

MISSOURI PUBLIC SERVICE COMMISSION

STAFF REPORT

**REVENUE REQUIREMENT
COST OF SERVICE**

APPENDIX 2

**Support for Staff
Cost of
Capital Recommendations**

KCP&L GREATER MISSOURI OPERATIONS COMPANY

CASE NO. ER-2016-0156

*Jefferson City, Missouri
July 2016*

AN ANALYSIS OF THE COST OF CAPITAL

FOR

KCP&L GREATER MISSOURI OPERATIONS
Great Plains Energy, Inc.

CASE NO. ER-2016-0156

SCHEDULES

BY

DAVID MURRAY

COMMISSION STAFF DIVISION - OPERATIONAL ANALYSIS

FINANCIAL ANALYSIS UNIT

MISSOURI PUBLIC SERVICE COMMISSION

KCPL Greater Missouri Operations
Case No. ER-2016-0156

List of Schedules

Schedule Number	Description of Schedule
1	List of Schedules
2-1	Federal Reserve Discount Rate and Federal Reserve Funds Rate Changes
2-2	Graph of Federal Reserve Discount Rates and Federal Funds Rates Changes
3-1	Rate of Inflation
3-2	Graph of Rate of Inflation
4-1	Average Yields on AA, A and BBB Public Utility Bonds
4-2	Average Yields on Thirty-Year U.S. Treasury Bonds
4-3	Graph of Average Yields on Public Utility Bonds and Thirty-Year U.S. Treasury Bonds
4-4	Graph of Monthly Spreads Between Yields on Public Utility Bonds and Thirty-Year U.S. Treasury Bonds
4-5	Graph of Average Yields on A-rated and BBB-rated Public Utility Bonds
4-6	Graph of Moody's Baa Corporate Bond Yields
5	Historical Consolidated Capital Structures for Great Plains Energy
6-1	Embedded Cost of Long-Term Debt as of December 31, 2015, for Great Plains Energy
6-2	Embedded Cost of Preferred Stock as of December 31, 2015, for Great Plains Energy
7	Rate Making Capital Structure as of December 31, 2015 for KCPL Greater Missouri Operations
8	Criteria for Selecting Comparable Electric Utility Companies
9	Comparable Electric Utility Companies for KCP&L Greater Missouri Operations
10-1	Dividends Per Share for the Comparable Electric Utility Companies
10-2	Earnings Per Share for the Comparable Electric Utility Companies
10-3	Book Value Per Share for the Comparable Electric Utility Companies
10-4	Ten-Year Annual Compound Growth Rates for the Comparable Electric Utility Companies
10-5	Five-Year Annual Compound Growth Rates for the Comparable Electric Utility Companies
10-6	Historical and Projected Growth Rates for the Comparable Electric Utility Companies
11	Constant-Growth Discount Cash Flow (DCF) Estimated Costs of Common Equity for the Comparable Electric Utility Companies
12-1	Multiple-Stage Discounted Cash Flow (DCF) Estimated Costs of Common Equity for the Comparable Electric Utility Companies, Growth in Perpetuity of 3.00%
12-2	Multiple-Stage Discounted Cash Flow (DCF) Estimated Costs of Common Equity for the Comparable Electric Utility Companies, Growth in Perpetuity of 3.50%
12-3	Multiple-Stage Discounted Cash Flow (DCF) Estimated Costs of Common Equity for the Comparable Electric Utility Companies, Growth in Perpetuity of 4.00%
12-4	Multiple-Stage Discounted Cash Flow (DCF) Estimated Costs of Common Equity for the Comparable Electric Utility Companies, Growth in Perpetuity of 4.40% GDP
12-5	Multiple-Stage Discounted Cash Flow (DCF) Estimated Costs of Common Equity for the Comparable Electric Utility Companies, Growth in Perpetuity of 4.10% GDP
13-1	Central Region Electric Utility Proxy Group EPS Ten-Year Compound Growth Rate Averages (1968-1999)
13-2	Central Region Electric Utility Proxy Group DPS Ten-Year Compound Growth Rate Averages (1968-1999)
13-3	Central Region Electric Utility Proxy Group BVPS Ten-Year Compound Growth Rate Averages (1968-1999)
13-4	Central Region Electric Utility Proxy Group DPS, EPS, BVPS & GDP Ten-Year Compound Growth Rate Averages (1968-1999)
14	Multi Stage DCF Cost of Equity Comparisons
15	Capital Asset Pricing Model (CAPM) Costs of Common Equity Estimates Based on Historical Return Differences Between Common Stocks and Long-Term U.S. Treasuries for the Comparable Electric Utility Companies
16	Recommended Allowed Rate of Return as of December 31, 2015 for KCP&L Greater Missouri Operations

**KCPL Greater Missouri Operations
Case No. ER-2016-0156**

Federal Reserve Discount Rate and Federal Reserve Funds Rate Changes

Date	Federal Reserve Discount Rate	Federal Reserve Funds Rate	Date	Federal Reserve Discount Rate	Federal Reserve Funds Rate
01/01/83	8.50%		06/30/99	4.50%	5.00%
12/31/83	8.50%		08/24/99	4.75%	5.25%
04/09/84	9.00%		11/16/99	5.00%	5.50%
11/21/84	8.50%		02/02/00	5.25%	5.75%
12/24/84	8.00%		03/21/00	5.50%	6.00%
05/20/85	7.50%		05/19/00	6.00%	6.50%
03/07/86	7.00%		01/03/01	5.75%	6.00%
04/21/86	6.50%		01/04/01	5.50%	6.00%
07/11/86	6.00%		01/31/01	5.00%	5.50%
08/21/86	5.50%		03/20/01	4.50%	5.00%
09/04/87	6.00%		04/18/01	4.00%	4.50%
08/09/88	6.50%		05/15/01	3.50%	4.00%
02/24/89	7.00%		06/27/01	3.25%	3.75%
07/13/90		8.00% *	08/21/01	3.00%	3.50%
10/29/90		7.75%	09/17/01	2.50%	3.00%
11/13/90		7.50%	10/02/01	2.00%	2.50%
12/07/90		7.25%	11/06/01	1.50%	2.00%
12/18/90		7.00%	12/11/01	1.25%	1.75%
12/19/90	6.50%		11/06/02	0.75%	1.25%
01/09/91		6.75%	01/09/03	2.25%**	1.25%
02/01/91	6.00%	6.25%	06/25/03	2.00%	1.00%
03/08/91		6.00%	06/30/04	2.25%	1.25%
04/30/91	5.50%	5.75%	08/10/04	2.50%	1.50%
08/06/91		5.50%	09/21/04	2.75%	1.75%
09/13/91	5.00%	5.25%	11/10/04	3.00%	2.00%
10/31/91		5.00%	12/14/04	3.25%	2.25%
11/06/91	4.50%	4.75%	02/02/05	3.50%	2.50%
12/06/91		4.50%	03/22/05	3.75%	2.75%
12/20/91	3.50%	4.00%	05/03/05	4.00%	3.00%
04/09/92		3.75%	06/30/05	4.25%	3.25%
07/02/92	3.00%	3.25%	08/09/05	4.50%	3.50%
09/04/92		3.00%	09/20/05	4.75%	3.75%
01/01/93			11/01/05	5.00%	4.00%
12/31/93	No Changes	No Changes	12/13/05	5.25%	4.25%
02/04/94		3.25%	01/31/06	5.50%	4.50%
03/22/94		3.50%	03/28/06	5.75%	4.75%
04/18/94		3.75%	05/10/06	6.00%	5.00%
05/17/94	3.50%	4.25%	06/29/06	6.25%	5.25%
08/16/94	4.00%	4.75%	08/17/07	5.75%	5.25%
11/15/94	4.75%	5.50%	09/18/07	5.25%	4.75%
02/01/95	5.25%	6.00%	10/31/07	5.00%	4.50%
07/06/95		5.75%	12/11/07	4.75%	4.25%
12/19/95		5.50%	01/22/08	4.00%	3.50%
01/31/96	5.00%	5.25%	01/30/08	3.50%	3.00%
03/25/97		5.50%	03/16/08	3.25%	
12/12/97	5.00%		03/18/08	2.50%	2.25%
01/09/98	5.00%		04/30/08	2.25%	2.00%
03/06/98	5.00%		10/08/08	1.75%	1.50%
09/29/98		5.25%	10/29/08	1.25%	1.00%
10/15/98	4.75%	5.00%	12/16/08	0.50%	0% - .25%
11/17/98	4.50%	4.75%	02/19/10	0.75%	
			12/17/15	1.00%	0.25%-0.50%

* Staff began tracking the Federal Funds Rate.

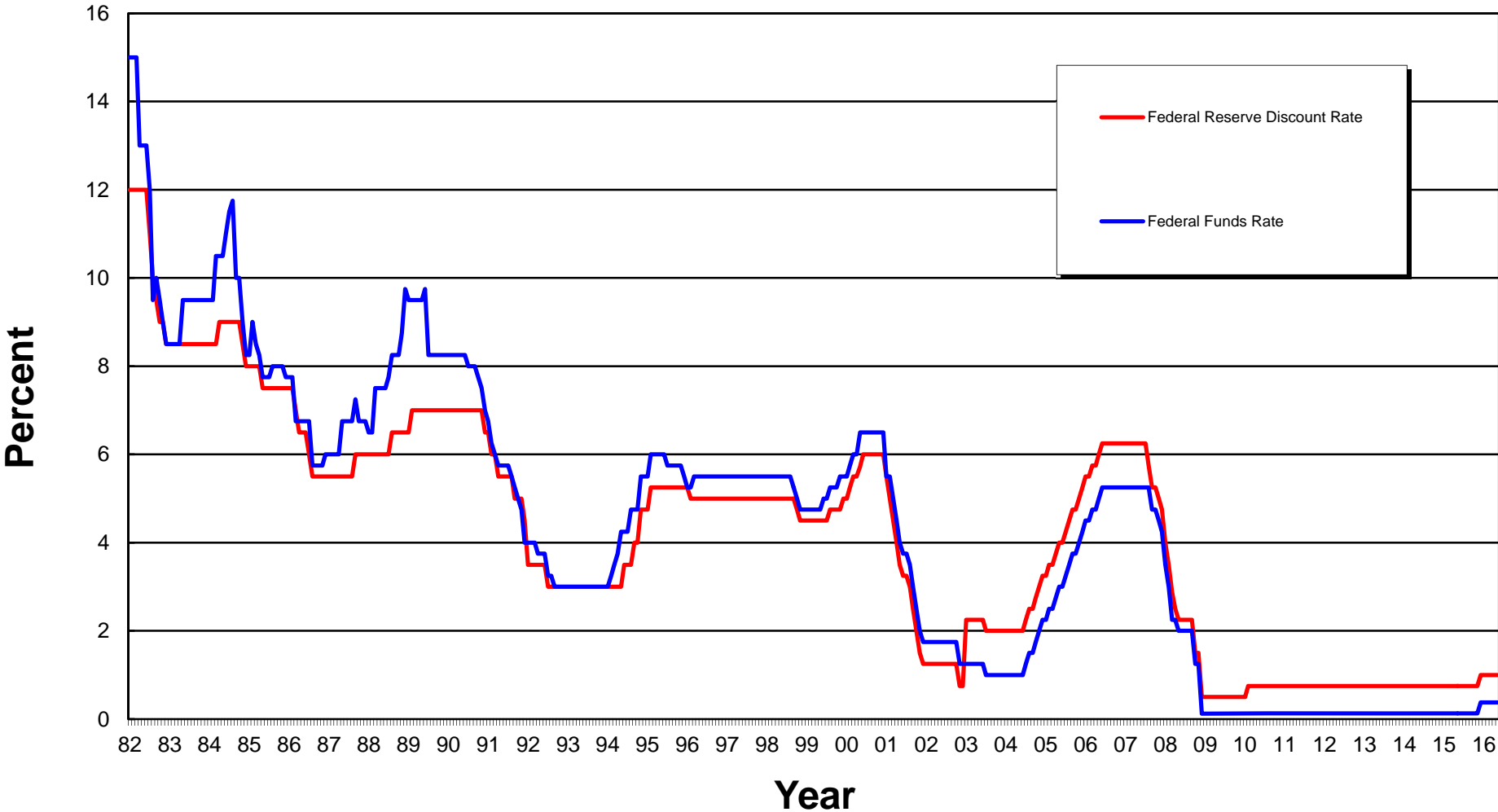
**Revised discount window program begins. Reflects rate on primary credit. This revised discount window policy results in incomparability of the discount rates after January 9, 2003 to discount rates before January 9, 2003.

Source: <http://www.federalreserve.gov>

Note: Interest rates as of December 31 for each year are underlined.

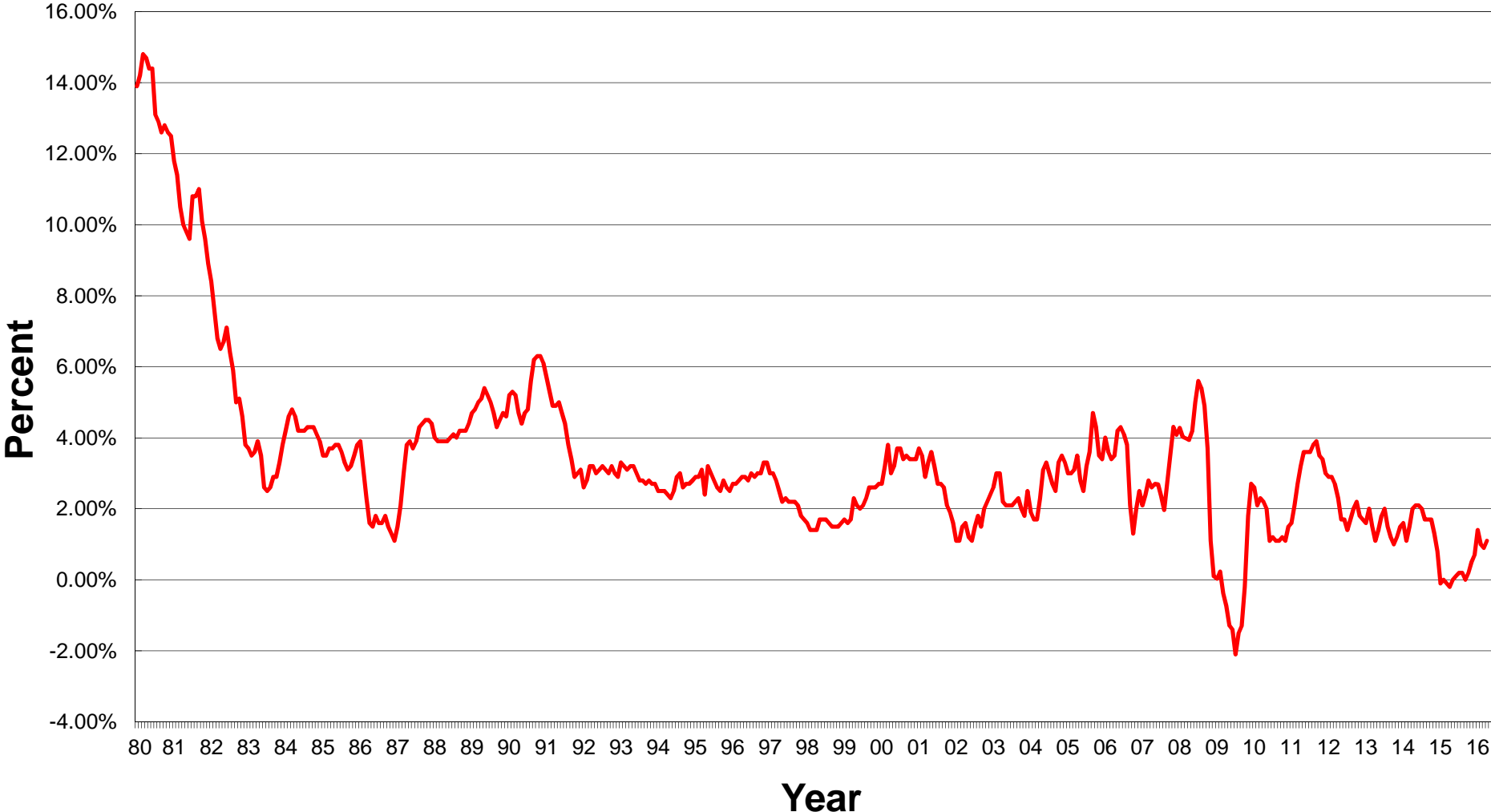
KCPL Greater Missouri Operations
Case No. ER-2016-0156

Federal Reserve Discount Rates and Federal Funds Rates Changes
1982 - 2016



KCPL Greater Missouri Operations
Case No. ER-2016-0156

Rate of Inflation
1980 - 2016



**KCPL Greater Missouri Operations
Case No. ER-2016-0156**

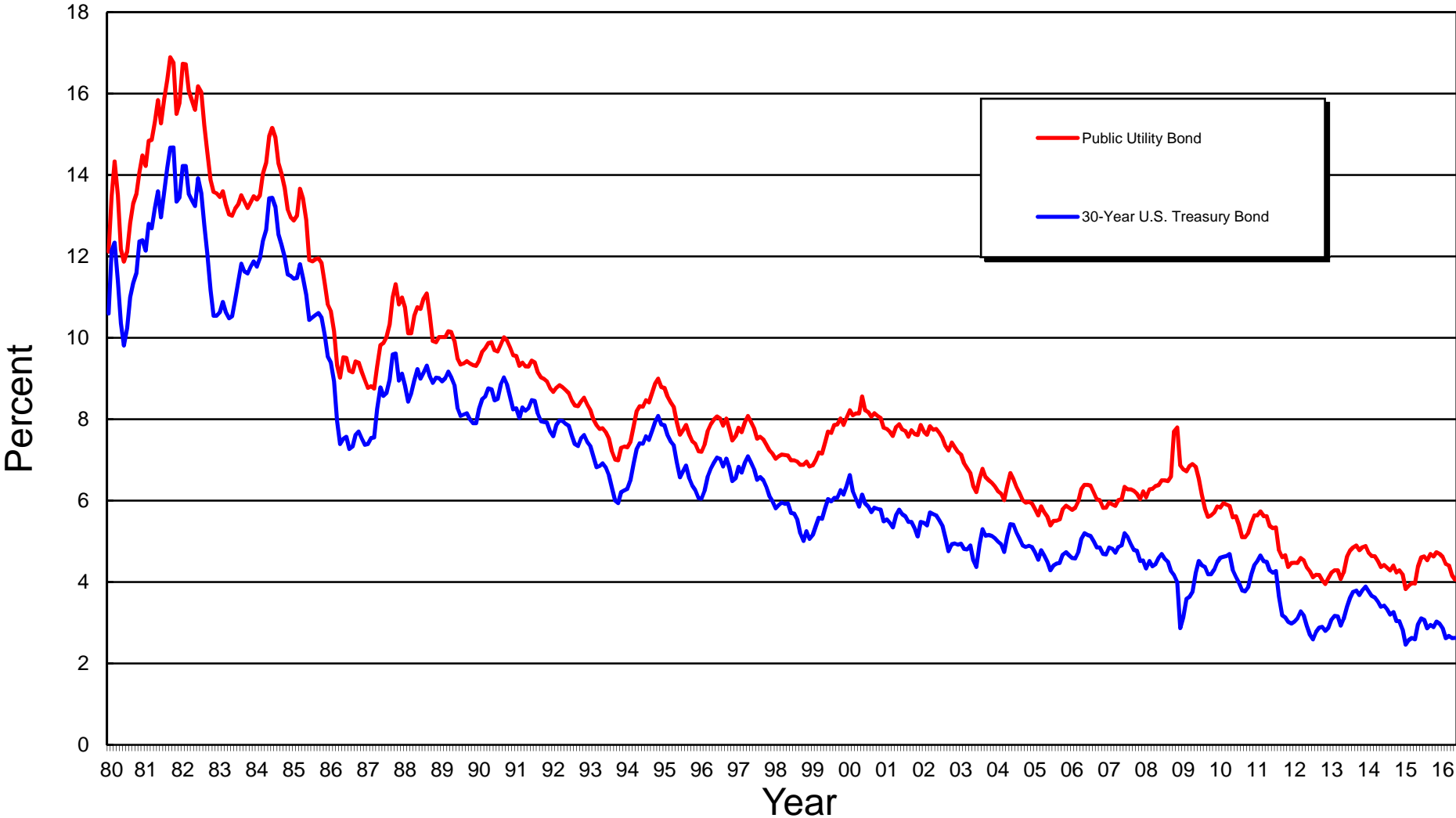
Average Yields on AA, A and BBB Public Utility Bonds

Mo/Year	Rate (%)	Mo/Year	Rate (%)	Mo/Year	Rate (%)	Mo/Year	Rate (%)	Mo/Year	Rate (%)	Mo/Year	Rate (%)	Mo/Year	Rate (%)	Mo/Year	Rate (%)	Mo/Year	Rate (%)	Mo/Year	Rate (%)
Jan 1980	12.12	Jan 1984	13.40	Jan 1988	10.75	Jan 1992	8.67	Jan 1996	7.20	Jan 2000	8.22	Jan 2004	6.23	Jan 2008	6.08	Jan 2012	4.48	Jan 2016	4.62
Feb	13.48	Feb	13.50	Feb	10.11	Feb	8.77	Feb	7.37	Feb	8.10	Feb	6.17	Feb	6.28	Feb	4.47	Feb	4.44
Mar	14.33	Mar	14.03	Mar	10.11	Mar	8.84	Mar	7.72	Mar	8.14	Mar	6.01	Mar	6.29	Mar	4.59	Mar	4.40
Apr	13.50	Apr	14.30	Apr	10.53	Apr	8.79	Apr	7.88	Apr	8.14	Apr	6.38	Apr	6.36	Apr	4.54	Apr	4.16
May	12.17	May	14.95	May	10.75	May	8.72	May	7.99	May	8.55	May	6.68	May	6.38	May	4.36	May	4.06
Jun	11.87	Jun	15.16	Jun	10.71	Jun	8.64	Jun	8.07	Jun	8.22	Jun	6.53	Jun	6.50	Jun	4.26	June	3.93
Jul	12.12	Jul	14.92	Jul	10.96	Jul	8.46	Jul	8.02	Jul	8.17	Jul	6.34	Jul	6.50	Jul	4.12		
Aug	12.82	Aug	14.29	Aug	11.09	Aug	8.34	Aug	7.84	Aug	8.05	Aug	6.18	Aug	6.48	Aug	4.18		
Sep	13.29	Sep	14.04	Sep	10.56	Sep	8.32	Sep	8.01	Sep	8.16	Sep	6.01	Sep	6.59	Sep	4.17		
Oct	13.53	Oct	13.68	Oct	9.92	Oct	8.44	Oct	7.76	Oct	8.08	Oct	5.95	Oct	7.70	Oct	4.04		
Nov	14.07	Nov	13.15	Nov	9.89	Nov	8.53	Nov	7.48	Nov	8.03	Nov	5.97	Nov	7.80	Nov	3.95		
Dec	14.48	Dec	12.96	Dec	10.02	Dec	8.36	Dec	7.58	Dec	7.79	Dec	5.93	Dec	6.87	Dec	4.10		
Jan 1981	14.22	Jan 1985	12.88	Jan 1989	10.02	Jan 1993	8.23	Jan 1997	7.79	Jan 2001	7.76	Jan 2005	5.80	Jan 2009	6.77	Jan 2013	4.24		
Feb	14.84	Feb	13.00	Feb	10.02	Feb	8.00	Feb	7.68	Feb	7.69	Feb	5.64	Feb	6.72	Feb	4.29		
Mar	14.86	Mar	13.66	Mar	10.16	Mar	7.85	Mar	7.92	Mar	7.59	Mar	5.86	Mar	6.85	Mar	4.29		
Apr	15.32	Apr	13.42	Apr	10.14	Apr	7.76	Apr	8.08	Apr	7.81	Apr	5.72	Apr	6.90	Apr	4.08		
May	15.84	May	12.89	May	9.92	May	7.78	May	7.94	May	7.88	May	5.60	May	6.83	May	4.24		
Jun	15.27	Jun	11.91	Jun	9.49	Jun	7.68	Jun	7.77	Jun	7.75	Jun	5.39	June	6.54	Jun	4.63		
Jul	15.87	Jul	11.88	Jul	9.34	Jul	7.53	Jul	7.52	Jul	7.71	Jul	5.50	July	6.15	Jul	4.78		
Aug	16.33	Aug	11.93	Aug	9.37	Aug	7.21	Aug	7.57	Aug	7.57	Aug	5.51	Aug	5.80	Aug	4.85		
Sep	16.89	Sep	11.95	Sep	9.43	Sep	7.01	Sep	7.50	Sep	7.73	Sep	5.54	Sep	5.60	Sep	4.90		
Oct	16.76	Oct	11.84	Oct	9.37	Oct	6.99	Oct	7.37	Oct	7.64	Oct	5.79	Oct	5.64	Oct	4.78		
Nov	15.50	Nov	11.33	Nov	9.33	Nov	7.30	Nov	7.24	Nov	7.61	Nov	5.88	Nov	5.71	Nov	4.86		
Dec	15.77	Dec	10.82	Dec	9.31	Dec	7.33	Dec	7.16	Dec	7.86	Dec	5.83	Dec	5.86	Dec	4.88		
Jan 1982	16.73	Jan 1986	10.66	Jan 1990	9.44	Jan 1994	7.31	Jan 1998	7.03	Jan 2002	7.69	Jan 2006	5.77	Jan 2010	5.83	Jan 2014	4.72		
Feb	16.72	Feb	10.16	Feb	9.66	Feb	7.44	Feb	7.09	Feb	7.62	Feb	5.83	Feb	5.94	Feb	4.64		
Mar	16.07	Mar	9.33	Mar	9.75	Mar	7.83	Mar	7.13	Mar	7.83	Mar	5.98	Mar	5.90	Mar	4.64		
Apr	15.82	Apr	9.02	Apr	9.87	Apr	8.20	Apr	7.12	Apr	7.74	Apr	6.28	Apr	5.87	Apr	4.52		
May	15.60	May	9.52	May	9.89	May	8.32	May	7.11	May	7.76	May	6.39	May	5.59	May	4.37		
Jun	16.18	Jun	9.51	Jun	9.69	Jun	8.31	Jun	6.99	Jun	7.67	June	6.39	June	5.62	Jun	4.42		
Jul	16.04	Jul	9.19	Jul	9.66	Jul	8.47	Jul	6.99	Jul	7.54	July	6.37	July	5.41	Jul	4.35		
Aug	15.22	Aug	9.15	Aug	9.84	Aug	8.41	Aug	6.96	Aug	7.34	Aug	6.20	Aug	5.10	Aug	4.28		
Sep	14.56	Sep	9.42	Sep	10.01	Sep	8.65	Sep	6.88	Sep	7.23	Sep	6.03	Sep	5.10	Sep	4.40		
Oct	13.88	Oct	9.39	Oct	9.94	Oct	8.88	Oct	6.88	Oct	7.43	Oct	6.01	Oct	5.20	Oct	4.24		
Nov	13.58	Nov	9.15	Nov	9.76	Nov	9.00	Nov	6.96	Nov	7.31	Nov	5.82	Nov	5.45	Nov	4.29		
Dec	13.55	Dec	8.96	Dec	9.57	Dec	8.79	Dec	6.84	Dec	7.20	Dec	5.83	Dec	5.64	Dec	4.18		
Jan 1983	13.46	Jan 1987	8.77	Jan 1991	9.56	Jan 1995	8.77	Jan 1999	6.87	Jan 2003	7.13	Jan 2007	5.96	Jan 2011	5.64	Jan 2015	3.83		
Feb	13.60	Feb	8.81	Feb	9.31	Feb	8.56	Feb	7.00	Feb	6.92	Feb	5.91	Feb	5.73	Feb	3.91		
Mar	13.28	Mar	8.75	Mar	9.39	Mar	8.41	Mar	7.18	Mar	6.80	Mar	5.87	Mar	5.62	Mar	3.97		
Apr	13.03	Apr	9.30	Apr	9.30	Apr	8.30	Apr	7.16	Apr	6.68	Apr	6.01	Apr	5.62	Apr	3.96		
May	13.00	May	9.82	May	9.29	May	7.93	May	7.42	May	6.35	May	6.03	May	5.38	May	4.38		
Jun	13.17	Jun	9.87	Jun	9.44	Jun	7.62	Jun	7.70	Jun	6.21	June	6.34	June	5.32	June	4.60		
Jul	13.28	Jul	10.01	Jul	9.40	Jul	7.73	Jul	7.66	Jul	6.54	July	6.28	July	5.34	July	4.63		
Aug	13.50	Aug	10.33	Aug	9.16	Aug	7.86	Aug	7.86	Aug	6.78	Aug	6.28	Aug	4.78	Aug	4.54		
Sep	13.35	Sep	11.00	Sep	9.03	Sep	7.62	Sep	7.87	Sep	6.58	Sep	6.24	Sep	4.61	Sep	4.69		
Oct	13.19	Oct	11.32	Oct	8.99	Oct	7.46	Oct	8.02	Oct	6.50	Oct	6.17	Oct	4.66	Oct	4.63		
Nov	13.33	Nov	10.82	Nov	8.93	Nov	7.40	Nov	7.86	Nov	6.44	Nov	6.04	Nov	4.37	Nov	4.73		
Dec	13.48	Dec	10.99	Dec	8.76	Dec	7.21	Dec	8.04	Dec	6.36	Dec	6.23	Dec	4.47	Dec	4.69		

Source:
Mergent Bond Record

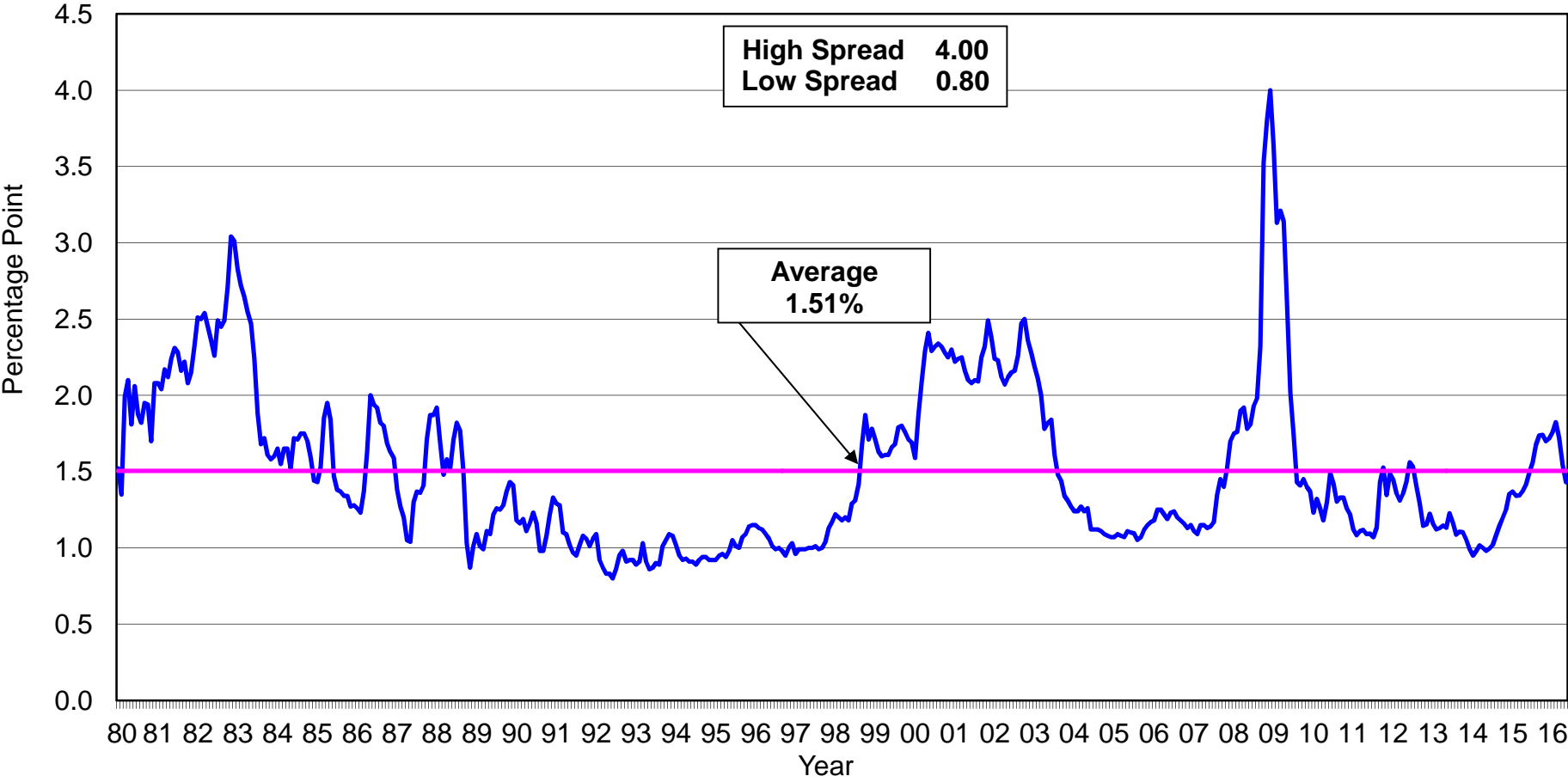
KCPL Greater Missouri Operations
Case No. ER-2016-0156

Average Yields on Public Utility Bonds and
Thirty-Year U.S. Treasury Bonds (1980 - 2016)



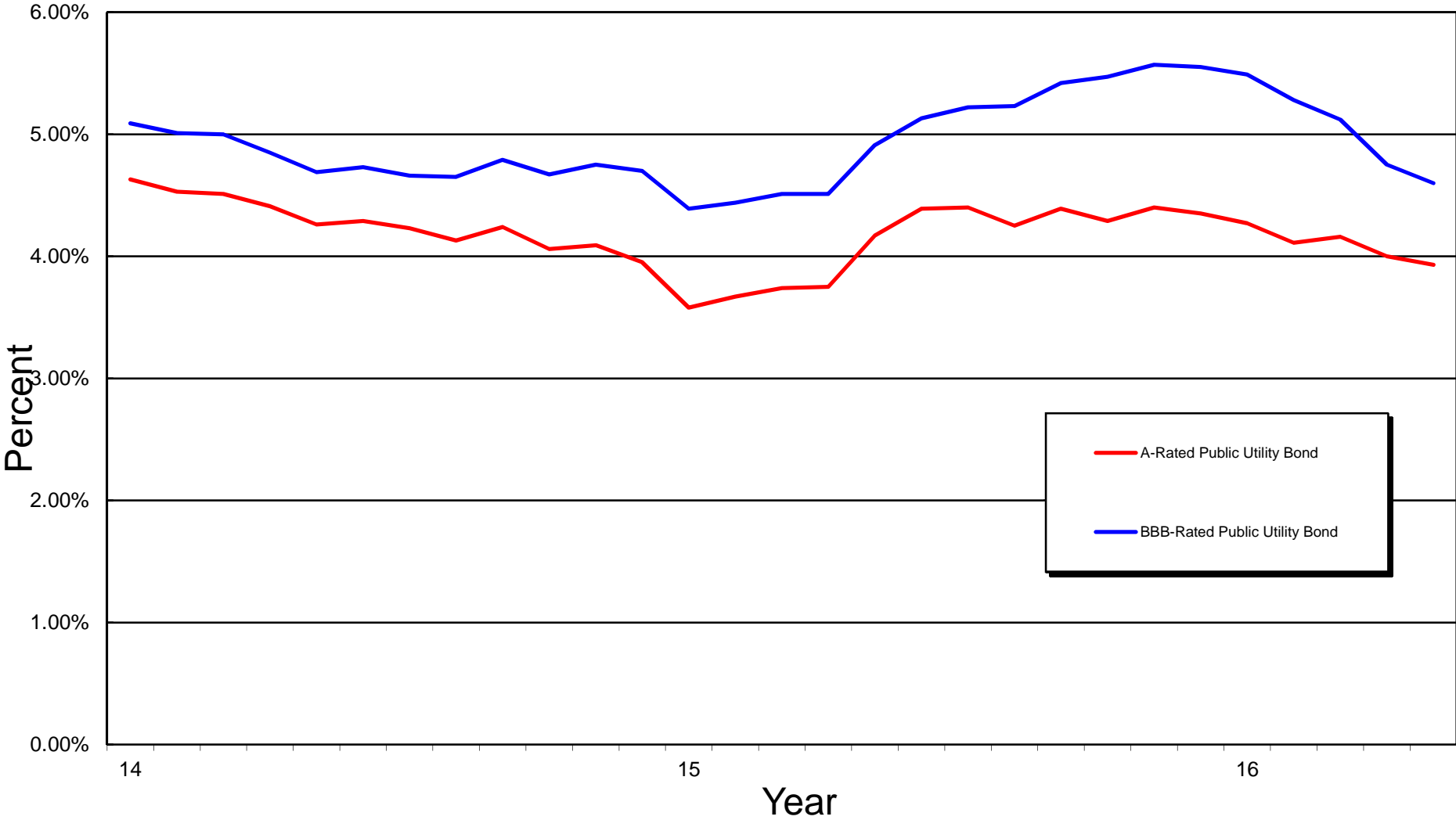
KCPL Greater Missouri Operations
Case No. ER-2016-0156

Monthly Spreads Between Yields on Public Utility Bonds and
Thirty-Year U.S. Treasury Bonds (1980 - 2016)



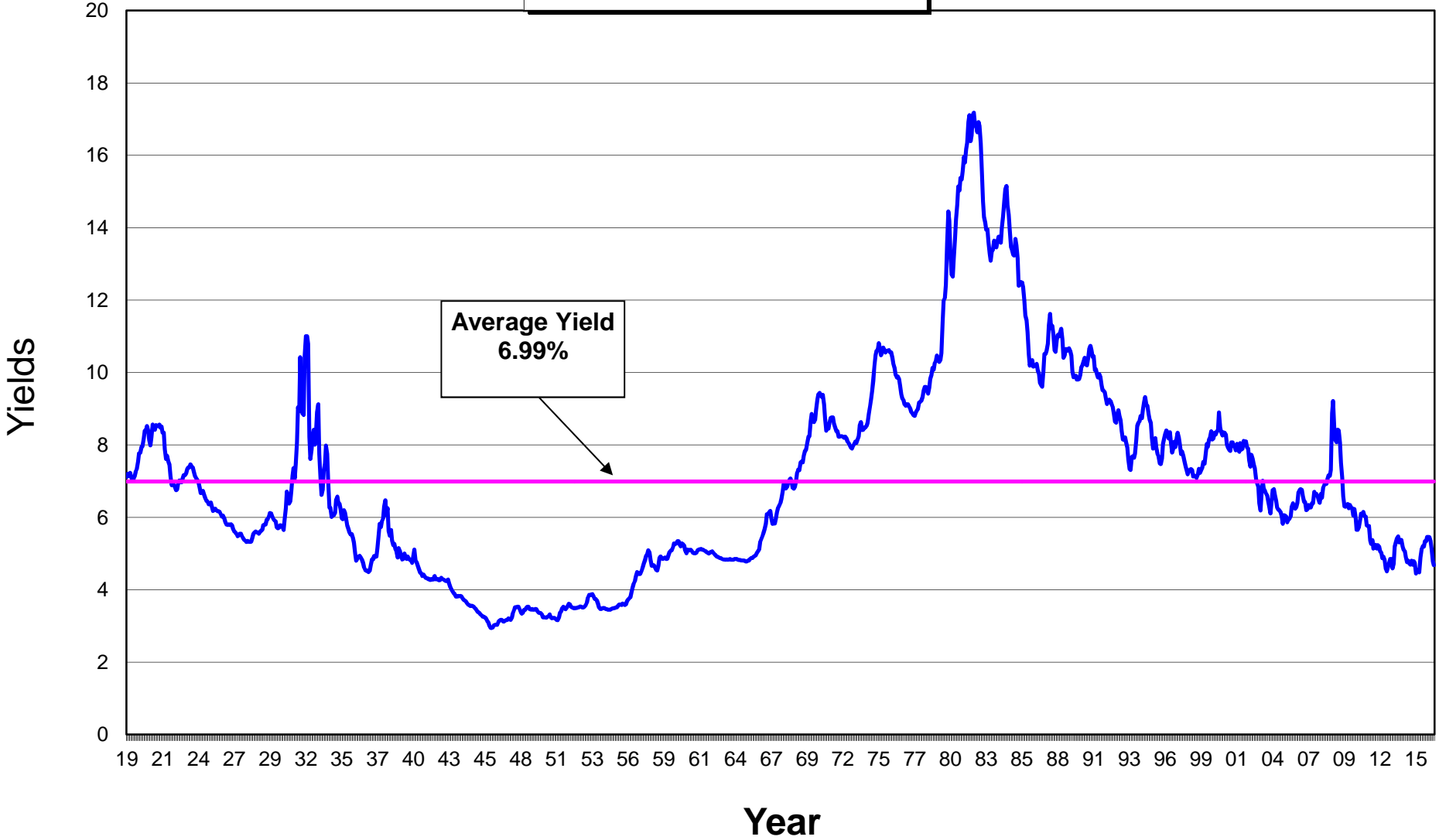
KCPL Greater Missouri Operations
Case No. ER-2016-0156

Average Yields on A-rated and
BBB-rated Pulic Utility Bonds (2014-present)



KCPL Greater Missouri Operations
Case No. ER-2016-0156

Moody's Baa Corporate
Bond Yields 1919-2016



Source: St. Louis Federal Reserve Website: <http://stlouisfed.org>

**KCPL Greater Missouri Operations
Case No. ER-2016-0156**

Historical Consolidated Capital Structures for Great Plains Energy

Capital Components	2011	2012	2013	2014	2015	5-Year Average
Common Equity	\$2,960.9	\$3,340.0	\$3,474.4	\$3,586.1	\$3,656.5	\$3,403.6
Preferred Stock	39.0	39.0	39.0	39.0	39.0	\$39.0
Long-Term Debt	3,543.7 *	3,019.9 *	3,516.8 *	3,480.8 *	3,746.2 *	\$3,461.5
Short-Term Debt	384.0	716.1	292.2	533.3	409.0	\$466.9
Total	<u>\$6,927.6</u>	<u>\$7,115.0</u>	<u>\$7,322.4</u>	<u>\$7,639.2</u>	<u>\$7,850.7</u>	<u>\$7,371.0</u>

Capital Components	2011	2012	2013	2014	2015	5-Year Average
Common Equity	42.74%	46.94%	47.45%	46.94%	46.58%	46.13%
Preferred Stock	0.56%	0.55%	0.53%	0.51%	0.50%	0.53%
Long-Term Debt	51.15%	42.44%	48.03%	45.56%	47.72%	46.98%
Short-Term Debt	5.54%	10.06%	3.99%	6.98%	5.21%	6.36%
Total	<u>100.00%</u>	<u>100.00%</u>	<u>100.00%</u>	<u>100.00%</u>	<u>100.00%</u>	<u>100.00%</u>

Sources:

- Great Plains Energy's SEC 10-K for 12/31/2011.
- Great Plains Energy's SEC 10-K for 12/31/2013.
- Great Plains Energy's SEC 10-K for 12/31/2014.
- Great Plains Energy's SEC 10-K for 12/31/2015.

Note: *Includes current maturities of long-term debt.

KCPL Greater Missouri Operations
Case No. ER-2016-0156

KANSAS CITY POWER & LIGHT COMPANY, GREAT PLAINS ENERGY and GMO
Weighted Average Cost of Long-Term Debt Capital
December 31, 2015

Line	Issue	(a) Initial Offering	(b) Date of Offering	(c) Date of Maturity	(d) Price to Public	(e) Original Discount (Premium)	(f) Underwriting & Issuance Expense	(g) Net Proceeds to Company	(h) Cost to Company	(i) Long-term Debt Capital Outstanding	(j) Annual Cost of Long-term Debt Capital
KANSAS CITY POWER & LIGHT ONLY											
Pledged General Mortgage Bonds											
1	EIRR 1992 Series	\$31,000,000	9/15/1992	7/1/2017	\$31,000,000		\$844,508	\$30,155,492	1.884%	\$31,000,000	\$584,119
2	MATES Series 1993-A	\$40,000,000	12/7/1993	12/1/2023	\$40,000,000		\$957,337	\$39,042,663	3.220%	\$40,000,000	\$1,288,183
3	MATES Series 1993-B	\$39,480,000	12/7/1993	12/1/2023	\$39,480,000		\$364,531	\$39,115,469	3.053%	\$39,480,000	\$1,205,502
4	EIRR La Cygne 2005 Series - 4.65% Coupon	\$21,940,000	2/23/1994	9/1/2035	\$21,940,000			\$21,940,000	4.650%	\$21,940,000	\$1,020,210
5	Mortgage Bonds Series 2009A - 7.15%	\$400,000,000	3/24/2009	3/24/2019	\$400,000,000	\$432,000	\$4,023,316	\$395,544,684	7.309%	\$400,000,000	\$29,235,757
Unsecured Notes											
6	Senior Notes Due 2017 - 5.85% Coupon (1)	\$250,000,000	5/30/2007	6/15/2017	\$250,000,000	\$420,000	\$1,843,906	\$247,736,094	5.972%	\$250,000,000	\$14,928,940
7	Senior Notes Due 2035 - 6.05% Coupon (2)	\$250,000,000	11/17/2005	11/15/2035	\$250,000,000	\$1,505,000	\$2,443,109	\$246,051,891	6.166%	\$250,000,000	\$15,415,411
8	Senior Notes Due 2018 - 6.375% Coupon (3)	\$350,000,000	3/6/2008	3/1/2018	\$350,000,000		\$2,566,730	\$347,433,270	6.476%	\$350,000,000	\$22,665,182
9	Senior Notes Due 2041 - 5.30% Coupon (4)	\$400,000,000	9/20/2011	10/1/2041	\$400,000,000	\$2,568,000	\$3,876,569	\$393,555,431	5.409%	\$400,000,000	\$21,636,650
10	Senior Notes Due 2023 - 3.15% Coupon (1)	\$300,000,000	3/14/2013	3/15/2023	\$300,000,000	\$282,000	\$2,339,941	\$297,378,059	3.253%	\$300,000,000	\$9,759,257
11	Senior Notes Due 2023 - 3.65% Coupon (1)	\$350,000,000	8/13/2015	8/15/2025	\$350,000,000	\$1,246,000	\$2,925,379	\$345,828,621	3.794%	\$350,000,000	\$13,280,167
Environmental Improvement Revenue Refunding Bonds											
12	2005 Series Due 2035 - 4.65% Coupon	\$50,000,000	9/1/05	9/1/2035	\$50,000,000			\$50,000,000	4.650%	\$50,000,000	\$2,325,000
13	2007 Series A Due 2035	\$73,250,000	9/19/07	9/1/2035	\$73,250,000		\$491,516	\$72,758,484	0.722%	\$73,250,000	\$529,181
14	2007 Series B Due 2035	\$73,250,000	9/19/07	9/1/2035	\$73,250,000		\$1,696,315	\$71,553,685	0.803%	\$73,250,000	\$588,136
15	2008 Series Due 2038	\$23,400,000	5/28/08	5/1/2038					3.081%	\$23,400,000	\$720,949
Other Long-Term Debt											
16	Unamortized Discount on Senior Notes									(4,801,986)	
17	Loss/(Gain) on Reacquired Debt										\$ 704,148
18	Weighted Cost of Interest Rate Management Products										\$8,535,948
19	Tax-exempt Debt Repurchased (lines 4 and 12)								4.65%	(\$71,940,000)	(\$3,345,210)
20	Total KCP&L Long-Term Debt Capital				#					\$2,575,578,014	\$141,077,532
21	KCP&L Weighted Avg. Cost of Long-Term Debt Capital				12/31/2015				5.478%		
GMO ONLY											
Pledged General Mortgage Bonds											
1	SJLP First Mortgage Bonds - 9.44%	\$22,500,000	2/1/91	2/1/21	\$22,500,000		\$664,653	\$21,835,347	9.745%	\$6,750,000	\$657,819
Unsecured Notes											
2	Senior Notes Due 2021 - 8.27% Coupon	\$131,750,000	3/31/99	11/15/21	\$131,750,000		\$3,591,143	\$128,158,857	8.547%	\$80,850,000	\$6,910,156
3	Medium Term Notes Due 2023 - 7.33% Coupon	\$3,000,000	11/30/93	11/30/23	\$3,000,000		\$163,606	\$2,836,394	7.803%	\$3,000,000	\$234,095
4	Medium Term Notes Due 2023 - 7.17% Coupon	\$7,000,000	12/6/93	12/1/23	\$7,000,000		\$382,259	\$6,617,741	7.636%	\$7,000,000	\$534,536
5	Senior Notes Series A Due 2025 - 3.49% Coupon	\$125,000,000	8/16/13	8/15/25	\$125,000,000		\$782,720	\$124,217,280	3.555%	\$125,000,000	\$4,443,193
6	Senior Notes Series B Due 2033 - 4.06% Coupon	\$75,000,000	8/16/13	8/15/33	\$75,000,000		\$467,003	\$74,532,997	4.106%	\$75,000,000	\$3,079,461
7	Senior Notes Series C Due 2043 - 4.74% Coupon	\$150,000,000	8/16/13	8/15/43	\$150,000,000		\$938,387	\$149,061,613	4.779%	\$150,000,000	\$7,169,204
Other Long-Term Debt											
8	Unamortized Discount on Senior Notes										
9	Loss/(Gain) on Reacquired Debt										\$ 36,121
10	Weighted Cost of Interest Rate Management Products										
11	Total GMO Long-Term Debt Capital				#					\$447,600,000	\$23,064,584
12	GMO Weighted Avg. Cost of Long-Term Debt Capital				12/31/2015				5.153%		

KCPL Greater Missouri Operations
Case No. ER-2016-0156

KANSAS CITY POWER & LIGHT COMPANY, GREAT PLAINS ENERGY and GMO
Weighted Average Cost of Long-Term Debt Capital
December 31, 2015

Line	Issue	(a) Initial Offering	(b) Date of Offering	(c) Date of Maturity	(d) Price to Public	(e) Original Discount (Premium)	(f) Underwriting & Issuance Expense	(g) Net Proceeds to Company	(h) Cost to Company	(i) Long-term Debt Capital Outstanding	(j) Annual Cost of Long-term Debt Capital
GREAT PLAINS ENERGY ONLY											
Unsecured Notes											
1	Senior Notes Due 2017 - 6.875% Coupon (5)	\$100,000,000	9/20/2007	9/15/2017	\$100,000,000	\$516,000	\$737,098	\$98,746,902	7.052%	\$100,000,000	\$7,051,752
2	Senior Notes Due 2021 - 4.85% Coupon	\$350,000,000	5/16/2011	6/1/2021	\$350,000,000	\$336,000	\$2,650,976	\$347,013,024	4.959%	\$350,000,000	\$17,357,475
3	Senior Notes Due 2022 - 5.292% Coupon	\$287,500,000	3/19/2012	6/15/2022	\$287,500,000	(\$6,584,013)	\$2,576,301	\$291,507,712	5.112%	\$287,500,000	\$14,697,605
Other Long-Term Debt											
4	Unamortized Discount on Senior Notes									(\$267,955)	
5	Unamortized Premium on Senior Notes									\$4,141,557	
6	Weighted Cost of Interest Rate Management Products										\$453,103
7	Total GPE Only Long-Term Debt Capital				#					\$741,373,602	\$39,559,935
8	GPE Only Weighted Avg. Cost of Long-Term Debt Capital				12/31/2015				5.336%		
GREAT PLAINS ENERGY, KANSAS CITY POWER & LIGHT and GMO											
1	Total GPE, KCP&L and GMO Long-Term Debt Capital				#					\$3,764,551,616	\$203,702,051
2	GPE, KCP&L and GMO Weighted Avg. Cost of Long-Term Debt Capital				12/31/2015				5.411%		

- (1) Expenses associated with the Senior Notes are being amortized over a 10 year period.
(2) Expenses associated with the Senior Notes are being amortized over a 30 year period.
(3) Expenses associated with the Senior Notes are being amortized over a 10 year period.
(4) Expenses associated with the Senior Notes are being amortized over a 30 year period.
(5) Expenses associated with the Senior Notes are being amortized over a 10 year period.

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KCPL Greater Missouri Operations
Case No. ER-2016-0156

GREAT PLAINS ENERGY INCORPORATED

Weighted Cost of Preferred Stock Capital Outstanding at
December 31, 2015

Line	(a) Description of Issue	(b) Date of Issuance	(c) No. of Shares Initial Offering	(d) Price to Public	(e) Underwriters Discounts & Commissions	(f) Issuance Expense	(g) Net Proceeds to Company	(h) Cost to Company	(i) Preferred Stock Capital Outstanding	(j) Annual Cost of Preferred Stock Capital
1	3.80% cum \$100 par	12-01-46	100,000	\$10,270,000	\$179,000	\$58,391	\$10,032,609	3.788%	\$10,000,000	\$378,800
2	4.50% cum \$100 par	1-20-52	100,000	10,000,000	195,000	79,241	9,725,759	4.627%	10,000,000	462,700
3	4.20% cum \$100 par	1-21-54	70,000	7,070,000	122,500	41,270	6,906,230	4.257%	7,000,000	297,990
4	4.35% cum \$100 par	4-17-56	120,000	12,000,000	201,600	71,304	11,727,096	4.451%	12,000,000	534,120
5	Total Preferred Stock Capital								<u>\$39,000,000</u>	<u>\$1,673,610</u>
6	Weighted Average Cost						<u>4.291%</u>			

**KCPL Greater Missouri Operations
Case No. ER-2016-0156**

**Rate Making Capital Structure as of December 31, 2015
for KCPL Greater Missouri Operations Company**

Capital Component	Dollar Amount (000's)	Percentage of Capital
Common Stock Equity	\$ 3,656,500	49.01%
Preferred Stock	\$ 39,000	0.52%
Long-Term Debt	\$ 3,764,552	50.46%
Short-Term Debt	\$ -	0.00%
Total Capitalization	\$ 7,460,052	100.00%

Source: GPE's SEC Form 10-K as of 12/31/2015 and GMO's Response to Staff DR No. 220

**KCPL Greater Missouri Operations
Case No. ER-2016-0156**

Criteria for Selecting Comparable Electric Utility Companies

(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)
Power Companies	Ticker	Stock Publicly Traded	Regulated Utility (EEI)	At least 50% of Plant from Electric Utility	At least 25% of Electric Plant Generation	At Least 80% of Income from Regulated Utility Operations	No Reduced Dividend Since 2013	At Least Investment Grade Credit Rating (2 of 3 agencies)	L-T Growth Coverage from at least 2 equity analysts in last 90 days and Current L-T Growth Available	No Pending Merger or Acquisition	Comparable Company Met All Criteria
SNL Financial											
Spot3 Energy Partners LP	CAFD	Yes	NA								
AES Corporation	AES	Yes	NA								
ALLETE, Inc.	ALE	Yes	No								
Alliant Energy Corporation	LNT	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Ameren Corporation	AEE	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
American Electric Power Company, Inc	AEP	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Atlantic Power Corporation	ATP	Yes	NA								
Avangrid, Inc.	AGR	Yes	No								
Avista Corporation	AVA	Yes	Yes	Yes	Yes	Yes	Yes	Yes	No		
Black Hills Corporation	BKH	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Calpine Corporation	CPN	Yes	NA								
CenterPoint Energy, Inc.	CNP	Yes	No								
Chesapeake Utilities Corporation	CPK	Yes	NA								
CMS Energy Corporation	CMS	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Consolidated Edison, Inc.	ED	Yes	Yes	Yes	No						
Covanta Holding Corporation	CVA	Yes	NA								
Dominion Resources, Inc.	D	Yes	No								
DTE Energy Company	DTE	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Duke Energy Corporation	DUK	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	No	
Dynegy Inc.	DYN	Yes	NA								
Edison International	EIX	Yes	Yes	Yes	No						
El Paso Electric Company	EE	Yes	Yes	Yes	Yes	Yes	Yes	Yes	No		
Empire District Electric Company	EDE	Yes	Yes	Yes	Yes	Yes	Yes	Yes	No		
Entergy Corporation	ETR	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Eversource Energy	ES	Yes	Yes	Yes	No						
Exelon Corporation	EXC	Yes	No								
First Solar, Inc.	FSLR	Yes	NA								
FirstEnergy Corp.	FE	Yes	No								
Great Plains Energy Inc.	GXP	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	No	
Hawaiian Electric Industries, Inc.	HE	Yes	No								
IDACORP, Inc.	IDA	Yes	Yes	Yes	Yes	Yes	Yes	Yes	No		
InfraREIT, Inc.	HIFR	Yes	NA								
ITC Holdings Corp.	ITC	Yes	NA								
MDU Resources Group, Inc.	MDU	Yes	No								
MGE Energy, Inc.	MGEE	Yes	No								
NextEra Energy, Inc.	NEE	Yes	No								
NiSource Inc.	NI	Yes	Yes	No							
NorthWestern Corporation	NWE	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
NRG Energy, Inc.	NRG	Yes	NA								
OGE Energy Corp.	OGE	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Ormat Technologies, Inc.	ORA	Yes	NA								
Otter Tail Corporation	OTTR	Yes	Yes	Yes	Yes	No					
Pattern Energy Group Inc.	PEGI	Yes	NA								
PG&E Corporation	PCG	Yes	Yes	Yes	No						
Pinnacle West Capital Corporation	PNW	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
PNM Resources, Inc.	PNM	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Portland General Electric Company	POR	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
PPL Corporation	PPL	Yes	Yes	Yes	No						
Public Service Enterprise Group Incorpora	PEG	Yes	No								
SCANA Corporation	SCG	Yes	No								
Sempra Energy	SRE	Yes	No								
SolarCity Corporation	SCTY	Yes	NA								
Southern Company	SO	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	No	
Spark Energy, Inc.	SPKE	Yes	NA								
SunEdison, Inc.	SUNE	Yes	NA								
Talen Energy Corporation	TLN	Yes	NA								
TECO Energy, Inc.	TE	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	No	
TerraForm Power, Inc.	TERP	Yes	NA								
UGI Corporation	UGI	Yes	NA								
Unitil Corporation	UTL	Yes	Yes	No							
Vectren Corporation	VVC	Yes	Yes	No							
WEC Energy Group, Inc.	WEC	Yes	Yes	No							
Westar Energy, Inc.	WR	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	No	
Xcel Energy Inc.	XEL	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes

Sources: Columns 1, 2, 3, 4, 5, 6, 7, 8, 9, 10 and 11 = SNL Financial.
Column 4 = Edison Electric Institute 2015 Financial Review

NA = Not available.

KCPL GREATER MISSOURI OPERATIONS
Case No. ER-2016-0156

**Comparable Electrical Utility Companies
for KCPL Greater Missouri Operations**

Number	Ticker Symbol	Company Name	S&P Corporate Credit Rating
1	LNT	Alliant Energy	A-
2	AEE	Ameren Corp.	BBB+
3	AEP	American Electric Power	BBB
4	BKH	Black Hills Corporation	BBB
5	CMS	CMS Energy Corporation	BBB+
6	DTE	DTE Energy Company	BBB+
7	ETR	Entergy Corporation	BBB
8	NWE	NorthWestern Corporation	BBB
9	OGE	OGE Energy Corp.	A-
10	PNW	Pinnacle West Capital	A-
11	PNM	PNM Resources, Inc.	BBB+
12	POR	Portland General Electric Company	BBB
13	XEL	Xcel Energy	A-
		Average	<u>BBB+</u>
		KCPL Greater Missouri Operations	BBB+

**KCPL Greater Missouri Operations
Case No. ER-2016-0156**

**Dividends Per Share
for the Comparable Electric Utility Companies**

Company Name	2018	2017	2016	2015	2014	2013	2012	2011	2010	2009	2008	2007	2006	2005	2004	2003
Alliant Energy	1.31	1.25	1.18	1.10	1.02	0.94	0.90	0.85	0.79	0.75	0.70	0.48	0.73	0.53	0.51	0.50
Ameren Corp.	1.92	1.82	1.74	1.66	1.61	1.60	1.60	1.56	1.54	1.54	2.54	2.54	2.54	2.54	2.54	2.54
American Electric Power	2.48	2.37	2.26	2.15	2.03	1.95	1.88	1.85	1.71	1.64	1.64	1.58	1.50	1.42	1.40	1.65
Black Hills Corporation	1.85	1.76	1.68	1.62	1.56	1.52	1.48	1.46	1.44	1.42	1.40	1.37	1.32	1.28	1.24	1.20
CMS Energy Corporation	1.42	1.33	1.24	1.16	1.08	1.02	0.96	0.84	0.66	0.50	0.36	0.20	0.00	0.00	0.00	0.00
DTE Energy Company	3.30	3.15	3.00	2.84	2.69	2.59	2.42	2.32	2.18	2.12	2.12	2.12	2.08	2.06	2.06	2.06
Entergy Corporation	3.61	3.53	3.43	3.34	3.32	3.32	3.32	3.32	3.24	3.00	3.00	2.58	2.16	2.16	1.89	1.60
NorthWestern Corporation	2.21	2.11	2.00	1.92	1.60	1.52	1.48	1.44	1.36	1.34	1.32	1.28	1.24	1.00	0.00	0.00
OGE Energy Corp.	1.33	1.21	1.10	1.05	0.95	0.85	0.80	0.76	0.73	0.71	0.70	0.68	0.67	0.67	0.67	0.67
Pinnacle West Capital	2.80	2.67	2.54	2.44	2.33	2.23	2.67	2.10	2.10	2.10	2.10	2.10	2.03	1.93	1.83	1.73
PNM Resources, Inc.	1.12	1.00	0.88	0.82	0.76	0.68	0.58	0.50	0.50	0.50	0.61	0.92	0.88	0.79	0.67	0.61
Portland General Electric Company	1.43	1.34	1.26	1.18	1.12	1.10	1.08	1.06	1.04	1.01	0.97	0.93	0.68 NA	NA	NA	NA
Xcel Energy	1.53	1.44	1.36	1.28	1.20	1.11	1.07	1.03	1.00	0.97	0.94	0.91	0.88	0.85	0.81	0.75

	<u>10-Year Historical</u>	<u>5-Year Historical</u>	<u>3-Year Projected</u>
Alliant Energy	7.17%	6.44%	6.09%
Ameren Corp.	-4.39%	-2.84%	5.04%
American Electric Power	3.21%	4.20%	4.90%
Black Hills Corporation	2.37%	1.99%	4.52%
CMS Energy Corporation	NM	16.49%	7.05%
DTE Energy Company	2.76%	4.80%	5.13%
Entergy Corporation	5.85%	1.55%	2.66%
NorthWestern Corporation	17.56%	4.63%	4.80%
OGE Energy Corp.	3.64%	5.87%	8.20%
Pinnacle West Capital	2.47%	2.10%	4.70%
PNM Resources, Inc.	0.89%	7.04%	10.95%
Portland General Electric Company	NA	2.37%	6.70%
Xcel Energy	4.05%	4.24%	6.11%
Average	4.14%	4.53%	5.91%
Pure Play Average	4.63%	5.06%	6.43%
2014 Refined Proxy Group Average	2.31%	4.98%	6.30%

**KCPL Greater Missouri Operations
Case No. ER-2016-0156**

**Earnings Per Share
for the Comparable Electric Utility Companies**

Company Name	2018	2017	2016	2015	2014	2013	2012	2011	2010	2009	2008	2007	2006	2005	2004	2003
Alliant Energy	2.13	2.00	1.90	1.69	1.74	1.65	1.47	1.46	1.31	0.50	1.27	1.89	1.45	0.24	0.97	0.77
Ameren Corp.	3.00	2.79	2.51	2.39	2.42	2.11	2.13	1.79	0.58	2.78	2.88	2.98	2.66	3.13	2.84	3.14
American Electric Power	4.08	3.84	3.67	3.59	3.24	3.04	2.60	3.25	2.53	2.97	3.40	2.87	2.52	2.64	2.85	1.35
Black Hills Corporation	3.76	3.53	3.02	-0.71	2.95	2.68	2.50	1.01	1.62	2.04	-1.37	2.03	2.23	1.00	1.88	1.84
CMS Energy Corporation	2.33	2.18	2.02	1.90	1.76	1.71	1.43	1.65	1.50	0.87	1.25	-0.62	-0.66	-0.71	0.68	-0.30
DTE Energy Company	5.63	5.26	4.95	4.05	5.11	3.76	3.89	4.21	3.75	3.24	3.22	4.62	2.19	3.30	2.67	2.87
Entergy Corporation	5.18	5.22	5.11	-0.99	5.24	3.99	4.77	7.59	6.72	6.39	6.39	5.77	5.46	4.49	4.01	3.55
NorthWestern Corporation	3.67	3.42	3.26	3.20	3.01	2.46	2.67	2.55	2.14	2.03	1.78	1.45	1.06	1.73	NA	-2.31
OGE Energy Corp.	2.05	1.91	1.77	1.36	1.99	1.96	1.80	1.75	1.52	1.34	1.25	1.33	1.24	0.90	0.84	0.83
Pinnacle West Capital	4.42	4.20	3.99	3.94	3.59	3.69	3.54	3.01	3.05	2.34	2.59	2.83	2.67	NA	2.70	2.47
PNM Resources, Inc.	2.09	1.89	1.61	0.20	1.46	1.26	1.32	1.98	-0.49	0.58	-3.66	0.77	1.55	1.00	1.45	0.99
Portland General Electric Company	2.48	2.37	2.11	2.05	2.24	1.36	1.87	1.95	1.66	1.31	1.39	2.33	1.14	NA	NA	NA
Xcel Energy	2.44	2.32	2.20	1.94	2.03	1.91	1.86	1.72	1.62	1.49	1.47	1.38	1.39	1.23	1.30	1.31

	<u>10-Year Historical</u>	<u>5-Year Historical</u>	<u>3-Year Projected</u>
Alliant Energy	9.90%	10.50%	8.04%
Ameren Corp.	-2.71%	2.09%	7.85%
American Electric Power	3.74%	2.09%	4.34%
Black Hills Corporation	0.42%	16.53%	NM
CMS Energy Corporation	NM	8.21%	7.07%
DTE Energy Company	3.87%	4.82%	11.58%
Entergy Corporation	-3.73%	-15.83%	NM
NorthWestern Corporation	NM	7.82%	4.63%
OGE Energy Corp.	7.57%	5.28%	14.66%
Pinnacle West Capital	3.76%	7.05%	3.88%
PNM Resources, Inc.	-1.63%	NM	118.63%
Portland General Electric Company	NM	5.32%	6.58%
Xcel Energy	4.35%	5.12%	7.96%
Average	2.55%	4.92%	17.75%
Pure Play Average	2.74%	6.59%	20.58%
2014 Refined Proxy Group Average	3.04%	5.65%	19.55%

**KCPL Greater Missouri Operations
Case No. ER-2016-0156**

**Book Value Per Share
for the Comparable Electric Utility Companies**

Company Name	2018	2017	2016	2015	2014	2013	2012	2011	2010	2009	2008	2007	2006	2005	2004	2003
Alliant Energy	19.62	18.69	17.50	16.41	15.50	14.79	14.12	13.57	13.05	12.53	12.78	12.15	11.42	10.43	11.07	10.69
Ameren Corp.	31.39	30.32	29.36	28.63	27.67	26.97	27.27	32.64	32.15	33.09	32.80	32.41	31.86	31.09	29.71	26.73
American Electric Power	42.18	40.17	38.28	36.44	34.37	32.98	31.37	30.33	28.33	27.49	26.33	25.17	23.73	23.08	21.51	19.93
Black Hills Corporation	33.25	31.68	29.32	28.63	30.31	28.84	27.28	27.53	28.02	27.84	27.19	25.66	23.68	22.29	22.43	21.72
CMS Energy Corporation	17.42	16.15	15.20	14.21	13.34	12.98	12.10	11.92	11.19	11.42	10.94	9.46	10.03	10.53	10.63	9.84
DTE Energy Company	55.21	52.84	50.66	48.88	47.05	44.73	42.78	41.41	39.67	37.96	36.77	35.86	33.02	32.44	31.85	31.36
Entergy Corporation	60.14	58.57	56.78	51.89	55.83	54.00	51.72	50.81	47.53	45.54	42.07	40.71	40.45	37.34	38.26	38.02
NorthWestern Corporation	NA	NA	NA	33.22	31.50	26.60	25.09	23.68	22.64	21.86	21.25	21.12	20.84	20.71	19.92	-15.55
OGE Energy Corp.	19.00	18.23	17.49	16.65	16.27	15.30	14.01	13.06	11.73	10.52	10.14	9.16	8.79	7.59	7.14	6.87
Pinnacle West Capital	46.31	44.65	43.12	41.30	39.50	38.07	36.20	34.98	33.86	32.69	34.16	35.15	34.48	34.58	32.14	30.97
PNM Resources, Inc.	23.71	22.69	21.75	20.78	21.61	21.01	20.19	19.76	17.73	19.03	19.03	22.03	22.24	18.89	18.19	17.84
Portland General Electric Company	28.84	27.49	26.38	25.43	24.43	23.29	22.87	22.07	21.14	20.50	21.64	21.05	19.58	19.15	29.91	27.69
Xcel Energy	23.90	22.98	22.08	20.89	20.20	19.21	18.19	17.44	16.76	15.92	15.35	14.70	14.28	13.37	12.99	12.95

	<u>10-Year Historical</u>	<u>5-Year Historical</u>	<u>3-Year Projected</u>
Alliant Energy	4.35%	4.01%	6.13%
Ameren Corp.	-0.19%	-3.22%	3.12%
American Electric Power	5.41%	4.79%	5.00%
Black Hills Corporation	2.60%	1.12%	5.11%
CMS Energy Corporation	3.24%	3.85%	7.02%
DTE Energy Company	4.37%	4.22%	4.14%
Entergy Corporation	3.20%	3.66%	5.04%
NorthWestern Corporation	14.79%	6.79%	NA
OGE Energy Corp.	8.74%	8.28%	4.49%
Pinnacle West Capital	2.41%	3.37%	3.89%
PNM Resources, Inc.	1.27%	2.59%	4.50%
Portland General Electric Company	-0.06%	2.94%	4.29%
Xcel Energy	4.77%	4.66%	4.60%
Average	4.22%	3.62%	4.78%
Pure Play Average	3.82%	3.13%	4.79%
2014 Refined Proxy Group Average	2.84%	3.02%	4.74%

**KCPL Greater Missouri Operations
Case No. ER-2016-0156**

**Ten-Year Dividends Per Share, Earnings Per Share & Book Value Per Share Growth Rates
for the Comparable Companies**

Company Name	----- 10-Year Annual Compound Growth Rates -----			Average of 10 Year Annual Compound Growth Rates
Company Name	DPS	EPS	BVPS	Growth Rates
Alliant Energy	7.17%	9.90%	4.35%	7.14%
Ameren Corp.	-4.39%	-2.71%	-0.19%	-2.43%
American Electric Power	3.21%	3.74%	5.41%	4.12%
Black Hills Corporation	2.37%	0.42%	2.60%	1.79%
CMS Energy Corporation	NM	NM	3.24%	3.24%
DTE Energy Company	2.76%	3.87%	4.37%	3.66%
Entergy Corporation	5.85%	-3.73%	3.20%	1.77%
NorthWestern Corporation	17.56%	NM	14.79%	16.17%
OGE Energy Corp.	3.64%	7.57%	8.74%	6.65%
Pinnacle West Capital	2.47%	3.76%	2.41%	2.88%
PNM Resources, Inc.	0.89%	-1.63%	1.27%	0.18%
Portland General Electric Company	NA	NM	-0.06%	-0.06%
Xcel Energy	4.05%	4.35%	4.77%	4.39%
Average	4.14%	2.55%	4.22%	3.81%
Pure Play Average	4.63%	2.74%	3.82%	3.73%
2014 Refined Proxy Group Average	2.31%	3.04%	2.84%	2.73%

Source: SNL Financial.

**KCPL Greater Missouri Operations
Case No. ER-2016-0156**

**Five-Year Dividends Per Share, Earnings Per Share & Book Value Per Share Growth Rates
for the Comparable Companies**

Company Name	----- 5-Year Annual Compound Growth Rates -----				Average of 5 Year Annual Compound Growth Rates
	DPS	EPS	BVPS		
Alliant Energy	6.44%	10.50%	4.01%		6.99%
Ameren Corp.	-2.84%	2.09%	-3.22%		-1.32%
American Electric Power	4.20%	2.09%	4.79%		3.69%
Black Hills Corporation	1.99%	16.53%	1.12%		6.54%
CMS Energy Corporation	16.49%	8.21%	3.85%		9.52%
DTE Energy Company	4.80%	4.82%	4.22%		4.61%
Entergy Corporation	1.55%	-15.83%	3.66%		-3.54%
NorthWestern Corporation	4.63%	7.82%	6.79%		6.41%
OGE Energy Corp.	5.87%	5.28%	8.28%		6.48%
Pinnacle West Capital	2.10%	7.05%	3.37%		4.17%
PNM Resources, Inc.	7.04%	NM	2.59%		4.81%
Portland General Electric Company	2.37%	5.32%	2.94%		3.55%
Xcel Energy	4.24%	5.12%	4.66%		4.67%
Average	4.53%	4.92%	3.62%		4.35%
Pure Play Average	5.06%	6.59%	3.13%		4.92%
2014 Refined Proxy Group Average	4.98%	5.65%	3.02%		4.55%

Source: SNL Financial.

**KCPL Greater Missouri Operations
Case No. ER-2016-0156**

**Historical and Projected Growth Rates for the
Comparable Electric Utility Companies**

Company Name	(1) 10-Year Historical Growth Rate (DPS, EPS and BVPS)	(2) 5-Year Hisotrical Growth Rate (DPS, EPS and BVPS)	(3) Projected 5-Year EPS Growth FactSet (Mean) (%)
Alliant Energy	7.14%	6.99%	7.15%
Ameren Corp.	-2.43%	-1.32%	6.95%
American Electric Power	4.12%	3.69%	3.91%
Black Hills Corporation	1.79%	6.54%	6.48%
CMS Energy Corporation	3.24%	9.52%	6.27%
DTE Energy Company	3.66%	4.61%	5.22%
Entergy Corporation	1.77%	-3.54%	0.47%
NorthWestern Corporation	16.17%	6.41%	5.00%
OGE Energy Corp.	6.65%	6.48%	4.00%
Pinnacle West Capital	2.88%	4.17%	4.20%
PNM Resources, Inc.	0.18%	4.81%	6.95%
Portland General Electric Company	-0.06%	3.55%	6.15%
Xcel Energy	4.39%	4.67%	5.00%
Average	3.81%	4.35%	5.21%
Pure Play Average	3.94%	4.85%	5.96%
2014 Refined Proxy Group Average	2.57%	4.52%	5.76%

Sources: Column 1 = Schedule 10-4

Column 2 = Schedule 10-5.

Column 3 = SNL Financial

**KCPL Greater Missouri Operations
Case No. ER-2016-0156**

**Constant-Growth Discounted Cash Flow (DCF) Estimated Costs of Common Equity
for the Comparable Electric Utility Companies**

	(1)	(2)	(3)
Company Name	Expected Annual Dividend	Average 3-Month Stock Price	Projected Dividend Yield
Alliant Energy	\$1.21	\$37.098	3.26%
Ameren Corp.	\$1.78	\$49.160	3.62%
American Electric Power	\$2.31	\$65.444	3.53%
Black Hills Corporation	\$1.72	\$60.285	2.85%
CMS Energy Corporation	\$1.28	\$42.011	3.06%
DTE Energy Company	\$3.08	\$90.870	3.39%
Entergy Corporation	\$3.48	\$76.743	4.54%
NorthWestern Corporation	\$2.06	\$59.209	3.47%
OGE Energy Corp.	\$1.16	\$29.945	3.86%
Pinnacle West Capital	\$2.61	\$74.558	3.50%
PNM Resources, Inc.	\$0.94	\$32.871	2.86%
Portland General Electric Company	\$1.30	\$40.803	3.19%
Xcel Energy	\$1.40	\$41.381	3.39%
Average			3.42%
Pure Play Average			3.29%
2014 Refined Proxy Group Average			3.31%
		Proposed Dividend Yield:	3.35%
		Proposed Range of Growth:	3.00% - 5.00%
		Estimated Proxy Cost of Common Equity:	6.35% - 8.35%

Notes: Column 1 = Expected Annual Dividend based on a weighted average of the company's 2016 fiscal year and 2017 fiscal year FactSet projected dividends per share according to SNL Financial.
Column 3 = (Column 1 / Column 2).

Sources: Columns 1 and 2 = SNL Financial

**KCPL Greater Missouri Operations
Case No. ER-2016-0156**

**Multiple-Stage Discounted Cash Flow (DCF) Estimated Costs of Common Equity
for the Comparable Electric Utility Companies**

	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
Company Name	Annualized Quarterly Dividend	Growth Years 1-5	6	7	Growth Years 8	9	10	Growth in Perpetuity	Cost of Equity
Alliant Energy	\$1.18	7.15%	6.46%	5.77%	5.08%	4.38%	3.69%	3.00%	7.24%
Ameren Corp.	\$1.70	6.95%	6.29%	5.63%	4.98%	4.32%	3.66%	3.00%	7.56%
American Electric Power	\$2.24	3.91%	3.76%	3.61%	3.46%	3.30%	3.15%	3.00%	6.74%
Black Hills Corporation	\$1.68	6.48%	5.90%	5.32%	4.74%	4.16%	3.58%	3.00%	6.59%
CMS Energy Corporation	\$1.24	6.27%	5.73%	5.18%	4.64%	4.09%	3.55%	3.00%	6.75%
DTE Energy Company	\$2.92	5.22%	4.85%	4.48%	4.11%	3.74%	3.37%	3.00%	6.81%
Entergy Corporation	\$3.40	0.47%	0.89%	1.31%	1.74%	2.16%	2.58%	3.00%	6.87%
NorthWestern Corporation	\$2.00	5.00%	4.67%	4.33%	4.00%	3.67%	3.33%	3.00%	6.95%
OGE Energy Corp.	\$1.10	4.00%	3.83%	3.67%	3.50%	3.33%	3.17%	3.00%	7.03%
Pinnacle West Capital	\$2.50	4.20%	4.00%	3.80%	3.60%	3.40%	3.20%	3.00%	6.73%
PNM Resources, Inc.	\$0.88	6.95%	6.29%	5.63%	4.98%	4.32%	3.66%	3.00%	6.55%
Portland General Electric Compar	\$1.28	6.15%	5.63%	5.10%	4.58%	4.05%	3.53%	3.00%	6.95%
Xcel Energy	\$1.36	5.00%	4.67%	4.33%	4.00%	3.67%	3.33%	3.00%	6.85%
								Average	6.89%
								Pure Play Average	6.95%
								2014 Refined Proxy Group Average	6.91%

Sources: Column 1 = SNL Financial

Column 2 = Schedule 10-6

Column 8 = See range of averages from Schedules 13-1 through Schedule 13-4.

**KCPL Greater Missouri Operations
Case No. ER-2016-0156**

**Multiple-Stage Discounted Cash Flow (DCF) Estimated Costs of Common Equity
for the Comparable Electric Utility Companies**

	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
Company Name	Annualized Quarterly Dividend	Growth Years 1-5	6	7	Growth Years 8	9	10	Growth in Perpetuity	Cost of Equity
Alliant Energy	\$1.18	7.15%	6.54%	5.93%	5.33%	4.72%	4.11%	3.50%	7.63%
Ameren Corp.	\$1.70	6.95%	6.38%	5.80%	5.23%	4.65%	4.08%	3.50%	7.94%
American Electric Power	\$2.24	3.91%	3.84%	3.77%	3.71%	3.64%	3.57%	3.50%	7.13%
Black Hills Corporation	\$1.68	6.48%	5.98%	5.49%	4.99%	4.49%	4.00%	3.50%	6.99%
CMS Energy Corporation	\$1.24	6.27%	5.81%	5.35%	4.89%	4.42%	3.96%	3.50%	7.15%
DTE Energy Company	\$2.92	5.22%	4.93%	4.65%	4.36%	4.07%	3.79%	3.50%	7.21%
Entergy Corporation	\$3.40	0.47%	0.98%	1.48%	1.99%	2.49%	3.00%	3.50%	7.27%
NorthWestern Corporation	\$2.00	5.00%	4.75%	4.50%	4.25%	4.00%	3.75%	3.50%	7.35%
OGE Energy Corp.	\$1.10	4.00%	3.92%	3.83%	3.75%	3.67%	3.58%	3.50%	7.42%
Pinnacle West Capital	\$2.50	4.20%	4.08%	3.97%	3.85%	3.73%	3.62%	3.50%	7.13%
PNM Resources, Inc.	\$0.88	6.95%	6.38%	5.80%	5.23%	4.65%	4.08%	3.50%	6.96%
Portland General Electric Company	\$1.28	6.15%	5.71%	5.27%	4.83%	4.38%	3.94%	3.50%	7.34%
Xcel Energy	\$1.36	5.00%	4.75%	4.50%	4.25%	4.00%	3.75%	3.50%	7.24%
								Average	7.29%
								Pure Play Average	7.34%
								2014 Refined Proxy Group Average	7.30%

Sources: Column 1 = SNL Financial.

Column 2 = Schedule 10-6

Column 8 = See range of averages from Schedules 13-1 through Schedule 13-4.

**KCPL Greater Missouri Operations
Case No. ER-2016-0156**

**Multiple-Stage Discounted Cash Flow (DCF) Estimated Costs of Common Equity
for the Comparable Electric Utility Companies**

	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
Company Name	Annualized Quarterly Dividend	Growth Years 1-5	6	7	Growth Years 8	9	10	Growth in Perpetuity	Cost of Equity
Alliant Energy	\$1.18	7.15%	6.63%	6.10%	5.58%	5.05%	4.53%	4.00%	8.02%
Ameren Corp.	\$1.70	6.95%	6.46%	5.97%	5.48%	4.98%	4.49%	4.00%	8.33%
American Electric Power	\$2.24	3.91%	3.93%	3.94%	3.96%	3.97%	3.99%	4.00%	7.53%
Black Hills Corporation	\$1.68	6.48%	6.07%	5.65%	5.24%	4.83%	4.41%	4.00%	7.39%
CMS Energy Corporation	\$1.24	6.27%	5.89%	5.51%	5.14%	4.76%	4.38%	4.00%	7.55%
DTE Energy Company	\$2.92	5.22%	5.02%	4.81%	4.61%	4.41%	4.20%	4.00%	7.61%
Entergy Corporation	\$3.40	0.47%	1.06%	1.65%	2.24%	2.82%	3.41%	4.00%	7.66%
NorthWestern Corporation	\$2.00	5.00%	4.83%	4.67%	4.50%	4.33%	4.17%	4.00%	7.74%
OGE Energy Corp.	\$1.10	4.00%	4.00%	4.00%	4.00%	4.00%	4.00%	4.00%	7.82%
Pinnacle West Capital	\$2.50	4.20%	4.17%	4.13%	4.10%	4.07%	4.03%	4.00%	7.53%
PNM Resources, Inc.	\$0.88	6.95%	6.46%	5.97%	5.48%	4.98%	4.49%	4.00%	7.36%
Portland General Electric Company	\$1.28	6.15%	5.79%	5.43%	5.08%	4.72%	4.36%	4.00%	7.74%
Xcel Energy	\$1.36	5.00%	4.83%	4.67%	4.50%	4.33%	4.17%	4.00%	7.64%
								Average	7.69%
								Pure Play Average	7.74%
								2014 Refined Proxy Group Average	7.70%

Sources: Column 1 = SNL Financial.
Column 2 = Schedule 10-6
Column 8 = See range of averages from Schedules 13-1 through Schedule 13-4.

**KCPL Greater Missouri Operations
Case No. ER-2016-0156**

**Multiple-Stage Discounted Cash Flow (DCF) Estimated Costs of Common Equity
for the Comparable Electric Utility Companies**

	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
Company Name	Annualized Quarterly Dividend	Growth Years 1-5	6	7	Growth Years 8	9	10	Growth in Perpetuity	Cost of Equity
Alliant Energy	\$1.18	7.15%	6.69%	6.23%	5.78%	5.32%	4.86%	4.40%	8.33%
Ameren Corp.	\$1.70	6.95%	6.53%	6.10%	5.68%	5.25%	4.83%	4.40%	8.63%
American Electric Power	\$2.24	3.91%	3.99%	4.07%	4.16%	4.24%	4.32%	4.40%	7.86%
Black Hills Corporation	\$1.68	6.48%	6.13%	5.79%	5.44%	5.09%	4.75%	4.40%	7.72%
CMS Energy Corporation	\$1.24	6.27%	5.96%	5.65%	5.34%	5.02%	4.71%	4.40%	7.87%
DTE Energy Company	\$2.92	5.22%	5.08%	4.95%	4.81%	4.67%	4.54%	4.40%	7.93%
Entergy Corporation	\$3.40	0.47%	1.13%	1.78%	2.44%	3.09%	3.75%	4.40%	7.98%
NorthWestern Corporation	\$2.00	5.00%	4.90%	4.80%	4.70%	4.60%	4.50%	4.40%	8.06%
OGE Energy Corp.	\$1.10	4.00%	4.07%	4.13%	4.20%	4.27%	4.33%	4.40%	8.13%
Pinnacle West Capital	\$2.50	4.20%	4.23%	4.27%	4.30%	4.33%	4.37%	4.40%	7.85%
PNM Resources, Inc.	\$0.88	6.95%	6.53%	6.10%	5.68%	5.25%	4.83%	4.40%	7.69%
Portland General Electric Compan	\$1.28	6.15%	5.86%	5.57%	5.28%	4.98%	4.69%	4.40%	8.06%
Xcel Energy	\$1.36	5.00%	4.90%	4.80%	4.70%	4.60%	4.50%	4.40%	7.96%
								Average	8.01%
								Pure Play Average	8.06%
								2014 Refined Proxy Group Average	8.02%

Sources: Column 1 = SNL Financial.
Column 2 = Schedule 10-6

Column 8 = Compounding the expected GDP price deflator of 2% with the long term real GDP growth of 2.35% from the 2014 cases.

**KCPL Greater Missouri Operations
Case No. ER-2016-0156**

**Multiple-Stage Discounted Cash Flow (DCF) Estimated Costs of Common Equity
for the Comparable Electric Utility Companies**

	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
Company Name	Annualized Quarterly Dividend	Growth Years 1-5	6	7	Growth Years 8	9	10	Growth in Perpetuity	Cost of Equity
Alliant Energy	\$1.18	7.15%	6.64%	6.13%	5.63%	5.12%	4.61%	4.10%	8.10%
Ameren Corp.	\$1.70	6.95%	6.48%	6.00%	5.53%	5.05%	4.58%	4.10%	8.40%
American Electric Power	\$2.24	3.91%	3.94%	3.97%	4.01%	4.04%	4.07%	4.10%	7.62%
Black Hills Corporation	\$1.68	6.48%	6.08%	5.69%	5.29%	4.89%	4.50%	4.10%	7.48%
CMS Energy Corporation	\$1.24	6.27%	5.91%	5.55%	5.19%	4.82%	4.46%	4.10%	7.63%
DTE Energy Company	\$2.92	5.22%	5.03%	4.85%	4.66%	4.47%	4.29%	4.10%	7.69%
Entergy Corporation	\$3.40	0.47%	1.08%	1.68%	2.29%	2.89%	3.50%	4.10%	7.74%
NorthWestern Corporation	\$2.00	5.00%	4.85%	4.70%	4.55%	4.40%	4.25%	4.10%	7.82%
OGE Energy Corp.	\$1.10	4.00%	4.02%	4.03%	4.05%	4.07%	4.08%	4.10%	7.90%
Pinnacle West Capital	\$2.50	4.20%	4.18%	4.17%	4.15%	4.13%	4.12%	4.10%	7.61%
PNM Resources, Inc.	\$0.88	6.95%	6.48%	6.00%	5.53%	5.05%	4.58%	4.10%	7.44%
Portland General Electric Company	\$1.28	6.15%	5.81%	5.47%	5.13%	4.78%	4.44%	4.10%	7.82%
Xcel Energy	\$1.36	5.00%	4.85%	4.70%	4.55%	4.40%	4.25%	4.10%	7.72%
								Average	7.77%
								Pure Play Average	7.82%
								2014 Refined Proxy Group Average	7.78%

Sources: Column 1 = SNL Financial.

Column 2 = Schedule 10-6

Column 8 = Compounding the expected GDP price deflator of 2% with the long term real GDP growth of 2.025%.

**KCPL Greater Missouri Operations
Case No. ER-2016-0156**

**Central Region Electric Utility Proxy Group
EPS**

Ten-Year Compound Growth Rate Averages (1968-1999)

Years	Dayton P & L/ DPL	Detroit Edison/ DTE	Empire	IPALCO	Kansas City P & L	Northern States Power	Okla. Gas & Electric/ OGE Energy Corp.	SJL&P	WPS Resources/ Wisconsin Public Serv.	WI Energy/ WI Electric Power	Average
1968-70 to 1978-80	-1.74%	-0.57%	0.24%	4.13%	1.77%	4.13%	1.16%	1.40%	6.23%	6.32%	2.31%
1969-71 to 1979-81	-0.21%	0.05%	-0.64%	4.30%	2.62%	4.02%	0.48%	1.66%	6.60%	6.79%	2.57%
1970-72 to 1980-82	0.98%	-0.46%	0.41%	3.14%	3.24%	4.48%	1.88%	2.66%	6.41%	7.24%	3.00%
1971-73 to 1981-83	2.72%	0.53%	2.64%	2.87%	4.83%	6.11%	2.90%	4.03%	6.92%	7.77%	4.13%
1972-74 to 1982-84	3.71%	1.48%	5.33%	4.69%	6.44%	7.64%	3.02%	5.65%	7.78%	8.25%	5.40%
1973-75 to 1983-85	4.19%	3.60%	6.21%	5.91%	7.60%	8.08%	2.58%	6.94%	8.54%	9.39%	6.30%
1974-76 to 1984-86	4.19%	4.41%	6.50%	5.86%	5.75%	8.03%	2.81%	7.89%	7.98%	9.60%	6.30%
1975-77 to 1985-87	5.10%	4.69%	5.70%	4.19%	4.26%	7.59%	2.90%	8.10%	6.81%	9.18%	5.85%
1976-78 to 1986-88	5.84%	4.29%	5.68%	5.40%	3.02%	7.24%	3.92%	7.95%	5.98%	8.86%	5.82%
1977-79 to 1987-89	6.16%	3.93%	5.49%	5.09%	4.12%	6.73%	5.22%	8.49%	5.08%	8.96%	5.93%
1978-80 to 1988-90	5.61%	4.41%	5.52%	5.11%	3.09%	6.07%	6.65%	8.20%	4.35%	9.08%	5.81%
1979-81 to 1989-91	3.75%	5.35%	6.06%	4.67%	1.90%	5.45%	6.56%	7.68%	3.70%	8.07%	5.32%
1980-82 to 1990-92	2.46%	6.83%	4.65%	4.43%	0.31%	3.15%	3.63%	5.76%	3.91%	6.16%	4.13%
1981-83 to 1991-93	1.00%	6.06%	2.56%	3.11%	-1.01%	1.58%	1.58%	3.37%	3.45%	4.33%	2.60%
1982-84 to 1992-94	1.31%	4.75%	-0.16%	1.44%	-2.03%	0.83%	0.71%	2.88%	2.19%	2.64%	1.46%
1983-85 to 1993-95	1.36%	2.97%	-1.18%	1.78%	-2.21%	1.85%	1.81%	2.46%	1.03%	2.58%	1.24%
1984-86 to 1994-96	1.71%	1.79%	-1.39%	3.31%	-1.08%	2.26%	2.15%	2.56%	0.20%	2.27%	1.38%
1985-87 to 1995-97	1.65%	0.64%	-1.47%	4.22%	0.35%	1.90%	2.19%	1.90%	0.12%	-0.46%	1.10%
1986-88 to 1996-98	2.28%	0.57%	-0.92%	4.59%	1.57%	1.50%	2.11%	1.34%	-0.86%	-2.24%	0.99%
1987-89 to 1997-99	2.62%	1.08%	-0.46%	5.06%	0.15%	0.40%	2.36%	0.49%	-0.38%	-3.07%	0.83%
Average	2.73%	2.82%	2.54%	4.17%	2.23%	4.45%	2.83%	4.57%	4.30%	5.59%	3.62%

KCPL Greater Missouri Operations
Case No. ER-2016-0156
Central Region Electric Utility Proxy Group
DPS
Ten-Year Compound Growth Rate Averages (1968-1999)

Years	Dayton P & L/ DPL	Detroit Edison/ DTE	Empire	IPALCO	Kansas City P & L	Northern States Power	Okla. Gas & Electric/ OGE Energy Corp.	SJL&P	WPS Resources/ Wisconsin Public Serv.	WI Energy/ WI Electric Power	Average
1968-70 to 1978-80	0.90%	1.17%	2.45%	3.52%	3.34%	3.37%	3.79%	1.89%	4.36%	5.46%	3.03%
1969-71 to 1979-81	0.87%	1.43%	2.17%	4.15%	3.03%	3.76%	3.52%	1.89%	4.69%	5.70%	3.12%
1970-72 to 1980-82	1.04%	1.59%	1.90%	4.69%	3.17%	4.02%	3.32%	2.01%	5.13%	5.98%	3.28%
1971-73 to 1981-83	1.41%	1.64%	1.98%	4.92%	3.56%	4.39%	3.35%	2.28%	5.64%	6.23%	3.54%
1972-74 to 1982-84	1.70%	1.60%	2.32%	4.95%	4.13%	4.88%	3.49%	2.82%	6.18%	6.37%	3.84%
1973-75 to 1983-85	1.89%	1.48%	2.86%	5.03%	4.45%	5.60%	3.62%	3.50%	6.72%	6.52%	4.17%
1974-76 to 1984-86	1.89%	1.48%	3.31%	5.19%	4.12%	6.31%	3.75%	4.32%	7.18%	6.78%	4.43%
1975-77 to 1985-87	2.01%	1.44%	3.77%	5.73%	3.40%	6.78%	3.91%	4.97%	7.38%	7.08%	4.65%
1976-78 to 1986-88	2.26%	1.28%	4.14%	5.65%	2.96%	6.95%	4.04%	5.36%	7.30%	7.34%	4.73%
1977-79 to 1987-89	2.56%	0.94%	4.50%	5.49%	3.16%	6.96%	4.14%	5.72%	7.00%	7.51%	4.80%
1978-80 to 1988-90	2.83%	0.86%	4.81%	4.96%	3.58%	6.86%	4.27%	6.10%	6.66%	7.65%	4.86%
1979-81 to 1989-91	2.92%	0.99%	5.08%	4.80%	3.77%	6.72%	4.33%	6.53%	6.26%	7.68%	4.91%
1980-82 to 1990-92	2.83%	1.38%	5.27%	4.53%	3.78%	6.54%	4.30%	6.63%	5.83%	7.59%	4.87%
1981-83 to 1991-93	2.59%	1.70%	5.18%	4.24%	3.47%	6.22%	4.02%	6.49%	5.30%	7.29%	4.65%
1982-84 to 1992-94	2.59%	1.93%	4.80%	3.96%	3.02%	5.75%	3.64%	6.03%	4.65%	6.89%	4.33%
1983-85 to 1993-95	2.89%	2.06%	4.22%	3.75%	2.72%	5.14%	3.21%	5.50%	3.88%	6.44%	3.98%
1984-86 to 1994-96	3.41%	2.06%	3.58%	3.69%	3.14%	4.49%	2.77%	4.90%	3.15%	6.00%	3.72%
1985-87 to 1995-97	3.79%	2.06%	2.92%	1.92%	3.74%	3.91%	2.33%	4.42%	2.63%	5.54%	3.33%
1986-88 to 1996-98	3.95%	2.06%	2.30%	0.76%	3.99%	3.46%	1.87%	3.92%	2.39%	5.00%	2.97%
1987-89 to 1997-99	3.81%	2.06%	1.74%	-0.41%	3.52%	3.11%	1.42%	3.37%	2.31%	4.36%	2.53%
Average	2.41%	1.56%	3.46%	4.08%	3.50%	5.26%	3.46%	4.43%	5.23%	6.47%	3.99%

**KCPL Greater Missouri Operations
Case No. ER-2016-0156**

**Central Region Electric Utility Proxy Group
BVPS
Ten-Year Compound Growth Rate Averages (1968-1999)**

Years	Dayton P & L/ DPL	Detroit Edison/ DTE	Empire	IPALCO	Kansas City P & L	Northern States Power	Okla. Gas & Electric/ OGE Energy Corp.	SJL&P	WPS Resources/ Wisconsin Public Serv.	WI Energy/ WI Electric Power	Average
1968-70 to 1978-80	1.40%	0.04%	2.37%	5.21%	1.88%	4.34%	5.76%	1.28%	4.13%	4.03%	3.05%
1969-71 to 1979-81	0.84%	-0.35%	1.93%	4.93%	1.51%	4.19%	4.58%	1.15%	4.37%	3.71%	2.69%
1970-72 to 1980-82	0.28%	-0.88%	1.63%	4.43%	1.19%	4.15%	3.83%	1.13%	4.50%	3.84%	2.41%
1971-73 to 1981-83	0.16%	-1.30%	1.58%	3.84%	1.20%	4.31%	3.00%	1.31%	4.57%	4.09%	2.27%
1972-74 to 1982-84	0.27%	-1.51%	1.89%	3.77%	1.35%	4.72%	2.66%	1.65%	4.89%	4.49%	2.42%
1973-75 to 1983-85	0.25%	-1.27%	2.32%	3.99%	1.88%	5.18%	2.33%	2.36%	5.27%	5.02%	2.73%
1974-76 to 1984-86	0.30%	-0.77%	2.82%	4.47%	2.26%	5.56%	2.43%	3.27%	5.56%	5.52%	3.14%
1975-77 to 1985-87	0.27%	-0.18%	3.17%	4.63%	2.54%	5.73%	2.33%	4.20%	5.57%	5.86%	3.41%
1976-78 to 1986-88	0.66%	-0.61%	3.51%	4.82%	2.32%	5.80%	2.33%	4.89%	5.42%	6.11%	3.53%
1977-79 to 1987-89	1.13%	-1.05%	3.79%	4.77%	2.28%	5.80%	2.30%	5.41%	5.16%	6.38%	3.60%
1978-80 to 1988-90	1.80%	-1.34%	4.17%	4.79%	2.28%	5.74%	2.57%	5.69%	4.77%	6.69%	3.72%
1979-81 to 1989-91	2.31%	-0.30%	4.59%	4.84%	2.44%	5.65%	2.92%	5.82%	4.27%	6.91%	3.95%
1980-82 to 1990-92	2.29%	0.97%	4.88%	4.92%	2.41%	5.43%	2.96%	5.72%	3.96%	6.94%	4.05%
1981-83 to 1991-93	1.97%	2.03%	4.82%	4.84%	2.10%	5.14%	2.75%	5.41%	3.75%	6.74%	3.95%
1982-84 to 1992-94	1.84%	2.72%	4.36%	4.50%	1.71%	4.77%	2.37%	5.01%	3.57%	6.33%	3.72%
1983-85 to 1993-95	2.33%	2.95%	3.83%	4.15%	1.17%	4.46%	2.16%	4.60%	3.29%	5.91%	3.48%
1984-86 to 1994-96	2.78%	2.82%	3.34%	3.73%	0.78%	4.21%	1.91%	4.27%	2.99%	5.48%	3.23%
1985-87 to 1995-97	3.14%	2.52%	2.92%	2.52%	0.41%	4.01%	1.85%	3.99%	2.77%	4.81%	2.89%
1986-88 to 1996-98	3.26%	3.25%	2.56%	1.45%	0.50%	3.81%	1.86%	3.75%	2.43%	3.99%	2.69%
1987-89 to 1997-99	3.42%	4.16%	2.20%	1.19%	0.42%	3.56%	2.04%	3.47%	2.20%	3.17%	2.58%
Average	1.54%	0.60%	3.13%	4.09%	1.63%	4.83%	2.75%	3.72%	4.17%	5.30%	3.18%

**KCPL Greater Missouri Operations
Case No. ER-2016-0156**

**Central Region Electric Utility Proxy Group
DPS, EPS, BVPS & GDP
Ten-Year Compound Growth Rate Averages (1968-1999)**

<u>DPS</u>		<u>EPS</u>		<u>BVPS</u>		<u>Average</u>	<u>GDP</u>	
<u>Years</u>	<u>10 yr compound growth rate avgs</u>	<u>Years</u>	<u>10 yr compound growth rate avgs</u>	<u>Years</u>	<u>10 yr compound growth rate avgs</u>	<u>DPS, EPS and BVPS</u>	<u>Years</u>	<u>10 yr compound growth rate avgs</u>
1968-70 to 1978-80	3.03%	1968-70 to 1978-80	2.31%	1968-70 to 1978-80	3.05%	2.79%	1968-70 to 1978-80	10.05%
1969-71 to 1979-81	3.12%	1969-71 to 1979-81	2.57%	1969-71 to 1979-81	2.69%	2.79%	1969-71 to 1979-81	10.41%
1970-72 to 1980-82	3.28%	1970-72 to 1980-82	3.00%	1970-72 to 1980-82	2.41%	2.90%	1970-72 to 1980-82	10.42%
1971-73 to 1981-83	3.54%	1971-73 to 1981-83	4.13%	1971-73 to 1981-83	2.27%	3.32%	1971-73 to 1981-83	10.22%
1972-74 to 1982-84	3.84%	1972-74 to 1982-84	5.40%	1972-74 to 1982-84	2.42%	3.89%	1972-74 to 1982-84	10.03%
1973-75 to 1983-85	4.17%	1973-75 to 1983-85	6.30%	1973-75 to 1983-85	2.73%	4.40%	1973-75 to 1983-85	9.96%
1974-76 to 1984-86	4.43%	1974-76 to 1984-86	6.30%	1974-76 to 1984-86	3.14%	4.63%	1974-76 to 1984-86	9.77%
1975-77 to 1985-87	4.65%	1975-77 to 1985-87	5.85%	1975-77 to 1985-87	3.41%	4.64%	1975-77 to 1985-87	9.34%
1976-78 to 1986-88	4.73%	1976-78 to 1986-88	5.82%	1976-78 to 1986-88	3.53%	4.69%	1976-78 to 1986-88	8.80%
1977-79 to 1987-89	4.80%	1977-79 to 1987-89	5.93%	1977-79 to 1987-89	3.60%	4.77%	1977-79 to 1987-89	8.32%
1978-80 to 1988-90	4.86%	1978-80 to 1988-90	5.81%	1978-80 to 1988-90	3.72%	4.79%	1978-80 to 1988-90	7.92%
1979-81 to 1989-91	4.91%	1979-81 to 1989-91	5.32%	1979-81 to 1989-91	3.95%	4.72%	1979-81 to 1989-91	7.38%
1980-82 to 1990-92	4.87%	1980-82 to 1990-92	4.13%	1980-82 to 1990-92	4.05%	4.35%	1980-82 to 1990-92	7.06%
1981-83 to 1991-93	4.65%	1981-83 to 1991-93	2.60%	1981-83 to 1991-93	3.95%	3.74%	1981-83 to 1991-93	6.72%
1982-84 to 1992-94	4.33%	1982-84 to 1992-94	1.46%	1982-84 to 1992-94	3.72%	3.17%	1982-84 to 1992-94	6.49%
1983-85 to 1993-95	3.98%	1983-85 to 1993-95	1.24%	1983-85 to 1993-95	3.48%	2.90%	1983-85 to 1993-95	6.12%
1984-86 to 1994-96	3.72%	1984-86 to 1994-96	1.38%	1984-86 to 1994-96	3.23%	2.78%	1984-86 to 1994-96	5.89%
1985-87 to 1995-97	3.33%	1985-87 to 1995-97	1.10%	1985-87 to 1995-97	2.89%	2.44%	1985-87 to 1995-97	5.81%
1986-88 to 1996-98	2.97%	1986-88 to 1996-98	0.99%	1986-88 to 1996-98	2.69%	2.22%	1986-88 to 1996-98	5.73%
1987-89 to 1997-99	2.53%	1987-89 to 1997-99	0.83%	1987-89 to 1997-99	2.58%	1.98%	1987-89 to 1997-99	5.63%
Average	3.99%	Average	3.62%	Average	3.18%		Average	8.10%
Average of 10-year Rolling Averages EPS, DPS and BVPS			3.59%					

Sources: Value Line Investment Survey and St. Louis Federal Reserve Website

**KCPL Greater Missouri Operations
Case No. ER-2016-0156**

Multi Stage DCF Cost of Equity Comparisons

**Refined Proxy Group from 2014 Electric Rate Cases (less Great Plains Energy, Southern Company and Westar Energy due to pending acquisitions/mergers)
3.5% Perpetual Growth Rate**

	GMO ER-2016-0156	2016 Empire Case	2014 UE Rate Case	2014 Empire Rate Case	2014 KCPL Rate Case
Alliant Energy	7.63%	7.82%	7.51%	7.20%	7.51%
Ameren Corp.	7.94%	8.19%	9.32%	8.84%	8.26%
American Electric Power	7.13%	7.94%	8.09%	7.72%	7.57%
CMS Energy Corp.	7.15%	7.76%	7.83%	7.47%	7.39%
DTE Energy Company	7.21%	7.66%	7.92%	7.56%	7.31%
Pinnacle West Capital	7.13%	7.80%	8.01%	7.58%	7.45%
PNM Resources, Inc.	6.96%	7.15%	7.36%	7.23%	6.94%
Portland General Electric Company	7.34%	7.14%	8.03%	7.66%	7.08%
Xcel Energy	7.24%	7.72%	7.84%	7.55%	7.60%
Average	7.30%	7.69%	7.99%	7.65%	7.46%

**Refined Proxy Group from 2014 Electric Rate Cases (less Great Plains Energy, Southern Company and Westar Energy due to pending acquisitions/mergers)
GDP for Perpetual Growth Rate**

	GMO - 4.4% ER-2016-0156	GMO - 4.1% ER-2016-0156	2016 Empire Case	2014 UE Rate Case	2014 Empire Rate Case	2014 KCPL Rate Case
Alliant Energy	8.33%	8.10%	8.51%	8.22%	7.92%	8.22%
Ameren Corp.	8.63%	8.40%	8.88%	9.96%	9.50%	8.94%
American Electric Power	7.86%	7.62%	8.63%	8.77%	8.42%	8.28%
CMS Energy Corp.	7.87%	7.63%	8.46%	8.53%	8.18%	8.10%
DTE Energy Company	7.93%	7.69%	8.36%	8.62%	8.26%	8.02%
Pinnacle West Capital	7.85%	7.61%	8.50%	8.70%	8.28%	8.17%
PNM Resources, Inc.	7.85%	7.44%	7.87%	8.08%	7.95%	7.67%
Portland General Electric Company	8.06%	7.82%	7.86%	8.72%	8.36%	7.81%
Xcel Energy	7.96%	7.72%	8.42%	8.54%	8.25%	8.31%
Average	8.04%	7.78%	8.39%	8.68%	8.35%	8.17%

**KCPL Greater Missouri Operations
Case No. ER-2016-0156**

**Capital Asset Pricing Model (CAPM) Costs of Common Equity Estimates
Based on Historical Return Differences Between Common Stocks and Long-Term U.S. Treasuries
for the Comparable Electric Utility Companies**

	(1)	(2)	(3)	(4)	(5)	(6)
			Arithmetic Average Market Risk Premium (1926-2015)	Geometric Average Market Risk Premium (1926-2015)	Arithmetic CAPM Cost of Common Equity (1926-2015)	Geometric CAPM Cost of Common Equity (1926-2015)
Company Name	Risk Free Rate	Beta				
Alliant Energy	2.57%	0.69	6.00%	4.40%	6.72%	5.61%
Ameren Corp.	2.57%	0.68	6.00%	4.40%	6.64%	5.55%
American Electric Power	2.57%	0.67	6.00%	4.40%	6.60%	5.52%
Black Hills Corporation	2.57%	0.83	6.00%	4.40%	7.52%	6.20%
CMS Energy Corporation	2.57%	0.69	6.00%	4.40%	6.68%	5.58%
DTE Energy Company	2.57%	0.68	6.00%	4.40%	6.64%	5.55%
Entergy Corporation	2.57%	0.66	6.00%	4.40%	6.56%	5.49%
NorthWestern Corporation	2.57%	0.70	6.00%	4.40%	6.76%	5.64%
OGE Energy Corp.	2.57%	0.84	6.00%	4.40%	7.60%	6.26%
Pinnacle West Capital	2.57%	0.71	6.00%	4.40%	6.80%	5.67%
PNM Resources, Inc.	2.57%	0.81	6.00%	4.40%	7.40%	6.11%
Portland General Electric Company	2.57%	0.71	6.00%	4.40%	6.80%	5.67%
Xcel Energy	2.57%	0.61	6.00%	4.40%	6.23%	5.26%
Average		<u>0.71</u>			<u>6.85%</u>	<u>5.71%</u>
Pure Play Average		0.70			6.75%	5.64%
2014 Refined Proxy Group Average		0.69			6.72%	5.61%

Column 1 = The appropriate yield is equal to the average 30-year U.S. Treasury Bond yield for April 2016, May 2016, and June 2016, which was obtained from the St. Louis Federal Reserve website at <http://research.stlouisfed.org/fred2/data/GS30.txt>

Column 2 = Beta is a measure of the movement and relative risk of an individual stock to the market as a whole. Staff calculated the unadjusted Beta for each company using an Excel spreadsheet designed specifically to be used with the SNL database market and financial information, then adjusted each Beta using the Blume adjustment formula as used by Value Line: Adjusted Beta = 0.35 + 0.67 * Unadjusted Beta

Column 3 = The Market Risk Premium represents the expected return from holding the entire market portfolio less the expected return from holding a risk free investment. The appropriate Market Risk Premium for the period 1926 - 2015 was determined to be 6.00% based on an arithmetic average as shown in the Duff & Phelps 2016 Valuation Handbook: A Guide to the Cost of Capital.

Column 4 = The Market Risk Premium represents the expected return from holding the entire market portfolio less the expected return from holding a risk free investment. The appropriate Market Risk Premium for the period 1926 - 2015 was determined to be 4.40% based on a geometric average as shown in the Duff & Phelps 2016 Valuation Handbook: A Guide to the Cost of Capital.

Column 5 = (Column 1 + (Column 2 * Column 3)).

Column 6 = (Column 1 + (Column 2 * Column 4)).

**KCPL Greater Missouri Operations
Case No. ER-2016-0156**

**Recommended Allowed Rate of Return as of December 31, 2015
for KCPL Greater Missouri Operations**

Allowed Rate of Return Using
Common Equity Return of:

Capital Component	Percentage of Capital	Embedded Cost	8.65%	9.00%	9.35%
Common Equity	49.01%	-----	4.24%	4.41%	4.58%
Preferred Equity	0.52%	4.29%	0.02%	0.02%	0.02%
Long-Term Debt	<u>50.46%</u>	5.41%	<u>2.73%</u>	<u>2.73%</u>	<u>2.73%</u>
Total	<u>100.00%</u>		<u>6.99%</u>	<u>7.16%</u>	<u>7.34%</u>

Notes:

See Schedule 7 for the Capital Structure Ratios.
See Schedule 6-1 for embedded cost of long-term debt.
See Schedule 6-2 for embedded cost of preferred stock.