Exhibit No.: Issue: Weather Normalization Witness: George M. McCollister Type of Exhibit: Rebuttal Testimony Sponsoring Party: KCP&L Greater Missouri Operations Company Case No.: ER-2012-0175 Date Testimony Prepared: September 12, 2012

MISSOURI PUBLIC SERVICE COMMISSION

CASE NO.: ER-2012-0175

REBUTTAL TESTIMONY

OF

GEORGE M. McCOLLISTER

ON BEHALF OF

KCP&L GREATER MISSOURI OPERATIONS COMPANY

Kansas City, Missouri September 2012

REBUTTAL TESTIMONY

OF

GEORGE M. McCOLLISTER

Case No. ER-2012-0175

1	Q:	Please state your name and business address.
2	A:	My name is George M. McCollister, Ph.D. My business address is 1200 Main Street,
3		Kansas City, Missouri 64105.
4	Q:	Are you the same George M. McCollister who pre-filed Direct Testimony in this
5		matter?
6	A:	Yes, I am.
7	Q:	On whose behalf are you testifying?
8	A:	I am testifying on behalf of KCP&L Greater Missouri Operations Company ("GMO" or
9		the "Company") for St. Joseph Light & Power ("L&P") and Missouri Public Service
10		("MPS") territories.
11	Q:	What is the purpose of your Rebuttal Testimony?
12	A:	The purpose of my testimony is to respond to certain conclusions sponsored by Shawn E.
13		Lange and Karen Lyons in the Staff's Revenue Requirement Cost of Service Report
14		("Report") for KCP&L Greater Missouri Operations concerning the weather sensitivity of
15		the Large Power ("LP") class and the customer growth adjustments.
16	Q:	What was Mr. Lange's conclusion regarding the weather adjustment for LP
17		customers?
18	A:	He states at page 100 of Staff's Report:
19 20		Staff did not normalize weather for the Large Power Services (LPS) class, but instead annualized the LPS class for changes in customer usage and

count. The members of this class are not homogeneous; and, consequently,
a weather response function created for one member should not be applied
to any other member. Staff concluded it is both appropriate and necessary
to annualize rather than normalize the LPS class for changes in customer
usage and count. Applying the weather normalization process to
annualized usage would have introduced statistical error into the product
of the analysis.

8

Q: Do you agree with Mr. Lange's statement?

9 A: No.

10 Q: What do you disagree with in his statement?

A: First, for all the classes that are weather normalized, the weather response function is
estimated for the class as a whole and applied to the actual sales of the entire class. It is
never applied to individual customers in the methods used by either GMO or the Staff, as
Mr. Lange inferred. Second, Mr. Lange states that both weather normalizing and
annualizing LPS loads would introduce a statistical error into the product of the analysis.
While I agree with this statement, I maintain that the error is small, especially in
comparison to the error of not weather normalizing sales.

18 Q: Can you describe the error to which Mr. Lange refers?

A: The weather adjustment is computed before the LPS loads are annualized. In theory, the
annualization would change the weather adjustment as well as the actual unadjusted
usage.

22 Q: Why do you believe that this error is small?

A: Both adjustments are small compared to total kwh sales, so the product of the twoadjustments would be much smaller than either adjustment by itself.

25 Q: What issue do you have with the Staff's adjustment for customer growth?

A: GMO and the Staff use a similar methodology for making this adjustment. Theadjustment made by the Staff is described on page 103 of its Report. However, I noticed

1 major differences in our results made for customer counts as of March 2012. A large 2 portion of this difference occurs because Staff did not make an adjustment for the entire 3 class, whereas my adjustment includes the entire class. Schedule GMM-4 shows the 4 customer counts in March 2012 by class and subclass. Karen Lyons only adjusted the 5 subclasses shown in the rows that are shaded in my schedule. While she did adjust the 6 largest subclasses within most of the classes, there are a substantial number of customers 7 in the subclasses that were not adjusted. Neither GMO nor Staff made this adjustment for 8 the Large Power Class.

9 Q: Why should the customer growth adjustment apply to the entire classes that are10 adjusted?

- A: Some of the subclasses that were not adjusted by the Staff contain a substantial number
 of customers. For example, the Staff omitted the entire Small General Service class from
 this adjustment. Both GMO and the Staff will revise these adjustments based on August
 2012 customer counts during the true up.
- 15 Q: What is your conclusion on these issues?

A: I recommend that the Commission accept GMO's weather adjustments to kWh sales and
 revenue for the LPS class and GMO's customer growth adjustments to kWh sales and
 revenue.

- **19 Q: Does that conclude your testimony?**
- 20 A: Yes, it does.

BEFORE THE PUBLIC SERVICE COMMISSION OF THE STATE OF MISSOURI

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

Case No. ER-2012-0175

AFFIDAVIT OF GEORGE M. McCOLLISTER

)

STATE OF MISSOURI) ss COUNTY OF JACKSON

George M. McCollister, being first duly sworn on his oath, states:

1. My name is George M. McCollister. I work in Kansas City, Missouri, and I am employed by Kansas City Power & Light Company as Manager of Market Assessment.

2. Attached hereto and made a part hereof for all purposes is my Rebuttal Testimony on behalf of KC&PL Greater Missouri Operations Company consisting of the

 (\bigcirc) pages, having been prepared in written form for introduction into evidence in the abovecaptioned docket.

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

<u>Dange M. M. Collin</u> eorge M. McCollister

Subscribed and sworn before me this 12^{+-} day of September, 2012.

Micol A. Lee Notary Public

My commission expires: File 4 2015



		BF Actual
		Customer
MPS	Rate Code	Count
Res General Use	MO860	138,410
Res with SH	MO870	75,849
Res Other Use	MO815	787
ResTOD	MO600	0
Res Net Metering General Use	MO865	19
Res Net Metering with SH	MO866	27
RESIDENTIAL TOTAL		215.092
		210/072
SGS No Demand	MO710	8.672
SGS Short Term	M0728	309
SGS Secondary	M0711	19 364
SGS Primary	M0716	3
SGS Net Meteirng, No Demand	MO867	3
SGS Net Metering_No Demand	MO868	15
	1010000	28.366
SWALL GEN SVC TOTAL		20,300
LCS Not Motoring, Socondary	MO722	6
LGS Net Metering_Secondary	MO722	1 /11
LGS Securidal y	MO720	1,411
LGS PHIMALY	M0725	22
	M0721	0
LARGE GEN SVC TOTAL		1,439
		RF Actual
		BF Actual
1.8.0		BF Actual Customer
L&P	MO010	BF Actual Customer Count
L&P Res General Use	MO910	BF Actual Customer Count 35,356
L&P Res General Use Res General Use_Mult Occup	MO910 MO911	BF Actual Customer Count 35,356 53
L&P Res General Use Res General Use_Mult Occup Res_Other Use	MO910 MO911 MO915 MO914	BF Actual Customer Count 35,356 53 1,966
L&P Res General Use Res General Use_Mult Occup Res_Other Use Res Fixed Bill\ Des with CL	MO910 MO911 MO915 MO916	BF Actual Customer Count 35,356 53 1,966 0 0
L&P Res General Use Res General Use_Mult Occup Res_Other Use Res Fixed Bill\ Res with SH	MO910 MO911 MO915 MO916 MO920	BF Actual Customer Count 35,356 53 1,966 0 19,693
L&P Res General Use Res General Use_Mult Occup Res_Other Use Res Fixed Bill\ Res with SH Res with SH_Mult Occup	MO910 MO911 MO915 MO916 MO920 MO921	BF Actual Customer Count 35,356 53 1,966 0 19,693 58
L&P Res General Use Res General Use_Mult Occup Res_Other Use Res Fixed Bill\ Res with SH Res with SH_Mult Occup Res Sep Mtr SH/WH	MO910 MO911 MO915 MO916 MO920 MO921 MO922	BF Actual Customer Count 35,356 53 1,966 0 19,693 58 45
L&P Res General Use Res General Use_Mult Occup Res_Other Use Res Fixed Bill\ Res with SH Res with SH_Mult Occup Res Sep Mtr SH/WH Res Net Metering_Gen	MO910 MO911 MO915 MO916 MO920 MO921 MO922 MO965	BF Actual Customer Count 35,356 53 1,966 0 19,693 58 45 8
L&P Res General Use Res General Use_Mult Occup Res_Other Use Res Fixed Bill\ Res with SH Res with SH_Mult Occup Res Sep Mtr SH/WH Res Net Metering_Gen Res Net Metering_SH	MO910 MO911 MO915 MO916 MO920 MO921 MO922 MO965 MO966	BF Actual Customer Count 35,356 53 1,966 0 19,693 58 45 8 45 8 7
L&P Res General Use Res General Use_Mult Occup Res_Other Use Res Fixed Bill\ Res with SH Res with SH_Mult Occup Res Sep Mtr SH/WH Res Net Metering_Gen Res Net Metering_SH RESIDENTIAL TOTAL	MO910 MO911 MO915 MO916 MO920 MO921 MO922 MO965 MO966	BF Actual Customer Count 35,356 53 1,966 0 19,693 58 45 8 45 8 7 7 57,186
L&P Res General Use Res General Use_Mult Occup Res_Other Use Res Fixed Bill Res with SH Res with SH_Mult Occup Res Sep Mtr SH/WH Res Net Metering_Gen Res Net Metering_SH RESIDENTIAL TOTAL	MO910 MO911 MO915 MO916 MO920 MO921 MO922 MO965 MO966	BF Actual Customer Count 35,356 53 1,966 0 19,693 58 45 8 45 8 7 57,186
L&P Res General Use Res General Use_Mult Occup Res_Other Use Res Fixed Bill\ Res with SH Res with SH_Mult Occup Res Sep Mtr SH/WH Res Net Metering_Gen Res Net Metering_SH RESIDENTIAL TOTAL GS_Short Term	MO910 MO911 MO915 MO916 MO920 MO921 MO922 MO965 MO966 MO966 MO928	BF Actual Customer Count 35,356 53 1,966 0 19,693 58 45 8 45 8 7 57,186 49
L&P Res General Use Res General Use_Mult Occup Res_Other Use Res Fixed Bill\ Res with SH Res with SH_Mult Occup Res Sep Mtr SH/WH Res Net Metering_Gen Res Net Metering_SH RESIDENTIAL TOTAL GS_Short Term GS_Limited Demand	MO910 MO911 MO915 MO916 MO920 MO921 MO922 MO965 MO966 MO966 MO928 MO930	BF Actual Customer Count 35,356 53 1,966 0 19,693 58 45 8 45 8 7 57,186
L&P Res General Use Res General Use_Mult Occup Res_Other Use Res Fixed Bill\ Res with SH Res with SH_Mult Occup Res Sep Mtr SH/WH Res Net Metering_Gen Res Net Metering_Gen Res Net Metering_SH RESIDENTIAL TOTAL GS_Short Term GS_Limited Demand GS_General Use	MO910 MO911 MO915 MO916 MO920 MO921 MO922 MO965 MO966 MO966 MO928 MO930 MO931	BF Actual Customer Count 35,356 53 1,966 0 19,693 58 45 8 45 8 7 7 57,186 49 3,698 2,304
L&P Res General Use Res General Use_Mult Occup Res_Other Use Res Fixed Bill\ Res with SH Res with SH_Mult Occup Res Sep Mtr SH/WH Res Net Metering_Gen Res Net Metering_Gen Res Net Metering_SH RESIDENTIAL TOTAL GS_Short Term GS_Limited Demand GS_General Use GS_Sep Mtr SH/WH	MO910 MO911 MO915 MO916 MO920 MO921 MO922 MO965 MO966 MO966 MO928 MO930 MO931 MO941	BF Actual Customer Count 35,356 53 1,966 0 19,693 58 45 8 8 7 7 57,186 49 3,698 2,304 66
L&P Res General Use Res General Use_Mult Occup Res_Other Use Res Fixed Bill\ Res with SH Res with SH_Mult Occup Res Sep Mtr SH/WH Res Net Metering_Gen Res Net Metering_Gen Res Net Metering_SH RESIDENTIAL TOTAL GS_Short Term GS_Limited Demand GS_General Use GS_Sep Mtr SH/WH GS Net Metering_Limited Demand	MO910 MO911 MO915 MO916 MO920 MO921 MO922 MO965 MO966 MO966 MO928 MO930 MO931 MO941 MO967	BF Actual Customer Count 35,356 53 1,966 0 19,693 58 45 8 45 8 7 7 57,186 9 49 3,698 2,304 66 2
L&P Res General Use Res General Use_Mult Occup Res_Other Use Res Fixed Bill\ Res with SH Res with SH_Mult Occup Res Sep Mtr SH/WH Res Net Metering_Gen Res Net Metering_Gen Res Net Metering_SH RESIDENTIAL TOTAL GS_Short Term GS_Limited Demand GS_General Use GS_Sep Mtr SH/WH GS Net Metering_Limited Demand GS Net Metering_Demand	MO910 MO911 MO915 MO916 MO920 MO921 MO922 MO965 MO966 MO966 MO928 MO930 MO931 MO941 MO967 MO968	BF Actual Customer Count 35,356 53 1,966 0 19,693 58 45 8 45 8 7 7 57,186 9 49 3,698 2,304 66 2 2
L&P Res General Use Res General Use_Mult Occup Res_Other Use Res Fixed Bill\ Res with SH Res with SH_Mult Occup Res Sep Mtr SH/WH Res Net Metering_Gen Res Net Metering_Gen Res Net Metering_SH RESIDENTIAL TOTAL GS_Short Term GS_Limited Demand GS_General Use GS_Sep Mtr SH/WH GS Net Metering_Limited Demand GS Net Metering_Demand GS Net Metering_Demand GENERAL SVC TOTAL	MO910 MO911 MO915 MO916 MO920 MO921 MO922 MO965 MO966 MO966 MO928 MO930 MO931 MO931 MO941 MO967 MO968	BF Actual Customer Count 35,356 53 1,966 0 19,693 58 45 8 45 8 7 7 57,186 9 49 3,698 2,304 66 2 2 6 6
L&P Res General Use Res General Use_Mult Occup Res_Other Use Res Fixed Bill Res with SH Res with SH_Mult Occup Res Sep Mtr SH/WH Res Net Metering_Gen Res Net Metering_SH RESIDENTIAL TOTAL GS_Short Term GS_Limited Demand GS_General Use GS_Sep Mtr SH/WH GS Net Metering_Limited Demand GS Net Metering_Demand GS Net Metering_Demand GENERAL SVC TOTAL	MO910 MO911 MO915 MO916 MO920 MO921 MO922 MO965 MO966 MO966 MO928 MO930 MO931 MO941 MO967 MO968	BF Actual Customer Count 35,356 53 1,966 0 19,693 58 45 8 45 8 7 57,186 9 49 3,698 2,304 66 2 2 6 6 6,125
L&P Res General Use Res General Use_Mult Occup Res_Other Use Res Fixed Bill Res with SH Res with SH_Mult Occup Res Sep Mtr SH/WH Res Net Metering_Gen Res Net Metering_SH RESIDENTIAL TOTAL GS_Short Term GS_Limited Demand GS_General Use GS_Sep Mtr SH/WH GS Net Metering_Limited Demand GS Net Metering_Demand GS Net Metering_Demand GENERAL SVC TOTAL LGS_Primary	MO910 MO911 MO915 MO916 MO920 MO921 MO922 MO965 MO966 MO966 MO928 MO930 MO931 MO931 MO941 MO967 MO968 MO938	BF Actual Customer Count 35,356 53 1,966 0 19,693 58 45 8 45 8 7 57,186 7 57,186 9 49 3,698 2,304 66 2 2,304 66 6,125
L&P Res General Use Res General Use_Mult Occup Res_Other Use Res Fixed Bill Res with SH Res with SH_Mult Occup Res Sep Mtr SH/WH Res Net Metering_Gen Res Net Metering_SH RESIDENTIAL TOTAL GS_Short Term GS_Limited Demand GS_General Use GS_Sep Mtr SH/WH GS Net Metering_Limited Demand GS Net Metering_Demand GS Net Metering_Demand GENERAL SVC TOTAL LGS_Primary LGS_Substation	MO910 MO911 MO915 MO916 MO920 MO921 MO922 MO965 MO966 MO966 MO928 MO930 MO931 MO931 MO941 MO967 MO968 MO938 MO939	BF Actual Customer Count 35,356 53 1,966 0 19,693 58 45 8 45 8 7 7 57,186 9 49 3,698 2,304 66 2 2,304 66 6,125 6 7
L&P Res General Use Res General Use_Mult Occup Res_Other Use Res Fixed Bill Res with SH Res with SH Res with SH_Mult Occup Res Sep Mtr SH/WH Res Net Metering_Gen Res Net Metering_SH RESIDENTIAL TOTAL GS_Short Term GS_Limited Demand GS_General Use GS_Sep Mtr SH/WH GS Net Metering_Limited Demand GS Net Metering_Demand GS Net Metering_Demand GENERAL SVC TOTAL LGS_Primary LGS_Substation LGS_Secondary	MO910 MO911 MO915 MO916 MO920 MO921 MO922 MO965 MO966 MO966 MO966 MO931 MO931 MO931 MO941 MO967 MO968 MO938 MO939 MO939 MO939	BF Actual Customer Count 35,356 53 1,966 0 19,693 58 45 8 45 8 7 57,186 7 57,186 2 3,698 2,304 66 2 2,304 66 2 2 6 6,125 7 7
L&P Res General Use Res General Use_Mult Occup Res_Other Use Res Fixed Bill Res with SH Res with SH Res with SH_Mult Occup Res Sep Mtr SH/WH Res Net Metering_Gen Res Net Metering_SH RESIDENTIAL TOTAL GS_Short Term GS_Limited Demand GS_General Use GS_Sep Mtr SH/WH GS Net Metering_Limited Demand GS Net Metering_Demand GENERAL SVC TOTAL LGS_Primary LGS_Substation LGS_Secondary LGS Net Metering_Secondary	MO910 MO911 MO915 MO916 MO920 MO921 MO922 MO965 MO966 MO966 MO968 MO931 MO931 MO941 MO967 MO968 MO938 MO939 MO939 MO939 MO940 MO942	BF Actual Customer Count 35,356 53 1,966 0 19,693 58 45 8 45 8 7 57,186 2 3,698 2,304 66 2 2,304 66 6,125 7 7 1 1,150 3