BEFORE THE PUBLIC SERVICE COMMISSION OF THE STATE OF MISSOURI

In the Matter of Kansas City Power & Light	)	**File No. ER-2016-0285**
Company's Request for Authority to Implement a	)	Tariff No. YE-2017-0004
General Rate Increase for Electric Service	)	Tariff No. YE-2017-0005

REPORT AND ORDER

Issue Date: May 3, 2017

Effective Date: May 13, 2017

BEFORE THE PUBLIC SERVICE COMMISSION OF THE STATE OF MISSOURI

In the Matter of Kansas City Power & Light	)	**File No. ER-2016-0285**
Company's Request for Authority to Implement a	)	Tariff No. YE-2017-0004
General Rate Increase for Electric Service	)	Tariff No. YE-2017-0005

REPORT AND ORDER

TABLE OF CONTENTS

APPEARANCES

KANSAS CITY POWER & LIGHT COMPANY:

Robert J. Hack, Roger W. Steiner, Kansas City Power & Light Company, 1200 Main Street, 16th Floor, Kansas City, Missouri 64105.

Karl Zobrist, Dentons US LLP, 4520 Main Street, Suite 1100, Kansas City, Missouri 64111.

James W. Fischer, Fischer & Dority, 101 Madison St., Suite 400, Jefferson City, Missouri 65101.

STAFF OF THE MISSOURI PUBLIC SERVICE COMMISSION:

Kevin A. Thompson, Chief Staff Counsel, **Robert S. Berlin,** Deputy Staff Counsel, **Nicole Mers,** Assistant Staff Counsel, **Jamie Myers,** Assistant Staff Counsel, **Whitney Payne,** Assistant Staff Counsel, Post Office Box 360, Governor Office Building, 200 Madison Street, Jefferson City, Missouri 65102.

OFFICE OF THE PUBLIC COUNSEL:

Timothy Opitz, Assistant Public Counsel, PO Box 2230, Jefferson City, Missouri 65102.

MISSOURI DEPARTMENT OF ECONOMIC DEVELOPMENT- DIVISION OF ENERGY:

Brian Bear, General Counsel, PO Box 1157, Jefferson City, Missouri 65102.

MIDWEST ENERGY CONSUMERS GROUP:

David L. Woodsmall, Woodsmall Law Office, 308 E. High St., Suite 204, Jefferson City, Missouri 65101.

MISSOURI INDUSTRIAL ENERGY CONSUMERS:

Edward F. Downey, 221 Bolivar St., Suite 101, Jefferson City, Missouri 65109, and **Diana M. Vuylsteke,** 211 N. Broadway, Suite 3600, St. Louis, Missouri 63102.

UNITED STATES DEPT. OF ENERGY AND THE FEDERAL EXECUTIVE AGENCIES:

Rishi Garg, 1000 Independence Ave. SW, Rm. 6D-033, Washington, D.C., 20585. **James T. Van Biber,** Ste. 4NW419, Two Pershing Square, 2300 Main Street, Kansas City, Missouri 64108.

SIERRA CLUB:

Henry B. Robertson, Great Rivers Environmental Law Center, 319 North Fourth St., Suite 800, St. Louis, Missouri 63102.

Casey Roberts, Joseph Halso, 1536 Wynkoop St. Ste. 312, Denver, Colorado 80202.

NRDC:

Henry B. Robertson, Great Rivers Environmental Law Center, 319 North Fourth St., Suite 800, St. Louis, Missouri 63102.

RENEW MISSOURI:

Andrew Linhares, 1200 Rogers St., Ste. B, Columbia, Missouri 65201.

CONSUMERS COUNCIL OF MISSOURI:

John B. Coffman, 871 Tuxedo Blvd., St. Louis, Missouri 63119-2044.

BRIGHTERGY, LLC:

Andrew J. Zellers, General Counsel, 1712 Main St., Kansas City, Missouri 64108.

UNION ELECTRIC COMPANY d/b/a AMEREN MISSOURI:

James B. Lowery, Smith Lewis, LLP, 111 S. Ninth St., Columbia, Missouri 65201.

CITY OF KANSAS CITY, MISSOURI:

Mark W. Comley, 601 Monroe St., Suite 301, Jefferson City, Missouri 65102.

DEPUTY CHIEF REGULATORY LAW JUDGE: Ronald D. Pridgin

REPORT AND ORDER

I. Procedural History

A. Tariff Filings, Notice, and Intervention

On July 1, 2016, Kansas City Power & Light Company ("KCPL") filed tariff sheets designed to implement a general rate increase for utility service. The tariff sheets bore an effective date of July 31, 2016. In order to allow sufficient time to study the effect of the tariff sheets and to determine if the rates established by those sheets are just, reasonable, and in the public interest, the tariff sheets were suspended until May 28, 2017.

The Commission directed notice of the filings and set an intervention deadline. The Commission granted intervention requests from the following entities: The Missouri Department of Economic Development-Division of Energy ("DE"); Midwest Energy Consumers Group ("MECG"); Missouri Industrial Energy Consumers ("MIEC"); Brightergy, LLC; Sierra Club; Consumers Council of Missouri; U.S. Department of Energy and Federal Executive Agencies ("DOE); Union Electric Company d/b/a Ameren Missouri; The City of Kansas City, Missouri; Renew Missouri; and Natural Resources Defense Council ("NRDC").

B. Local Public Hearings

The Commission conducted local public hearings in Kansas City, Marshall, and Gladstone.[1]

C. Stipulations and Agreements

On February 10, 2017, KCPL, Staff, the Office of the Public Counsel ("OPC") and MECG filed a Non-Unanimous Partial Stipulation and Agreement resolving certain accounting and revenue issues ("Stipulation"). On February 22, 2017, KCPL and Staff filed

[1] Tr. Vols. 2-5.

a Non-Unanimous Stipulation and Agreement resolving pension and other post-employment benefits costs ("Second Stipulation") (together, "Stipulations"). Although the Stipulations were not signed by all parties, they became unanimous because no party filed a timely objection.[2] The Commission approved the Stipulations on March 8, 2017.

D. Evidentiary Hearing

The evidentiary hearing was held on February 6-9, 22-23 and 28, 2017.[3] A true-up hearing was held on March 16, 2017.[4]

E. Case Submission

During the evidentiary hearing and true-up hearing held at the Commission's offices in Jefferson City, Missouri, the Commission admitted the testimony of 45 witnesses, received 194 exhibits into evidence, and took official notice of certain matters. Post-hearing briefs were filed according to the post-hearing procedural schedule. The final post-hearing briefs were filed on April 4, 2017, and the case was deemed submitted for the Commission's decision on that date.[5]

[2] Commission Rule 4 CSR 240-2.115(2).
[3] Tr. Vols. 6-13.
[4] Tr. Vols. 14-15.
[5] "The record of a case shall stand submitted for consideration by the commission after the recording of all evidence or, if applicable, after the filing of briefs or the presentation of oral argument." Commission Rule 4 CSR 240-2.150(1).

II. General Matters

A. General Findings of Fact

1. Kansas City Power & Light Company ("KCPL"), founded in 1882, is a wholly-owned subsidiary of Great Plains Energy Incorporated, both of which are headquartered in Kansas City, Missouri.[6]

2. The Office of the Public Counsel ("OPC") is a party to this case pursuant to Section 386.710(2), RSMo[7], and by Commission Rule 4 CSR 240-2.010(10).

3. The Staff of the Missouri Public Service Commission ("Staff") is a party to this case pursuant to Section 386.071, RSMo, and Commission Rule 4 CSR 240-2.010(10).

4. KCPL provides electric service to approximately 527,000 customers, including approximately 465,200 residences, in the Kansas City metropolitan area and surrounding cities.[8]

5. KCPL's base load generating capacity consists of ownership in four large coal-fired generating stations that generate over 2,500 MW, the Wolf Creek nuclear power generating station, 1,200 MW of natural gas and oil-fired peaking capacity, and 749 MW of wind generating capacity.[9] KCPL has an additional 120 MW of wind generating capacity that was expected to begin at the end of 2016, and another 180 MW expected to begin before the end of 2017. KCPL operates and maintains approximately 12,000 miles of distribution lines and 1,800 miles of transmission lines to serve its customers.[10]

[6] Ex. 125, p. 3.
[7] Unless otherwise stated, all statutory citations are to the Revised Statutes of Missouri, as codified in the year 2016.
[8] Ex. 200, p. 2.
[9] Ex. 125, p. 4.
[10] *Id.*

6. The proposed tariffs filed by KCPL in this case were designed to generate an aggregate revenue increase of approximately $90.1 million, or 10.7 percent, based on the current Missouri jurisdictional base retail revenue of $836.5 million.[11] At true-up, KCPL revised its rate request to $65.15 million.[12]

7. The revenue requirement calculation can be identified by a formula as follows:[13] Revenue Requirement = Cost of Providing Utility Service or RR= O + (V - D) R where,

RR	=	Revenue Requirement;
O	=	Operating Costs; (such as fuel, payroll, maintenance, etc. Depreciation and Taxes);
V	=	Gross Valuation of Property Used for Providing Service;
D	=	Accumulated Depreciation Representing the Capital Recovery of Gross Property Investment.
(V – D)	=	Rate Base (Gross Property Investment less Accumulated Depreciation = Net Property Investment)
R	=	Overall Rate of Return or Weighted Cost of Capital
(V - D) R	=	Return Allowed on Net Property Investment.

8. A test year is a historical year used as the starting point for determining the basis for adjustments that are necessary to reflect annual revenues and operating costs in calculating any shortfall or excess of earnings by the utility. Adjustments, such as annualization and normalization, are made to the test year results when the unadjusted results do not fairly represent the utility's most current annual level of existing revenue and operating costs.[14]

9. The test year for this case is the twelve months ending December 31, 2015, updated to June 30, 2016.[15]

[11] Ex. 130, p. 5.
[12] Ex. 173, p. 1.
[13] Ex. 206, p. 6.
[14] Ex. 200, pp. 3-4.
[15] *Id.* at 3.

10. The Commission also ordered a true-up period ending December 31, 2016, in order to account for any significant changes in KCPL's cost of service that occurred after the end of the test year period but prior to the tariff operation of law date.[16]

11. A normalization adjustment is an adjustment made to reflect normal, on-going operations of the utility. Revenues or costs that were incurred in the test year that are determined to be atypical or abnormal will get specific rate treatment and generally require some type of adjustment to reflect normal or typical operations. The normalization process removes abnormal or unusual events from the cost of service calculations and replaces those events with normal levels of revenues or costs.[17]

12. An annualization adjustment is made to a cost or revenue shown on the utility's books to reflect a full year's impact of that cost or revenue.[18]

13. The Commission finds that any given witness' qualifications and overall credibility are not dispositive as to each and every portion of that witness' testimony. The Commission gives each item or portion of a witness' testimony individual weight based upon the detail, depth, knowledge, expertise, and credibility demonstrated with regard to that specific testimony. Consequently, the Commission will make additional specific weight and credibility decisions throughout this order as to specific items of testimony as is necessary.[19]

14. Any finding of fact reflecting that the Commission has made a determination between conflicting evidence is indicative that the Commission attributed greater weight to

[16] *Id.*
[17] *Id.* at 3-4.
[18] *Id.* at 4.
[19] Witness credibility is solely a matter for the fact-finder, "which is free to believe none, part, or all of the testimony". *State ex rel. Public Counsel v. Missouri Public Service Comm'n*, 289 S.W.3d 240, 247 (Mo. App. 2009).

that evidence and found the source of that evidence more credible and more persuasive than that of the conflicting evidence.[20]

B. General Conclusions of Law

KCPL is an "electrical corporation" and a "public utility" as defined in Sections 386.020(15) and 386.020(43), RSMo, respectively, and as such is subject to the personal jurisdiction, supervision, control and regulation of the Commission under Chapters 386 and 393 of the Missouri Revised Statutes. The Commission's subject matter jurisdiction over KCPL's rate increase request is established under Section 393.150, RSMo.

Sections 393.130 and 393.140, RSMo, mandate that the Commission ensure that all utilities are providing safe and adequate service and that all rates set by the Commission are just and reasonable. Section 393.150.2, RSMo, makes clear that at any hearing involving a requested rate increase the burden of proof to show the proposed increase is just and reasonable rests on the corporation seeking the rate increase. As the party requesting the rate increase, KCPL bears the burden of proving that its proposed rate increase is just and reasonable. In order to carry its burden of proof, KCPL must meet the preponderance of the evidence standard.[21] In order to meet this standard, KCPL must

[20] An administrative agency, as fact finder, also receives deference when choosing between conflicting evidence. *State ex rel. Missouri Office of Public Counsel v. Public Service Comm'n of State*, 293 S.W.3d 63, 80 (Mo. App. 2009).

[21] *Bonney v. Environmental Engineering, Inc.*, 224 S.W.3d 109, 120 (Mo. App. 2007); *State ex rel. Amrine v. Roper*, 102 S.W.3d 541, 548 (Mo. banc 2003); *Rodriguez v. Suzuki Motor Corp.*, 936 S.W.2d 104, 110 (Mo. banc 1996), citing to, *Addington v. Texas*, 441 U.S. 418, 423, 99 S.Ct. 1804, 1808, 60 L.Ed.2d 323, 329 (1979).

convince the Commission it is "more likely than not" that KCPL's proposed rate increase is just and reasonable.[22]

In determining whether the rates proposed by KCPL are just and reasonable, the Commission must balance the interests of the investor and the consumer.[23] In discussing the need for a regulatory body to institute just and reasonable rates, the United States Supreme Court has held as follows:

> Rates which are not sufficient to yield a reasonable return on the value of the property used at the time it is being used to render the services are unjust, unreasonable and confiscatory, and their enforcement deprives the public utility company of its property in violation of the Fourteenth Amendment.[24]

In the same case, the Supreme Court provided the following guidance on what is a just and reasonable rate:

> What annual rate will constitute just compensation depends upon many circumstances and must be determined by the exercise of a fair and enlightened judgment, having regard to all relevant facts. A public utility is entitled to such rates as will permit it to earn a return on the value of the property which it employs for the convenience of the public equal to that generally being made at the same time and in the same general part of the country on investments in other business undertakings which are attended by corresponding risks and uncertainties; but it has no constitutional right to profits such as are realized or anticipated in highly profitable enterprises or speculative ventures. The return should be reasonably sufficient to assure confidence in the financial soundness of the utility and should be adequate, under efficient and economical management, to maintain and support its credit and enable it to raise the money necessary for the proper discharge of its public duties. A rate of return may be reasonable at one time and become too high or too low by changes affecting opportunities for investment, the money market and business conditions generally.[25]

---

[22] *Holt v. Director of Revenue, State of Mo*., 3 S.W.3d 427, 430 (Mo. App. 1999); *McNear v. Rhoades*, 992 S.W.2d 877, 885 (Mo. App. 1999*); Rodriguez v. Suzuki Motor Corp*., 936 S.W.2d 104, 109-111 (Mo. banc 1996); *Wollen v. DePaul Health Center*, 828 S.W.2d 681, 685 (Mo. banc 1992).
[23] *Federal Power Commission v. Hope Natural Gas Co.*, 320 U.S. 591, 603, (1944).
[24] *Bluefield Water Works & Improvement Co. v. Public Service Commission of the State of West Virginia*, 262 U.S. 679, 690 (1923).
[25] *Bluefield,* at 692-93.

The Supreme Court has further indicated:

> '[R]egulation does not insure that the business shall produce net revenues.' But such considerations aside, the investor interest has a legitimate concern with the financial integrity of the company whose rates are being regulated. From the investor or company point of view it is important that there be enough revenue not only for operating expenses but also for the capital costs of the business. These include service on the debt and dividends on the stock. By that standard the return to the equity owner should be commensurate with returns on investments in other enterprises having corresponding risks. That return, moreover, should be sufficient to assure confidence in the financial integrity of the enterprise, so as to maintain its credit and to attract capital.[26]

In undertaking the balancing required by the Constitution, the Commission is not bound to apply any particular formula or combination of formulas. Instead, the Supreme Court has said:

> Agencies to whom this legislative power has been delegated are free, within the ambit of their statutory authority, to make the pragmatic adjustments which may be called for by particular circumstances.[27]

Furthermore, in quoting the United States Supreme Court in *Hope Natural Gas*, the Missouri Court of Appeals said:

> [T]he Commission [is] not bound to the use of any single formula or combination of formulae in determining rates. Its rate-making function, moreover, involves the making of 'pragmatic adjustments.' … Under the statutory standard of 'just and reasonable' it is the result reached, not the method employed which is controlling. It is not theory but the impact of the rate order which counts.[28]

[26] *Federal Power Commission v. Hope Natural Gas Co.,* 320 U.S. 591, 603 (1944) (citations omitted).
[27] *Federal Power Commission v. Natural Gas Pipeline Co*. 315 U.S. 575, 586 (1942).
[28] *State ex rel. Associated Natural Gas Co. v. Pub. Serv. Comm'n*, 706 S.W. 2d 870, 873 (Mo. App. W.D. 1985).

III. Disputed Issues

A. Commission issues

1. *Installation of AMI smart meters for residential and commercial customers*
2. *Plug-in Electric Vehicle Rate*
3. *Optional Residential Time-of-Use rates (hourly) and Time-of-Day rates*
4. *PACE-Property Assessed Clean Energy Programs*
5. *PAYS-Pay As You Save Programs*
6. *Infrastructure Efficiency Tariff*

Findings of Fact

15. Demand response rates (sometimes also called "time-differentiated rates") include a broad category of rate designs. In general, these rates are used as part of a strategy to promote customer control of usage and shift or reduce peak demand.[29]

16. In general, Time-of-Use ("TOU") and Time-of-Day ("TOD") rates define certain time periods as "on-peak" or "off-peak" (and perhaps "shoulder"), with charges that vary depending on these time periods.[30]

17. For optional Residential Time-of-Use rates (hourly) and Time-of-Day rates, KCPL and Staff are working to design a program as follows:

> - Identify a number of premises served on a given distribution circuit, preferably one that is experiencing load growth from existing premises, as opposed to one experiencing load growth due to additions of additional premises taking service;
>
> - Install double-read meters consistent with a pre-determined program budget;
>
> - Customers in the study area would continue to be billed on the applicable rate using a manual billing process, but a peak time rebate would be developed and credited against bills. Specific times for the rebate would depend on the load characteristics of the studied circuit, but late afternoon and early evening hours during the summer would be anticipated to be the applicable time period. This also coincides

[29] Ex. 800, p.6.
[30] *Id.*

with above-average market prices for energy, and the time of day and year typically associated with RTO capacity requirements;

- Study whether the application of a peak time rebate had an impact on delaying the need for distribution system upgrades. The needs of adequately serving the impacted customers would come before the prioritization of this study, such that any necessary upgrades would be made and not unreasonably delayed.[31]

18. Property Assessed Clean Energy ("PACE") financing is designed to make payments for home improvement energy efficiency measures affordable by offering a fixed interest rate that is payable over an extended period of time. With residential PACE programs, home improvement energy efficiency measures such as HVAC, solar, windows and doors, roofing, air sealing and insulation are permanently installed and assessed to the property, and the assessment is designed to transfer with the home.[32]

19. Pay As You Save® ("PAYS®") is a market-based system that enables utility customers to purchase and install cost-effective energy efficiency upgrades or distributed renewable energy assets through a voluntary program that assures immediate net savings to customers. The idea behind PAYS® is for energy-saving upgrades to be installed in a customer's home or building, but the utility pays the up-front cost of the installed energy-saving measures. To recover its costs, the utility puts a fixed charge on the customer's electric bill that is significantly less than the estimated energy savings from the upgrades. Therefore, the customer sees immediate savings by incurring less expense for energy while paying a fixed charge that is below the total estimated energy savings. Once the utility recovers its costs, the obligation of the customer to pay ends.[33]

[31] *Id*. at 8.
[32] Ex. 203, p. 9.
[33] *Id*. at 10, 11.

20. Currently there are no Missouri investor owned utilities participating in the PAYS® system. As a result of the Missouri Energy Efficiency Investment Act (**"**MEEIA**"**) statewide collaborative process, the idea of on-bill financing is being researched and evaluated.[34]

21. The Commission's directed inquiry for an infrastructure tariff is specifically focused on geographically-specified cost causation. This requires a level of data not currently available to Staff, and a set of assumptions not typically made in designing rates.[35]

22. As discussed in its report in File No. EW-2016-0041, and consistent with GMO's expressed desire in File No. ER-2016-0156 for consistency in facility extension tariff provisions across the KCPL and GMO certificated areas, Staff recommends that KCPL modify its facility extension tariff provisions to more fully consider the incremental costs a customer causes to a system in determining how much, if any, customer advance is required.[36]

Conclusions of Law

No additional Conclusions of Law are required for this issue.

Decision

The Commission orders KCPL to consider whether to incorporate PACE and PAYS® programs in its next Missouri Energy Efficiency Investment Act ("MEEIA") filing. KCPL shall also replace its current line extension tariff with one that is identical to or substantially similar to the line extension tariff used by GMO. In its next rate case, KCPL

[34] *Id*. at 11.
[35] *Id*. at 15.
[36] *Id*.

shall file a line extension tariff designed to account for geographic areas where there is underutilized distribution infrastructure**.**

B. Cost of capital

Findings of Fact

1. Return on equity

23. An essential ingredient of the cost-of-service ratemaking formula is the rate of return, which is premised on the goal of allowing a utility the opportunity to recover the costs required to secure debt and equity financing. In order to arrive at a rate of return, the Commission must examine an appropriate ratemaking capital structure, KCPL's embedded cost of debt, and KCPL's cost of common equity.[37]

24. A utility's cost of common equity is the return investors require on an investment in that company. Investors expect to achieve their return by receiving dividends and through stock price appreciation. To comply with standards established by the United States Supreme Court, the Commission must authorize a return on equity sufficient to maintain financial integrity, attract capital under reasonable terms, and be commensurate with returns investors could earn by investing in other enterprises of comparable risk. [38]

25. Financial analysts use variations on three generally accepted methods to estimate a company's fair rate of return on equity. The Discounted Cash Flow ("DCF") method is based on a theory that a stock's current price represents the present value of all expected future cash flows. In its simplest form, the Constant Growth DCF model expresses the cost of equity as the discount rate that sets the current price equal to

[37] Ex. 200, p. 9.
[38] *Id*. at 10.

expected cash flows.[39] The analysts also use variations of the DCF model including the multi-stage growth DCF and the sustainable growth DCF.[40]

26. The Risk Premium method is based on the principle that investors require a higher return to assume a greater risk. Common equity investments have greater risk than bonds because bonds have more security of payment in bankruptcy proceedings than common equity, and the coupon payments on bonds represent contractual obligations.[41]

27. The Capital Asset Pricing Method ("CAPM") assumes the investor's required rate of return on equity is equal to a risk-free rate of interest plus the product of a company-specific risk factor, beta, and the expected risk premium on the market portfolio.[42]

28. No one method is any more correct than any other method in all circumstances. Analysts balance their use of all three methods to reach a recommended return on equity.[43]

29. Three financial analysts used these models, and offered recommendations regarding an appropriate cost of capital in this case. Robert B. Hevert testified on behalf of KCPL. Hevert is Partner at Scott Madden, Inc.[44] He holds a Bachelor of Science degree in Finance from the University of Delaware and a Master of Business Administration with a concentration in finance from the University of Massachusetts. He also holds the Chartered Financial Analyst designation.[45]

[39] Ex. 127, p. 16.
[40] Ex. 650, pp. 30-32.
[41] *Id.* at 40.
[42] *Id.* at 47.
[43] Ex. 127, pp. 11, 15-16.
[44] *Id.*, Attachment A.
[45] Ex. 127, p. 1.

30. Hevert recommends the Commission allow KCPL a return on equity of 9.9 percent, within a recommended range of 9.75 percent to 10.50 percent.[46]

31. Michael Gorman testified on behalf of Missouri Industrial Energy Consumers ("MIEC") and Midwest Energy Consumers Group ("MECG"). Gorman is a consultant in the field of public utility regulation and is a managing principal of Brubaker & Associates. He holds a Bachelor of Science degree in Electrical Engineering from Southern Illinois University and a Master's Degree in Business Administration with a concentration in Finance from the University of Illinois at Springfield.[47]

32. Gorman recommends the Commission allow KCPL a return on equity of 9.20 percent, within a recommended range of 8.90 percent to 9.50 percent.[48]

33. Mr. Gorman's analysis reflects the most recent events that have occurred in the financial markets. As Mr. Gorman testified about his analysis:

> "It was only recently that the Federal Funds rate did increase interest rates, in December 2016, by 25 basis points. That change, along with the change in Administration, did have an impact on utilities' security valuations. However, since that change was made on December 14, those valuations were reflected in my updated analysis and recommended return on equity range of 8.9% to 9.5% as outlined in my rebuttal testimony."[49]

34. J. Randall Woolridge testified on behalf of Staff. Wooldridge is employed as a Professor of Finance and the Goldman, Sachs & Co. and Frank P. Smeal Endowed Faculty Fellow in Business Administration in the College of Business Administration of the Pennsylvania State University. Wooldrige holds a Bachelor of Arts degree in Economics from The University of North Carolina, a Master of Business Administration from

[46] *Id.* at 60.
[47] Ex. 650, p. 1; Attachment A.
[48] Ex. 651, p. 2; Tr. Vol. 7, p. 234.
[49] Ex. 652, pp. 6-7.

Pennsylvania State University, and a Doctor of Philosophy degree in Business Administration from The University of Iowa.[50]

35. Woolridge recommends a return on equity of 8.65 percent, within a range of 7.90 percent to 8.75 percent.[51]

36. The Commission realizes that KCPL must compete with other utilities all over the country for the same capital. Therefore, the industry authorized return on equity provides a reasonableness test for the recommendations offered by the return on equity experts. A comparison of industry authorized returns on equity for electric utilities indicates that they have decreased every year since 2009. In calendar year 2016, the industry average authorized return on equity for fully litigated cases was 9.74 percent.[52] Thus, the "zone of reasonableness" for KCPL's return on equity would be 8.74 percent to 10.74 percent.[53]

37. Some utilities obviously will earn more than that average. Florida Power and Light recently was authorized a return of 10.55 percent. The North Carolina and South Carolina Commissions also recently authorized returns on equity of 9.9 and 10.1 percent, respectively. Capital will flow from lower ROE utilities to the higher.[54]

38. The lower range of Mr. Hevert's recommendation (9.75 percent) and the upper range of Mr. Gorman's recommendation (9.50 percent) are close to the average ROE authorized in 2016 by state utility commissions.[55]

[50] Ex. 200, Appendix 1, p. 57.
[51] Ex. 200, p. 43.
[52] Ex. 155, p. 6.
[53] *State ex rel. Public Counsel v. Public Service Commission*, 274 S.W.3d 569, 574 (Mo. App. 2009).
[54] Tr. Vol. 7, pp. 129-30.
[55] Ex. 155, pp. 1, 6.

39. In fact, Mr. Gorman's Risk Premium analysis shows KCPL should receive a 9.5% ROE.[56]

40. The market evidence shows that authorized returns on equity for most integrated electric utility companies has been around 9.5 percent in 2016.[57]

41. For further guidance on a proper return on equity for KCPL, the Commission notes that it awarded KCPL a return on equity of 9.5 percent in its last rate case.[58]

42. The Commission's last ROE award to KCPL is in line with the Kansas Commission's recent award of a 9.3 ROE.[59]

2. Capital structure

43. KCPL proposes to use its capital structure of 49.72% common equity and 50.28% long-term debt as of the end of the true-up period.[60]

44. In past rate cases, KCPL and its affiliate, KCPL Greater Missouri Operations Company ("GMO"), have both proposed the use of Great Plains Energy's ("GPE") consolidated capital structure for ratemaking purposes.[61]

45. Rating agencies such as Standard and Poor's ("S&P") assign credit ratings to both KCPL and GMO based on GPE's consolidated financial and business risk profile.[62]

[56] Ex. 651, p. 29.
[57] Tr. Vol. 7, p. 265.
[58] Report and Order, *In the Matter of Kansas City Power & Light Company's Request for Auth. to Implement A Gen. Rate Increase for Elec. Serv. & In the Matter of KCP&L Greater Missouri Operations Company's Request for Auth. to Implement A Gen. Rate Increase for Elec. Serv.*, ER-2014-0370, 2015 WL 5244724, p. 22 (Sept. 2, 2015).
[59] *Order on KCPL's Application for Rate Change*, Case No. 15-KCPE-116-RTS, p. 16 (September 10, 2015).
[60] Ex. 106, pp. 3-4; Ex,. 172, p. 2.
[61] Ex. 220, p. 2; Ex. 221, pp. 1, 5.
[62] Ex. 220, p. 2; Tr. Vol. 14, p. 1778.

46. There are no meaningful insulation measures in place that protect KCPL and GMO from their parent and therefore, KCPL's and GMO's issuer credit ratings are in line with GPE's group credit profile of "bbb+."[63]

47. Furthermore, GPE operates KCPL and GMO as a consolidated entity for GPE's advantage. This is demonstrated by GPE's use of KCPL's and GMO's dividends.[64]

48. One danger of using a subsidiary capital structure for ratemaking is that the holding company may artificially create an equity-rich subsidiary capital structure to create value for shareholders.[65]

49. The capital structure and cost of debt KCPL proposes are also inappropriate because they do not reflect how GPE intends to be capitalized for the foreseeable future.[66]

50. As of June 30, 2016, GPE's capital structure includes 50.41 percent long-term debt, 0.52 percent preferred stock, and 49.07 percent common equity. Adjusting these amounts for KCPL's redemption of the preferred stock in August, 2016, and allocating the preferred stock equally to long-term debt and common equity, the proper capital structure is 50.8 percent long-term debt and 49.2 percent common equity.[67]

3. Cost of debt

51. GPE's and KCPL's proposed cost of debt of 5.51 percent is upwardly biased due to their blending of the yield-to-maturity and simple interest/amortization methods. Blending those methods causes a double counting of issuance expenses, discounts and

[63] Ex. 221, p.4.
[64] Ex. 220, pp. 8-9; Ex. 221, p. 9.
[65] Ex. 220, pp. 3-4.
[66] Ex. 249, p. 2.
[67] *Id*. at 23.

premiums. After correcting this error, GPE's cost of debt is 5.42 percent as of June 30, 2016.[68]

52. Staff's proposed Cost of Debt of 5.42 percent, which is GPE's consolidated Cost of Debt as of June 30, 2016, is calculated correctly, with no double counting.[69]

53. KCPL claims that because GMO issues its own debt, then KCPL's subsidiary capital structure should be used because the debt issuance is evidence of separate financial management.[70]

54. The reality is that GPE has used KCPL's credit capacity to issue debt on behalf of GMO.[71]

55. Further, a lower cost of debt is appropriate because KCPL's ratepayers helped to subsidize GPE's acquisition of GMO.[72]

Conclusions of Law

In order to set a fair rate of return for KCPL, the Commission must determine the weighted cost of each component of the utility's capital structure. One component at issue in this case is the estimated cost of common equity, or the return on equity. Estimating the cost of common equity capital is a difficult task, as academic commentators have recognized.[73] Determining a rate of return on equity is imprecise and involves balancing a utility's need to compensate investors against the need to keep prices low for consumers.[74]

[68] *Id*. at App. 2, Ex. JRW-1; Ex. 220, p. 14.
[69] *Id*. at 14.
[70] Ex. 221, p. 1.
[71] Id. at 2.
[72] Ex. 221, p. 10.
[73] See Phillips, *The Regulation of Public Utilities*, Public Utilities Reports, Inc., p. 394 (1993).
[74] *State ex rel. Pub. Counsel v. Pub. Serv. Comm'n*, 274 S.W.3d 569, 574 (Mo. App. 2009).

Missouri court decisions recognize that the Commission has flexibility in fixing the rate of return, subject to existing economic conditions.[75] "The cases also recognize that the fixing of rates is a matter largely of prophecy and because of this commissions, in carrying out their functions, necessarily deal in what are called 'zones of reasonableness', the result of which is that they have some latitude in exercising this most difficult function."[76] Moreover, the United States Supreme Court has instructed the judiciary not to interfere when the Commission's rate is within the zone of reasonableness.[77]

Decision

The Commission finds that KCPL's current cost of equity is 9.5 percent. This return on equity is at the top of Mr. Gorman's range, near the bottom of Mr. Hevert's range, and near the average return on equity awards for 2016.

The Commission has considered other factors, such as recent indicators of growth that may suggest an increased return, and the reduction of investment risk to KCPL by approving a fuel adjustment clause, which suggests a reduced return. However, based on the competent and substantial evidence in the record, on its analysis of the expert testimony offered by the parties, and on its balancing of the interests of the company's ratepayers and shareholders, the Commission concludes that 9.5 percent is a fair and reasonable return on equity for KCPL. This rate of return will allow KCPL to compete in the capital market for the funds needed to maintain its financial health.

---

[75] *State ex rel. Laclede Gas Co. v. Public Service Commission*, 535 S.W.2d 561, 570-571 (Mo. App. 1976).
[76] *Id.* In fact, for a court to find that the present rate results in confiscation of the company's private property, that court would have to make a finding based on evidence that the present rate is outside of the zone of reasonableness, and that its effects would be such that the company would suffer financial disarray.
[77] *State ex rel. Public Counsel v. Public Service Commission*, 274 S.W.3d 569, 574 (Mo. App. 2009). *See, In re Permian Basin Area Rate Cases,* 390 U.S. 747, 767, 88 S.Ct. 1344, 20 L.Ed.2d 312 (1968) ("courts are without authority to set aside any rate selected by the Commission [that] is within a 'zone of reasonableness' ").

The Commission further finds that using GPE's consolidated capital structure and cost of debt of 5.42 per cent as calculated by Staff are appropriate for determining KCPL's rate of return. This was—and continues to be—the most appropriate option because rating agencies such as assign credit ratings to both KCPL and GMO based on GPE's consolidated financial and business risk profile. It is GPE's capital structure and cost of debt that rating agencies and, thus, investors use to determine whether to invest in KCPL.

C. Fuel adjustment clause

1. Has KCPL met the criteria for the Commission to authorize it to continue to have an FAC?

2. Should the Commission authorize KCPL to continue to have an FAC?

Findings of Fact

56. The Commission first authorized a Fuel Adjustment Clause ("FAC") for KCPL in its *Report and Order* in File No. ER-2014-0370. The tariff sheets implementing the FAC became effective September 29, 2015. The current case is the first KCPL rate case after Commission authorization of KCPL's FAC. KCPL requests to continue the same FAC in this rate case.[78]

57. The primary features of KCPL's present FAC include:

- Two 6-month accumulation periods: January through June and July through December;
- Two 12-month recovery periods: October through September and April through March;
- Two Fuel Adjustment Rate ("FAR") filings annually, not later than February 1 and August 1;
- A 95%/5% sharing mechanism;

[78] Ex. 200, p. 161.

> • FARs for individual service classifications are rounded to the nearest $0.00001, and charged on each applicable kWh billed;
>
> • True-up of any over- or under-recovery of revenues following each recovery period with true-up amounts being included in determination of FARs for a subsequent recovery period; and,
>
> • Prudence reviews of the costs subject to the FAC shall occur no less frequently than every eighteen months.[79]

58. KCPL's Actual Net Energy Costs continue to be relatively large. KCPL's proposed Base Energy Cost in this case represents 37 percent of KCPL's total cost to be recovered in rates. These costs continue to be volatile and beyond KCPL's control.[80]

59. Even with forecasts, coal prices are uncertain.[81]

60. OPC generally does not think the Commission should grant FACs.[82]

61. However, no party, not even OPC, advocates that KCPL should not have an FAC in this case.[83]

Conclusions of Law

A fuel adjustment clause ("FAC") is a mechanism established in a general rate case that allows periodic rate adjustments, outside a general rate proceeding, to reflect increases and decreases in an electric utility's prudently incurred fuel and purchased power costs.[84]

Section 386.266.1, RSMo, allows the Commission to continue an FAC for KCPL. Commission Rule 4 CSR 240-20.090(2)(C) states, in part, that:

---

[79] *Id*. at 161-62.
[80] Ex. 200, p. 164; Ex. 103HC, pp. 21-24.
[81] Tr. Vol. 10. p. 657.
[82] *Id* . at 632.
[83] Brief of the Office of Public Counsel, p. 5 (filed March 22, 2017) (in which OPC recommends the Commission order an FAC for KCPL).
[84] Commission Rule 4 CSR 240-20.090(1)(C).

> In determining which cost components to include in a RAM[85], the commission will consider, but is not limited to only considering, the magnitude of the costs, the ability of the utility to manage the costs, the volatility of the cost component and the incentive provided to the utility as a result of the inclusion or exclusion of the cost component.

Decision

The evidence shows that KCPL's fuel and transportation costs are of such a magnitude that they would materially impact the utility, that those fuel costs are beyond the control of KCPL's management, and that its fuel costs are volatile. In addition, per statute an FAC must be "reasonably designed to provide the utility with a sufficient opportunity to earn a fair return on equity".[86]

Permitting KCPL to continue its current FAC will assist the company in earning its authorized return on equity. The Commission concludes that KCPL has met the criteria for the Commission to authorize an FAC and, therefore, KCPL should be allowed to continue to have a fuel adjustment clause.

3. What costs should flow through KCPL's FAC?

4. What revenues should flow through KCPL's FAC?

Findings of Fact

62. KCPL has agreed that it will not request recovery of any administration charges**,** such as those assessed by Southwest Power Pool ("SPP**"**), or any Federal Energy Regulatory Commission ("FERC") or North American Electric Reliability Corporation (**"**NERC") assessment charges. It has further agreed that its FAC shall only recover SPP transmission expenses and any non-SPP transmission expenses calculated in the manner

[85] A "RAM" is a rate adjustment mechanism.
[86] Section 386.266 RSMo.

that was ordered in the Company's last rate case, which were termed "true purchased power costs."[87]

63. Fuel additives are currently in KCPL's FAC.[88]

64. OPC argues for "the purest definition of fuel and transportation costs" that would exclude a variety of essential elements to KCPL's FAC.[89]

65. Such a definition would be contrary to costs identified in the five subaccounts to FERC's Uniform System of Accounts ("USoA") 501 ("Fuel") currently contained in KCPL's FAC definition of fuel costs.[90]

66. OPC's proposed definition of Fuel would also mean that KCPL would be required to stop using the inventory cost of fuel system. The inventory cost is how KCPL and all other utilities subject to the USoA currently track fuel costs.[91]

67. Rather than simplify the FAC or reduce the likelihood of errors, such a change as proposed by OPC would increase the complexity of FAC accounting and require deviations from standard USoA procedures.[92]

68. The Integrated Marketplace ("IM") consists of an energy component and an operating reserve component. Those components provide ancillary services that "are required to be carried for the sake of ensuring that load is served."[93]

69. KCPL sells and purchases power "24 hours a day, 7 days a week".[94]

[87] Brief of Kansas City Power & Light Company, pp. 24-25 (filed March 22, 2017). *See also* Order Approving Non-Unanimous Stipulation and Agreement (March 8, 2017).
[88] Tr. Vol. 8, p. 482.
[89] Ex. 305, p. 6.
[90] Ex. 142, Sch. TMR-3, p. 2.
[91] Ex. 126, pp. 8-9.
[92] *Id.* at 9-10.
[93] Tr. Vol. 8, pp. 442-43.
[94] *Id.* at 451; 510.

70. This demonstrates how all of the SPP IM costs and revenues are "inextricably joined" to permit purchase power and sales to be reflected in the FAC.[95]

71. Contrary to what OPC would prefer, Commission approved FACs include much more than just energy and capacity.[96]

72. In fact, the Commission may order features in a rate schedule designed to give incentives to improve efficiency and effectiveness of fuel and purchase power procurement activities. Those procurement activities include negotiating contracts for coal, natural gas, uranium, and oil to generate electricity.[97]

73. Staff recommends no change to the current costs and revenues flowing through the FAC.[98]

Conclusions of Law

No additional Conclusions of Law are required for this issue.

Decision

The Commission understands OPC's philosophical objection to Fuel Adjustment Clauses. However, the Commission is persuaded by Staff's testimony that KCPL's current FAC is working, and working well.[99] Thus, the Commission will allow KCPL to continue to flow costs and revenues through its FAC as it is doing through its current FAC.

[95] Ex. 148, p. 9.
[96] Tr. Vol, 10, pp. 642-43.
[97] *Id*. at 662.
[98] Ex. 226, p. 2; *see also* Tr. Vol. 8, p. 395.
[99] Tr. Vol. 8, p. 395.

5. What is the appropriate sharing mechanism of the difference between actual and base fuel costs in KCPL's FAC?

Findings of Fact

74. OPC proposes that the sharing mechanism in KCPL's FAC should be changed from its current 95%/5% allocation method to a 90%/10% method.[100]

75. Under the current system, customers are permitted to keep only 95 percent of any decreases in fuel costs, while KCPL's recovery of additional costs is limited to 95 percent. No other electric utility in Missouri operates under OPC's proposed 90/10 FAC formula.[101]

76. Indeed, the vast majority of electric utilities in the United States are permitted to reconcile recoveries within their FACs at the 100 percent level.[102]

Conclusions of Law

Under Missouri law, the Commission is authorized to approve rate schedules for an FAC and may include "features designed to provide the electrical corporation with incentives to improve the efficiency and cost-effectiveness of its fuel and purchased-power procurement activities".[103]

Decision

The Commission finds that allowing KCPL to keep its 95%/5% sharing mechanism is appropriate. Under this mechanism, customers would be responsible for, or receive the benefit of, 95 percent of any deviation in fuel and purchased power costs.

[100] Ex. 305, pp. 25-26.
[101] Ex. 143, pp. 44-45.
[102] *Id*. at 45.
[103] Section 386.266.1, RSMo.

That, in turn, would provide KCPL a sufficient opportunity to earn a fair return on equity, while protecting KCPL's customers by providing the company an incentive to control costs. KCPL's FAC shall include an incentive clause providing that 95 percent of any deviation in fuel and purchased power costs from the base level shall be passed to customers and 5 percent shall be retained by KCPL.

6. What FAC-related reporting requirements should the Commission impose?

Findings of Fact

77. KCPL's current FAC tariff requires costs to be identified by a three-digit FERC prime account, and as a six digit subaccount.[104]

78. In contrast, OPC's proposal would also require KCPL to list over 200 resource codes in its FAC.[105]

79. KCPL and Staff agree on the following reporting requirements, which are in KCPL's current FAC:[106]

> • As part of the information KCPL submits when it files a tariff modification to change its Fuel and Purchased Power Adjustment rate, include KCPL's calculation of the interest included in the proposed rate in electronic format with formulas intact;
>
> • Maintain at KCPL's corporate headquarters or at some other mutually-agreed-upon place and make available within a mutually-agreed-upon time for review by Staff, a copy of each and every coal and coal transportation, natural gas, fuel oil and nuclear fuel contract KCPL has that is in or was in effect for the previous four years;
>
> • Within 30 days of the effective date of each and every coal and coal transportation, natural gas, fuel oil and nuclear fuel contract KCPL enters into, provide notice to the Staff of the contract and opportunity

[104] Tr. Vol. 9, p. 662.
[105] *Id.* at 664-65.
[106] Ex. 200, p, 161, 170-71.

to review the contract at KCPL's corporate headquarters or at some other mutually-agreed-upon place;

- Provide a copy of each and every KCPL hedging policy that is in effect at the time the tariff changes ordered by the Commission in this rate case go into effect for Staff and OPC to retain;

- Within 30 days of any change in a KCPL hedging policy, provide a copy of the changed hedging policy for Staff and OPC to retain;

- Provide a copy of KCPL's internal policy for participating in the Southwest Power Pool's Integrated Market to Staff and OPC;

- Maintain at KCPL's corporate headquarters or at some other mutually-agreed-upon place and make available within a mutually-agreed-upon time for review by Staff a copy of each and every bilateral energy or demand sales/purchase contract;

- If KCPL revises any internal policy for participating in the Southwest Power Pool, within 30 days of that revision, provide a copy of the revised policy with the revisions identified for Staff and OPC to retain; and

- The monthly as-burned fuel report supplied by KCPL required by 4 CSR 3.190(1)(B) shall explicitly designate fixed and variable components of the average cost per unit burned including commodity, transportation, emission, tax, fuel blend, and any additional fixed or variable costs associated with the average cost per unit reported.

80. OPC presented credible evidence that further reporting requirements would be appropriate; namely, requirements that KPCL report FAC costs and revenues by subaccount, and that KCPL's reporting be done in accordance with FERC Order 668.[107]

Conclusions of Law

No additional Conclusions of Law are required for this issue.

[107] Ex. 306, pp. 22-23.

Decision

OPC wants the same information that KCPL supplies to Staff. Staff agrees that OPC should be entitled to that information. Thus, the Commission will order KCPL to provide it.

But, the Commission agrees that some of OPC's requests may interfere with Staff's autonomy to meet and work with KCPL. As such, OPC's requests to be included in Staff's meetings with KCPL to discuss FAC matters will be denied.

Finally, Staff notes that it does not object to OPC's request for KCPL to report KCPL's report information as required by FERC Order 668. But, Staff requests the Commission order KCPL to continue to also report in a manner consistent with KCPL's FAC Rider. The Commission will grant that request.

KCPL's reporting requirements shall be as follows:

- As part of the information KCPL submits when it files a tariff modification to change its Fuel and Purchased Power Adjustment rate, include KCPL's calculation of the interest included in the proposed rate in electronic format with formulas intact;

- Maintain at KCPL's corporate headquarters or at some other mutually-agreed-upon place and make available within a mutually-agreed-upon time for review by Staff and OPC, separately or together, a copy of each and every coal and coal transportation, natural gas, fuel oil and nuclear fuel contract KCPL has that is in or was in effect for the previous four years;

- Within 30 days of the effective date of each and every coal and coal transportation, natural gas, fuel oil and nuclear fuel contract KCPL enters into, provide both notice to the Staff and OPC of the contract and opportunity for each, separately or together to review the contract at KCPL's corporate headquarters or at some other mutually-agreed-upon place;

- Provide a copy of each and every KCPL hedging policy that is in effect at the time the tariff changes ordered by the Commission in this rate case go into effect for Staff and OPC to retain;

- Within 30 days of any change in a KCPL hedging policy, provide a copy of the changed hedging policy for Staff and OPC to retain;

- Provide a copy of KCPL's internal policy for participating in the Southwest Power Pool's Integrated Market to Staff and OPC;

- Maintain at KCPL's corporate headquarters or at some other mutually-agreed-upon place and make available within a mutually-agreed-upon time for review by Staff and OPC, separately or together, a copy of each and every bilateral energy or demand sales/purchase contract;

- If KCPL revises any internal policy for participating in the Southwest Power Pool, within 30 days of that revision, provide a copy of the revised policy with the revisions identified for Staff and OPC to retain;

- The monthly as-burned fuel report supplied by KCPL required by 4 CSR 3.190(1)(B) shall explicitly designate fixed and variable components of the average cost per unit burned including commodity, transportation, emission, tax, fuel blend, and any additional fixed or variable costs associated with the average cost per unit reported (Staff is willing to work with KCPL on the electronic format of this report);

- KCPL's monthly FAC report shall include the FAC costs and revenues by subaccount for that month and the twelve months ending that month; and

- Purchased power costs and off-system sales revenues provided in all FAC filings and report submissions shall be in accordance with FERC order 668 and the Commission's definition of purchased power costs and off-system sales revenue. The Commission shall also require KCPL to continue reporting Purchased Power ("PP"), Transmission Costs ("TC) and Revenue from Off-System Sales ("OSSR") in a manner consistent with the Rider FAC approved by the Commission in this case.

7. What is the appropriate base factor?

Findings of Fact

81. As recommended by Staff's witness Ashley Sarver**,** KCPL's updated information regarding Revenue Requirement for coal and freight (less test year unit trains, depreciation, and property taxes), purchased power energy, percentage of purchased

power, sales for resale (non-firm) off system sales, and net system input shows that the appropriate base factor should be $0.01545.[108]

Conclusions of Law

No additional Conclusions of Law are required for this issue.

Decision

The Commission finds that the appropriate base factor is $0.01545.

8. Should the Commission direct the parties to determine baseline heat rates for each of the utility's nuclear and non-nuclear generators, steam and combustion turbines and heat recovery steam generators?

Findings of Fact

82. KCPL included credible heat rate test results in its evidence.[109]

83. Staff investigated, and found KCPL had complied with the Commission's rules on heat rate testing.[110]

84. The Commission rule on heat rate testing does not require KCPL to set a baseline. The rule requires KCPL to supply the heat rate test results within its filing, which it has done.[111]

[108] Ex. 253, pp. 1-2.
[109] Ex. 116, p. 14.
[110] Ex. 200, pp. 171-72.
[111] Tr. Vol. 10, p. 590.

Conclusions of Law

Commission rules require a utility with an FAC to submit a schedule and testing plan for heat rate tests.[112] Commission rules further require those utilities to submit the results of those heat rate tests to the Commission.[113]

Decision

The Commission concludes that KCPL has complied with the pertinent Commission rules. OPC asks the Commission to direct the parties to create baseline heat rates for each of KCPL's generating units. OPC provides no definition for or insight into what would constitute a "baseline" heat rate nor does OPC provide any proof that baseline heat rates would be a useful metric. Perhaps a rulemaking case would be an appropriate forum to explore OPC's proposal. But, the Commission will decline to impose those requirements on KCPL in this case.

9. If the Commission authorizes KCPL to have a FAC, should KCPL be allowed to add cost and revenue types to its FAC between rate cases?

Findings of Fact

85. It is not unusual for SPP to change a schedule or charge code by giving it a new name or by simply reclassifying it. Such changes do not relate to new costs.[114]

[112] Commission Rule 4 CSR 240-3.161(2)(P).
[113] Commission Rule 4 CSR 240-3.161(3)(Q).
[114] Ex. 143, p. 43.

86. The current practice which KCPL proposes to continue allows OPC, Staff or any "party other than the Company" to challenge a new schedule or charge type, and to even include its own charge type in the tariff.[115]

Conclusions of Law

No additional Conclusions of Law are required for this issue.

Decision

The Commission concludes that it should continue the current practice of allowing KCPL to add cost and revenue types to its FAC between rate cases according to its current FAC tariff. This does not authorize KCPL to add new types of costs or revenues between rate cases, but designations for those costs or revenues may be updated as necessary.

D. Depreciation

1. Should the Commission allow terminal net salvage in the calculation of KCPL's depreciation rates?

2. What depreciation rates should the Commission order KCPL to use?

Findings of Fact

87. Depreciation refers to the loss in service value not restored by current maintenance, incurred in connection with the consumption or prospective retirement of utility plant in the course of service from causes that can be reasonably anticipated or contemplated, against which the company is not protected by insurance. Among the causes to be given consideration are wear and tear, decay, action of the elements,

[115] Ex. 142, Sch. TMR-3, pp. 6, 16.

inadequacy, obsolescence, changes in the art, changes in demand and the requirements of public authorities.[116]

88. Net salvage is a component in calculating depreciation that represents the value of equipment and materials recovered during retirements, net of the cost of removing them.[117]

89. Gross salvage is the amount recorded for the property retired due to the sale, reimbursement, or reuse of the property.[118]

90. Cost of removal is the cost incurred in connection with the retirement from service, and the disposition of, depreciable plant.[119]

91. Terminal net salvage is the ultimate retirement of plant facilities, including associated gross salvage and cost of removal. In this case, an additional distinction has been made within terminal net salvage between retirement and dismantlement. Retirement, in this context, is associated with the removal of a unit from service. It includes the costs associated with shutting a unit down, rendering it safe, and complying with regulatory requirements for the closure of the unit. Dismantlement refers to the demolition of a unit. The current depreciation rates that the Commission approved for KCPL in Case No. ER-2014-0307 do not include terminal net salvage.[120]

92. Terminal net salvage is distinguished from interim net salvage. Interim net salvage is associated with the removal from service of units of property from a works or

[116] Ex. 145, p. 4.
[117] Ex. 223, p. 1.
[118] *Id*. at 2.
[119] *Id.*
[120] *Id*. at 2-3.

system during the life of the overall unit. The current depreciation rates include interim net salvage.[121]

93. The amount in question in this case is the cost to retire production plants from service, not including any cost to actually dismantle them.[122]

94. KCPL argues that excluding terminal net salvage would result in intergenerational inequities. These inequities would occur because ratepayers getting the benefit of the asset today would not pay terminal net salvage, but ratepayers not getting the benefit of the asset after it is retired would have to pay the terminal net salvage.[123]

95. Terminal net salvage should not be included in depreciation rates because the actual cost KCPL will incur is unknown, cannot be measured, and is speculative.[124]

96. The Commission has previously excluded terminal net salvage from rates for exactly that reason.[125]

97. Nothing has changed in the interim and there is no good reason to admit costs for terminal net salvage to rates now.[126]

98. As with any speculative cost, if the amount accrued for retirement during the plant's operation in fact exceeds the actual cost of that retirement, there will be no feasible way to return that money to the ratepayers that paid too much.[127]

[121] *Id*. at 3.
[122] *Id.* at 3.
[123] Tr. Vol.8, pp. 328-29.
[124] Ex. 223, pp. 4, 8; Tr. Vol. 8, p. 336, 350, 363-64.
[125] Ex. 233, p. 4.
[126] Tr. Vol. 8, pp. 353-54.
[127] *Id*. at 364-65.

99. Due to the Commission's decision to exclude terminal net salvage, the Commission finds that Staff's depreciation rates, which also exclude terminal net salvage, are the most appropriate.[128]

Conclusions of Law

No additional Conclusions of Law are required for this issue.

Decision

Because the cost of terminal net salvage is speculative, the Commission will not allow KCPL to recover those costs in this case. Staff's depreciation rates, which exclude terminal net salvage, are the appropriate rates.

E. Revenues

1. Should KCPL be permitted to make an adjustment to annualize kWh sales in this rate case as a result of KCPL's Missouri Energy Efficiency Investment Act ("MEEIA") Cycle 1 demand-side programs?

2. How should the Large Power class kW demand billing units be adjusted when a customer leaves the Large Power class?

3. How should customers who left the Large Power class and switched into the Large General Service and Medium General Service classes be annualized?

4. What methodology should be utilized to measure customer growth?[129]

Findings of Fact

100. In 2014, KCPL filed for Commission approval of its MEEIA Cycle 1 energy efficiency programs. In addition, KCPL filed for approval of its Demand Side Investment

[128] Ex. 200, pp. 147-48; Ex. 200, App. 3, Sch. KBP-d.
[129] Per KCPL's brief, Issues V.B., C., and D. are no longer contested, and, thus, the Commission will not address those sub-issues.

Mechanism ("DSIM") to recover the various costs of its MEEIA programs**,** including any lost revenues.[130]

101. On May 27, 2014, the various parties executed a stipulation that provided for implementation of MEEIA Cycle 1 programs and recovery of costs ("MEEIA Cycle 1 Stipulation").[131]

102. As reflected in that settlement, KCPL would recover MEEIA Cycle 1 lost revenues through the Throughput Disincentive – Net Shared Benefits ("TD-NSB") feature of the DSIM.[132]

103. In August 2015, KCPL filed for Commission approval of its MEEIA Cycle 2 energy efficiency programs as well as another DSIM.[133]

104. On November 23, 2015, various parties executed a Non-Unanimous Stipulation addressing MEEIA Cycle 2 ("MEEIA Cycle 2 Stipulation"). On March 2, 2016, the Commission issued its Report and Order approving the MEEIA Cycle 2 Stipulation. Unlike the MEEIA Cycle 1 DSIM that relied upon the throughput disincentive feature of the DSIM for recovery of lost revenues, the MEEIA Cycle 2 Stipulation contemplated that lost revenues would be recovered through a revenue annualization in subsequent KCPL rate cases.[134]

105. The MEEIA Cycle 2 Stipulation provides for a revenue annualization for "all active MEEIA programs."[135]

---

[130] Commission File No. EO-2014-0095.
[131] Ex. 225, Sch. JAR-s5.
[132] *Id.* at Schedule JAR-s5 (page 3 of 20) ("KCP&L's Throughput Disincentive Net Shared Benefits ("TD-NSB") Share that is intended to recover lost margin revenues, and any earned Performance Incentive Award. The Company will begin recovery through a DSIM Rider in the August 2014 billing or as soon as practical thereafter.").
[133] Commission File No. EO-2015-0240.
[134] Exhibit 143, Sch. TMR-6, pp. 12-15.
[135] *Id.* at 13.

106. Arguing that several of the MEEIA Cycle 1 programs were active at the start of the test year, KCPL asserts that the MEEIA Cycle 2 revenue annualization must also apply to these Cycle 1 programs.[136]

107. But lost revenues for Cycle 1 programs were already accounted for through operation of the TD-NSB in the MEEIA surcharge. Thus, granting KCPL's request would result in double recovery of assumed lost revenues.[137]

108. The language "all active MEEIA programs" in the Cycle 2 Stipulation does not allow KCPL to annualize kWh sales from its Cycle 1 demand-side programs.[138]

109. The language "all active MEEIA programs" occurs four (4) times in the Cycle 2 Stipulation. And all four (4) occurrences are in paragraph 10: Annualizations of the Cycle 2 Stipulation.[139]

110. Paragraph 10 a.(ii) of the Cycle 2 Stipulation clearly specifies that the various steps to annualize kWh sales for "all active MEEIA programs" is the methodology in KCPL's Tariff Sheets 49K and 49L. Those sheets refer only to "programs", "all programs" or "Cycle 2 programs". Those sheets do not use phrases such as "all active programs," "all active MEEIA programs" or "Cycle 1 programs"[140]

111. In fact, KCPL's Tariff Sheet 49L explicitly defines "Programs" as Cycle 2 programs and does not include Cycle 1 programs.[141]

112. Finally, KCPL Tariff Sheet 1.04C includes only KCPL's MEEIA Cycle 2 demand-side programs.[142]

---

[136] *Id.*
[137] Ex. 310, p. 28.
[138] Ex. 225, pp. 1-2.
[139] *Id*. at 2-3.
[140] *Id.*
[141] *Id*.
[142] *Id*.

113. The tariff sheets control over any ambiguity in the Cycle 2 Stipulation because the parties agreed that the tariffs would control over such an ambiguity.[143]

Conclusions of Law

In 2009, the General Assembly enacted SB376, codified as Section 393.1075. This legislation, known as the Missouri Energy Efficiency Investment Act ("MEEIA"), sought to eliminate any disincentives associated with the utility offering energy efficiency programs. MEEIA and Commission rules sought to eliminate this disincentive by allowing the utility to recover three things: (1) the energy efficiency program costs; (2) lost revenues associated with the energy efficiency programs; and (3) earnings opportunities associated with lost investment in future generation assets.[144]

While the Commission allowed for recovery of lost revenues, its rules did not dictate the specific manner in which lost revenues would be recovered. Rather, the Commission clearly indicated that the recovery of lost revenues could come in different ways.[145] The only explicit requirement in the Commission rules was that the lost revenue recovery mechanism must be spelled out at the time that the Commission approved the utility's energy efficiency programs.[146]

Decision

The Commission concludes that KCPL should not be allowed to make an adjustment to annualize kWh sales in this rate case as a result of KCPL's MEEIA Cycle 1 demand-side

[143] Ex. 143, Sch. TMR-6, p. 10.
[144] Commission Rule 4 CSR 240-20.093(2)(F)-(H).
[145] Commission Rule 4 CSR 240-20.093(2)(G)(4).
[146] Commission Rule 4 CSR 240-20.093(2)(G)(2).

programs. KCPL has already recovered its Cycle 1 costs through the TD-NSB under the Cycle 1 Stipulation. The Commission finds persuasive the argument that the language "all active MEEIA programs" in the Cycle 2 Stipulation does not express or create an opportunity for KCPL to annualize kWh sales from its Cycle 1 demand-side programs.

F. Clean Charge Network

1. Is the Clean Charge Network a regulated public utility service?

2. Should capital and O&M expenses associated with the Clean Charge Network be recovered from ratepayers?

3. Should KCPL develop a PEV-TOU rate to be considered in its next general rate case?

4. Should the session charge be removed from the tariff?

Findings of Fact

114. KCPL and KCPL Greater Missouri Operations Company have launched an initiative to install and operate more than 1,000 electric vehicle charging stations throughout the greater Kansas City region. [147]

115. The total budgeted capital cost for the project is $16.6 million. Approximately $6 million would represent the budgeted investment in KCPL's Missouri jurisdiction.[148]

116. If the charging stations go into rate base, utilities would receive a reasonable chance to recover a rate of return on that investment from ratepayers. This is problematic for services that can be considered both nonessential and/or in which a competitive market already exists. Allowing utilities to recover costs for such services from ratepayers effectively creates a regulatory barrier for new entries, unfairly punishes existing competition, and shifts risk from utility shareholders to ratepayers. Instead of promoting

[147] Ex. 142(NP), p. 21.
[148] *Id*. at 27.

growth, an insulated regulated monopoly can undermine competition, which may reduce efficiency.[149]

117. Introducing a regulated entity such as KCPL into a competitive market creates the potential for inefficiencies as the negative consequences of any given risk are merely shifted to captive ratepayers.[150]

118. Electric vehicle owners already do the vast majority of electric vehicle charging at home.[151]

119. The Kansas Commission has denied KCPL's request to regulate EV charging stations. In its order, the Kansas Commission noted that private businesses are already installing EV stations, and that shareholders, rather than KCPL ratepayers, should be responsible for the costs of installing KCPL's Kansas EV stations.[152]

120. If Missouri regulated those stations, Kansas EV station owners would operate in a free-market environment, while Missouri EV station owners would be working from a more traditional ratemaking model that builds in regulatory lag. That traditional ratemaking model increases the likelihood of stranded assets because unregulated companies can more easily adapt to new technologies than regulated companies can. Thus, if Kansas charging stations, operating in a free-market environment, become better, cheaper, faster, etc., at charging vehicles, then EV owners taking a short trip across the state line in the Kansas City area to charge their vehicles in Kansas could make the Missouri EV stations obsolete. Failure to account for this may result in Missouri ratepayers funding EV charging

[149] Ex. 310 (NP), p. 36.
[150] *Id.*
[151] *Id*. at 16; Ex. 310, p. 38.
[152] Ex. 310, p. 35.

stations that no longer operate the way they were designed to, or that are poorly supported by the utility.[153]

121. Stranded EV charging stations are a reality. Some taxpayer-funded EV charging stations in Oregon are rarely used.[154]

122. If the Commission regulates EV charging stations, then, at least in the near-term, only EV drivers and KCPL shareholders would reap the financial rewards. Non-participants, which would be many of KCPL ratepayers, would bear most of the risk and cost.[155]

123. The Commission sees a clear line between: (1) the extension of distribution system**,** ~~(~~including the meter~~),~~ to the charger (a regulated service) and (2) the construction and operation of the charger (a deregulated service).[156]

Conclusions of Law

The threshold question for determination is whether the Commission has jurisdiction to regulate utility-owned and operated electric vehicle charging stations operated in a utility's service area. The Commission "is an administrative agency with limited jurisdiction and the lawfulness of its actions depends directly on whether it has statutory power and authority to act."[157]

The Commission's statutory authority to regulate the EV charging stations proposed by KCPL depends on whether those charging stations constitute "electric plant". Electric plant is "all real estate, fixtures and personal property operated, controlled, owned, used or

[153] *Id*. at 37.
[154] *Id*. at 39.
[155] *Id*. at 45.
[156] Ex. 169.
[157] *State ex rel. Gulf Transp. Co. v. Public Service Commission of State*, 658 S.W.2d 448, 452 (Mo. App. 1983).

to be used for or in connection with or to facilitate the generation, transmission, distribution, sale or furnishing of electricity for light, heat or power."[158]

Decision

The Commission finds that EV charging stations are not "electric plant" as defined in the statute because they are not used for furnishing electricity for light, heat, or power. EV charging stations are facilities that use specialized equipment, such as a specific cord and vehicle connector, to provide the service of charging a battery in an electric vehicle. The battery is the sole source of power to make the vehicle's wheels turn, the heater and air conditioner operate, and the headlights shine light. The charging service is the product being sold, not the electricity used to power the charging system.

By analogy, a laundromat uses electricity to provide clothes drying services, but that does not mean the laundromat's dryers are electric plant, or that the laundromat should be regulated by the Commission. EV charging stations are not "electric plant" and, therefore, the Commission lacks statutory authority to regulate their operation.

To rule otherwise would conceivably assert jurisdiction over other similar battery-charging services. Some examples would be smart phone charging stations or kiosks, RV parks that allow vehicles to connect to the park's electricity supply, or airports that connect planes to a hangar's electricity supply while parked, which the Missouri General Assembly could not have intended.

This conclusion is further buttressed by an understanding of the Commission's organic act, the statutes establishing the Commission and its mission, which illuminate the fundamental difference between a monopoly and a business operating in a competitive

[158] Section 386.020(14), RSMo.

economic environment.[159] Natural monopoly industries have high fixed costs and capital investment costs that serve as barriers to entry of new competition.[160] Even if new competition was able to surmount these barriers, the costs of doing so would be significant.

The Commission was established to prevent this unnecessary duplication of service on the theory that such over-crowding of the field will eventually be a burden on the public.[161] These laws are based on a policy to substitute regulated monopoly for destructive competition in order to protect the public.[162] However, it is designed as a practical system to promote the public good, and the facts of each case must be considered in applying it.[163] There may be situations where competition could serve a useful public purpose if the public is protected and it does not result in economic waste.[164]

KCPL may include in rate base any equipment, such as distribution lines, transformers, and meters, necessary to provide electric service to an owner of an EV charging station, whether or not that owner is affiliated with KCPL. Also, the Commission orders KCPL to accumulate data regarding the appropriate electric rate to charge owners of EV charging stations and provide that data during its next general rate case. Finally, KCPL shall file an amended tariff to revise the existing prohibition on the resale of electricity in order to clarify that EV charging stations are not reselling electricity.

The Commission has determined that it lacks statutory authority over the proposed EV charging stations because they are not used for furnishing electricity for light, heat, or

---

[159] *State ex rel. Gulf Transport Co. v. Public Service Commission*, 658 S.W.2d 448, 456 (Mo. App. 1983).
[160] *Id*.
[161] *State ex rel. City of Sikeston v. Public Service Commission of Missouri*, 336 Mo. 985, 997, 82 S.W.2d 105, 109 (1935).
[162] *State ex rel. Elec. Co. of Missouri v. Atkinson*, 275 Mo. 325, 204 S.W. 897, 899 (1918).
[163] *Id.*
[164] *State ex rel. City of Sikeston v. Public Service Commission of Missouri*, 336 Mo. 985, 998, 82 S.W.2d 105, 110 (1935).

power. Thus, it is unnecessary for the Commission to address the remaining disputed Clean Charge Network issues.

G. Customer Experience

Is KCPL's strategy with respect to customer service, customer experience and community involvement in the interest of its customers?

Findings of Fact

124. KCPL surveyed its customers in the past. Some questions KCPL asked its customers were political questions with which OPC takes issue.[165]

125. One survey to which OPC objected occurred in 2011, and the other occurred in 2013, both well outside the agreed-upon test year.[166]

126. At the Commission's direction, KCPL responded that in the test year, it spent $62,310 on surveys, and that 2.09 percent of the questions in the surveys were political. Thus, KCPL suggests that if the Commission were inclined to make an adjustment, the proper adjustment would be to remove 2.09 percent of the $62,310 cost from rates. That amount would be $1,305.[167]

Conclusions of Law

No additional Conclusions of Law are required for this issue.

Decision

The Commission will not order KCPL to stop asking political questions, as such an order may run afoul of KCPL's First Amendment right to free speech. However, the

[165] Ex. 330, 331.
[166] *Id*.
[167] KCPL Response to Order Directing Filing (filed April 17, 2017).

Commission can determine it is not appropriate for ratepayers to fund a utility's political surveys and set rates in a fashion such that its ratepayers do not pay for such questions. As such, the Commission will order a $1,305 reduction in revenue requirement for the political questions KCPL asked its customers during the test year.

H. Rate Design/Class Cost of Service

1. What interclass shifts in revenue responsibility, if any, should the Commission order in this case?

2. How should any increase ordered in this case be applied to each class?

6. How should any increase to Rates LGS and LPS be distributed?

Findings of Fact

127. A Class Cost of Service ("CCOS") study attempts to allocate or assign a utility's total cost of providing service to all customer classes such that it reasonably reflects cost causation.[168]

128. CCOS studies should serve as a guide to setting revenue requirements and are not precise. CCOS studies are based on a direct-filed revenue requirement, and the allocation of that revenue requirement among specific accounts, using a specific rate of return. Unless the Commission approves that exact set of accounting schedules, as well as the direct-filed billing determinants in setting the revenue requirement in a particular case, there is an inherent disconnect between the CCOS study results used in providing a party's class cost of service and rate design recommendations, and the actual class cost of service that would result at the conclusion of a case.[169]

[168] Ex. 202, p. 6.
[169] *Id* at 27.

129. The results of a CCOS study are only one of the elements that should be considered when determining rates.[170]

130. Other factors the Commission should take into consideration include: the customers' ability to understand their rates, rate continuity, rate stability, revenue stability, a minimization of rate shock and the ability to meet incremental costs, such as the market cost of energy.[171]

131. Review of all the parties' CCOS results reveals some consistent themes.[172] The Residential rates provide results at or below their relative rate of return. The Small, Medium, and Large General Service rates are consistently shown to provide a higher relative rate of return than the average. The Large Power relative rates of return are less consistent across the studies. Further, the relationship between the residential relative rate of return and the Large Power relative rate of return varies based on the method used to allocate production plant. Production allocation methods that rely more heavily on peak demands allocate more cost to the residential class while methods that rely more heavily on energy allocate more cost to the Large Power class. The Lighting class shows extreme variation in results which has been common in previous cases and is likely due to the unique characteristics of lighting.[173]

132. In reviewing the magnitude of change needed to move the residential and Large Power rates of return and the potential impact of those shifts combined with the

[170] Tr. Vol. 11, p. 889.
[171] Ex. 202, p. 27.
[172] CCOS studies were filed by KCPL, Staff, MIEC, and USDOE.
[173] Ex. 137, p. 6.

proposed revenue increase, KCPL recommends no shift in revenues to classes based on the outcome of its class cost of service study at this time.[174]

133. Of all the studies filed in this matter, only Staff's Base, Intermediate, Peak ("BIP") study recognizes disparity in capacity and fuel costs.[175]

134. The BIP method uniquely recognizes the tradeoffs that exist between the cost of installing a plant, the generation capabilities of a plant, and the cost of obtaining energy from that plant.[176]

135. Staff's detailed BIP method takes into consideration the differences in the capacity costs associated with units that run at a stable level much of the year, versus the capacity costs associated with units that quickly dispatch only a few hours a year, as well as those units that have a cost and operation characteristic in between those extremes. Staff's detailed BIP method also considers the inverse relationship between the cost of capacity and the cost of energy produced by base, intermediate, and peaking units. Other common CCOS methods tend to assume that energy costs are the same amount regardless of the hour of consumption or the source of the energy, and/or do not consider the operating characteristics of plants and assume that capacity costs are equal among types of plants.[177]

136. Because KCPL participates in the Southwest Power Pool's Day-Ahead, Real-Time, and Ancillary Services integrated markets ("SPP IM"), its generation is dispatched as part of the larger SPP fleet. SPP's dispatch is ordered according to security-constrained economic merit, which results in price signals stacking in a manner consistent with those

[174] *Id*. at 10.
[175] Ex. 212, p. 2.
[176] Ex. 213, pp. 4-5.
[177] Ex. 201, p. 9.

experienced by a utility with a generation fleet that includes the relative amounts of each base, intermediate, and peak generation units assumed in the *NARUC Manual.* Unlike other common CCOS methods, Staffs BIP method most reasonably assumes that some plants will run virtually year round (base), only part of the year (intermediate), and rarely during the year (peak).[178]

137. Among the submitted studies, Staff's BIP study also best accounts for KCPL's participation in the SPP integrated energy market through its recognition of the variability of fuel costs.[179]

138. As discussed and demonstrated in Staff's CCOS, base, intermediate, and peak units have very different installed capacity costs. Of the studies filed in this case by all parties, only Staff's detailed BIP study recognizes this disparity in capacity cost.[180]

139. For purposes of evaluating the reasonableness of other parties' study results, Staff has performed an Average and Excess ("A&E") study using the A&E allocator for production capacity accounts and the sales at generation allocator for the production energy accounts. The results of the A&E study indicate no interclass shifts are necessary within the reasonable accuracy of the study, as opposed to the minimal interclass shifts indicated by the BIP study.[181]

140. Staff's CCOS study is based on Staff's cost of service study, while the other CCOS studies are based on KCPL's cost of service study. KCPL's revenue requirement calculation includes a higher level of expense and a lower level of revenue than Staff's revenue requirement calculation. Because KCPL-based studies assume a higher level of

[178] Ex. 202, p. 13.
[179] *Id*.
[180] Ex. 212, p. 2.
[181] *Id.* at 3.

expense, each class has less net income as calculated for that class' rate of return on its studies.[182]

141. The overall revenue requirement studied and the composition of that revenue requirement (between net expenses versus rate of return) is as big or bigger a driver of differences in CCOS results than is the selection of the production capacity and energy allocators.[183]

142. The complex generation fleets and interconnected transmission systems that exist are a reflection of the diversity of load, generation, and geography that are the simple reality of the complex and interconnected utility industry.[184]

3. Should KCPL be permitted to increase the fixed customer charge on residential customers?

Findings of Fact

143. Except for KCPL's inclusion of the MEEIA Cycle 1 and RESRAM charges, KCPL would be proposing the same $12.62 charge that Staff proposes.[185]

144. At the time of filing of the CCOS Report, Staff calculated a residential customer charge of $18.44. Upon further review, Staff found that certain amortizations for solar rebates and pre-MEEIA costs were inadvertently included in its calculation of the customer charge. Once these costs are removed from the calculation, Staff calculates a fully-allocated residential customer charge of $12.62.[186]

[182] *Id.* at 5.
[183] *Id*. at 6-7.
[184] Ex. 213, p. 5.
[185] Tr. Vol. 11, p. 942.
[186] Ex. 210, p. 2.; Ex. 211, pp. 1-2.

145. Allocating each customer class an equal percentage of the rate increase would support a customer charge of $13.18.[187]

146. The Commission could reasonably accept the results of KCPL's and/or Staff's cost of service study for the customer charge and establish the customer charge in the range of $12.62 to $13.18 per month.[188]

4. Should KCPL be required to implement the block rate structure proposed by the Division of Energy for residential customers?

Findings of Fact

147. Typically, residential customers in Missouri pay "declining block" energy charges in the winter, i.e., they pay less per amount of energy used after a certain threshold or thresholds of usage. In the summer, these customers pay a "flat" rate, i.e., the same charge per amount of energy used for all amounts of usage.[189]

148. A declining block rate sends poorer efficiency signals to customers, since the effective price signal is that higher amounts of usage cost less.[190]

149. Flat rates provide slightly better price signals, but the best efficiency-inducing price signals, sponsored by DE, are provided by inclining block rates ("IBR") (which charge more per amount of energy used after a certain threshold or thresholds of usage).[191]

150. Inclining block rates signal to customers that higher use incurs higher costs, encouraging greater energy efficiency.[192]

---

[187] Tr. Vol. 11, p. 890.
[188] Tr. Vol. 11, pp. 830, 890, 1050, 1068.
[189] Ex. 800, p. 15.
[190] *Id.*
[191] *Id.*
[192] *Id.*

151. Inclining block rates can not only be used to recover short-run "fixed" costs, but signal to customers that higher usage spurs greater investment in future plant; this signal will reduce future rate increases and provide benefits to all customers.[193]

152. The increased volatility in annual revenues resulting from DE's proposal will be only about 0.1 percent of KCPL's Missouri revenue.[194] A change of 0.1 percent in the affected residential class' pre-increase revenues would only amount to a change of approximately $0.10 per customer per month.[195]

153. Given the general need to consider gradualism, the avoidance of rate shock, and other concerns, DE moderated its non-summer rate design proposal by only flattening non-summer rates such that the highest single-month, revenue-neutral bill impact would be five percent (and not moving immediately to inclining block rates during the non-summer months).[196]

154. KCPL made no efforts to study revenue volatility as a result of the proposed rate design.[197]

155. Considering that the standard error in electricity sales in Missouri is about three percent, the increased volatility that may result from DE's inclining block rate proposal is small.[198]

156. This impact on volatility is the predictable result of the gradual shift in rate design proposed by DE, which is structured to limit bill impacts to no more than 5 percent for 95 percent of customers.[199]

---

[193] *Id*. at 16.
[194] Ex. 401, p. 7.
[195] Tr. Vol. 12, p. 1255.
[196] Ex. 800, pp. 19-20, 22; Ex. 802, p. 7.
[197] Tr. Vol. 11, p. 917.
[198] Tr. Vol. 12, pp 1117, 1186.
[199] Ex. 800, p. 21.

157. The first 500-600 kilowatt hours (kWh) is considered the minimum amount needed for the residents of a typical home to survive. This is also known as the "lifeline block".[200]

158. Low-income customers tend to be lower usage customers.[201]

159. Under DE's IBR proposal, the rates for the lifeline block will decrease, even with no change in customer behavior.[202]

160. An inclining block structure would also effectuate the public policy of the state as enacted in the Missouri Energy Efficiency Investment Act. The IBR would do so by incenting energy efficiency and demand response due to the second block of energy being more expensive than the first block during the summer.[203]

161. Such energy savings and peak demand reduction reduces costs to the utility, and, ultimately, also to its customers.[204]

5. Should KCPL be required to propose time-varying rate offerings for residential customers in future cases?

Findings of Fact

162. Similar to inclining block rates, time-varying rates can also reduce peak demand.[205]

163. Time-varying rates can be more beneficial to reduce peak demand than inclining block rates.[206]

[200] Tr. Vol. 12, pp. 1164-65.
[201] Ex. 800, p. 16.
[202] Tr. Vol. 12, pp. 1164-65; Ex. 800, p. 20.
[203] Ex. 800, p. 20; Tr. Vol 12, p. 1252.
[204] Ex. 800, p. 30.
[205] Tr. Vol. 11, p. 1044.
[206] Ex. 138, p. 9.

164. Time of use rates (also known as demand response rates), better reflect cost causation than the current rate design and would create beneficial incentives for customers to reduce usage during system peak times.[207]

165. KCPL has smart meters installed for over 90 percent of its customers, yet does not have tariffs in place that would allow customers to benefit from demand response rates those meters would allow.[208]

166. Many other utilities already offer time-differentiated rates to residential customers.[209]

Conclusions of Law

KCPL has the burden of proof to show that its proposed tariffs are just and reasonable, *including* the reasonableness of its rate design.[210] Just because a company derives a higher rate of return from one class than another does not necessarily render those rates unjust or unreasonable.[211] Class cost of service is often considered but a starting point in quantifying what part of the revenue responsibility is afforded to each customer class.[212] Indeed, class costs of service studies are often considered more art than science.[213] Other factors should be considered when establishing

[207] Ex. 400, p. 19; Ex. 138, p. 9.
[208] Ex. 207, p. 4.
[209] Tr. Vol. 11, p. 924.
[210] *See, e.g., State ex rel. Monsanto Company v. Public Service Commission,* 716 S.W.2d 791 (Mo. 1986) "Laclede filed the tariffs here in question using the existing rate design. In the suspension order and notice of proceedings dated January 18, 1983, the Commission noted that the Company bore the burden of proof before the Commission and ordered the Company 'to provide evidence and argument sufficient for the Commission to determine . . . the reasonableness of the Company's rate design.'" *Id.* at 795. See also *In re Empire District Electric Company*, Commission Case No. ER-2004-0570, Report and Order (March 10, 2005).
[211] *Midwest Gas Users Ass'n v. Kansas SCC,* 595 P.2d 735, 747 (Kan. App. 1979).
[212] *Shepherd v. City of Wentzville*, 645 S.W.2d 130, 133 (Mo. App. 1982).
[213] *Associated Natural Gas Co*., 706 S.W.2d at 880 (citing *United States v. Federal Communications Commission,* 707 F.2d 610, 618 (D.C.Cir. 1983).

rates.[214] It is up to the Commission to evaluate the testimony of expert witnesses and accept or reject any or all of any witness' testimony.[215]

Decision

The Commission concludes that all customer classes should receive an equal percentage of KCPL's rate increase. The Commission finds that Staff's BIP method is the proper CCOS method to allocate costs among customer classes for this case. KCPL's fixed customer charge for residential customers should be $12.62. KCPL shall implement the inclining block rate structure for residential customers proposed by DE, which would move KCPL towards charging flat volumetric rates for residential general use customers during the winter, and inclining block rates for residential general use customers during the summer. Further, KCPL shall propose time-varying rate offerings for residential customers in its next rate case.

I. True-up issues

1. What party's capital structure, including long-term debt, should be used?[216]

2. Should Staff's or KCPL's market prices be used?

3. Should transmission expenses be annualized based on fourth quarter results of 2016 or annualized using the 12-month period ending December 2016? Both methods include an annualized level of known and measurable changes for both Independence Power and Light and Southwest Power Pool Z2 charges and credits.

---

[214] *State ex rel. Associated Natural Gas Co. v. Public Service Commission of Missouri*, 706 S.W.2d 870, 879 (Mo. App. 1985) (citing *Southwestern Bell Telephone Company v. Arkansas Public Service Commission,* 593 S.W.2d 434, 445 (Ark. 1980); *Shepherd v. Wentzville,* 645 S.W2d 130 (Mo. App. 1982*); State ex rel. City of Cape Girardeau v. Public Service Commission*, 567 S.W.2d 450 (Mo. App. 1978); *Midwest Gas Users' Ass'n v. State Corp. Com'n, 595 P.2d 735* (Kan. App. 1979); *Central Maine Power Company v. Public Utilities Commission, 382 A.2d 302* (Me. 1978); *St. Paul Area Chamber of Commerce v. Minn. Public Service Commission*, 251 N.W.2d 350 (Minn. 1977); and *American Hoechest Corporation v. Department of Public Utilities*, 399N.E.2d 1(Ma.1980).

[215] *Id*.(*citing In Re Permian Basin Area Rate Cases*, 390 U.S. 747,800, 88 S.Ct.1344,1377, 20 L.Ed.2d 312, (1968)).

[216] The Commission has already resolved this issue under "Cost of Capital"; thus, it will not be discussed here.

4. Should RES costs be amortized over a period of 2.6 years or 3 years?

Findings of Fact

167. Power market prices for 2014 were much higher than 2015 and 2016 due to the advent of the Southwest Power Pool Integrated Market ("SPP IM") market, higher than normal load, gas curtailments, forced outages and planned maintenance.[217]

168. All of these circumstances combined to push 2014 prices 20 percent higher than normal.[218]

169. Staff considered these circumstances and proposed an adjusted power market price of $21.08 per MWhr. This price was not updated through the end of the true-up period.[219]

170. KCPL also considered the abnormal circumstances of 2014 and proposed an adjusted power market price, updated through the end of the true-up period, of $20.58 per MWhr.[220]

171. The average day ahead market price for the KCPL Hub was $20.31 for the 2016 test year.[221] .

172. Staff uses the PLEXOS production cost model to perform an hour-by-hour chronological simulation of a utility's generation, power purchases, and power sales. Staff uses this model to determine the annual variable cost of fuel, net purchased power cost, and fuel consumption.[222]

[217] Ex. 171, p. 3.
[218] *Id.*
[219] *Id.* at. 2.
[220] *Id.*
[221] *Id.* at 4.
[222] Ex. 200, p. 80.

173. The PLEXOS model operates in a chronological fashion, meeting each hour's energy demand before moving to the next hour. It will schedule generating units to dispatch in a least-cost manner based upon fuel cost and purchased power cost while taking into account generation unit operational constraints. This model simulates the way a utility should dispatch its generating units and purchase power in order to meet the net system load in a least cost manner.[223]

174. Staff proposed an annualized transmission expense amount using historical data updated through the end of the true-up period.[224]

175. KCPL used the fourth quarter results of 2015 to arrive at its proposed annualized transmission expense, arguing that the fourth quarter results are closer to the expense it expects to incur in the near future.[225]

176. KCPL calculated a transmission amount of $63,061,796 to be set in rates to collect for 2016 and beyond.[226]

177. However, the actual amount of transmission expense incurred in 2016 was only $59,076,548.[227]

178. Furthermore, not only would using the forecasted amount lead to overinflated transmission expense level being placed into rates, it signals an incorrect trend in transmission expense. The evidence shows that the upward trend in transmission expense is leveling off.[228]

[223] *Id*. at 81.
[224] Ex. 248, p. 2.
[225] Tr. Vol. 14, p. 1802.
[226] I*d.* at 1803.
[227] *Id.* at 1803; Ex. 247 Sch. KL-tr1, p. 3.
[228] Ex. 247, p. 4.

179. Past years have seen 30 percent increases in transmission expense, but the increase from 2015 to 2016 was only a 1.2 percent increase in the level of transmission expense.[229]

180. KCPL is requesting in this case that the Renewable Energy Standard ("RES") amortization amount be set at an amount equal to $8,470,587 as of the true-up date in this case to reflect one percent (1%) of the overall normalized revenue to be recovered.[230]

181. KCPL had previously included the RES cost amortization authorized respectively in File No. ER-2012-0174 (Vintage I) and File No. ER-2014-0370 (Vintage 2). The remaining balance of Vintage 2 plus all of the RES compliance costs incurred since the previous rate case (Vintage 3) are in a deferred account. Vintage I amortization ended January 2016. Per the *Partial Non-Unanimous Stipulation and Agreement to Certain Issues* in File No. ER-2014-0370, KCPL has applied prospective tracking of the Vintage I amortization to the current RES costs deferred in Vintage 3.[231]

182. KCPL entered into a *Stipulation and Agreement in* File No. ET-2014-0071. In this *Stipulation and Agreement,* KCPL agreed that any cost recovery in future general rate proceedings or RESRAM proceedings will be consistent with 4 CSR 240-20.100(6), and that any recovery of RES compliance costs related to solar rebate payments will not exceed one percent (1%) of the Commission-determined annual revenue requirement in the proceeding. As a result, KCPL believes its request has fallen within the parameters established.[232]

[229] *Id.*
[230] Ex. 174, p. 10.
[231] *Id.*
[232] *Id*. at 11.

183. KCPL included an amortization period of 2.6 years for Vintage 3 costs in order to provide for recovery of an amount that was close to the one percent threshold that is allowed by the Code of State Regulation and the previous *Stipulation and Agreement* in File No. ET-2014-0071. Staff chose an amortization period of three years for Vintage 3 which reduces and slows the recovery of the RES costs that have previously been expended by KCPL.[233]

184. Regulatory assets and their associated amortizations are tracked for any over-recovery based on the *Stipulation and Agreement* that has already been entered into in this rate case proceeding. As such, if any over recovery exists regarding the RES regulatory asset at the time of KCPL's next rate case proceeding, these amounts will be tracked and given back to customers. Including an amortization period of 2.6 years instead of 3 years allows for a quicker recovery period of costs that have already been expended by KCPL. The fact that regulatory asset amortizations are tracked as part of this rate case provide customers with the assurance that KCPL will only recover the associated RES costs it has already expended.[234]

Conclusions of Law

No additional Conclusions of Law are required for this issue.

Decision

The Commission concludes that KCPL's power market price of $20.58 per MWhr and Staff's PLEXOS model should be used in the determination of non-firm off-system

[233] *Id.*
[234] *Id*. at 11-12.

sales revenues and non-firm purchased power expense. Transmission expenses should be annualized based on the 12-month period ending December 2016 in accordance with Staff's recommendation. KCPL is allowed to amortize its RES costs over 2.6 years.

Decision Summary

In making this decision, as described above, the Commission has considered the positions and arguments of all of the parties. Failure to specifically address a piece of evidence, position or argument of any party does not indicate that the Commission has failed to consider relevant evidence, but indicates rather that the material was not dispositive of this decision.

Additionally, KCPL provides safe and adequate service, and the Commission concludes, based upon its independent review of the whole record, that the rates approved as a result of this order are just and reasonable and support the continued provision of safe and adequate service. The revenue increase approved by the Commission is no more than what is sufficient to keep KCPL's utility plants in proper repair for effective public service and provide to KCPL's investors an opportunity to earn a reasonable return upon funds invested.

By statute, orders of the Commission become effective in thirty days, unless the Commission establishes a different effective date.[235] In order that this case can proceed expeditiously, the Commission will make this order effective on May 13, 2017.

[235] Section 386.490.3, RSMo.

THE COMMISSION ORDERS THAT:

1. The tariff sheets submitted on July 1, 2015, by Kansas City Power & Company, assigned Tariff Nos. YE-2017-0004 and YE-2017-0005, are rejected.

2. Kansas City Power & Light Company is authorized to file tariff sheets sufficient to recover revenues approved in compliance with this order. Kansas City Power & Light Company shall file its compliance tariff sheets no later than May 9, 2017.

3. Kansas City Power & Light Company shall file the information required by Section 393.275.1, RSMo 2000, and Commission Rule 4 CSR 240-10.060 no later than May 9, 2017.

4. The Staff of the Missouri Public Service Commission shall file its recommendation concerning approval of Kansas City Power & Light Company's compliance tariff sheets no later than May 15, 2017.

5. Any other party wishing to respond or comment regarding Kansas City Power & Light Company's compliance tariff sheets shall file the response or comment no later than May 15, 2017.

6. The March 16, 2017 Kansas City Power & Light Company's Request to Take Official Notice is granted.

7. The March 17, 2017 Midwest Energy Consumers' Group's Request to Take Official Notice is granted.

8. All other requests for relief not granted are denied.

9. This Report and Order shall become effective on May 13, 2017, except that ordered Paragraphs 2, 3, 4, and 5 shall become effective upon issuance.

BY THE COMMISSION

Morris L. Woodruff
Secretary

Hall, Chm., Stoll, Kenney,
Rupp, and Coleman, CC., concur
and certify compliance with the
provisions of Section 536.080, RSMo.

Dated at Jefferson City, Missouri,
on this 3rd day of May, 2017.

STATE OF MISSOURI

OFFICE OF THE PUBLIC SERVICE COMMISSION

I have compared the preceding copy with the original on file in this office and I do hereby certify the same to be a true copy therefrom and the whole thereof.

WITNESS my hand and seal of the Public Service Commission, at Jefferson City, Missouri, this 3rd day of May 2017.

Morris L. Woodruff
Secretary

MOPSC
Digitally signed by MOPSC
DN: cn=MOPSC
Date: 2017.05.03 14:21:38 -05'00'

MISSOURI PUBLIC SERVICE COMMISSION

May 3, 2017

File/Case No. ER-2016-0285

Missouri Public Service Commission
Staff Counsel Department
200 Madison Street, Suite 800
P.O. Box 360
Jefferson City, MO 65102
staffcounselservice@psc.mo.gov

Office of the Public Counsel
Hampton Williams
200 Madison Street, Suite 650
P.O. Box 2230
Jefferson City, MO 65102
opcservice@ded.mo.gov

Brightergy, LLC
Andrew Zellers
1712 Main Street, 6th Floor
Kansas City, MO 64108
andyzellers@brightergy.com

City of Kansas City, Missouri
Mark W Comley
601 Monroe Street., Suite 301
Jefferson City, MO 65102-0537
comleym@ncrpc.com

City of Kansas City, Missouri
Matt Gigliotti
414 E. 12th St.
Kansas City, MO 64106
matthew.gigliotti@kcmo.org

Consumers Council of Missouri
John B Coffman
871 Tuxedo Blvd.
St. Louis, MO 63119-2044
john@johncoffman.net

Kansas City Power & Light Company
Larry W Dority
101 Madison, Suite 400
Jefferson City, MO 65101
lwdority@sprintmail.com

Kansas City Power & Light Company
James M Fischer
101 Madison Street, Suite 400
Jefferson City, MO 35101
jfischerpc@aol.com

Kansas City Power & Light Company
Lisa A Gilbreath
254 Commercial Street
Portland, ME 64111-0410
lgilbreath@pierceatwood.com

Kansas City Power & Light Company
Robert Hack
1200 Main, 19th Floor
P.O. Box 418679
Kansas City, MO 64141-9679
rob.hack@kcpl.com

Kansas City Power & Light Company
Joshua Harden
4520 Main Street, Suite 1100
Kansas City, MO 64111
joshua.harden@dentons.com

Kansas City Power & Light Company
Roger W Steiner
1200 Main Street, 19th Floor
P.O. Box 418679
Kansas City, MO 64105-9679
roger.steiner@kcpl.com

Kansas City Power & Light Company
Karl Zobrist
4520 Main Street, Suite 1100
Kansas City, MO 64111
karl.zobrist@dentons.com

Midwest Energy Consumers Group
David Woodsmall
807 Winston Court
Jefferson City, MO 65101
david.woodsmall@woodsmalllaw.com

Missouri Division of Energy
Brian T Bear
301 W. High St., Room 680
P.O. Box 1766
Jefferson City, MO 65102
brian.bear@ded.mo.gov

Missouri Industrial Energy Consumers (MIEC)
Edward F Downey
221 Bolivar Street, Suite 101
Jefferson City, MO 65101
efdowney@bryancave.com

Missouri Industrial Energy Consumers (MIEC)
Lewis Mills
221 Bolivar Street, Suite 101
Jefferson City, MO 65101-1574
lewis.mills@bryancave.com

Missouri Industrial Energy Consumers (MIEC)
Diana M Vuylsteke
211 N. Broadway, Suite 3600
St. Louis, MO 63102
dmvuylsteke@bryancave.com

Missouri Public Service Commission
Nicole Mers
200 Madison Street, Suite 800
P.O. Box 360
Jefferson City, MO 65102
nicole.mers@psc.mo.gov

Natural Resources Defense Council
Henry B Robertson
319 N. Fourth St., Suite 800
St. Louis, MO 63102
hrobertson@greatriverslaw.org

Renew Missouri
Andrew J Linhares
1200 Rogers Street, Suite B
Columbia, MO 65201-4744
Andrew@renewmo.org

Sierra Club
Joe Halso
1536 Wynkoop Street, Suite 312
Denver, CO 80202
joe.halso@sierraclub.org

Sierra Club
Casey Roberts
1536 Wynkoop St., Suite 312
Denver, CO 80202
casey.roberts@sierraclub.org

Sierra Club
Henry B Robertson
319 N. Fourth St., Suite 800
St. Louis, MO 63102
hrobertson@greatriverslaw.org

Union Electric Company
Paula Johnson
1901 Chouteau Ave
St Louis, MO 63103
AmerenMOService@ameren.com

Union Electric Company
James B Lowery
111 South Ninth St., Suite 200
P.O. Box 918
Columbia, MO 65205-0918
lowery@smithlewis.com

Union Electric Company
Wendy Tatro
1901 Chouteau Avenue
St. Louis, MO 63103-6149
AmerenMOService@ameren.com

United States Department of Energy
James T Van Biber
2300 Main Street, Ste. 4NW419
Two Pershing Square
Kansas City, MO 64108
james.vanbiber@gsa.gov

Enclosed find a certified copy of an Order or Notice issued in the above-referenced matter(s).

Sincerely,

Morris L Woodruff

Morris L. Woodruff
Secretary

Recipients listed above with a valid e-mail address will receive electronic service. Recipients without a valid e-mail address will receive paper service.