

Exhibit No.:  
Issue: Rate Design/Class COS  
Witness: Michael R. Schmidt  
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Sponsoring Party: U.S. Department of Energy  
Case No.: ER-2014-0370  
Date Testimony Prepared: April 16, 2015

**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-2014-0370  
A General Rate Increase for Electric Service )

**DIRECT TESTIMONY**

**OF**

**MICHAEL R. SCHMIDT**

**ON BEHALF OF THE**

**UNITED STATES DEPARTMENT OF ENERGY**

**REPRESENTING THE FEDERAL EXECUTIVE AGENCIES**

**April 16, 2015**

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 Director  
11 of Regulatory Economics); R.W. Beck and Associates (Consultant and Manager of  
12 Analytics); and the Illinois Commerce Commission (Manager of Policy Analysis and  
13 Research). Before attending graduate school I was an Assistant Engineer at Minnesota  
14 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 gas, electric and water  
17 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 assignments with Cleco Power and Liberty  
20 Utilities, respectively. I also completed 18 months in an appointed position as Director of  
21 Utilities at the Kansas Corporation Commission.

22 My experience includes testifying in over 60 gas and electric utility pricing cases  
23 before various state commissions, the Alberta Energy Board, the Energy Regulatory

1 Board of the Philippines, the Federal Energy Regulatory Commission, the U.S. Court of  
2 Claims, the Illinois State Legislature, the Kansas State Legislature and the Superior Court  
3 of the state of Washington, and preparing countless testimony, cross-examination  
4 questions, and briefing papers for others. I have taught undergraduate and graduate level  
5 courses in public utility economics, microeconomics, macroeconomics, law and  
6 economics, managerial economics, health economics, small business development,  
7 finance, and financial management as an Adjunct Professor at Golden Gate University in  
8 San Francisco and the University of Phoenix in Sacramento, 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 Masters  
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 at  
15 the University of Wisconsin. I hold two undergraduate degrees from the University of  
16 Minnesota: a Bachelors of Arts in Business Administration with an emphasis in finance,  
17 accounting, and management; and a Bachelors of Science in Physics/Math with an  
18 emphasis in electronics, electrical theory, and mathematics.

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

1 *Implementing Retail Energy Competition: Making the Transition*, PUR, 2001; *Energy*  
2 *Services Outsourcing- the Opportunities and Challenges* (lead author), PUR, 2002. (See  
3 PUR.com). Some recent articles include: "Regulation by Formula" *Public Utilities*  
4 *Fortnightly* ("Fortnightly"), March 10, 2007, p. 15, "Earning on Conservation"  
5 *Fortnightly*, December, 2007, p. 30; "Can You ESO?" *Energy Customer Management*,  
6 November/December, 2002, p. 24; "California's Power Gamble: Long-term Contracts,  
7 Locked-in Risk" *Fortnightly*, May 15, 2001; "Some Thoughts About Load Pockets"  
8 *Fortnightly*, March 1, 1998

9 A copy of my resume can be found in Appendix A.

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

11 A. The U.S. Department of Energy ("DOE" or "Department") has been delegated the  
12 authority by the U.S. General Services Administration ("GSA") to intervene in Kansas  
13 City Power & Light ("KCPL" or "Company") electric rate cases in Missouri on behalf of  
14 federal government facilities taking service from KCPL. Large federal facilities taking  
15 service from KCPL in Missouri include: the Richard Bolling Federal Complex and  
16 Whitaker Courthouse located in downtown Kansas City, Missouri, and the Bannister  
17 Federal Complex located south of the metropolitan area. DOE under its GSA-delegated  
18 authority intervenes in several other states on behalf of the federal government. The  
19 Department adheres to the principle that electric rates should be reasonable and cost  
20 based. The Department has asked me to review the class cost of service study ("COSS")  
21 and rate design proposals submitted by KCPL with the purpose of ensuring the  
22 government is 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 the Commission adopt the four coincident  
4 peak (“4CP”) methodology to allocate demand-related production capacity costs to the  
5 various customer classes in its COSS. I also support movement toward cost based rates in  
6 this case subject to principles of gradualism which I will discuss.

7

8 **II. SUMMARY AND RECOMMENDATIONS**

9 Q. PLEASE SUMMARIZE YOUR TESTIMONY.

10 A. KCPL’s allocation of demand-related production costs within its class COSS should be  
11 made using a 4CP methodology to better align cost allocations to those rate classes who  
12 are causing KCPL to incur demand-related production costs. The average and peak  
13 (“A&P) methodology the Company proposed to allocate demand-related production costs  
14 over allocates these costs to energy intensive customers and under allocates these costs to  
15 customers who contribute significantly to the Company’s summer peak demands and  
16 who drive the Company’s need for production capacity. KCPL’s class COSS shows  
17 residential customers are being subsidized by non-residential customers who are paying  
18 above cost based rates, in some instances significantly so. Aligning cost allocation with  
19 cost causation by using the 4CP allocation methodology substantiates the subsidy  
20 identified by KCPL. Correcting the rate inequities embedded in KCPL’s present rates  
21 would require a large increase for the residential class, a large decrease for lighting  
22 customers, and smaller increases or even a decrease for KCPL’s other classes of  
23 customers. The increase required to move KCPL’s residential rates to cost based levels in

1 this case would exceed what is appropriate given the importance that should be placed on  
2 the principle of gradualism when designing rates. Therefore, I'm proposing meaningful  
3 but gradual steps toward cost-based rates in this case with the intent that additional steps  
4 toward cost based rates could be taken in KCPL's next general rate case.

5 Q. WHAT ARE YOUR RECOMMENDATIONS TO THE COMMISSION?

6 A. The Commission should use a 4CP methodology to allocate demand-related production  
7 costs in the class COSS. In addition, the Commission should cap rate increases for any  
8 particular rate class at the greater of one-third (33 percent) more than the system average  
9 percentage rate increase or three percent above the system average percentage rate  
10 increase. Class rate changes below the system average should be limited to double these  
11 levels (e.g. two thirds less than the system average) prior to any reallocation of revenues  
12 necessitated by the proposed caps on rate increases.

### 14 **III. THE ALLOCATION OF DEMAND-RELATED PRODUCTION COSTS**

15 Q. WHAT ARE DEMAND-RELATED PRODUCTION COSTS?

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

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

22 A. Results from a Commission-approved class COSS should be a principal guide in setting  
23 the revenue requirement and rates for each customer class in a general rate case. Rates

1 based upon cost to serve will provide proper price signals to customers, promote efficient  
2 electricity use and investments in electrical equipment, and avoid inter- and intra-class  
3 subsidy problems.

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

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

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

9 A. This methodology utilizes a weighted average allocation factor derived from energy- and  
10 demand-related allocation factors. KCPL used its weather normalized sales adjusted for  
11 losses and weighted by the system load factor for the energy component of the A&P  
12 allocation factor, and its 4CP allocation factor weighted by one minus the system load  
13 factor for the demand component. KCPL's Missouri jurisdiction load factor is 55.91  
14 percent. Therefore, nearly 56 percent of KCPL's demand-related production costs are  
15 being allocated to the rate classes on the basis of energy usage and only 44 percent are  
16 allocated based on peak demands.

17 Q. WHAT DOES THE COMPANY'S CLASS COST OF SERVICE STUDY  
18 SHOW?

19 A. The Company's class COSS shows that the residential class is being subsidized by non-  
20 residential customers. To put that subsidy into perspective, revenues from residential  
21 customers would have to increase by more than one and one-half times KCPL's

1 requested 15.8 percent increase to reach cost of service based upon the Company's class  
2 COSS.<sup>1</sup>

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

6 A. No. System peak demands drive the need for production capacity and customer  
7 contributions to system peaks should be the principal component of factors used to  
8 allocate fixed production costs. If production plant costs are allocated on the basis of  
9 average energy use, then low load factor customers receive the benefits of cheaper  
10 baseload (and intermediate) energy without paying a fair share of the capital costs for  
11 these plants.

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

16 A. Yes I do. Another problem arises in allocating fuel costs. KCPL allocated average  
17 monthly fuel costs on the basis of class energy use, therefore *ignoring any matching of*  
18 *fuel costs and customer energy use by capacity type*. This average cost approach to fuel  
19 cost allocation in KCPL's class COSS combined with the A&P methodology ensures that  
20 higher load factor classes pay a disproportionately large share of expensive baseload  
21 plant costs without getting the corresponding benefit of lower baseload fuel costs.  
22 KCPL's mismatch of the A&P methodology and allocated fuel costs also means that a  
23 low load factor class with predominately peak usage receives the benefit of lower

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<sup>1</sup> Direct Testimony of Tim M. Rush, Schedule TMR-7, line 900.



1 baseload fuel costs without being allocated a corresponding share of baseload plant costs.  
2 As a result, cost of service for lower load factor classes is understated in KCPL's cost  
3 study, and overstated for higher load factor classes. Thus, the principle of cost causation  
4 is violated.

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

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

9 Q. PLEASE EXPLAIN THE 4CP METHODOLOGY?

10 A. Production capacity is built (or acquired) to meet system peak demands—not average  
11 demands. Once capacity is built to meet system peaks, its fixed (sunk) costs do not  
12 change because of the intensity of its use. Therefore, how those costs are allocated must  
13 be linked to peak demands that the capacity was built to serve. KCPL is a summer  
14 peaking utility. That is, the Company experiences its maximum system peak demand  
15 sometime during the summer months of June, July, August, or September. The 4CP  
16 methodology utilizes the four coincident peak demands that occur during these months to  
17 calculate each rate class' relative share of system peaks during those months. The  
18 resulting percentages for each rate class are then multiplied by the demand-related or  
19 fixed production costs to allocate those costs to the rate classes.

20 Q. DID YOU REVISE KCPL'S MISSOURI JURISDICTION CLASS COST OF  
21 SERVICE STUDY SO THAT DEMAND-RELATED PRODUCTION COSTS  
22 WERE ALLOCATED USING A 4CP METHODOLOGY?

1 A. Yes, I ran KCPL’s class cost-of-service model using the 4CP methodology instead of  
 2 KCPL’s A&P methodology to allocate demand-related production costs to the Missouri  
 3 retail rate classes.

4 Q. WHAT DOES THE COMPANY’S CLASS COST OF SERVICE STUDY  
 5 SHOW AFTER YOU REVISED IT TO UTILIZE THE 4CP METHODOLOGY?

6 A. The Company’s assertion that the residential class is being subsidized by non-residential  
 7 customers is confirmed with the 4CP methodology. Table 1 shows the Company’s  
 8 effective rate of return for each rate class at present rates using the 4CP and A&P  
 9 methodologies. It also shows the relative rate of return index that will equal 100 if present  
 10 revenues from a rate class are in line with cost based levels prior to any adjustments to  
 11 the revenue requirement (i.e., prior to an increase that would raise the total retail return  
 12 from 5.0 percent to some higher level). In the case of the residential rate class, its rate of  
 13 return at present rates and correspondingly its relative rate of return index are the lowest  
 14 of any rate class.

**Table 1**

**Rates of Return at Present Rates**

Production Allocation Factor:	4CP		Peak & Average	
Rate Class	Rate of Return	Relative Rate of Return Index	Rate of Return	Relative Rate of Return Index
Residential	2.4%	47	3.7%	74
Small General Service	6.3%	125	7.1%	142
Medium General Service	6.4%	127	6.3%	126
Large General Service	7.9%	158	6.6%	132
Large Power Service	6.4%	128	4.2%	83
Lighting	36.3%	723	12.2%	243
Total	5.0%	100	5.0%	100

15

1           When the 4CP methodology is used to allocate demand-related production costs  
2           in KCPL's class COSS, the allocation of those costs to energy intensive customer classes  
3           (i.e., the Large General Service and Large Power Service rate classes) is reduced. This is  
4           evident by the higher rates of return and relative rate of return indexes for these rate  
5           classes shown in Table 1 under the 4CP methodology. There is also a material decrease in  
6           costs allocated to the lighting class under the 4CP methodology because this class of  
7           customers, on a relative basis, does not drive KCPL's need for production capacity. The  
8           4CP methodology accounts for this whereas the A&P methodology with its energy-based  
9           allocation factor pushes excessive production costs onto this rate class.

#### 11                                   **IV. REVENUE SPREAD**

12   Q.           HOW DID KCPL PROPOSE SPREADING ITS REQUESTED REVENUE  
13           INCREASE ACROSS RATE CLASSES?

14   A.           KCPL proposed an across-the-board revenue spread. That is, KCPL proposed that each  
15           class receive an increase equal to the proposed system average increase of 15.8 percent.  
16           However, the Company's across-the-board revenue spread does nothing to reduce the  
17           subsidy identified by the Company and substantiated by the 4CP allocation methodology.

18   Q.           WHAT INCREASES WOULD BE REQUIRED TO MOVE CLASS  
19           REVENUES TO COST BASED LEVELS?

20   A.           Table 2 shows the change in revenues required to move class revenues to cost based  
21           levels at the Company's proposed revenue requirement and utilizing the 4CP  
22           methodology to allocated demand-related production costs as I recommend. (A summary

1 of the functionalized cost based revenue requirement by rate class is shown in Schedule  
 2 DOE-MS-1.)

**Table 2**  
**Cost-Based Revenue Allocations at the**  
**Company's Proposed Revenue Requirement and**  
**Utilizing the 4CP Methodology to Allocate**  
**Demand-Related Production Costs**

Rate Class	Present Revenues (\$000s)	Proposed Revenues (\$000s)	Increase	
			(\$000s)	(%)
Residential	284,877	387,072	102,194	35.9
Small GS	48,788	52,876	4,088	8.4
Medium GS	103,188	111,686	8,498	8.2
Large GS	179,935	179,930	(5)	(0.0)
Large PS	140,093	150,303	10,211	7.3
Lighting	9,715	5,623	(4,092)	(42.1)
<b>Total</b>	<b>766,595</b>	<b>887,489</b>	<b>120,895</b>	<b>15.8</b>

3  
 4 Q. RECOGNIZING THAT TABLE 2 SHOWS THE COMPANY’S PROPOSED  
 5 REVENUE REQUIREMENT, ARE YOU RECOMMENDING THAT THE  
 6 COMMISSION ADOPT THE PERCENTAGE INCREASES THAT WOULD  
 7 BE REQUIRED TO MOVE EACH RATE CLASS TO COST BASED LEVELS?

8 A. No. The results from the DOE’s 4CP class COSS show that major inter-class revenue  
 9 shifts are necessary to move each class’ revenue to cost of service. However, such shifts  
 10 would cause “rate shock” and customer resistance. The effect on the residential class  
 11 would be especially burdensome. Therefore, I’m proposing gradual movements toward  
 12 cost based rates.

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

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

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

14 A. To illustrate the revenue spread that would result if the Commission accepts my  
15 gradualism approach, consider Staff's anticipated revenue increase of between \$82.4  
16 million and \$91.3 million inclusive of Staff's anticipated true-up.<sup>2</sup> I selected the low end  
17 of that range because it is based upon a return on equity ("ROE") of 9.0 percent, the same  
18 ROE recommendation made by DOE witness Maureen Reno.<sup>3</sup> An \$82.4 million revenue  
19 requirement increase translates into a system average increase of 10.7 percent. My  
20 proposed gradualism approach would cap increases at one-third more than the system  
21 average increase, or 14.3 percent, as shown in Table 3. That is the resulting increase to  
22 the residential class because of the large subsidy that class is currently receiving, and my

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<sup>2</sup> Direct Testimony of Cary G. Featherstone, p. 8.

<sup>3</sup> Direct Testimony of Maureen Reno, p. 6.

1 revenue spread proposal takes a gradual step forward in reducing that subsidy. My  
 2 proposal also ensures that revenue from lighting customers increases the least because  
 3 that class is the farthest from cost based rates.

**Table 3**  
**Cost-Based and Capped Revenue Spreads**  
**Using an Illustrative Revenue Requirement Increase of \$82.4 Million**

Rate Class	Present Revenues (\$000s)	Cost-Based Revenue Spread			Capped Revenue Spread		
		Proposed Revenues (\$000s)	Increase		Proposed Revenues (\$000s)	Increase <sup>(1)</sup>	
			(\$000s)	(%)		(\$000s)	(%)
Residential	284,877	370,275	85,398	30.0	325,697	40,820	14.3
Small GS	48,788	50,581	1,793	3.7	53,145	4,357	8.9
Medium GS	103,188	106,840	3,652	3.5	112,299	9,111	8.8
Large GS	179,935	172,122	(7,813)	(4.3)	195,104	15,169	8.4
Large PS	140,093	143,781	3,688	2.6	152,398	12,306	8.8
Lighting	9,715	5,379	(4,336)	(44.6)	10,336	621	6.4
<b>Total</b>	<b>766,595</b>	<b>848,978</b>	<b>82,383</b>	<b>10.7</b>	<b>848,978</b>	<b>82,383</b>	<b>10.7</b>

(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.

4

5 Q. DOES THIS COMPLETE YOUR DIRECT TESTIMONY?

6 A. Yes.

7

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-2014-0370  
A General Rate Increase for Electric Service )

AFFIDAVIT OF MICHAEL R. SCHMIDT

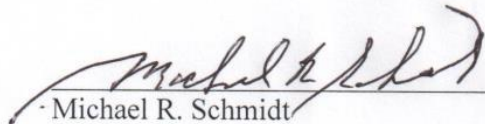
STATE OF KANSAS )  
 ) SS  
COUNTY OF SHAWNEE )

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

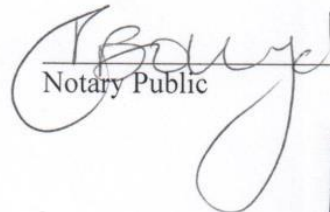
1. My name is Michael R. Schmidt. I am an independent utility industry consultant and my principal place of business is 3322 SW Rolling Ct. Topeka, Kansas 66610.

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.

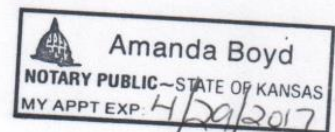
3. I hereby swear and affirm that my answers contained in the attached testimony to the questions therein propounded, including any attachments thereto, are true and accurate to the best of my knowledge, information and belief.

  
Michael R. Schmidt

Subscribed and sworn before me this 15 day of April, 2015.

  
Notary Public

My commission expires: 4/29/17



1 **APPENDIX A**

2 **MICHAEL R. SCHMIDT**

3 3322 SW Rolling Ct., Topeka, KS 66610

4 (785)783-2815 (h) or (785)817-6331 (c)

5 [michaelschmidt@msn.com](mailto:michaelschmidt@msn.com)

6  
7 **QUALIFICATIONS SUMMARY**

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

9

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

34

35 **CAREER HIGHLIGHTS**

36

37 **Self Employed Public Utility Economist**

38 **2008 – Present**

39

40 **Subcontractor to Exeter Associates, Inc., Columbia, MD**

41 **Rate Case Advisor:** Provide ratemaking services to Federal government clients

42

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

44 **Valuation Specialist:** Prepare valuation studies for various water utility clients



1  
2 **Consultant to LIBERTY UTILITIES, Oakville, Ontario**

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

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

12  
13 **Consultant to CLECO POWER, Pineville, LA**

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

17  
18 **KANSAS CORPORATION COMMISSION, Topeka, KS**

19 **2010 - 2012**

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

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

37  
38 **SEMPRA ENERGY (Southern California Gas and San Diego Gas & Electric), San Diego,**  
39 **CA**

40 **1998 – 2008 (early retirement)**

41 **Regulatory Strategy Manager (2000-2008):** As part of management at one of the largest gas  
42 and electric utilities in the country, assignments included preparing expert witness testimony  
43 and developing pricing policy alternatives including performance based ratemaking; responses  
44 to Federal and California Commission initiatives including supply planning, green house gas  
45 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 Nevada Public Service Commission 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**

1 **Associate and Manager Analytical Section**

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

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

12  
13 **ILLINOIS COMMERCE COMMISSION**

14 **Manager Policy Analysis and Research**

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

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

20  
21 **EDUCATION**

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

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

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

25 Special Program in Engineering Economy for Public Utilities - Stanford University

26 Leadership Development for Executives – University of Southern California

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

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

29  
30 **PUBLICATIONS**

31 **Published 6 books on utility issues:**

32 *Automatic Adjustment Clauses, Theory and Practice* – Michigan State University Press 1980;

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

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

35 (1999)

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

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

38 (2001)

39 *Energy Services Outsourcing - the Opportunities and Challenges* (lead author), Public Utilities

40 Reports, Inc (2002)

41 **Recent articles include:**

42 "Ratemaking by Formula," Public Utilities Fortnightly, March 2010.

43 "Earning on Conservation," Public Utilities Fortnightly, December 2007, p. 30

44 "Can You ESO?" Energy Customer Management, November/December 2002, p. 24

45 "California's Power Gamble: Long-term Contracts, Locked-in Risk," Public Utilities Fortnightly,

46 May 15, 2001

Kansas City Power & Light Company  
2015 RATE CASE - Direct  
COST OF SERVICE - Missouri Jurisdiction  
TY 3/31/14; Update 10/31/14; K&M 4/30/15

## 4CP Demand-Related Production Allocation

LINE NO.	DESCRIPTION	ALLOCATION BASIS	MISSOURI RETAIL	RESIDENTIAL	SMALL GENERAL SERVICE	MEDIUM GENERAL SERVICE	LARGE GENERAL SERVICE	LARGE POWER SERVICE	TOTAL LIGHTING
	(a)	(b)	(c)	(e)	(f)	(g)	(h)	(i)	(j)
<b>EQUALIZED RATE OF RETURN SUMMARY SCHEDULE</b>									
1	RATE OF RETURN		7.938%	7.938%	7.938%	7.938%	7.938%	7.938%	7.938%
2									
3	REVENUES REQUIRED								
4									
5	<b>DEMAND COMPONENT</b>	684,203,974	684,203,974	302,878,244	39,089,765	89,277,411	140,405,360	111,523,038	1,030,156
6	DEMAND PRODUCTION COMPONENT		511,434,693	213,442,615	28,493,331	65,492,977	110,584,564	93,322,116	99,090
7	DEMAND TRANSMISSION COMPONENT		35,960,853	14,013,792	1,878,653	4,450,638	8,329,583	6,770,975	517,211
8	DEMAND DISTRIBUTION COMPONENT		136,808,428	75,421,836	8,717,781	19,333,796	21,491,214	11,429,946	413,854
9	DEMAND DISTRIBUTION PRIMARY COMPONENT		85,407,327	39,482,719	4,543,833	11,066,900	18,941,648	10,958,373	413,854
10	<b>LOCAL FACILITIES</b>								
11	DEMAND DISTRIBUTION SECONDARY COMPONENT		38,372,175	28,503,183	3,310,360	6,558,632	0	0	0
12	DEMAND DISTRIBUTION TRANSFORMATION		13,028,927	7,435,934	863,589	1,708,265	2,549,566	471,574	0
13									
14	<b>ENERGY COMPONENT</b>		146,720,858	45,062,016	7,025,091	18,858,976	37,785,856	36,531,311	1,457,607
15									
16	<b>CUSTOMER COMPONENT</b>	56,564,608	56,564,608	39,131,365	6,760,947	3,549,668	1,738,446	2,248,687	3,135,496
17	CUSTOMER LIGHTING COMPONENT		3,135,496	0	0	(0)	(0)	0	3,135,496
18	CUSTOMER SERVICES COMPONENT		7,103,910	5,325,623	682,098	1,096,189	0	0	(0)
19	CUSTOMER METERS COMPONENT		14,161,020	8,934,228	3,351,297	906,229	515,965	453,300	0
20	CUSTOMER METER READING COMPONENT		3,139,305	2,799,161	268,392	59,336	11,464	954	0
21	CUSTOMER OTHER RECORDS & COLLECTIONS		11,882,785	10,043,991	1,234,326	563,648	39,227	1,593	0
22	CUSTOMER OTHER CUST ACCTS, SERV, INFO		14,388,012	9,498,320	1,046,223	886,484	1,164,638	1,792,347	0
23	CUSTOMER SALES COMPONENT		378,238	334,403	34,981	7,357	1,389	109	0
24	CUSTOMER MISC OTHER COMPONENT		2,375,841	2,195,639	143,630	30,425	5,764	384	0
25									
26	<b>TOTAL COMPANY</b>	887,489,440	887,489,440	387,071,625	52,875,803	111,686,055	179,929,663	150,303,036	5,623,259