice*, Michigan State University Press, 1980; *Rate*
21 *Design for Public Power Systems* (co-author), American Public Power Association,
22 1984; *Valuing an Electric Utility: Theory and Application* (coauthor), Public Utilities
23 Reports, Inc. (“PUR”), 1999; *Performance Based Ratemaking: Theory and*
24 *Application*, PUR, 2000; *Implementing Retail Energy Competition: Making the*

1 *Transition*, PUR, 2001; and *Energy Services Outsourcing - the Opportunities and*
2 *Challenges* (lead author), PUR, 2002. (See PUR.com.) Some recent articles that I have
3 authored include: “Regulation by Formula” *Public Utilities Fortnightly* (“Fortnightly”),
4 March 10, 2007, p. 15, “Earning on Conservation” *Fortnightly*, December, 2007, p. 30;
5 “Can You ESO?” *Energy Customer Management*, November/December, 2002, p. 24;
6 “California’s Power Gamble: Long-term Contracts, Locked-in Risk” *Fortnightly*, May
7 15, 2001; and “Some Thoughts About Load Pockets” *Fortnightly*, March 1, 1998. A
8 copy of my resume can be found in Appendix A.

9 Q. ON WHOSE BEHALF ARE YOU APPEARING IN THIS PROCEEDING?

10 A. The U.S. Department of Energy (“DOE” or “Department”) has been delegated the
11 authority by the U.S. General Services Administration (“GSA”) to intervene in Kansas
12 City Power & Light (“KCP&L” or “Company”) electric rate cases in Missouri on
13 behalf of federal government facilities taking service from KCP&L. Federal facilities
14 taking service from KCP&L in Missouri include: the Richard Bolling Federal Complex
15 and Whitaker Courthouse located in downtown Kansas City, Missouri, the Bannister
16 Federal Complex located south of the metropolitan area, and several United States
17 Postal Service sites. The Federal Executive Agencies (“FEA”) receive service under
18 various KCP&L commercial rate schedules. DOE, under its GSA-delegated authority,
19 intervenes in several other states on behalf of the FEA. The Department adheres to the
20 principle that electric rates should be reasonable and cost-based. The Department has
21 asked me to review the class cost of service study (“CCOS Study”) and rate design
22 proposals submitted by KCP&L with the purpose of ensuring that the government is
23 subject to just and reasonable rates.

1 Q. WHAT IS THE PURPOSE OF YOUR DIRECT TESTIMONY IN THIS
2 PROCEEDING?

3 A. The purpose of my testimony is to recommend that the Commission adopt the four
4 coincident peak (“4CP”) methodology to allocate demand-related production and
5 transmission costs to the various customer classes in KCP&L’s CCOS Study. I also
6 support movement toward cost-based rates in this case subject to principles of
7 gradualism which I will discuss.

8

9 **II. SUMMARY AND RECOMMENDATIONS**

10 Q. PLEASE SUMMARIZE YOUR TESTIMONY.

11 A. KCP&L is seeking an overall increase of 10.77 percent in this case.¹ The Company’s
12 revenue requirement request is \$836.5 million.² The requested revenue requirement
13 translates to an annual increase in retail revenues of \$90.1 million. Despite having
14 prepared a CCOS Study that shows disparate rate increases are necessary to move retail
15 rates toward cost-based levels, KCP&L is proposing to allocate that increase to the rate
16 classes on an across-the-board or equal percentage basis.

17 KCP&L invests in production and transmission plant to meet the peak demand
18 placed on its system. The method selected for allocating demand-related production
19 and transmission costs within the CCOS Study will materially affect the results of that
20 study. The average and peak (“A&P”) methodology with which the Company
21 proposed to allocate demand-related production and transmission costs over-allocates
22 these costs to energy-intensive customers and under-allocates these costs to customers
23 who contribute significantly to the Company’s summer peak demands and who drive

¹ Direct Testimony of Darrin Ives, p. 5, line 10.

² Direct Testimony of Darrin Ives, p. 5, line 11.

1 the Company's need for production and transmission capacity. The 4CP methodology
2 is a more appropriate methodology for allocating demand-related production and
3 transmission costs because KCP&L incurs those costs to meet the peak demand placed
4 on its system.

5 KCP&L's CCOS Study shows that larger commercial and industrial customers
6 are paying above cost-based rates, in some instances significantly so. Those rate
7 inequities are confirmed when KCP&L's CCOS Study is revised so that demand-
8 related production and transmission costs are allocated using the 4CP methodology.
9 Correcting the rate inequities embedded in KCP&L's rates would entail rate increases
10 for the Residential class that would exceed what is appropriate given the importance
11 that should be placed on the principle of gradualism when designing rates. Therefore,
12 I am proposing meaningful but gradual steps toward cost-based rates in this case, with
13 the intent that additional steps toward cost-based rates could be taken in future KCP&L
14 rate cases. To illustrate my gradualism proposal, I present several tables that show the
15 effect of my proposal under different levels of revenue increases, ranging from 100
16 percent to 25 percent of KCP&L's requested revenue requirement increase. For
17 example, under the 50 percent scenario, the use of the 4CP methodology and my
18 gradualism proposal would increase residential customers' rates by 8.4 percent.

19 Q. WHAT ARE YOUR RECOMMENDATIONS TO THE COMMISSION IN
20 THIS CASE?

21 A. The Commission should reject the use of the Company's A&P method and adopt the
22 use of the 4CP methodology to allocate demand-related production and transmission
23 costs in the CCOS Study. In addition, the Commission should cap rate increases for
24 any particular rate class at the greater of one-third (33 percent) more than the system

1 average percentage rate increase or 3 percent above the system average percentage rate
2 increase. Class rate changes below the system average should be limited to double
3 these levels (i.e., the lesser of two-thirds less than the system average percentage rate
4 increase or 6 percent below the system average rate increase) prior to any reallocation
5 of revenues necessitated by the proposed caps on rate increases.

6
7 **III. THE ALLOCATION OF DEMAND-RELATED PRODUCTION AND**
8 **TRANSMISSION COSTS**

9 Q. WHAT ARE DEMAND-RELATED PRODUCTION AND
10 TRANSMISSION COSTS?

11 A. Demand-related production and transmission costs are the fixed costs associated with
12 the Company's production and transmission plant. These costs are incurred by KCP&L
13 regardless of electricity sales to customers. Examples of these fixed costs include:
14 return on production and transmission rate base, depreciation, fixed operating and
15 maintenance expenses, and property taxes.

16 Q. WHY IS CORRECTLY ASSIGNING COST RESPONSIBILITY FOR
17 THESE COSTS IMPORTANT?

18 A. Results from a Commission-approved CCOS Study should be a principal guide in
19 setting the revenue requirement and rates (prices) for each customer class in a general
20 rate case. Just as it sounds, cost-based pricing identifies the overall fixed, variable, and
21 indirect costs of production and transmission and prices those products accordingly.
22 Rates based upon cost to serve will provide proper price signals to customers, promote
23 efficient electricity use and investments in electrical equipment, and avoid inter- and
24 intra-class subsidy problems.

1 Q. HOW IS THE COMPANY PROPOSING TO ALLOCATE DEMAND-
2 RELATED PRODUCTION AND TRANSMISSION COSTS TO THE RATE
3 CLASSES IN THIS CASE?

4 A. The Company is proposing to utilize the A&P methodology to allocate demand-related
5 production and transmission costs to the rate classes.

6 Q. PLEASE BRIEFLY EXPLAIN THE A&P METHODOLOGY.

7 A. The A&P methodology utilizes a weighted average allocation factor derived from
8 energy- and demand-related allocation factors. KCP&L used its weather-normalized
9 sales, adjusted for losses and weighted by the system load factor, for the energy
10 component of the A&P allocation factor, and its 4CP allocation factor weighted by one
11 minus the system load factor for the demand component. KCP&L's Missouri
12 jurisdiction load factor is 56.31 percent. Therefore, KCP&L proposes to allocate over
13 56 percent of its demand-related production and transmission costs to the rate classes
14 on the basis of energy usage, and only 44 percent based on peak demands.

15 Q. WHAT DOES THE COMPANY'S CCOS STUDY SHOW?

16 A. The Company's CCOS Study shows that the residential class is being subsidized by
17 non-residential customers. To put that subsidy into perspective, revenues from
18 residential customers would have to increase by 20 percent to reach a cost-based level,
19 or well above the system average percentage increase of 10.8 percent requested by
20 KCP&L.³

21 Q. IS THE A&P METHODOLOGY A REASONABLE METHOD FOR
22 ALLOCATING DEMAND-RELATED PRODUCTION AND
23 TRANSMISSION COSTS TO THE MISSOURI RETAIL RATE CLASSES?

³ Direct Testimony of Marisol E. Miller, p. 14, line 13.

1 A. No. The A&P method, in my opinion, does not follow cost causation principles.
2 System peak demands drive the need for production and transmission capacity, and
3 customer contributions to system peaks should be the principal component of factors
4 used to allocate fixed production and transmission costs. If production and
5 transmission plant costs are allocated on the basis of average energy use, then low load
6 factor customers receive the benefits of cheaper baseload (and intermediate) energy
7 without paying a fair share of the capital costs for these plants.

8 Q. DO YOU HAVE OTHER CONCERNS REGARDING THE COMPANY'S
9 PROPOSAL TO UTILIZE THE A&P METHODOLOGY TO ALLOCATE
10 DEMAND-RELATED PRODUCTION AND TRANSMISSION COSTS TO
11 THE MISSOURI RETAIL RATE CLASSES?

12 A. Yes, I do. Another problem arises in allocating fuel costs. KCP&L allocated average
13 monthly fuel costs on the basis of class energy use, therefore ignoring any matching of
14 fuel costs and customer energy use by capacity type. This average cost approach to
15 fuel cost allocation in KCP&L's CCOS Study, combined with the A&P methodology,
16 ensures that higher load factor classes pay a disproportionately large share of expensive
17 baseload plant costs without receiving the corresponding benefit of lower baseload fuel
18 costs. KCP&L's mismatch of the A&P methodology and allocated fuel costs also
19 means that a low load factor class with predominantly peak usage receives the benefit
20 of lower baseload fuel costs without being allocated a corresponding share of baseload
21 plant costs. As a result, cost of service for lower load factor classes is understated in
22 KCP&L's cost study, and overstated for higher load factor classes. Thus, the principle
23 of cost causation is violated.

1 Q. HOW ARE YOU PROPOSING TO ALLOCATE DEMAND-RELATED
2 PRODUCTION AND TRANSMISSION COSTS TO THE MISSOURI
3 RETAIL RATE CLASSES?

4 A. I recommend that demand-related production and transmission costs be allocated to the
5 Missouri retail rate classes using the 4CP methodology.

6 Q. PLEASE EXPLAIN THE 4CP METHODOLOGY.

7 A. Production and transmission capacity is built (or acquired) to meet system peak
8 demands—not average demands. This is because no utility would want to find itself in
9 a situation where it had insufficient capacity to serve its load. Once capacity is built to
10 meet system peaks, its fixed (sunk) costs do not change because of the intensity of its
11 use. Therefore, how those costs are allocated must be linked to peak demands that the
12 capacity was built to serve. KCP&L is a summer-peaking utility. That is, the Company
13 experiences its maximum system peak demand sometime during the summer months
14 of June, July, August, or September. The 4CP methodology utilizes the coincident
15 peak demands for each rate class that occur during those four months to calculate each
16 rate class' relative share of KCP&L's system peaks during those months. The resulting
17 percentages for each rate class are then multiplied by the demand-related or fixed
18 production and transmission costs to allocate those costs to the rate classes.

19 Q. DID YOU REVISE KCP&L'S MISSOURI JURISDICTION CCOS STUDY
20 SO THAT DEMAND-RELATED PRODUCTION AND TRANSMISSION
21 COSTS WERE ALLOCATED USING THE 4CP METHODOLOGY?

22 A. Yes, I ran KCP&L's class cost-of-service model using the 4CP methodology instead
23 of KCP&L's A&P methodology to allocate demand-related production and
24 transmission costs to the Missouri retail rate classes.

1 Q. WHAT DOES THE COMPANY'S CCOS STUDY SHOW AFTER YOU
2 REVISED IT TO UTILIZE THE 4CP METHODOLOGY?

3 A. The Company's assertion that the residential class is being subsidized by non-
4 residential customers is confirmed with the 4CP methodology. Table 1 shows the
5 Company's effective rate of return for each rate class at present rates using both the
6 4CP and A&P methodologies. It also shows the relative rate of return index that will
7 equal 100 if present revenues from a retail rate class are in line with cost-based levels
8 prior to any adjustments to the revenue requirement (i.e., prior to an increase that would
9 raise the total retail return from 5.5 percent to some higher level). In the case of the
10 residential rate class, its rate of return at present rates, and correspondingly its relative
11 rate of return index, are the lowest of any rate class.

12 When the 4CP methodology is used to allocate demand-related production and
13 transmission costs in KCP&L's CCOS Study, the allocation of those costs to energy-
14 intensive customer classes (i.e., the Large General Service and Large Power Service
15 rate classes) is reduced. This is evident by the higher rates of return and relative rate
16 of return indexes for these rate classes shown in Table 1 under the 4CP methodology.
17 There is also a material decrease in costs allocated to the Lighting class under the 4CP
18 methodology because this class of customers, on a relative basis, does not drive

Table 1.				
Rates of Return at Present Rates				
Production and Transmission Allocation Factor:				
	4CP		Peak & Average	
Rate Class	Rate of Return	Relative Rate of Return Index	Rate of Return	Relative Rate of Return Index
Residential	2.8%	50	4.0%	72
Small General Service	7.5	134	8.2	148
Medium General Service	6.9	125	7.0	126
Large General Service	8.5	154	7.2	130
Large Power Service	7.0	127	4.9	88
Lighting	21.4	385	9.4	170
Total	5.5%	100	5.5%	100

1 KCP&L's need for production and transmission capacity. The 4CP methodology
2 accounts for this, whereas the A&P methodology with its energy-based allocation
3 factor pushes excessive production and transmission costs onto this rate class.

4

5

IV. REVENUE SPREAD

6

Q. HOW DID KCP&L PROPOSE SPREADING ITS REQUESTED REVENUE
7 INCREASE ACROSS RETAIL RATE CLASSES?

8

A. KCP&L proposed an across-the-board revenue spread. That is, KCP&L proposed that
9 each class receive an increase equal to the proposed system average increase of
10 10.77 percent. However, the Company's across-the-board revenue spread does nothing
11 to reduce the subsidy identified by the Company and substantiated by the 4CP
12 allocation methodology. If the Commission adopts the Company's across-the-board
13 spread, the subsidy would only increase.

14

Q. WHAT INCREASES WOULD BE REQUIRED TO MOVE RETAIL CLASS
15 REVENUES TO COST-BASED LEVELS?

1 A. Table 2 shows the change in revenues required to move retail class revenues to cost-
 2 based levels at the Company’s proposed revenue requirement and utilizing the 4CP
 3 methodology to allocated demand-related production and transmission costs, as I
 4 recommend.

Table 2. Cost-Based Revenue Allocations at the Company’s Proposed Revenue Requirement and Utilizing the 4CP Methodology to Allocate Demand-Related Production and Transmission Costs				
Rate Class	Present Revenues⁽¹⁾ (\$000s)	Proposed Revenues (\$000s)	Increase	
			(\$000s)	(%)
Residential	315,079	407,810	92,731	29.4
Small GS	55,206	55,949	743	1.3
Medium GS	121,627	126,112	4,485	3.7
Large GS	188,280	180,811	(7,468)	(4.0)
Large PS	145,878	149,217	3,338	2.3
Lighting	10,507	6,755	(3,752)	(35.7)
Total	836,577	926,654	90,077	10.8
⁽¹⁾ Retail sales revenue from CCOS, Schedule I.				

5 Q. RECOGNIZING THAT TABLE 2 SHOWS THE COMPANY’S PROPOSED
 6 REVENUE REQUIREMENT, ARE YOU RECOMMENDING THAT THE
 7 COMMISSION ADOPT THE PERCENTAGE INCREASES THAT WOULD
 8 BE REQUIRED TO MOVE EACH RATE CLASS TO COST-BASED
 9 LEVELS?

10 A. No, I am not. The results from the DOE’s 4CP CCOS Study show that major inter-
 11 class revenue shifts are necessary to move each retail class’ revenue to cost of service.
 12 However, such shifts would cause “rate shock” and customer resistance. The effect on
 13 the residential class would be especially burdensome. Therefore, I am proposing

1 gradual movements toward cost-based rates. The goal of these gradual movements is
2 to eventually achieve cost-based rates.

3 Q. WHAT IS YOUR PROPOSAL FOR MOVING RATES TOWARD COST-
4 BASED LEVELS IN THIS CASE?

5 A. I propose that the Commission adopt the 4CP methodology, but cap any rate increases
6 for any particular rate class at the greater of one-third (33 percent) more than the system
7 average percentage rate increase or 3 percent above the system average percentage rate
8 increase. This revenue spread proposal will allow for gradual movement toward cost-
9 based rates in a manner that prevents rate shock. I also propose, for the initial revenue
10 allocation (before revenue reallocations are necessary because of the cap), that floors
11 be established at twice the magnitude of the caps to mitigate the potential for large
12 differences between percentage rate increases or decreases for any two rate classes that
13 could also lead to customer confusion. Any reallocation of revenues required due to
14 my proposed caps would be made equi-proportionally in relation to costs to all rate
15 classes that have not reached my proposed cap.

16 Q. WHAT WOULD BE THE RESULTING REVENUE SPREAD IN THIS
17 CASE IF THE COMMISSION ACCEPTS YOUR GRADUALISM
18 APPROACH?

19 A. To illustrate the revenue spread that would result if the Commission accepts my
20 gradualism approach, consider KCP&L's proposed retail revenue increase of \$90.1
21 million. My proposed gradualism approach would cap increases at one-third more than
22 the system average increase, or 14.4 percent, as shown in Table 3. This is the resulting
23 increase to the residential class because of the large subsidy that class is currently

1 receiving, and my revenue spread proposal takes a gradual step forward in reducing
 2 that subsidy.

Table 3. Cost-Based and Capped Revenue Spreads Using KCP&L's Proposed Revenue Requirement Increase of \$90.1 Million							
Rate Class	Present Revenues (\$000s)	Cost-Based Revenue Spread			Capped Revenue Spread		
		Proposed Revenues (\$000s)	Increase		Proposed Revenues (\$000s)	Increase⁽¹⁾	
			(\$000s)	(%)		(\$000s)	(%)
Residential	315,079	407,810	92,731	29.4	360,313	45,234	14.4
Small GS	55,206	55,949	743	1.3	59,992	4,786	8.7
Medium GS	121,627	126,112	4,485	3.7	132,433	10,806	8.9
Large GS	188,280	180,811	(7,468)	(4.0)	204,100	15,820	8.4
Large PS	145,878	149,217	3,338	2.3	158,594	12,715	8.7
Lighting	10,507	6,755	(3,752)	(35.7)	11,222	716	6.8
Total	836,577	926,654	90,077	10.8	926,654	90,077	10.8

⁽¹⁾ The capped revenue spread reflects maximum class percentage changes above the system average percentage change limited to: (1) one-third (33 percent) more than that percentage change, or (2) three percent above that percentage change. A floor of double those percentages was applied to the initial revenue allocation only.

3 Q. IF THE COMMISSION CHOOSES NOT TO GRANT KCP&L ITS FULL
 4 REQUESTED INCREASE OF \$90.1 MILLION, WHAT EFFECT WOULD
 5 THIS DECISION HAVE ON THE RESULTS SHOWN IN TABLE 3?

6 A. To illustrate the effect of different revenue requirement increases on retail rates, I have
 7 prepared alternative scenarios that showcase the effects of application of my
 8 gradualism rate design on retail rate class increases. Specifically, I have prepared
 9 illustrative tables showing my recommended rate design allocation results under a
 10 75 percent increase (\$67.6 million) in revenue requirement in Table 4; a 50 percent
 11 increase (\$45.0 million) in revenue requirement in Table 5; and a 25 percent increase

1 (\$22.5 million) in revenue requirement in Table 6. The results shown in these tables
 2 assume a uniform reduction in revenue requirement. In other words, I did not run
 3 KCP&L's CCOS Study model under a reduced revenue requirement scenario but rather
 4 applied the revenue requirement reductions proportionally using the allocation
 5 relationships used in Table 3. For each scenario, my gradualism proposal would cap
 6 the Residential class rate increase at 3 percent above the system average percentage
 7 rate increase.

**Table 4.
 Cost-Based and Capped Revenue Spreads Using an Illustrative Revenue Requirement
 Increase of \$67.6 Million**

Rate Class	Present Revenues (\$000s)	Cost-Based Revenue Spread			Capped Revenue Spread		
		Proposed Revenues (\$000s)	Increase		Proposed Revenues (\$000s)	Increase ⁽¹⁾	
			(\$000s)	(%)		(\$000s)	(%)
Residential	315,079	384,627	69,548	22.1	349,975	34,897	11.1
Small GS	55,206	55,763	557	1.0	58,606	3,400	6.2
Medium GS	121,627	124,991	3,364	2.8	130,043	8,416	6.9
Large GS	188,280	182,679	(5,601)	(3.0)	199,571	11,291	6.0
Large PS	145,878	148,383	2,504	1.7	154,904	9,025	6.2
Lighting	10,507	7,692	(2,814)	(26.8)	11,036	529	5.0
Total	836,577	904,135	67,558	8.1	904,135	67,558	8.1

⁽¹⁾ The capped revenue spread reflects maximum class percentage changes above the system average percentage change limited to: (1) one-third (33 percent) more than that percentage change, or (2) three percent above that percentage change. A floor of double those percentages was applied to the initial revenue allocation only.

Table 5.
Cost-Based and Capped Revenue Spreads Using an Illustrative Revenue Requirement Increase of \$45.0 Million

Rate Class	Present Revenues (\$000s)	Cost-Based Revenue Spread			Capped Revenue Spread		
		Proposed Revenues (\$000s)	Increase		Proposed Revenues (\$000s)	Increase ⁽¹⁾	
			(\$000s)	(%)		(\$000s)	(%)
Residential	315,079	361,444	46,365	14.7	341,494	26,415	8.4
Small GS	55,206	55,578	372	0.7	57,241	2,035	3.7
Medium GS	121,627	123,869	2,242	1.8	127,576	5,949	4.9
Large GS	188,280	184,546	(3,734)	(2.0)	192,642	4,362	2.3
Large PS	145,878	147,548	1,669	1.1	151,963	6,084	4.2
Lighting	10,507	8,631	(1,876)	(17.9)	10,700	193	1.8
Total	836,577	881,616	45,038	5.4	881,616	45,038	5.4

⁽¹⁾ The capped revenue spread reflects maximum class percentage changes above the system average percentage change limited to: (1) one-third (33 percent) more than that percentage change, or (2) three percent above that percentage change. A floor of double those percentages was applied to the initial revenue allocation only.

Table 6.
Cost-Based and Capped Revenue Spreads Using an Illustrative Revenue Requirement Increase of \$22.5 Million

Rate Class	Present Revenues (\$000s)	Cost-Based Revenue Spread			Capped Revenue Spread		
		Proposed Revenues (\$000s)	Increase		Proposed Revenues (\$000s)	Increase ⁽¹⁾	
			(\$000s)	(%)		(\$000s)	(%)
Residential	315,079	338,262	23,183	7.4	333,013	17,934	5.7
Small GS	55,206	55,392	186	0.3	55,887	681	1.2
Medium GS	121,627	122,748	1,121	0.9	123,846	2,219	1.8
Large GS	188,280	186,413	(1,867)	(1.0)	188,080	(200)	(0.1)
Large PS	145,878	146,713	834	0.6	148,026	2,147	1.5
Lighting	10,507	9,569	(938)	(8.9)	10,245	(262)	(2.5)
Total	836,577	859,097	22,519	2.7	859,097	22,519	2.7

⁽¹⁾ The capped revenue spread reflects maximum class percentage changes above the system average percentage change limited to: (1) one-third (33 percent) more than that percentage change, or (2) three percent above that percentage change. A floor of double those percentages was applied to the initial revenue allocation only.

1 Q. WHAT ARE YOUR CONCLUSIONS?

2 A. Cost-based rates are an important principle for any sound rate design. However, there
3 are significant rate inequities embedded in KCP&L's retail rates. This is demonstrated
4 by the Company's CCOS Study. I've corrected that study so that demand-related
5 production and transmission plant is allocated to the rate classes using a 4CP
6 methodology that recognizes that demand-related production and transmission costs
7 are incurred to meet system peak demand. My CCOS Study confirms the Company's
8 finding that other rate classes are significantly subsidizing the Residential class. If the
9 Commission prefers to gradually move toward cost-based rates, my revenue spread
10 should be adopted. Tables 3 through 6 show that my gradualism proposal moves KCP&L
11 toward cost-based rates while ensuring that no particular class is unduly burdened by the
12 resulting rate increase.

13 Q. DOES THIS COMPLETE YOUR DIRECT TESTIMONY?

14 A. Yes.

APPENDIX A

MICHAEL R. SCHMIDT

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QUALIFICATIONS SUMMARY

Public utility regulatory economist with hands-on analytical and managerial experience:

- Utility ratemaking, cost of service, rate design, alternative methods of ratemaking including performance based ratemaking (PBR), project analysis, finance, forecasting and capital budgeting in the gas, electric and water industries.
- Managed numerous energy related consulting projects both domestically and overseas.
- Advised regulatory agencies in the Philippines and Indonesia.
- Testified in over 60 gas and electric utility pricing cases.
- Testified on cost of service and pricing matters before various state public utility commissions, the Alberta Energy Board, the Energy Regulatory Board of the Philippines, the Federal Energy Regulatory Commission (FERC), the U.S. Court of Claims, the Illinois State Legislature, the Kansas State Legislature and the Superior Court of the state of Washington.
- Held supervisory responsibilities at the manager (first line) and director levels (second line) in consulting firms, investor-owned utilities, and state regulatory agencies.
- Built and worked with numerous Excel cost-of-service/rate design/financial models.
- Experience includes training on behalf of the Energy Utility Consultants (EUCI) – performance based ratemaking, American Public Power Association - rate design; staff training for the Philippines Energy Regulatory Board – cost of service/rate design/automatic adjustment clauses and NARUC – summer camp at MSU.
- Adjunct professor at the University of Phoenix and Golden Gate University – finance/economics/small business development.
- Masters and Doctorate degrees in public utility economics and transportation.
- Undergraduate degrees in physics (electronics/electrical theory) and math.
- Accomplished author – six books on public utility pricing and other issues; numerous articles.

CAREER HIGHLIGHTS

Self Employed Public Utility Economist

2008 – Present

Subcontractor to Exeter Associates, Inc., Columbia, MD

Rate Case Advisor: Provide ratemaking services to Federal government clients

Subcontractor to D.L. Hayward Group, Oceanside, CA

Valuation Specialist: Prepare valuation studies for various water utility clients

Consultant to LIBERTY UTILITIES, Oakville, Ontario

Rates Advisor: providing consulting services as a Rates Advisor. In this capacity I advised the regulated operating companies of Liberty Utilities Company on pricing matters and participated in their rate cases.

- Prepared cost of service and rate design for Algonquin Water Resources of Missouri, LLC d/b/a Liberty Utilities.
- Prepared revenue requirements for Granite States Electric d/b/a Liberty Utilities New Hampshire and submitted testimony on their behalf.
- Prepared cost of service and rate design for Midstates Gas d/b/a Liberty Utilities.
- Prepared report on pension and PBOP benefits.

Consultant to CLECO POWER, Pineville, LA

Regulatory Planning: Consultant for Cleco Power providing services to prepare and file a general rate case – first in 20 years. Worked with the AMI initiative, and proposed an RPS standard and energy conservation alternatives.

**KANSAS CORPORATION COMMISSION, Topeka, KS
2010 - 2012**

Director, Utility Division: Directed a staff of 45 accountants, economists, and engineers in the regulation of electric, gas, telephone, water utilities. Also responsible for pipeline safety in the state of Kansas. Five direct reports – Audit, Economics, Utility Operations, Telecommunications, and Pipeline Safety. My approach was to strive for a balance among residential consumers (reasonable rates), industry (cost-based rates), and utility shareholders (the need to attract and reward capital investment).

- Interact daily in developing Staff (training/delegating/assignments/strategy/hiring).
- Routinely met with utility management, Staff and utility attorneys, and government staff/officials.
- Negotiate settlements with utilities, identify litigation issues, and prepare and/or direct Staff testimony.
- Prepare and direct testimony in major rate cases, prudence reviews, certificate of need proceedings for transmission and generation upgrades.
- Met with and advised the Commissioners on various technical issues – energy efficiency (emphasis on cost effective programs), major rate design overhaul (elimination of promotional rates, increases in fixed charges), telecommunications subsidies (Universal Service Fund and the Kansas Universal Service Fund), and cost of capital.

SEMPRA ENERGY (Southern California Gas and San Diego Gas & Electric), San Diego, CA

1998 – 2008 (early retirement)

Regulatory Strategy Manager (2000-2008): As part of management at one of the largest gas and electric utilities in the country, assignments included preparing expert witness testimony and developing pricing policy alternatives including performance based ratemaking; responses to Federal and California Commission initiatives including supply planning, green house gas emissions, transmission pricing and renewable energy.

- Developed an opposition report on a major municipalization initiative and created new line extension policies.
- Active in Company's conservation, energy efficiency initiatives.

- Published article on Company's energy efficiency efforts and ways to enhance earnings.
- Case management.
- Testified in various rate, conservation, line extension, and economic impact cases.
- Developed Excel based models for cost of service and cost allocation.

Regulatory Policy Leader (1998-2000): Intense involvement with the gas industry and its challenges while resolving uses involving direct access, the power markets, and the ISO on the electric side. The wholesale power market was brutalized in California, dominated by few suppliers, market restrictions on long-term contracts, anti-trust challenges, price caps at the retail but not at the wholesale level, and unchecked market participants.

NEVADA POWER COMPANY, Las Vegas, NV

1995 - 1998

Director of Pricing and Economic Analysis: Responsible resolving all rate related issues including virtually daily interaction with customers, consumer groups, the rate advisory committee, the Public Service Commission of Nevada and the news media during a period of unprecedented growth, abnormally high cost increases, and rate design challenges as well as overseeing a staff of 12 associates.

- Handled intense pressure from large customers to obtain direct access to alternative suppliers.
- Negotiated pricing alternatives with major casino developers that threatened self-generation.
- Developed staff training program.

RESOURCE MANAGEMENT INTERNATIONAL (Now Part of Navigant Consulting), Sacramento, CA

1987 - 1995

Director of Regulatory Economics: Completed a number of consulting assignments in the Philippines, Israel, and Indonesia which involved the economic benefits and ratemaking associated with the construction of utility infrastructure calculating benefit/cost, shadow pricing, opportunity costs, currency and political risk, transfer pricing, hyper-inflation, and performance risks.

- Represented domestic clients in rate cases before various state regulatory agencies, the FERC, District Courts, and City Councils. Supervised rates department staff.
- As Project Manager was responsible for advising clients regarding transmission access and pricing, independent power production pricing, and other ratemaking issues for the Energy Regulatory Board of the Philippines including developing a regulatory model that could be used as a long-term goal in a competitive power market. The World Bank funded project included transmission access issues, standby generation policies, automatic adjustment for changes in fuel costs, and the calculation of avoided costs for the purchase of cogenerated power.
- Completed a four-year General Services Administration contract involving preparing for and testifying in several electric and gas utility rate cases.

RW BECK & ASSOCIATES (now part of SAIC), Seattle, WA

Associate and Manager Analytical Section

Rate case intervention on behalf of large industrial clients. Supervised analytical department. Elected an Associate of the firm by the Partners.

- Served as lead economist for a feasibility study of developing a proposed \$7 billion hydroelectric project in the Middle East including developing shadow prices for project inputs, evaluated electric load forecasts, calculated benefit cost ratios, and project cash flows under various scenarios. Recommended that the project not be pursued.
- Participated in numerous municipal bond financings, working with utility management, bond council, underwriters, and bond rating agencies to ensure companies rates supported financial success of the projects.
- Prepared cost of service studies for electric and water utilities.

ILLINOIS COMMERCE COMMISSION

Manager Policy Analysis and Research

Implementation of the requirements of PURPA. Supervised Policy and Research staff.

- Provided testimony on marginal cost pricing which included a discussion of the theory of marginal cost, various methods for reconciling marginal cost-based revenues, and problems with the development of marginal cost data.
- Developed uniform fuel adjustment and PGA clauses.

EDUCATION

Ph.D. in Business Administration – Indiana University, Bloomington, IN

(Double major in Transportation/Public Utilities and Economics/Public Policy)

MBA in Finance and Public Utility Management – Indiana University, Bloomington, IN

Special Program in Engineering Economy for Public Utilities - Stanford University

Leadership Development for Executives – University of Southern California

BA in Business Administration (in Finance & Accounting) - University of Minnesota

BS in Physics/Math (Electronics, Electrical Theory, and Mathematics) - University of Minnesota

PUBLICATIONS

Published 6 books on utility issues:

Automatic Adjustment Clauses, Theory and Practice – Michigan State University Press (1980);

Rate Design for Public Power Systems (co-author) – American Public Power Association (1984);

Valuing an Electric Utility: Theory and Application (co-author), Public Utilities Reports, Inc.

(1999);

Performance Based Ratemaking: Theory and Application, Public Utilities Reports, Inc (2000);

Implementing Retail Energy Competition: Making the Transition, Public Utilities Reports, Inc.

(2001); and

Energy Services Outsourcing - the Opportunities and Challenges (lead author), Public Utilities Reports, Inc. (2002).

Recent articles include:

“Ratemaking by Formula,” Public Utilities Fortnightly (March 2010);

“Earning on Conservation,” Public Utilities Fortnightly (December 2007), p. 30;

“Can You ESO?” Energy Customer Management (November/December 2002), p. 24; and

“California’s Power Gamble: Long-term Contracts, Locked-in Risk,” Public Utilities Fortnightly (May 15, 2001).