MISSOURI PUBLIC SERVICE COMMISSION

STAFF REPORT

COST OF SERVICE

KANSAS CITY POWER & LIGHT COMPANY

ER-2018-0145

and

KCP&L GREATER MISSOURI OPERATIONS COMPANY

ER-2018-0146

Jefferson City, Missouri
June 19, 2018

** Denotes Confidential Information **

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COST OF SERVICE REPORT OF

KANSAS CITY POWER & LIGHT COMPANY (KCPL)
CASE NO. ER-2018-0145
and
KCP&L GREATER MISSOURI OPERATIONS COMPANY (GMO)
CASE NO. ER-2018-0146

STAFF REVENUE REQUIREMENT
COST OF SERVICE REPORT

KANSAS CITY POWER & LIGHT COMPANY

CASE NO. ER-2016-0285

I. Background

Kansas City Power & Light Company ("KCPL") provides service to approximately 288,000 Missouri customers[1] and has service territory located primarily in western Missouri and eastern Kansas. KCP&L Greater Missouri Operations Company ("GMO") provides electricity to approximately 322,000 customers[2] and has service territory in central, western, and northwestern Missouri. KCPL and GMO are wholly-owned subsidiaries of GPE. As of June 4, 2018, GPE and Westar Energy, Inc. merged.

KCPL last sought a general change of its electric retail rates when it filed a request for a $90.1 million annual increase on July 1, 2016, in Case No. ER-2016-0285. As a result of the Commission Report and Order in that proceeding, KCPL was granted an annual rate increase of approximately $32.5 million, effective May 13, 2017.

GMO last sought a general change of its electric retail rates when it filed a request for a $59.3 million annual increase on February 23, 2016, in Case No. ER-2016-0156. As a result of the Commission Report and Order in that proceeding, GMO was granted an annual rate increase of approximately $3.0 million, effective October 8, 2016.

Staff Expert/Witness: Scott Glasgow / J Luebbert

II. Executive Summary

Staff has conducted a review of all cost of service components (capital structure and return on rate base, rate base, depreciation expense, and other operating revenues and expenses) for both KCPL and GMO. This review was conducted in response to KCPL's and GMO's January 30, 2018, filings seeking to increase rates after the rebasing of fuel for the Fuel Adjustment Clause ("FAC") by $16.4 million or 1.88% (KCPL) and by $19.3 million or 2.61% (GMO). KCPL's and GMO's estimated impact of the federal Tax Cuts and Jobs

[1] ER-2018-0145 Minimum Filing Requirements, Appendix 3, page 2.
[2] ER-2018-0146 Minimum Filing Requirements, Appendix 3, page. 2

Act of 2017 ("TCJA") reduces the revenue requirement requests in this case by $38.4 million (KCPL) and $29.1 million (GMO). KCPL and GMO both proposed a return on equity ("ROE") of 9.85%. In its Direct Filing, KCPL and GMO both proposed to continue reflecting approved fuel and purchased power increases and decreases in the FAC.[3] Also, in their Direct Filing, KCPL and GMO are requesting recovery of costs associated with electric vehicle charging stations. Staff recommends adjustments to remove those costs from KCPL's and GMO's costs of service. The removal of these costs is required by the Commission's finding in Case No. ER-2016-0285, In the Matter of Kansas City Power & Light Company's Request for Authority to Implement a General Rate Increase for Electric Service, that electric vehicle charging stations are not "electric plant" as defined by Section 386.020(14), RSMo, which means the Commission has no statutory authority to regulate their operations. As such, this issue will be further addressed in Staff's rebuttal testimony. Staff Witness Keith Majors sponsors Staff's adjustments related to the removal electric vehicle charging station costs from KCPL's and GMO's costs of service.

Staff recommends an ROE of 9.85%[4] for both KCPL and GMO, which is on the upper end of the equity cost rate range of 9.0% to 10.0%.[5] Combined with recommended capitalization ratios and a senior capital cost rate, Staff's recommended overall rate of return cost of capital is 7.36% for KCPL and 7.35% for GMO. Staff's revenue requirement for KCPL, after adjustment for the TCJA, is <$19,076,751>.[6] Staff's revenue requirement for GMO, after adjusting for the TCJA is <$34,812,142>.

Staff's recommended decreases in revenue requirement is based upon a test year for the twelve months ending June 30, 2017, including true-up estimates through June 30, 2018. Below are definitions of technical terms that will frequently be used in the Cost of Service Report:

Test Year: The test year income statement is the starting point for determining a utility's existing annual revenues, operating costs, and net operating income. In this case, the test year is the 12 months ending June 30, 2017.

Update Period: The standard practice in ratemaking in Missouri to utilize a period, beyond the established test year for a case, in which to match the major components of a utility's

[3] KCPL requested increases and ROE, Direct Testimony of Darrin R. Ives ER-2018-0145, pp. 7, 9.
GMO requested increase and ROE, Direct Testimony of Darrin R. Ives ER-2018-0146, pp. 8-9 and 11.
[4] ER-2018-0146 Staff Cost of Service Report (page refer to Jeffrey Smith testimony end of p. 1 and p. 2.
[5] Ibid.
[6] A "<bracketed number>" represents a negative amount.

revenue requirement. The update period that was agreed to for this particular case is the 12 months ending December 31, 2017.

True-Up: A true-up date generally is established when a significant change in a utility's cost of service occurs after the end of the update period, but prior to the operation-of-law date, and one or more of the parties has decided this significant change in cost of service should be considered for cost-of-service recognition in the current case. True-up audits involve the filing of additional testimony and, if necessary, additional hearings beyond the initial testimony filings and hearings for a case. The true-up date ordered in this case is June 30, 2018.

The issues Staff anticipates for true-up include:

RATE BASE:
- Plant in Service
- Depreciation Reserve
- All other rate base item (with exception of revenue and expense lags for cash working capital)

CAPITAL STRUCTURE:
- Capital structure

INCOME STATEMENT
- Revenues (Growth)
- Bad Debt and Forfeited discounts
- Payroll (including changes in pay rate, number of employees)
- Payroll benefits
- Payroll taxes
- Pensions/OPEB
- Depreciation Expense
- Fuel
- Transmission
- CIP's and Cyber Security
- PSC Assessment
- Rate Case Expense
- Various Amortizations
- Income Taxes

Normalization: Utility rates are intended to reflect normal ongoing operations. A normalization adjustment is required when the test year reflects the impact of an abnormal event. For example, overtime expense may be normalized to remove an unusual weather event, and revenue may be normalized to remove abnormal weather conditions.

Annualization: Annualization adjustments are the most common adjustment made to test year results to reflect the utility's most current annual level of revenue and expenses. Annualization adjustments are required when changes have occurred during the test year and/or update period, which are not fully reflected in the unadjusted test year results. For example, signing a new labor contract would necessitate annualizing the new level of wages to expense. Similarly, an addition of a large industrial customer would necessitate an annualization of billing determinants and revenues.

Disallowances: In examining test year results, Staff makes disallowances to costs that should not be recovered in rates. Examples of these types of costs are certain advertising costs and donations made to charitable organizations.

Return on Equity: The ROE is the return allowed in rates on the shareholders' equity investment in a regulated utility.

Rate of Return: The ROR is the overall cost capital; that is, the cost of debt and the Commission-selected ROE weighted by the capital structure.

Staff Expert/Witness: Scott Glasgow / J Luebbert

III. Rate of Return and Capital Structure

A. Staff's Positions:

1. Return on Equity ("ROE"):

Comparing market and economic conditions at the time of KCP&L's last rate case in 2016, Case Number ER-2016-0285, in which the Commission authorized KCPL an ROE of 9.5%, and considering the Commission's authorized ROE of 9.8% in the Spire Missouri, Inc., rate cases, Case Numbers GR-2017-0215, and GR-2017-0216, an allowed ROE in the range of 9.00% to 10.00%, with a point estimate of 9.85% is reasonable for KCP&L and GMO. Staff's recommended ROE provides the companies with a fair and reasonable opportunity to earn their cost of common equity ("COE"), in view of the fact that Staff's analyses shows that the COE for electric utilities is most likely in the range of 6% to 8%.

2. Capital Structure:

Staff recommends the Commission use KCP&L's actual capital structure for purposes of setting its allowed ROR. However, Staff recommends the Commission use GMO's adjusted actual capital structure for purposes of setting its allowed ROR because this capital structure

acknowledges the fungibility of capital, balances goodwill, and safeguards ratepayers from providing funding for assets not providing service.

3. Cost of Debt:

** _____ _____ . **

The analyses and methodologies utilized to develop Staff's rate of return and capital structure recommendations are discussed in much more detail in my Detailed Direct Testimony attached as Appendix 2 to this Report.

B. Analytical Principles:

1. The Cost of Equity ("COE") vs. the Authorized ROE:

The COE is a market constructed artifact; while Commission authorized ROEs are regulatory constructed artifacts derived through regulatory processes. The COE, theoretically, is the minimum return investors are willing to accept for their investment in a company compared to returns on other investments available. An authorized ROE is an adjudicated return granted to monopoly industries, allowing participants the opportunity to earn fair and reasonable compensation for their investments. Staff intentionally differentiates between the market-determined COE and the allowed ROE because financial officers and stock investment analysts use market-determined COEs, which are much lower than average allowed ROEs, when making capital budgeting decisions and valuing utility stocks.

2. Benchmarking:

COE results from an electric proxy group are used as a measuring tool to estimate an unknown position from a known position, assisting in the derivation of the recommended ROE. The unknown position is the proper ROE to recommend for KCPL and GMO in these proceedings. The known position is the authorized ROE allowed by the Commission in the last KCPL rate case, Case Number ER-2016-0285. Relying on multi-stage DCF models, Staff calculated the COE at the time of KCPL's last rate case decision and compared it to calculations on the current COE. Comparing differences in COE from the two timeframes shows that the COE has increased by approximately 25 basis points. Adjusting the Commission's allowed ROE in the last electric rate case to reflect current COE estimates would place an ROE benchmark near 9.75%.

3. A Comparative Analysis Required:

The comparative nature of the constitutional parameters of the ***Hope*** and ***Bluefield*** cases requires Staff's recommendation for KCPL's and GMO's allowed ROE be based on Staff's assessment of economic and capital market changes since the Commission heard evidence in KCPL's last rate case,[7] as well as an assessment of the most recent major utility rate case decisions rendered by the Commission, the Spire Missouri rate cases. Staff analyzed the most recent ROE allowed by the Commission in the Spire Missouri rate cases to balance increases in the COE with predictability in Commission decisions. Staff compared economic risks, general industry risks, company specific risks, and average historically allowed ROEs for the industries to arrive at its ROE recommendation for KCPL and GMO.

C. Economic and Market Conditions:

1. Gross Domestic Product and the Debt Market:

In setting utility rates, the Commission should take into account the evolution of economic and market conditions. In 2016, and 2017, Real Gross Domestic Product ("GDP") increased by 1.5%, and 2.3%, respectively. In the first quarter of 2018, GDP grew 2.2%. Annualized GDP for the last four-quarters was 2.9%. Since KCPL's last rate case, 30-year Treasury yields have risen. In 2017, 30-Year Treasury rates averaged 2.90%. In the first four-months of 2018, 30-Year Treasury rates average 3.04%.

While average public utility bond yields have also risen, they have not kept pace with 30-year Treasury yields, leading to compressing spreads between Treasury yields and utility bond yields. Average public utility bond yields for 2017 and the first four-months of 2018 were 4.07% and 4.13%, respectively.[8] Average spreads between 30-year Treasuries and utility bonds for 2017 and the first four-months of 2018 were 1.17% and 1.09%, respectively.

Short-term interest rate increases in the Federal Reserve Funds Rate (Funds Rate) have materialized in utilities short-term capital costs. The funds rate was set between .25% - .50% for most of 2016, as of March 2018, the Funds Rate was set between 1.50% - 1.75%. ** _____

_____

[7] Prefiled direct testimonies filed at the end of 2016 through January 2017, with updated economic and market data introduced by parties at the hearings in February 2017.
[8] Reported by Mergent Bond Record.

_____

_____ .**

These dynamics are important considerations when determining an ROE because recent increased fiscal stimulus' boost to domestic economic activity make increases in short-term rates more certain than several years ago, meaning that utilities short-term debt costs are likely to continue rising. Meanwhile, monetary transmission mechanisms, longer-term structural economic dynamics, and global forces continue to moderate longer-term interest rates, meaning that although longer-term debt costs are likely to rise, they will not rise at the pace of short-term rates. The sharper increases in short-term borrowing costs will be dampened by utilities' refinancing of higher interest long-term debt as it matures, in what will likely continue to be a historically low long-term debt yield environment, depressing increases in overall debt costs, leading to slower increases in the cost of capital, translating into lower increases in the ROE.

2. The Stock Market:

Until recently, sustained low interest rates allowed utility stocks to outperform the S&P 500. Total returns for the S&P 500 and the S&P 500 utilities sector were 13.7%, and 16.6% in 2016, respectively. The S&P 500 utilities sector outperformed the S&P 500 in total returns for the majority of 2017, until November, when the passage of significant federal tax legislation began to appear likely, boosting earnings outlooks and increasing valuations in the broader market. Passage of the Tax Cuts and Jobs Act ("TCJA") in December 2017 led to exuberant rallies in broader markets to end the year and start 2018. However, after processing information on potential TCJA effects, and receiving new economic data, jubilation subsided and markets contracted, correcting the ebullient expansion. For the first four-months of 2018, the utility sector outperformed the broader market; the S&P 500 had a total return of -1.2%; meanwhile, the S&P 500 utilities sector had a total return of -0.4%.

Price to last-twelve-months earnings ("P/E") ratios for Staff's electric proxy group displayed corollary behavior. In 2016 and 2017 P/E ratios for Staff's proxy group averaged 20.61 and 27.65, respectively; for the first four months of 2018, P/E ratios averaged 19.80. The contraction of stocks during recent months is due to increased risk aversion, leading to increases in the cost of equity. However, strong economic forecasts and TCJA effects will likely lead to inflowing funds and a more sustained expansion in broader equity prices in the near to mid-term. Combined with the neutrality of TCJA effects on utility stocks, the inflow of funds to broader

markets will likely ebb the flow of funds to the utility sector, leading to contracted or flat utility equity prices and higher COE.

As volatility in markets increases, undulations will likely lead to premiums being paid for less volatile stocks such as utilities, buoying their prices and mitigating rises in their COE. The vicissitudes of markets make it difficult to predict what stocks will do from one day to the next, but recent market data indicates an increase in the COE for the utility industry. Furthermore, economic data indicates that the COE for the utility industry will remain elevated in the short to mid-term. The COE is an important determinant in setting an allowed ROE because the allowed ROE serves as a vector to a fair and reasonable COE when considering current costs of capital, the trajectories of costs of capital, and effects from regulatory lag going forward.

D. Capital Structure:

1. Credit Rating:

In determining the appropriate capital structure to use, the Commission must be mindful that GPE has stated that it intends to manage its operating companies to a 50/50 capital structure. ** _____ _____ . ** All of GPE's companies' S&P corporate credit ratings are the same, currently a 'A-' rating from S&P. S&P's ratings on KCPL and GMO reflect GPE's outlook, its assignment of an "excellent" business risk profile and a "significant" financial risk profile.

2. Capital Structure:

GPE's ("Great Plains Energy") significant amount of equity financing in its capital structure is a consequence of GPE's initial proposed transaction to acquire Westar Energy Corporation in a majority cash transaction. GPE unwound the debt it had issued to finance the acquisition, but did not buy back the equity it had issued to finance the acquisition. Consequently, GPE's capital structure is more heavily weighted in common equity than debt. GPE has communicated to investors the capital structure it intends to target for its subsidiaries on a stand-alone basis and for GPE on a consolidated basis.

For purposes of the KCPL rate case, Staff recommends using KCPL's actual capital structure because it resembles the 50/50 ratio, which GPE has communicated to investors it

intends to target for its operating companies. Furthermore, it resembles the average capital structure of operating companies subsumed within the proxy group.

Substantial amounts of goodwill in GMO's financial statements, resulting from GPE assets merging with Aquila assets, requires an adjustment to GMO's equity to comply with the antecedent of the "net original cost rule," described in the *Report and Order* of the Aquila acquisition case, Case No. EM-2007-0374, precluding the recovery of acquisition premiums. ** _____ _____ _____ _____. ** The adjustment acknowledges the fungibility of capital, and ensures rate payers do not pay for acquisition premiums. Also this adjustment results in an adjusted capital structure closely resembling the 50/50 ratio at which GPE has stated it intends to manage its operating companies. Finally, it resembles the average capital structure of operating companies subsumed within the proxy group.

3. Embedded Cost of Debt:

** _____ _____ _____ _____ _____ . **

E. Cost of Equity:

1. The Proxy Group:

Staff estimated KCPL's and GMO's COE by applying COE methodologies to a proxy group consisting of companies that are predominately vertically integrated, regulated, electric utilities. Staff ensured the proxy group is confined to vertically integrated, regulated, electric utility operations by starting with Edison Electric Institute's regulated electric utility index, and then screened these companies further by ensuring that they:

- are publicly traded
- have investment grade credit ratings from two major U.S. credit rating agencies
- have long-term growth coverage from at least 2 analysts

- have no pending merger or acquisitions
- had no pending merger or acquisitions during KCPL's 2016 rate case
- have not reduced dividends since 2013
- have 50% of plant from electric utility
- have at least 25% of plant from electric generation
- generate at least 80% of income from regulated utility operations (see Appendix 2, Schedule JS-5-1).

While Staff continues to estimate a much lower COE than average allowed ROEs around the country, Staff's recommended allowed ROE is based on an assessment of a fair and reasonable allowed ROE and is guided by capital markets, this Commission's most recent decisions, changes in the economic environment since those decisions, and decisions of utility Commissions across the country.

2. DCF ("Discounted Cash Flow") Analysis:

In the DCF method, the cost of equity is the sum of the dividend yield and a perpetual growth rate that is intended to replicate the projected capital appreciation of the stock. The projected average dividend yield for the constant proxy group of 13 comparable companies is approximately 3.45%. Investors invest in utility companies for yield and not growth. Companies in the S&P 500 have retained approximately 58% of their earnings for reinvestment since 2000; the electric proxy group's retention ratio has been approximately 27% over the same period. Therefore, utilities will grow at a rate less than that of nominal GDP ("Gross Domestic Product") growth because they retain less of their earnings for reinvestment.

A projected long-term, steady-state nominal GDP growth rate should be considered an upper constraint when testing the reasonableness of growth rates used to estimate the cost of equity for the regulated electric utility industry. Most economists do not project nominal GDP to grow higher than 4.6% per year over the long-term, so serious doubt must attach to a constant growth rate for the electric utility industry above that upper constraint. Equity analysts project a compound annual growth rate in earnings per share over the next five years of approximately 4.91%. Although this growth rate is only slightly higher than long-term GDP projections, it is above the electric utility industry's earnings per share growth rates during periods of much higher economic growth.

3. The Growth Rate:

Analyzing growth in the electric utility industry from 1968 to 1999, before deregulation, reveals that growth averaged about 3.6%, or about 44% of average nominal GDP growth of around 8.1% over that same period. Factors that may determine potential growth for the regulated electric utility industry are investment and demand/customer growth. Energy consumption, i.e. demand, has been declining. The current rise in capital expenditures is not driven by expected growth in demand, but by the need for infrastructure replacement, environmental compliance for existing coal plants, renewable generation investments, and/or grid integration/modernization.

4. **Staff's DCF Results:**

A constant-growth rate closer to 3.6% is more logical considering that projected growth rates for the U.S. economy are much lower in the future as compared to the period analyzed. Giving consideration to historical growth rates, higher near-term expected growth rates, and GDP growth estimates during the last KCPL rate case, Staff used a growth rate range of 3.6% to 4.6%. This results in a cost of equity estimate of 7.46% to 8.26%. These COE estimates are lower than average allowed ROEs; however, they are used as a relative measure, not as an absolute value.

F. Tests of Reasonableness:

1. The Capital Asset Pricing Model ("CAPM"):

Staff used the CAPM to test the reasonableness of its DCF results and recommendation. The risk free rate used was the average 30-year Treasury yield for the three months ended April 30, 2018 (3.10%). The average beta for the proxy group was 0.64. For the market risk premium (Rm – Rf) estimates, Staff relied on the historical difference between earned returns on stocks and earned returns on bonds. The first risk premium was based on the long term arithmetic average of historical return differences from 1926-2017 (6.10%). The second risk premium was based on the long-term geometric average of historical return differences from 1926 to 2017 (4.70%). The results using the long-term arithmetic average risk premium and the long-term geometric risk premium are 7.01% and 6.11%, respectively.

2. Average Authorized Returns:

In the past, the Commission has applied a test of reasonableness using average authorized returns published by Regulatory Research Associates ("RRA") to test the reasonableness of its allowed ROE. According to RRA, the average authorized ROE for fully-litigated cases for electric utilities in the first quarter of 2018 was 9.94% (based on five ROE determinations). The average allowed ROE for electric utilities in 2017 and 2016 were 9.74% and 9.77%, respectively.

G. Conclusion:

A just and reasonable rate is one that is fair to investors and ratepayers. Fairness to the ratepayers means rates that are no more than is necessary to be fair to shareholders. Fairness to shareholders means rates that produce revenues sufficient to cover the Companies' prudent cost of service, including an allowed ROE. Using widely-accepted methods of financial analysis and reviewing Wall Street equity analysts' research shows that the COE for electric utility companies is conservatively 6% - 8%. Given that the cost of capital is as real a cost as any other cost of service, reducing this cost in the ratemaking formula to a value close to its actual cost is consistent with the principles of cost-of-service ratemaking. Using Staff's recommended allowed ROE results in an allowed ROR of 7.36% for KCPL (*see* Appendix 2, Schedule JS-14). This rate was calculated by applying an ** _____ ** and an allowed ROE of 9.85% to a capital structure consisting of 49.45% common equity. Using my recommended allowed ROE range results in an allowed ROR of 7.37% for GMO (*see* Schedule Appendix 2, JS-14). This rate was calculated by applying an ** _____ _____ ** and an allowed ROE of 9.85% to a capital structure consisting of 48.15% common equity.

Staff Expert/Witness: Jeffrey Smith.

IV. Rate Base

A. Plant-in-Service and Accumulated Depreciation Reserve

For KCPL and GMO, Staff recommends plant-in-service ("plant") and accumulated depreciation reserve ("reserve") balances based on actual booked amounts as of the end of the update period, December 31, 2017. This includes plant additions that have occurred since the test year ending June 30, 2017, and the related depreciation reserve balances. At the time of the

true-up audit, adjustments to the plant balances Staff used for its direct filing will be updated to include amounts for plant additions that have become fully operational and used for service as of June 30, 2018, the ending point of the true-up period. Staff will also include depreciation reserve balances related to all plant, including those additions and retirements. Plant must be "fully operational and used for service" before it is appropriate to reflect that plant and its associated reserve in rates.

The plant for KCPL and GMO for the period ending December 31, 2017, is identified on the Plant Accounting Schedule- Schedule 3, and the accumulated depreciation reserve as of that date is identified in the Depreciation Reserve Accounting Schedule- Schedule 6. The information in Accounting Schedules 3 & 6 for plant and reserve are shown by Federal Energy Regulatory Commission ("FERC") Uniform System of Accounts ("USOA") for each plant category, broken out for production, transmission, distribution, and general facilities.

It is necessary for KCPL, GMO, and Staff to make adjustments to the plant reserve balances to account for retirement work in progress ("RWIP"). RWIP is retired plant that has not yet been classified for certain components of depreciation, namely cost of removal and salvage. KCPL and GMO removed the retired plant and related depreciation reserve from its plant and reserve account balances as of the retirement dates. However, as of December 31, 2017, KCPL and GMO had not removed the related reserve amounts associated with cost of removal and salvage accruals calculated for the retired plant included in the RWIP balance. While the actual plant is retired and removed from plant balance and the related reserve, the plant has not been physically disassembled so the cost of removal and salvage components of depreciation are still included in the reserve. As a result, KCPL's and GMO's books overstate the reserve for this retired plant that is no longer serving the public. Because the plant that is no longer being used for service is removed from rate base, it is also necessary to make a corresponding adjustment to remove the amounts associated with the retired plant from the reserve balances and for the cost of removal and salvage amounts. Staff included a line item in the Accumulated Depreciation schedule, identifying the RWIP associated with Production, Transmission, Distribution, and General Plant.

Staff requested the plant and reserve amounts by FERC account and, in the case of the production facilities, by individual power plant. KCPL and GMO use an accounting package for plant records called Power Plant. Staff requested plant and reserve information that came directly

from the Power Plant record system. As such, the plant and reserve information contained in Accounting Schedules 3 and 6 by the individual plant categories and FERC accounts are those that directly tie back to the books and records of KCPL and GMO. For the update period, December 31, 2017, Staff verified the actual plant and reserve balances tie directly back to the Power Plant record system source to substantiate the amounts provided by KCPL and GMO in data requests.

Other plant and reserve adjustments were necessary for KCPL and GMO and are addressed in separate sections of this report. The plant and reserve adjustments relating to the Crossroads Energy Center, Greenwood Solar Facility, and the Clean Charge Network will be discussed in following sections.

The following table identifies KCPL and GMO electric utility generation resources:

KCPL Electric Utility Generation:				
Load	**Unit**	**Year Completed**	**Estimated 2018 MW Capacity**	**Primary Fuel**
Base Load	Iatan No. 2	2010	482 (a)	Coal
	Wolf Creek	1985	552 (a)	Nuclear
	Iatan No. 1	1980	490 (a)	Coal
	La Cygne Nos. 1 and 2	1973, 1977	699 (a)	Coal
	LaCygne No. 1 368 (a) in 2013	1973	See above	Coal
	Hawthorn No. 5(b)	1969	564	Coal
	Montrose No. 3	1964	334 combined	Coal
	Montrose No. 2	1960	See above	Coal
Peak Load	West Gardner Nos. 1-4	2003	314	Natural Gas
	Osawatomie	2003	76	Natural Gas
	Hawthorn Nos. 6 and 9	1997, 2000	235	Natural Gas
	Hawthorn No. 8	2000	79	Natural Gas
	Hawthorn No. 7	2000	78	Natural Gas
	Northeast Black Start Unit	1985	2	Oil
	Northeast Nos. 17-18	1977	105	Oil
	Northeast Nos. 13-14	1976	95	Oil
	Northeast Nos. 15-16	1975	106	Oil
	Northeast Nos. 11-12	1972	88	Oil
Wind	Spearville 2 Wind Energy Facility (c)	2010	48	Wind
	Spearville 1 Wind Energy Facility (d)	2006	101	Wind
Total KCP&L			**4,448 MWs**	

KCPL Greater Missouri Operations Electric Utility Generation:				
Base Load	Iatan No. 2	2010	159 (a)	Coal
	Iatan No. 1	1980	126 (a)	Coal
	Jeffrey energy Center Nos. 1, 2 and 3	1978, 1980, 1983	173 (a)	Coal
	Sibley Nos. 2 and 3	1962, 1969	406	Coal
Peak Load	Lake Road Nos. 2 and 4	1957, 1967	115	Coal and Natural Gas
	South Harper Nos. 1, 2 and 3	2005	303	Natural Gas
	Crossroads Energy Center	2002	292	Natural Gas
	Ralph Green No. 3	1981	71	Natural Gas
	Greenwood Nos. 1, 2, 3 and 4	1975-1979	242	Natural Gas/Oil
	Lake Road No. 5	1974	62	Natural Gas/Oil
	Lake Road Nos. 1 and 3	1951, 1962	24	Natural Gas/Oil
	Lake Road Nos. 6 and 7	1989, 1990	42	Oil
	Nevada	1974	18	Oil
Total GMO			**2,033 MWs**	
Total Great Plains Energy			**6,481 MWs**	

Source: GREAT PLAINS ENERGY INC. 10-K February 21, 2018, page 29

a. Share of a jointly owned unit.
b. In 2001, a new boiler, air quality control equipment and an uprated turbine was place in service at the Hawthorn Generating Station.
c. Accredited capacity is 16MW pursuant to SPP reliability standards.
d. Accredited capacity is 31MW pursuant to SPP reliability standards.

KCP&L owns 50% of La Cygne Nos. 1 and 2, 70% of Iatan 1, 55% of Iatan No. 2 and 47% of Wolf Creek. GMO owns 18% of each of Iatan Nos. 1 and 2 and 8% of Jeffrey Energy Center Nos. 1, 2, and 3.

Staff Expert/Witness: Michael Jason Taylor

B. Plant Amortization

Staff evaluated and annualized KCPL's and GMO's plant amortization expense. Similar to depreciation expense for tangible assets, plant amortization expense represents the return of the capital costs incurred in relation to intangible assets such as software, land rights, leasehold improvements, and other intangible items. Because these costs are intangible in nature, the plant accounts are not assigned a depreciation rate in the depreciation expense accounting schedule in Staff's Cost of Service schedules. But an amount of amortization is included in the cost of service calculation to provide for a return of capital investment for these intangible assets.

In this case, disallowances for the GMO Crossroads plant were calculated pursuant to the Commission's *Reports and Orders* in Case Nos. ER-2010-0356 and ER-2012-0175. Staff witness Cary G. Featherstone discusses these adjustments in the Crossroads Section of this Report. A portion of the Crossroads ordered disallowance relates to an intangible amortizable plant amount. The annual amount of plant amortization related to this portion of the Crossroads plant disallowance has not been included in the annualized amount, pursuant to the Commission's *Reports and Orders* issued in the above-cited cases. Staff has included the annualized plant amortization expense on Staff Accounting Schedule 10, adjustments E-248.1 and E-253.2 for KCPL and E-186.1, E-188.3 for GMO.

Staff Expert/Witness: Michael Jason Taylor

C. Crossroads Energy Center Valuation (GMO Only)

Staff continues to recommend that the Commission include the Crossroads Energy Center ("Crossroads") in total GMO combined rate base for MPS in this proceeding in a manner consistent with the Commission's decision in GMO's 2010 rate case, Case No. ER-2010-0356. The Commission re-affirmed its 2010 rate case decision in GMO's 2012 rate case, Case No. ER-2012-0175. Since GMO's 2009 rate case (Case No. ER-2009-0090), the Commission has consistently adopted a valuation and a level of supporting operating costs for Crossroads equal to the costs Great Plains would have paid to acquire Crossroads as part of its July 14, 2008, acquisition of Aquila. The Commission determined the appropriate July 14, 2008, value of Crossroads to be $61.8 million in the 2010 GMO rate case. An offset for accumulated depreciation reserve also had to be included in GMO's rate base to reflect depreciation for Crossroads accumulated since the acquisition. As of December 31, 2017, update period in this current rate case, that accumulated depreciation is $20.3 million. The plant-in-service value of Crossroads as of December 31, 2017, consistent with the Commission's decisions in the 2010 and 2012 GMO rate cases, is $63.9 million. GMO calculated the rate base value for Crossroads at the December 31, 2017, end of update period, as follows:

	December 31, 2017
Plant in Service	**$63,875,313**
Accumulated Depreciation	**20,286,386**
Net Crossroads Plant After Adjustments	**$ 43,588,927**

In this case, both GMO and Staff made a series of adjustments to both plant and reserve in the generation and transmission plant accounts for Crossroads to properly reflect the valuation the Commission determined in GMO's 2010 rate case and reaffirmed in GMO's 2012 rate case. These plant and reserve adjustments to generation and transmission accounts were necessary because GMO has not written down the plant and reserve values on its plant property records to be consistent with the Commission determined levels. Staff made the following adjustments to reflect the previous Commission decisions:

FERC Plant Account Number	Plant Account Description	GMO Combined Plant Adjustment	GMO Combined Reserve Adjustment
303.01	Miscellaneous Intangible-Substation	P-175	R-175
340	Land	P-176	N/A
341	Structures	P-177	R-177
342	Fuel Holders	P-178	R-178
343	Prime Movers	P-179	R-179
344	Generators	P-180	R-180
345	Accessory	P-181	R-181
346	Miscellaneous Power Plant Equipment	P-182	R-182

Source: Accounting Schedules for GMO, Accounting Schedules 4 and 7

These adjustments to plant and reserve can be summarized as follows:

	December 31, 2017 Case No. ER-2018-0146	**True-Up July 31, 2016 Case No. ER-2016-0156**
Plant	$134,230,198	$133,702,394
Adjustments	70,354,885	70,354,885
Plant less adjustments	$63,875,313	$63,347,509
Reserve	69,599,395	$61,818,730
Adjustments	49,313,009	$45,144,030
Net Reserve	20,286,386	$16,674,700
Net Plant	$64,630,803	$71,883,664
Net Plant Adjustments	21,041,876	25,210,885
Net Plant	43,588,927	$46,672,809

Source: Accounting Schedules for GMO, Accounting Schedules 3 & 4 and 6 & 7 in Case NO. ER-2018-0146 and Case No. ER-2016-0156

The above table show the adjustments made to arrive at plant, reserve and the resulting net plant for Crossroads in this case compared to GMO's last rate case in 2016, Case No. ER-2016-0156. Consistent with the Commission decisions in GMO's 2010 and 2012 rate cases regarding Crossroads, Staff has included the appropriate level of deferred income taxes as an offset (reduction) to rate base consistent with the value at December 31, 2017.

Also, consistent with the Commission's decision in the 2010 and 2012 rate cases (Case Nos. ER-2010-0356 and ER-2012-0175), Staff has excluded GMO's transmission costs associated with Crossroads. Staff also excluded transmission costs relating to Crossroads in

GMO's last rate case, Case No. ER-2016-0156. Staff made an adjustment to remove the entire amount of test year level of Crossroads transmission expenses in this current 2018 rate case.

Background

GMO owns four natural gas-fired combustion turbines at its Crossroads generating station located in Clarksdale, Mississippi, that have a combined capacity of 292 megawatts, according to the Great Plains 2016 Annual Report (page 30). Aquila Merchant Services, a wholly-owned non-regulated affiliate of Aquila, constructed Crossroads as a merchant plant in 2002, with the intent of selling the electricity generated into the non-regulated energy power market. As such, Aquila never thought of Crossroads as a production facility to serve customers' electricity requirements in western Missouri. Aquila Merchant made a deliberate decision and calculated risk to construct Crossroads in that part of the country to take advantage of the area's transmission constraints. When the merchant power market collapsed in 2002 after the Enron bankruptcy, Aquila and its affiliates decided to exit the non-regulated energy market and concentrate on traditional regulated operations, primarily the generation, transmission and distribution of electricity in Missouri. Starting in mid-2002, Aquila determined the need to return to its regulated utility roots and get back to being a vertically integrated utility.

The 2002 decision by Aquila to exit the non-regulated energy markets as a result of the decline of the power markets coincided with Crossroads' completion. From the time of the completion of Crossroads in 2002 and throughout Aquila's down-sizing to when Great Plains acquired Aquila's Missouri electric assets, Aquila Merchant attempted to sell Crossroads and other non-regulated assets because they were not considered necessary, nor strategic to Aquila's regulated operations. While Aquila Merchant sold other non-regulated assets, it found no one interested in Crossroads even when Aquila offered Crossroads at distressed and deeply discounted plant values. Aquila never operated Crossroads to sell electricity into the non-regulated energy power markets. Crossroads did not generate any power in 2003, 2004 or 2006, with the only power generated in 2005 as result of a short-term summer purchased power agreement with Aquila's regulated operation, MPS.

Great Plains acquired Aquila and its affiliates in July 2008. When Great Plains acquired Aquila, it also acquired the non-regulated Crossroads. Because of the unsuccessful attempts to sell Crossroads prior to the acquisition, Crossroads had been transferred from Aquila Merchant to a non-regulated subsidiary of Aquila. After Great Plains acquired Aquila, it transferred

Crossroads to its plant records for MPS in August 2008. In the 2010 GMO rate proceeding, the Commission determined the rate base value of Crossroads to be $61.8 million, which is the dollar average of per kilowatt values of two combustion turbine facilities Aquila Merchant sold to Ameren Missouri in 2006 that Staff introduced into evidence in that case. In the 2010 rate case and again in the 2012 rate case, the Commission relied on those two sales transactions—one for the sale of the Raccoon Creek Energy Center and the other for the sale of the Goose Creek Energy Center–to determine the appropriate rate base valuation for Crossroads.

The following appears at page 100 of the Commission's May 4, 2011, Order in Case No. ER-2010-0356:

> The Commission also rejects GMO's inclusion of Crossroads in rate base at its net book value. The Commission determines that given Great Plains' statements to the Securities Exchange Commission shortly before the transfer of the Crossroads unit to the Missouri regulated operations, as well as the arm-length sale of other General Electric combustion turbines by Aquila, that the fair market value of Crossroads at the time of transfer (August 2008) was $61.8 million.

The Commission also stated at page 94 of its May 4, 2011, Order:

> When conducting its due diligence review of Aquila's assets for determining its offer price for Aquila, **GPE would have considered the transmission constraints and other problems associated with Crossroads. It is incomprehensible that GPE would pay book value for generating facilities in Mississippi to serve retail customers in and about Kansas City, Missouri. And, it is a virtual certainly that GPE management was able to negotiate a price for Aquila that considered the distressed nature of Crossroads as a merchant plant** which Aquila Merchant was unable to sell despite trying for several years. Further, it is equally likely that GPE was in as good a position to negotiate a price for Crossroads as AmerenUE was when it negotiated the purchases of Raccoon Creek and Goose Creek, both located in Illinois, from Aquila Merchant in 2006.
> [footnotes omitted; emphasis added]

Consistent with its decision in GMO's 2010 rate case, the Commission reached the same conclusion about Crossroads in GMO's 2012 rate case, where GMO again sought net book rate base value and inclusion of transmission costs in expense for Crossroads. In the Commission's

January 9, 2013, decision in Case No. ER-2012-0175, it stated at page 57 of its Order the following regarding Crossroads:

> Therefore, the Commission will order that the value of Crossroads for GMO's MPS rate base shall be $62,609,430 without transmission cost. At that value, GMO and Staff agree, the accumulated depreciation is $10,033,437 and the accumulated deferred taxes are $4,333,301. Those values best support safe and adequate service at just and reasonable rates for MPS, so the Commission will order those amounts to be included in GMO's MPS rate base.

GMO requested court review of the Commission's disallowance in Case No. ER-2010-0356 of its cost to transmit electricity from Crossroads. Both the Cole County Circuit Court (Case No. 11AC-CC00415) and the Missouri Court of Appeals (Case No. WD75038, *State ex rel. KCP&L Greater Missouri Operations Company v. Missouri Public Service Commission*, 408 SW3d 153 (Mo. App. 2013)) upheld the Commission, and when GMO sought U.S. Supreme Court relief, that body declined to review the Commission's decision (Case No. 13-787).

Following the Commission's *Report and Order* in Case No. ER-2010-0356, GMO filed Case No. ER-20120-175, where it again sought net book rate base value and inclusion of transmission costs in expense for Crossroads. While Case No. ER-2010-0356 was still before the courts, the Commission decided Case No. ER-2012-0175, again relying on the comparable Ameren Missouri sales to value Crossroads and again disallowing transmission costs.

Both because Staff believes the Commission considers its prior determinations of the rate base value of Crossroads as of July 14, 2008, and the disallowance of the costs to transmit electricity from Crossroads to GMO's retail customers in Missouri to be final, and because Staff believes those Commission determinations to be appropriate because the value of Crossroads is inextricably intertwined with the cost of transmitting electricity from Crossroads, in this case Staff again used the Commission-determined plant value of Crossroads of $61.8 million as of July 14, 2008, the date Great Plains acquired Aquila, as its starting point.[9] Based on this initial $61.9 million plant value, from July 14, 2008, to December 31, 2017, $20.3million of depreciation has accumulated for Crossroads. However, due to capital additions and retirements, the plant-in-service ("plant") value of Crossroads as of December 31, 2017, consistent with the

[9] EFIS #1092 Case No. ER-2010-0356- Revised True-up Direct for the May 4, 2011 Commission Report and Order Accounting Schedules, Schedule 3- Plant in Service, page 3 of 5- Crossroads section.

Commission's decisions in Case Nos. ER-2010-0356 and ER-2012-0175, is now $63.9 million, resulting in a net plant value for Crossroads of $43.6 million.

CROSSROADS DEFERRED INCOME TAXES

Staff has included a level of deferred income taxes ("deferred taxes") relating to Crossroads consistent with the Commission's decision in GMO's 2010 rate case regarding the plant values for that unit. The Commission stated at page 55 of its Order in Case No. ER-2012-0175 that the appropriate value of Crossroads deferred taxes is $4,333,401 as of August 31, 2012, the true-up date in that case. Deferred taxes are now valued as $4,826,610 at December 31, 2017. Staff has included deferred taxes consistent with the approach taken in the 2012 rate cases.

CROSSROADS TRANSMISSION COSTS

Because Crossroads is located in Mississippi, GMO has had to make firm transmission commitments to transport electricity from it to GMO's load center in western Missouri. The Commission has noted the costs to do so are significant. On page 86 of its Order in GMO's 2010 rate case, the Commission disallowed transmission costs relating to Crossroads, recognizing they were ongoing and indicating that it would not allow them in future rate cases, as follows:

> Staff argues that the cost of transmission to move energy from Crossroads in Mississippi to GMO's service territory justifies, in part, removing Crossroads from GMO's cost of service. The Company argues that the cost of transmission is offset by the lower gas reservation costs.
>
> The cost of transmission to move energy from Crossroads to customers served by MPS is a very significant cost that is far greater than the transmission cost for power plants located in the MPS district. The annual energy transmission cost was estimated as $406,000 per month. This is also substantially higher on an annual basis than the transmission plant costs for the Aries site where the three South Harper Turbines were originally planned to be installed.
>
> This higher transmission cost is an ongoing cost that will be paid every year that Crossroads is operating to provide electricity to customers located in and about Kansas City, Missouri. GMO does

not incur any transmission costs for its other production facilities that are located in its MPS district that are used to serve its native load customers in that district. **This ongoing transmission cost GMO incurs for Crossroads is a cost that it does not incur for South Harper, and is the cause of one of the biggest differences in the on-going operating costs between the two facilities.**

It is not just and reasonable to require ratepayers to pay for the added transmission costs of electricity generated so far away in a transmission constricted location. Thus, the Commission will exclude the excessive transmission costs from recovery in rates. [Emphasis added]

The Commission noted at page 58 of the Order in Case No. ER-2012-0175:

1. Crossroads is 500 miles from GMO's MPS territory.

2. Between the territory of MPS and Crossroads are the territories of regional transmission organizations ("RTOs"). RTOs collect payment for the transmission of power through their territories. GMO does not belong to all those RTOs so GMO must pay higher fees for transporting power than to an RTO of which GMO is a member.

3. There are generating facilities closer, including Dogwood's facility and the South Harper plant. Even though Crossroads provides power for GMO only during half of the days in the summer, GMO pays about $5.2 million to transmit power from Crossroads all year round. The high cost of transmission is not outweighed by lower fuel costs in Mississippi.

Discussion, Conclusion of Law, and Ruling

GMO has not carried its burden of proof on transmission costs. GMO alleges that the lower price of fuel in Mississippi outweighs the cost of transmission. The Commission has found that the evidence preponderates otherwise.

….

Therefore, the Commission concludes that including the Crossroads transmission costs does not support safe and adequate service at just and reasonable rates, and the Commission will deny those costs.
[page 59 of Order in Case No. ER-2012-0175; emphasis added]

The Commission's Order in both the 2010 and 2012 rate cases prohibited GMO from any recovery of transmission costs related to Crossroads. The Commission stated at page 64 of its 2012 Order with respect to the recovery of Crossroads transmission costs:

> Crossroads Transmission. Several parties ask the Commission to order that GMO's FAC tariff sheets state expressly that GMO's FAC excludes transmission costs related to Crossroads. Insofar as the Commission has determined that no transmission costs from Crossroads will enter GMO's MPS rates, there is no further dispute, and no further findings of fact and conclusion of law are required. The Commission will order GMO's FAC clarified to state that GMO's FAC excludes transmission costs related to Crossroads.

Consistent with the Commission's decision in GMO's 2010 and 2012 rate cases, and consistent with the position taken by Staff in GMO's most recent rate case in 2016, Staff excluded all Crossroads transmission costs in this current case. Staff continues to recommend that GMO not be allowed any recovery of transmission costs associated with Crossroads either in base rates or through the fuel clause. This generating facility is over 500 miles from the service area of GMO. Crossroads was originally built in Mississippi by Aquila Merchant to take advantage of that region's transmission constraints. The transmission constraints and distance of this facility from GMO's customers now results in the extremely high transmission costs resulting from this plant's operations.

Though Crossroads transmission costs were already excessive due to the location of the generating plant, Crossroads transmission expense further increased dramatically in 2014 and 2015, when Entergy joined the MISO RTO in December 2013, and those higher transmission costs continued in 2016 right through current 2017 levels. GMO customers should not have to pay for any portion of those costs as it is an imprudent decision to install a power plant located over five hundred miles from where the electricity is used. If this peaking plant, originally built as a merchant power plant, had been properly located as other peaking units in GMO's and KCPL's fleet, there would be no additional transmission costs to operate the plant. No other generating unit in KCPL's or GMO's fleet is in a different RTO and no other generating unit incurs transmission costs as a result to transport its power to GMO's customers.

Crossroads, constructed in 2002 as a non-regulated merchant plant, was never contemplated to be used as a regulated generating facility and certainly never was designed to

serve electric loads over 500 miles from the location of the generating facility It is the location of this generating facility in relation to the customers' electric needs that makes Crossroads imprudent. Accordingly, disallowance of Crossroads transmission costs is not a "transmission" issue as GMO has argued to the Commission, but rather the direct outcome of the placement of this power plant that has resulted in the tremendous costs to operate the plant. Once the generating units could not be sold when it was determined to no longer be necessary to Aquila Merchant's non-regulated business model, it was then a power plant operating in a distressed market having very limited value to any regulated entity.

It is imprudent for GMO to attempt to charge its customers for having a power plant located in Mississippi to serve western Missouri customers. It is therefore also imprudent to allow recovery of the excessive transmission costs to operate this power plant facility. In the 2010 and 2012 rate cases, the Commission deemed Crossroads prudent as long as customers did not have to pay the purchase price when the facility was built by Aquila Merchant and as long as customers did not have to pay for the transmission costs associated with a very constrained transmission system and transmitting power through a non-SPP regional transmission organization. These decisions are still appropriate today in the context of this rate proceeding.

The adjustment to remove the Crossroads transmission costs from the test year is E-85.1 in Staff's Accounting Schedule 10. Staff witness Keith Majors also addresses other adjustments for transmission expenses for MISO administrative costs related to Crossroads in the Transmission Costs section of this report.

GMO's annual total transmission costs for Crossroads by year from 2007 through 2017 are:

2017	** _____	** excluding settlement amount[10]
2016	** _____	** excluding settlement amount
2015	** _____	**
2014	** _____	**
2013	** _____	**
2012	** _____	**
2011	** _____	**

[10] Years 2016 and 2017 GMO transmission costs included settlement amounts. For 2017, the transmission costs with settlement amounts total $11,703,332 and without settlements $11,127,897. For 2016, transmission costs with settlement amounts total $6,346,779 and without settlements $7,967,285.

2010	** _____	**
2009	** _____	**
2008	** _____	**
2007	** _____	**

[Response to Data Request 154 in Case ER-2012-0175 and Data Request 155.1S, 160 and 167.3S in Case No. ER-2016-0156 and Data Request 357 and 390 in Case No. ER-2018-0146]

Staff Expert/Witness: Cary G. Featherstone

D. Crossroads Miscellaneous Costs

Staff identified other incremental costs directly related to the Crossroads Generating Station in the test year. Staff identified Mississippi state franchise taxes and travel expense reports recorded in the test year. Staff recommends removal of these costs from the cost of service, for the same purposes identified in the COS section concerning the Crossroads Generating Station sponsored by Staff Witness Cary G. Featherstone. GMO adjustments E-58.2, E-61.3, and E-194.1 in Staff Accounting Schedule 9 remove these expenses from the test year.

Staff Expert/Witness: Keith Majors

E. Stipulation and Agreement in Case No. ER-2012-0175 (GMO Only)

In GMO's 2012 rate case, it agreed to reduce transmission and distribution plant through a series of adjustments to increase depreciation reserve. At page 12, under the GMO Only Issues in the *Non-Unanimous Stipulation and Agreement As To Certain Issues*, the following appears as item 3:

> 3. Transmission and Distribution Plant: Upon Commission approval of this Stipulation GMO will reduce its transmission and distribution plant rate base by a total of $8.0 million, 65% for MPS and 35% for L&P, to be reflected in Staff's and Company's models for the true-up in this cases. GMO agrees it will not request recovery of this reduction by any means, directly or indirectly, in the future. GMO will provide to Staff plant accounting records that identify exclusion of these amounts from future rate base consideration.

FERC USOA Account Number & Description		Plant Adjustment	Plant Total	Reserve Adjustment	Reserve
355	Transmission– Poles & Fixtures	P-376	$1,402,180	R-376	$201,996
356	Transmission- Cond & Devices	P-378	3,221,405	R-378	367,455
365	Distribution- OH Conductor	P-393	3,055,085	R-393	$327,454
366	Distribution- UG Circuit	P-395	321,331	R-395	26,858
	Total		$8,000,000		$923,763

Staff Accounting Schedules 4- Adjustments to Plant in Service and Accounting Schedule 7- Adjustments to Depreciation Reserve

Both GMO and Staff made these adjustments to reflect the agreement reached in Case No. ER-2012-0175. The adjustments to plant are P-376, P-378, P-393 and P-395 and adjustments to reserve are R-376, R-378, R-393 and R-395.

Staff Expert/Witness: Cary G. Featherstone

F. Greenwood - Solar Allocation

On November 12, 2015, GMO filed an application, Case No. EA-2015-0256, with the Commission requesting permission and approval of a Certificate of Public Convenience and Necessity ("CCN") authorizing it to construct, install, own, operate, maintain and otherwise control and manage solar generation facilities in Greenwood Missouri ("Greenwood Solar Facility"). GMO entered into a Master Service Agreement ("Agreement") with ** _____ _____ ** for the engineering, procurement, and construction of the Greenwood Solar Facility.[11] The Greenwood Solar Facility is a three megawatt ("MW") solar facility that will produce approximately 4,700 megawatt-hours ("MWh") of solar energy per year.[12] GMO indicated in its certificate application the Greenwood Solar facility was being proposed to gain experience owning, maintaining, and operating a utility scale solar facility.

The Commission approved GMO's request for a CCN for the Greenwood Solar Facility in its *Report and Order* effective March 12, 2016. On page 18 of its *Report and Order*, the Commission stated, "The Commission has found that GMO's proposal to construct a pilot solar plant is necessary or convenient for the public service and will grant the company the certificate

[11] KCPL-GMO response to Staff Data Request No. 0006 in Case No. EA-2015-0256.

[12] *Application of KCP&L Greater Missouri Operations Company for Permission and Approval of a Certificate of Public Convenience and Necessity Authorizing It to Construct, Install, Own, Operate, Maintain and Otherwise Control and Manage Solar Generation Facilities in Western Missouri*, Page 3.

of convenience and necessity it seeks." In Case No. ER-2016-0285, Staff verified that the Greenwood Solar facility met the in-service criteria effective June 20, 2016.

In addition to granting GMO the CCN for the Greenwood Solar Facility, the Commission also addressed concern that GMO ratepayers will bear all the costs of a facility that is primarily being built to allow KCPL to gain experience owning, maintaining, and operating a utility scale solar facility. Beginning on page 16 of its *Report and Order* in Case No. EA-2015-0256, the Commission stated:

> The Commission is concerned that only GMO ratepayers will bear the cost of the project. The Commission will not make any specific ratemaking decisions in this case. Those will be reserved for GMO's pending rate case. However, the matter will once again come before the Commission when GMO seeks to add the plant to its rate base. **At that time, the Commission will expect GMO to propose a means by which those costs will be shared with KCP&L's customers who will also benefit from the lessons learned from this pilot project.** (Emphasis added.)

GMO does not have any employees. KCPL employees perform all services for Great Plains, KCPL, and GMO under an operating agreement. The employees that will gain the experience operating a utility scale solar facility are KCPL employees. Consequently, all rate districts, KCPL-Missouri, KCPL-Kansas, and GMO, will benefit from the acquired knowledge from building and operating a utility scale solar facility.

In KCPL's and GMO's previous general rate cases, ER-2016-0285 and ER-2016-0156, respectively, no proposals to allocate the Greenwood Solar Facility costs were made by KCPL and GMO as ordered by the Commission in Case No. EA-2015-0256. Again, in KCPL's and GMO's current general rate cases, no proposal to allocate the Greenwood Solar Facility was included in their direct filings. Consequently, consistent with the Commission Order in Case No. EA-2015-0256, Staff is proposing an allocation methodology for the Greenwood Solar Facility costs that will be included in KCPL's and GMO's cost of service.

Staff recommends allocating the Greenwood solar capital costs and any related expenses based on number of customers. The Commission addressed in its Order in Case No. EA-2015-0256 the intangible benefits that will be gained from the experience of constructing and operating the facility and the results that will lead to increased use of solar

power in the future.[13] Since the experience gained will benefit all of KCPL and GMO's customers in the future, allocating the costs using customers is a reasonable approach. The table below reflects the allocation between KCPL and GMO using customers:[14]

Methodology	KCPL	%	GMO	%	Total
Customers	539,416	62.51%	323,470	37.49%	862,886

The adjustment to allocate capital costs is reflected on Schedule 4 and 7 of Staff's Accounting Schedules, Adjustment P-237.1 and R-237.1 for KCPL, and P-370.1 and R-370.1 for GMO. Staff used the same methodology to allocate maintenance costs associated with the facility. Staff's adjustment for the maintenance costs is reflected on Schedule 10 of Staff's Accounting Schedules, Adjustment E-109.2 for KCPL and E-63.2 for GMO.

Since the Greenwood Solar Project is being built to gain experience owning, operating, and maintaining a utility scale solar facility with KCPL employees gaining the experience, Staff also recommends that the costs of the Greenwood Solar facility be allocated to the KCPL Kansas jurisdiction. Staff utilizes a demand allocator to allocate production plant and reserve costs between Kansas and Missouri. Staff used the same approach to allocate the Greenwood Solar facility between Missouri and Kansas.

Staff Expert/Witness: Karen Lyons

G. Material and Supplies

Staff's recommended treatment of materials and supplies is to examine each account individually in order to determine an appropriate level that most accurately reflects the ongoing future investment costs of a particular account that should be included in rate base. Materials and supplies represent an investment in inventory for items such as spare parts, electric cables, poles, meters, and other miscellaneous items used in daily operations, maintenance, and construction activities by KCPL and GMO to maintain and build KCPL's and GMO's production facilities and electric system. Because the account balances varied greatly depending on each individual account, Staff reviewed the balances for each account for materials and

[13] Case No. EA-2015-0256 Commission Report and Order, page 16.
[14] Data from KCPL and GMO Annual Report and FERC form 1 filed on May 15, 2018.

supplies individually on a monthly basis to determine whether trends within an individual account existed over time. Staff reviewed the monthly balances for materials and supplies accounts from December 2016 to December 2017. If an upward or downward trend was detected, then Staff used the ending balance for that account. If there was no discernible trend, then a 13-month average was determined to be the most appropriate measure of the ongoing investment level for that account. Staff examined the accounts individually and determined which methodology, 13-month average or ending balance, was the most appropriate measure to accurately predict the ongoing future investment costs of a particular account that should be included in rate base (Accounting Schedule 2).

Staff Expert/Witness: Antonija Nieto

H. Prepayments

Staff's recommended treatment of prepayments is to examine each prepayment account individually in order to determine an appropriate measure that most accurately predicts the ongoing future investment costs of a particular prepayment account, and then to include the appropriate level of prepayments in KCPL's and GMO's rate base. Prepayments are expenses that a company pays in advance of the associated good or service to be obtained. Since there are investment costs incurred by the utility when it prepays expenses, the company is allowed to earn a return on these amounts through inclusion in rate base. For example, KCPL or GMO prepay for a property insurance policy to protect their assets in advance of the coverage period. Accordingly, the cost of that insurance policy is considered to be a prepaid asset and is included in rate base to allow a return on the unused portion of the prepaid asset. As the prepayments are consumed, an amount is charged to an expense account in the income statement.

Staff included amounts in its rate base for all prepayments required for KCPL and GMO to provide electric utility service to their customers. Staff examined all of KCPL's and GMO's prepayment account balances from December 2016 to December 2017, on a month-by-month basis. Based on this review, and the variability in the monthly account balances, Staff determined the prepayment levels to be included in KCPL's and GMO's rate base. For accounts where there was no discernible upward or downward trend in the monthly balances, Staff calculated an average based on balances for the 13-months ending December 30, 2017. For accounts where a noticeable upward or downward trend was present, Staff used the most recent

account balances (December 31, 2017). Staff removed Missouri Public Service Commission ("MPSC") Assessment fees, Kansas Corporation Commission ("KCC") Assessment fees and Edison Electric Institute ("EEI") dues booked to account 165008 – Prepayments Other. Staff removed the EEI dues from KCPL's and GMO's prepayments consistent with Staff's treatment of EEI dues addressed in the Dues and Donations section of Staff's Cost of Service Report. Staff eliminated the KCC Assessment fees because there are no benefits to the Missouri ratepayers associated with this item. Staff eliminated the MPSC Assessment fees from prepayments and included them in Staff's Cash Working Capital ("CWC") schedule; this issue is discussed further in the CWC section of this report.

Staff Expert/Witness: Antonija Nieto

I. Cash Working Capital

Cash Working Capital is the amount of cash necessary for a utility to pay the day-to-day expenses incurred to provide utility services to its customers. Cash inflows from payments received by the company from its customers for the provision of utility service and cash outflows for expenses paid by the company in providing that utility service are analyzed using a lead/lag study.

When the company expends funds to pay an expense before its customers provide the cash, the shareholders are the source of the funds. This cash represents a portion of the shareholders' total investment in the company. The shareholders are compensated for the CWC funds they provide by the inclusion of these funds in rate base. By including these funds in rate base, the shareholders earn a return on the funds they have invested. Customers supply CWC when they pay for electric services received before the Company pays expenses incurred to provide that service. Utility customers are compensated for the CWC funds they provide by a reduction to the utility's rate base.

A positive CWC requirement indicates that, in the aggregate, the shareholders provided the CWC. This means that, on average, the utility paid the expenses incurred to provide the electric services to its customers before those customers had to pay the company for the provision of these utility services. A negative CWC requirement indicates that, in the aggregate, the utility's customers provided the CWC. This means that, on average, the customers paid for

the utility's electric services before the utility paid the expenses that the utility incurred to provide those services.

KCPL and GMO revised the revenue lag to account for changes in the collection lag. The collection lag is a weighted value that reflects two components: 1) a zero-day lag for the percentage of receivables sold to the GMO and KCPL Accounts Receivable facility and 2) an average number of days outstanding for the percentage that is not sold. KCPL and GMO used the same expense lags agreed to in Case No ER-2016-0285 and ER-2016-0156 rate cases.

Staff is in agreement with the change to the KCPL and GMO revenue lags. Staff is also in agreement with the expense lags utilized by KCPL and GMO, with the exception of the following:

- Bad Debt expense,
- PSC Assessment, and
- Federal income tax lags.

As discussed above, KCPL's and GMO's CWC measures cash flow. Bad Debt expense is a non-cash item similar to depreciation expense. In these two examples, the Company collects revenue for these expenses, but there are no subsequent payments. Since there is no cash flow impact associated with bad debt expense, Staff excluded bad debt in the CWC schedule

KCPL and GMO include the PSC assessment in prepayments. Prepayments are costs that are paid in advance such as rents, leases, insurance, etc. The PSC Assessment is billed on an annual basis with the option to pay the balance in full or in quarterly payments. KCPL and GMO pay the assessment on a quarterly basis. Consequently, the assessment is not considered a prepayment. Staff eliminated the assessment from prepayments and included it in the cash working capital schedule with an expense lag appropriate for a quarterly payment.

Currently KCPL and GMO do not pay any income taxes as a result of net operating losses. Since KCPL and GMO do not pay for these taxes, the cash flow impact of these taxes should be reflected in the CWC schedule. Staff reflected an expense lag of zero days for federal income taxes in the CWC schedule.

In conclusion, the revisions made to the CWC schedule by Staff resulted in a negative CWC requirement. This means that in the aggregate, the customers have provided the CWC to the Company during the year. Therefore, the customers should be compensated for the CWC that they provide by decreasing KCPL's and GMO's rate base.

Staff Expert/Witness: Karen Lyons

J. Fuel Inventories

1. Coal Inventory

The amount Staff included in KCPL's and GMO's rate bases for coal inventory is based on the results obtained from Staff's production cost model ("fuel model"). Staff used its fuel model to determine the appropriate mix of generation and purchased power utilization to match the normalized native load for KCPL and GMO. In doing so, Staff obtained from the fuel model an annual amount of tons of coal burned by each coal-fired generation unit during the normalized updated test year. Staff divided the annual tons of coal burned from the fuel model by 365 days to calculate an average daily burn by unit. Staff then multiplied this average daily burn by KCPL's and GMO's recommended number of burn days of coal inventory for each generation unit and added an estimated level of basemat coal. Basemat coal is the bottom portion of the coal pile that is difficult to burn in the generating facilities because of the contamination of moisture, soil, clay, and other contaminants. Staff then multiplied the resulting normalized level of inventory for each unit by the delivered cost per ton of coal for use at that unit. The resulting annual coal costs for each unit were then aggregated. The aggregated amount was multiplied by Staff's energy jurisdictional allocation factor to arrive at the coal inventory amount shown in Rate Base – Accounting Schedule 2.

Staff Expert/Witness: Matthew R. Young

2. Nuclear Inventory (KCPL Only)

To determine the amount to include in rate base for KCPL's nuclear fuel inventory, Staff used an 18-month average of the value of nuclear fuel that was contained in the fuel core of the Wolf Creek nuclear generating unit. Since the Wolf Creek unit is refueled every 18 months, this 18-month time period reflects the average nuclear fuel inventory value during a complete nuclear fuel usage cycle at Wolf Creek. This approach is consistent with the method used by KCPL to calculate the revenue requirement in this case. Staff's recommended level of nuclear fuel inventory for KCPL is shown on Schedule 2 of Staff's Accounting Schedules.

Staff Expert/Witness: Matthew R. Young

3. **Oil and Fuel Additive Inventories**

Staff used 13-month averages to determine the inventory levels for oil, lime, limestone, ammonia, propane, urea, and powder activated carbon inventories as of December 31, 2017. Staff priced out the various inventories using the latest pricing or the actual monthly dollar levels of inventory. Use of 13-month average inventory levels is appropriate in that it reflects KCPL's and GMO's actual experience for the entire 12-month test year period by including a beginning inventory and an ending inventory. For example, if the test year were a calendar year it would begin with January 1 and end with December 31. A 13-month average reflects the entire year by using the December 31 (January 1) beginning balance and including each subsequent month-ending balance through the end of the year (December 31). When inventory levels fluctuate from month-to-month, as they do with fuel stocks, a 13-month average is used to smooth out those fluctuations. Staff's inventory levels for oil, lime, limestone, ammonia, propane, urea, and powder activated carbon are shown in Staff's Accounting Schedules in Rate Base – Schedule 2. Staff's approach is consistent with the method used by KCPL and GMO to calculate the revenue requirement in this case.

Staff Expert/Witness: Matthew R. Young

K. Customer Deposits

Staff's recommended treatment of customer deposits is to deduct from KCPL's and GMO's rate base a thirteen (13) month average of the customer deposit balance ending December 31, 2017, as reflected in the Missouri jurisdictional total. Customer deposits are the funds required to be provided by certain customers taking electrical service from KCPL and GMO in order to initiate receipt of utility services. These funds are deducted from KCPL's and GMO's rate base because these funds are cost-free to KCPL and GMO. The amount reflected for customer deposits on Accounting Schedule 2, Rate Base, is a 13 month average for the period December 2016 to December 2017. The balance reflected on the Rate Base Accounting Schedule is the Missouri jurisdictional total for customer deposits. The 13 month average was used because the account balance fluctuated over that period. In addition to the amount deducted from rate base for customer deposits, an amount for interest on customer deposits has been included as an adjustment to the income statement under Account 903 (Accounting Schedule 10). Customers are paid interest for the use of the funds they provide to KCPL and

GMO on a cost-free basis, and that interest expense is included as an expense in the revenue requirement calculation discussed in more detail in the "Customer Deposits - Interest Expense" section below.

Staff Expert/Witness: Antonija Nieto

L. Customer Advances

Staff's recommended treatment of customer advances is to deduct from KCPL's and GMO's rate base a 13-month average of account balances ending December 31, 2017, as the monthly account balances for KCPL and GMO did not exhibit a discernible upward or downward trend.

Customer advances are funds typically provided by construction developers to KCPL and GMO in order to ensure that KCPL and GMO build electric infrastructure in areas that have potential for future development. These advances are also used by the utility to establish electric service for potential future customers without investing a substantial amount of money at the risk of the utility and its other customers. Unlike customer deposits, where KCPL and GMO receive these payments from respective customers on a cost-free basis without any future obligation to provide electrical service to those customers, customer advances are provided to KCPL and GMO from certain customers that obligate KCPL and GMO to provide future electrical infrastructure and service for those affected customers. Customer advances represent a recorded liability to recognize, in most instances, the obligation to eventually return the funds advanced by customers to KCPL and GMO. The infrastructure constructed with these funds is not financed with debt or equity and, thus, ratepayers should not be obligated to pay a return on these plant investments. Therefore, customer advances are included in the rate base on Accounting Schedule 2 as a reduction, lowering the amount of overall investment that customers must supply as a return to the utility.

Staff Expert/Witness: Antonija Nieto

M. Iatan Construction Accounting Regulatory Assets

During the creation and execution of KCPL's Experimental Regulatory Plan for the construction of Iatan 2, which involved adding pollution control equipment to Iatan 1, as well as other investments, the Commission authorized KCPL to book certain costs into regulatory asset

accounts for potential recovery in future general rate cases. Similarly, GMO was authorized to establish regulatory assets for consideration in future rate cases. Below is a table that identifies the Iatan generating units, the costs associated with that generating unit the Commission authorized KCPL and GMO book in regulatory asset accounts, and the time period over which the costs were collected in the regulatory asset account:

Owner	Generating Unit	Expense Type	Accumulation Period	Authorization
KCPL	Iatan 1 and Common	Depreciation, Carrying Cost, No O&M	May 1, 2009 – May 4, 2011	ER-2009-0089 Stipulation
KCPL	Iatan 2	Depreciation, Carrying Cost, O&M	August 26, 2010 – May 4, 2011	Accounting Authority Order EO-2005-0329
GMO – MPS and L&P	Iatan 1 and Common	Depreciation, Carrying Cost, No O&M	May 1, 2009 – June 25, 2011	ER-2009-0090 Stipulation
GMO – MPS and L&P	Iatan 2	Depreciation, Carrying Cost, O&M	August 26, 2010 – June 25, 2011	Accounting Authority Order EU-2011-0034

Pursuant to the Commission's Order on June 10, 2009, in Case Nos. ER-2009-0089 and ER-2009-0090, approving the 2009 rate case Stipulation and Agreements, the Commission authorized KCPL and GMO to create regulatory assets accounts for recording the depreciation and carrying costs for the Iatan Unit 1 AQCS[15] and Iatan common facilities appropriately recorded to electric plant-in-service, but for which the amount in that account was not included in KCPL's and GMO's rate base in that case (also known as "construction accounting"). Pursuant to the Commission's July 28, 2005, Report and Order approving the Stipulation and Agreements filed in KCPL's Case No. EO-2005-0329 and GMO's Case No. EU-2011-0034, the Commission authorized KCPL and GMO to create regulatory asset accounts for booking the depreciation, carrying costs, and other operating expenses and credits for Iatan Unit 2 subsequent to its fully operational and used for service date of August 26, 2010.

[15] Air quality control system.

For purposes of inclusion in KCPL's and GMO's rate base, Staff reflected the unamortized balances of these regulatory asset accounts as of June 30, 2018, the true-up period the Commission ordered in its procedural schedule in this case.

The Iatan Unit 1 and Iatan facilities common regulatory assets, capturing construction accounting from May 1, 2009, through December 31, 2010, the true-up cutoff in Case Nos. ER-2010-0355 and ER-2010-0356, is referred to by Staff as "Iatan 1 - Vintage 1." This regulatory asset is included in Staff's schedule labeled, "Rate Base – Schedule 2," and amortized to expense over 26 years.

The Iatan Unit 1 and common regulatory asset, capturing construction accounting from January 1, 2011, through May 4, 2011 (the effective date of new rates in Case No. ER-2010-0355), is referred to by Staff as "Iatan 1 - Vintage 2." This regulatory asset is included in Staff's schedule labeled, "Rate Base – Schedule 2," and amortized to expense over 24.3 years.

The Iatan Unit 2 regulatory asset, capturing construction accounting from August 26, 2010, through December 31, 2010, the true-up cutoff in Case Nos. ER-2010-0355 and ER-2010-0356, is referred to by Staff as "Iatan 2 - Vintage 1." This regulatory asset is included in Staff's schedule labeled, "Rate Base – Schedule 2," and is amortized to expense over 47.7 years.

The Iatan Unit 2 regulatory asset, capturing construction accounting from January 1, 2011, through May 4, 2011, the effective date of rates in Case No. ER-2010-0355, is referred to by Staff as "Iatan 2 - Vintage 2." This regulatory asset is included in Staff's schedule labeled, "Rate Base – Schedule 2," and amortized to expense over 46 years.

The test year ending June 30, 2017, includes a full 12 months of amortization related to these regulatory assets. However, GMO's test year also contains a corrective journal entry, made in February 2017. Staff adjustment E-187.1 reverses the correcting journal entry to restore the annual amortization expense.

Staff Expert/Witness: Matthew R. Young

V. Income Statement – Revenues

A. Rate Revenues

1. Introduction

This section describes how Staff determined the level of KCPL and GMO Operating Revenues. The largest component of operating revenues results from the rates charged to KCPL's and GMO's retail customers, therefore, a comparison of operating revenues with cost of service is fundamentally a test of the adequacy of the currently effective Missouri retail electricity rates.

One of the major tasks in a rate case is to determine the magnitude of any deficiency (or excess) between cost of service and operating revenues. Once determined, the deficiency (or excess) can only be corrected (or otherwise addressed) by adjusting Missouri retail rates (i.e., rate revenue) prospectively. Operating Revenues are composed of Off-system Sales, Other Operating Revenue, and Rate Revenue.

Rate Revenue – Test Year rate revenues consist solely of the revenues derived from KCPL's and GMO's charges for providing electric service to its Missouri retail customers. KCPL's and GMO's revenues are determined by taking each customer's usage and applying the appropriate tariffed rates. The appropriate tariffed rate varies based on different factors, including the time of the year (summer vs. winter), types of charges (demand, energy, etc.), and the customers' rate class.

Staff Expert/Witness: Kim Cox

2. The Development of Rate Revenue

Staff's adjustments to KCPL's Missouri jurisdictional billing units and rate revenues, and GMO's billing units and rate revenues, are based upon information that is "known and measurable" through the end of the update period for revenues (October 31, 2017). The two major categories of revenue adjustments are known as "normalization" and "annualization." Normalizations address events through the update period that are unusual and unlikely to be repeated in the years when the new rates from this case are in effect, e.g., events such as the update period weather. Annualizations are adjustments that restate the test year results, updated through October 31, 2017, for rate switchers, customer growth, and new retail rates, as if

conditions known at the end of the 12 month period ending October 31, 2017, had existed the entire 12 months.

This report briefly describes the adjustments that Staff made to test year and update period billed rate revenues. Not all adjustments affect both billing units and rate revenue and not all rate classes are subject to every adjustment.

Staff Expert/Witness: Kim Cox

3. Weather Normalization

a. Weather Variables

Each year's weather is unique; consequently, test year usage, hourly loads, revenue, and fuel and purchased power expense need to be adjusted to "normal" weather patterns so that rates will be designed on the basis of normal weather rather than any anomalous weather in the test year.

Source of Weather Data – In the quantification of the relationship between test year weather and energy sales, Staff used weather observations of the Kansas City International Airport ("MCI") in Kansas City, Missouri, for the update period of November 1, 2016, through October 31, 2017.

Staff used a 30-year period of "climate normals" ("normals") by the National Climatic Data Center ("NCDC") of the U.S. National Oceanic and Atmospheric Administration ("NOAA") as a measure of "normal" weather. According to NOAA, a climate normal is defined as the arithmetic mean of a climatological element computed over three consecutive decades.[16] To conform to the NOAA's three consecutive decades for determining normal temperatures, Staff used observed maximum and minimum daily temperatures for the 30-year period of January 1, 1981, through December 31, 2010. Therefore, Staff bases its calculations on the time period of the most recent climate normals produced by NCDC. [17]

Although the definition of normal weather is relatively simple, the actual calculations may be more complicated. Inconsistencies and biases in the 30-year time series of daily temperature observations occur if weather instruments are relocated, replaced, or recalibrated.

[16] Retrieved on January 27, 2016, http://www.ncdc.noaa.gov/data-access/land-based-station-data/land-based-datasets/climate-normals.

[17] Retrieved on January 27, 2016, http://www.ncdc.noaa.gov/data-access/land-based-station-data/land-based-datasets/climate-normals/1981-2010-normals-data.

Changes in observation procedures or in an instrument's environment may also occur during the 30-year period. NOAA accounted for these anomalies in calculating the normal temperatures it published in July 2011.[18]

Staff verified the adjustments for anomalies in the MCI time series by direct communication with NCDC, and through Staff's own review of the daily observations. According to NCDC, the serially-complete monthly minimum and maximum temperature data sets have been adjusted to remove all inconsistencies and biases due to changes in the associated historical database. Furthermore, Staff reviewed NCDC's peer-reviewed, published paper[19] that explains the accuracy of the NCDC's monthly temperature series homogenization procedure for removing documented and undocumented anomalies, and found it to be meteorologically and statistically sound.

Because Staff uses daily temperature observations to calculate normal weather values and NOAA's normals are monthly values, Staff adjusted the observed daily temperatures so that the monthly average temperature calculated from these adjusted daily values is the same as the NCDC's serially-complete monthly temperature time series. Staff derived the daily mean temperature ("DMT") time series, daily two-day weighted mean temperatures, and normal daily temperatures from these adjusted daily temperatures.

Definition of Weather Variables - Because weather fluctuates greatly from day-to-day, the MCI temperature variables required to weather-normalize sales are two-day weighted DMT of the update period actual and the 30-year normal. The day's DMT is generally defined as the simple average of the day's maximum daily temperature and minimum daily temperature. The daily two-day weighted mean temperature is calculated using the previous day's mean daily temperature with a one-third weight and the current day's mean daily temperature with a two-thirds weight.[20]

This was done because yesterday's weather effects how electricity is used today in the KCPL and GMO service area. This is likely due to heat retention by the structures in the service

[18] Arguez, A., I. Durre, S. Applequist, R. S. Vose, M. F. Squires, X. Yin, R. R. Heim, Jr., and T. W. Owen, (2012): NOAA's 1981-2010 U.S. Climate Normals: An Overview. Bulletin of the American Meteorological Society, 93, 1687-1697,

[19] Menne, M.J., and C.N. Williams, Jr., (2009) Homogenization of temperature series via pairwise comparisons. *J. Climate*, 22, 1700-1717.

[20] To calculate the Dth day's two-day weighted mean temperature ($TWMT_D$), the current day's (D) daily mean temperature (DMT_D) is averaged with the prior day's (D-1) daily mean temperature (DMT_{D-1}), applying a 2/3 weight on the current day and 1/3 weight on the prior day: $TWMT_D = (2/3)\ DMT_D + (1/3)\ DMT_{D-1}$.

area. For example, if today's temperature is mild, but yesterday's temperature was hot and the air conditioner was on, it is likely that the air conditioner will also be used today. Similarly, if yesterday's temperature was mild and air conditioning was not used, then if today's temperature is slightly warmer, air conditioning may not be used until later in the day. Staff used the MCI daily two-day weighted mean temperature data series to normalize both class usages and hourly net system loads.

Calculation of "Normal Weather" - Staff used a ranking method to calculate normal weather estimates of daily normal temperature values, ranging from the temperature that is "normally" the hottest to the temperature that is "normally" the coldest, thus estimating "normal extremes." Staff ranked the two-day weighted temperatures for each year of the 30-year history from hottest to coldest and then calculated the normal daily temperature values by averaging the ranked two-day weighted mean temperatures for each rank, irrespective of the calendar date.

This results in the normal extreme being the average of the most extreme temperatures in each year of the 30-year normals period. The second most extreme temperature is based on the average of the second most extreme day of each year, and so forth. Staff's calculation of daily normal temperatures is not the same as NOAA's calculation of smoothed daily normal temperatures. Because the test year temperatures do not follow smooth patterns from day to day, Staff calculated normal daily temperatures based on the rankings of the actual temperatures of the test year period. Staff's calculation procedure of weather variables of MCI is consistent with calculations used in past rate cases, including the last GMO rate case, ER-2016-0156, and the last KCPL rate case, ER-2016-0285.

Staff Expert/Witness: Seoung Joun Won Ph.D.

b. Weather Normalization

In many of the classes of service, electricity consumption is highly responsive to the weather, specifically temperature. As the temperature increases, the demand for cooling, air conditioning, and fans increases the customers' consumption of electricity. As the weather becomes colder and the temperature falls, the demand for additional heating, for example electric space heating, also increases electricity consumption. Because electric air conditioning and space heating are prevalent in the KPCL and GMO service territories, KCPL's and GMO's electric loads are linked and responsive to daily changes in temperature.

Staff used the most recent temperature and load data available for the update period of November 1, 2016, through October 31, 2017, to capture a more likely, forward-looking indictor of non-weather related electricity usage per customer. December 2016 experienced temperatures colder than normal, and June, July, and September 2017 experienced temperatures hotter than normal, resulting in electric energy usage above that which would have been expected under normal weather conditions. November 2016, January through March 2017, and August 2017 experienced temperatures more mild than normal resulting in usage below that which would have been anticipated under normal conditions. The temperatures used by Staff in the test year period deviated from normal, thus Staff performed a weather impact analysis using loss factors reviewed by Staff witness Alan Bax.

Staff's model and methodology contained elements important in the class level weather normalization process; in particular, use of daily load research data to determine non-linear, class and district specific responses to changes in temperature with the incorporation of different base usage parameters to account for different days of the week, months of the year, and holidays. The results of Staff's analysis were provided to Staff witnesses Kim Cox, Joseph Roling, and Jose Perez to be used in the normalization of revenues for each districts' weather sensitive classes: Residential ("RES"), Small General Service ("SGS"), Medium General Service ("MGS"), Large General Service ("LGS") and Large Power Service ("LPS") classes.

Staff Expert/Witness: Seoung Joun Won, Ph.D.

c. 365-Days Adjustment to Usage

KPCL and GMO customers' usage is measured, and rate revenue is collected over a period known as a revenue month, which is the interval of time over which KPCL and GMO reads customers' meters and generates invoices. Calendar months, which coincide with a standard calendar and begin on the first day of the month and end on the last day of the month, differ from revenue months because the periods they cover begin and end at different times. An invoice rendered for a given revenue month may charge for usage in portions of two calendar months. Revenue months take their names from the calendar month in which the customer's invoice is rendered. For example, assume a customer's meter was read and usage was determined on June 8 and then again on July 8; assume also that the invoice was sent to the customer on July 15. The revenue month for this invoice is July, even though 22 days of the

usage measured for this invoice occurred from June 9 through June 30 and it contained only eight days of usage in July. Staff calculated a normalization adjustment to KCPL's and GMO's kWh usage to reflect a calendar year's (365 days) worth of usage.

The length of a revenue month is dependent upon the interval between meter readings and does not necessarily have the same number of days that occur in a given calendar month of the same name; that is, a revenue month may have more than or less than the number of days for the same-named calendar month. For the example above, the usage is for 30 days (June 9 through July 8) even though the revenue month is July which has 31 days. When revenue month usage is totaled over the year, the resulting revenue year will include usage from the immediately prior calendar year and assign usage to the next calendar year, meaning a revenue year may contain more than or less than 365 days' usage. Therefore, since the costs and expenses are accounted over a calendar year, Staff calculates an annualization adjustment to bring the revenue year kWh into a 365-days interval. This adjustment stated in kWh is referred to as 365-Days Adjustment.

Staff calculates the 365-Days Adjustment by subtracting the weather normalized revenue month kWh from the weather normalized calendar month kWh for the test year; the difference, or the 365-Days Adjustment, may be either positive or negative. The 365-Days Adjustments for RES, SGS, MGS, and LGS were provided to Staff witness Kim Cox, who used the 365-Days Adjustment to adjust the revenues of the weather normalized class revenues months to the twelve months ended October 31, 2017. For 365-Days Adjustments of LPS customers, please see the large customer section of Staff witnesses Joseph Roling and Jose Perez's direct testimony.

Staff Expert/Witness: Seoung Joun Won, PhD.

4. Regulatory Adjustments to Test Year Sales and Rate Revenue

Staff normalized and annualized billing determinants for the RES, SGS, MGS (KCPL only) and LGS rate classes based on the normalized and annualized kWh factor supplied by Staff witness Seoung Joun Won.[21] For example, if the normalized and annualized kWh factor is 0.97

[21] Separate kWh adjustments are calculated for the change in kWh due to weather normalization, Missouri Energy Efficiency Investment Act ("MEEIA") Cycle 2 savings and the change in kWh due to the annualization of the number of days in the 12 months ending October 31, 2017. The combined impact of these adjustments is applied to kWh as a single adjustment factor for ease of application.

for the month of September in the RES rate class, then the total actual usage for that month and for that rate class is decreased by 3%.

Staff adjusted the total actual blocked billing determinants to equal the normalized and annualized monthly kWh using the relationship between actual average usage per customer and normalized and annualized average usage per customer. Staff also used the relationship between percentage of usage priced in the first rate block and the second rate block to distribute normalized and annualized monthly kWh to the rate blocks for rate classes RES, SGS, MGS (KCPL only) and LGS. This calculation resulted in normalized usage by rate block, which was then converted to total normalized and annualized revenues by multiplying rate block usage by the appropriate rates.

The overall difference between KCPL's and GMO's actual billing determinants and rate revenue and Staff's normalized and annualized billing determinants and rate revenue results in Staff's normalized and annualized kWh and revenue adjustment.

Staff Expert/Witness: Kim Cox

5. Customer Growth

a. Customer Growth in Usage

GMO rate classes and rate structures were consolidated in February 2017 as a result of Case No. ER-2016-0156. The GMO pre-consolidated SGS and LGS rate codes did not consist of the same billing determinants. Some of the pre-consolidated rate codes charged a facilities charge and demand charge while other pre-consolidated rate codes did not. In order for the new consolidated rate codes to reflect rates and usage as if they had existed for the twelve months ending October 31, 2017, Staff developed annualized billing determinants by taking the average of each determinant for the months of April 2017 through October 2017 and applying that average to the months of November 2016 through March 2017.[22] For the GMO residential class and the KCPL Residential, SGS, MGS, and LGS rate classes, Staff adjusted the usage and revenue through October 31, 2017, for customer growth, using the kWh information provided by Staff witness Antonija Nieto for all Missouri customers, to reflect the additional usage and rate

[22] Staff will review actual billing determinants for November 2017 through June 2018 and make any necessary adjustments once actual billing determinants are supplied in true-up.

revenues that would have occurred if the number of customers taking service at the end of December 31, 2017,[23] had existed throughout the entire 12 months.

Staff Expert/Witness: Kim Cox

b. Adjustments for Non-Missouri classes (KCPL Only)

Staff adjusted the Residential, SGS, MGS, and LGS classes' usage for KCPL's Kansas customers for weather, both to provide normalized kWh and for the 365 days adjustment. These adjusted usages were provided to the Staff auditors for application to customer growth. Once Staff applied the growth adjustment, the final normalized and annualized usage was provided to Staff witness Seoung Joun Won for inclusion in his calculations of Net System Input ("NSI"), and to Staff witness Alan J. Bax for inclusion in his determination of jurisdictional allocations.

Staff Expert/Witness: Kim Cox

c. Customer Growth in Rate Revenue

Staff made customer growth adjustments to the KCPL and GMO test year kWh sales and rate revenue to reflect the additional kWh sales and rate revenue which would have occurred if the number of customers taking service at the end of the update period (December 31, 2017) had existed throughout the entire test year. Staff calculated customer growth for the Residential, Small General Service ("SGS"), Medium General Service ("MGS"), and Large General Service ("LGS") rate classes using customer levels as of December 31, 2017.

For this Direct Testimony filing, Staff updated all significant elements of revenue, expense, and rate base through the 12-month period ended June 30, 2017, test year level and for any known and measurable changes through December 31, 2017. For Residential and General Service (Small, Medium, and Large) retail customer groups, Staff employed the following method of computing the annualized level of increased revenue from customer growth at December 31, 2017. For each of these customer rate groups, the customer level during each month of the test year is compared to the level as of December 31, 2017, and the monthly change in customer level is computed. This growth in customers is then multiplied by the weather-normalized revenue per customer experienced for that month of the test year.

[23] Staff accounted for growth through December 31, 2017 because Staff updated plant investment and expenses through December 31, 2017. Staff was unable to update weather normalized billing determinants through this same period due to data availability.

Staff's approach assumes that the revenue pattern experienced in each month of the test year will recur on a weather-normalized basis, factored up (or down) in accordance with the growth (or decrease) in customer numbers at December 31, 2017.

The only retail customer rate group for which this approach is not taken is the Large Power Service customers. With respect to Large Power Service customers, energy consumption and revenue patterns vary significantly across this group of customers, making it necessary to examine the history of each customer on an individual basis, and to adjust the test year revenue level accordingly. Staff witnesses Jose Perez and Joe Roling address the Large Power Service revenue annualization. Staff's customer growth adjustment to test year revenues for all retail customer groups combines the results of the analysis described above for Residential, General Service, and Large Power Service customers in order to provide the annualized level as of December 31, 2017. The retail customer growth adjustment other than Large Power Service is reflected in the Staff Accounting Schedule 9 as Adjustments Rev-2-13 and Rev-2-14 for KCPL and GMO, respectively.

Staff Expert/Witness: Antonija Nieto

B. Large Power Service ("LPS") Adjustments

Introduction

Staff determined annualized and normalized usage and revenues for KCPL's and GMO's Large Power Service (LPS) class and adjusted for known and measurable changes, such as rate switchers, on an individual customer basis through the 12 months ending October 31, 2017.

Adjustments to Usage and Revenue

Update Period Adjustment

Staff made an adjustment to kWh and revenues for the 12 months of the test year ending June 30 2017, to update through October 31, 2017.

Interclass Rate Switching

There were 252 customers in GMO's LPS rate class at the beginning of the test year and 186 at the end, providing a net difference of 66 customers. KCPL had 63 customers in the LPS rate class at the beginning of the test year. Three customers left the LPS rate class while two new

customers were added. This resulted in Staff analyzing the usage history of 186 GMO LPS rate class customers and 62 KCPL LPS rate class customers.

Load Annualization

Because LPS customers use large amounts of electricity, and the class's electric use and load factor are dissimilar, Staff annualized sales and revenues on an individual customer account basis. Doing so restates the results of the test year billing units as if conditions at the end of the test year had existed throughout the entire test year. For example, LPS class revenues were annualized for customers entering and exiting the class through the update period ending October 31, 2017. These customer changes were annualized, in order for every customer in the LPS class to have 12-months of usage and revenue. Staff removed the usage of customers no longer in the LPS service class and applied new LPS customers' 12-months usages to reflect their average recorded usage so far.

Weather Normalization

Staff normalized the actual usage data from the test year data provided by GMO and KCPL for each LPS customer by applying monthly weather normalization factors provided by Staff witness Seoung Joun Won. Staff adjusted the billing units associated with energy by these factors for each month, and applied current rates to determine the weather-normalized revenue. The difference between these weather-normalized revenues and the test year actual revenues determined the amount of the weather normalization adjustment.

365-Days Adjustment

Rate revenues and billing units for KCPL[24] were measured by billing month (the period of time over which the staggered bill cycles result in each customer being billed precisely once) rather than by calendar month. The number of days in the 12 billing months comprising the test year for each customer was compared to a 365-day calendar year. Staff made a per-day kWh adjustment, with the appropriate rates applied to determine the revenue adjustment, for the LPS customers whose billing cycles for the twelve months ending October 31, 2017, totaled greater or less than 365 days. After the normalization was calculated, the 365-Days Adjustment for the test

[24] Staff did not calculate a 365-Days Adjustment for GMO LPS customers. Due to rate consolidation, the start and end dates of billing periods were unavailable for Staff to have an appropriate count of days in the 12 month period. Staff will reevaluate this adjustment for GMO in true-up.

year was calculated. Appropriate rates were applied to each month's adjusted usage to obtain revenue. The differences between the revenues produced by the 365 Days Adjusted usage and the actual usage are the "365-days" revenue adjustments. For the 365-Days Adjustment of classes other than LPS customers, please see the 365-Days Adjustment to Usage section of Staff witness Seoung Joun Won's direct testimony.

Staff Experts/Witnesses: Joseph P. Roling and Jose R. Perez

C. Transmission Expense and Revenue- FERC Account 456

KCPL and GMO record transmission revenue to FERC Account 456. KCPL and GMO receive revenues from SPP from the following SPP tariff schedules:

- Schedule 1: System Control and Dispatch Service
- Schedule 2: Revenues related to reactive supply for generators connected to the transmission system
- Schedule 7: Revenues related to firm point-to-point transmission
- Schedule 8: Revenues related to non-firm point-to-point transmission
- Schedule 9: Revenue related to network integrated transmission
- Schedule 11: Revenues related to the base plan transmission upgrades
- Other miscellaneous transmission revenue

Although KCPL and GMO receive revenues from SPP based on all of the schedules listed above, a significant percentage of the transmission revenues received from SPP are from network integrated transmission, firm point-to-point transmission, and base plan transmission activities.

Staff analyzed KCPL's and GMO's transmission revenue for the period of 2009 through 2017, and reviewed KCPL's and GMO's proposed wholesale revenue adjustment. The wholesale revenue adjustment proposed by KCPL and GMO is the difference in their respective authorized FERC ROEs of 11.1% and KCPL's and GMO's proposed ROE in this case of 9.85% and is discussed in further detail below.

The following chart reflects KCPL's and GMO's actual historical transmission revenues for the period of 2009-2017:

Year	KCPL Transmission Revenue	GMO Transmission Revenue
2009	** **	** **
2010	** **	** **
2011	** [1] **	** **
2012	** **	** **
2013	** **	** **
2014	** **	** **
2015	** **	** **
2016	** [25] **	** **
2017	** [26] **	** **

Staff identified an upward trend in both KCPL's and GMO's transmission revenue; therefore, Staff recommends an annualized level of GMO's transmission revenue based on the 12 months ending December 31, 2017. Staff's adjustment is identified on Schedule 9 of Staff's KCPL and GMO Accounting Schedules, Adjustment Rev-26.2 and Rev-26.1, respectively.

In its direct case, KCPL and GMO proposed an adjustment to reduce transmission revenue for the difference between KCPL's and GMO's authorized FERC ROE of 11.1% and KCPL's and GMO's proposed ROE in this case of 9.85%. As transmission owners, KCPL and GMO receive transmission revenues from SPP for regional and zonal transmission upgrades. The wholesale transmission revenue adjustment is calculated using the Annual Transmission Revenue Requirement ("ATRR") and using KCPL's and GMO's authorized FERC ROE of 11.1%. The ATRR is used by SPP to allocate revenues and expenses to all transmission owners and transmission customers of SPP. The transmission owners receive allocated revenues based on the ATRR and the transmission customers are charged for allocated costs based on the ATRR. The ATRR may include incentives such as allowing CWIP in the revenue requirement, ROE adders, etc. KCPL's and GMO's authorized FERC ROE of 11.1% includes a ROE adder for being a member of a regional transmission organization ("RTO") of 50 basis points.

Other SPP transmission owners submit the ATRR that may include the previously discussed incentives. KCPL and GMO will then receive its allocated share of the transmission

[25] Includes impact of Z2 Credit Resettlement, MISO Seams Payment, and Independence Power & Light Schedule 9 Revenues

[26] Includes impact of Z2 Credit Resettlement, MISO Seams Payment, and Independence Power & Light Schedule 9 Revenues

costs that include these incentives. Since no adjustment was made to its transmission expense for the incentives that are included in the costs KCPL and GMO receive from SPP and charges to its customers, for consistency Staff did not reduce transmission revenues for the difference in KCPL's and GMO's authorized FERC ROE of 11.1% and its proposed ROE of 9.85% in this case. Staff did reflect the full financial impact of both transmission revenue and transmission expense. It is Staff's position that KCPL's participation in SPP encompasses both the financial impact of KCPL's and GMO's ownership of transmission assets and the financial impacts of the use of other SPP members' transmission assets. Consequently, KCPL and GMO customers are entitled to all transmission revenues that offset a part of the significant increases in transmission expense.

Staff Expert/Witness: Keith Majors

D. Ancillary Services

Ancillary services, also known as operating reserves, include Regulation-up, Regulation-down, Spinning Reserve, and Supplemental Reserve services that are a source of revenue and expense for KCPL and GMO. These services support the transmission of capacity and energy while maintaining the reliability of the transmission system. Regulation–up and Regulation-down maintains the balance between the generation and the load. Spinning reserve and Supplemental reserve requires that an energy resource such as a power plant must be available in the event of an outage. Prior to March 1, 2014, KCPL and GMO were part of an Energy Imbalance Service market ("EIS") and self-designated ancillary services. On March 1, 2014, the SPP Integrated Marketplace began replacing the previous EIS market. Consequently, KCPL and GMO now purchase ancillary services for its load from SPP and sells ancillary services to SPP.

Staff annualized ancillary services for the 12-month period ending December 31, 2017, the update period in this case and is included in Staff's Off-System Sales adjustments. Staff's adjustment is identified on Schedule 10 of Staff's Accounting Schedules for KCPL and GMO, Adjustment E-Rev-11.3, Adjustment E-Rev-7.2, respectively.

Staff Expert/Witness: Karen Lyons

E. Transmission Congestion Rights (KCPL Only)

Transmission Congestion Rights ("TCR") are an energy financial instrument that entitles the holder to be compensated or charged for congestion in the SPP Integrated Market between two settlement locations.[27] When transmission congestion occurs, KCPL incurs additional charges from SPP for moving energy from generation to load. KCPL, as a transmission owner, is allocated TCRs to hedge the actual transmission congestion charges incurred to serve its native load. A "transmission owner" in SPP is an owner of physical transmission assets within a given service territory

TCRs may result in a source of revenue or a charge from SPP. Based on discussions with KCPL personnel and responses to Staff Data Requests, KCPL sells more power into SPP than it purchases from SPP, a situation commonly referred to as "long-in-the-market." In other words, in total, KCPL produces more electrical energy for the SPP market than it takes from this market. Consequently, TCRs are a source of revenue. The opposite is true for GMO. GMO generally generates less than its native load, a situation commonly referred to as "short-in-the market". Since GMO generally generates less than its native load obligations, a complete view of the actual congestion costs incurred in serving all GMO load is unknown. [28]

For KCPL, Staff reflected TCRs for the 12 months ending December 31, 2017, the update period in this case. Staff's adjustment is identified on Schedule 10 of Staff's Accounting Schedules, Adjustment Rev-11.2.

Staff Expert/Witness: Karen Lyons

F. Revenue Neutral Uplift

The revenue neutral uplift charges are imbalances between revenues and disbursements that are distributed by SPP to SPP market participants as either a charge or a credit. As a not-for-profit organization, SPP must remain revenue neutral. Consequently, SPP will charge or credit KCPL and GMO for the revenue neutral uplift charge. The charge consists of miscellaneous charges or credits that SPP has no other method of distributing to SPP market participants. Staff analyzed KCPL's and GMO's revenue neutral uplift net charges for the calendar years 2014 through 2017. Staff found that KCPL's and GMO's revenue uplift net

[27] SPP Tariff 105.
[28] Staff Data Request No. 313 in Case No. ER-2016-0156.

charges increased over 200%. In response to a Staff data request, the following explanation for the increase was provided:

> Revenue Neutrality Uplift Distribution is a charge type that is based on the entire SPP footprint and each settlement location for each asset owner in the footprint will receive charges (expenses or revenues) based on their share calculated by their participation in the market. SPP's total footprint RNU for 2017 increased over the total for 2016, which resulted in the increased amount of RNU for both KCPL and KCPL GMO. **SPP has been requested to provide an explanation for this increase. Any additional information will be sent to Staff in a Supplemental DR.** Emphasis added.

Staff annualized revenue neutral uplift charges, for the 12-month period ending December 31, 2017, the update period in this case, and included them in Staff's Off-System Sales adjustments. However, Staff has concerns about the level of costs KCPL and GMO incurred during this period. For this reason and KCPL and GMO's response to Staff's data request, an appropriate level of costs will be determined in the true up. Staff's adjustment is identified on Schedule 10 of Staff's Accounting Schedules for KCPL and GMO, Adjustment E-Rev-11.4, Adjustment E-Rev-7.3, respectively.

Staff Expert/Witness: Karen Lyons

G. Off-System Sales

1. FERC Account 447-Sales for Resale

FERC Account 447, Sales for Resale, includes three sources of revenue for KCPL and GMO:

- firm off-system sales;
- non-firm off-system sales; and
- FERC wholesale sales

2. Firm Off-System Sales

KCPL contracted to sell firm off-system power during the test year ended June 30, 2017 updated through December 31 2017, to the following customers:

1. City of Eudora, Kansas ("Eudora")
2. Kansas Municipal Energy Agency ("KMEA")

Under their respective contracts, these customers paid both a demand charge for the megawatt capacity commitment from KCPL and an energy charge for the cost of delivered energy. In addition, KCPL has an agreement with GMO to sell a specified amount of capacity at GMO's option. As a result, Staff annualized KCPL's firm demand and energy sales based solely on the capacity contracts in effect with Eudora, and KMEA, plus the capacity sales option with GMO as of the update period ended December 31, 2017.

Staff has reviewed KCPL's firm off-system sales levels and adjusted test year levels to reflect the levels for the 12-month update period ended December 31, 2017. Schedule 10 of Staff's KCPL Accounting Schedules reflect the adjustments to firm off-system sales levels, Adjustments Rev-8.1 and Rev-10.1.

GMO contracted to sell firm off-system power to Black Hills Power, Inc. ("Black Hills") during the Test Year ended June 30, 2017, updated through December 31, 2017. As a result, Staff annualized GMO's firm demand and energy sales based solely on the capacity contract in effect with Black Hills as of the update period ended December 31, 2017.

Staff has reviewed GMO's firm off-system sales levels and adjusted test year levels to reflect the levels for the 12-month update period ended December 31, 2017. Schedule 10 of Staff's GMO Accounting Schedules reflect the adjustment to firm off-system sales levels, Adjustment Rev-14.1.

3. Non-Firm Off-System Sales

For purposes of discussing revenue requirement calculations, non-firm off-system sales are sales of electricity made at times when a utility's generation output exceeds the load requirements of its native load customers (rate tariff customers) and firm sale customers. KCPL and GMO must first meet its firm sales loads and, if it has excess electricity to sell, it will make off-system sales. The difference between the revenue received for selling the excess generation and the cost of the fuel used to produce the energy sold are referred to as off-system sales margin ("OSSM"). Off-system sales are made at market-based rates. Off-system sales are made through KCPL's and GMO's generation or through electricity purchased from other utilities. The aggregate off-system sales net margins are used in the revenue requirement calculation.

Since March 2014, KCPL and GMO have taken part in the SPP integrated market. KCPL and GMO offers its generating units for dispatch through the SPP, and the SPP dispatches KCPL and GMO and all other SPP generating owners' generation to meet the load requirements

of the entire SPP region. For purposes of discussing revenue requirement calculations, once all firm commitments are met (native load), any excess generation is available to sell through the market on a non-firm basis—off-system sales. Off-system sales generated through the fuel model are reflected in Staff's Accounting Schedule 10 for KCPL and GMO, Adjustments Rev Rev-11.1 and Rev-7.1, respectively.

4. FERC Wholesale Sales

FERC wholesale customers are municipalities that buy electricity under a firm power tariff regulated by the FERC. Since the wholesale customers are treated as if they were located in another jurisdiction, none of the revenues from these customers are included in the Missouri utility's regulated operations. Staff allocates to the Missouri utility the plant-in-service, accumulated depreciation reserves, revenues, fuel and purchased-power costs, and maintenance costs required to serve Missouri customers using demand and energy allocation factors developed by Staff witness, Alan J. Bax. The FERC jurisdictional loads are not included in the demand and energy allocators developed for the Missouri jurisdiction.

5. Removal of Inter-Company/Rate District Energy Transfers (GMO Only)

GMO's MPS and L&P rate districts were combined effective February 22, 2017. Prior to this date, transfers occurred between MPS and L&P for the energy and revenue associated with off system sales. The test year in this case is the 12 months ending June 30, 2017. Since the GMO consolidation did not occur until February 22, 2017, adjustments are necessary to eliminate the transfers between MPS and L&P prior to the consolidation of these rate districts on February 22, 2017. Staff's adjustment is reflected in Staff's Accounting Schedule 10, Adjustment Rev-13.1.

6. Excess Off-System Sales Margin Regulatory Liability (KCPL Only)

Pursuant to KCPL's Regulatory Plan, KCPL agreed that off-system energy and capacity sales revenues, and related costs, will continue to be treated "above the line" for ratemaking purposes over the course of the Regulatory Plan. KCPL also agreed that it would not propose any adjustment that would remove any portion of its off-system sales from its revenue requirement determination in any rate case during the life of the Regulatory Plan.

In its first rate case after the Commission approved the Regulatory Plan, Case No. ER-2006-0314, the Commission determined that, in setting KCPL's rates, the amount included in KCPL's revenue requirement for off-system sales should be the 25th percentile of non-firm off-system sales margin as projected in that proceeding; that KCPL book all amounts above the 25th percentile as a regulatory liability; but that no corresponding regulatory asset would be booked should sales fail to meet the 25th percentile. This Order established the 2006 rate case tracker for off-system sales. The Commission ordered a continuation of this method of accounting for off-system sales in each of KCPL's three subsequent general rate cases, Case Nos. ER-2007-0291, ER-2009-0089, and ER-2010-0355.

In the *Non-Unanimous Stipulation and Agreement* the Commission approved in Case No. ER-2009-0089, the parties agreed to the final dollar amount for the 2006 and 2007 rate case trackers. The parties also agreed to set the 2009 rate case tracker off-system sales baseline at $30,000,000:

> Off-System Sales ("OSS") Margins—Excess Over 25th Percentile for 2007 and 2008
>
> The Signatory Parties agree that the $1,082,974 (Missouri jurisdictional) excess of 2007 OSS margins over the amount included in rates in Case No. ER-2006-0314 and the $2,947,332 (Missouri jurisdictional) excess of 2008 OSS margins over the amount included in rates in Case No. ER-2007-0291, together with interest (Missouri jurisdictional), will be deferred in a regulatory liability account and amortized over ten years beginning with the date new rates become effective in this rate case, with one year's amortization included in cost of service in this case. The unamortized balance will not be included in rate base.
>
> * * *
>
> Off-System Sales Tracker
>
> KCP&L's OSS margins at the 25th percentile shall be set at $30 million, and shall be used for tracking purposes. Such tracker will reflect a pro-ration, on a monthly basis, of this amount for any partial years consistent with the percent of actual OSS realized in each month of 2008. All OSS margins will be tracked against the $30 million baseline. The Signatory Parties reserve the right to assert a position regarding the appropriate definition of OSS in the Company's next general rate case.

Page 141 of the Commission *Report and Order* in KCPL Case No. ER-2010-0355, issued April 12, 2011, states, "KCP&L's rates shall be set at the 40th percentile of non-firm off-system sales margin as projected by KCP&L, as listed in KCP&L witness Schnitzer's Direct Testimony. Margins above the 40th percentile shall be returned to ratepayers in a subsequent rate case or rate cases." KCPL did not realize any excess margins over the 40th percentile from the 2010 rate case and, thus, made no related adjustments to its regulatory liability.

Staff has calculated the amount of KCPL's amortization and interest related to this regulatory liability from the 2006, 2007, and 2009 rate cases and reflected the appropriate amount in Adjustment Rev-4.1.

The off-system sales amortizations addressed above will end in 2019 and 2021. When the amortizations end, KCPL will be returning funds to ratepayers in excess of the amortization balance approved by the Commission. Consistent with the Stipulation and Agreements approved by the Commission in Case Nos ER-2016-0156 and ER-2016-0285, Staff recommends that KCPL track the funds returned to ratepayers in excess of the agreed upon balance and address the ratemaking treatment in KCPL's next general rate case.

Staff Expert/Witness: Karen Lyons

H. SO^2 Emissions Allowances

1. Deferred Sales from SO^2 Emissions Allowances

KCPL and GMO receive SO2 emission allowances ("SO2 allowances") from the United States Environmental Protection Agency ("EPA"), which authorize KCPL and GMO to emit one ton of emissions during a given compliance period. KCPL and GMO use these allowances to serve each of its electric customers. Because KCPL and GMO have reduced their need for emission allowances below the number of allowances they each hold, the EPA also holds back the additional unused allowances for the specific purpose of having allowances available for auction. When the allowances are sold at the annual EPA auction, the proceeds are forwarded to KCPL and GMO. Under the FERC Uniform System of Accounts ("USOA"), proceeds from the sales of SO2 emissions allowances are recorded in FERC Account 254, the regulatory liabilities account. For ratemaking purposes, amounts recorded as regulatory liabilities reduce a utility's rate base; i.e., the net amount in FERC Account 254, after any

appropriate adjustments, is an offset to rate base. KCPL and GMO did not have any sales of emission allowances in the test year so no allowances were available as an offset to rate base.

When emission allowances are purchased they are accounted for in FERC Account 158- Emission Allowances Inventory. Staff examined both KCPL's and GMO's work papers where a 13-month average was used to determine a level of emission allowances added to rate base. Staff has included in its direct case the balance of Account 158.100 on December 31, 2017, as an addition to rate base. This approach is consistent with the treatment in the last five GMO/Aquila rate cases, Case Nos. ER-2007-0004, ER-2009-0090, ER-2010-0356, ER-2012-0175 and ER-2016-0156. The rationale for treating these SO2 emissions allowances in this manner is to acknowledge that, through rates, GMO's customers either have paid for GMO's production facilities that reduce emissions and thus create these overages in SO2 emissions allowances or to give recognition for the purchase of emission allowances that are included rate base. In this instance, the emission allowances were included in Accounting Schedule 2-Rate Base for both KCPL and GMO rate cases.

Staff Expert/Witness: Cary G. Featherstone

I. Economic Development Rider ("EDR")

Staff calculated the normalized level of revenue forgone by both KCPL and GMO, by class, due to discounts provided under the EDR and Urban Core tariffs. Staff calculated this amount by applying the discount percentage applicable under each customer's contract for each of the 12 months November 2017 – October 2018 to each customer's bill for each month during the period November 2016 – November 2017. Staff will update this calculation and resulting revenue adjustment as part of true-up.

Staff excluded customers from the EDR calculation in the following instances: where documentation of the EDR contract was not provided, where a review of documentation provided indicated that the customer did not qualify for the EDR or continued receipt of the EDR, or where the form of the EDR provided was improper. Staff also adjusted the start date of EDR discounts for an account that received service as a new customer for several years before KCPL began applying discounts to that customer's bills. The dollars of revenue reduced due to the EDR discount was provided by utility and by rate schedule to Staff's revenue witness (Kim Cox) to reduce the total revenue calculated.

Staff recommends that KCPL and GMO conduct a thorough review of the compliance of customers receiving an EDR discount with the applicable contract and tariff. As part of rebuttal testimony KCPL and GMO should provide a report on the review of the continued qualification of each customer pursuant to the EDR tariff terms, including, but not limited to the following:

1. Ensuring that the local, regional, or state governmental economic development incentives that are provided as qualification under the Availability provisions of tariff sheet 32E are actually awarded and accepted. Many of the EDR documents provided to the Commission include only an offer letter from a governmental economic development agency and there is no indication that the incentives were ultimately accepted and that conditions associated with the receipt of such incentives have been met and maintained.
2. Ensuring that an annual load factor of 55% or greater has been maintained in years three through five of service under the EDR, as applicable, pursuant to tariff sheet 32E, Applicability Paragraph 1.
3. Review whether any load shifting has occurred in the case of expansion customers, pursuant to tariff sheet 32G, Incentive Provision Paragraph 2. If any shifting has occurred, metering arrangements must be made to exclude shifted amounts from the metered amount subject to the EDR discount.
4. In the case of retention customers, review documentation provided regarding the availability of a viable alternative electric supply option, pursuant to tariff sheet 32F, and the Termination provisions of tariff sheet 32H.

As part of the report, KCPL and GMO should present documentation confirming the continued eligibility of each EDR customer under each item provided above. Pursuant to this review, customers not meeting continued eligibility requirements to receive the EDR discounts should be removed from the EDR calculation. At this time, Staff has not excluded customers related to continued qualification to receive EDR discounts. Staff will continue to review and monitor the EDR customer program and may make further recommendations in this case or future cases.

1. KCPL EDR Adjustments

The KCPL EDR is available to customers otherwise qualified for service on the MGS, LGS, LPS, MGA, or LGA rate schedules. Staff excluded KCPL Account **_____ _____ ** because it receives service in the SGS class. Staff did include the **_____ **, as it is receiving service on the LGS rate schedule in its annualized level of discounts.

Staff did not include discounts associated with KCPL Accounts ** _____ _____ . ** Although KCPL provided billing information for these account numbers, Staff has been unable to determine which contract is applicable to these accounts. Staff did not include discounts associated with KCPL Accounts ** _____ _____ ** although KCPL provided contracts applicable to these accounts, KCPL did not provide billing information for these account numbers. Pending receipt of necessary information, Staff will include in true-up any applicable discounts associated with these accounts.

Staff adjusted the discount associated with KCPL Account ** _____ _____ _____ , ** as a new or expansion customer, and discounts provided pursuant to the frozen tariff sheets 32 – 32D. This treatment is consistent with the customer's application submitted ** _____.** Staff adjusted its treatment of the account from KCPL's apparent treatment of the customer as a new or expansion customer in ** _____ ,** pursuant to tariff sheets 32E – 32J which did not take effect until October 19, 2013. In the alternative, if KCPL treated this customer as a retention customer as of the contract execution date of ** _____ , ** KCPL has failed to provide an affidavit and supporting documentation, as provided on tariff sheet 32F requiring that

> [i]n the case of retention of an existing Customer, as a condition for service under this Rider, Customer must furnish to Company such documentation (e.g. Influencing factors and a comparison of the rates and other economic development incentives) as deemed necessary by Company to verify the availability of a viable electric supply option outside of KCP&L's service territory and Customer's intent to select this viable electric supply option. Customer must also furnish an affidavit stating Customer's intent to select this viable electric supply option unless it is able to receive service under this Rider.

In response to Staff Data Request 0001 under Tracking No. BEDR-2017-1773, KCPL provided the following timeline relating to ** _____ _____ _____ _____ _____ _____

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Staff bases its adjustment on KCPL's responses to data requests, including its response to Staff Data Request 0004 under Tracking No. BEDR-2017-1773, stating that KCPL set a permanent meter at the ** _____

_____

_____ ."** The Availability provisions of tariff sheet 32E state in pertinent part that "[f]or purposes of this Rider, a new facility shall be defined as a Customer's facility that has not received electric service in the Company's service area within the last twelve (12) months." There is no indication that the ** _____ ** facility received any state, local, or regional economic development

incentive required to qualify for the KCPL EDR at any point after ** _____ _____ ** Given the date at which the facility became fully operational and the lack of the receipt of any state, regional, or local economic incentives in the ** ____ ** time frame, there is no reasonable interpretation that the ** _____ ** facility be viewed as a new or expanded load in ** _____ ** and it is not reasonable to treat the facility as an expansion customer as of ** _____ ** Further, because there is no documentation of the customer's intent to select an alternative energy provider in the ** ____ ** time frame, it is not reasonable to treat the ** _____ ** facility as a retention customer as of ** _____ . ** Staff's treatment of the ** _____ ___ ** facility to reflect a discount start date of **_____, ** with discounts provided pursuant to the frozen tariff sheets 32 – 32D is the most reasonable treatment of the EDR discounts associated with this account.

Staff notes that in its response to DR 194 in File No. ER-2018-0145, KCPL indicated that the ** _____ _____ . ** Staff will include any applicable annualizations of these reductions in usage in its true-up calculation of the discounts associated with ** _____ . **

Staff excluded discounts associated with KCPL Account ** _____ ___ _____ . ** because the governmental economic incentives associated with its application are of only specious value. Additionally, an executed affidavit has not been presented as required pursuant to tariff sheet 32F; there is a lack of certainty as to whether load has been shifted from ** _____ ** and properly excluded from size and metering requirements at ** _____ ; ** it is not clear that the facility is not in the business of providing services directly to the general public; and it is not clear that the customer has met or maintained load factor requirements.

The Availability provisions of tariff sheet 32E state, in pertinent part, "[e]lectric service under this Rider is only available in conjunction with local, regional and state governmental economic development activities where incentives have been offered and accepted by the Customer to locate new facilities, expand existing facilities, or retain existing facilities in the Company's service area." As indicated in KCPL's response to DR 0001 in Tracking No. BEDR-2018-0022, the local incentives offered by the ** _____

_____ , ** for the retention of the facility located at ** _____ _____, ** consisted of ** _____ _____ _____ _____ . **

Utilities with EDR(s) rely on state, regional, and local economic development offices to vet the merits of a potential facility for subsidization. Staff and other stakeholders rely on the determination that the relevant governmental or quasi-governmental body – a body with limited funds to expend – has chosen to place some of those funds into the development, expansion, or retention of a particular facility. This reliance takes the place of an individualized review that is generally beyond the scope of expertise of both Staff and the utility. Such a review would also be difficult if not impossible unless Staff and the utility had access to the confidential information of other potential customers, which are possessed by the economic development office(s). An economic development office's award of "incentives" that have little or no monetary value, or that are of only specious value, does not support a reasonable inference that the potential facility merits subsidization in the form of incentives of monetary value from a constrained budget of a governmental economic development office. The local incentives associated with Account ** _____ ____ ** do not meet the clear spirit of the tariff to support a reasonable inference that the economic development office found merit in such subsidization.

As indicated in KCPL's response to DR 0001 in Tracking No. BEDR-2018-0022, KCPL did not receive a properly executed affidavit stating the customer's intent to select a different viable electric supply option unless it was able to receive service under KCPL's EDR. KCPL has provided a copy of an unsworn letter stating in pertinent part, ** _____ _____ _____ _. ** However, this statement is not in the form of an affidavit and it does not indicate the customer's intent to select an alternative site unless it receives the EDR discount. This further supports the exclusion of Account ** _____ _____ .**

Staff is concerned that the discounts associated with KCPL Accounts ** _____ _____ ** may not properly reflect the exclusion of existing load. However, Staff has not removed these accounts from its annualization at this time, pending either confirmation that existing load has been accounted for, or provision of a level of load to remove from the annualizations of the discount.

2. GMO EDR Adjustments

Staff excluded discounts associated with GMO Accounts ** _____ _____. ** GMO provided no evidence of any governmental economic development incentive offered or awarded in conjunction with these accounts.

Further, as indicated in GMO's response to DR 122.3 in File No ER-2018-0146, GMO did not receive a properly executed affidavit stating the customer's intent to select a different viable electric supply option unless it was able to receive service under GMO's EDR. GMO has provided a copy of an unsworn letter generally inquiring whether the customer would qualify for KCP&L [sic] Economic Development Rider however, it is not in the form of an affidavit and it does not indicate the customer's intent to select an alternative site unless it receives the EDR discount.

Staff excluded discounts associated with GMO Account ** _____ **, because the governmental economic incentives associated with its application are of specious value and do not support a reasonable inference that the potential facility merits subsidization in the form of incentives of monetary value from a constrained budget of a governmental economic development office. Per GMO's response to DR 1, question 5 under BEDR-2018-0017, for this account, GMO relied on a ** _____ ** municipal ordinance exempting GMO from remitting to ** _____ ** a license fee on "revenue from sale of service to the City or any revenue from sales to industrial consumers." The ordinance indicates that for purposes of this license fee exemption, industrial consumers are those businesses within the limits of the City which have Industrial Classification Codes. Because under this ordinance each and every manufacturer, industry, and factory located within ** _____ ** city limits is exempted from the licensee fee to be remitted by GMO to the city, this ordinance does not constitute a governmental economic incentive within the meaning of the Availability provisions of tariff sheet 32E stating in pertinent part, "Electric service under this Rider is only available in conjunction with local, regional and state governmental economic development activities where

incentives have been offered and accepted by the Customer to locate new facilities, expand existing facilities, or retain existing facilities in the Company's service area."

Staff Expert/Witness: Sarah L.K. Lange

J. Miscellaneous Revenues

1. Late Payment Revenue (Forfeited Discount)

KCPL and GMO charge a late payment fee to customers who fail to pay bills in a timely manner. Staff annualized late payment fee revenues by using the ratio of late payment fees to Missouri total retail sales, both net of gross receipt taxes ("GRT"), from December 31, 2016, to December 31, 2017, because the data from this time period represents the most recent and most relevant information. Staff multiplied this ratio by the annualized revenue, resulting in an annualized level of late payment fees. Staff's adjustments are identified on Schedules 9 of Staff's KCPL and GMO Accounting Schedules, Adjustments Rev-16-3 and Rev-18-1, respectively.

Staff Expert/Witness: Antonija Nieto

K. Other Revenue Accounts

Staff reviewed the amounts KCPL and GMO included in their cost of service calculations for "Other Revenues," which include rent from electric property, miscellaneous service revenues, and temporary installation profit. Staff concluded the test year amounts for Other Revenues appeared to be reasonable and representative of an annualized level of revenue for each respective category and, therefore, do not require adjustment. However, Staff will apply its own allocation factors to those amounts that are common to other KCPL and GMO operational jurisdictions.

Staff Expert/Witness: Antonija Nieto

L. Removal of Gross Receipts Taxes from Test Year Revenues

The amounts received from customer payments and recorded as revenues during the test year include Gross Receipts Taxes ("GRT"). GRTs are imposed by a taxing authority for which KCPL and GMO are obligated to charge customers on their utility bills. After KCPL and GMO collect these taxes from their customers, they periodically remit these amounts to the appropriate

taxing authority. In this regard, to accurately account for KCPL's and GMO's actual test year retail revenues, it is both necessary to remove GRT from the amounts recorded as revenues during the test year and to remove the corresponding remittances to the taxing authority as a charge to expenses. As a result of these adjustments, GRT should have no impact on KCPL's and GMO's final revenue requirement amount.

Staff Expert/Witness: Antonija Nieto

VI. Income Statement – Expenses

A. Fuel and Purchased Power Overview

1. KCPL

KCPL estimates its 2018 total generating capacity, consisting of nuclear, coal-fired, natural gas, oil-fired generating units, and wind generation, to be 4,448 megawatts.[29] KCPL's estimated generation capacity is made up of the following types of generation:

Generation Capacity by Fuel Type	Estimated 2018 Megawatts	Percentage of Generation Capacity (MW) by Fuel Type	2017 Percentage of MWHs Generated by Fuel Type
Coal	2,569 MWs	57.8%	69.5%
Nuclear	552 MWs	12.4%	28.2%
Natural Gas	782 MWs	17.6%	Less than 1%
Oil	396 MWs	8.9%	Less than 1%
Wind	149 MWs	3.3%	1.8%
Total	4,448 MWs	100%	100%

Source: Great Plains Energy 10-K for fiscal year ended December 31, 2017.

[29] Estimated data provided due to the unavailability of 2017 Annual Report to Shareholders as explained in the response to Staff Data Request No. 11.

While KCPL's coal-fired generating units make up 58% of its total generating fleet, those units produce 70% of total system load requirements. Nuclear generating capacity makes up 12% of total KCPL capacity, but it produces 28% of total generation. Natural gas capacity makes up 18% of total capacity; however, this fuel type makes up less than 1% of KCPL's total generation based on 2017 actual megawatt hours of generation.

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Based on the actual 2017 generation by fuel type in MMBTus, coal and nuclear make up 99% of total generation, with oil and natural gas making 1% of generation.

Staff Expert/Witness: Matthew R. Young

2. GMO

GMO estimates its 2018 total generating capacity, consisting of coal-fired, natural gas, oil-fired generating units, and combined natural gas/oil, to be 2,033 megawatts.[30] GMO's estimated generation capacity is made up of the following types of generation:

Generation Capacity by Fuel Type	Estimated 2018 Megawatts	Percentage of Generation Capacity (MW) by Fuel Type	2017 Percentage of MWHs Generated by Fuel Type
Coal	**864 MWs**	**42.5%**	**99.18%**
Natural Gas	**781 MWs**	**38.4%**	**0.75%**
Natural Gas/Oil	**328 MWs**	**16.1%**	**0.00%**
Oil	**60 MWs**	**3.0%**	**0.00%**
Total	**2,033 MWs**	**100%**	**100%**

Source: Great Plains Energy 10-K for fiscal year ended December 31, 2017.

While GMO's coal-fired generating units make up 43% of its total generating fleet, those units produce 99% of total system load requirements. Natural gas generating capacity makes up 38% of total GMO capacity, but it produces less than 1% of total generation. Oil capacity makes up 3% of total capacity, but this fuel type makes up less than 1% of GMO's total generation, based on 2017 actual megawatt hours of generation. The table below on the next page shows 2014-2017 actual generation based on MMBTUs:

[30] Estimated data provided due to the unavailability of 2017 Annual Report to Shareholders as explained in the response to Staff Data Request No. 11.

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Staff Expert/Witness: Matthew R. Young

B. Fuel and Purchased Power Expense

Staff estimates the variable fuel and purchased power expense for KCPL for the update period, as defined in the Rate Revenue Section of Staff's Cost of Service Report, ending December 31, 2017, to be $223,384,375 including off-system sales. Staff estimates the variable fuel and purchased power expense for GMO for the update period, as defined in the

Rate Revenue Section of Staff's Cost of Service Report, ending December 31, 2017, to be $173,753,391 including off-system sales.

Staff uses the PLEXOS production cost model to perform an hour-by-hour chronological simulation of a utility's generation and power purchases. Staff uses this model to determine annual variable cost of fuel and net purchased power energy costs and fuel consumption. These amounts are supplied to Auditing Department Staff who uses this input in its annualization of fuel expense.

Staff used market prices in its fuel model dispatch to simulate KCPL's and GMO's operations in the Southwest Power Pool ("SPP") integrated marketplace ("IM"). The price for energy in the IM dictates the amount of energy the Companies sell in the IM. Consequently, Staff's fuel run dispatches the Companies generation to match the SPP market price, thus simulating how the SPP would dispatch generation if it were being dispatched into the SPP IM based on prices set by the SPP's regional load requirements.

The model operates in a chronological fashion, meeting each hour's energy demand before moving to the next hour.

Model inputs calculated by Staff are: fuel prices, market power prices and availability, hourly load requirements at transmission, and unit planned and forced outages. Staff relied on KCPL's and GMO's responses to Staff's data requests and workpapers for factors relating to each generating unit. These factors include: capacity of the unit, unit heat rate curve, primary fuels, ramp-up rate, startup costs, fixed operating and maintenance expense as well as information from wholesale loads.

Staff Expert: Shawn E. Lange, PE and Charles T. Poston, PE

1. Planned and Forced Outages

Planned and forced outages are infrequent in occurrence, and variable in duration. In order to capture this variability, the generating unit outages for KCPL and GMO were normalized by averaging seven years (January, 2011 through December, 2017) of actual values taken from data the Companies supplied to Staff to comply with 4 CSR 240-3.190 and data the Companies supplied to in response to Staff data requests. If seven years of data were not available for a specific generating unit, Staff used an average of the years available.

Staff Experts/Witnesses: Shawn E. Lange, PE and Charles T. Poston, PE

2. Heat Rate Testing

If an electric utility requests that a Rate Adjustment Mechanism (Fuel Adjustment Clause ("FAC")) be continued or modified, Commission Rule 4 CSR 240-3.161(3)(Q) requires that an electric utility shall file specific information as a part of its direct testimony in a general rate proceeding:

> (Q) The results of heat rate tests and/or efficiency tests on all the electric utility's nuclear and non-nuclear steam generators, HRSG, steam turbines and combustion turbines conducted within the previous twenty-four (24) months;

GMO has had an FAC since the Commission first authorized one in Case No. ER-2007-0004. GMO has again requested the FAC be continued in the current general rate proceeding, Case No. ER- 2018-0146.

The Commission first authorized KCPL's FAC in Case No. ER-2014-0370. The FAC was continued in Case No. ER-2016-0285. KCPL is again requesting that its FAC be continued with modification in the current general rate proceeding, Case No. ER- 2018-0145.

Company witness Burton L. Crawford filed testimony that included the results of the most recent heat rate/efficiency tests for GMO[31] and KCPL's[32] generating units. Staff has conducted a review of those results and found them to be reasonable based on comparisons with data filed in previous general rate case proceedings. All of the testing dates submitted by GMO and KCPL were found to be in accordance with the twenty-four (24) month requirement of 4 CSR 240-3.161(3)(Q).

Staff Expert/Witness: Daniel I. Beck, P.E.

3. Lake Road Allocation Factors (GMO Only)

a. Physical Layout and Basic Operations at the Lake Road Plant

The Lake Road Plant is located at 1413 Lower Lake Road in St. Joseph, Missouri. Seven electric generators are located at the site along with equipment for the production and delivery of industrial steam. Four of the seven generators are driven by steam turbines and have a combined name plate capacity of 150.5 megawatts[33] ("MW"). Units 1, 2, and 3 are part of the

[31] Direct Testimony of Burton L. Crawford, Schedule BLC-6, ER-2018-0146
[32] Direct Testimony of Burton L. Crawford, Schedule BLC-6 and BLC-7, ER-2018-0145
[33] KCP&L Greater Missouri Operations Company FERC Form No. 1, page 403.1, line 5, column (d)

900 lb. steam system and Unit 4 is part of the 1800 lb. steam system. Units 5, 6, and 7 are combustion turbines and have a combined name plate capacity of 127.6 MW.[34]

The 900 lb. Steam System: The boilers on the 900 lb. steam system create steam that is used to pressurize two steam headers. The first steam header operates at a nominal pressure of 900 pounds per square inch ("psi") and provides steam to an industrial steam customer along with steam that can be used to drive Units 1 and 2. The boilers on the 900 psi header are fueled by coal, natural gas, and fuel oil. The 900 psi header also provides steam to a second steam header that operates at a nominal pressure of 200 psi. Additional boilers directly supply the 200 psi steam header. These boilers are fueled by natural gas and fuel oil. The 200 psi steam header provides steam to multiple industrial steam customers, steam that can be used to drive Unit 3, and steam for use in auxiliary steam loads at the Lake Road Plant.

The 1800 lb. Steam System: Boiler 6 provides the steam necessary to drive Unit 4 on the 1800 lb. steam system. Boiler 6 is capable of burning natural gas and fuel oil. The 1800 lb. steam system is only used for the generation of electricity and does not produce any steam for use by industrial steam customers.

The Combustion Turbines: Three combustion turbines are located at the Lake Road Plant. Unit 5 burns natural gas as its primary fuel, while Units 6 and 7 primarily burn fuel oil. The combustion turbine systems are only used for the generation of electricity and do not produce any steam for use by industrial steam customers.

b. Use of Allocation Factors at the Lake Road Plant

GMO uses a method of allocations for the Lake Road Plant in order to provide a systematic way of dividing expenses between steam and electric customers. The current allocation method recognizes three basic types of expenses: expenses allocated 100% to electric customers, expenses allocated 100% to steam customers, and expenses that are allocated to both steam and electric customers. Staff expects that any method of allocations at the Lake Road Plant will appropriately categorize all expenses and provide for a rational method of dividing shared costs between electric and steam customers.

[34] KCP&L Greater Missouri Operations Company FERC Form No. 1, page 403.1, line 5, column (e)

c. Changes at the Lake Road Plant

In recent years there have been a number of changes at both the Lake Road Plant and in the marketplace in which it operates. These changes include the cessation of coal use at Unit 4, an increase in wind generation, and the launch of SPP's Integrated Marketplace. GMO has also announced its intention to permanently retire Unit 4 at the end of 2019.[35]

Cessation of Coal Use for Unit 4: In the summer of 2016, the primary fuel used in Boiler 6 was changed from coal to natural gas. Boiler 6 is the sole source of 1800 psi steam for Unit 4. Following this conversion, the only use for coal at the Lake Road Plant is for Boiler 5 on the 900 lb. steam system. Lake Road coal is less expensive than natural gas on a $/mmBTU basis and so the decision to stop burning coal had the effect of increasing the cost of electrical generation at Unit 4.

Increase in Wind Generation: Wind generation within SPP has been growing for a number of years. Wind's share of generation within SPP was only 3% in 2007, but rose to nearly 23% in 2017.[36] This increase in wind generation has also increased the frequency of negative market prices for electricity due to an oversupply of energy.[37] This has the effect of making the generators at the Lake Road Plant less competitive in the marketplace.

Launch of the SPP Integrated Marketplace: Since March, 2014, GMO has been a participant in the SPP Integrated Marketplace. Many factors can influence the optimal mix of self-generation, purchased power contracts, and market purchases, but one of the effects of the Integrated Marketplace is to decrease the cost of meeting load while still ensuring reliability. The Lake Road Plant is a higher cost generator within GMO's generation portfolio and would therefore be less desirable to dispatch for generation due to the launch of the Integrated Marketplace.

The change in fuel type at Unit 4 combined with the increase in wind generation and GMO's continued participation within the SPP Integrated Marketplace have been coincident with a dramatic decrease in the amount of energy generated at the Lake Road Plant. The changes in dispatching behavior resulted in the Lake Road Plant consuming more energy than it produced during 2017.

[35] EO-2018-0269, KCP&L Greater Missouri Operations Company, Integrated Resource Planning, Volume 1 "Executive Summary", Section 7.2 "Unit Retirement Planning"
[36] SPP Market Monitoring Unit, "State of the Market 2017", Dated: May 8, 2018, page 35
[37] SPP Market Monitoring Unit, "State of the Market 2017", Dated: May 8, 2018, page 103

Table 1. Lake Road Net Generation 2009-2017[38]

	Steam Turbines	Gas Turbines
Year	Sum of Units 1, 2, 3, 4 [MWh]	Sum of Units 5, 6, 7 [MWh]
2009	469,452	-969
2010	465,417	594
2011	398,097	4,572
2012	346,466	6,609
2013	437,856	2,677
2014	248,527	-1,056
2015	213,482	-1,176
2016	83,128	-1,727
2017	-22,485	-2,065

d. Summary of Previous Staff Recommendations

In Case No. ER-2016-0156, Staff recommended[39] that the Lake Road allocation factors remain unchanged from those submitted by GMO in Case No. ER-2012-0175. Staff further recommended that changes to the methods of allocation be deferred to future electric and steam rate cases. This recommendation was made in order to allow for the effects of operational changes that were being made at the time to be more fully understood. At that time, Unit 4 was being converted to run on natural gas as its primary fuel source instead of coal. Staff concluded that due to the uncertainty caused by the significant changes at Unit 4 and the lack of any other changes in the way the 900 lb. steam system was being used, that it was not appropriate to make changes to the Lake Road allocation factors.

In the Non-Unanimous Stipulation and Agreement filed in Case No. ER-2016-0156, Staff and GMO agreed, for the purposes of that case, to adopt a series of allocation factors provided in a table.[40] No changes were made to the methods used to calculate the allocation factors other than those necessary to facilitate the consolidation of rate districts within GMO's service territory. The table from that Stipulation and Agreement is reproduced below.

[38] Data taken from FERC Form No. 1s submitted with KCP&L Greater Missouri Operations Company's Annual Reports that are filed in EFIS
[39] ER-2016-0156, Staff Direct Revenue Requirement Report, pages 99-101
[40] ER-2016-0156, EFIS Item No. 305, "Non-Unanimous Stipulation and Agreement," page 12

Table 2. Lake Road Allocation Factors from ER-2016-0156

KCP&L Greater Missouri Operations (GMO)- Combined Allocation Factors

Electric/Steam Allocation Factors		Electric	Steam	
1,1	Jurisdictional-100% Electric	100.000 %	0.000 %	100.000 %
1,3	100% Jurisdictional/Allocated Plant Base	98.887 %	1.113 %	100.000 %
1,13	100% Jurisdictional/O&M	92.846 %	7.154 %	100.000 %
2,2	Non-Juris/Steam	0.000 %	100.000 %	100.000 %
3,1	Demand/Electric	99.540 %	0.460 %	100.000 %
3,4	Demand/Land	75.730 %	24.270 %	100.000 %
3,5	Demand/Structures	75.730 %	24.270 %	100.000 %
3,6	Demand/Boiler Plant	65.515 %	34.485 %	100.000 %
3,7	Demand/Turbogenerators	99.255 %	0.745 %	100.000 %
3,8	Demand/Access Elec Eqpt	75.730 %	24.270 %	100.000 %
3,9	Demand/Misc Steam Gen Eqpt	47.381 %	52.619 %	100.000 %
3,10	Demand/Electric/Steam Plant	75.730 %	24.270 %	100.000 %
3,13	Demand/O&M	92.419 %	7.581 %	100.000 %
4,1	Energy/Electric	99.500 %	0.500 %	100.000 %
5,1	Distribution/Electric	99.667 %	0.333 %	100.000 %
6,1	Payroll/Electric	99.591 %	0.409 %	100.000 %
6,14	Payroll/A&G	98.911 %	1.089 %	100.000 %
7,1	Plant/Electric	99.591 %	0.409 %	100.000 %
7,3	Plant/Alloc Plant	98.483 %	1.517 %	100.000 %
7,14	Plant/A&G	98.911 %	1.089 %	100.000 %
8,1	Transmission/Electric	99.540 %	0.460 %	100.000 %

e. Current Status of Staff Review

A proposed revision to the Lake Road allocation procedures was provided as a part of Mr. Tim Rush's direct testimony in Case No. ER-2018-0146. Following its review, Staff sent a number of data requests to GMO and as a result, determined that revisions to the proposed allocation procedures were necessary. GMO responded to a Staff data request with a revised allocation procedure on June 5, 2018,[41] which Staff is currently reviewing.

f. Staff Recommendation

Staff is not opposed to a revision of the Lake Road allocation procedures that would account for the changes in fuel use and market conditions that have occurred in the past several years. However, Staff's review of this issue is ongoing due to the delays in receiving GMO's revision to the allocation procedures it originally proposed in this case. Therefore, at this time Staff must recommend that the allocation factors agreed to in the Stipulation and Agreement in

[41] ER-2018-0146, GMO response to Staff Data Request 386

Case No. ER-2016-0156 be left in place. This recommendation may be subject to modification depending on the results of Staff's final review of GMO's proposed revisions to the allocation procedures it submitted in this case.

Staff Expert/Witness: Charles T. Poston, PE

4. Contract Prices and Energy

Utilities may enter into contracts for a specific amount of energy (megawatts or "MW") and/or a maximum amount of hourly energy (megawatt-hours or "MWh"). Prices for the energy from these contracts are based on either a fixed contract price or the generating costs of providing the energy. The contracts relevant to KCPL are the Cimmaron II, Spearville 3, Slate Creek, Waverly, Rock Creek, and Osborn wind power contracts and the Central Nebraska Public Power and Irrigation District ("CNPPID") hydro power contract. The contracts relevant to GMO are Ensign, Gray County, Osborn, and Rock Creek wind farms and the State Fair Community College landfill gas facility.

For the KCPL contracts of Cimmaron II, Spearville 3, Slate Creek, Waverly, Rock Creek, Osborn and CNPPID and the GMO contracts of Ensign, Gray County, and Osborn, Staff developed hourly energy production by averaging the historic hourly generation records that were supplied by the Companies. In the case of Rock Creek, less than one year of actual production statistics was available. As a result, Staff adopted the estimated generation levels used by KCPL and GMO respectively. The State Fair Community College landfill gas facility was modeled as having fixed generation equal to the value assumed by GMO. Energy prices per MWh were obtained from the wind, landfill gas, and hydro power contracts provided by KCPL & GMO.

Staff Experts/Witnesses: Shawn E. Lange, PE and Charles T. Poston, PE

5. Fixed Costs

Fuel and purchased power costs that do not vary directly with the amount of fuel burned were not included in Staff's fuel model, but were determined separately. The non-variable fuel costs that were determined separately and included in fuel expense are typically referred to as "fuel adders." These types of costs include non-wage fuel handling, dust suppressant, and freeze proofing coal for transportation from the mines to power plants. The non-variable purchased

power costs not included in Staff's fuel model are commonly referred to as "capacity charges" or "demand charges" and are annualized separately from purchased power energy costs and are addressed in a later section of this report.

Staff Expert/Witness: Matthew R. Young

6. Fixed Adders

The costs of fuel adders are determined separately and are added to the level of fuel expense determined by the model to determine overall fuel expense. Costs added to coal expense include unit train lease payments and unit train rail car maintenance costs. Fuel adders for natural gas include transportation charges and hedging costs. A significant percentage of natural gas transportation charges is fixed and under contract. Other fuel adder expenses incurred by KCPL and GMO include ammonia, lime, limestone, sulfur, and powder activated carbon ("PAC").

For natural gas fixed transportation costs and additives such as limestone and ammonia, Staff used the actual expenses for the 12-months ending December 31, 2017. Staff's adjustments are identified on Schedule 10 of Staff's KCPL Accounting Schedules, as adjustments E-7.3, E-12.1, E-12.2, E-99.2, and E-101.1. In Staff's GMO Accounting Schedules, the annualized expense is reflected in adjustments E-6.3, E-6.4, E-6.7, E-9.1, and E-51.1. Staff will re-examine these expenses at the time of Staff's true-up, and update any costs as necessary.

Staff Expert/Witness: Matthew R. Young

7. Purchased Power – Energy

Staff Adjustments E-114.3 (KCPL) and E-68.3 (GMO) annualizes purchased power energy charges based on Staff's fuel model results. These purchased power energy charges represent the energy KCPL and GMO purchase on the spot market and through contracts to meet the system load requirements of its retail electric customers. Staff witness Shawn Lange of the Engineering Analysis Unit of the Operational Analysis Department is responsible for determining Staff's recommended hourly market prices for use as inputs in Staff's fuel models. Mr. Lange is responsible for the KCPL fuel model while Staff witness Charles T. Poston is responsible for the GMO fuel model. Mr. Lange and Mr. Poston use the same hourly market prices within their respective models.

Staff Expert/Witness: Matthew R. Young

8. Purchased Power – Capacity Charges

Capacity charges, commonly referred to as "demand charges," represent fixed amounts that KCPL and GMO either pays for the "right" to purchase power, also known as capacity purchases, or is paid by another entity for the "right" to purchase power from KCPL or GMO. In the case of purchased power, the selling entity reserves generating capacity for KCPL or GMO to purchase when the electricity is needed under terms of the purchased power agreements. KCPL and GMO contract this power with various entities and pay a fixed component for the reserve capacity and an energy component for any energy consumed. Generally, there is also an amount for operational and maintenance costs charged for the usage of energy. The fixed component is paid by KCPL and GMO as a demand charge, generally on a monthly basis, regardless of the level of power actually purchased. This amount is for the "right" to purchase the power in much the same way that natural gas utilities purchase the reservation of capacity from pipelines through reservation payments. The demand charges relate to the fixed expenses of operating a generating facility.

The demand charges paid to KCPL and GMO by other generating entities, giving those entities the "right" to purchased power from KCPL and GMO, are known as capacity sales. The demand charges for capacity sales are addressed in the revenue portion of this Cost of Service Report.

Staff annualizes purchased power demand charges based on existing capacity contracts currently in effect. These charges represent amounts that are paid under capacity agreements related to the fixed costs of reserving capacity. Staff determined the appropriate costs per megawatt hour and the amount of megawatts purchased for each contract and included the costs reflected in KCPL's and GMO's capacity agreements in effect on December 31, 2017.

Staff Expert/Witness: Matthew R. Young

9. Border Customers

Border customers are customers who are in the service territory of one utility to which the customer will pay its bill, but are physically served by another utility's power lines. In other words, there are KCPL and GMO customers currently being served by another utility's power and customers of other utilities that are being served by KCPL's and GMO's power. When KCPL and GMO customers are served by another utility, KCPL and GMO must pay the utility for the costs to serve these customers. The energy supplied by another utility for KCPL's and

GMO's customers is included in Staff's fuel model as a reduction to the net system input ("NSI") and the revenues for KCPL and GMO customers that are served by another utility are included in Staff's retail revenue calculation and included in KCPL's and GMO's cost of service. When another utility's customers are served by KCPL and GMO, the utility must reimburse KCPL and GMO for the cost of serving those customers. The energy supplied by KCPL and GMO is included in Staff's fuel model and the related fuel costs are included in KCPL's and GMO's cost of service.

To ensure that all border customer costs and revenues are included in KCPL's and GMO's cost of service, an additional adjustment must be made to include (1) the payment KCPL and GMO makes to reimburse other utilities for the costs to serve KCPL's and GMO's customers – purchased power, and (2) the payment KCPL and GMO receives from other utilities for the costs to serve those utilities' customers -- sales.

Staff reflected actual KCPL and GMO border customer revenues and expenses for the twelve months ending December 31, 2017, the end of the test year update period. Staff's adjustment for border customers is reflected on Schedule 10 of Staff's Accounting Schedules for KCPL and GMO, Adjustment E-113.2 and Adjustment E-68.2, respectively.

Staff Expert/Witness: Karen Lyons

10. Variable Costs

a. Fuel Prices

Staff computed fuel expense using prices and quantities actually incurred by KCPL and GMO as of December 31, 2017. Staff included fuel prices for nuclear, coal, natural gas, and oil, including transportation charges in the fuel USOA accounts 501 (coal), 518 (nuclear), 547 (natural gas), and 555 (energy portion of purchased power expense).

Staff Expert/Witness: Matthew R. Young

b. Coal Prices

Staff determined coal prices by generation facility based on a review and analysis of KCPL's and GMO's coal purchase (supply) and coal transportation (freight) contracts. Staff's recommended coal prices reflect KCPL's and GMO's actual contracted coal purchase and transportation prices (excluding sulfur premiums or discounts) in effect on December 31, 2017. Staff will review the coal prices during the true-up process.

Staff Expert/Witness: Matthew R. Young

c. Natural Gas Prices

As an input to its production cost model, Staff used twelve (12) monthly natural gas prices calculated using 12-month weighted averages of KCPL's and GMO's actual commodity cost of natural gas through the end of the test year update period of December 31, 2017. KCPL's natural gas fixed transportation costs are annualized and normalized separately as a part of fuel adders.

Staff Expert/Witness: Matthew R. Young

d. Nuclear Fuel Prices (KCPL)

KCPL owns 47% of Wolf Creek. KCPL's 47% ownership interest in Wolf Creek entitles it to 552 megawatts[42] of the plant's capacity. In determining its nuclear fuel price, Staff relied upon KCPL's monthly Report 25 - the Fuel Report. Beginning in May 2014 the monthly nuclear fuel price decreased and, based on discussions with KCPL personnel, the decrease in price is attributable to the discontinuance of the nuclear waste disposal fee in May 2014. Staff's proposed nuclear fuel price is based on the most current fuel price as of December 31, 2017.

Staff Expert/Witness: Matthew R. Young

e. Oil Prices

Staff used the actual cost KCPL and GMO paid for its most recent fuel oil purchases to determine variable fuel oil expense. KCPL and GMO burn fuel oil mainly as a start-up fuel for the coal-fired generating units or, in some instances, for flame stabilization. Oil is a primary fuel source at KCPL's Northeast units, which see very limited run time. As a result, KCPL and GMO purchase fuel oil infrequently. Historically, the limited number of purchases of fuel oil makes it difficult to employ any meaningful type of averaging method. An accurate historical analysis of fuel oil prices is also not possible because KCPL and GMO do not make purchases during the majority of the year. For its direct filed case, Staff recommends KCPL's and GMO's most recent fuel oil purchase prices as of December 31, 2017, to input into the fuel model for determining KCPL's and GMO's variable fuel and purchased power expense on a going forward basis.

Staff Expert/Witness: Matthew R. Young

[42] KCPL response to Staff Data Request No. 0057 in Case No. ER-2016-0285.

11. Purchased Power Prices

Market Prices:

Staff analyzed hourly Southwest Power Pool Integrated Market Day Ahead market prices ("market prices") from the beginning of market operations on March 3, 2014 to the end of December 2017. Since the onset of the two-day markets in Missouri, Staff has used a three-year average of day ahead market prices (when data is available) to adjust for extreme price points. Extreme price points can be caused by weather, new market operation, natural disasters, economic down turns, and flooding to name a few. Early market prices saw extreme highs and huge fluctuations with prices steadily dropping through 2015, 2016, and 2017. For Staff's direct case, a three-year average of market prices has been adopted as a reasonable normalized forecast of market prices. Staff will continue to review market prices through the true-up period and will update prices as necessary

Staff Expert/Witness: Shawn Lange, PE

12. Normalized Net System Input

Hourly net system input is the hourly electric supply necessary to meet the hourly energy demands of a utility's customers; the input is net of (i.e., does not include) station use, which is the electricity requirement of the utility's generating plants.

Due to the presence of significant air conditioning and electric space heating in KCPL's and GMO's respective service territories, the magnitude and shape of KCPL's and GMO's net system input is directly related to daily temperatures. To normalize the net system input, Staff used actual and normal daily temperatures provided by Staff witness Dr. Seoung Joun Won in its analysis. The actual daily temperatures for the test year, the twelve months ending June 30, 2017, as well as the update period ending December 31, 2017, differed from normal daily temperatures. Therefore, to reflect normal weather, daily peak and average net system loads were each adjusted independently, but using the same methodology.

Daily average load is the summation of the hourly load for the day divided by twenty-four hours. Daily peak is the maximum hourly load for the day. Staff uses separate regression models to estimate both (1) a base component, which is allowed to fluctuate across time as non-weather factors, and (2) a weather-sensitive component, which measures the response to daily fluctuations in weather for daily average loads and peak loads. Independent regression

models are necessary because daily average loads respond differently to weather than peak loads. The models' regression parameters, along with the difference between normal and actual cooling and heating measures, are used to calculate weather adjustments to both the average and peak loads for each day. The adjustments for each day are added, respectively, to the actual average and to the peak loads of each day. In order to allocate the weather-normalized daily peak and average loads to each individual hour of the year, Staff begins with the actual hourly loads for the year being normalized. A unitized load curve[43] is calculated for each day as a function of the actual peak and average loads for that day. Staff uses the corresponding weather-normalized daily peak and average loads, along with the unitized load curve, to calculate weather-normalized hourly loads for each hour of the year.

This process includes many checks and balances, which are included in Staff's direct workpapers. The Staff analyst is required to examine the data at several points in the process to further ensure accuracy. For more information, the process is described in greater detail in the document "*Weather Normalization of Electric Loads, Part A: Hourly Net System Loads.*"[44]

After the weather-normalizing and annualizing usage for KCPL's and GMO's retail customer classes is completed, weather-normalized wholesale usage is added to produce an annual sum of the hourly net system loads that equals the adjusted twelve month period usage, plus losses, and is consistent with Staff's normalized revenues.

Staff applies a factor to each hour of the weather-normalized loads to produce an annual sum of the hourly net-system loads that equals the usage, plus losses, consistent with normalized revenues. Once completed, the hourly normalized system loads were used in developing Staff's fuel and purchased power expense as explained in Staff witnesses Shawn Lange's and Charles Poston's direct testimonies. Staff witness Alan J. Bax also used the annual requirement of the net system input in developing Staff's jurisdictional energy allocator, as explained in his testimony.

Staff Expert/Witness: Shawn Lange and Seoung Joun Won, Ph.D.

[43] A unitized load curve is a set of 24 hourly loads of a given day calculated by subtracting the average daily load from each hourly load, then dividing by the difference between the peak and the average so that the average of the calculated hourly loads is 0 and the peak is 1.

[44] Weather Normalization of Electric Loads, Part A: Hourly Net System Loads" (November 28, 1990), written by Dr. Michael Proctor, Manager of the Economic Analysis Department.

13. System Energy Losses

Staff, as part of its review, evaluated KCPL's and GMO's system energy losses. System energy losses largely occur in the electrical equipment between a utility's generating sources and its customers' meters (e.g., transformers, transmission and distribution lines, etc.). In addition, Staff has also included in its calculation of system energy losses small fractional amounts of energy, either stolen (diversion) or not metered. The basis for calculating system energy losses is that Net System Input ("NSI") equals the sum of Retail Sales, Wholesale Sales, Company Use, and System Energy Losses. This can be expressed mathematically as:

NSI = Retail Sales + Wholesale Sales + Company Use + System Energy Losses

NSI, Retail Sales, Wholesale Sales, and Company Use are known quantities; therefore, system energy losses may be calculated as follows:

System Energy Losses = NSI – (Retail Sales + Wholesale Sales + Company Use)

The system energy loss percentage is the ratio of system energy losses to NSI multiplied by 100:

System Energy Loss Percentage = (System Energy Losses ÷ NSI) X 100

NSI is also equal to the sum of net generation and net interchange. Net interchange is the difference between off-system purchases and off-system sales. Net generation is the total energy output of each generating plant minus the energy consumed internally to enable the production of electricity at each plant. The output of each generating plant is monitored and metered continuously. The net of off-system purchases and off-system sales ("Net Interchange") is also similarly monitored.

Staff has calculated the following system energy loss factors for KCPL and GMO based on a respective analysis of associated data experienced during the twelve-month period July 2016 – June 2017, which is the test year utilized in these current cases.

KCPL - .0608
GMO - .0609

These system energy loss factors will be provided to and used by Staff witness Seoungjoun Won, Ph.D. in the development of hourly loads that are included in Staff's corresponding fuel models for KCPL and GMO.

Staff Expert/Witness: Alan J. Bax

14. Surface Transportation Board Reparation Amortization

On October 12, 2005, KCPL filed a rate complaint case with the Surface Transportation Board ("STB") against Union Pacific Railroad ("UPRR") alleging UPRR's charges to transport coal from Wyoming's Powder River Basin ("PRB") to KCPL's Montrose plant in Missouri were excessive.

On May 15, 2008, the STB ruled in favor of KCPL and ordered UPRR to reduce its rates to KCPL and pay KCPL reparations for prior overcharges. The STB estimated the value of the rate reductions and reparations to be $30 million.

During the period between the STB rate complaint case and the final decision, KCPL filed two general rate cases before this Commission, Case No. ER-2006-0314 and Case No. ER-2007-0291. In Case No. ER-2006-0314, Staff and KCPL, by agreement, treated KCPL's actual STB litigation costs as a regulatory asset amortized to expense over five (5) years beginning in January 2007. Staff and KCPL also agreed that proceeds from the complaint were first to be applied as an offset to any existing balance of the STB case costs in the regulatory asset, with the remainder being applied to offset fuel costs as determined in future proceedings. The Commission in its Report and Order in that case observed that the agreement between Staff and KCPL "appears just and reasonable". In KCPL's next Missouri rate case, Case No. ER-2007-0291, Staff and KCPL continued this same treatment of deferring and amortizing the Missouri jurisdictional portion of KCPL's STB litigation costs.

In the KCPL rate case subsequent to the 2008 STB ruling, Case No. ER-2009-0089, KCPL calculated a rate recovery for STB costs and reparations from UPRR in excess of its STB costs of $1.38 million. KCPL distributed this excess to the three entities that it claimed contributed funds to the cost of prosecuting the STB case. These entities were the

City of Independence (through its capacity contract with KCPL), Missouri regulated customers, and Kansas regulated customers. In addition, KCPL allocated a portion of the excess to its wholesale customers who apparently did not contribute funds to the cost of the STB complaint case.

KCPL updated this calculation in the 2009 rate case based on corrected information and included additional reparations received from UPRR. Staff used the calculation methodology in KCPL's work paper, with two corrections.

First, KCPL failed to include all of the funds that were included in Case No. ER-2007-0291 rates in the total amount of the STB costs contributed by Missouri ratepayers. Staff added $143,945, the amount KCPL collected in rates from January 2008 through September 2008. This amount was earmarked for STB case expense recovery, but was excluded by KCPL in its calculation. Second, since KCPL's wholesale customers did not contribute to the STB rate case recovery, Staff reallocated the amounts credited to Missouri and Kansas regulated customers by using the appropriate Missouri-Kansas allocation percentage.

The Non-Unanimous Stipulation and Agreement in Case No. ER-2009-0089, approved by Commission Order effective June 23, 2009, states in part, "the Missouri jurisdictional excess of STB litigation proceeds over un-recovered STB litigation costs of $1,017,593 will be deferred in a regulatory liability account and amortized over ten (10) years beginning with the date new rates become effective in this case, with one year's amortization included in cost of service in this case. The unamortized balance will not be included in rate base." Rates became effective September 1, 2009, and the amortization of STB proceeds is still included in current rates. The test year amount on KCPL's books reflects the appropriate amortization level; therefore, no adjustment was necessary for this case.

Although the amortization of the excess of STB litigation proceeds is not yet completed, the liability will be fully amortized on August 31, 2019. In the event that the amortization ends before rates are reset in KCPL's next general rate proceeding, Staff recommends that amounts over-amortized should be tracked for consideration in KCPL's next rate case.

Staff Expert/Witness: Matthew R. Young

15. Missouri Iowa Nebraska Transmission Line Losses

These are payments made to Associated Electric Cooperative, Inc. ("AEC") for transmission losses on the Missouri Iowa Nebraska Transmission line ("MINT"). Staff included an annualized level of actual payments made by KCPL and GMO for the 12 month period ending December 31, 2017. Staff's adjustment is identified on Schedule 10 of Staff's Accounting Schedules for KCPL and GMO, Adjustment E-Rev-11.5, Adjustment E-Rev-7.4, respectively.
Staff Expert/Witness: Karen Lyons

C. Payroll, Payroll Related Benefits including 401k Benefit Costs

1. Payroll Costs

Staff examined the payroll costs of KCPL and recommends allocating KCPL's annualized payroll costs using ratios derived from how KCPL recorded its allocated payroll costs during the test year. Staff recommends annualizing KCPL's payroll based on actual employee levels as of the end of the update period, December 31, 2017, plus direct assignment of Wolf Creek and Jeffrey Energy Center payroll. Because KCPL is the only Great Plains entity that has employees, KCPL employees perform all services for Great Plains, KCPL, GMO, and certain portions of KCPL's non-regulated enterprises. Therefore, it is necessary to allocate KCPL's payroll costs in order to assign the proper amounts of payroll costs to each of the Great Plains entities, including KCPL. Staff based its recommended allocation of KCPL's annualized payroll on KCPL's historical allocation practices.

Staff annualized payroll for all employees, including part time and temporary employees, includes base wages, overtime wages, differential wages, and premium pay paid to KCPL's union employees based on union contracts, as well as an annualized level of payroll for the Wolf Creek and Jeffrey generation facilities (Wolf Creek and Jeffrey payroll is discussed further below).

Staff annualized KCPL's payroll costs in this case based on the actual number of KCPL employees as of December 31, 2017, the end of the update period. Each individual employee's current hourly wage or salary was used to compute an annual total payroll cost for that KCPL employee. After KCPL's base payroll was annualized, payroll costs linked to employees of KCPL's jointly-owned generation facilities were deducted using the most recent actual

joint-owner billings. The following table shows KCPL's ownership share of jointly owned plant facilities:

Power Plant	KCPL's Ownership Share	GMO Ownership Share	Other Utility's Ownership Shares
La Cygne 1	50%	0%	50%
La Cygne 2	50%	0%	50%
Iatan 1	70%	18%	30%
Iatan 2	55%	18%	45%
Wolf Creek	47%	0%	47%
Jeffrey 1, 2, and 3	0%	8%	92%

After removing payroll allocated to joint-owners, Staff allocated KCPL's remaining base payroll costs among KCPL and its affiliates. Staff used allocation ratios based on the actual payroll allocation that occurred during the 12-month period ended December 31, 2017.

To normalize overtime wages, Staff multiplied the last-known composite hourly rate for overtime by a three-year average (2015-2017) of overtime hours for union overtime, and a five-year average (2013-2017) for non-union overtime, as the volume of overtime hours has fluctuated in recent years. To annualize wages for premium pay, Staff included the actual expense recorded during the 12-month period ended December 31, 2017, as costs have been increasing. To normalize wages for temporary employees, Staff included a three-year average of expense as costs have been fluctuating. Staff's total annualized payroll consists of the sum of these four types of payroll costs (base, overtime, premium, and temporary).

After allocating KCPL's annualized payroll to Great Plains, KCPL, and GMO, Staff further allocated the KCPL-only payroll costs between Operations & Maintenance ("O&M") Expense and Non-O&M Expense in order to calculate the ongoing O&M payroll costs charged to expense. Non-O&M expense relates to construction or other capital projects (capital), along with non-utility functions (below-the-line) to which KCPL employees charge time. The amounts that are included in the revenue requirement calculations for KCPL and GMO are the O&M levels of total payroll expense after the application of an O&M expense ratio. An examination of the historical capitalized payroll revealed that the actual capitalization ratios have fluctuated

from year to year. Staff used a three-year average of historical O&M expense ratios to calculate the proper level of payroll costs to charge to KCPL's O&M expense.

Staff did not include payroll expense related to KCPL's demand-side management ("DSIM") programs in this case, as those costs are included separately as they are allowed to be recovered as a MEEIA surcharge.

The Wolf Creek generating station is managed by a separate entity, Wolf Creek Nuclear Operating Company ("WCNOC"), which charges Wolf Creek payroll directly to KCPL for its share (based on 47% KCPL plant ownership) of the total Wolf Creek payroll expenses. Since WCNOC directly assigns the appropriate portion of Wolf Creek payroll to KCPL, and KCPL is the only Great Plains entity that has an ownership share of Wolf Creek, as of December 31, 2017, there is no need to allocate Wolf Creek payroll costs to KCPL's affiliates. For Wolf Creek base payroll, Staff included the last known annual amount, as costs have been increasing. For Wolf Creek overtime, Staff included the amount of overtime cost WCNOC assigned to KCPL based on a three year average of 2015 through 2017. Similarly, GMO is billed for its ownership interest in Jeffrey for the payroll costs incurred to operate the power plant. Staff included payroll and overtime amounts based on the last known annual costs.

After allocating KCPL's total payroll costs to joint-owners, affiliates, and O&M, Staff distributed its resulting payroll adjustment among FERC accounts based upon how KCPL and GMO distributed its actual payroll costs among those same accounts during the test year, ending June 30, 2017. The following are the adjustments Staff made to allocate the annualized payroll to each of these FERC accounts for KCPL and GMO:

KCPL adjustments: E-4-1, E-13-1, E-14-1, E-15-1, E-16-1, E-17-1, E-18-1, E-19-1, E-22-1, E-36-1, E-39-1, E-42-1, E-45-1, E-48-1, E-55-1, E-59-1, E-60-1, E-62-1, E-63-1, E-64-1, E-74-1, E-76-1, E-78-1, E-79-2, E-83-1, E-85-1, E-97-1, E-98-1, E-103-1, E-104-1, E-107-1, E-108-2, E-109-3, E-110-2, E-117-1, E-118-2, E-125-1, E-126-1, E-127-1, E-128-1, E-133-1, E-138-2, E-140-2, E-141-2, E-149-1, E-150-1, E-151-1, E-152-1, E-153-1, E-155-1, E-156-1, E-157-1, E-158-1, E-161-2, E-163-2, E-164-3, E-165-2, E-166-2, E-167-2, E-168-2, E-169-3, E-173-1, E-174-2, E-175-2, E-180-1, E-183-1, E-184-4, E-192-2, E-197-1, E-203-1, E-206-4, E-209-2, E-214-3, E-223-1, E-225-4, E-233-4, and E-240-3.

GMO adjustments: E-4-1, E-6-1, E-7-1, E-15-1, E-17-1, E-18-1, E-26-1, E-27-1, E-28-1, E-30-1, E-31-1, E-47-1, E-49-1, E-57-1, E-58-1, E-61-1, E-62-1, E-63-1, E-64-1, E-73-1, E-74.2,

E-80-1, E-81-1, E-82-1, E-83-1, E-86-1, E-87-1, E-91-1, E-93-1, E-94-1, E-96-1, E-101-1, E-102-1, E-103-1, E-104-1, E-105-1, E-10701, E-108-1, E-110-1, E-14-1, E-115-1, E-116-1, E-117-1, E-118-2, E-119-2, E-120-1, E-121-2, E-122-1, E-127-1, E-128-1, E-129-1, E-131-1, E-135-1, E-136-1, E-138-2, E-142-1, E-148-1, E-150-1, E-151-2, E-156-3, E-157-1, E-165-2, E-167-2, and E-177-3.

Staff Expert/Witness: Antonija Nieto

2. Payroll Related Benefits

KCPL and GMO incur costs for a variety of payroll-related benefits, such as 401k matching and employee insurance premium contributions. Staff included the most recent historical cost levels, as of December 31, 2017, in its determination of KCPL's and GMO's cost of service for all payroll benefits, excluding 401k matching costs, as costs have been increasing. Because it is additional employee compensation, Staff allocated payroll-related benefits to the owners of jointly-owned generating stations using the same method Staff utilized to allocate the associated base payroll costs of those employees. That method is described in the payroll section of this report.

Staff calculated KCPL's and GMO's annualized 401k costs by applying an average of the actual 401k percentage match to KCPL's and GMO's share of total annualized payroll costs. Staff calculated the average percentage match by dividing the percentage of KCPL's actual 401k match by the actual 401k eligible payroll expense in seven separate pay periods, and averaging those ratios. Staff Adjustments E-215-5 and E-157-6 to Staff's Income Statement (EMS Schedule 9) reflect Staff's normalized payroll benefits, based on KCPL's and GMO's payroll costs as of the update period of December 31, 2017.

Staff Expert/Witness: Antonija Nieto

3. Payroll Taxes

Staff annualized KCPL's and GMO's payroll taxes by applying current payroll tax rates to each employee's annualized level of payroll and each employee's last known receipt of Value-Link incentive compensation. To calculate payroll taxes on incentive compensation, Staff applied the composite current rate for FICA tax to Staff's annualized executive incentive compensation under the assumption that all tax wage ceilings were achieved through base

payroll. To compute payroll taxes for overtime, temporary labor, premium pay, and Wolf Creek payroll, Staff applied the current payroll tax rates to these "other" wages assuming the Federal Unemployment Tax Act ("FUTA") and State Unemployment Tax Act ("SUTA") wage ceilings were achieved. To allocate Staff's annualized payroll taxes to the various subsidiaries of GPE, Staff used the same method that it used to allocate KCPL's payroll costs. Staff Adjustments E-264-1 and E-195-1 to Staff's Income Statement (EMS Schedule 9) reflects the annualized payroll taxes based on payroll costs as of December 31, 2017, for KCPL and GMO, respectively.

Staff Expert/Witness: Antonija Nieto

4. True-up of Payroll Costs

Staff will update the total payroll costs, payroll-related benefits, and payroll taxes based on actual historical information through June 30, 2018, for the true-up in this case. Unless true-up data indicate a change in circumstance, the same methodology used to annualize payroll as of December 31, 2017, will be used for the true-up.

Staff Expert/Witness: Antonija Nieto

5. FAS 87 – Pension Cost Tracking Mechanism

Staff and KCPL entered into a *Non-Unanimous Stipulation and Agreement Regarding Pensions and Other Post Employment Benefits* in KCPL's Case No. ER-2016-0285. Staff and GMO entered into a similar *Non-Unanimous Stipulation and Agreement Regarding Pensions and Other Post Employment Benefits* in GMO's Case No. ER-2016-0156 (collectively referred to as "Agreements"). Among other items, these Agreements addressed the ratemaking treatment for annual pension costs under Financial Accounting Standard No. 87 ("FAS 87"), and pension settlement and curtailment accounting under Financial Accounting Standard No. 88 ("FAS 88"). Both Agreements were approved by the Commission in their respective cases. The Agreements reaffirmed the prior provisions regarding these matters reached in KCPL's Regulatory Plan and subsequent rate cases, as well as GMO's File No. ER-2012-0175 and subsequent rate cases, and clarified the accounting for pension cost allocated to KCPL's joint partners in the Iatan and La Cygne generating stations. It also addressed the ratemaking treatment for a curtailment or settlement recognized under FAS 88.

The names of the FASs have changed. The Financial Accounting Standards Board's ("FASB") Accounting Standards Codification project was launched in 2009 and became the single source of authoritative nongovernmental U.S. Generally Accepted Accounting Principles ("GAAP") (other than guidance issued by the Securities and Exchange Commission). The Codification Topic 715 covers all of the following FAS statements under its various subtopics:

- FAS 87 and FAS 88, Employers' Accounting for Pensions;
- FAS 158, Employers' Accounting for Defined Benefit Pension and Other Postretirement Plans; and
- FAS 106, Employers' Accounting for Post Retirement Benefits other than Pensions.

While the above individual FAS statements have been combined into Codification Topic 715, for the purposes of this Report, Staff will refer to the original FAS statement numbers, such as FAS 87, FAS 88, FAS 106, and FAS 158, as needed.

There are two amounts in KCPL's rate base relating to pensions resulting from various agreements reached in Case Nos. EO-2005-0329, ER-2006-0314, ER-2007-0291, ER-2009-0089, ER-2010-0355, ER-2012-0174, ER-2014-0370, and ER-2016-0285:

> 1) A Prepaid Pension Asset – The prepaid pension asset represents the unrecovered balance of negative pension cost flowed back to ratepayers in prior years. A prepaid pension asset can also be created when contributions to the pension plans exceed the FAS 87 expense.
>
> 2) A FAS 87 Regulatory Asset – Under the terms of the Stipulation and Agreements referenced above, the difference between FAS 87 reflected in rates and KCPL's actual cost recorded in its financial statements is tracked and recorded as either a regulatory asset or liability, and is then amortized over five years in the next rate case. The cumulative tracker balance as of June 30, 2018, is a regulatory asset; that is, the amount collected in rates has been less than the incurred FAS 87 expense.

Historically, there have been two amounts in GMO's rate base relating to agreements regarding pension regulatory assets reached in the various agreements attained in Case Nos. ER-2007-0007, ER-2009-0090, ER-2010-0356, ER-2012-0175, and ER-2016-0156:

1) ERISA Minimum Tracker – This balance is the remaining tracked amount from the prior pension tracking method.

2) A FAS 87 Regulatory Asset – Under the terms of the agreements referenced above, the difference between FAS 87 reflected in rates and GMO's actual cost recorded in its financial statements is tracked and recorded as either a regulatory asset or liability, and is then amortized over five years in the next rate case. GMO's rate base includes a regulatory asset as of June 30, 2018.

In the current case, GMO's deferred costs under the ERISA Minimum Tracker have been fully recovered. Staff measured the amounts that were over-amortized related to the ERISA Minimum Tracker, and offset it against the balance of GMO's FAS 87 Regulatory Asset.

Staff's recommended annualized level of KCPL's and GMO's pension expense is based on information provided by KCPL's actuarial firm, Towers Watson, which KCPL in turn provided to Staff in response to Staff Data Request No. 0131. Staff's calculation of KCPL's pension expense was made in accordance with the methodology described in the Agreement reached in Case No. ER-2016-0285. However, the methodology used to calculate GMO's pension expense in Case No. ER-2016-0156 was, in part, based on a 12-year average of cost projections rather than the agreed-to method of FAS 87 expense calculations, with the difference between the projected cost and FAS 87 expense flowing to GMO's FAS 87 regulatory asset.[45] In this case, Staff recommends that GMO's pension expense no longer be based on the 12-year average projected pension cost. Instead, Staff's adjustment includes GMO's pension expense as calculated consistent with KCPL's pension expense. Staff recommends the continuation of the remainder of the methodologies described in the Agreement reached in Case No. ER-2016-0156.

Based on the language of the Agreements, Staff recommends cost of service recovery of KCPL's and GMO's share of FAS 88 charges through a five-year amortization increase to pension expense. The FAS 88 charge is related to the impact on pension expense of employees being removed from KCPL's and GMO's pension plans through early retirement or for other reasons, and the impact of paying lump sum pension distributions to these employees as the alternative to distributing pension benefits through annuity payment. While the FAS 88 charge

[45] See page 5, paragraph 3, of the Non-Unanimous Stipulation and Agreement Regarding Pensions and Other Post-Employment Benefits in Case No. ER-2016-0156.

is an increase to cost of service, the ongoing level of pension expense should be lower due to the removal of these employees' costs from the pension plan.

KCPL's rates resulting from Case No. ER-2016-0285 and GMO's rates resulting from Case No. ER-2016-0156 contained a five-year amortization of FAS 88 charges experienced in 2011, which will be fully recovered before the June 30, 2018, true-up date in this case. Staff offset the cost of KCPL's and GMO's 2017 FAS 88 charges with the over-collection related to the 2011 vintage.

Due to the timing of the cut-off and true-up dates in this case, the additions and deductions to KCPL's and GMO's pension assets through the June 30, 2018, true-up date is known and measurable. As such, Staff has included true-up values for pensions in its direct case. Ongoing pension expense and the rate base portion of the pension tracker mechanism are included in Staff's KCPL Accounting Schedules as adjustment E-215.1 in the Income Statement – Schedule 10, and Rate Base – Schedule 2. Staff reflected ongoing pension costs in Staff's GMO Accounting Schedules as adjustment E-157.2 in the Income Statement – Schedule 10, and Rate Base – Schedule 2.

Staff Expert/Witness: Matthew R. Young

6. FAS 106 – Other Post Employment Benefit Cost Tracking Mechanism

Staff and KCPL entered into a *Non-Unanimous Stipulation and Agreement Regarding Pensions and Other Post Employment Benefits* in KCPL's Case No. ER-2016-0285. Staff and GMO entered into a similar *Non-Unanimous Stipulation and Agreement Regarding Pensions and Other Post Employment Benefits* in GMO's Case No. ER-2016-0156 (collectively referred to as "Agreements"). Among other items, these Agreements addressed the ratemaking treatment for annual Other Post Employment Benefit ("OPEB") Costs under Financial Accounting Standard No. 106 ("FAS 106"). Both Stipulation and Agreements were approved by the Commission in their respective cases.

OPEBs are those costs KCPL and GMO incur to provide certain benefits to retirees. The primary benefit is medical insurance, but they also include life, dental, and vision insurance benefits.

FAS 106 is the FASB approved accrual accounting method used for financial statement recognition of annual OPEB costs, and is also used as the basis of rate recovery for this item.

The accounting of the cost of postretirement benefits under FAS 106 is not based on the actual dollars KCPL and GMO pay for OPEBs to its retirees currently, but is accrual-based in that it attempts to recognize the financial effects of noncash transactions and events as they occur. These noncash transactions and events are primarily an estimate of current benefits earned by employees before retirement, but will not be paid until after retirement, as well as the interest cost arising from the passage of time until those benefits are paid.

KCPL does not fund its share of Wolf Creek OPEB expense based on FAS 106 calculations. KCPL funds Wolf Creek OPEB based on the actual amount of benefits paid. This method is generally referred to as "pay-as-you-go". Accordingly, the Wolf Creek OPEB costs are not included in the FAS 106 tracking mechanism, but are included separately in the cost of service on a pay-as-you-go basis.

Staff's OPEB adjustment to KCPL and GMO Account 926, Employee Benefits, annualizes the level of OPEB expense determined by KCPL's actuaries using the FAS 106 accounting method, with the exception of KCPL's portion of Wolf Creek OPEB expense, calculated as the 12 months ending December 31, 2017, actual payments.

Beginning May 4, 2011, KCPL initiated a new tracking mechanism for OPEBs, which the Commission authorized in Case No. ER-2010-0355. GMO initiated a similar tracker for OPEB's on June 25, 2011, which the Commission authorized in Case No. ER-2010-0356. Under this mechanism, what are tracked are the differences between the current ongoing level of OPEB expense funded by KCPL and GMO in an external trust and the dollar amount of OPEB expense reflected in rates in each case. The unamortized balance of this tracker will be amortized over five years in each successive rate case, and will either be added to or subtracted from the level of OPEB expense as determined by KCPL's actuaries. The cumulative tracker balance as of June 30, 2018, is a regulatory liability for KCPL and GMO; that is, the amount collected in rates has been more than the incurred FAS 106 OPEB expense. Similar to Staff's measurement of KCPL and GMO's pension asset, Staff has updated the OPEB liabilities to the June 30, 2018, true-up date.

Ongoing OPEBs expense and the rate base portion of the OPEB tracker m echanism are included in Staff's KCPL Accounting Schedules as adjustment E-215.2 in the Income Statement – Schedule 10, and Rate Base – Schedule 2. Staff reflected ongoing

pension costs in Staff's GMO Accounting Schedules as adjustment E-157.3 in the Income Statement – Schedule 10, Rate Base – Schedule 2.

Staff Expert/Witness: Matthew R. Young

7. Supplemental Executive Retirement Plan ("SERP") Expense

Included in Staff's revenue requirement recommendation is an annualized level of actual monthly-recurring SERP payments KCPL and GMO made to their former executives and other highly compensated former employees. SERPs are "non-qualified" retirement plans for officers and other highly-compensated employees that provide pension benefits that these individuals would have received under other company retirement plans, but for compensation and benefit limits imposed by the Internal Revenue Service ("IRS"). These supplemental pension benefits paid to retired former officers and executives are in addition to the cost of pension benefits KCPL and GMO pays under its FAS 87 pension plan. SERP pension benefits generally exceed various limits imposed on retirement programs by the IRS and therefore are referred to as "non-qualified" plans. SERP benefits are not externally funded to a trust by KCPL or GMO, and the amounts Staff included in its cost of services are based upon actual cash SERP payouts to covered employees.

SERP payments can consist of either monthly annuity payments or periodic lump-sum distributions. The amount of lump-sum payments can be significant and the timing of these payments is often difficult to predict. As opposed to including a normalized amount of actual lump-sum payments, a conversion factor of 14.3[46] can be applied to convert prior lump-sum payments to an amount that approximates the equivalent annuity payments to the qualifying employees as if that lump-sum payment option were not elected. Staff utilized this factor for the calculation of a normalized level of converted lump-sum payments.

KCPL and GMO currently capitalize a portion of SERP costs to plant accounts. In the response to Staff Data Request No. 130, KCPL and GMO identified that all components of the accrued SERP costs are eligible for capitalization and there is not an expected change in the SERP capitalization policy. The cumulative portion of capitalized SERP is included in the plant in service balances in Staff Accounting Schedule 3 as a portion of construction costs. Because KCPL and GMO capitalize SERP costs (in accordance with GAAP), Staff has included a

[46] The 14.3 conversion factor obtained from GPE's actuary in KCPL Rate Case ER-2014-0370.

reduction in SERP expense commensurate with the capitalization rate used in Staff's payroll adjustment in this case.

Staff recommends that the actual annuity payments made in 2017, and a five year average of converted lump-sum payments, be used in this rate case to determine SERP expense in rates. This approach is reflected in Staff's KCPL Accounting Schedule 10, adjustment E-215.3 and Staff's GMO Accounting Schedule 10, adjustment E-157.4.

Staff Expert/Witness: Matthew R. Young

8. Incentive Compensation

a. Short Term Annual Incentive Compensation

KCPL has two separate, short-term annual incentive compensation plans for executive and other non-union employees, with a portion of the costs associated with those plans being allocated to GMO using the same allocations as the payroll expense adjustment, because GMO has no employees of its own. These plans are designed to grant cash awards of various amounts calculated upon designated annual metrics. The timing of the payout for amounts accrued under the terms of each plan for a calendar year is during the first quarter of the following calendar year. The two incentive compensation plans are: (1) the Value-Link Plan for non-executive, non-union KCPL employees and (2) the Annual Executive Incentive Plan for senior KCPL management employees.

The incentive plans have benchmarks to identify targets that KCPL employees are expected to achieve before any cash payouts are awarded. These targets are evaluated each calendar year and communicated to the employees early enough so that the employees have sufficient opportunity to achieve the benchmarks.

The Value-Link Plan was implemented to provide an incentive for the achievement of defined annual results of KCPL and its business units by non-executive, non-union KCPL employees. ** _____
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The second short-term annual incentive plan is the Annual Incentive Plan, which is designed to motivate and reward senior management to achieve specific key financial and business goals and to also reward individual performance of senior KCPL management. ** ___

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For the Annual Incentive Plan, Staff included the 2017 payouts after the removal of payouts for achieving EPS and non-regulated benchmarks for the Annual Incentive Plan and the Value-Link Plan.

The Commission has historically disallowed incentive compensation awards tied to the achievement of certain corporate financial measures on the basis that these measures provide no tangible benefit to Missouri ratepayers. *See* specifically *Re KCPL*, Case No. ER-2006-0314, 15 Mo.P.S.C.3d 138, 171-72 (2006) and *Re KCPL*, Case No. ER-2007-0291, 15 Mo.P.S.C.3d 552, 585-87 (2007). To normalize incentive compensation expense, Staff removed the EPS and non-regulated venture payouts from the total payouts and included a the 2017 non-EPS incentive compensation in the cost of service.

KCPL and GMO Adjustments in Staff Accounting Schedule 9 reflect the normalized amounts.

Staff Expert/Witness: Keith Majors

b. Capitalized Short Term Incentive Compensation

In the same manner as Staff adjusted the expense portion of short term incentive compensation for earnings based awards, Staff recommends removal of the capitalized portion of short term incentive compensation based on earnings or shareholder metrics. The Commission recently ordered that these costs should not be reflected in the plant-in-service balances in the cost of service in the *Report and Order* in Spire Missouri Case Nos. GR-2017-0215 and GR-2017-0216. Staff has calculated this adjustment beginning from January 1, 2017, plant in service through the cutoff, December 31, 2017. In accordance with the *Report and Order,* Staff did not calculate this adjustment on plant prior to the cutoff of plant in service in the last KCPL rate case, December 31, 2016.

Adjustment P-325.2 and P-476.2 in the KCPL and GMO Schedule 3 – Plant In Service, respectively, reflect these adjustments.

Staff Expert/Witness: Keith Majors

c. Long-Term Incentive Compensation

Great Plains offers an equity-based LTIP the cost of which is partially allocated to GMO. Staff has removed the test year expense portion of the LTIP recorded in the test year ended June 30, 2017. The Commission denied recovery of stock-based compensation in its Report and Order in KCPL Case Nos. ER-2006-0314, 15 Mo.P.S.C.3d 138, 171-72 (2006) and ER-2007-0291, 15 Mo.P.S.C.3d 552, 585-87 (2007). In KCPL and GMO's 2010, 2012, 2014, and 2016 rate cases, KCPL and GMO voluntarily removed costs related to the LTIP from the cost of service. In its *Report and Order* in KCPL File No. ER-2014-0370 at page 68, the Commission noted that "[u]tility expenses that are highly discretionary and do not benefit customers, such as charitable donations, political lobbying expenses, and incentive compensation tied to earnings per share, are typically allocated entirely to shareholders." (Footnote omitted).

KCPL and GMO proposed to remove the costs from the Long-Term Incentive Compensation Plan ("LTIP") expenses for its senior officers in its direct filed KCPL and

GMO adjustment CS-11. The Staff agrees with this proposal, and has also made the adjustment to remove the Long-Term Incentive Compensation Plan from this case.

Staff Expert/Witness: Keith Majors

d. Capitalized Long-Term Incentive Equity Compensation

Beginning in 2014, KCPL and GMO began charging to capital accounts a portion of the allocated LTIP expense. Prior to 2014, no portion of this expense was capitalized to plant accounts. Because stock-based compensation is not appropriate to be recovered as an expense in the cost of service, neither should it be recovered as a portion of plant in service included in rate base. Therefore, Staff recommends the amount of LTIP capitalized should be removed from plant in service. Staff's adjustment is included in Staff's KCPL and GMO Accounting Schedule 3 – Plant In Service, Adjustments P-325.1 and P-476.1, respectively.

Staff Expert/Witness: Keith Majors

D. Maintenance Normalization Adjustments

Maintenance expense is the cost of maintenance chargeable to the various operating expenses and clearing accounts. It includes labor, materials, overheads, and any other expenses incurred in maintaining the Company's assets - including power plants, the transmission and distribution network of the electric system, and the general plant. Specific types of maintenance work tied to specific classes of plant are listed in functional maintenance expense accounts in the FERC Uniform System of Accounts ("USOA") for the various types of utilities. Maintenance expense normally consists of the costs of the following activities:

- Direct field supervision of maintenance;
- Inspecting, testing and reporting on condition of plant, specifically to determine the need for repairs and replacements;
- Work performed with the intent to prevent failure, restore serviceability or maintain the expected life of the plant;
- Testing for, locating, and clearing trouble;
- Installing, maintaining, and removing temporary facilities to prevent interruptions; and
- Replacing or adding minor items of plant, which do not constitute a retirement unit.

Because KPCL, GMO, and Staff separately include payroll (labor) costs in their respective revenue requirement model, maintenance is analyzed on a non-labor basis. Staff analyzed non-labor maintenance costs from January 1999 through December 31, 2017, for KCPL and January 2001 through December 31, 2017, for GMO, by functional area for production, transmission, distribution, and general plant by FERC account.

Staff took several steps to analyze the maintenance data. They included examining the non-labor maintenance amounts to identify any characteristics of the maintenance dollars such as trends or fluctuations from one period to another. Another approach Staff used was to compare functional averages for each category of maintenance, which included calculating two (2)-year averages through seven (7)-year averages to determine if there were fluctuations with each functional area. Each of the costs by year and averages for maintenance were also compared to results for the test year, the 12-month period ended June 30, 2017, and the update period ended December 31, 2017. Staff reviewed the data as detailed above to establish a maintenance level that is anticipated to result in a reasonable annualized and normalized level of KCPL's and GMO's maintenance costs to include in rates. Staff's recommended approach for each category of maintenance expense is presented in the following table:

Results of Staff's Non-Labor Maintenance Analysis	**KCPL**	**GMO**
Steam Production Maintenance	3 Year Average 2015-2017	4 Year Average 2014 - 2017
Nuclear Production Maintenance	2 Year Average 2016 – 2017	
Other Production Maintenance	Update 12-Months Ending December 31, 2017	4 Year Average 2014 - 2017
Transmission Maintenance	4 Year Average 2014-2017	4 Year Average 2014 - 2017
Distribution Maintenance	4 Year Average 2014-2017	4 Year Average 2014 - 2017
General Maintenance	12-Month Test Year Ended June 30, 2017	12-Month Test Year Ended December 31, 2017

As identified in the table above, for KCPL Staff used a 3 year average to represent future maintenance costs for Production. Staff used a 2 year average to represent future maintenance costs for Nuclear, and Staff used the 12 month update period ending December 31, 2017, account balances to represent future maintenance costs for Other Production. Staff used a 4-year average for Transmission and Distribution expense and the test year ending June 30, 2017 level for General Maintenance for purposes of its direct case filing for KCPL. For GMO, Staff used a 4 year average, for Production, Other Production, Transmission, and Distribution Maintenance. Staff used the test year ending June 30, 2017 for General Maintenance.

Wolf Creek is a KCPL generating facility. For Wolf Creek, there are two types of O&M costs – O&M for general plant ("nuclear production maintenance"), and O&M relating to the refueling outages that occur every 18 months. Staff performed separate analyses for each. A discussion of the O&M expenses related to the Wolf Creek refueling is located under the heading *Wolf Creek Nuclear Refueling Outage* in this report.

Staff Expert/Witness: Michael Jason Taylor

1. Wolf Creek Nuclear Refueling Outage (KCPL Only)

Every 18 months, an extended outage of the Wolf Creek Nuclear facility is necessary in order to allow for nuclear refueling of the plant. Staff included an annualized level of refueling cost for refueling outage #21, completed in fall of 2016, and an amortization of non-routine maintenance cost that occurred during refueling outage #18 as calculated and agreed to in the KCPL rate case, Case No. ER-2012-0174. Staff reviewed information provided by KCPL for the last seven nuclear refueling outages. While refueling costs have generally increased since refueling #14, they declined from refueling #19 to refueling #20, and have continued to decline in refueling #21. The only significant increase was from refueling #17 to refueling #18. Staff determined the age of the plant and unplanned equipment issues led to the increased costs experienced with outage #18.[47]

The costs on KCPL's books associated with Wolf Creek refueling outage #21 have been deferred and amortized over an 18-month period. Adjustments E-69.3 and E-80.4 reflect the annualized amortization of outage #21 refueling costs.

[47] Staff Data Request No. 0147.2 in Case No. ER-2012-0174.

In addition to costs for refueling outage #21, Staff reflected the refueling amortizations established in the KCPL rate case – refueling #18, Case No. ER-2012-0174. The amortization was established for non-routine maintenance costs that occurred during refueling #18. The amortization of the non-routine maintenance costs that occurred during refueling #18 began February 2013 and ended January 2018. Since KCPL has fully recovered these costs, Staff made an adjustment to remove the test year amount recorded on KCPL's books. Staff also recommends that KCPL apply prospective tracking to amortization costs that continue to be recovered in rates and that any over collection of these costs be returned to customers in a future general rate case. This recommendation is consistent with the Stipulation and Agreements approved by the Commission in Case Nos. ER-2016-0156 and ER-2016-0285.[48] Staff's Adjustments for refueling #18 amortization are E-70.1 and E-81.1.

Staff Expert/Witness: Michael Jason Taylor

2. <u>Wolf Creek Mid-Cycle Outage (KCPL Only)</u>

KCPL's test year in Case No. ER-2014-0370 included a planned mid-cycle outage at the Wolf Creek generating station that occurred between refueling #19 and refueling #20. The mid-cycle outage began March 8, 2014, and was completed on May 13, 2014, and was not related to the refueling outages that occur every 18 months. The mid-cycle outage resulted in maintenance expense, but did not include refueling. The maintenance work completed during the mid-cycle outage resulted in less maintenance work being required during refueling outage #20 than what would normally be expected.

Pursuant to the *Partial Non-Unanimous Stipulation and Agreement as to True Up, Depreciation and Other Miscellaneous Issues* and the *Partial Non-Unanimous Stipulation and Agreement as to Certain Issues*[49] in Case No. ER-2014-0370, both Stipulations filed on July 1, 2015, and approved by the Commission on July 17, 2015, KCPL was authorized to create a regulatory asset and amortize the costs related to the mid-cycle outage over a five (5)-year

[48] Case No. ER-2016-0156, *Non-Unanimous Stipulation and Agreement* approved by the Commission on September 28, 2016 and Case No. ER-2016-0285 *Non-Unanimous Partial Stipulation and Agreement* approved by the Commission on March 8, 2017.

[49] *In the Matter of Kansas City Power & Light Company's Request for Authority to Implement a General Rate Increase for Electric Service*, Case No. ER-2014-0370, (*Partial Non-Unanimous Stipulation and Agreement as to Certain Issues*, filed July, 1, 2015) page 3. The Commission issued an *Order Approving Stipulation and Agreement Regarding True Up, Depreciation, and Other Issues* and an *Order Approving Stipulation and Agreement Regarding Certain Issues* both on July 17, 2015.

period. The amortization of these costs commenced with the charging of the new rates authorized by the Commission in Case No. ER-2014-0370 on September 29, 2015. The test year ending June 30, 2017, includes a full 12 months of amortization related to these deferred expenses; therefore, no adjustment is necessary. The amortization is included in the test year of expenses in Staff Accounting Schedule 9 – Income Statement.

Staff also recommends that KCPL apply prospective tracking of amortization costs that continue to be recovered in rates and that any over collection of these costs be returned to customers in a future general rate case. This recommendation is consistent with the Stipulation and Agreements approved by the Commission in Case Nos. ER-2016-0156 and ER-2016-0285.[50]

Staff Expert/Witness: Michael Jason Taylor

3. Wolf Creek Water Contract (KCPL ONLY)

The Wolf Creek Nuclear Operating Company ("WCNOC") currently has a water purchase contract in place for its operations at the power plant, and KCPL is responsible for its 47% share of the contract costs.

Prior to January 1, 2018, the contract between the State of Kansas and the owners of the Wolf Creek facility established the rights and obligations of the signatories. The initial contract was effective for a ** _____ . **[51] WCNOC negotiated a new contract, effective January 1, 2018, with similar rights and obligations, but the cost per 1,000 gallons of water has been revised.

Beginning on January 1, 2018, the contracted price of water will increase from $0.10 to $0.392 per 1,000 gallons of water. Staff normalized Wolf Creek's water consumption by averaging the actual usage from 2014 through 2017. Staff then calculated an annual cost of water at Wolf Creek under the terms of the revised water contract. KPCL's 47% share of this cost is reflected in Staff's adjustment E-59.2.

Staff Expert/Witness: Matthew R. Young

[50] Case No. ER-2016-0156, *Non-Unanimous Stipulation and Agreement* approved by the Commission on September 28, 2016 and Case No. ER-2016-0285 *Non-Unanimous Partial Stipulation and Agreement* approved by the Commission on March 8, 2017.
[51] Staff Data Request No. 342.

4. Nuclear Decommissioning

In its *Order Approving Stipulation And Agreement* in Case No. EO-2015-0056, the Commission ordered the following:

> …
>
> 4) Kansas City Power & Light Company's retail jurisdiction annual decommissioning expense accruals and trust fund payments shall continue at the current level of $1,281,264.
>
> 5) Kansas City Power & Light Company is authorized to continue to record and preserve Wolf Creek asset retirement obligation costs, as agreed by the Commission Staff, the Office of the Public Counsel, and KCP&L and authorized by the Commission in Case No. EU-2004-0294.
>
> 6) This order shall become effective on January 21, 2015.[52]

Staff found the KCPL test year decommissioning expense reflected the amount ordered by the Commission; therefore, no adjustment was necessary.

Staff Expert/Witness: Michael Jason Taylor

5. Meter Replacement Program – Incremental Meter Reading Costs

In 2014, KCPL began installing Advanced Metering Infrastructure (AMI) technology that replaced nearly all of the KCPL's Automated Meter Reading ("AMR") meters. KCPL entered into a new meter reading contract during the pendency of Case No. ER-2014-0370 associated with the newly installed AMI meters. Similarly, GMO began installing AMI meters in its service territory in early 2016. GMO's investment in AMI technology replaced the existing manual-read meters that existed in much of its distribution system.

On April 5, 2013, an agreement was made between GPE and Landis+Gyr Technology, Inc. ("Supplier") to provide services necessary to operate AMI meters in all of the Great Plains territories. The contract states a price-per-meter to charge to KCPL and GMO, which is renegotiated periodically. Staff made an adjustment to recognize an increase in the 2018 price

[52] *In the Matter of the Application of Kansas City Power & Light Company for Approval of the Accrual and Funding of Wolf Creek Generating Station Decommissioning Costs at Current Levels,* Case No. EO-2015-0056, (*Order Approving Stipulation and Agreement),* at page 3.

from the 2017 price for Landis+Gyr's services by applying the 2018 per-meter charge to the number of meter reads performed for KCPL and GMO during the test year.

Staff Expert/Witness: Matthew R. Young

6. Iatan Unit 2 O&M Expenses

In Case Nos. ER-2010-0355 and ER-2010-0356, Staff recommended a tracker for Iatan Unit 2 non-labor O&M expense, so the actual cost of the non-labor portion of O&M expense for Iatan Unit 2 would be recovered through rates in future KCPL and GMO rate cases. Since Iatan Unit 2 was a newly completed generating facility and was placed in service on August 26, 2010, KCPL's operational experience with Iatan Unit 2 was non-existent at the time of KCPL's and GMO's 2010 general rate case. Staff proposed an O&M tracker for this unique and unusual situation to protect KCPL, GMO, and their customers from including projected costs in rates that would in all likelihood vary from the actual costs incurred for Iatan Unit 2's O&M expense. KCPL, GMO, and other signatory parties agreed in a Non-Unanimous Stipulation and Agreement in Case No. ER-2010-0355 and ER-2010-0356 to establish a non-labor O&M tracker for Iatan Unit 2 costs and on April 12, 2011, the Commission approved the use of a tracker for these costs. In Case No. ER-2016-0156, the plant had operated for nearly six years. As a result, both Staff and GMO recommended that the tracker be discontinued, since a level of historical O&M expense had been established for Iatan Unit 2 and common operations.

As of April 2018, all the Iatan Unit 2 vintages[53] have been recovered for KCPL and for GMO Vintage 1 is fully recovered. Staff made an adjustment to remove the amortizations of these vintages recorded in the test year. In addition, Staff made an adjustment to include the annual amortization, based on a four-year period, for GMO's remaining vintages. Staff also recommends that KCPL and GMO apply prospective tracking to Iatan Unit 2 O&M amortization costs that continue to be recovered in rates due to past operation of the tracker, and that any over collection of these costs be returned to customers in the true-up Accounting Schedules and a future general rate case. This recommendation is consistent with the Stipulation and Agreements approved by the Commission in Case Nos. ER-2016-0156 and ER-2016-0285.[54]

Staff Expert/Witness: Michael Jason Taylor

[53] The Company uses the word "Vintage" to refer to a certain amortization within that issue.

[54] Case No. ER-2016-0156, *Non-Unanimous Stipulation and Agreement* approved by the Commission on September 28, 2016 and Case No. ER-2016-0285 *Non-Unanimous Partial Stipulation and Agreement* approved by the Commission on March 8, 2017.

7. IT Software Maintenance

KCPL and GMO incur costs associated with contracts to maintain its information technology ("IT") hardware and software that include, but are not limited to, Microsoft, PowerPlan, and Oracle. KCPL and GMO prepay the software maintenance vendor and amortize the balance of the costs over the life of the contracts. Staff reviewed KCPL's and GMO's prepaid IT software maintenance for the update period in this case, 12 months ending December 31, 2017. During its review, Staff found that KCPL renewed several contracts in 2016 and 2017. If a contract was renewed, Staff included the current contract price in its annualization, and omitted contracts that expired and were not subsequently renewed.

Staff's adjustment is identified on Schedule 10 of Staff's Accounting Schedules, Adjustments E-22.3, E-118.1, E-169.2, and E-240.2, for KCPL and E-18.3. E-74.1, E-122.3, E-177.2 for GMO.

Staff Expert/Witness: Karen Lyons

8. Critical Infrastructure Protection and Cyber-Security

Staff analyzed KCPL's and GMO's actual non-labor Cyber-Security and Critical Infrastructure Protection ("CIP") costs from the period of 2009 through 2017. The North American Electric Reliability Corporation ("NERC") established a set of requirements designed to secure utility assets that are required for operating North America's bulk electric system. KCPL's and GMO's historical Cyber-Security and CIP non-labor costs are identified in the following table:

**

**

Staff found the costs for CIP and Cyber-Security showed an upward trend during the last several years. Consequently, Staff annualized the non-labor CIP and Cyber-Security costs as of the twelve months ending December 31, 2017. Consistent with other expenses, Staff did not include internal labor costs for CIP and Cyber-Security as those are included in the cost of service through Staff's payroll annualization. Staff's adjustments are identified on Schedule 9 of Staff's KCPL and GMO Accounting Schedules, Adjustments E-210.3, E-240.4 and E-153.2, E-177.4.

Staff Expert/Witness: Keith Majors

E. Other Non-Labor Adjustments

1. Advertising Expense

In forming its recommendation of the allowable level of advertising expense, Staff relied on the principles the Commission propounded in the 1985 KCPL rate case, Case No. EO-85-185, *In Re: Kansas City Power and Light Company,* 28 MO P.S.C. (N.S.) 228 (1986), in which the Commission adopted an approach that classifies advertisements into five categories and provides separate rate treatment for each category. The five categories of advertisements recognized by the Commission are:

1. General: advertising that is useful in the provision of adequate service;
2. Safety: advertising which conveys the ways to safely use electricity and to avoid accidents;
3. Promotional: advertising used to encourage or promote the use of electricity;
4. Institutional: advertising used to improve the company's public image; and
5. Political: advertising associated with political issues.

The Commission adopted these categories of advertisements because a utility's revenue requirement should: 1) always include the reasonable and necessary cost of general and safety advertisements; 2) never include the cost of institutional or political advertisements; and 3) include the cost of promotional advertisements only to the extent that the utility can provide

cost-justification for the advertisement (*Report and Order* in KCPL Case No. EO-85-185, 28 Mo.P.S.C. (N.S.) 228, 269-271 (April 23, 1986)).

In response to Staff data requests issued in this case, KCPL and GMO provided supporting documentation for their advertising costs and copies of the actual advertisements. Staff examined each advertisement and classified them into the individual categories the Commission has used in prior cases to determine the advertisements that should be either included or excluded from KCPL's and GMO's cost of service. The purpose of Staff's review of KCPL's and GMO's advertising costs was to ensure that only advertising costs for programs necessary for the provision of safe and adequate utility service are included in KCPL's and GMO's cost of service. For example, all direct and indirect costs associated with safety advertising were included, as well as the other costs necessary for KCPL and GMO to communicate with their customers on utility matters (i.e., general advertising). Staff's review focused on advertising campaigns, not just individual advertisements, which is consistent with the Commission's guidance in its Report and Order for Ameren Missouri in Case No. ER-2008-0318.

KCPL and GMO are allowed the opportunity to recover advertising expenses associated with MEEIA activities through their authorized MEEIA surcharge. As these advertising expenses are recovered outside of base rates, KCPL and GMO removed these expenses from the cost of service requested in this rate case. Additionally, there were correcting entries to advertising in the test year. Staff recommends inclusion of these adjustments. Staff's adjustments are identified on Schedule 9 of Staff's KCPL and GMO Accounting schedules as follows;

- KCPL adjustments: E-184-3, E-190-1, E-192-1, E-206-3
- GMO adjustments: E-136-4, E-138-1

Staff Expert/Witness: Antonija Nieto

2. Bad Debt Expense

Staff's recommended treatment of bad debt expense is to calculate the ratio of KCPL's and GMO's net write-offs to annualized retail revenue to determine an appropriate level of bad debt expense. Bad debt expense is the portion of retail revenues KCPL and GMO are unable to collect from retail customers by reason of bill non-payment. After a certain amount of time has

passed, delinquent customer accounts are written off and turned over to a third party collection agency for recovery. If the collection agency is subsequently able to successfully collect some portion of previously written off delinquent amounts owed, then those collected amounts reduce current write-offs. Offsetting successful collection agency recoveries against total write-offs creates the "net write-off" amount used to determine the annualized level of bad debt expense.

Staff calculated the annualized bad debt expense by examining the ratio between billed revenues, net of gross receipt taxes, for the twelve month period ended December 31, 2017, and the actual 12-month history of billed revenues that were never collected (net write-offs) for the twelve months ended June 30, 2017. From this information a bad debt ratio was derived, which was then applied to Staff's adjusted weather normalized level of retail revenues to obtain the annualized level of bad debt expense.

The six-month lag time between the net retail sales and actual net write-off calculations used by Staff to derive a net write-off percentage is consistent with KCPL's and GMO's position on how bad debt write-offs are accounted, in that it takes approximately six months for a customer's unpaid bill to be written off after the customer receives service.

Staff's adjustment for bad debt expense adjusts the test year results to reflect a level of bad debt expense that is consistent with Staff's annualized level of retail revenue. Adjustments E-179.1 and E-130.1 in Staff's Accounting Schedules reflect an annualized level of bad debt expense for KCPL and GMO, respectively.

Staff Expert/Witness: Antonija Nieto

3. Dues and Donations

Staff reviewed the list of paid membership dues and donations made to various organizations that KCPL and GMO charged to their utility accounts during the test year. In the current case, Staff applied the same four criteria used in KCPL's 1985 general rate case Case No. EO-85-185 and more recently in Case No. ER-2016-0285 to establish when dues and donations expenses should be excluded from customer rates. The criteria for excluding mentioned expenses are:

(1) The expenses are involuntary ratepayer contributions of a charitable nature;

(2) The expenses are supportive of activities which are duplicative of those performed by other organizations to which the Company belongs or pays dues;

(3) The expenses are associated with active lobbying activities which have not been demonstrated to provide any direct benefit to the ratepayers; or,

(4) The expenses represent costs of other activities that provide no benefit or increased service quality to the ratepayer.

In regard to the first criteria listed above, KCPL and GMO accounted for all donations made to charitable organizations as a below-the-line expense amount and, consequently, they are not included in KCPL's and GMO's determination of their revenue requirements.

While Staff recognizes the importance of charitable contributions to the communities served by utilities, donations that do not provide any direct benefit to ratepayers and are not necessary for the provision of safe and adequate service should be excluded from KCPL's and GMO's revenue requirement. In addition, recovery in rates of donations made by regulated utilities would constitute an involuntary contribution on behalf of the rate-paying customer, and thus, those donations were excluded from the Companies' revenue requirements. The following adjustments remove Dues and Donations from the test year expense:

KCP&L: E-164-2, E-206-6, E-233-2, E-233-3

GMO: E-167-1, E-168-3

Staff Expert/Witness: Antonija Nieto

a. Edison Electric Institute ("EEI") Dues

According to information obtained from the EEI website (www.eei.org), EEI is an association of investor-owned electric utilities and industrial affiliates. Based upon its review of EEI information, Staff determined that the primary function of EEI is to represent the interests of the electric utility industry in the legislative and regulatory arenas. This role includes EEI's engagement in lobbying activities.

In Case No. ER-82-66, a prior KCPL rate increase case, the Commission stated the following:

> …until the Company can better quantify the benefit and the activities that were the causal factor of the benefit, the Commission must disallow EEI dues as an expense.[55]

This position has been re-affirmed by the Commission in subsequent rate proceedings.[56]

[55] See *Re: Kansas City Power & Light Co.*, 25 Mo. P.S.C. (N.S.) 229, 245 (1982).

[56] *See* Case No. ER-83-49 (the Commission stated in its Report and Order that EEI dues: "…would be excluded as an expense until the company could better quantify the benefit accruing to both the company's ratepayers and shareholders.") and *In the Matter of Kansas City Power & Light Co.*, 28 MO P.S.C.

In Staff's view, the overall purpose of EEI and its involvement in political and regulatory lobbying activities has not materially changed since the time the Commission made the findings regarding EEI exclusion from rates in the above cited cases.

Staff recommends removal of the amount of EEI dues included "above-the-line" in test year expense from KCPL's and GMO's cost of service, consistent with prior Commission Report and Orders. These amounts include contributions to the Utility Air Regulatory Group, a separately funded contribution.

Accounting adjustment E-233-2 removes EEI dues from the test year expense levels.

Staff Expert/Witness: Antonija Nieto

4. Out of Period Items (CS-11)

In its direct filing, KCPL and GMO included Adjustment CS-11, which includes several categories of miscellaneous adjustments to its test year cost of service, such as adjustments to:

1. Remove equity compensation;
2. Reclassify the costs of non-recoverable dues and expense reports to "below-the-line;"
3. Miscellaneous coding corrections that occurred after the test year;
4. Remove the effect of accounting entries made during the test year to comply with the Report and Order in Case Nos. ER-2016-0156 and ER-2016-0285; and
5. Remove test year balances for GMO's L&P rate district's landfill costs.

Staff has reviewed the adjustments in CS-11 and agrees they are appropriate. Staff reflected the adjustments in Staff's KCPL Accounting Schedules in adjustments E-22.2, E-157.1, E-184.1, E-204.1, E-206.1, E-206.2, and E-233.1. The adjustments are reflected in Staff's GMO Accounting Schedules in adjustments E-109.3, E-136.2, E-138.6, E-148.2, E-148.3, E-153.3, E-168.2, and E-172.2.

Staff Expert/Witness: Matthew R. Young

(N.S.) 228, 259 (1986) ("It is not determinative that the quantification of benefits to the ratepayer is greater than the EEI dues themselves. The determining factor is what proportion of those benefits should be allocated to the ratepayer as opposed to the shareholder. It is obvious that the interests of the electric industry are not consistently the same as those of the ratepayers. The ratepayers should not be required to pay the entire amount of EEI dues if there is benefit accruing to the shareholders from EEI membership as well. The Commission finds this to be the case. The Company has been informed in prior rate cases that it must allocate its quantified benefits from membership in EEI. That has not been done herein. Therefore, no portion of EEI dues will be allowed in this case.")

5. Debit/Credit Card Acceptance Program

In February 2007, KCPL implemented a Credit/Debit Card payment program designed to offer utility ratepayers a simplified, quick, convenient way to pay their bills, and to manage their accounts electronically. GMO implemented a similar program in September 2009. KCPL and GMO implemented the program through two service agreements. The first agreement is with Paymentech, LLC ("Paymentech"), a subsidiary of JPMorgan Chase Bank, N.A., and is for credit and debit card payments. The second agreement is with Speedpay, Inc. ("Speedpay"), a subsidiary of E Commerce Group Products, Inc. (a subsidiary of The Western Union Company), and is for ATM and debit card payments made over the telephone. Paymentech and Speedpay act as third party facilitators for the processing of payments to KCPL and GMO. Payment options that are available to customers through the program include the Interactive Voice Response System ("IVR") and/or by registering on KCPL's website. Payment through the website offers the following two options: one time payments or what the Company defines as the "recurring card payment option." The cost for providing this service is absorbed by KCPL and GMO and later built into rates; therefore, customers who use this payment option are not charged any direct transaction fees. Since the introduction of the programs, customer participation has been gradually increasing. As customer participation increases, the per unit transaction cost to KCPL and GMO for providing the debit/credit payment service looked to remain stay the same Staff included an annualized amount of credit and debit card transactions costs for KCPL and GMO based upon the total card level and per unit transaction cost as of the twelve months ended December 31, 2017, to represent an ongoing level of costs for KCPL and GMO. Staff's adjustments are reflected in Staff's Accounting Schedule 10 for KCPL and GMO, Adjustment E-175.1 and Adjustment E-129.4 respectively.

Staff Expert/Witness: Michael Jason Taylor

6. Accounts Receivable Bank Fees

KCPL sells its accounts receivable to Kansas City Power & Light Receivables Company ("KCREC"), and GMO sells its accounts receivable to GMO Receivables Company ("GREC"), all of which are affiliated entities. The sale of accounts receivable increases immediate cash flow to KCPL and GMO and provides access to funds through lines of credit. The impact of the

sale of accounts receivable on KCPL's and GMO's cash working capital ("CWC") requirement is a reduction to the collection lag component of the overall revenue lag. This is because KCPL and GMO receive monies faster when accounting receivables are sold, shortening the revenue lag and reducing KCPL's and GMO's revenue requirement. It is the entity purchasing the accounts receivable from KCPL and GMO that has to wait for the customers to pay amounts due within the normal time frame set out in the Commission's billing rules. KCPL and GMO have to pay The Bank of Tokyo-Mitsubishi UFJ, Ltd. ("BTM") certain fees associated with the selling of the accounts receivable. As long as the amount of fees KCPL and GMO pay to accelerate cash recovery through the sale of its receivables is less than the revenue requirement decrease resulting from the shorter collection lag.

The adjustments for bank fee relate to KCPL's and GMO's cost incurred in order to sell accounts receivable. Staff recognized an upward trend of expense for KCPL's bank fees and is recommending an annualized level using the last known monthly expense for our adjustment. Adjustment E-180.2 and E-180.3 reflects the difference between KCPL's test year level and Staff's annualized level of bank fees, using the last known monthly expense. Staff did not detect a recognizable trend with GMO's bank fees within the test year and update periods and used the 12 months ending December 31, 2017 annualized level of bank fees for Staff's adjustment. Adjustment E-131.2 and E-131.3 reflects the difference between the GMO test year level and Staff's annualized level of bank fees.

Staff Expert/Witness: Michael Jason Taylor

7. La Cygne Regulatory Asset – Obsolete Inventory

As a result of environmental equipment upgrades that were placed in service at its LaCygne plant during 2015, KCPL proposed to remove from rate base certain spare parts from its materials and supplies inventory that became obsolete. KCPL also further proposed that the write-off of spare parts be amortized over a five-year period once the LaCygne environmental equipment was placed into service. After completion of the LaCygne upgrades, KCPL removed the spare parts from rate base and included an annualized amount of amortization expense in its cost of service.

In the 2014 KCPL rate case, Case No. ER-2014-0370, both the Company and Staff removed spare parts from rate base and included an annualized amount of amortization expense

in its cost of service for the direct filing. In KCPL's 2015 rate case, Case No. ER-2016-0285, Staff indicated it expected KCPL to remove from the amortization adjustment any spare parts that can be considered "used and useful" at other KCPL plant facilities. Similarly, Staff also expected KCPL to offset the obsolete inventory adjustment with any residual or scrap value it realizes upon the sale or other disposition of the spare parts. Staff recommended the Commission allow KCPL to amortize, over a five-year period, the obsolete inventory levels determined at the end of the true-up period and track any over-recovery associated with the amortization in order for such over-recovery to be addressed for future treatment in subsequent rate proceedings. This amortization started in July 2017 and will end September 2020. If this amortization ends outside of a rate case, KCPL should identify any amount over collected to use as an offset (reduction) to other amortizations authorized by the Commission. The test year ending June 30, 2017, includes a full 12 months of amortization related to these deferred expenses; therefore, no adjustment is necessary. The amortization is included in the test year amount of expenses presented in Staff Accounting Schedule 9 – Income Statement.

Staff Expert/Witness: Michael Jason Taylor

8. Lease Expense

Lease expenses are those costs incurred by KCPL and GMO for the leasing of its corporate headquarters and other items. Staff examined these costs for the test year ended June 30, 2017, and update period through December 31, 2017.

Staff verified that the leases currently in effect are planned to remain in effect at the same base rent as what is presently charged to KCPL and GMO in the existing lease agreements. Also, Staff confirmed with KCPL and GMO that no lease is set to expire as of December 31, 2017, and that none of the current lease terms within each of its agreements will change materially from those in effect during the test year.

Staff examined the current lease expense for KCPL and GMO's headquarters in Kansas City. Staff annualized the current lease, additional space, and parking space expenses as of December 31, 2018.

When KCPL relocated to its current headquarters, it was allowed 270 days (nine months) of rent-free time, called an abatement period, as part of the lease agreement. In the 2010 rate case, No. ER-2010-0355, KCPL agreed to establish a regulatory liability to account for the rate expense collected in rates, but not incurred during the abatement period. These costs were

amortized and returned to ratepayers over a five-year period that ended on April 30, 2016. In the 2014 rate case, No. ER-2014-0370, KCPL agreed to track the amount of any over collections of regulatory liabilities and regulatory assets that were being amortized to cost of service, but had been fully recovered from, or fully returned, to ratepayers. As of the end of the update period, two months of amortizations have been over-returned to ratepayers. In Case No. ER-2016-0285, Staff captured from May 2016 through December 31, 2016, true-up, eight months of this item will have been over-returned; this situation will continue through the effective date of new rates. Staff in the current case, ER-2018-0145 has captured the over-returned amount from January 2017 through the effective date of rates, June 8, 2017. Staff has proposed for vintage 1 and 2 to be amortized at four (4) years; this adjustment to the test year is reflected in Adjustment E-234.1.

For GMO, the amortization to return to rate payers the lease abatement ended on June 30, 2016, the lease abatement will be over-returned from June 31, 2016, through the effective date of rates of February 22, 2017. Staff has captured the nine (9) months over-returned and amortized over four (4) years to be returned to GMO. This adjustment to the test year is reflected in Adjustment E-172.1.

Staff Expert/Witness: Michael Jason Taylor

9. Insurance Expense

Staff's recommended treatment of Insurance Expense is to treat prepaid insurance as an asset to be included in rate base and amortized ratably over the life of the insurance policy by annualizing the level of insurance expense and allocating an appropriate portion of the expense to KCPL's and GMO's cost of service. Insurance expense is the cost of protection obtained from third parties by utilities against the risk of financial loss associated with unanticipated events.

Utilities, like non-regulated entities, routinely incur insurance expense in order to minimize their liability associated with unanticipated losses for property assets and personal injury from accidents. Certain forms of insurance reduce ratepayer's exposure to risk. Premiums for insurance are normally paid in advance by utilities, such as the utility payment to the insurance vendor in advance of the policy going into effect. These insurance payments are normally treated as prepayments, with the amount of the premium being booked as an asset and amortized to expense ratably over the life of the period the insurance is in force. The unamortized balance of the prepaid insurance account (either the period-ending balance or a

13 month average balance) is included in rate base, with an annualized level of insurance expense included in rates. Staff witness Antonija Nieto discusses the rate base treatment for prepayments in the Rate Base section of Staff's Cost of Service Report.

During the audit, Staff reviewed KCPL's and GMO's insurance policies for the following forms of insurance:

- Commercial Crime
- Fiduciary Liability
- Directors and Officers ("D&O") Liability
- General Liability/Umbrella
- Excess Directors & Officers
- Excess Liability
- Excess Fiduciary Liability
- Workers Compensation
- Excess Workers Compensation
- Property
- Cyber-Security Liability
- Labor Management Trust Fiduciary
- Auto Liability
- Bonds

Staff reviewed the policies and verified the current insurance premiums for each insurance type. An annualized amount was determined and allocated between KCPL, GMO, and its affiliates. The annualized levels for KCPL's and GMO's portion of the insurance costs are reflected in Adjustments E-212.1 and E-213.2 for KCPL and E-155.1and E-156.2 for GMO.

Staff Expert/Witness: Karen Lyons

10. <u>Injuries and Damages</u>

Staff's recommended treatment of injuries and damages is to normalize KCPL's and GMO's costs associated with injuries and damages, using actual cash payments made by KCPL and GMO and paid to entities that had an injury and/or claim against KCPL and GMO. Injuries and damages relate to insurance claims that are not covered by insurance policies and usually consist of claims associated with general liability, worker's compensation, and auto liability.

Staff analyzed several years of data to determine an appropriate level of costs to include in KCPL's and GMO's cost of service. In 2017, the actual cash payments made by KCPL were approximately three times higher than actual payments made by KCPL since 2009, and at least

two and a half times higher than actual cash payments made prior to 2009.[57] Staff has concerns regarding whether KCPL customers should bear the cost for these payments, in part or at all. Staff has requested additional information from KCPL regarding the significant level of costs incurred in 2017. The information requested will not be available at the time Staff files its Cost of Service Report. For its direct filing, Staff included a three year average (2015-2017) of actual cash payments excluding the 2017 payments that are in question for KCPL. Staff's adjusted three-year average of actual cash payments is intended to be a place holder until additional information is received and reviewed. If Staff determines that KCPL customers should be responsible for the significant increase in 2017, Staff will recommend a four-year average (2014-2017) of KCPL actual payments.

Staff's analysis found that there was nothing unusual about the actual cash payments made by GMO. Staff determined that a three year average of actual payments is appropriate for GMO. Adjustment E-214.1 and E- 156.1 reflects a normalized level of costs for injuries and damages for KCPL and GMO respectively.

Staff Expert/Witness: Karen Lyons

11. Property Tax Expense

Staff's recommended treatment of property tax expense is to annualize property taxes based upon KCPL's and GMO's property that is in-service on January 1, 2018, by multiplying the value of the in-service property by Staff's property tax ratio derived from KCPL's and GMO's historical tax payments. Staff adjusted test year property tax expense in order to include in rates the annualized level of 2018 property taxes.

Each year KCPL and GMO are billed by each of the local and state taxing authorities that have jurisdiction over KCPL's and GMO's property. Tax bills for the year are based (assessed) on the value of the property KCPL and GMO own exclusively on January 1 of that calendar year. The property taxes assessed on the property owned as of January 1 of each year are typically not due to the various taxing authorities until December 31 of that same year. The exception is the property taxes assessed in the state of Kansas, where one-half of the year's property taxes are not due until late in the first quarter of the following year. The test year used in this case is the 12-month period ended June 30, 2017, updated through December 31, 2017. Since the

[57] Staff analyzed cash payments for 2005-2017 for KCPL and 2006-2017 for GMO.

update period in this case is December 31, 2017, Staff determined the annualized property taxes based on the property KCPL and GMO had in-service on January 1, 2018. Staff applied a property tax ratio based on actual 2017 property tax payments divided by the taxable plant as of January 1, 2017. This ratio of property taxes applied to the January 1, 2018, actual plant in service provides the amount of property taxes expected to be due at the end of the year in 2018. Because the test year in this case ended June 30, 2017, property tax expenses for 2018 were annualized as of the January 1, 2018, date, and this calculation is what Staff expects KCPL's and GMO's property tax cost to be for 2018. Historically, Staff, KCPL, and GMO calculate this value by applying the tax rate paid for the previous year to the property owned at the start of the current year.

For the current rate case, Staff obtained from KCPL and GMO the total amount of taxable property KCPL and GMO owned on January 1, 2018, and then multiplied it by the 2017 property tax ratio previously discussed. Staff's annualized 2018 property tax was then increased by KCPL's and GMO's 2017 contractual payments in lieu of taxes ("PILOTs") applicable to non-taxable property.

Staff recommends this method of calculation as being based on the most recent and best available information, since it relies on the actual January 1, 2018, balance of KCPL's and GMO's property and uses the most recent, known effective tax rate (2017). This method does not attempt to estimate or project any change in the rate of taxation for 2018 that is not known for the update period of December 31, 2017, or the true up period of June 30, 2018.

Staff's approach is consistent with that taken previously, which received several favorable rulings from the Commission in prior cases, notably in the KCPL 2006 rate case. In its *Report and Order* issued in that case, Case No. ER-2006-0314, the Commission stated the following:

> Staff recommends that the Commission calculate property tax expense by multiplying the January 1, 2006 plant-in-service balance by the ratio of the January 1, 2005 plant-in-service balance to the amount of property taxes paid in 2005. KCPL wants the property tax cost of service updated to include 2006 assessments and levies. The Commission finds that the competent and substantial evidence supports Staff's position, and finds this issue in favor of Staff.

Adjustment E-263.1 reflects Staff's adjustment to KCPL's annualized property taxes. Adjustment E-196.1 reflects Staff's adjustment to GMO's annualized property taxes.

Staff Expert/Witness: Michael Jason Taylor

12. Rate Case Expense

Rate case expense is the sum of the costs a utility incurs in preparing and filing a rate case. In the instant case, KCPL and GMO have incurred expenses in conjunction with legal counsel, regulatory consulting, and outside consultants. Staff recommends full recovery of rate case expense incurred to comply with statutory requirements; namely, the expenses for GMO's depreciation study and the cost of customer notices informing customers of the rate cases and local public hearings. Staff recommends assigning the remaining discretionary rate case expense to both ratepayers and shareholders based upon a 50/50 split. This allocation results from the Commission's most recent guidance concerning rate case expense in the Spire Missouri Inc. ("Spire Missouri") rate cases, Case Nos. GR-2017-0215[58], and GR-2017-0216[59]. Alternatively, Staff recommends rate case expense sharing based on the ratio of Staff's recommended rate increase to KCPL's and GMO's requested rate increase. This sharing methodology was ordered by the Commission in both recent KCPL cases, Case Nos. ER-2014-0370 and ER-2016-0285. This ratio would be updated throughout the remainder of the case and will ultimately be based on the ratio of the Commission approved rate increases to KCPL's and GMO's requested rate increases, if the Commission orders this option.

Staff recommends that this sharing of expenses is appropriate in this proceeding for the following reasons:

1. Rate case expense sharing creates an incentive, and eliminates a disincentive, on the utility's part to control rate case expense to reasonable levels;
2. Considering that ratepayers currently pay for the majority of the rate case and regulatory process, it is fair and equitable to ask shareholders to pay for at least some of these expenses;

[58] *In The Matter of Laclede Gas Company's Request to Increase its Revenues for Gas Service*
[59] *In the Matter of Laclede Gas Company d/b/a Missouri Gas Energy's Request to Increase its Revenues for Gas Service*

3. Both ratepayers and shareholders benefit from the rate case process; the ratepayer receiving safe and adequate service at a just and reasonable rate, and the shareholder receiving an opportunity to receive an adequate return on investment.

Rate case expense can be defined as all incremental costs incurred by a utility directly related to an application to change its general rate levels. These applications are usually initiated by the utility, but rate case expenses may also be incurred as a result of the filing of an earnings complaint case by another party. The largest amounts of rate case expense usually consist of costs associated with use of outside witnesses, consultants, and outside attorneys hired by the utility to participate in the rate case process.

Generally, utility management has a high degree of control over rate case expense. Attorneys, consultants, and other services can either be provided by in-house personnel or can be procured from an outside party. Some Missouri utilities employ in-house counsel and primarily utilize internal labor to process rate filings; therefore, the use of outside attorneys in rate proceedings is not always necessary. However, KCPL and GMO currently procure outside counsel in addition to several in-house attorneys with significant prior experience in Missouri rate proceedings. Rate case expenses do not include internal labor costs as those are included in the cost of service through the payroll annualization and are not incremental expenses resulting from the rate case process.

During rate proceedings, and generally in the utility regulatory process, there are four broad categories of costs involved:

1. The cost incurred by the Commission for itself and its Staff;
2. The cost incurred by the Office of the Public Counsel;
3. The cost incurred by intervenors in Commission proceedings; and
4. The cost incurred by the utility in the regulatory process.

Category 1 is the cost incurred by the Commission. This includes all operating expenses, salaries, wages, and benefits of the Commission and its Staff. The Commission's operating expenses are limited to the amount the Missouri General Assembly appropriates for that purpose. An annual amount of operating expenses is assessed by the Commission and paid by the utilities it regulates. The utility, in turn, passes on this expense to its ratepayers through the rate case process. The utility is not charged the direct cost of processing its filings or regulating company-specific activities. KCPL and GMO are charged based on an assignment of the

Commission's budget to regulation of the electric industry with this amount allocated to KCPL and GMO based on the percentage of their regulated revenues of the total electric regulated revenues in Missouri. The utilities, in turn, pass on this expense to their ratepayers through the rate case process. Ultimately customers pay these expenses through rates for utility services.

Category 2 is the cost incurred by the Office of the Public Counsel. Public Counsel represents the public and the interests of utility customers in proceedings before the Commission. An amount for Public Counsel's annual operating expenses is appropriated by the Missouri General Assembly, which is sourced from the Commission's assessment, billed to the utilities and included in the cost of service. Ultimately customers pay these expenses through rates for utility services.

Category 3 is the cost incurred by intervenors in Commission proceedings. Intervenors may be involved in Commission proceedings for a variety of reasons, but most frequently for reasons related to revenue requirement and rate design issues raised in general rate proceedings. Some intervening parties represent large individual utility customers or groups of customers. There are several intervenors in this case, some of whom have retained their own counsel and experts to review KCPL's and GMO's rate increases. Each intervenor is responsible for its own rate case expenses.

Category 4 is the cost incurred by the utility in the regulatory and rate setting process. In prior rate cases, the Commission allowed utilities to pass through to ratepayers the full amount of normalized and prudently incurred rate case and regulatory expenses in the rate-setting process. When utilities were allowed to pass full rate case costs on to ratepayers, the utilities were the only rate case participants that did not face an inherent limit in the amount of rate case expense they chose to incur. All of the other types of participants were and are limited in the amounts of rate case expense they can incur by the budgetary decisions of the General Assembly or by the willingness of the intervening parties to fund rate case activities. However, with full rate case expense recovery, the utilities were free to plan their rate case activities with the knowledge that the associated cost of those activities were highly likely to be passed on to a third party; i.e., its customers.

The practice of allowing a utility to recover all, or almost all, of its rate case expense from customers creates a disincentive for the utility to control rate case expenses. For all other parties to the rate case process, the funds spent are ultimately limited by a budget and financial

restraints. Having significant financial resources to fund rate case activities combined with the ability to pass through the entire amount of the expenses creates what can be perceived as an unfair advantage over all other parties in the rate case process.

Some of a utility's discretionary expenses are not recovered by the utility in the ratemaking process. For example, charitable donations, discretionary amounts paid to individuals or organizations for charitable reasons with no direct business benefit, have historically not been an includable expense in the cost of service. While the utility may believe it has a responsibility to be a "good corporate citizen," if included in the cost of service, charitable contributions would equate to an involuntary contribution by the ratepayer. Costs associated with political activities ("lobbying") are another type of cost routinely disallowed and not included in customer rates. These are examples of costs that are not necessary for the provision of safe and adequate utility service in Missouri.

The Commission ordered a sharing of rate case expenses in its *Report and Order* in KCPL's most recent rate case, Case No. ER-2014-0370, on page 72:

> The Commission finds that in order to set just and reasonable rates under the facts in this case, the Commission will require KCPL shareholders to cover a portion of KCPL's rate case expense. One method to encourage KCPL to limit its rate case expenditures would be to link KCPL's percentage recovery of rate case expense to the percentage of its rate increase request the Commission finds just and reasonable. The Commission determines that this approach would directly link KCPL's recovery of rate case expense to both the reasonableness of its issue positions and the dollar value sought from customers in this rate case.
>
> The Commission concludes that KCPL should receive rate recovery of its rate case expenses in proportion to the amount of revenue requirement it is granted as a result of this Report and Order, compared to the amount of its revenue requirement rate increase originally requested. This amount should be normalized over three years. The Commission also finds that it is appropriate to require a full allocation to ratepayers of the expenses for KCPL's depreciation study, recovered over five years, because this study is required under Commission rules to be conducted every five years. [footnotes omitted]

The footnote omitted in the above reference, Footnote 251 on page 72 of the Report and Order in Case No. ER-2014-0370, further clarifies the Commission's conclusions concerning recovery of rate case expenses:

> It is understood that some of the issues litigated in this case do not directly affect the overall revenue requirement granted by the Commission; but it is also clear that the vast majority of the litigated issues do have a direct or indirect impact on the revenue requirement. Accordingly, percentage sharing is a reasonable approach to correlating recovery of rate case expense to the relationship between the amount of litigation that benefited both ratepayers and shareholders and that which benefited only shareholders.

In the most recent Spire Missouri rate cases, the Commission ordered a 50/50 split of rate case expenses on page 52 of its Report and Order in that case:

> Therefore, it is just and reasonable that the shareholders and the ratepayers who both benefited from the rate case, share in the rate case expense. The Commission finds that in order to set just and reasonable rates under the specific facts in this case, the Commission will require Spire Missouri shareholders to cover half of the rate case expense and the ratepayers to cover half with the exception of the cost of customer notices and the depreciation study.

In accordance with the Commission's *Report and Order*, Staff recommends the same rate case expense sharing mechanism ordered in the Spire Missouri rate cases be applied to KCPL's and GMO's rate case expenses.

Generally, Staff divides rate case expense over the period of time it estimates will pass before the utility's next rate case and includes an annual amount in the utility's revenue requirement. Typically, this cost is not "amortized" for ratemaking purposes, and the utility's recovery of this expense in rates is not tracked against its actual rate case expense for consideration of over or under recovery. In the current case, Staff recommends a four year normalization of rate case expenses. Staff has also included depreciation study expenses over five years with no sharing, which is the required time-interval for KCPL and GMO to conduct depreciation studies.

Staff Adjustments E-225.1 and E-165.1 reflect Staff's recommended rate case expense, for KCPL and GMO, respectively, calculated as described above. Staff Adjustments E-225.5 and E-165.3 spreads the cost recovery of KCPL's and GMO's most recent depreciation study over five years, respectively. KCPL Staff Adjustments E-225.2 and E-225.3, and GMO Staff Adjustment E-164.1 remove test year rate case expenses related to prior cases.

Staff Expert/Witness: Keith Majors

13. Regulatory Assessments

a. Public Service Commission Assessment Fee

The Public Service Commission assessment ("PSC Assessment") is an amount billed to all regulated utilities operating under the jurisdiction of the Commission as an allocation of the Commission's operating costs associated with utility regulation. KCPL's and GMO's PSC Assessment was annualized using the latest assessment available for the current fiscal year (FY-2018) on information obtained from the Commission's records. The updated KCPL and GMO PSC Assessment was compared to the PSC Assessment amount included in KCPL's and GMO's test year to form the basis for the adjustment in Staff's cost-of-service. Staff's adjustments are identified on Schedule 9 of Staff's KCPL and GMO Accounting Schedules, Adjustment E-222.1 and E-164.3, respectively.

Staff Expert/Witness: Keith Majors

b. FERC Assessment

KCPL and GMO are assessed a regulatory fee from FERC. The FERC assesses fees to public utilities and Regional Transmission Organizations ("RTO") based on their usage of transmission of electric energy. Staff reviewed KCPL's and GMO's FERC assessment for the period of January 2012 through December 2017. Beginning in June 2013, GMO incurred FERC assessment costs from the MISO RTO. During the test year the MISO FERC Assessment (Schedule 10) was solely related to the Crossroads generating facility.

The Commission stated in its *Report and Order* in Case No. ER-2010-0356, "it is not just and reasonable to require ratepayers to pay for the added transmission costs of electricity generated so far away in a transmission constricted location."[60] The Commission further stated

[60] Case No ER-2010-0356 Report and Order, paragraph 247, May 4, 2011.

in its *Report and Order* in Case No. ER-2012-0175, "the Crossroads transmission costs does *[sic]* not support safe and adequate service at just and reasonable rates, and the Commission will deny those costs."[61] Since the Commission disallowed Crossroads transmission costs in Case No. ER-2010-0356, and Case No. ER-2012-0175, Staff recommends an adjustment to also eliminate the FERC Assessment fees incurred by GMO for its MISO transmission incurred in the test year, and also for the 12-month period ending December 31, 2017, that is associated with Crossroads. Staff's adjustment to eliminate FERC assessments related to Crossroads is identified on Schedule 9 of Staff's GMO Accounting Schedules, Adjustment E-164.4

Staff included an annualized level of the FERC assessment incurred by KCPL and GMO for its SPP RTO transmission based on the most recent FERC assessment and the 12-month period ending December 31, 2017, applicable load volumes. Staff's adjustment is identified on Schedule 9 of Staff's KCPL and GMO Accounting Schedules, Adjustment E-221.1 and E-164.2, respectively.

Staff Expert/Witness: Keith Majors

14. <u>Customer Deposits – Interest Expense</u>

Staff's recommended treatment of interest expense on customer deposits is to include the interest expense in the expense portion of the revenue requirement calculation, since customer deposits were deducted in the calculation of rate base. Staff calculated the interest for customer deposits consistent with the level of customer deposits reflected in the Rate Base - Schedule 2 (see discussion in the Rate Base section of this report for Customer Deposits included in rate base). For this calculation, Staff used the method outlined in KCPL's and GMO's tariff, which is to use the customer deposit balance to be included in rate base, and then multiply that number by the most current prime interest rate published in the Wall Street Journal (4.25) plus 100 basis points, for a total of 5.25%. The amount of interest relating to customer deposits has been included as an adjustment to KCPL's and GMO's Income Statements - Schedule 9, adjustments E-176-1 and E-129-3, respectively.

Staff Expert/Witness: Antonija Nieto

[61] Case No ER-2012-0175 Report and Order, Page 59, January 9, 2013.

15. Depreciation - Clearing

During the test year, KCPL and GMO incurred depreciation for transportation equipment that was charged to expense through a clearing account. Both KCPL and GMO have vehicles and power equipment in their fleets to maintain existing operations as well as to be used in construction related activities. An accounting process is used to assign use of the vehicles and this equipment between on-going operations and construction costs. The clearing process identifies when vehicles are used for O&M activities and when those vehicles are used for construction projects.

During the course of the audit, Staff learned the two companies have different policies on the treatment of assigning capitalized costs to construction projects for large power equipment. KCPL personnel have committed to review this policy in the future to determine the best practice for both companies. Staff believes that going forward all vehicles and large power equipment used in construction activities should have a portion of its depreciation assigned to the construction project in which the costs are incurred. While a portion of the depreciation is capitalized to construction projects, Staff believes depreciation on large power equipment should also be an identifiable cost charged to the various construction projects. KCPL committed to examine a consistent policy on capitalizing depreciation for vehicles and large power equipment and address this matter in future KCPL and GMO rate cases.

In these current rate cases, because depreciation expense is accounted for in Staff's Accounting Schedule 5, Staff made an adjustment to remove the depreciation amount booked to the clearing account for construction activities. The removed costs are charged to construction projects that will eventually be plant in service—the cost of which will be recovered through depreciation over the life of the assets.

Adjustment E-237.1 capitalizes depreciation for KCPL and adjustment E-174.1 capitalizes depreciation for GMO.

Staff Expert/Witness: Michael Jason Taylor

16. Economic Relief Pilot Program

The Economic Relief Pilot Program ("ERPP") was approved by the Commission in Case No. ER-2009-0089 for KCPL and Case No. ER-2009-0090 for GMO as part of

a Non-Unanimous Stipulation and Agreement. The ERPP commenced on September 1, 2009, as a three-year pilot program. Commission decisions in subsequent rate cases permitted the Program to continue beyond the initial three years.

KCPL and GMO are requesting continuation of the ERPP. Neither KCPL nor GMO are proposing changes to the Program's current design or funding levels. Staff recommends the ERPP continue as designed; however, Staff concludes a third party evaluation is warranted to determine the Program's effectiveness, including an assessment of administrative and procedural processes and evaluation of participant experiences. Considering the ERPP is in its ninth year, Staff recommends GMO update tariff sheet R-62.15 removing language that refers to the ERPP as a three (3) year pilot. Staff reviewed cancelled tariff sheets and it appears KCPL removed the "three (3) year" language from its tariff when filing revised tariff sheets in Case No. ER-2014-0370, but the "three (3) year" language remains in the GMO tariff.

The ERPP is designed to deliver energy affordability benefits to qualifying low-income residential customers. Participants with an annual household income no greater than 200% of the federal poverty level ("FPL") can receive up to a sixty-five dollar ($65.00) monthly credit for 12 months. According to KCPL and GMO witness Darrin Ives, the monthly credit is based on the average of the low income qualifying customer's last twelve monthly bills.[62] At the end of the 12-month period, a customer may reapply to participate further in the program through the term of the pilot program.[63]

In KCPL's last rate case (Case No. ER-2016-0285) the Commission approved ERPP funding at $1,260,000 annually. In GMO's last rate case (Case No. ER-2016-0156) the Commission approved ERPP funding at $788,019 annually. Program funding is split 50% shareholder and 50% ratepayer. Additionally, in the preceding rate case KCPL and GMO updated tariff language removing the maximum number of customers that can participate in the Program, and both companies added language stating any excess funds will be spent until exhausted.

Staff Data Request No. 0362 requested the average monthly ERPP credit for participants, the average number of enrollees per year, and monthly participation data to determine if KCPL

[62] ER-2018-0145 Direct Testimony of Darrin R. Ives p. 17, 17-19. ER-2018-0146 Direct Testimony of Darrin R. Ives
p. 18, 16-18.

[63] KANSAS CITY POWER AND LIGHT COMPANY, P.S.C. MO. No. 7, 4th Revised Sheet No. 43Z.
KCP&L GREATER MISSOURI OPERATIONS COMPANY, P.S.C. MO. No. 1, 4th Revised Sheet No. R-62.15.

increased participation numbers as intended. KCPL's response indicates participation levels and the average monthly credit did increase from April 2015 through April 2018:

Year (April 1st)	2015	2016	2017	2018
Number of Participants	983	1266	1495	1964
Average ERPP Credit	$47.00	$54.00	$60.00	$61.00

April 2018 is the most current data provided by KCPL

GMO's data indicates participation levels and the average monthly credit did increase significantly from April 2017 to April 2018:

Year (April 1st)	2015	2016	2017	2018
Number of Participants	1014	1008	919	1920
Average ERPP Credit	$49.00	$48.00	$51.00	$61.00

April 2018 is the most current data provided by GMO

Staff requested all independent contractor evaluations of the ERPP including survey or examination instruments used to acquire feedback from the Salvation Army or other community partners as to the effectiveness and administration of the ERPP. KCPL and GMO responded that they commissioned True North Market Insights to evaluate the program and to make a recommendation as to its future. In June 2012, an evaluation was completed.[64]

Staff suggests the ERPP continue maintaining current funding levels; however Staff recommends an independent third party evaluation of the Program before KCPL and GMO file their next rate case, as the last, and only, evaluation was completed in June 2012.

KCPL 2nd Revised Sheet No. 43Z.3 and GMO 2nd Revised Sheet No. R-62.18 states:

> The pilot program may be evaluated in any Company rate or complaint case. The evaluation shall be conducted by an independent third party evaluator under contract with the Company, that is acceptable to the Company, Commission Staff and the Public Counsel. The costs of the evaluator shall be paid from the program funds.[65]

Since its inception in 2009, the ERPP has undergone several modifications. To ensure the ERPP is providing the desired outcomes a comprehensive assessment of the ERPP is needed. Staff recommends KCPL and GMO work with an independent evaluator to design an evaluation

[64] Response to Staff Data Request No. 0361.

[65] KANSAS CITY POWER AND LIGHT COMPANY, P.S.C. MO. No. 7, 2nd Revised Sheet No. 43Z .3. KCP&L GREATER MISSOURI OPERATIONS COMPANY, P.S.C. MO. No. 1, 2nd Revised Sheet No. R-62.18.

mechanism that minimizes costs ensuring the maximum amount of ERPP dollars go toward assisting participants in the program.

To reflect the current structure of the ERPP Staff recommends GMO update its tariff, removing the language "Through this three (3) year pilot" from tariff sheet 4th Revised Sheet No. R-62.15.

Staff Expert/Witness: Contessa King

a. Accounting Treatment

KCPL began collecting ERPP funds through base rates in Case No. ER-2012-0174, while GMO began collecting ERPP funding through rates in Case No. ER-2012-0175. ERPP funding was also included in rates resulting from KCPL's and GMO's subsequent rate cases. The following table shows the amount of funding included in base rates:

KCPL and GMO ERPP Funding		
Case Number	**KCPL Funding**	**GMO Funding**
ER-2012-0174, ER-2012-0175	$630,000	$630,000
ER-2014-0370	$1,260,000	
ER-2016-0156		$788,019
ER-2016-0285	$1,260,000	
ER-2018-0145,ER-2018-0146 (Staff's recommendation)	$1,260,000	$788,019

Note: shareholders and ratepayers each provide 50% of the ERPP funding shown above.

Staff's adjustment for KCPL E-184.6 and Staff's adjustment for GMO E-136.6 increases the test year ERPP expense to include the full amount of recommended ratepayer funding. Staff recommends that any unspent ERPP funding collected from ratepayers be made available for future ERPP funding.

Staff Expert/Witness: Michael Jason Taylor

17. Income Eligible Weatherization Program (formally Low Income Weatherization Program)

Low-income customers often live in housing that is energy inefficient with substandard insulation and other deficiencies. These customers can benefit from energy conservation measures such as weatherization and/or energy efficient appliances. KCPL and GMO customers benefit from the IEW through the reduction in the expenses associated with arrearages in billing and shutoffs, which occur in greater proportions among low-income customers.

In KCPL's most recent rate case, Case No. ER-2016-0285,[66] the IEW had unspent funds of $1,296,862. The parties to the case agreed to keep the annual IEW funding level at $573,888; however, the annual amount recovered in base rates was reduced to $254,385. The difference in funding levels was to be made up by utilizing $319,503 of the unspent funds annually, amortizing the $1,296,862 in unspent funds over four years. At this time, only $129,194 of the $1,296,862 in unspent funds has been spent within the test year period for this case. Staff expert witness Jason Taylor's testimony provides further detail on the accounting treatment of the IEW funds.

In GMO's last rate case, Case No. ER-2016-0156[67], the budget for IEW was changed from $300,000 to $400,000,[68] with up to $100,000 to be included in a regulatory asset account if the amount funded through rates is reached before the end of the program year. GMO currently has an unspent balance of $80,000.

Staff has three recommendations regarding IEW:

1) The Commission approve the continuation of GMO's IEW Program at the annual funding level of $400,000 to be included in base rates.

2) The Commission approve the continuation of the KCPL IEW Program at the current annual funding level of $573,888; authorizing an annual amount of $258,914 to be included in base rates, and the unspent funds to be amortized over four years to reach IEW yearly funding amount of $573,888.

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[66] *In the Matter of Kansas City Power & Light Company's Request for Authority to Implement A General Rate Increase for Electric Service*

[67] *In the Matter of KCP&L Greater Missouri Operations Company's Request for Authority to Implement A General Rate Increase for Electric Service*

[68] *In the Matter of KCP&L Greater Missouri Operations Company's Request for Authority to Implement A General Rate Increase for Electric Service. NON-UNANIMOUS STIPULATION AND AGREEMENT, 9. INCOME-ELIBIBLE WEATHERIZATION, pg. 5.*

3) KCPL and GMO work closely with the CAAs to address any process barriers to getting the funds fully expended within the IEW program year.

Staff Expert/Witness: Kory Boustead

a. Accounting Treatment

The funding for KCPL's and GMO's IEW was established and ordered to be funded through rates at a level of $573,888 per year for KCPL in Case No. ER-2012-0174, and $0 per year (IEW was charged to GMO's MEEIA rider) in GMO Case No. ER-2012-0175. The same level of funding was included in the rates resulting from KCPL's subsequent rate cases, but GMO's funding was increased to $400,000 in Case No. ER-2016-0156. Additionally, page 5 of the *Non-Unanimous Stipulation and Agreement* agreed to in GMO's last rate case, Case No. ER-2016-0156, concerning this item specifies that "Any unspent funds will accrue interest at the AFUDC rate."

Staff compared the total funding KCPL and GMO have collected through rates for IEW through December 31, 2017, and compared the total with the actual IEW costs over the same time period. The comparison yielded a balance of unspent IEW funding that was earmarked for IEW expenditures. Staff has included the IEW liability as of December 31, 2017, as a deduction to KCPL's and GMO's rate base.

Staff recommends that the target annual IEW spending remain consistent with what was approved in KCPL's and GMO's prior rate cases. However, due to the balance of unspent IEW funds, Staff recommends a reduced level of IEW funds be included in the current case. Reducing the ongoing level of IEW funds collected from customers provides KCPL and GMO an opportunity to utilize the funds that have already been collected but not spent. Staff recommends reducing ongoing funding collected from ratepayers by 25% of KCPL's and GMO's balance of unspent IEW funds. Staff's Recommendation is as follows:

	KCPL		GMO	
Target IEW Spending		$578,888		$400,000
Unspent funds @ 12/31/17	$1,075,612		$80,430	
Funding Reduction percent	25%		25%	
Amount of reduction to funding		($268,903)		($20,107)
Funding included in rates		$309,985		$379,893

Staff's adjustment for KCPL E-184.5 and Staff's adjustment for GMO E-136.5 increases test year IEW expense to match the level of funding recommended by Staff.

Staff Expert/Witness: Michael Jason Taylor

18. Regional Transmission Organization ("RTO") Administrative Fees

The SPP is a not-for-profit regional transmission organization ("RTO") that maintains functional control over the transmission assets of its members and provides transmission services through its FERC approved Open Access Transmission Tariff ("Open Access Transmission Tariff" or "OATT"). SPP's costs must be recovered from its users (transmission customers, which, in this case, are utility companies such as KCPL, GMO, The Empire District Electric Company, Westar. and many others). Consequently, KCPL and GMO pay SPP an administration charge for performing transmission functions on its behalf.

Under its Open Access Transmission Tariff, SPP establishes a rate for its annual administration charge that enables it to recover 100% of its total annual administrative costs for RTO functions, subject to a rate cap. The rate cap serves as a limit on the annual administration charge in order to provide SPP customers a level of certainty and predictability regarding SPP's year-to-year administrative costs. SPP's administrative rate cap is currently $.43per MWh, and effective 2018, SPP members paid administrative fees based of the $.429 per MWh. The following charts reflect SPP's historical administrative fee rate for the period of 2006-2018:

SPP Administrative Fee Rate ($/MWh)

Year	2006	2007	2008	2009	2010	2011
Rate	$.16	$.19	$.19	$.21	$.255	$.210

Year	2012	2013	2014	2015	2016	2017	2018
Rate	$.255	$.315	$.381	$.39	$.37	$.419	$.429

Staff annualized SPP administration fees based on the administrative rate of $0.429 per MWh effective January 1, 2018, and included an annualized amount for the North American Electric Reliability Corporation ("NERC") fees. Staff also made an adjustment to eliminate the Midcontinent Independent System Operator ("MISO") RTO administrative fees for point-to-point transmission. The Commission's Reports and Orders in Case Nos. ER-2010-0356 and ER-2012-0175 both prohibited GMO from any recovery of transmission costs for the

Crossroads generating station.[69] Prior to December 19, 2013, when Entergy Services Inc. ("Entergy") became a member of MISO, Entergy billed GMO for firm point-to-point transmission service to Crossroads. Subsequent to Entergy becoming a member of MISO in December 2013, MISO billed GMO for transmission administrative fees directly related to transmission service to Crossroads, in addition to firm point-to-point transmission. Since the Commission has previously prohibited GMO from any rate recovery of transmission costs, Staff recommends an adjustment to eliminate the MISO transmission administrative fees.

Staff's adjustments for SPP Administration fees and the elimination of MISO administrative fees are identified on Schedule 9 of Staff's KCPL and GMO Accounting Schedules, Adjustments E-130.3, E-85.5, and E-85.6.

Staff Expert/Witness: Keith Majors

19. <u>Transmission Expense-FERC Account 565</u>

KCPL and GMO are members of the SPP. In 2004, SPP became a RTO responsible for ensuring reliable supplies of power, adequate transmission infrastructure, and competitive wholesale electricity prices.[70] Prior to 2006, KCPL had full functional control over its transmission system that served its retail customers within its service territory. In Case No. EO-2006-0142, KCPL filed an application with the Commission to transfer functional control of its transmission facilities to SPP. Most of the parties to that case entered into a *Stipulation and Agreement* on February 24, 2006, and the Commission approved the *Stipulation and Agreement* by Order effective on June 23, 2006. The transfer of functional control of KCPL's transmission system to SPP was finalized upon the approval by the FERC on October 1, 2006.

Prior to 2009, GMO had full functional control over its transmission system that served its retail customers within its service territory. In Case No. EO-2009-0179, GMO filed an application with the Commission to transfer functional control of its transmission facilities to SPP. The parties to this case entered into a *Stipulation and Agreement* on January 27, 2009, and the Commission approved the *Stipulation and Agreement* by Order effective on February 10,

[69] Case No. ER-2010-0356, Commission *Report and Order*, page 99 and Case No. ER-2012-0175, Commission *Report and Order*, page 59.
[70] Market Protocols for SPP Integrated Marketplace, p. 60.

2009. The transfer of functional control of GMO's transmission system to SPP was finalized upon the approval by the FERC on April 15, 2009.

As a transmission customer of SPP, SPP charges KCPL and GMO for point-to-point, base plan zonal and region-wide transmission costs that are booked to FERC Account 565. Point-to-point transmission costs are billed based on Schedule 7 and Schedule 8 of SPP's Open Access Transmission Tariff. Base-plan-zonal charges and region-wide charges are billed based on Schedule 11 of the Open Access Transmission Tariff.

Base-plan-zonal and region-wide costs are a result of transmission upgrades in the SPP region. The transmission upgrades are directed by SPP's Transmission Expansion Plan in place to ensure the reliability of the transmission system for SPP's members.[71] The costs of base-plan and region-wide projects are allocated to the SPP region based on the voltage of the project. The allocation method is referred to as the "Highway-Byway" method and is shown in the following table:

SPP Base Plan Highway-Byway Allocation Method		
Voltage	Regional (SPP region)	Zonal (KCPL or GMO local zone)
300 kV and Above	100%	0%
100-300 kV	33%	67%
Below 100 kV	0%	100%

The costs allocated to the SPP region are then allocated to SPP transmission owners based on a load ratio share determination. The load ratio share is developed using the transmission owners' network load divided by the SPP total load. KCPL's current load ratio share, on a total company basis (Missouri and Kansas), is 7.27%. GMO's current load ratio share is 4.08%.

Staff analyzed KCPL and GMO's actual transmission expenses for the period of 2009 through 2017. KCPL and GMO's transmission expenses have increased substantially over this period. The following chart reflects KCPL and GMO's historical transmission expenses for the period of 2009-2017:

[71] SPP OATT.

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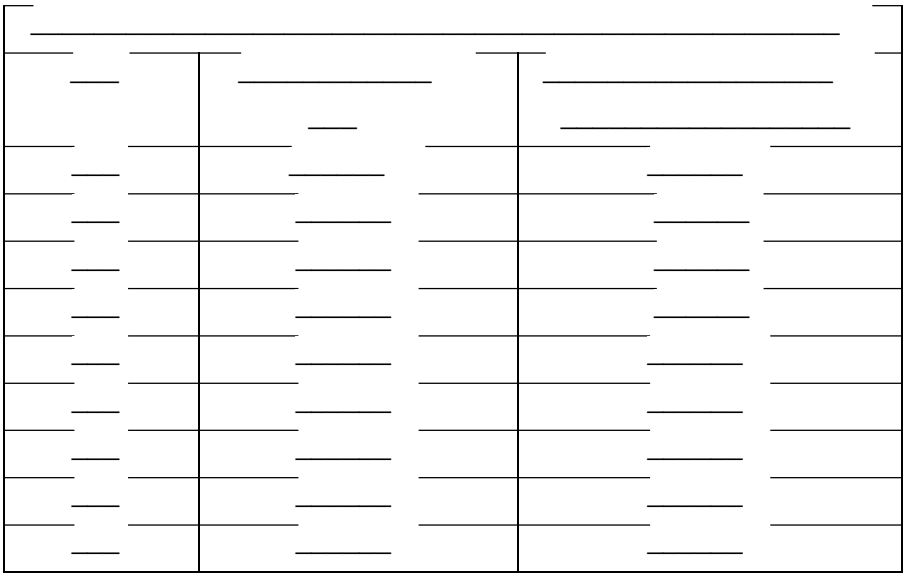

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In addition to being charged by SPP for transmission expense, GMO is also charged by MISO for Crossroads transmission expense. Since Crossroads is located in Mississippi, GMO contracts firm point-to-point transmission service with Entergy to transport electricity from Mississippi to GMO's load center. On December 19, 2013, Entergy became a member of MISO. Consequently, GMO is now billed by MISO for the firm point-to-point transmission in addition to other MISO-related transmission charges. The MISO schedules currently applicable to transmission service directly associated with Crossroads are:

- Schedule 1 – Scheduling, System Control and Dispatch Service
- Schedule 2 – Reactive Supply and Voltage Control
- Schedule 7 – Long-term Firm Point-to-Point Service
- Schedule 10 – MISO Cost Recovery Adder
- Schedule 10 – FERC Annual Charges Recovery
- Schedule 11 – Wholesale Distribution Service
- Schedule 26 – Network Upgrade from Transmission Expansion Plan
- Schedule 33 – Blackstart Service
- Schedule 45 – Cost Recovery of NERC Recommendation or Essential Action

All the schedules listed above are booked to GMO's transmission FERC account 565, with the exception of Schedule 10 - FERC. Schedule 10 is MISO administrative and FERC fees and are addressed in the section of this report titled, *Regional Transmission Organization Administrative Fees*.

The following chart compares GMO's annual historical transmission expenses and Crossroads transmission expenses to GMO's annual historical generation output and Crossroads generation output, in mega-watt hours ("MWh"), for the period of 2009-2017. GMO's annual transmission expense was derived by combining MPS and L&P rate districts actual transmission expense booked in FERC account 565 and GMO's MWhs by combining MPS and L&P rate districts MWhs from its production report:

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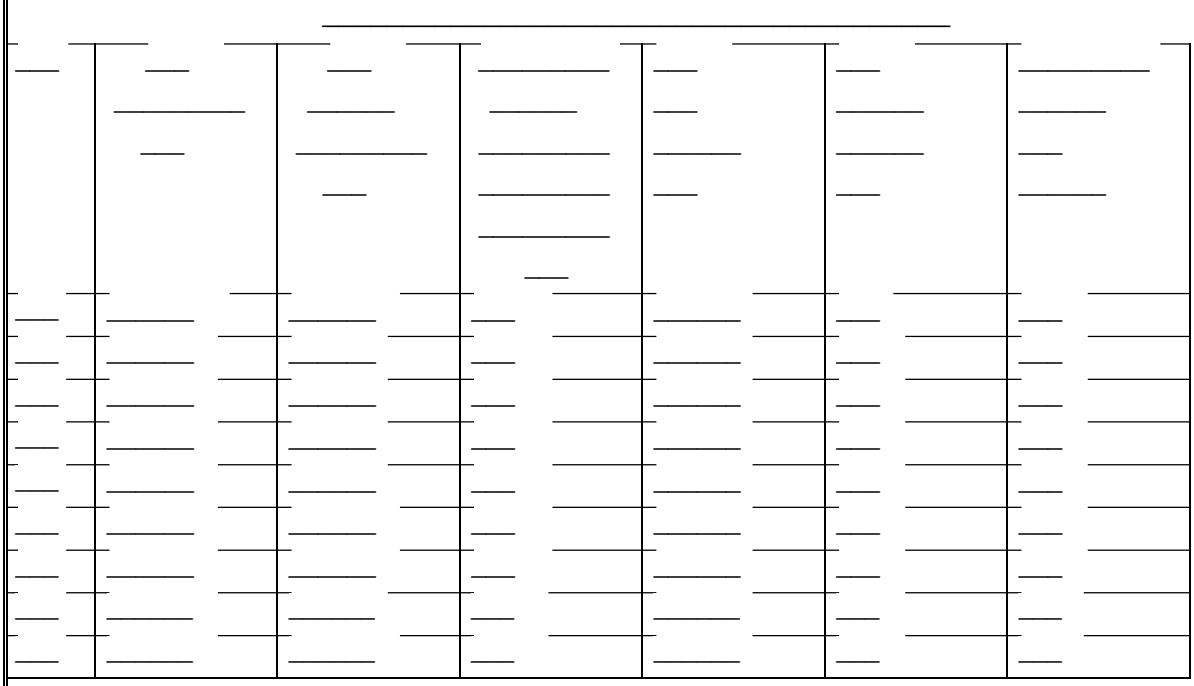

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As can be seen from the table above, 2017 Crossroads transmission expense represents ** ____ ** of GMO's total transmission expense and the MWhs generated by Crossroads represents ** ____ ** of GMO's total MWhs of generation for the same year.

For the period of 2013-2017, KCPL and GMO's transmission expenses have significantly increased. Consequently, Staff included an annualized level of total transmission expense based on the 12-month period ended December 31, 2017, and a nine-year amortization of SPP Z-2 one-time transmission credits. These transmission credits were identified in Case No. ER-2016-0285 and amortized over a nine-year time period. Staff's adjustment for transmission expense is identified on Schedule 9 of Staff's KCPL and GMO Accounting Schedules, Adjustment E-130.1 and E-85.2, respectively.

The Commission's *Report and Orders* in both Case No. ER-2010-0356 and Case No. ER-2012-0175 prohibited GMO from any recovery through its retail rates of its Crossroads transmission costs.[72] Consistent with the Commission's *Report and Orders* in those cases, Staff eliminated GMO's Crossroads transmission expense for the test year period ending June 30, 2017, and no Crossroads transmission expense is included in Staff's annualized transmission expense adjustment. Staff's adjustment to eliminate Crossroads transmission expense in FERC account 565 is identified on Schedule 9 of Staff's GMO Consolidated, MPS and L&P Accounting Schedules, Adjustment E-85.1. Crossroads transmission expense is also discussed in the following Sections of this report: *Crossroads Energy Center, Regional Transmission Administrative Fees, and FERC Assessment*.

Staff Expert/Witness: Keith Majors

20. <u>Missouri Flood Amortizations (KCPL Only)</u>

a. 2011 Missouri River Flood Incremental Non-Fuel Operations & Maintenance ("NFOM") Expense

The Commission authorized KCPL to defer the incremental $1.4 million Missouri jurisdictional NFOM expense related to the 2011 Missouri flood into a regulatory asset with amortization over 5 (five) years beginning with the effective date of rates in Case No. ER-2012-0174. The test year ending June 30, 2017, includes a full 12 months of amortization related to these deferred expenses. Since the amortization has ended as of January 2018, Staff has made an adjustment to remove the test year amount from the cost of service.

Pursuant to the terms of the *Non-Unanimous Partial Stipulation and Agreement* in Case No. ER-2016-0285, Staff will track the over-return of this amortization to offset a liability or return to the Company over 4 years at the true-up in this case.

Adjustments E-22.4 reflects this removal of the amortization expense booked in the test year.

Staff Expert/Witness: Michael Jason Taylor

[72] Case No. ER-2010-0356, Commission *Report and Order*, page 99 and Case No. ER-2012-0175, Commission *Report and Order*, page 59.

b. 2011 Missouri River Flood Insurance Reimbursement

KCPL received insurance proceeds in March and August of 2013 related to the impact of the 2011 Missouri River flooding. The Commission authorized KCPL to defer these proceeds and return them to customers over 3 (three) years beginning with the effective date of rates in Case No. ER-2014-0370. As the amortization ends September 2018, Staff has made an adjustment to remove the test year amount from the cost of service.

Pursuant to the terms of the *Non-Unanimous Partial Stipulation and Agreement* in Case No. ER-2016-0285, Staff will track the over-return of this amortization to offset a liability or return to the Company in KCPL's next rate case.

Adjustments E-4.2 and E-206.5 in Accounting Schedule 10 – Income Statement reflect the removal of the test year

Staff Expert/Witness: Michael Jason Taylor

21. Great Plains Energy – Westar Merger Transition Costs

On August 31, 2017, GPE, KCPL, GMO, and Westar filed the *Application for Approval of Merger; Request for Variance from 4 CSR 240-20.015; and Motion for Expedited Treatment*, requesting principally a merger between GPE and Westar, in Case No. EM-2018-0012. Various parties in that case, including Staff, were signatories to the 1st *Stipulation and Agreement* filed January 12, 2018, and the 2nd *Stipulation and Agreement* filed March 8, 2018. The Commission approved both stipulations in its *Report and Order* in EM-2018-0012.

Transition costs are costs necessary to integrate GPE and Westar by creating the combined efficiencies and savings, and ensure that the integration is effective. Examples of transition costs include voluntary severance, other than change-in-control severance, costs incurred in integration planning, as well as costs incurred to enable network connectivity for the merged company and allow for a more efficient combined company.

The 2nd *Stipulation and Agreement* provided the following concerning treatment of merger transition costs, on page 4:

> 9. Transition Costs: Signatories shall support in KCP&L and GMO's 2018 rate cases filed on January 30, 2018, deferral of Merger transition costs of $7,209,208 for GMO and $9,725,592 for KCP&L's Missouri operations. Signatories will recommend recovery in the respective 2018 rate cases through amortization of

such Merger transition costs for approval by the Commission over a 10-year period beginning when such costs have been included in Missouri base rates, with no carrying costs or rate base inclusion allowed for the unamortized portion of such costs at any time. Signatories agree that no other Merger transition costs shall be requested for recovery from Missouri customers in the 2018 rate cases or thereafter. This agreement regarding transition cost recovery is an additional limitation to Condition 19 in Exhibit A to the Stipulation and Agreement filed on January 12, 2018.

Condition 19, in Exhibit A to the 1st Stipulation and Agreement, outlined and defined transition costs for purposes of potential recovery in rates:

- Transition Costs: Neither GMO nor KCP&L will ever include in cost of service, and shall never seek to recover in rates, any transition costs related to this Merger that are in excess of the benefits that these transition costs are intended to attain.
- Transition costs are those costs incurred to integrate Westar and GPE, and include integration planning, execution, and "costs to achieve."
- Non-capital transition costs can be ongoing costs or one-time costs. KCP&L's and GMO's non-capital transition costs, which shall include but not be limited to severance payments made to employees other than those required to be made under change of control agreements, can be deferred on the books of either KCP&L or GMO to be considered for recovery in KCP&L and GMO future rate cases. If subsequent rate recovery is sought, KCP&L and GMO will have the burden of proof to clearly identify where all transition costs are recorded and of proving that the recoveries of any transition costs are just and reasonable as their incurrence facilitated the ability to provide benefits in excess of those costs to its Missouri customers. Such benefits may be the result of avoiding or shifting costs and activities.
- KCP&L and GMO shall be required to attest in all future rate proceedings before the Commission that no transition costs in excess of their corresponding benefits are included in cost of service and rates, and to provide a complete explanation of the procedures used to ensure that transition costs, in excess of their corresponding benefits, are not included in cost of service or rates. This commitment shall be required until all transition costs are fully amortized.
- KCP&L and/or GMO, as applicable, shall bear the burden of proving and fully documenting that any transition costs for which rate recovery is sought have produced net benefits. Such benefits may be the result of avoiding or shifting costs and activities.

In its direct filing, KCPL and GMO sponsored Adjustment CS-95, which included a four-year amortization of KCPL's and GMO's allocated share of actual and forecasted transition costs through June 2018. Condition 19 provides that KCPL and GMO must attest that no transition costs in excess of their corresponding benefits are included in cost of service and rates. KCPL and GMO calculated the labor and benefit savings resulting from headcount reductions since their most recent prior rate cases. KCPL's and GMO's calculated Operations and Maintenance ("O&M") savings from labor and benefit reductions since the most recent prior rate cases, which exclude amounts capitalized, and include Westar savings, are shown below[73]:

Jurisdiction	Total Annual O&M Labor and Benefit Savings
KCPL – Missouri	$3,402,643
KCPL – Kansas	$6,412,894
GMO	$6,902,054
Westar	$11,119,398
Total	$27,836,980

KCPL and GMO enacted the Voluntary Employee Exit Program ("VEEP"), a voluntary severance program completed in 2017 at a cost of $6.1 million.[74] Using assumptions for benefit loading and capitalization rates, the table below contains the annual savings from VEEP:

Total Savings From VEEP	KCPL-MO	GMO
Payroll Savings	10,098,495	10,098,495
Payroll and Benefit Savings	13,581,466	13,581,466
Payroll Allocation	66.70%	32.88%
O&M Rate	67.01%	69.79%
Juris. Allocation (approx.)	53.00%	99.50%
Total Missouri Annual Savings	$3,217,273	$3,100,950

These savings would be offset by the $6.1 million of severance costs incurred for this program. These costs were charged to transition costs, of which Staff recommends a 10 year amortization in cost of service.

[73] KCPL and GMO Direct workpapers, Adjustment CS-95.
[74] Case No. EM-2018-0012, Busser Direct, page 35.

In addition to the current savings, KCPL and GMO projected synergy savings post-merger in a synergy charter tracking database similar to that used in the Aquila acquisition. These savings will accrue after the merger and will be reflected in future KCPL and GMO rate cases. A summary of these projected synergies is below[75]:

GPE-Westar Merger Projected Synergies (In Millions)

	2018	2019	2020	2021	2022	Total
Support Services	$18.3	$31.1	$35.5	$39.6	$47.0	$171.4
Generation	$13.6	$33.1	$35.2	$32.0	$33.5	$147.4
Supply Chain	$4.3	$24.3	$38.2	$39.4	$39.7	$145.9
T&D/Customer Service	$1.7	$6.1	$8.7	$9.5	$9.6	$35.5
Benchmark Staffing	$11.7	$22.4	$29.1	$31.3	$32.3	$126.7
Total	**$49.7**	**$116.9**	**$146.7**	**$151.9**	**$162.0**	**$627.0**

Consistent with the 1st and 2nd Stipulations and Agreements in Case No. EM-2018-0092, Staff recommends inclusion of a 10-year amortization of merger transition costs in the cost of service for KCPL, in the amount of $972,559 and GMO, in the amount of $720,921. Staff adjustments E-211.1 and E-153.1 for KCPL and GMO, respectively, in Staff Accounting Schedule 9 reflect these amounts.

Staff Expert/Witness: Keith Majors

22. Demand-Side Management Cost Recovery

a. Rate-Making Treatment for the DSM Program Cost (KCPL)

In its Report and Order in Case No. ER-2010-0355, with regard to how the past and future demand-side management ("DSM") costs should be treated, the Commission stated:

> One area of agreement is that the "old" regulatory assets (Vintages 1, 2, and 3) should be governed by the previous decisions to amortize those regulatory asset accounts over a ten-year period and that amortization period should not change. The Commission also agrees and directs that Vintages 1, 2, and 3 continue to be amortized over a ten-year period.
>
> KCP&L agrees with MDNR regarding the treatment for "future" investments. The Commission agrees as well and will direct that DSM program costs for investments made from December 31, 2010, until a future recovery mechanism is in place [Vintage 5] shall be placed in a regulatory asset account and amortized over six

[75] Sourced from Case No. EM-2018-0012, Busser Direct, page 10.

> years with a carrying cost equal to the AFUDC rate applied to the unamortized balance.
>
> With regard to the "current" investments, it would be inconsistent with previous Commission orders to authorize a six-year amortization for the current investments (Vintage 4). The Commission determines that these Vintage 4 investments should continue to be amortized over a ten-year period.
>
> The Commission determines that the unamortized balances of the regulatory asset accounts shall be included in rate base for determining rates in this case.

KCPL has fully recovered the costs for DSM Vintage 1 and Vintage 2. To prevent an over recovery of these costs, Staff made an adjustment to remove the amortizations of these vintages recorded in the test year. In addition, Staff included the unamortized balances for Vintages 3-7 in its Rate Base Accounting Schedule 2 and included the annual amortization for each vintage based on the Commission approved amortization discussed above. DSM Vintage 8, the final DSM Vintage, includes the carrying costs incurred subsequent to the December 31, 2016, true-up date in Case No. ER-2016-0285 and the effective date of rates in that case, June 8, 2017. Staff recommends including the unamortized balance in rate base and a six year amortization for this Vintage 8, which is consistent with the Commission Order in Case No. ER-2010-0355.

b. <u>Rate-Making Treatment for the DSM Program Cost (GMO)</u>

On June 10, 2009, the Commission issued its *Order Approving Non-Unanimous Stipulation and Agreements and Authorizing Tariff Filing* in Case No. ER-2009-0090, which approved the following:

> The Signatories agree that for ratemaking purposes GMO will defer the costs of its DSM programs in a regulatory asset, and annually calculate AFUDC on the balance in that regulatory asset. DSM programs are defined as demand response and energy efficiency programs. The prudently-incurred costs included in the regulatory asset balance will be amortized over a ten (10) year period. When new rates go into effect reflecting amortization recovery as a result of future general rate proceedings, the prudently-incurred costs included in the regulatory asset balance will be added to rate base, GMO will stop accruing AFUDC on the

> amount included in rate base, and GMO will begin amortizing the balance. Additional DSM program costs incurred after the effective date of a final Report and Order in GMO's next general electric rate proceeding following this case, Case No. ER-2009-0090, will be treated in the same manner, but will be deferred in a different sub-account by vintage.

The Commission's *Report and Order* in GMO's next rate case following Case No. ER-2009-0090, Case No. ER-2010-0356, directed that "DSM program costs for investments made from December 31, 2010, until a future recovery mechanism is in place shall be placed in a regulatory asset account and amortized over six years with a carrying cost equal to the AFUDC rate applied to the unamortized balance." In the same *Report and Order*, the Commission determined that "the unamortized balances of the regulatory asset account shall be included in rate base for determining rates in this case."[76]

Staff included the unamortized balances for Vintages 1-4 in its Rate Base Accounting Schedule 2 and included the annual amortization for each vintage based on the Commission approved amortization discussed above. DSM Vintage 5, GMO's final DSM Vintage, includes the carrying costs incurred subsequent to the July 31, 2016, true-up date in Case No. ER-2016-0156 and the effective date of rates in that case, February 22, 2017. Staff recommends including the unamortized balance in rate base and a six year amortization for Vintage 5 which is consistent with the Commission Order in Case No. ER-2010-0356.

In the KCPL and GMO 2009 and 2010 general rate cases, the Commission authorized KCPL and GMO to defer and amortize DSM advertising costs over a ten year period.[77] No additional adjustment is necessary as the test year is reflective of the appropriate on-going level of expense.

Consistent with the agreement reached in KCPL's 2014 rate case, KCPL has deferred the pre-MEEIA opt-out costs into regulatory asset accounts. Staff recommends that each of Vintages 1-3 should be amortized over six years, which is reflected in Staff Adjustment E-185.2.

c. <u>Accounting Treatment for Expiring Vintages for KCPL and GMO</u>

Once the DSM vintages are fully recovered, including DSM advertising and DSM Opt-outs, KCPL and GMO will be collecting funds in rates for expenses the utilities are no

[76] Commission's *Report and Order* in File No. ER-2010-0356 issued on May 4, 2011, at pages 119 – 120.
[77] Case No. ER-2009-0089, *Non-Unanimous Stipulation and Agreement*, Page 8. Case No. ER-2010-0355, *Report and Order* Pages 80-93 and Case No. ER-2010-0356, *Report and Order* Pages 106-119.

longer incurring. Consistent with the Stipulation and Agreements approved by the Commission in Case Nos. ER-2016-0156 and ER-2016-0285, Staff recommends that once an amortization of a DSM vintage is complete, KCPL and GMO apply the funds that will continue to be collected through rates (for the completed amortizations) to the unrecovered amounts of the next DSM vintage scheduled to expire next. KCPL and GMO DSM advertising vintages and corresponding amortization periods are shown in the following table:

KCPL and GMO Demand Side Management Advertising Vintages				
	KCPL		**GMO**	
DSM advertising Vintage	**Amortization Start Date**	**Amortization End Date**	**Amortization Start Date**	**Amortization End Date**
Vintage 1	September 2009	August 2019	June 2011	May 2021
Vintage 2	May 2011	April 2021		

KCPL and GMO DSM vintages and corresponding amortization periods are shown in the following table

KCPL and GMO Demand Side Management Vintages				
	KCPL		**GMO**	
DSM Vintage	**Amortization Start Date**	**Amortization End Date**	**Amortization Start Date**	**Amortization End Date**
Vintage 1	January 2007	December 2016	September 2009	August 2019
Vintage 2	January 2008	October 2017[78]	June 2011	May 2021
Vintage 3	September 2009	August 2019	February 2013	January 2019
Vintage 4	May 2011	April 2021	February 2017	January 2023
Vintage 5	February 2013	January 2019	Effective date of rates in this case	
Vintage 6	October 2015	September 2021		
Vintage 7	June 2017	May 2023		
Vintage 8	Effective date of rates in this case			

Staff Expert/Witness: Michael Jason Taylor

[78] KCPL's Vintage 1 and Vintage 2 have ended. The over collection for Vintage 1 was applied to Vintage 2 resulting in a reduced recovery period less than the 10 year amortization period ordered by the Commission.

23. Amortization of Regulatory Assets and Liabilities

Both regulatory assets and liabilities have been authorized by the Commission to be deferred and included in rates to be returned to or received from ratepayers. In the *Non-Unanimous Stipulation and Agreement* in Case No. ER-2016-0156 and the *Non-Unanimous Partial Stipulation and Agreement* in Case No. ER-2016-0285, the parties agreed to prospective tracking of regulatory assets and liabilities for KCPL and GMO.[79]

Pursuant to the stipulations in Case Nos. ER-2016-0156 and ER-2016-0285, Staff addressed in this audit the over collections and under collections of KCPL's and GMO's amortizations. The following amortizations are discussed in more detail in separate sections of Staff's Cost Of Service Report:

- 2011 Missouri River Flood Non-Fuel O&M – Staff Expert/Witness: Michael Jason Taylor
- 2011 Missouri River Flood Insurance Reimbursement–Staff Expert/Witness: Michael Jason Taylor
- Transource Missouri Account Review–Staff Expert/Witness: Keith Majors
- Demand Side Management Programs and Advertising Costs– Staff Expert/Witness: Michael Jason Taylor
- Surface Transportation Board Litigation– Staff Expert/Witness: Matthew Young
- LaCygne Obsolete Inventory– Staff Expert/Witness: Michael Jason Taylor
- Cost of Removal Deferred Income Tax– Staff Expert/Witness: Karen Lyons
- Wolf Creek Mid-Cycle Outage– Staff Expert/Witness: Michael Jason Taylor
- Wolf Creek Nuclear Refueling Outage 21– Staff Expert/Witness: Michael Jason Taylor
- Renewable Energy Standards– Staff Expert/Witness: Michael Jason Taylor
- Economic Relief Pilot Program– Staff Expert/Witness: Michael Jason Taylor
- Iatan 2 O&M Tracker– Staff Expert/Witness: Michael Jason Taylor
- Saint Joseph Ice Storm – Staff Expert/Witness: Michael Jason Taylor
- L&P "Phase-in" – Staff Expert/Witness: Michael Jason Taylor
- KCPL Lease Abatement– Staff Expert/Witness: Michael Jason Taylor
- Iatan 2 Regulatory Assets– Staff Expert/Witness: Matthew Young
- Emission Allowance– Staff Expert/Witness: Cary G. Featherstone
- Low Income Weatherization– Staff Expert/Witness: Michael Jason Taylor
- Excess Off-System Sales Margin Staff Expert/Witness: Karen Lyons

Staff Expert/Witness: Michael Jason Taylor

[79] Case No. ER-2016-0156, *Non-Unanimous Stipulation and Agreement* approved by the Commission on September 28, 2016 and Case No. ER-2016-0285 *Non-Unanimous Partial Stipulation and Agreement* approved by the Commission on March 8, 2017.

24. Amortization of the St. Joseph Ice Storm Liability (GMO Only)

In 2007, a significant ice storm struck the city of St Joseph, Missouri. St. Joseph, Missouri, is within the GMO territory formally known as the GMO L&P rate district. The Company filed an application with the Commission for an AAO in Case No. EU-2008-0233, to defer the incremental maintenance and operational costs resulting from the ice storm. The Commission granted the AAO and ordered a five-year amortization of the costs with the amortization ending in 2013. The January 9, 2013, Commission *Report and Order* in Case No. ER-2012-0175 approved a *Non-Unanimous Stipulation and Agreement as to Certain Issues* filed October 19, 2012, including the following provision:

> GMO's recovery of its five-year amortization for the L&P Ice Storm in December 2007 shall end on October 1, 2013, and to the extent GMO's L&P rate district rates from this case continue beyond that date, GMO shall "track" as a single issue the over- recovery of that amortization and adjust its revenue requirement for L&P in the following general electric rate case to return that "over-recovery" to its retail customers in its L&P rate district.

Consistent with the *Stipulation and Agreement* and Commission's *Report and Order*, GMO tracked the over collection of the ice storm amortization and included an annual amortization of the over-recovery in its cost of service in Case No. ER-2016-0156. In that case, Staff recommended an annual amortization of the over collection amount through July 2016, the true-up period in Case No. ER-2016-0156, based on a four-year period. The Commission approved a *Non-Unanimous Stipulation and Agreement* on September 28, 2016, that returns the over collection of the ice storm to GMO ratepayers over a four year period beginning with the effective date of rates, February 22, 2017.[80]

Since the *Non-Unanimous Stipulation and Agreement* accounted for over collections through July 2016, GMO continued to over collect this item from August 2016 through February 2017, the effective date of rates in Case No. ER-2016-0156. Staff recommends the over collection for the period of August 2016 through February 2017 be returned to ratepayers

[80] The effective date of rates in Case No. ER-2016-0156 was expected to be in December at the time the Non-Unanimous Stipulation and Agreement was approved by the Commission. As a result of the Consolidation of the GMO MPS and GMO L&P rate districts, the effective date of rates was delayed to February 22, 2017.

over a four-year period consistent with the over collection that occurred prior to August 2016. Staff's Adjustment (E-189.2) is included in Staff's Accounting Schedule 10.

Staff Expert/Witness: Michael Jason Taylor

25. <u>Regulatory Plan Additional Amortization (KCPL Only)</u>

The Commission authorized the Experimental Alternative Regulatory Plan Additional Amortizations in Case No. EO-2005-0329. In that case, the Commission approved a unique regulatory approach presented in a Stipulation and Agreement signed by KCPL and numerous parties, including The Office of the Public Counsel and Staff, which allowed KCPL certain accommodations to traditional ratemaking for pursuing what KCPL referred to as its "Comprehensive Energy Plan" ("CEP"). This experimental alternative regulatory plan (the "Regulatory Plan") resulted, among other things, in fostering the construction of Iatan 2. KCPL completed construction of this 850 megawatt pulverized coal-fired supercritical steam electricity generating unit, which KCPL declared met the in-service criteria of the Regulatory Plan on August 26, 2010.

In the Regulatory Plan, KCPL also committed to make significant environmental upgrades to LaCygne 1 and to Iatan 1, and to construct 100 megawatts of wind generation. KCPL satisfied the requirement to build wind generation by installing its Spearville Wind Farm in western Kansas, which was included in rates in 2007 in Case No. ER-2006-0314. The first phase of the environmental upgrades at LaCygne 1 was completed in 2007. KCPL's Missouri jurisdictional portion of the LaCygne 1 investment was included in KCPL's rate base in KCPL's 2007 rate case, Case No. ER-2007-0291. KCPL completed the extensive environmental upgrades to Iatan 1 in the first quarter of 2009. The Missouri jurisdictional part of KCPL's investment in those upgrades was primarily included in KCPL's rate base in KCPL's 2009 rate case (Case No. ER-2009-0089). KCPL completed Iatan 2 in August 2010 and the costs for this power plant and the remainder of the Iatan 1 upgrades were included in KCPL's 2010 rate case (Case No. ER-2010-0355).

The Additional Amortizations were an accommodation to traditional ratemaking to assist KCPL in maintaining certain financial ratios during a period of heavy construction. KCPL was permitted to calculate its revenue requirement using these cash flow ratios or financial benchmarks in order to provide KCPL with sufficient cash (earnings) to maintain certain

investment grade financial measures. In the Regulatory Plan, the signatory parties agreed to allow KCPL to include amounts in its rate cases referred to as "additional amortizations" which had the effect of increasing KCPL's cash flow through increased retail revenues. These additional amortizations were determined using a model set out in the Regulatory Plan.

The additional amortizations were an addition to the cost of service, and caused the rate increases resulting from each of the affected rate cases to be greater than the amount of the increase determined necessary using a traditional cost of service calculation.

The additional amortizations resulting from the 2006, 2007 and 2009 KCPL rate cases were cumulatively reflected in the revenue requirement calculation for KCPL. The rate cases and Commission-ordered additional amortizations in each follow stated on an annual basis:

Case No.	Additional Amortizations Ordered	Cumulative Additional Amortizations
Case No. ER-2006-0314	$21.7 Million	$21.7 Million
Case No. ER-2007-0291	$10.7 Million	$32.4 Million
Case No. ER-2009-0089	$10.0 Million	$42.4 Million

The accumulated additional amortizations amounts from those three rate cases have been included in each KCPL rate case since Iatan 2 became operational in 2010. In all KCPL rate cases completed since Iatan 2, the total additional amortizations amounts are included in Staff's cost of service determination for KCPL as an offset (reduction) to plant in service through the accumulated depreciation reserve. These amounts are reflected in Schedule 6—Depreciation Reserve.

In KCPL's 2010 rate case (Case No. ER-2010-0355), several parties, including KCPL and Staff, agreed to the on-going treatment for the additional amortizations in future rate cases. The Commission approved a Non Unanimous Stipulation and Agreement Regarding Depreciation and Accumulated Additional Amortizations that authorized the transfer of $146.7 million of accumulated additional amortizations to Accumulated Depreciation Reserve- Account 399 through May 3, 2011 – the date rates changed in Case No. ER-2010-0355. Since each state (Kansas and Missouri) had separate regulatory plans and collected the additional amortizations from each state's customers separately, all the additional amortizations collected

from KCPL's Missouri customers are identified on a Missouri jurisdictional basis. The amounts of the three additional amortizations from the three previous rate cases as of May 3, 2011, based on the Stipulation are:

ADDITIONAL AMORTIZATIONS RESULTING FROM REGULATORY PLAN— Case No. EO-2005-0329—Accumulated Reserve Amounts-Missouri Jurisdictional Basis		
Rate Case		**May 3, 2011**
Case No. ER-2006-0314		$94,120,782
Case No. ER-2007-0291		35,834,231
Case No. ER-2009-0089		16,748,858
TOTAL		**$146,703,871**

KCPL's Accumulated Depreciation Reserve Account 399—page 6, paragraph 7 of 2010 rate case Stipulation (ER-2010-0355), EFIS # 471

Aside from the additional amortizations from KCPL's Regulatory Plan, KCPL also had the benefit of an additional amortization from a Stipulation and Agreement the Commission approved on July 3, 1996, in Case No. EO-94-199. The Stipulation the Commission approved included a $3.5 million additional annual amortization amount. This additional amortization continued to accumulate each year until December 31, 2006, when rates changed from Case No. ER-2006-0314. The total accumulation of amortizations resulted in $36,674,731, booked in KCPL's Accumulated Depreciation Reserve-- Account 399 when it ended on December 31, 2006.

The totals of all these accumulated additional amortizations from the Regulatory Plan-- Case No. EO-2005-0329 and from Case No. EO-94-199 as of May 3, 2011 are shown as Missouri Jurisdictional amounts in the table continued on the next page:

	Total Missouri Jurisdictional Additional Amortizations
Case No.	**May 3, 2011**
Case No.EO-2005-0329	$146,703, 871
Case No. EO-94-199	36,674,731
TOTAL	**$183,378,602**

KCPL's Accumulated Depreciation Reserve Account 399—page 6, paragraph 7 of 2011 Stipulation (ER-2010-0355), EFIS #471

The total additional amortizations of $183.4 million are treated in this case, as they have been in each rate case since the 2010 rate case, consistent with the agreement approved in Case No. ER-2010-0355. The accumulated additional amortizations are specifically identified in the plant accounting record system for depreciation reserve. The additional amortizations were distributed to Iatan 2 accumulated reserve account numbers 311, 312, 314, 315 and 316 -- as specified in the agreement in the 2010 KCPL rate case as follows:

STIPULATION IN CASE NO. ER-2010-0355 FOR ADDITIONAL AMORTIZATIONS RESULTING FROM REGULATORY PLAN— Case No. EO-2005-0329—Accumulated Reserve Amounts-Missouri Jurisdictional Basis		
Account 311.070		**$19,240,688**
Account 312.070		**137,897,545**
Account 314.070		**19,135,918**
Account 315.070		**6,399,672**
Account 316.070		**704,779**
TOTAL		**$183,378,602**

Source: Staff EMS Run—Schedule 6—Accumulated Depreciation Reserve for Iatan 2 Plant

Transferring the Missouri jurisdictional additional amortization amounts to Iatan 2 depreciation reserve reduces KCPL's rate base for amounts collected from its customers during

the time of the Regulatory Plan. The agreement ensured that the additional amortizations collected from Missouri customers are used to lower customer rates through a reduction to rate base throughout the life of Iatan 2. As such, KCPL receives no return on investment through inclusion in rate base or return of investment through depreciation expense for the $184.3 million of Additional Amortizations for Iatan 2 plant throughout its life.

Staff Expert/Witness: Cary G. Featherstone

26. L&P Revenue Phase in Amortization (GMO Only)

In Case Nos. ER-2010-0356 and ER-2012-0024, the parties reached an agreement to allow the former GMO L&P rate district to recover ordered revenue through a "phase-in." In Case No. ER-2012-0174, the previous agreement for a revenue phase-in was terminated. The parties reached a new agreement that established a three-year amortization to allow the former GMO L&P recovery of the still unrecovered revenues, including carrying costs. The Commission approved the amortization on January 9, 2013, as part of the October 19, 2012, *Non-Unanimous Stipulation and Agreement as to Certain Issues*. The agreement for the amortization states:

> The phase-in of the rate increase in the L&P rate district that was the subject of Case Nos. ER-2012-0024 and ER-2010-0356 shall be terminated early and the unrecovered portion of the remaining increase plus carrying costs the Commission ordered be recovered shall be included in the revenue requirement for the L&P rate district in this case at the annual amount of $1,870,245. The annual amount of $1,870,245 is based on a three-year amortization of the unrecovered portion of the remaining increase plus carrying costs. **To the extent that GMO's general rates that include this annual amount for more than three years, GMO shall pro rate the annual amount by the time period beyond three years and shall reduce the revenue requirement upon which it bases its subsequent general electric rate increase to return that amount to its retail customers in its L&P rate district. [Emphasis added]**

In Case No. ER-2016-0156, Staff recommended an annual amortization of the over-collection amount through July 2016, the true-up period in Case No. ER-2016-0285, based on a four-year period, consistent with the agreement reached in Case No. ER-2012-0175. The Commission approved a Non-Unanimous Stipulation and Agreement on September 28, 2016,

that returns the over recovery of the revenue phase-in to GMO ratepayers over a four year period beginning with the effective date of rates, February 22, 2017.[81]

Since the Non-Unanimous Stipulation and Agreement accounted for the over recovery through July 2016, GMO continued to over collect this item from August 2016 through February 2017, the effective date of rates in Case No. ER-2016-0156. Staff recommends the over collection for the period of August 2016 through February 2017 be returned to ratepayers over a four (4) year period consistent with the over collection that occurred prior to August 2016. Staff's Adjustment (Rev – 17.1) is included in Staff's Accounting Schedule 10.

Staff Expert/Witness: Michael Jason Taylor

27. Allconnect Revenues and Expenses

On December 9, 2016, KCPL filed, in File No. ER-2016-0285, *Kansas City Power & Light Company's Notice of Termination of Transferring Missouri Customer Calls to Allconnect*, notifying Staff and the Commission of KCPL's and GMO's intent to discontinue transferring calls to Allconnect from their new or moving in Missouri customers effective January 1, 2017. This action followed the Commission's April 27, 2016, *Report and Order* in File No. EC-2015-0309. In EC-2015-0309, the Commission ordered all expenses and revenues associated with the Allconnect relationship to be brought "above the line" and included in regulated cost of service.

According to the response to Staff Data Request No. 359 in this case, the time charged by employees related to Allconnect has been re-prioritized to other regulated business activities, the plant and depreciation reserve associated with Allconnect has been transferred to non-utility plant, but Allconnect revenues remain in the test year. Staff recommends removal of the test year revenues related to Allconnect because there will be no Missouri transfer revenues going forward. Staff revenue Adjustment Rev-27.1 and Rev-27.1 in the KCPL and GMO costs of service, respectively, remove the test year Allconnect revenues.

Staff Expert/Witness: Keith Majors

[81] The effective date of rates in Case No. ER-2016-0156 was expected to be in December at the time the Non-Unanimous Stipulation and Agreement was approved by the Commission. As a result of the Consolidation of the GMO MPS and GMO L&P rate districts, the effective date of rates was delayed to February 22, 2017.

28. Common Use Plant Billings

Common use plant is plant recorded on the books of KCPL that can be used by affiliates of KCPL, including GMO. Common use plant billings are the monthly billings to affiliated entities of KCPL for the entities' use of KCPL's plant. KCPL charges its affiliates for the use of these assets. Included in the charge for common use plant is the impact of any capital additions KCPL has expended. An adjustment is necessary to annualize the amount of common use billings. Since common use plant is on the books of KCPL, the adjustment results in a reduction to KCPL's cost of service. Since GMO benefits from the use of KCPL's plant, the adjustment results in an increase to GMO's cost of service.

Staff's adjustments are identified on Schedule 10 of Staff's KCPL and GMO Accounting Schedules, Adjustment E-209.1 and E-151.1 respectively.

Staff Expert/Witness: Karen Lyons

29. Customer Information System (CIS)

KCPL has invested in excess of $118 million for a new customer information system ("CIS"), which went into service May 2018.[82] KCPL has declared this capital investment in service and has made the necessary accounting entries to reflect the costs to the proper plant accounts at end of May 2018. The CIS is a capital project and will be included in plant, increasing rate base for return on the investment and cost recovery through amortization. This system is a customer billing, information and interface program allowing payment and customer contact with KCPL's and GMO's customer service call center. The costs of the new customer service system will be included in the true-up ending June 30, 2018 and will be assigned to KCPL, split between its Kansas and Missouri customers, and GMO. The costs will be allocated approximately one third each between KCPL Kansas, KCPL Missouri, and GMO.

Staff Expert/Witness: Cary G. Featherstone

30. Transource Adjustments

KCPL and GMO have included in their direct revenue requirement filing three adjustments related to the *Stipulation and Agreement* reached by the parties and included in the

[82] Direct testimony of KCPL witness Forrest Archibald, page 15

Commission's *Report and Order* in File No. EA-2013-0098 ("Transource Missouri Case"). The adjustments include the Transource Missouri payment to GMO for transmission assets (Transource – GMO Deferred Asset Value), adjustments for the difference between Transource Missouri FERC revenue requirement and KCPL and GMO FERC revenue requirement (Transource – FERC Incentives), and an adjustment to return costs booked in the test year of File No. ER-2012-0175 to KCPL and GMO customers (Transource Account Review).

Transource – GMO Deferred Asset Value

The first adjustment addresses transmission assets that were previously included in GMO's rate base. On page 28, Appendix 4, of the Commission *Report and Order* in File No. EA-2013-0098, the Commission stated:

> Transource Missouri will pay GMO the higher of $5.9 million or net book value for transferred transmission assets, easements, and right-of-ways that have been previously included in the rate base and reflected in the retail rates of KCP&L and GMO customers. KCP&L and GMO agree to book a regulatory liability reflecting the value of this payment to the extent it exceeds net book value. This regulatory liability shall be amortized over three years beginning with the effective date of new rates in KCP&L's and GMO's next retail rate cases.

Through discussions with Company personnel and review of GMO's adjustment, Staff confirmed the adjustment is consistent with the Commission approved *Stipulation and Agreement* in File No. EA-2013-0098. Staff's adjustment for the annualized amortization of the Transource Missouri payment for transmission assets is identified on Schedule 9 of Staff's GMO Accounting Schedules, Adjustment E-189.1.

Transource – FERC Incentives

The second adjustment addresses Transource Missouri FERC authorized rate treatments and incentives. On page 28, Appendix 4, of the Commission *Report and Order* in File No. EA-2013-0098 the Commission stated:

> A. Rate Treatment – Affiliate Owned Transmission
> 1. With respect to transmission facilities located in KCP&L certificated territory that are constructed by Transource

Missouri that are part of the Iatan-Nashua and Sibley-Nebraska City Projects, KCP&L agrees that for ratemaking purposes in Missouri the costs allocated to KCP&L by SPP will be adjusted by an amount equal to the difference between: (a) the SPP load ratio share of the annual revenue requirement for such facilities that would have resulted if KCP&L's authorized ROE and capital structure had been applied and there had been no Construction Work in Progress ("CWIP") (if applicable) or other FERC Transmission Rate Incentives, including but not limited to Abandoned Plant Recovery, recovery on a current basis instead of capitalizing pre-commercial operations expenses and accelerated depreciation, applied to such facilities; and (b) the SPP load ratio share of the annual FERC-authorized revenue requirement for such facilities. KCP&L will make this adjustment in all rate cases so long as these transmission facilities are in service.

2. With respect to transmission facilities located in GMO certificated territory that are constructed by Transource Missouri that are part of the Iatan-Nashua and Sibley-Nebraska City Projects, GMO agrees that for ratemaking purposes in Missouri the costs allocated to GMO by SPP will be adjusted by an amount equal to the difference between: (a) the SPP load ratio share of the annual revenue requirement for such facilities that would have resulted if GMO's authorized ROE and capital structure had been applied and there had been no CWIP (if applicable) or other FERC Transmission Rate Incentives, including but not limited to Abandoned Plant Recovery, recovery on a current basis instead of capitalizing pre-commercial operations expenses and accelerated depreciation, applied to such facilities; and (b) the SPP load ratio share of the annual FERC authorized revenue requirement for such facilities. GMO will make this adjustment in all rate cases so long as these transmission facilities are in service.

The Transource Missouri Annual Transmission Revenue Requirement ("ATRR") reflects costs, such as inclusion of CWIP in rate base, that are not allowed to be recovered in retail rates in Missouri. In addition, Transource Missouri's FERC authorized return on equity is 50 to 100 basis points higher than KCPL's and GMO's MPSC authorized return on equity. KCPL and GMO performed an analysis to determine the differences between FERC and KCPL and GMO ratemaking for the projects at issue in File No. EA-2013-0098 in order to comply with the

Commission's *Report and Order* language quoted above. Staff reviewed KCPL's and GMO's proposed adjustment and recommends it be revised in various respects to make it consistent with the Commission's *Report and Order* in File No. EA-2013-0098.

Staff's recommended changes are as follows:

- Cost of debt – differences in the assumed cost of long term debt do not result from FERC Transmission Rate Incentives, and therefore should not be included in the difference calculation
- Federal income tax rate – Staff calculated the adjustment based on the current federal income tax rates effective January 1, 2018.

Staff's adjustment for the difference of costs allocated to KCPL and GMO by SPP and the costs based on KCPL's and GMO's authorized return on equity is identified on Schedule 9 of Staff's KCPL and GMO Accounting Schedules, Adjustment E-130.2 and E-85.4, respectively.

Transource Account Review

The third adjustment reflects an amortization of costs that should have been charged to Transource Missouri but were retained on the regulated books of KCPL and GMO for the test year period in File No. ER-2012-0175, 12 months ending September 2011. This regulatory liability included the following costs:

- Labor – Labor charges of all the project participants were reviewed.
- Non-Labor – All invoices were reviewed for the vendors who supported the Transource project.
- Expense Reports – Expense reports of the Transource project participants were reviewed.
- Facilities Allocation – A portion of common facilities was allocated to the Transource project.

This amortization will end prior to the effective date of rates in this case for KCPL. Staff recommends the removal of the amortization. Staff's adjustment to remove the amortization of these costs is identified on Schedule 9 of Staff's KCPL Accounting Schedules, Adjustments E-203.18 and E-211.1.

For GMO, this amortization will end in February 2020. The test year in this case includes a partial year of amortization. Staff Adjustments E-149.1 and E-154.1 in the GMO Accounting Schedules annualize this amortization.

Staff Expert/Witness: Keith Majors

VII. Depreciation

A. Proposed Depreciation Rates

The Commission ordered the current depreciation rates for KPCL in the Report and Order in Case Number ER-2016-0285. The Commission ordered the current depreciation rates for GMO in Case Number ER-2016-0156 through approval of the Non-Unanimous Stipulation and Agreement. In the current cases, KCPL and GMO have proposed no changes to the rates of either KPCL or GMO. In addition, KCPL and GMO have not filed any new depreciation studies with the requests for rate increases. For these reasons, Staff proposes no changes to the depreciation rates.

B. Vehicle Charging Stations

In the Report and Order issued in Case Number ER-2016-0285, the Commission ruled that electric vehicle charging stations are not regulated assets, and are therefore not included in plant. By default, this ruling also implies that the cost of electric vehicle charging stations should not be covered by ratepayers because electric vehicle charging stations are not regulated property.

KPCL and GMO are currently proposing to include electric vehicle charging stations in a new plant subaccount – Account 371.01 – and to depreciate the assets in this account at a rate of 10%. Staff is not proposing a depreciation rate for these assets because the Commission has ruled that EV charging stations do not qualify as electric plant.[83] In the event the Commission reverses its order and decides to include electric vehicle charging stations in rate base, Staff currently has no reason to oppose the 10% depreciation rate.

C. CIS Amortization

KCPL and GMO are currently proposing to employ a 15-year amortization of the CIS Software that has recently been placed into service. Staff finds a 15-year life to be reasonable, and is therefore unopposed to a 15-year amortization of the CIS project costs.

D. Additional Annual Amortization for GMO

In GMO's last general rate case, Case No. ER-2016-0156, the Non-Unanimous Stipulation and Agreement approved by the Commission included an amortization amount of $7.2 million in addition to the approved depreciation expense. The language describing the

[83] Report and Order, Case No. ER-2016-0285, page 45.

additional amortization, as it is recorded in the Non-Unanimous Stipulation and Agreement, is as follows: "In addition to the attached schedule, GMO shall be allowed to collect an annual amortization amount equal to $7.2 million. This additional amortization shall be booked and accounted for on an annual basis until GMO's next general electric rate case. In GMO's next filed rate case the Commission will determine the distribution of the additional amortization. The balance will be used to cover any deficiencies in reserves across production, transmission and distribution accounts. Any undisturbed balance will be used as an offset to future rate base. This amortization is for purpose of settlement of this case only and does not constitute an agreement as to the methodology or a precedent for any future rate case."

Staff in this case recommends ceasing collection of the additional amortized expense of $7.2 million. The language provided in the Stipulation indicates the amount is to be collected until GMO's next rate case. In addition, Staff recommends the Commission wait until the next filed general rate case (at which time the Company has committed to submitting a new depreciation study of plant assets)[84] to consider the collected amortized amount for distribution to plant accounts.

Staff Expert/Witness: Stephen Moilanen

VIII. Current and Deferred Income Tax

A. Current Income Tax

Current income tax for this case has been calculated by Staff, generally consistent with the methodology used in KCPL's and GMO's previous rate cases; however, in this case there will be some differences due to the recent tax reform. On December 22, 2017, the federal Tax Cuts and Jobs Act ("TCJA") was signed into law, and took effect on January 1, 2018. Staff addressed known changes in the tax law as part of Staff's recommended normalized taxes in this case.

To calculate income tax expense, Staff adjusts the utility's net operating income before taxes by adding to or subtracting from net income various timing differences, in order to obtain net taxable income for ratemaking purposes. These "add back" and/or subtraction adjustments are necessary to identify new amounts for the tax deductions that are different from those levels

[84] Direct Testimony of Ronald A. Klote, Case No. ER-2018-0146, Page 39, Lines 6-9.

reflected in the income statement as revenues or expenses. The adjustments are the result of various book versus tax timing differences and the effect of such differences under separate tax ratemaking methods, i.e., flow-through versus normalization. A tax timing difference occurs when the timing used in reflecting a cost (or revenue) for financial reporting purposes (book purposes) is different than the timing required by the IRS in determining taxable income (tax purposes). Current income tax reflects timing differences consistent with the timing required by the IRS. The tax timing differences used in calculating taxable income for computing current income tax for KCPL are as follows:

Add Back to Operating Income Before Taxes:

- Book Depreciation Expense
- 50% Business Meals
- Book Nuclear Fuel Amortization
- Book Amortization Expense

Subtractions from Operating Income:

- Interest Expense - Weighted Cost of Debt multiplied by Net Rate Base
- IRS Accelerated Tax Depreciation
- IRS Nuclear Fuel Amortization
- IRS Tax Return Plant Amortization
- Employee 401k ESOP Deduction

Subtractions - Federal Income Tax Credit:

- Wind Production Tax Credit
- Research and Development Tax Credit

The tax timing differences used in calculating taxable income for computing current income tax for GMO are as follows:

Add Back to Operating Income Before Taxes:

- Book Depreciation Expense
- Plant Amortization Expense
- 50% Business Meals

Subtractions from Operating Income Before Taxes:

- Interest Expense (Weighted Cost of Debt x Rate Base)
- IRS Accelerated Tax Depreciation
- IRS Tax Return Plant Amortization

The tax normalization method defers for ratemaking purposes the deduction taken for tax purposes for certain tax timing differences. The effect of the use of tax normalization is to allow

utilities the net benefit of certain net tax deductions for a period of time before those benefits are passed on to the utility's customers in rates. Alternately, the flow-through tax method essentially provides for the same tax deduction taken as a deduction for ratemaking purposes as is taken for tax purposes. Under either the tax normalization or tax flow-through approach, the resulting net taxable income for ratemaking is then multiplied by the appropriate federal, state, and city tax rates to obtain the current liability for income taxes.

Based on the TCJA, a new corporate federal tax rate of 21 percent was applied, as well as the ongoing state income tax rate of 6.25 percent, in order to calculate the KCPL and GMO current income tax liability. The difference between the calculated current income tax provision and the per book income tax provision is the current income tax provision adjustment. Staff's recommended level of current income taxes for KCPL and GMO is on Staff's Accounting Schedule 11.

Staff Expert/Witness: Karen Lyons

B. Kansas City Earnings Tax

Additionally, Staff normalized the Kansas City, Missouri earnings tax in this rate case. The Kansas City earnings tax is also impacted by the 2018 tax reform. For the period of 2014-2016 GMO has not paid any Kansas City earning taxes. KCPL did not pay Kansas City earnings tax in 2014 and 2015, but did incur costs in 2016. The actual amount of 2017 Kansas City earnings tax will not be available until October 2018. Staff understands that the level of Kansas City earnings tax paid by KCPL and GMO will likely be impacted by the discontinuation of bonus depreciation and its impact on taxable income for federal income tax purposes. However, the impact of the 2018 tax reform on the Kansas City earnings tax is uncertain, therefore, Staff recommends including an annual level of expense based on the actual amounts paid by KCPL and GMO in 2016. Staff's adjustment for KCPL's and GMO's Kansas City earnings tax is reflected in Staff's Accounting Schedule 10 – Income Statement, Adjustment E-268.1 and E-197.1.

Staff Expert/Witness: Karen Lyons

C. Accumulated Deferred Income Taxes ("ADIT")

KCPL's and GMO's deferred tax reserve represents, in effect, a net prepayment of income taxes by the company's customers in rates prior to actual payment to the taxing authorities by KCPL and GMO. For example, KCPL and GMO are allowed to deduct from taxable income, depreciation expense on an accelerated basis for income tax purposes. As a result, depreciation expense used to determine income taxes paid by KCPL and GMO for federal and state income taxes is considerably higher than the depreciation expense used for rate making purposes. This results in what is referred to as a "book-tax timing difference," and creates a deferral of income taxes to be paid in the future by KCPL and GMO. These deferred income taxes are accumulated in a liability account in both KCPL's and GMO's accounting records as accumulated deferred income tax reserve. The net credit balance in the deferred tax reserve represents a source of cost-free funds. Therefore, KCPL's and GMO's rate bases are reduced by the deferred tax reserve balances since customers have essentially paid those income taxes in advance—a prepayment. This treatment of reducing rate base for the deferred taxes of each company recognizes that ratepayers do not have to provide shareholders a return on the portion of rate base that is provided cost-free to the company. Since the expense recognized for depreciation is considerably lower for accounting and ratemaking purposes than for income tax purposes, KCPL and GMO customers are normally required to pay higher costs for income taxes in rates than each company will actually pay to the IRS. The difference in income tax paid to the IRS and those paid in utility rates are "accumulated" to recognize the future tax liability that will eventually be paid to the IRS. During the time KCPL and GMO retains the benefit of these tax deferrals, they will be used as an offset to rate base.

On December 22, 2017, the federal Tax Cuts and Jobs Act of 2017 ("TCJA" or the 2018 Tax Reform) was signed into law and took effect on January 1, 2018. As part of this tax reform, there are several impacts to the energy sector; some of which may not be fully known or quantifiable at this time. One of the main provisions of the 2018 Tax Reform was a reduction to the corporate income tax rate from 35% to 21%. This reduction in the corporate income tax rate had a significant impact on the determination of federal and state income taxes. The tax rate reduction, by extension, impacts deferred income taxes as well. Deferred income taxes were generated or created at the higher income tax rate in effect at that time. With the recent reduction to this tax rate, deferred taxes will have to be adjusted as those benefits are "flowed"

back to customers over the life of the assets giving rise to the deferred taxes. This is a known impact on KCPL's and GMO's deferred income tax balances because the deferred taxes reflected on KCPL's and GMO's books through December 31, 2017, were calculated assuming a 35% federal tax rate. These recorded deferred taxes were in effect a prepayment of income tax, creating interest free funds that the companies can use. For that reason, as discussed above, the net balance of deferred taxes is reflected in utility cost of service as a reduction to rate base. However, any deferred taxes generated beginning January 1, 2018, will be recorded at the new 21% tax rate. In addition, any deferred taxes remaining on KCPL's and GMO's books that were recorded assuming a 35% federal corporate tax rate will actually be paid by KCPL and GMO under the new 21% federal corporate tax rate. This means that KCPL's and GMO's accumulated deferred tax reserves are now overstated, and the excess deferred tax amount (the difference between the deferred tax amounts calculated using a 35% rate and a 21% rate) should be flowed back to ratepayers in rates as a reduction to cost of service over time. The timing of the amortization for the flow back of these deferred taxes is determined by the extent to which the deferred taxes are considered "protected" and "unprotected."

The IRS has very specific requirements on the treatment of certain deductions it allows corporations. One such requirement is a restriction on how the tax deductions from various methods of accelerated depreciation, which generates deferred taxes, are to be reflected in the ratemaking process. The IRS restricts immediate recognition of the accelerated depreciation in utility rates. This restriction is referred to as a "protected" deduction. The IRS requires that the accelerated depreciation not be "flowed-through" to customers at the time utilities recognize the deduction but over the life of the assets. The difference in deductions determined through the accelerated depreciation methods and the deductions in rates generate the accumulated deferred tax balances. These are "protected" by the IRS code. The protected deferred taxes relate to "method and life" timing differences,[85] for example accelerated depreciation tax timing differences, while the unprotected deferred taxes are associated with tax timing differences other than those resulting from accelerated depreciation deductions. Staff's understanding is that the protected deferred taxes must be flowed back to customers in rates no quicker than over the estimated average remaining life of the assets that created the deferred taxes under current tax normalization requirements.

[85] Case No. ER-2018-0145 Staff Data Request 239

In Staff's accounting schedules for its direct filing, Staff reflected the deferred tax balance as of December 31, 2017, for the update period as a reduction to rate base, including the full amount of excess deferred taxes not yet returned to customers.

Staff recommends that KCPL and GMO defer an amortization of excess deferred taxes for the period beginning January 1, 2018, both protected and unprotected, in a regulatory liability for consideration in a subsequent rate case. If all, or some part, of the excess deferred taxes can be quantified accurately within the scope of this case, Staff further recommends that the amortization of excess deferred taxes be reflected in rates in this case. In that event, Staff recommends that the protected excess deferred taxes are flowed back to KCPL and GMO ratepayers based on an estimated average remaining life of the assets giving rise to the deferred taxes, and the unprotected excess deferred taxes be flowed back to KCPL and GMO customers over a ten year period.

Staff Expert/Witness: Karen Lyons

D. Deferred Income Taxes - Crossroads (GMO Only)

Pursuant to the Commission's *Report and Order* in Case No. ER-2012-0175, Staff has reduced the amount of deferred taxes related to the Crossroads combustion turbines. The net amount of deferred taxes is based on the Commission ordered value of Crossroads. This value, and the associated adjustments to GMO's books and records, is further discussed by Staff witness Cary G. Featherstone in the Crossroads Section of this Report. The reduction to deferred taxes is in Staff's Accounting Schedule 2 – Rate Base.

Staff Expert/Witness: Karen Lyons

E. ADIT on Construction Work In Progress ("CWIP")

KCPL and GMO record ADIT that is associated with the CWIP reflected on its books and records. This ADIT represents a free source of capital funds available for use by the utility before the construction project is completed and included in plant-in-service. CWIP is excluded from the rate base on which KCPL and GMO earns a return in the ratemaking process. Although CWIP is not included in rate base, KCPL and GMO are allowed to earn an Allowance for Funds Used During Construction ("AFUDC") deferred return before the property under construction is added to rate base. AFUDC is accrued during the construction of the asset and included in rate base when the plant is placed into service. The amount of AFUDC is included in depreciation

expense and rate base over the life of the plant. For the calculation of AFUDC, there is no consideration for ADIT as a reduction to the base on which it is calculated; the AFUDC is calculated on the "gross" amount, with no consideration of ADIT.

Utilities have argued that it is inappropriate to reduce rate base for ADIT associated with CWIP balances, when the CWIP amounts are not included in rate base. However, the Commission has found to the contrary recently. Reducing rate base by the amount of ADIT on CWIP was an issue decided by the Commission in a past Ameren Missouri general rate case, Case No. ER-2012-0166. On page 30 of its *Report and Order* in that case, the Commission stated why this treatment is appropriate:

> In other words, failure to recognize the CWIP-related ADIT balance in the company's rate base will overstate the companies AFUDC costs and future rate base, essentially allowing the company to earn AFUDC and a return on capital supplied by ratepayers…
>
> …As fully explained in the findings of fact, Ameren Missouri must include CWIP-related ADIT balances as an offset to rate base to avoid overstating AFUDC and future rate base, to the detriment of both current and future ratepayers.

On page 79 of its Report and Order in Case No. ER-2014-0370, the Commission affirmed its treatment of ADIT on CWIP:

> KCPL asserts that its situation is different than that of the utility at issue in File No. ER-2012-0166 because KCPL has a net operating loss and, as a consequence, KCPL has more deductions than it has revenues during the applicable period, so it has not and will not receive a cash tax benefit. However, KCPL ratepayers provide fully-normalized income taxes in cost of service regardless of whether KCPL pays those taxes concurrently to the IRS. Even if KCPL is not realizing all the benefits of accelerated depreciation due to a net operating loss position, it does not invalidate the fact that ratepayers are providing several million dollars in cash income taxes. The Commission concludes that the amount of ADIT related to CWIP should be an additional reduction to KCPL's rate base.

Therefore, Staff recommends the amount of ADIT associated with CWIP as of December 31, 2017, be used as an additional reduction to KCPL's and GMO's rate base, similar to other amounts of ADIT. The amount of ADIT on CWIP is listed as a reduction to rate base on Schedule 2 – Rate Base, in Staff's Accounting Schedules.

Staff Expert/Witness: Karen Lyons

IX. Jurisdictional Allocations

Jurisdictional allocation refers to the process by which demand-related and energy-related costs are allocated to KCPL's and GMO's applicable jurisdictions. KCPL and GMO incur costs in the course of providing service to their retail customers, which must be passed on to those customers through associated applicable rates. However, both KCPL and GMO have retail and wholesale customers. In addition, KCPL has customers in both Missouri and Kansas. Retail sales in Missouri, retail sales in Kansas, and wholesale sales under the jurisdiction of the FERC, are described as sales in three separate "jurisdictions." A portion of the costs incurred to serve a particular jurisdiction may be directly assignable to that jurisdiction; however, other costs may not. Those costs are instead allocated among the various corresponding applicable jurisdictions. Costs that vary with energy consumption, i.e. "variable costs" - such as fuel and purchased power - are denoted as "energy-related." Costs that do not vary with energy consumption, i.e. "fixed-costs" - such as capital costs associated with generation and transmission plant - are denoted as "demand-related." Different allocation factors are developed and utilized for each.

Staff Expert/Witness: Alan J. Bax

A. Methodology

1. Demand Allocation Factor

Demand refers to the rate at which electric energy is delivered to a system to match the requirements of its customers, generally expressed in kilowatts ("kWs") or megawatts ("MWs"), either at an instant in time or averaged over a specified time interval. System peak demand is the largest electric requirement that occurs within a specified period of time, (e.g. hour, day, month, season, and year) on a utility's system. Since generation units and transmission lines are planned, designed, and constructed to meet a utility's anticipated system peak demands, plus required reserves, the contribution of each of KCPL's three jurisdictions: Missouri Retail, Kansas Retail, and Wholesale Operations, and GMO's two jurisdictions: Missouri Retail and Wholesale Operations, coincident to the respective system's peak demand, i.e., each individual jurisdiction's demand at the time of the corresponding system peak, is the appropriate basis on which to allocate the costs of these facilities. Thus, the term coincident peak ("CP") refers to the load, generally in kWs or MWs, in each of the applicable jurisdictions

that coincide with KCPL's and GMO's corresponding overall system peak recorded for the time period in the respective analyses.

Staff is utilizing a Four Coincident Peak ("4 CP") methodology in its determination of demand allocation factors for KCPL and GMO. Staff's 4 CP is based on the monthly seasonal coincident peaks of the four summer months in calendar year 2017, a period of time included within the update period of these rate cases. The 4 CP method has been used in each of the recent rate cases filed by KCPL[86] and GMO[87]. The 4 CP method is appropriate for utilities such as KCPL and GMO that experience dominant seasonal demands in the four summer months (June through September) relative to the demands in the other eight months of a calendar year. A utility that experiences a needle peak in a particular month may consider utilizing a 1 CP method. Comparatively, a utility that experiences similar hourly peaks in both winter and summer months might employ the 12 CP method. The monthly demands reported for the calendar months included in the test year and update period for the current cases are consistent with the monthly demands in the reporting periods associated with the noted recent rate cases involving KCPL and GMO.

Staff determined the demand allocation factor for each applicable jurisdiction for KCPL and GMO using the following process:

a. Identify KCPL's or GMO's system peak hourly load in each month for the four month period June 2017 through September 2017 and sum these hourly peak loads.

b. Sum the particular applicable jurisdiction's corresponding loads for the hours identified in a. above.

c. Divide b. by a. above.

The resultant ratios are the allocation factors for each applicable jurisdiction. The respective KCPL and GMO jurisdictional demand allocation factors are calculated as follows:

KCPL:

Missouri Retail Jurisdiction:	0.5276
Kansas Retail Jurisdiction:	0.4709
Wholesale Jurisdiction:	0.0015
Total:	1.0000

[86] ER-2006-0314, ER-2007-0291, ER-2009-0089, ER-2010-0355, ER-2012-0174, ER-2014-0370, and ER-2016-0285.
[87] ER-2009-0090, ER-2010-0356, ER-2012-0175, and ER-2016-0156

GMO:

Missouri Retail Jurisdiction:	0.9966
Wholesale Jurisdiction:	0.0034
Total:	1.0000

2. Energy Allocation Factor

Variable expenses, such as fuel and purchase power, are allocated to the corresponding jurisdictions based on energy consumption. The energy allocation factor for an individual jurisdiction is the ratio of the normalized annual kilowatt-hour ("kWh") usage in the particular jurisdiction, during the 12-month test year period of these cases July 2016 – June 2017, to the respective KCPL or GMO total system normalized kWh. Staff applied adjustments to these kWhs to account for losses, anticipated growth, and certain annualizations. Staff witness Seoungjoun Won, Ph.D., provided the weather adjustments. Staff witnesses Antonija Nieto and Kim Cox provided the adjustments for customer growth and certain annualizations respectively.

Staff has calculated the following energy allocation factors for the aforementioned applicable jurisdictions, for both KCPL and GMO, utilizing kWh usage data in the test year July 2016 – June 2017:

KCPL:

Missouri Retail Jurisdiction:	0.5660
Kansas Retail Jurisdiction:	0.4324
Wholesale Jurisdiction:	0.0016
Total:	1.0000

GMO:

Missouri Retail Jurisdiction	0.9962
Wholesale Jurisdiction:	0.0038
Total:	1.0000

These jurisdictional demand and energy allocation factors were provided to Staff witness Cary G. Featherstone to allocate related costs to the respective applicable jurisdictions for both KCPL and GMO.

Staff Expert/Witness: Alan J. Bax

B. Application

As stated above, KCPL operates within two state jurisdictions, Missouri and Kansas, and in the wholesale jurisdiction regulated by the FERC. GMO operates in Missouri and FERC jurisdictions. In order to develop the cost of service runs for KCPL and GMO, the allocation factors discussed above were applied to the various FERC accounts for plant (accounting Schedule 3), reserve (Accounting Schedule 6) and the income statement (Accounting Schedule 9).

Therefore, it is necessary to identify, then allocate and/or assign, KCPL's specific investments and costs among KCPL's three jurisdictions and GMO's two jurisdictions. To identify KCPL's and GMO's revenue requirement, Staff must develop both entities' cost of service for the Missouri retail jurisdiction. To do that, KCPL's and GMO's plant investments and costs in their income statements must be appropriately assigned or allocated to the Missouri retail jurisdiction.

To develop KCPL's and GMO's cost of service for its Missouri retail jurisdiction, Staff began with each of companies' records kept in accordance with FERC accounting requirements per Commission rule. Where these records reflected costs or investments that KCPL and GMO incurred solely to serve the Missouri retail jurisdiction, Staff directly assigned those costs or investments to each Missouri jurisdictional cost of service. However, when it was not appropriate to directly assign costs or investments, Staff allocated those costs using either a demand allocation factor or an energy allocation factor, depending upon whether the investment or cost is more related to demand or energy.

KCPL and GMO use their generation and transmission facilities to produce and transport electricity to their customers; in the case of KCPL, to its Missouri retail customers, Kansas retail customers, and wholesale customers (FERC jurisdiction), and in the case of GMO, to its Missouri retail customers and wholesale customers. Because these facilities are demand-related, Staff allocated KCPL's and GMO's costs and investments in these facilities, as well as the related depreciation reserve accounts, to each of the states' jurisdiction and the federal jurisdiction using the demand allocator. Since KCPL and GMO both are a four summer month peaking utility, Staff used the 4 coincident peak ("4 CP") method to develop the Missouri retail jurisdiction, Kansas retail jurisdiction, and wholesale jurisdiction demand allocators for KCPL and GMO's Missouri jurisdiction.

Staff has consistently used the 4 CP method to develop the KCPL demand allocators since KCPL's 1985 Wolf Creek rate case, including each of the four KCPL Regulatory Plan rate cases filed with the Commission and the subsequent 2012 and 2014 rate cases.[88] Staff has also used the 4 CP method of allocation for GMO.

For KCPL, the Commission has approved the use of the 4 CP method to allocate joint investment costs and expenses since the 1985 Wolf Creek rate case. The Commission decided the use of the 4 CP method was proper again in 2006 KCPL rate case.[89]

1. Distribution Plant Investment

In its records kept in accordance with FERC accounting requirements, KCPL and GMO separately account for investment in distribution plant located in each of the jurisdictions (Kansas and Missouri for KCPL and Missouri only for GMO). Plant identified in this way is referred to as site specific or *situs* plant. Staff used KCPL's and GMO's actual distribution plant investment in Missouri at December 31, 2017, to develop site specific allocation factors to allocate the total company distribution plant and reserve amounts to quantify only the distribution plant and reserve amounts specific to each of the Missouri retail jurisdictions. This is consistent with how KCPL and GMO treated distribution plant in their rate cases.

2. General Plant Allocation

Staff created the Missouri retail jurisdictional allocation factor for general plant investment, and related costs, based on a composite of its demand allocation factor used for production and transmission plant and distribution plant using the site specific allocation factors. Staff applied the demand allocation factor used to quantify the Missouri retail jurisdictional share of KCPL's and GMO's production and transmission costs and the site specific allocation factor used to allocate an appropriate part of each companies' distribution plant and reserve amounts to KCPL's and GMO's Missouri retail jurisdiction. Staff used the resulting production plant and depreciation reserve amounts and distribution plant costs allocated to KCPL's and GMO's Missouri retail jurisdiction to form the basis for allocating their general plant to its Missouri retail jurisdiction. Thus, Staff's Missouri retail jurisdiction allocation factor for the general plant

[88] The four rate cases filed under the Experimental Regulatory Plan authorized by the Commission in Case No. EO-2005-0329 are Case Nos. ER-2006-0314, ER-2007-0291, ER-2009-0089, and ER-2010-0355 and the last KCPL two rate cases, ER-2012-0174 and ER-2014-0370.

[89] *In the Matter of the Application of Kansas City Power & Light Company for Approval to Make Certain Changes in its Charges for Electric Service to Begin the Implementation of its Regulatory Plan,* Case No. ER-2006-0314, (*Report and Order,* filed December 21, 2006, page 74).

is based on a composite of the Missouri retail jurisdiction allocation factors Staff developed for production, transmission and distribution plant costs. Staff used this composite general plant allocation factor to allocate to Missouri retail jurisdiction what are described in KCPL's and GMO's income statement (Staff Accounting Schedule 9) as "general" costs.

3. Allocations of Expenses

Using the principle that expenses (costs) should follow plant investment, Staff used the same jurisdictional allocation factors it developed to allocate investment to allocate expenses related to that investment. The FERC expense accounts found in KCPL's and GMO's income statements (reproduced as Schedule 9 in Staff's Accounting Schedules) include amounts for costs broadly described as production, transmission, distribution, general, and administrative and general ("A&G"). Using the expense accounts found in the income statements, this principle that expenses should follow plant investment is appropriate because KCPL and GMO incur production (generation) plant expenses to maintain and operate their generation facilities. As such, it is proper to use the same jurisdictional allocator to allocate production plant expenses that is used to allocate its investment costs in the generating facilities. Similarly, costs are incurred to operate transmission facilities. These expenses are allocated to maintain and operate the transmission facilities and, therefore, it is appropriate to use the same jurisdictional allocator to allocate transmission expenses that is used to allocate investment costs in transmission facilities.

4. Other Costs Allocations

Staff also used a variety of jurisdictional allocation factors to allocate the appropriate part of administrative and general costs found in the income statement (Staff Accounting Schedule 9), to KCPL's and GMO's Missouri retail jurisdictions. Staff relied on KCPL and GMO for these allocation factors. Some of these allocation factors are based on the number of KCPL and GMO customers in each jurisdiction. Some are based on the number of KCPL employees working in each jurisdiction. Each specific account had a specific allocation factor that Staff used to allocate the appropriate cost to the Missouri retail jurisdictions.

5. Energy and Demand Allocations

Staff used the energy allocation factor to allocate costs to the Missouri retail jurisdiction that are considered to vary directly with electricity usage. For example, in response to increased demand for electricity in a particular hour, KCPL must either buy or generate more electricity,

causing one or more of its fuel and purchased power costs to increase. In contrast, costs such as fixed to operate power plants or capacity or demand charges on a purchased power contract are constant, regardless of the demand for electricity in a given non-peak hour and, therefore, are allocated using the demand allocator.

The demand portion of capacity agreements are assigned or allocated to the jurisdictions using the demand allocator. However, energy sold or purchased using that capacity is a variable cost and is allocated to the jurisdictions with energy allocation factors. The rationale for the demand portion of a capacity purchase or sale agreement is to recover the costs of the facilities that underlie these transactions. For example, if KCPL sells capacity under a firm purchased power agreement, a commitment is made to have necessary generating commitment in place that is dedicated to meeting the load requirements of the customer to whom it is selling the capacity. The demand portion of a capacity sale can be thought of as the recovery of the costs of generating assets used to provide electricity to the buyer of power. Similar to when it sells capacity, when KCPL purchases capacity to assure it can meet its system load requirements with energy, it will pay a demand charge (payment) to the seller.

In March 2014, SPP implemented an integrated market to dispatch generation to meet the system load requirements for all its members. However, for purposes of presenting this rate case, Staff has developed KCPL's and GMO's revenue requirement on the assumption that the Missouri-allocated portions of all of KCPL's generation facilities are primarily used to produce electricity for KCPL's and GMO's retail customers. Accordingly, Staff's assumption is that KCPL and GMO meet their native load with the same generating plant and transmission plant that they use to generate and transport electricity to make off-system sales— sales to firm and non-firm customers in the bulk power markets (off-system sales). Staff uses the energy allocation factor to allocate energy (variable) costs of fuel and purchased power that are assumed to be incurred to meet system load requirements of both companies' native load customers. Staff also used the same energy factor used to allocate the variable costs incurred to meet retail load requirements for Missouri retail customers to allocate KCPL's and GMO's revenues and energy costs that are assumed to be incurred to make off-system sales to its Missouri retail jurisdiction. Since the non-firm, off-system sales market is made up of short-term sales, Staff assumes that KCPL does not reserve dedicated generating capacity for these sales. Traditionally, non-firm off-system sales have been allocated using the energy allocation factors since the costs of making

these sales are variable in nature, primarily being the cost of the fuel used to generate the electricity sold. As more megawatts are sold, more fuel is consumed or power purchased and, therefore, the higher the fuel cost or the purchased power cost. These costs vary directly with the megawatt hours sold or purchased and, thus, using the energy allocation factors is proper. Staff has used energy allocation factors to allocate off-system sales to KCPL's Missouri retail jurisdiction in each of KCPL's rate cases during its Regulatory Plan and in the 2012, 2015, and 2016 rate cases. Historically, Staff has also used the energy allocation factors to allocate off-system sales revenues to the Missouri retail jurisdiction of The Empire District Electric Company and for setting retail rates in GMO's many rate cases, dating back to at least the 1990s.
Staff Expert/Witness: Cary G. Featherstone

X. Fuel Adjustment Clause ("FAC")

A. FAC - Policy

In summary, Staff makes the following recommendations regarding KCPL's Fuel Adjustment Clause ("FAC") and GMO's FAC to the Commission:

1. Continue GMO's FAC and KCPL's FAC with modifications;
2. Continue to include one Base Factor in the FAC tariff sheets for KCPL and one Base Factor in the FAC tariff sheets for GMO, calculated from the Net Base Energy Cost[90] that the Commission includes in the revenue requirement upon which it sets GMO's and KCPL's general rates in this consolidated case;
3. Clarify that the only transmission costs that are included in KCPL's FAC are those that KCPL incurs for purchased power and off-system sales ("OSS");
4. Clarify that the only transmission costs that are included in GMO's FAC are those that GMO incurs for purchased power and off-system sales ("OSS") excluding any and all transmission costs related to GMO's Crossroads Generating plant;
5. Order GMO to exclude any and all transmission costs related to its Crossroads generating plant from its FAC;

[90] Net Base Energy Cost is defined in GMO's 4th Revised Sheet No. 127.10 as Net base energy costs ordered by the Commission in the last general rate case consistent with the costs and revenues included in the calculation of the FPA".

6. Order KCPL to continue to provide the additional information as part of its monthly reports;[91] as KCPL was ordered[92] to do in Case No. ER-2016-0285; and has continued to provide in its FAC monthly reports;
7. Order GMO to continue to provide the additional information as part of its monthly reports as GMO was ordered[93] to do in Case No. ER-2016-0156 and has continued to provide in its FAC monthly reports.

Staff Witness/Expert: Brooke M. Richter and Catherine F. Lucia

1. History

a. GMO

The Commission first authorized a FAC for GMO in its *Report and Order* in GMO's 2007 general electric rate proceeding (Case No. ER-2007-0004) for GMO's two rate districts, then called Aquila Networks-MPS and Aquila Networks-L&P, with the original FAC tariff sheets becoming effective July 5, 2007. In GMO's subsequent electric rate cases, Case Nos. ER-2009-0090, ER-2010-0356, ER-2012-0175, and ER-2016-0156, the Commission authorized continuation with modifications of GMO's FAC. The primary features of GMO's present FAC (tariff sheets numbered 127.1 through 127.12) include:

- Two 6-month accumulation periods: June through November and December through May;
- Two 12-month recovery periods: March through February and September through August;
- Two fuel adjustment rate ("FAR") filings annually not later than January 1 and July 1;
- A 95%/5% sharing mechanism;
- 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

[91] Monthly reports are required by 4 CSR 240-3.161(5)
[92] Item 535, Page 31 – 32 of the Commission's *Report and Order*, issued May 3, 2017
[93] Item 305, Page 13 of the Commission's *Non-Unanimous Stipulation and Agreement,* issued September 20, 2016 in File No. ER-2016-0156.

- Prudence reviews of the costs subject to the FAC shall occur no less frequently than every eighteen months.

In GMO's 2016 rate case (Case No. ER-2016-0156), Staff and GMO proposed to consolidate GMO's MPS and L&P rate districts and calculate the Base Factor on a combined GMO basis. The consolidated Base Factor was set at $0.02055 per kWh.

In the current rate case (Case No. ER-2018-0146), GMO is proposing to re-base the Base Factor to $0.02465 per kWh.

Staff Expert/Witness: Brooke M. Richter

b. KCPL

The Commission first authorized a FAC for KCPL in its *Report and Order* in KCPL's 2015 general electric rate proceeding (Case No. ER-2014-0370), with the original FAC tariff sheets becoming effective September 29, 2015. KCPL is requesting continuance of the FAC in this rate case. The primary features of KCPL's present FAC (tariff sheets numbered 50.11 through 50.20[94]) 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;
- 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.

[94] First Revised Sheet Nos. 50.11, 50.12, 50.13, 50.14, 50.15, 50.16, 50.17, 50.18, 50.19, and 3rd Revised Sheet No. 50.20.

In KCPL's 2015 general rate case (Case No. ER-2014-0370), the initial Base Factor (base energy cost per kWh rate) was set at $0.01186 per kWh and was then set at $0.01542 per kWh in Case No. ER-2016-0285. In this case, KCPL is proposing to increase the FAC Base Factor to $0.01635 per kWh.

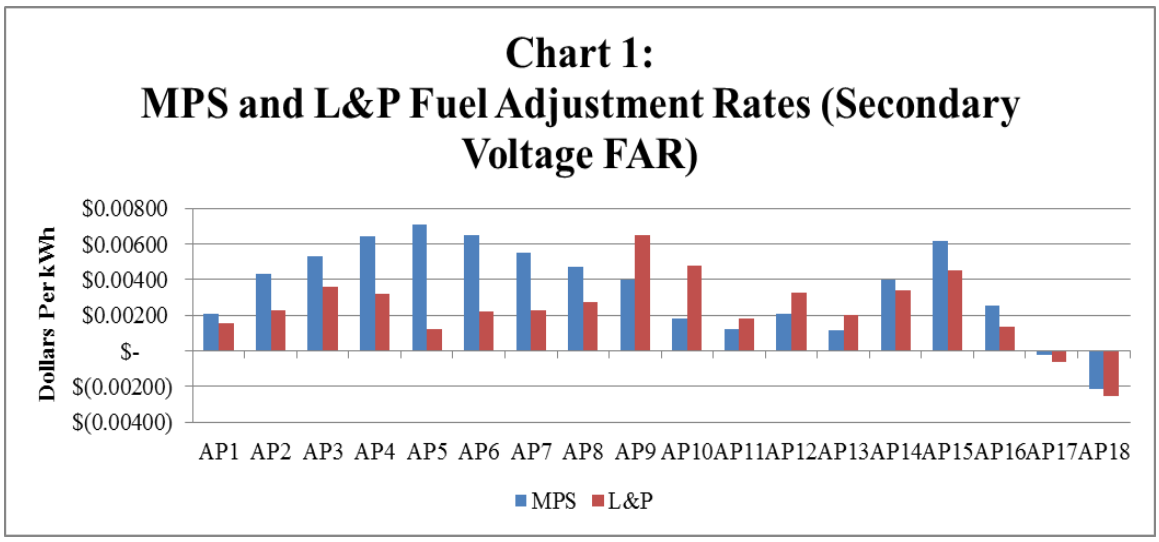
Staff Expert/Witness: Catherine F. Lucia

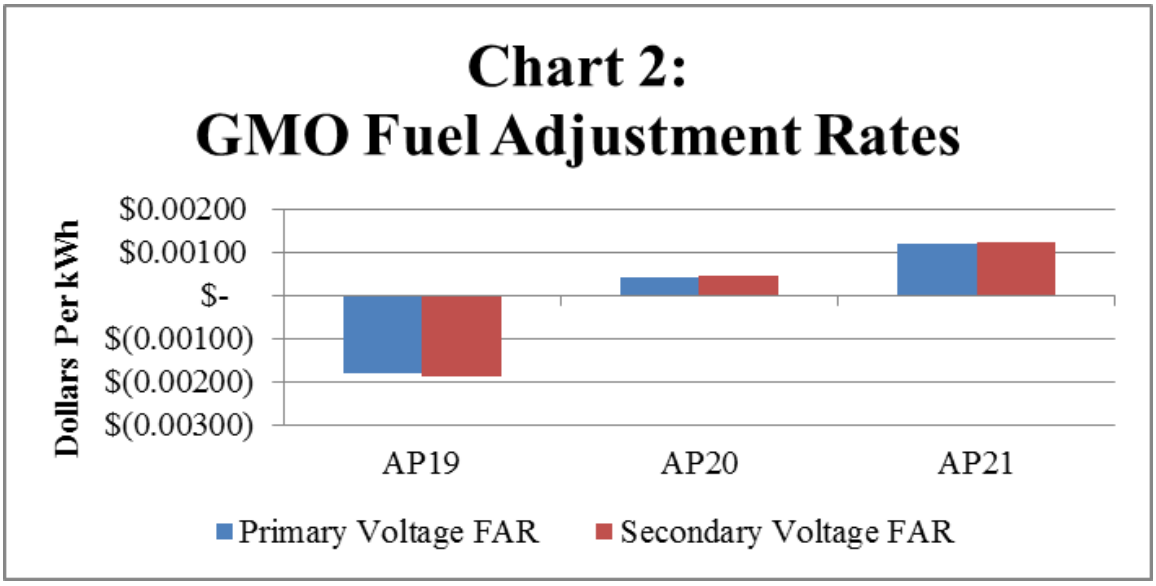
2. Continuation of FAC

Staff recommends that the Commission approve, with modifications, the continuation of GMO's FAC and KCPL's FAC. At this time Staff does not have its estimates for the Base Factor for either FAC, but will provide them and a discussion on the calculation of each Base Factor when Staff files its Class Cost of Service/Rate Design Report on July 6, 2018. Staff will use the Net Base Energy Cost and the kWh at the generator from its fuel run for KCPL and GMO, respectively, to develop each utility's Base Factor. Staff will also provide a response to the Company's proposal of the two new programs, *Solar Subscription Pilot Rider* and *Renewable Energy Rider*, as they require modifications to the current FACs, in rebuttal testimony.

GMO has filed for and received approval of changes to its FARs for twenty-one (21) completed accumulation periods ("AP") (AP1 through AP21). Chart 1 shows the secondary voltage FARs for AP1 through AP18. This was prior to the rate districts MPS and L&P being consolidated into one rate district, which was approved by the Commission in Case No. ER-2016-0156 in the Non-Unanimous Stipulation and Agreement.[95] Chart 2 shows the primary and secondary voltage FARs for AP19 through AP21.

[95] Item No. 305 in Case No. ER-2016-0156

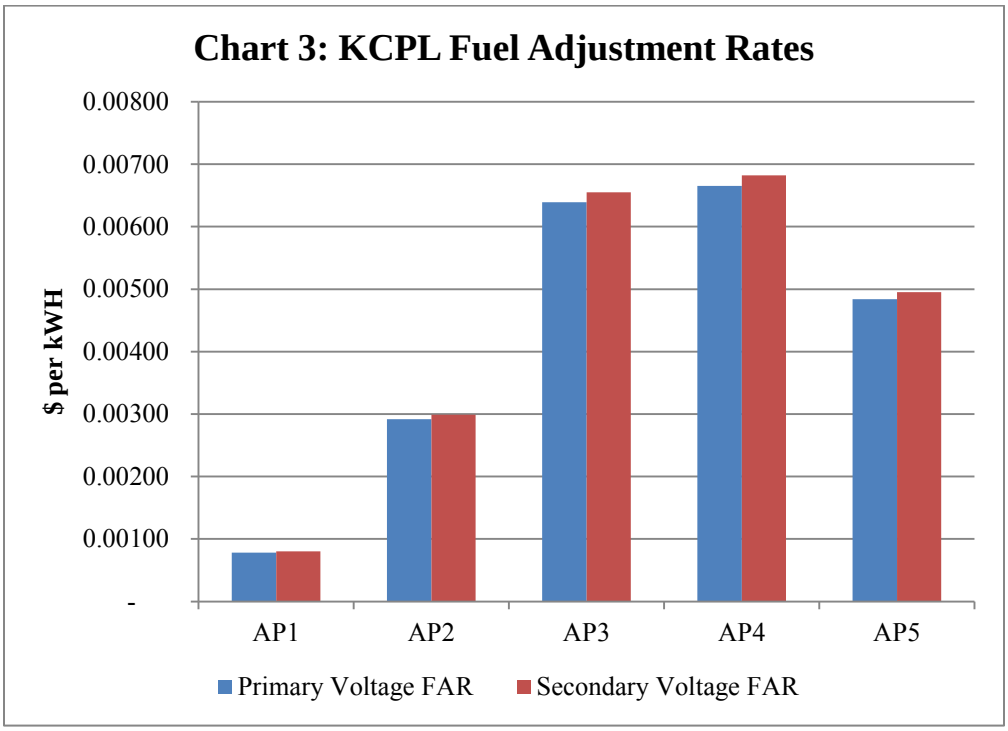




The time periods of the accumulation periods ("APs") in Chart 1 and 2 are as follows:

AP1: Jun 2007 – Nov 2007	AP2: Dec 2007 – May 2008
AP3: Jun 2008 – Nov 2008	AP4: Dec 2008 – May 2009
AP5: Jun 2009 – Nov 2009	AP6: Dec 2009 – May 2010
AP7: Jun 2010 – Nov 2010	AP8: Dec 2010 – May 2011
AP9: Jun 2011 – Nov 2011	AP10: Dec 2011 – May 2012
AP11: Jun 2012 – Nov 2012	AP12: Dec 2012 – May 2013
AP13: Jun 2013 – Nov 2013	AP14: Dec 2013 – May 2014
AP15: Jun 2014 – Nov 2014	AP16: Dec 2014 – May 2015
AP17: Jun 2015 – Nov 2015	AP18: Dec 2015 – May 2016
AP19: Jun 2016 – Nov 2016	AP20: Deb 2016 – May 2017
AP21: Jun 2017 – Nov 2017	

KCPL has filed for and received approval of changes to its FARs for five (5) completed APs. Chart 3 shows the primary and secondary FARs for AP1 through AP5.



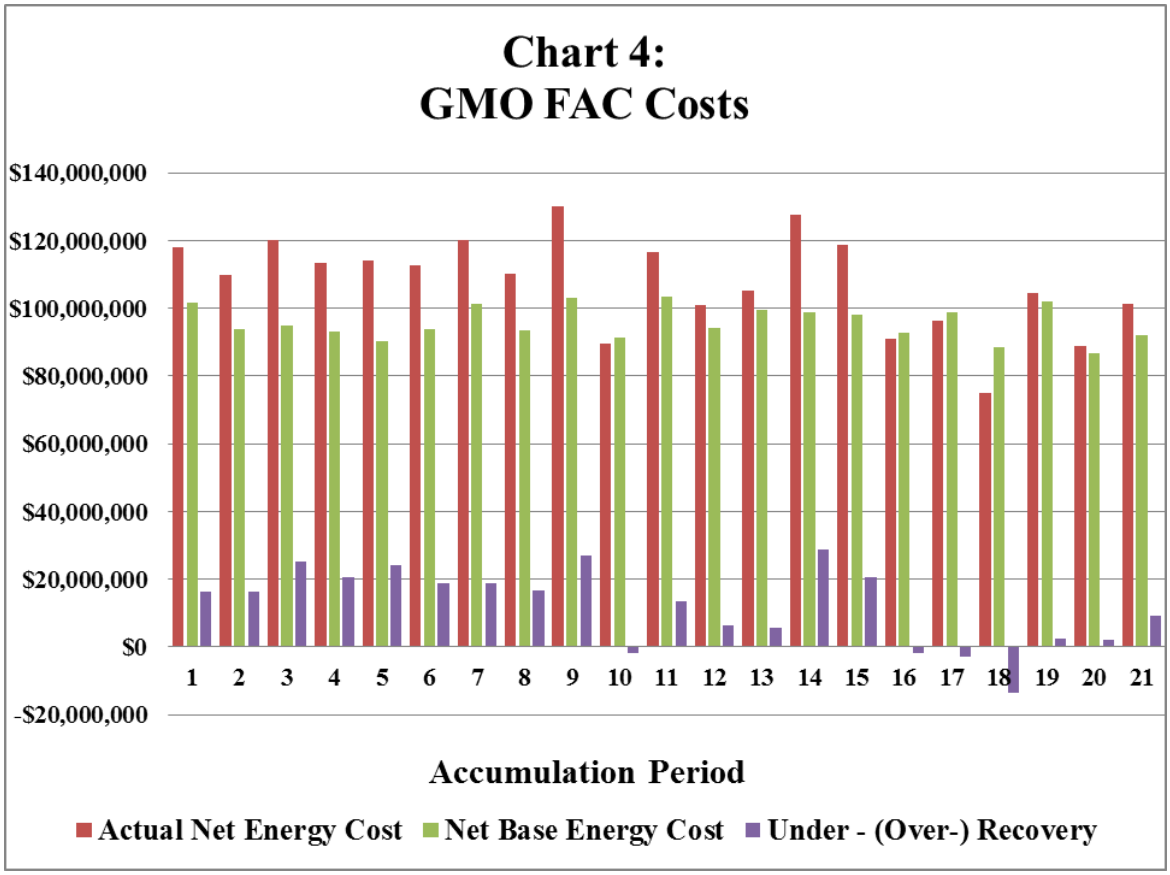
The time periods of the five APs are:

AP1: September 29, 2015[96] – December 2015
AP2: January 2016 - June 2016
AP3: July 2016 – December 2016
AP4: January 2017 – June 2017
AP5: July 2017 – December 2017

Actual FAC costs include: GMO's and KCPL's total booked costs as allocated for fuel consumed in the GMO's and KCPL's respective generating units; purchased power energy charges, including applicable transmission fees; SPP variable costs; air quality control system consumables, such as anhydrous ammonia, limestone, and powder activated carbon, and net emission allowance costs. Actual FAC costs are off-set by actual revenue from Off-System Sales and actual revenue from the sale of Renewable Energy Credits.

[96] September 29, 2015 was the effective date of rates for Rate Case No. ER-2014-0370.

Chart 4 illustrates the variability of the GMO's variations in each accumulation period's billed Net Base Energy Cost and Actual Net Energy Cost. Chart 4 shows GMO's Actual Net Energy Cost have exceeded the then-effective Base Factors multiplied by monthly usage billed to GMO's customers' in seventeen (17) out of twenty-one (21) completed accumulation periods and are illustrated as under-recovery amounts prior to application of the jurisdictional factor.[97]



During four accumulation periods, AP10, AP16, AP17, and AP18, GMO's Net Base Energy Cost exceeded Actual Net Energy Cost; 95% of such excess amounts were returned to customers during four recovery periods ("RP") RP10, RP16, RP17, and RP18. In seventeen of its accumulation periods (AP1, AP2, AP3, AP4, AP5, AP6, AP7, AP8, AP9, AP11, AP12, AP13, AP14, AP15, AP19, AP20, and AP21), GMO under-collected its Actual Net Energy Costs, and 95% of the amounts of under-collection were recovered from GMO's customers during recovery

[97] Jurisdictional factor: J = Missouri Retail Energy Ratio = retail kWh sales/total system kWh, where total system kWh equals retail and full and partial requirement sales associated with GMO.

periods RP1, RP2, RP3, RP4, RP5, RP6, RP7, RP8, RP9, RP11, RP12, RP13, RP14, RP15, RP19, RP20, and RP21.

KCPL's Actual Net Energy Cost during all five accumulation periods, AP1 through AP5, exceeded Net Base Energy Cost. During Recovery Period 1 (RP1) and RP2, 95% of the under-collected Actual Net Base Energy Cost was recovered from ratepayers. Chart 5 illustrates the Actual Net Base Energy Cost, billed Net Base Energy Cost and under-recovered amounts for AP1 through AP5.

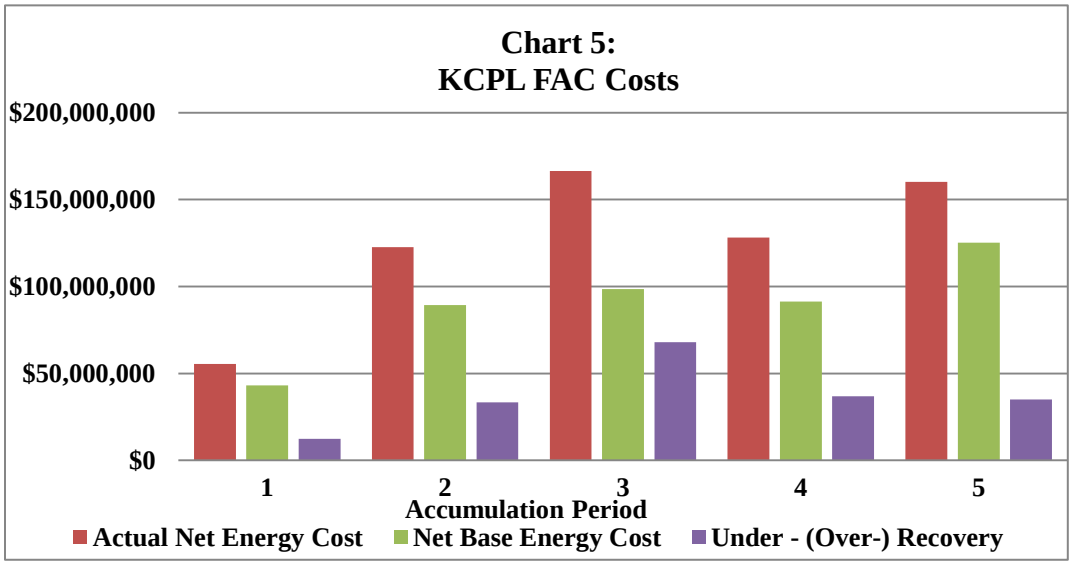
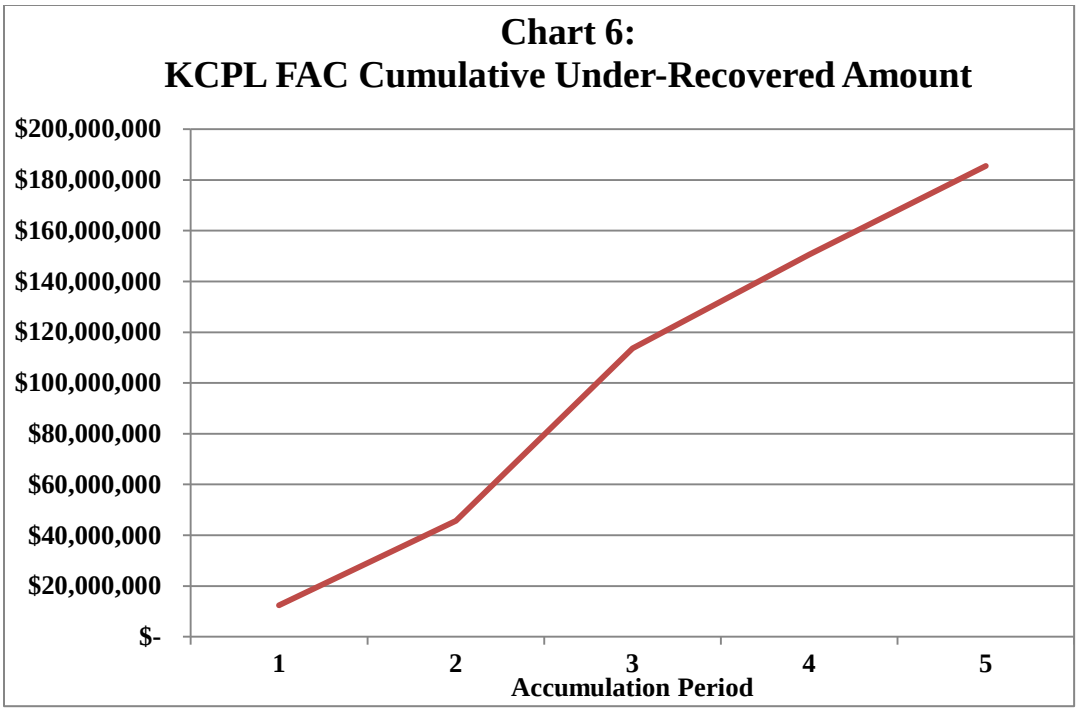
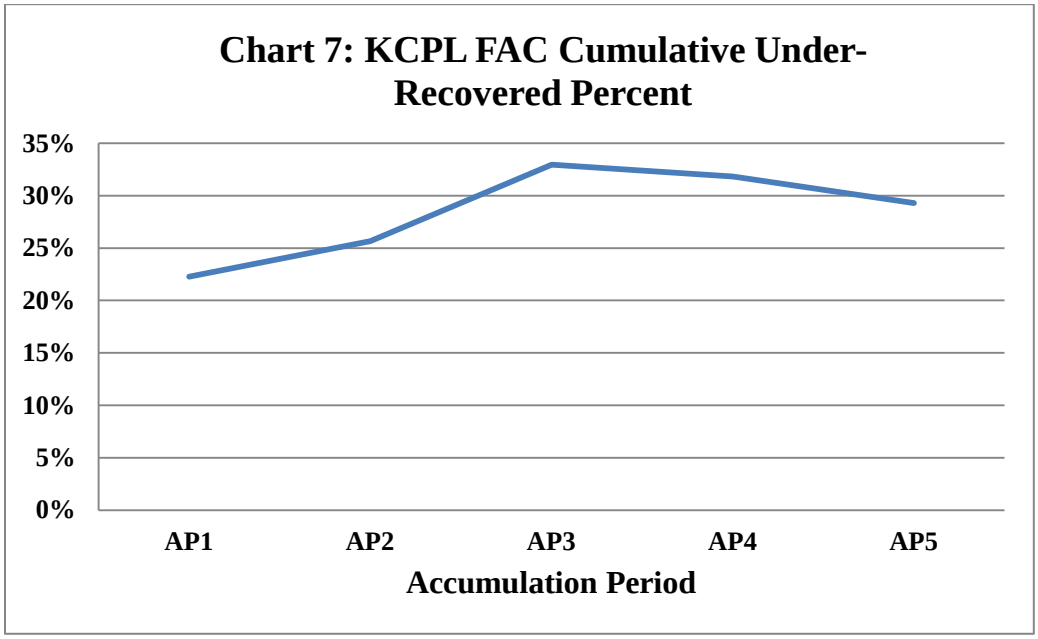


Chart 6 illustrates the cumulative amounts[98] by which KCPL's Actual Net Energy Cost have exceeded the Base Factor multiplied by monthly usage billed to KCPL's customers in the completed accumulation periods.

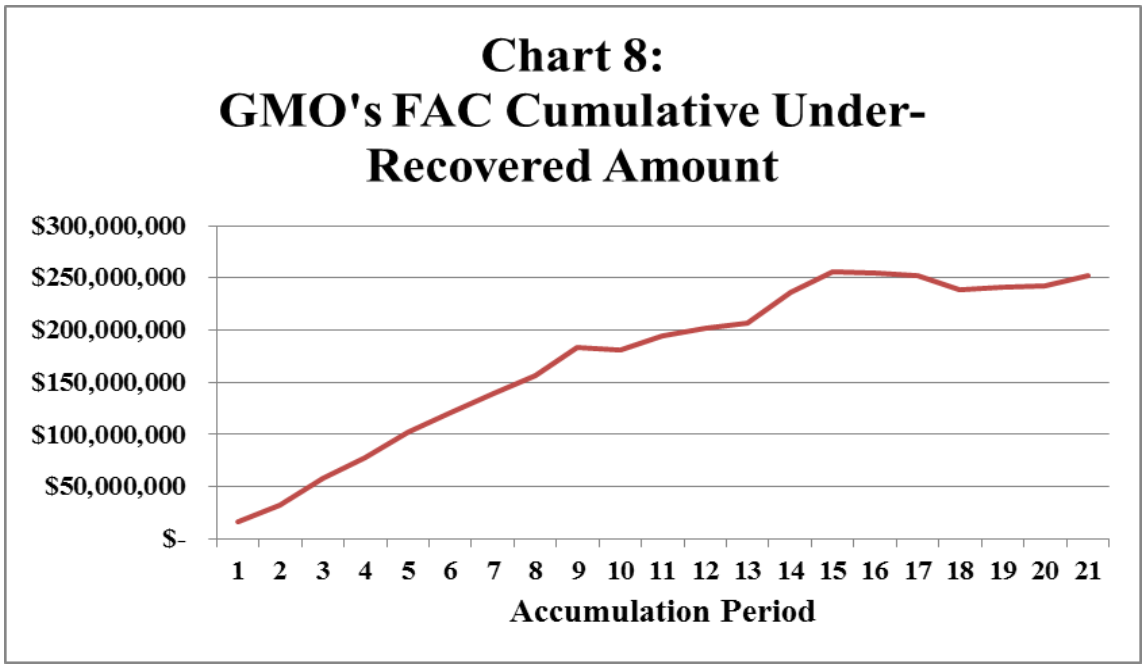
[98] Amounts represent an aggregate of energy costs for Missouri and Kansas prior to application of jurisdictional factor (J).
J = Missouri Retail Energy Ratio = (MO Retail kWh sales + MO Losses) / (MO Retail kWh Sales + MO Losses + KS Retail kWh Sales + KS Losses + Sales for Resale, Municipals kWh Sales [includes border customers] + Sales for Resale, Municipals Losses).

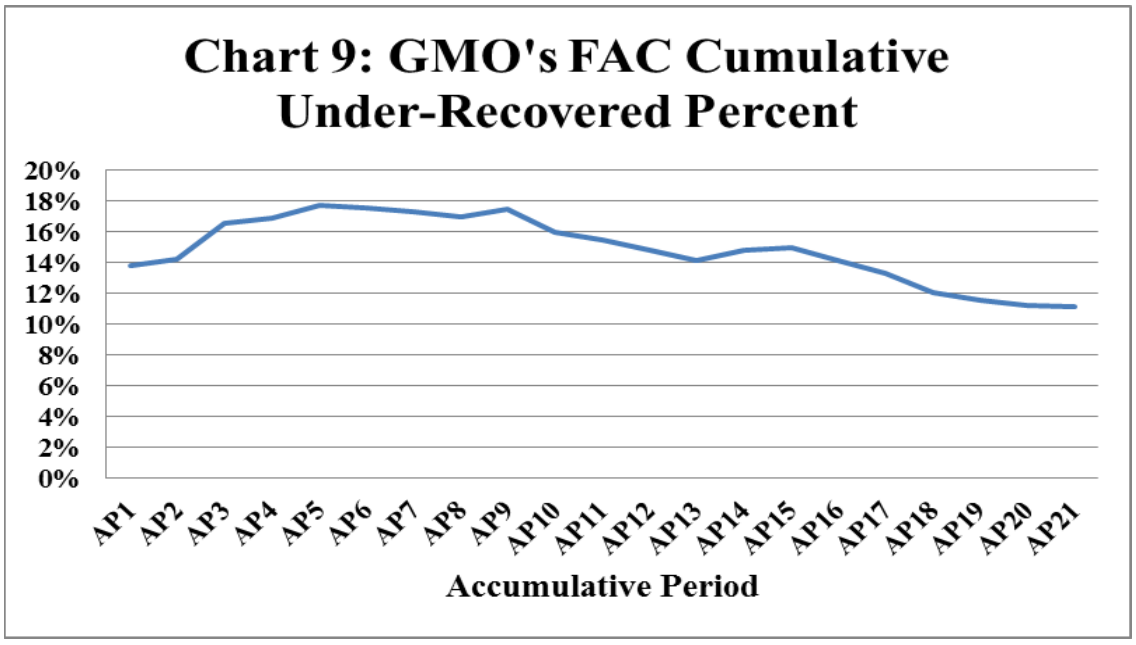


For AP1 through AP5, Chart 7 illustrates the cumulative under-collected amount is about 29 percent of the cumulative Actual Net Energy Cost for KCPL.



Charts 8 and 9 illustrates GMO's cumulative under-recovered amount over eleven years is approximately $250 million or about 11 percent of cumulative Actual Net Energy Cost.





Staff recommends continuation of GMO's FAC and KCPL's FAC with modifications. As shown in the previous charts and discussion, GMO's and KCPL's Actual Net Energy Costs

continue to be relatively large and volatile. Further, Actual Net Energy Costs are beyond the control of the Companies.

Staff Expert/Witness: Brooke M. Richter and Catherine F. Lucia

3. Crossroads Transmission Costs (GMO Only)

The transmission costs that should be included in GMO's FAC are those costs that GMO incurs to: (1) transmit electric power it did not generate to serve its own native load, and (2) transmit excess electric power it is selling to third parties located outside of SPP excluding any and all MISO transmission charges related to GMO's Crossroads generating plant. Staff recommends that the Commission order the following transmission costs reflected in FERC Account Number 565 be included in GMO's FAC, and order that any and all MISO transmission charges for GMO's Crossroads generating plant be excluded from GMO's FAC:

Subaccount 565000: non-SPP transmission used to serve off-system sales or to make purchases for load and a percent[99] of the SPP transmission service costs, which includes the schedules listed below as well as any adjustments to the charges (excluding any and all MISO transmission charges for GMO's Crossroads generating plant) in the schedules below:

Schedule 7 – Long Term Firm and Short Term Point to Point Transmission Service (excluding any and all MISO transmission charges for GMO's Crossroads generating plant);

Schedule 8 – Non Firm Point to Point Transmission Service (excluding any and all MISO transmission charges for GMO's Crossroads generating plant);

Schedule 9 – Network Integration Transmission Service (excluding any and all MISO transmission charges for GMO's Crossroads generating plant);

Schedule 10 – Wholesale Distribution Service (excluding any and all MISO transmission charges for GMO's Crossroads generating plant);

Schedule 11 – Base Plan Zonal Charge and Region Wide Charge (excluding any and all MISO transmission charges for GMO's Crossroads generating plant);

Subaccount 565020: the allocation of the allowed costs in the 565000 account attributed to native load (excluding any and all MISO transmission charges for GMO's Crossroads generating plant);

[99] The percent of SPP transmission service costs will be calculated with the Base Factor to be filed in Staff's Class Cost of Service Report on July 6, 2018.

Subaccount 565027: the allocation of the allowed costs in the 565000 account attributed to transmission demand charges (excluding any and all MISO transmission charges for GMO's Crossroads generating plant); and

Subaccount 565030: the allocation of the allowed costs in account 565000 attributed to off-system sales (excluding any and all MISO transmission charges for GMO's Crossroads generating plant).

The *Non-Unanimous Stipulation and Agreement* filed in GMO's last general rate case, File No. ER-2016-0156, stated on page 13:

> The costs and revenues in GMO's FAC will not include transmission costs associated with Crossroads Energy Center and will be consistent with those in Kansas City Power & Light Company's current FAC, with two exceptions: 1) the percentage of SPP transmission costs included will be consistent with the 39.62% Staff calculated and 2) once the current hedging positions are unwound, no hedging costs would be included in the FAC. No Crossroads transmission costs will be included in the FAC.

In GMO's last general rate case, File No. ER-2016-0156, Staff discovered that GMO had inadvertently included some Crossroads transmission expense in the FAC. GMO subsequently corrected its error in File No. ER-2017-0002. Since then, Staff has reviewed GMO's Section 7 filings, filed in compliance with 4 CSR 240-3.161(5), and has also reviewed GMO witness Tim Rush's workpapers. Staff is not aware of any Crossroads transmission expense being included in the FAC.

Staff's recommendation to exclude Crossroads transmission expense from permanent rates and the FAC for this general rate case is discussed in more detail in the testimony of Staff witness Cary Featherstone.

Staff Expert/Witness: Brooke M. Richter

B. Hedging Activities

1. History

In its most recent general rate case, GMO agreed to modify its hedging activities as related to the reduction of risk of operating generation plants fueled by natural gas ("Fuel Hedging") and price risk associated with electrical energy purchases ("Cross Hedging"). GMO agreed in a

Partial Nonunanimous Stipulation and Agreement[100] ("Agreement") to unwind all financial trading instruments[101] GMO had in place associated with NYMEX futures and other financial instruments that was used to mitigate price risk for fuel and energy ("purchase power"). During Staff's Seventh Prudence Review[102] of GMO's fuel and purchased power costs, Staff confirmed that GMO had complied with the Agreement and did unwind all relevant transactions, and flowed the financial results through its FAC.

KCPL's hedging financial fuel activities where comingled with GMO's hedging activities and KCPL made the decision to discontinue its financial hedging strategy when it ceased[103] them on behalf of GMO. KCPL did not use a Cross Hedging strategy as part of its risk management plans as KCPL has sufficient economic generation that this cross hedging strategy was not needed.

2. Current Hedging Strategy

Although KCPL and GMO do not place financial hedges for its fuel or energy, KCPL and GMO still pre-purchase a certain level of its fossil fuel commodities (Coal, Natural Gas, and Oil) used in their electric generation facilities. These purchases are necessary to secure the actual physical commodity that KCPL and GMO rely on for the generation of electricity from its generation fleets. KPCL and GMO are not requesting any changes in their current hedging policies. Staff is also not recommending any changes to KCPL's or GMO's fuel hedging policies or practices.

3. Southwest Power Pool Participation

KCPL and GMO participate in the Southwest Power Pool ("SPP") which operates an Integrated Market Place that provides such services as a Day-Ahead Market with Transmission Congestion Rights, a Reliability Unit Commitment process and Real-time Balancing Market. SPP operates in 14 states, has 95 members and serves 17.5 million customers. SPP is responsible

[100] In the Matter of KCPL Greater Missouri Operation Company's Request for Authority to Implement a General Rate Increase for electric Service, Case No ER-2016-0156, NON-UNANIMOUS PARTIAL STIPULATION AND AGREEMENT

[101] GMO financial trading instruments could have consisted of NYMEX natural gas futures contracts, Puts, Call and Over the Counter Energy Swaps.

[102] In the Matter of the Seventh Prudence Review of Costs Subject to the Commission-Approved Fuel Adjustment Clause of KCPL Greater Missouri Operations Company, Case No. ER-2017-0232.

[103] September 2016

for the dispatching of KCPL's and GMO's generation fleets once offered into the market. The price at which KCPL and GMO purchase energy from the market will be at the Locational Marginal Price ("LMP"),[104] set every 5 minutes by SPP, that reflects a regional market price of energy and congestion and losses location specific. KCPL and GMO offer to SPP their generation fleets in sufficient quantity to cover the energy needs of its customers. Depending on LMP pricing some of KCPL's and GMO's generation fleets may be more costly to operate than purchasing directly from SPP. One of the main purposes of SPP is to fully optimize the system resources so that the least cost generation issued in the production of energy.

Staff Expert/Witness: Dana Eaves

C. Revising the Base Factor

Correctly setting the Base Factor in GMO's and KCPL's FAC tariff sheets is critical to both a well-functioning FAC and a well-functioning FAC sharing mechanism. For the reasons below, Staff recommends the Commission require the Base Factor in GMO's and KCPL's FAC be set based on the Base Energy Cost that the Commission includes in the revenue requirement on which it sets GMO's and KCPL's general rates in this case.

Table 1 below shows three scenarios in which the FAC Base Energy Cost used to set the FAC Base Factor are equal to, less than, or greater than the Base Energy Cost in the revenue requirement upon which the Commission sets general rates:

[104] Locational Marginal Price = Market Price of Energy + Congestion Charge + Losses

Table 1: Base Energy Cost Case Studies				
		Case 1	Case 2	Case 3
Line	**95%/5% Sharing Mechanism**	Energy Cost in FAC **Equal To** Base Energy Cost in Rev. Req.	Energy Cost in FAC **Less Than** Base Energy Cost in Rev. Req.	Energy Cost in FAC **Greater Than** Base Energy Cost in
a	Revenue Requirement	$ 10,000,000	$ 10,000,000	$ 10,000,000
b	Base Energy Cost in Rev. Req.	$ 4,000,000	$ 4,000,000	$ 4,000,000
c	Base Energy Cost in FAC	$ 4,000,000	$ 3,900,000	$ 4,100,000
	Outcome 1: Actual Energy Cost **Greater Than** Base Energy Cost in Revenue Requirement			
d	Actual Total Energy Cost	$ 4,200,000	$ 4,200,000	$ 4,200,000
	Billed to Customer:			
= b	in Permanent Rates	$ 4,000,000	$ 4,000,000	$ 4,000,000
e = (d - c) x 0.95	through FAC	$ 190,000	$ 285,000	$ 95,000
f = b + e	Total Billed to Customers	$ 4,190,000	$ 4,285,000	$ 4,095,000
g = f - d	**Kept/(Paid) by Company**	**$ (10,000)**	**$ 85,000**	**$ (105,000)**
	Outcome 2: Actual Energy Cost **Less Than** Base Energy Cost in Revenue Requirement			
h	Actual Energy Cost	$ 3,800,000	$ 3,800,000	$ 3,800,000
	Billed to Customer:			
= b	in Permanent Rates	$ 4,000,000	$ 4,000,000	$ 4,000,000
i = (h - c) x 0.95	through FAC	$ (190,000)	$ (95,000)	$ (285,000)
j = b + i	Total Billed to Customers	$ 3,810,000	$ 3,905,000	$ 3,715,000
k = j - h	**Kept/(Paid) by Company**	**$ 10,000**	**$ 105,000**	**$ (85,000)**

Case 1 illustrates that if the FAC Base Energy Cost used for the Base Factor is equal to the Base Energy Cost in the revenue requirement used for setting general rates, the utility does not over or under-collect as a result of the level of total actual energy costs. The FAC works as it is intended to.

Case 2 illustrates that if the FAC Base Energy Cost used for the Base Factor is less than the Base Energy Cost in the revenue requirement used for setting general rates, the utility will collect more than was intended and customers pay more than the FAC was designed for them to pay, regardless of the level of actual energy costs.

Case 3 illustrates that if the FAC Base Energy Cost used for the Base Factor is greater than the Base Energy Cost in the revenue requirement used for setting general rates, the utility will not collect all of the costs that was intended in the FAC design, and customers pay less than the entire amount intended regardless of the level of actual energy costs.

These three cases illustrate the importance of setting the Base Factor in the FAC correctly, i.e., revising the Base Factor to match the Base Energy Cost in the revenue requirement used for setting general rates. Case 1 is the preferred case, and illustrates how the FAC is intended to work.

Staff Expert/Witness: Brooke M. Richter and Catherine F. Lucia

D. Additional Reporting Requirements for GMO

Due to the accelerated Staff review process necessary with FAC adjustment filings,[105] Staff recommends the Commission order GMO to continue to provide the following information as part of its monthly reports:

1. Monthly SPP market settlements and revenue neutrality uplift charges;
2. Notify Staff within 30 days of entering a new long-term contract for transportation, coal, natural gas or other fuel; natural gas spot transactions are specifically excluded;
3. Provide Staff with a monthly natural gas fuel report that includes all transactions, spot and longer term; the report will include term, volumes, price, and analysis of number of bids;
4. Notify Staff within 30 days of any material change in GMO's fuel hedging policy and provide the Staff with access to new written policy;
5. Provide Staff its Missouri Fuel Adjustment Interest calculation workpapers in electronic format with all formulas intact when GMO files for a change in the cost adjustment factor;
6. Notify Staff within 30 days of any change in GMO's internal policies for participating in the SPP;
7. Continue to provide Staff access to all contracts and policies upon Staff's request, at GMO's corporate office in Kansas City, Missouri.

[105] The company must file its FAC adjustment 60 days prior to the effective date of its proposed tariff sheet. Staff has 30 days to review the filing and make a recommendation to the Commission. The Commission then has 30 days to approve or deny Staff's recommendation.

E. Additional Reporting Requirements for KCPL

Due to the accelerated Staff review process necessary with FAC adjustment filings,[106] Staff recommends the Commission again order[107] KCPL to continue to provide the following information as part of its monthly reports:

1. 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;
2. 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, 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;
3. 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, KCPL provide both notice to the Staff of the contract and opportunity to review the contract at KCPL's corporate headquarters or at some other mutually-agreed-upon place;
4. 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 the rate case go into effect for Staff to retain;
5. Within 30 days of any change in KCPL hedging policy, provide a copy of the changed hedging policy for Staff to retain;
6. Provide a copy of KCPL's internal policy for participating in the Southwest Power Pool's Integrated Market;
7. 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, a copy of each and every bilateral energy or demand sales/purchase contract;
8. If KCPL revises any internal policy for participating in the SPP, within 30 days of that revision, provide a copy of the revised policy with the revisions identified for Staff to

[106] The company must file its FAC adjustment 60 days prior to the effective date of its proposed tariff sheet. Staff has 30 days to review the filing and make a recommendation to the Commission. The Commission then has 30 days to approve or deny Staff's recommendation.
[107] Page 47 - 48 of the Commission's *Report and Order*, issued September 2, 2015 in Case No. ER-2014-0370.

retain; and, the monthly as-burned fuel report supplied by KCPL required by 4 CSR 240-3.190(1)(B) shall explicitly designate fixed and variable components of the average cost per unit burned including commodity, transportation, emissions, tax, fuel blend, and any additional fixed or variable costs associated with the average cost per unit reported.

Staff Expert/Witness: Brooke M. Richter and Catherine F. Lucia

XI. Other Miscellaneous Issues

A. Clean Charge Network O&M and Rate Base

Staff recommends removal of the operations and maintenance ("O&M") expense, plant in service, and accumulated depreciation reserve related to the Clean Charge Network from the cost of service. As stated in Natelle Dietrich's testimony sponsoring this report, the removal of these costs is required by the Commission's finding in Case No. ER-2016-0285, *In the Matter of Kansas City Power & Light Company's Request for Authority to Implement a General Rate Increase for Electric Service*, that electric vehicle charging stations are not "electric plant" as defined by Section 386.020(14), RSMo, which means the Commission has no statutory authority to regulate their operations.[108] This issue will be further addressed in Staff's rebuttal testimony.

KCPL and GMO have transferred the plant-in-service and reserve to non-utility accounts, the equivalent of "below the line". Included in the plant-in-service balance at December 31, 2017, is a small amount of plant that has not been transferred to non-utility accounts. Staff recommends removal of these plant amounts for KCPL and GMO. Staff also recommends the removal of all O&M expenses incurred for the Clean Charge Network. Staff's adjustments are identified on Schedule 9 of Staff's KCPL and GMO Accounting Schedules, and Schedule 3 – Plant in Service, Adjustments P-293.1 and P-413.1.

Staff Expert/Witness: Keith Majors

[108] ***Report and Order***, issued May 3, 2017, p. 45.

B. Renewable Energy Standard – Costs

1. KCPL

Pursuant to 4 CSR 240-20.100 (6)(D), the RES rule provides a recovery option for compliance costs. The rule provides that KCPL may:

> …recover RES compliance costs without the use of a RESRAM through rates established in a general rate proceeding. In the interval between general rate proceedings, the electric utility may defer the costs in a regulatory asset account and monthly calculate a carrying charge on the balance in that regulatory asset account equal to its short-term cost of borrowing. All questions pertaining to rate recovery of the RES compliance costs in a subsequent general rate proceeding will be reserved to that proceeding, including the prudence of the costs for which rate recovery is sought and the period of time over which any costs allowed rate recovery will be amortized.

On April 19, 2012, the Commission authorized KCPL's use of an accounting authority order in Case No. EU-2012-0131 to:

> (a) record all incremental operating expenses associated with the cost of solar rebates, the cost to purchase renewable energy credits, the cost of the standard offer and other related costs incurred as a result of compliance with Missouri's Renewable Energy Standard Law in USOA Account 182; (b) include carrying costs based on the Compan[y's] short term debt rate on the balances in those regulatory assets; and (c) defer such amounts in a separate regulatory asset with the disposition to be determined in the Compan[y's] next general rate cases.[109]

In Case No. ER-2012-0174, a regulatory asset was established for costs incurred through August 31, 2012, to be amortized over three (3) years. The regulatory asset defined in that case is labeled "Vintage 1"[110] and was completed in January, 2016. In compliance with the Stipulation and Agreement in Case No. ER-2014-0370 (continued in Case No. ER-2016-0285), KCPL applied prospective tracking of the Vintage 1 amortization to the current RES costs deferred in Vintage 3, after full recovery of Vintage 1.

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[109] *In the Matter of Kansas City Power & Light Company and KCP&L Greater Missouri Operations Company's Notice of Intent to File a Joint Application for an Accounting Authority Order Related to its Electrical Operations,* Case No. EU-2012-0131, (*Order Approving and Incorporating Stipulation and Agreement)*, at page 2.

[110] The Company uses the word "Vintage" to refer to a certain amortization within that issue.

Similar to Staff's recommended treatment of other expiring amortizations, Staff recommends that once the amortization of a vintage is complete, KCPL should apply the funds that will continue to be collected in rates for the amortization of the recovered vintage to the current deferred RES program costs.

In Adjustment E-193.1, Staff has included deferred RES costs (Vintage 4) incurred through December 31, 2017, with the recovery period set at 3.6 years.

2. GMO

Unlike KCPL's RES recovery methodology, GMO's renewable energy costs are recovered outside of base rates through the RESRAM mechanism.[111] Staff made Adjustment E-138.3 to remove those costs from the test year.

Staff Expert/Witness: Michael Jason Taylor

C. Staff's Second RESRAM Prudence Review (GMO Only)

1. Background:

The Commission first authorized a Renewable Energy Standard Rate Adjustment Mechanism ("RESRAM") for GMO in Case No. EO-2014-0151.

Commission rule 4 CSR 240-20.100(6)(A)26 requires the interval for prudence reviews to be established when the RESRAM is established. GMO's RESRAM tariff specifies the interval for prudence reviews to be no less than every 24 months and concurrent with each rate case.[112] In its second prudence review of GMO's RESRAM for the period January 1, 2016, through December 31, 2017, Staff reviewed items affecting GMO's Renewable Energy Standard Compliance costs.

Staff's previous GMO prudence reviews are listed in the table below:

Prudence Review	File Number	Review Period
First	ER-2016-0156	Through December 31, 2015
Second	ER-2018-0146	January 1, 2016 through December 31, 2017

[111] "RESRAM" is Renewable Energy Standard Rate Adjustment Mechanism.
[112] KCP&L Greater Missouri Operations, P.S.C. MO. No. 1, 1st Revised Sheet No. 137.2.

2. Description of costs included for recovery under GMO's RESRAM:

Below is a description of major cost categories[113] included for recovery under GMO's ESRAM:

Solar Rebates: Costs associated with the payment of solar rebates to customers.

- Contractors: Administrative costs for contractors employed to administer the solar rebate program and third party contractors employed to administer the solar rebate program. During the review period, this category includes costs related to non-rebate interconnection applications and net metering.[114,115]
- Renewable Energy Credits ("RECs"): Costs associated with the retirement of RECs.[116]
- Solar RECs: A REC created by generation of electric energy from solar thermal sources, photovoltaic cells, and photovoltaic panels.
- North American Renewables Registry ("NAR"): Administrative costs associated with registering RECs and S-RECs.
- Carrying Costs: Financing charges applicable to RES compliance costs based on the Company's short-term debt rate.
- St. Joseph Landfill: Fuel and Non-Fuel O&M Expenses.

3. Conclusion:

With regards to RESRAM prudency, Staff did not find evidence that GMO's management of RES compliance costs during the review period was imprudent.

Staff is concerned with GMO's decision to not pursue the sale of RECs[117] that will not be utilized for future Missouri RES compliance. Revenue from the sale of RECs is returned to customers through the FAC;[118] therefore, Staff reviews the management of REC sales during FAC prudence reviews and further exploration of the decision will be conducted at that time.

Costs related to the tracking of RECs,[119] which will ultimately be retired or unused, are included for recovery in GMO's RESRAM. Expiration of GMO RECs occurred in 2018, outside

[113] Response to Staff Data Request 180 in ER-2018-0146.
[114] Response to Staff Data Request 0182.3 in ER-2018-0146.
[115] Staff does not consider the contractor costs related to processing of non-solar rebate net metering applications as directly related to RES compliance because these costs are incurred due to the Net Metering and Easy Connection Act. For a period of time, customers were required to transfer RECs as condition of receiving a solar rebate.
[116] GMO initially records RECs to an inventory account. At the end of the year an entry is made to retire RECs used for RES requirements. The retired RECs are transferred to deferred regulatory asset account 182513. Costs associated with the retirement, such as registration and subscription fees, are also included with the costs of the RECs recorded to account 182513.
[117] Response to Staff Data Request 0400 in ER-2018-0146. KCPL has also made the decision not to pursue the sale of RECs per response to Staff Data request 400 in ER-2018-0145.
[118] KCP&L Greater Missouri Operations, P.S.C. MO. No. 1, 3rd Revised Sheet No. 124.
[119] North American Renewables Registry fees include annual subscription fees and volumetric fees for issuance, transfer, retirement, export, and import.

of the current RESRAM prudence review period. GMO's annual estimated REC production from existing non-solar resources (1,422,000 RECs) [120] is well in excess of the projected average RES requirement (787,605 RECs);[121] resulting in unused RECs and increased annual issuance fees of approximately $19,000.[122]

4. Documents Reviewed:

Staff reviewed GMO's General Ledger, various data request responses, RES compliance reports, and Staff's seventh prudence review of costs related GMO's FAC (EO-2017-0232).

Staff Witness: Claire M. Eubanks, P.E.

XII. Appendices

Appendix 1 – Staff Credentials

Appendix 2 – Confidential – Detailed Direct Testimony of Jefffrey Smith

[120] Page 3 of Staff's Report on KCP&L Greater Missouri Operations Company's 2018 Annual Renewable Energy Standard Compliance Plan (EO-2018-0291). KCPL's annual REC production is also well in excess of its 2020 RES requirements, page 3 of Staff Report on Kansas City Power & Light Company's 2018 Annual Renewable Energy Standard Compliance Plan (EO-2018-0290).

[121] Average of the projected non-solar requirement 2018-2020 listed on Page 6 of GMO's 2018 RES Compliance Plan, EO-2018-0291.

[122] Current tracking system fee schedule is $0.03/REC issued, a decrease from historical issuance fees.