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Witness:	Michael R. Schmidt
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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	)	

DIRECT TESTIMONY

OF

MICHAEL R. SCHMIDT

ON BEHALF OF THE

UNITED STATES DEPARTMENT OF ENERGY

AND ALL OTHER FEDERAL EXECUTIVE AGENCIES

December 14, 2016

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I. INTRODUCTION AND QUALIFICATIONS

Q. PLEASE STATE YOUR NAME AND BUSINESS ADDRESS.

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

Q. PLEASE DESCRIBE YOUR PROFESSIONAL AND EDUCATIONAL BACKGROUND.

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

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

My experience includes testifying in over 60 natural gas and electric utility pricing cases before various state 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; the Superior Court of the State of Washington; and preparing countless testimony, cross-examination questions, and briefing papers for others. I have taught undergraduate and graduate level courses in public utility economics, microeconomics, macroeconomics, law and economics, managerial economics, health economics, small business development, finance, and financial management as an Adjunct Professor at Golden Gate University in San Francisco and the University of Phoenix in Sacramento, Las Vegas, and San Diego.

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

I have published six books related to utility pricing matters: *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* (coauthor), Public Utilities Reports, Inc. ("PUR"), 1999; *Performance Based Ratemaking:*

Theory and Application, PUR, 2000; *Implementing Retail Energy Competition: Making the Transition,* PUR, 2001; and *Energy Services Outsourcing - the Opportunities and Challenges* (lead author), PUR, 2002. (See PUR.com.) Some recent articles that I have authored include: "Regulation by Formula" Public Utilities Fortnightly ("Fortnightly"), March 10, 2007, p. 15, "Earning on Conservation" Fortnightly, December, 2007, p. 30; "Can You ESO?" Energy Customer Management, November/December, 2002, p. 24; "California's Power Gamble: Long-term Contracts, Locked-in Risk" Fortnightly, May 15, 2001; and "Some Thoughts About Load Pockets" Fortnightly, March 1, 1998. A copy of my resume can be found in Appendix A.

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

A. The U.S. Department of Energy ("DOE" or "Department") has been delegated the authority by the U.S. General Services Administration ("GSA") to intervene in Kansas City Power & Light ("KCP&L" or "Company") electric rate cases in Missouri on behalf of federal government facilities taking service from KCP&L. Federal facilities taking service from KCP&L in Missouri include: the Richard Bolling Federal Complex and Whitaker Courthouse located in downtown Kansas City, Missouri, the Bannister Federal Complex located south of the metropolitan area, and several United States Postal Service sites. The Federal Executive Agencies ("FEA") receive service under various KCP&L commercial rate schedules. DOE, under its GSA-delegated authority, intervenes in several other states on behalf of the FEA. The Department adheres to the principle that electric rates should be reasonable and cost-based. The Department has asked me to review the class cost of service study

("CCOS Study") and rate design proposals submitted by KCP&L with the purpose of ensuring that the government is subject to just and reasonable rates.

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

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

II. SUMMARY AND RECOMMENDATIONS

Q. PLEASE SUMMARIZE YOUR TESTIMONY.

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

KCP&L invests in production and transmission plant to meet the peak demand placed on its system. The method selected for allocating demand-related production and transmission costs within the CCOS Study will materially affect the results of that study. The average and peak ("A&P") methodology with which the Company

[1] Direct Testimony of Darrin Ives, p. 5, line 10.
[2] Direct Testimony of Darrin Ives, p. 5, line 11.

proposed to allocate demand-related production and transmission costs over-allocates these costs to energy-intensive customers and under-allocates these costs to customers who contribute significantly to the Company's summer peak demands and who drive the Company's need for production and transmission capacity. The 4CP methodology is a more appropriate methodology for allocating demand-related production and transmission costs because KCP&L incurs those costs to meet the peak demand placed on its system.

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

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

A. The Commission should reject the use of the Company's A&P method and adopt the use of the 4CP methodology to allocate demand-related production and transmission costs in the CCOS Study. In addition, the Commission should cap rate increases for any particular rate class at the greater of one-third (33 percent) more than the system average percentage rate increase or 3 percent above the system average percentage rate increase. Class rate changes below the system average should be limited to double these levels (i.e., the lesser of two-thirds less than the system average percentage rate increase or 6 percent below the system average rate increase) prior to any reallocation of revenues necessitated by the proposed caps on rate increases.

III. THE ALLOCATION OF DEMAND-RELATED PRODUCTION AND TRANSMISSION COSTS

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

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

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

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

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

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

Q. PLEASE BRIEFLY EXPLAIN THE A&P METHODOLOGY.

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

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

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

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

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

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

A. Yes, I do. Another problem arises in allocating fuel costs. KCP&L allocated average monthly fuel costs on the basis of class energy use, therefore <u>ignoring any matching of fuel costs and customer energy use by capacity type</u>. This average cost approach to fuel cost allocation in KCP&L's CCOS Study, combined with the A&P methodology, ensures that higher load factor classes pay a disproportionately large share of expensive baseload plant costs without receiving the corresponding benefit of lower baseload fuel costs. KCP&L's mismatch of the A&P methodology and

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

allocated fuel costs also means that a low load factor class with predominantly peak usage receives the benefit of lower baseload fuel costs without being allocated a corresponding share of baseload plant costs. As a result, cost of service for lower load factor classes is understated in KCP&L's cost study, and overstated for higher load factor classes. Thus, the principle of cost causation is violated.

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

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

Q. PLEASE EXPLAIN THE 4CP METHODOLOGY.

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

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

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

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

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

When the 4CP methodology is used to allocate demand-related production and transmission costs in KCP&L's CCOS Study, the allocation of those costs to energy-intensive customer classes (i.e., the Large General Service and Large Power Service rate classes) is reduced. This is evident by the higher rates of return and relative rate of return indexes for these rate classes shown in Table 1 under the 4CP methodology. There is also a material decrease in costs allocated to the Lighting class under the 4CP 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**

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

IV. REVENUE SPREAD

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

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

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

A. Table 2 shows the change in revenues required to move retail class revenues to cost-based levels at the Company's proposed revenue requirement and utilizing the 4CP methodology to allocated demand-related production and transmission costs, as I 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				
	Present Revenues(1) ($000s)	**Proposed Revenues ($000s)**	**Increase**	
Rate Class			**($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 1.				

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

A. No, I am not. The results from the DOE's 4CP CCOS Study show that major inter-class revenue shifts are necessary to move each retail class' revenue to cost of service. However, such shifts would cause "rate shock" and customer resistance. The effect on the residential class would be especially burdensome. Therefore, I am proposing gradual movements toward cost-based rates. The goal of these gradual movements is to eventually achieve cost-based rates.

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

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

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

A. To illustrate the revenue spread that would result if the Commission accepts my gradualism approach, consider KCP&L's proposed retail revenue increase of $90.1 million. My proposed gradualism approach would cap increases at one-third more than the system average increase, or 14.4 percent, as shown in Table 3. This is the resulting increase to the residential class because of the large subsidy that class is currently receiving, and my revenue spread proposal takes a gradual step forward in reducing 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: Proposed Revenues ($000s)	Cost-Based Revenue Spread: Increase ($000s)	Cost-Based Revenue Spread: Increase (%)	Capped Revenue Spread: Proposed Revenues ($000s)	Capped Revenue Spread: Increase[(1)] ($000s)	Capped Revenue Spread: Increase[(1)] (%)
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.

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

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

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

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

		Cost-Based Revenue Spread			Capped Revenue Spread		
Rate Class	**Present Revenues ($000s)**	**Proposed Revenues ($000s)**	**Increase ($000s)**	**Increase (%)**	**Proposed Revenues ($000s)**	**Increase[(1)] ($000s)**	**Increase[(1)] (%)**
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: Proposed Revenues ($000s)	Cost-Based Revenue Spread: Increase ($000s)	Cost-Based Revenue Spread: Increase (%)	Capped Revenue Spread: Proposed Revenues ($000s)	Capped Revenue Spread: Increase[(1)] ($000s)	Capped Revenue Spread: Increase[(1)] (%)
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: Proposed Revenues ($000s)	Cost-Based Revenue Spread: Increase ($000s)	Cost-Based Revenue Spread: Increase (%)	Capped Revenue Spread: Proposed Revenues ($000s)	Capped Revenue Spread: Increase[(1)] ($000s)	Capped Revenue Spread: Increase[(1)] (%)
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.

Q. WHAT ARE YOUR CONCLUSIONS?

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

Q. DOES THIS COMPLETE YOUR DIRECT TESTIMONY?

A. Yes.

APPENDIX A

MICHAEL R. SCHMIDT

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michaelrschmidt@msn.com

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 threated 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).