Exhibit No.:

Issue: Loss Study

Witness: Alan J. Bax

Sponsoring Party: MoPSC Staff

Type of Exhibit: Surrebuttal Testimony

Case No.: ER-2016-0156

Date Testimony Prepared: September 2, 2016

MISSOURI PUBLIC SERVICE COMMISSION

COMMISSION STAFF DIVISION

OPERATIONAL ANALYSIS ENGINEERING ANALYSIS UNIT

SURREBUTTAL TESTIMONY

OF

ALAN J. BAX

KCP&L GREATER MISSOURI OPERATIONS COMPANY CASE NO. ER-2016-0156

Jefferson City, Missouri September 2016

| 1 | | SURREBUTTAL TESTIMONY |
|--|----------------|---|
| 2 | | OF |
| 3 | | ALAN J. BAX |
| 4 | | KCP&L GREATER MISSOURI OPERATIONS COMPANY |
| 5 | | CASE NO. ER-2016-0156 |
| 6 | Q. | What is your name? |
| 7 | A. | Alan J. Bax. |
| 8 | Q. | Are you the same Alan J. Bax who contributed to Staff's Revenue |
| 9 | Requirement | Cost of Service Report ("COS Report") filed on July 15, 2016 and filed Rebuttal |
| 10 | Testimony on | August 15, 2016? |
| 11 | A. | Yes, I am. |
| 12 | Q. | What is the purpose of your surrebuttal testimony? |
| 13 | A. | My surrebuttal testimony responds to the rebuttal testimony of KCP&L |
| 14 | Greater Misso | ouri Operations Company ("GMO") witness Tim M. Rush regarding "The Line |
| 15 | Loss Study", | which begins on Page 26, Line 10. More specifically, my rebuttal testimony |
| 16 | will address | the following excerpt from the rebuttal testimony of Mr. Rush. On Page 27, |
| 17 | Lines 1-7 of h | nis rebuttal testimony, Mr. Rush states: |
| 18 19 20 21 22 23 24 | | The Company has provided to Staff responses to data requests to answer Staff questions and concerns about the line loss study. The Company has also provided a supplemental spreadsheet to the line loss study which showed how the combined line losses were developed for a consolidated basis. The Company believes that the proposed methodology for the combined line losses to be used for the FAC as well as in the rate design proposal is appropriate. |
| 25 | Q. | Do GMO's data request responses resolve Staff's concerns regarding the line |
| 26 | loss study res | ults? |

- A. No. For example, Staff has not received what GMO described as "preliminary results" in its initial response to Staff Data Request No. 0280. Furthermore, GMO indicated in its response that "transformers were reassigned from one GMO company to the other GMO company" as a consequence of these "preliminary results". Staff has not received any specific information requested pertaining to this list of transformers.
- Q. Is Staff concerned with the methodology GMO used to determine a GMO-wide loss factor?
- A. No. The loss study contained results for the individual MPS and L&P rate districts. The loss study did not contain an analysis of GMO's system as a whole. GMO's methodology to determine its system wide loss factor was to calculate a weighted average of the loss factors for the individual rate districts. Staff continues to be concerned with the loss factors included in the loss study for the individual rate districts but not how GMO utilized this information in its determination of a combined GMO loss factor, which is illustrated on Schedule TMR-8 in the direct testimony of Mr. Rush.
- Q. Did Staff request GMO to compare the specific results for its individual rate districts included in the loss study to actual losses it recently incurred?
- A. Yes. In its response to Staff Data Request No. 0281, GMO included a table of annual loss factors for each calendar year from 2009 through 2015, which is attached to this surrebuttal testimony as Schedule AJB-s1. This response is specifically noted by GMO as having been analyzed at the "GMO operating level". The annual loss factor illustrated in calendar year 2013 for the GMO system as a whole, the same twelve-month period utilized in the analysis contained in the loss study, was 6.26%. This response states that the line loss percentage for the GMO system as a whole in the line loss study is 7.29%.

21

A.

Yes.

If GMO's recommended company-wide loss factor is 7.29%, what is Staff's? 1 Q. 2 A. Staff recommends a company-wide loss factor of 6.71%. 3 How do Staff's and GMO's company -wide loss factors compare to the actual Q. 4 annual loss factors GMO provided in response to Staff Data Request No. 0281? 5 A. The data response shows a five-year average loss factor of 6.76% and an average loss factor for the entire data set presented of 6.64%. Staff's recommended 6 7 company-wide loss factor of 6.71% is in between these two values, while GMO's proposed 8 factor of 7.29% is not only significantly greater than the five-year average, but also exceeds 9 the annual average of every year analyzed. 10 Q. Do you agree with Mr. Rush that GMO's methodology for determining a 11 company-wide loss factor, used in its FAC as well as in designing GMO's rates, is 12 appropriate? 13 Yes. However, the problem is not with the methodology that GMO utilized in A. 14 its determination of a GMO-wide loss factor, but with the resulting loss factors calculated for 15 the individual MPS and L&P rate districts in the loss study that were used by GMO in its 16 determination of a company-wide loss factor. Staff concerns regarding the loss factors 17 included in the loss study for the MPS and L&P rate districts have not diminished. Therefore, 18 Staff continues to use the results of the previous loss study in its comparable analyses as 19 previously described in Staff's COS. 20 Q. Does this conclude your surrebuttal testimony?

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 A General Rate Increase for Electric Service |) Case No. ER-2016-0156) |
|--|---|
| AFFIDAVIT O | F ALAN J. BAX |
| STATE OF MISSOURI) | |
| COUNTY OF COLE) ss. | |
| COMES NOW ALAN J. BAX and on his oa | th declares that he is of sound mind and lawful |
| age; that he contributed to the foregoing Surre | ebuttal Testimony and that the same is true and |
| correct according to his best knowledge and be | elief. |
| Further the Affiant sayeth not. $\overline{\mathbf{A}}$ | Manf Sax |
| Jul | RAT |
| | onstituted and authorized Notary Public, in and |
| for the County of Cole, State of Missouri, at m | ny office in Jefferson City, on this 15th day |
| of September, 20 | 16. |
| D. SUZIE MANKIN Notary Public - Notary Seal State of Missouri Commissioned for Cole County My Commission Expires: December 12, 2016 Commission Number: 12412070 | Musellanken Notary Public |

Case No. ER-2016-0156
KCP&L Greater Missouri Operations Company

| Line Loss A | Analysis | | | | | | | | | | | | |
|---|----------|-------|-------|-------|-------|--------|-------|-------|-------|-------|-------|-------|-------|
| Based on NSI | | | | | | | | | | | | | |
| Year | Jan | Feb | Mar | Apr | May | Jun | Jul | Aug | Sep | Oct | Nov | Dec | Avg |
| 2008 | | | | | | | | 8.79% | 7.35% | 6.35% | 4.47% | 5.82% | 6.55% |
| 2009 | 6.22% | 6.09% | 4.31% | 6.51% | 6.34% | 6.47% | 7.70% | 5.61% | 5.55% | 6.21% | 5.21% | 5.98% | 6.02% |
| 2010 | 8.42% | 5.80% | 7.42% | 5.69% | 6.02% | 7.13% | 7.28% | 7.53% | 7.41% | 7.66% | 5.98% | 8.71% | 7.09% |
| 2011 | 6.72% | 6.96% | 8.89% | 8.20% | 6.14% | 6.40% | 7.61% | 7.11% | 7.21% | 8.07% | 6.06% | 7.88% | 7.27% |
| 2012 | 6.59% | 6.00% | 6.92% | 6.11% | 4.53% | 7.74% | 6.19% | 6.91% | 6.10% | 7.21% | 6.83% | 6.10% | 6.44% |
| 2013 | 7.51% | 5.38% | 8.39% | 5.57% | 6.22% | 5.99% | 6.10% | 6.11% | 5.27% | 7.22% | 5.95% | 5.47% | 6.26% |
| 2014 | 6.65% | 6.44% | 7.67% | 6.00% | 6.59% | 10.09% | 5.58% | 7.67% | 7.03% | 7.03% | 5.53% | 4.76% | 6.75% |
| 2015 | 6.56% | 8.62% | 4.81% | 7.53% | 5.47% | | | | | | | | 6.60% |
| Average | 7.02% | 6.11% | 7.27% | 6.35% | 5.97% | 7.30% | 6.74% | 7.10% | 6.56% | 7.11% | 5.72% | 6.39% | 6.64% |
| Adjusted 🔪 | 6.80% | 6.11% | 7.86% | 5.98% | 6.13% | 6.75% | 6.80% | 7.06% | 7.02% | 7.28% | 5.75% | 5.84% | 6.61% |
| 5-Yr Ave | 7.18% | 6.12% | 7.86% | 6.31% | 5.90% | 7.47% | 6.55% | 7.06% | 6.60% | 7.44% | 6.07% | 6.58% | 6.76% |
| StDev | 0.76% | 1.07% | 1.74% | 0.99% | 0.70% | 1.50% | 0.90% | 1.05% | 0.90% | 0.67% | 0.75% | 1.39% | 1.03% |
| Upper | 7.78% | 7.18% | 9.00% | 7.34% | 6.67% | 8.80% | 7.64% | 8.15% | 7.46% | 7.77% | 6.46% | 7.78% | 7.67% |
| Lower | 6.26% | 5.04% | 5.53% | 5.36% | 5.28% | 5.81% | 5.85% | 6.06% | 5.66% | 6.44% | 4.97% | 4.99% | 5.60% |
| Line Loss calculated from line loss study | | | | 7.29% | | | | | | | | | |