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Case No.: ER-2012-0175  
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**MISSOURI PUBLIC SERVICE COMMISSION**

**CASE NO. ER-2012-0175**

**SURREBUTTAL TESTIMONY**

**OF**

**F. JAY CUMMINGS**

**ON BEHALF OF**

**MISSOURI GAS ENERGY**

**October 10, 2012**

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**SURREBUTTAL TESTIMONY OF F. JAY CUMMINGS**

**CASE NO. ER-2012-0175**

**OCTOBER 10, 2012**

1 **Q. PLEASE STATE YOUR NAME AND BUSINESS ADDRESS.**

2 A. My name is F. Jay Cummings.

3

4 **Q. ARE YOU THE SAME F. JAY CUMMINGS WHO FILED DIRECT**  
5 **TESTIMONY IN THE PROCEEDING ON AUGUST 21, 2012 AND**  
6 **REBUTTAL TESTIMONY ON SEPTEMBER 12, 2012?**

7 A. Yes.

8

9

**1. TESTIMONY PURPOSE**

10

11 **Q. WHAT IS THE PURPOSE OF YOUR TESTIMONY?**

12 A. I address the parties' rebuttal testimony, filed on September 12, 2012, related to  
13 the issues I discussed in my direct and rebuttal testimony. The analysis and  
14 recommendations made in my direct testimony and further supported in my  
15 rebuttal testimony pertain to: (1) the need for cost-based, revenue-neutral  
16 Residential current rate adjustments; (2) the elimination of specially-priced  
17 Residential Space Heating ("Space Heating") schedules; and, (3) recommendation

1 for the design of energy charges for Residential services should my  
2 recommendations be adopted.<sup>1</sup>

3

4 **Q. WHICH PARTIES ADDRESS THESE RESIDENTIAL RATE ISSUES IN**  
5 **THEIR REBUTTAL TESTIMONY?**

6 A. Tim M. Rush on behalf of Kansas City Power & Light Company Greater Missouri  
7 Operations (“KCP&L-GMO”) - MPS (“GMO-MPS”) and L&P (“GMO-L&P”).  
8 Michael S. Scheperle on behalf of the Missouri Public Service Commission Staff  
9 (“Staff”) address these issues in rebuttal testimony. I address the Staff and  
10 KCP&L-GMO rebuttal testimony in the remainder of this testimony.

11

12 **2. KCP&L-GMO REBUTTAL TESTIMONY**

13

14 **2.1 RATE DESIGN RECOMMENDATIONS**

15

16 **Q. DO YOU AGREE WITH KCP&L-GMO WITNESS RUSH’S**  
17 **INTRODUCTORY EXPLANATION OF YOUR RECOMMENDATIONS**  
18 **REGARDING RESIDENTIAL SPACE HEATING SERVICES?**

19 A. No. I disagree with several statements made in his introductory explanation.  
20 First, his argument that I recommend an adjustment solely to equalize the seasonal

---

<sup>1</sup> My primary recommendation eliminates Residential Space Heating services in this case. My alternative recommendation would schedule these services for elimination in a subsequent rate case by freezing their availability and adding tariff language to simplify their future elimination. Direct Testimony of F. Jay Cummings (hereafter, “Cummings Direct”), Case No. ER-2012-0175, page 21, line 1 - page 24, line 17.

1 Residential rates of return is incorrect.<sup>2</sup> In fact, based on KCP&L-GMO's own  
2 class cost of service ("CCOS") studies, my revenue-neutral shift would also  
3 equalize the rates of return among the various Residential schedules in the winter  
4 to remove current inequities in the collection of winter revenue from GMO-MPS  
5 and GMO-L&P customers served on various schedules.

6  
7 **Q. WHY IS YOUR RECOMMENDED CURRENT WINTER REVENUE**  
8 **ADJUSTMENT IMPORTANT?**

9 A. This adjustment, which KCP&L-GMO witness Rush does not mention, corrects  
10 the continuing problem that, for both GMO-MPS and GMO-L&P, Residential  
11 General Use customers pay not only the cost to serve them but also a portion of  
12 the cost to serve Space Heating customers who receive special rates in the winter.

13  
14 **Q. DO YOU HAVE OTHER DISAGREEMENTS WITH KCP&L WITNESS**  
15 **RUSH'S INTRODUCTORY EXPLANATION OF YOUR**  
16 **RECOMMENDATIONS?**

17 A. Yes. KCP&L witness Rush incorrectly indicates that I propose "a series of  
18 scenarios to revise the MPS and L&P Residential rate blocking."<sup>3</sup> Rather than  
19 being a "series of scenarios," my recommended rates were developed using GMO-  
20 MPS' and GMO-L&P's current rate structures. If my recommendation to  
21 eliminate Space Heating service is approved for GMO-MPS, I recommend the

---

<sup>2</sup> Rebuttal Testimony of Tim M. Rush (hereafter, "Rush Rebuttal"), Case No. ER-2012-0175, page 7, lines 5-6.

<sup>3</sup> *Id.*, page 7, lines 8-9.

1 current Space Heating winter rate blocks and rate block differentials be used to  
2 design rates for the consolidated General Use schedule.<sup>4</sup> If my recommendation to  
3 eliminate Space Heating service is approved for GMO-L&P, I explain that I would  
4 prefer to design the consolidated General Use schedule based on the current Space  
5 Heating winter rate blocks and rate block differentials, but KCP&L-GMO did not  
6 provide the necessary billing determinants to design rates in this manner.<sup>5</sup> As a  
7 result, rates must be based on a uniform winter energy charge.

8  
9 If my alternative recommendation to freeze the availability of specially-priced  
10 Space Heating services is approved for GMO-MPS and GMO-L&P, I recommend  
11 that the current winter rate blocks and rate block differences in the General Use  
12 and Space Heating schedules be used to design rates for those schedules.<sup>6</sup> In both  
13 instances, this recommended rate design is used both for the collection of revenue  
14 resulting from my recommended revenue shift at current revenue and the  
15 collection of revenue resulting from the approved revenue increase.<sup>7</sup> In addition,  
16 my recommendation retains the current summer rate structure in designing rates.<sup>8</sup>

---

<sup>4</sup> Cummings Direct, page 25, lines 11-15.

<sup>5</sup> *Id.*, page 26, lines 3-9.

<sup>6</sup> *Id.*, page 27, lines 1-4.

<sup>7</sup> *Id.*, page 28, lines 16 - page 29, line 10 and Schedules FJC-8A, FJC-8B, FJC-9A, and FJC-9B.

<sup>8</sup> *Id.*, page 27, lines 6-11.

1 Q. WHAT OTHER RESPONSES DO YOU HAVE TO KCP&L-GMO  
2 WITNESS RUSH'S INTRODUCTORY EXPLANATION OF YOUR  
3 RECOMMENDATIONS?

4 A. KCP&L-GMO witness Rush states that I provide no study that "would justify the  
5 proposed changes in rate design."<sup>9</sup> No study is needed because, as I explain  
6 above, my recommendations retain the current rate designs. As explained in my  
7 direct testimony, KCP&L-GMO proposes to change the current Residential rate  
8 designs by increasing the rate block differentials and relative winter price  
9 differences between Residential General Use and Space Heating services without  
10 any study to support KCP&L-GMO's proposed rate design change.<sup>10</sup>

11

12 Finally, KCP&L-GMO witness Rush alleges that "MGE made modifications to  
13 the Company billing determinates [sic] to formulate their proposal."<sup>11</sup> This  
14 statement is incorrect. The rates shown in Schedules FJC-8A and FJC-9A for  
15 GMO-MPS and in Schedules FJC-8B and FJC-9B for GMO-L&P included with  
16 my direct testimony are based on KCP&L-GMO's billing determinants provided  
17 in KCP&L-GMO's Responses to Data Request MGE-4 and Data Request MGE-  
18 5.<sup>12</sup>

---

<sup>9</sup> Rush Rebuttal, page 7, lines 13-14.

<sup>10</sup> Cummings Direct, page 9, line 3 - page 10, line 9.

<sup>11</sup> Rush Rebuttal, page 7, lines 14-15.

<sup>12</sup> Residential revenue calculated using these billing determinants and the rates shown in Schedule FJC-8A for GMO-MPS and in Schedule FJC-8B for GMO-L&P matches the Residential revenue shown in for GMO-MPS and GMO-L&P in the KCP&L-GMO Application, Appendix 2. These revenue calculations are shown in my direct testimony work papers that have been provided.

1 I address further observations on KCP&L-GMO witness Rush's testimony  
2 pertaining to my recommendations in the remainder of this section of my  
3 testimony.

4

5 **Q. DO YOU AGREE WITH KCP&L-GMO WITNESS RUSH'S**  
6 **CHARACTERIZATION OF KCP&L-GMO WITNESS NORMAND'S**  
7 **CCOS STUDY RESULTS AND YOUR USE OF THIS STUDY?**

8 A. No. Although KCP&L-GMO witness Rush's explanation of KCP&L-GMO  
9 witness Normand's CCOS study results is accurate, it is incomplete. While he  
10 mentions that the CCOS study provides cost of service and rate of return  
11 information by class and season, he does not mention that the CCOS provides this  
12 same information by rate schedule at current rates, as summarized on Table 3 in  
13 KCP&L-GMO witness Normand's direct testimony.<sup>13</sup> In my direct testimony, I  
14 explain that these CCOS results, as well as similar results in KCP&L-GMO's last  
15 rate case, show that - due to the special prices for these services - Residential  
16 Space Heating customers are and have been inequitably paying less than their fair  
17 share of the cost to serve them in the winter relative to General Use customers, and  
18 KCP&L-GMO's rate design recommendation in this case only exacerbates this  
19 situation.<sup>14</sup>

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<sup>13</sup> Rush Rebuttal, page 7, lines 19-22 and Direct Testimony of Paul M. Normand, Case No. ER-2012-0175, Table 3A, page 25 and Table 3B, page 26.

<sup>14</sup> Cummings Direct, page 12, line 1 - page 14, line 9 and page 20, lines 1-10.



1 KCP&L-GMO witness Rush indicates that I address this inequity because of my  
2 position that “all rates should be the same.”<sup>15</sup> He appears to suggest that my  
3 recommendation to eliminate Space Heating services, i.e., “all rates should be the  
4 same,” drives my recommendation that deals with the inequity. This  
5 characterization of my analyses is incorrect.

6

7 **Q. WHY IS KCP&L WITNESS RUSH’S CHARACTERIZATION OF YOUR**  
8 **ANALYSES INCORRECT?**

9 I do not begin with a presumption that “all rates should be the same.” Rather, I  
10 first correct the inequity within the Residential class through a revenue-neutral  
11 shift in current Residential revenue seasonally and among Residential rate  
12 schedules in the winter based on the GMO-MPS and GMO-L&P CCOS studies.<sup>16</sup>

13 This revenue shift results in energy charge adjustments to current Residential

---

<sup>15</sup> Rush Rebuttal, page 8, lines 3-4. Mr. Rush indicates that “all rates should be the same” means “a customer who has a gas furnace home should pay the same for electricity as a home with an electric heat pump” (Rush Rebuttal, page 8, lines 4-5). KCP&L-GMO witness Rush’s statement does not address or answer the point of my direct testimony discussion of the fairness consideration resulting from two residential customers today, one who uses electric space heat and one who does not, paying different prices for lighting their homes, operating their refrigerators and televisions, and using other electric appliances (Cummings Direct, page 18, lines 12-19).

KCP&L witness Rush also contends that my recommendation does not take into account the differing load characteristics of an electric heat home compared to a home heated with natural gas (Rush Rebuttal, page 8, lines 5-7). Differing load characteristics for Space Heat customers and General Use customers who presumably do not have electric space heat equipment should be captured in the GMO-MPS and GMO-L&P cost of service studies through the allocation factors applied to the various cost of service components for the different customer classes. These cost of service results are used to develop my recommended current revenue shifts within the Residential class rate schedules for GMO-MPS and GMO-L&P. In other words, my recommendations, based on the GMO-MPS and GMO-L&P cost of service studies, should reflect the cost consequences of the differing load characteristics to which KCP&L-GMO witness Rush refers.

<sup>16</sup> Cummings Direct, Section 4.1 and Schedules FJC-3A and FJC-3B.

1 summer and winter rates on all GMO-MPS and GMO-L&P rate schedules.<sup>17</sup>  
2 After making these adjustments, I assess other ratemaking and policy  
3 considerations, discussed in my previous testimony, that lead to my primary  
4 recommendation to eliminate the special prices for Residential Space Heating  
5 services for GMO-MPS and GMO-L&P and to my alternative recommendation to  
6 freeze the availability of these specially-priced services.<sup>18</sup> The end result of my  
7 analyses, not the starting point, is that, for both GMO-MPS and GMO-L&P,  
8 current Residential General Use customers and Space Heating customers would  
9 pay the same rates if Space Heating services are eliminated in this case.  
10

11 **Q. DO YOU AGREE WITH KCP&L-GMO WITNESS RUSH'S**  
12 **CONTENTION THAT YOUR RECOMMENDATION INCREASES**  
13 **ELECTRIC SPACE HEAT PRICES WITHOUT ANY COST**  
14 **JUSTIFICATION?**<sup>19</sup>

15 A. No. There is cost justification for my recommendation that leads to higher rates  
16 for what are now specially-priced services. As explained above and in more detail  
17 in my direct testimony, I recommend that: (1) the GMO-MPS and GMO-L&P cost  
18 of service results be used to adjust Residential Space Heating winter current rates  
19 to reflect the cost to serve this class of customers; and, (2) the approved GMO-  
20 MPS and GMO-L&P revenue increases assigned to the Residential class be

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<sup>17</sup> *Id.*, page 25, line 3 - page 27, line 4; Schedule FJC-8A, lines 9 and 24; and Schedule FJC-8B, lines 9 and 22.

<sup>18</sup> *Id.*, page 10, line 18 - page 19, line 7; page 21, line 1 - page 24, line 17; page 25, line 1 - page 27, line 11; and Schedules FJC-8A and FJC-8B.

<sup>19</sup> Rush Rebuttal, page 8, lines 15-16.

1 applied to the Residential rate schedules in such a way as to maintain their  
2 relationship to cost.<sup>20</sup>

3  
4 **2.2 RESIDENTIAL RATES OF OTHER ELECTRIC UTILITIES**

5  
6 **Q. DO YOU HAVE ANY COMMENTS REGARDING KCP&L-GMO**  
7 **WITNESS RUSH'S OBSERVATION THAT RESIDENTIAL HEAT RATES**  
8 **ARE COMMON?**

9 A. Yes. KCP&L-GMO witness Rush lists four utilities in Kansas, Iowa, Nebraska,  
10 and Oklahoma that have such rates.<sup>21</sup> He does not mention that a number of  
11 electric utilities nationally have discontinued or closed the availability of such  
12 rates, including utilities in Arkansas, California, Connecticut, Massachusetts,  
13 Nebraska, New Jersey, North Carolina, Ohio, Pennsylvania, and Wisconsin.<sup>22</sup>  
14 KCP&L-GMO witness Rush also does not mention the other two Missouri  
15 investor-owned electric utilities, neither of which has a separate, specially-priced  
16 Residential space heating service.

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<sup>20</sup> Cummings Direct, especially page 19, line 16 - page 20, line 23; page 25, line 3 - page 26, line 17; page 28, line 13 - page 29, line 17; and Schedules FJC-3A, FJC-3B, FJC-8A, FJC-8B, FJC-9A, and FJC-9B.

<sup>21</sup> Rush Rebuttal, page 9, lines 3-5.

<sup>22</sup> Southwestern Electric Power Company, Sacramento Municipal Utility District, Connecticut Light and Power Company Nantucket Electric Company, Lincoln Electric System, Dominion North Carolina Power, Cleveland Electric Illuminating Company, Ohio Edison Company, Toledo Edison Company, PECO Energy Company (as of January 1, 2013), Public Service Electric and Gas Company, Toledo Edison Company, and Wisconsin Public Service Corporation.

1 KCP&L-GMO witness Rush further indicates that other utilities do not have  
2 electric heating rates, but “their rate design supports electric heating or other  
3 winter season usage.”<sup>23</sup> In fact, the current Residential General Use rates for  
4 GMO-MPS and GMO-L&P and my recommended Residential rates for GMO-  
5 MPS and GMO-L&P (with the exception of Space Heating elimination) with their  
6 declining winter block rate structures provide this support.<sup>24</sup>

7  
8 Furthermore, both Ameren Missouri (“Ameren”) and The Empire District Electric  
9 Company (“Empire District”) have Residential declining block winter rate  
10 structures that are less pronounced than the current GMO-MPS and GMO-L&P  
11 General Use winter rates. In other words, the winter price break for consuming  
12 more electricity for Ameren and Empire District Residential customers, including  
13 customers with electric space heat, is smaller than it currently is for GMO-MPS  
14 and GMO-L&P General Use customers. Thus, the current GMO-MPS and GMO-  
15 L&P Residential General Use rate structures should more effectively encourage  
16 winter usage than the Residential rate structures of these other Missouri electric  
17 utilities.<sup>25</sup> KCP&L-GMO’s specially-priced Space Heating services are not needed  
18 for this purpose.

---

<sup>23</sup> Rush Rebuttal, page 9, lines 6-7.

<sup>24</sup> As previously mentioned, my preference is to design the consolidated GMO-L&P General Use schedule based on the current Space Heating winter rate blocks and rate block differentials, but KCP&L-GMO did not provide the necessary billing determinants to design rates in this manner.

<sup>25</sup> Cummings Direct, page 15, line 19 - page 16, line 17.

1 **2.3 POLICY CONSIDERATIONS**

2

3 **Q. DO YOU HAVE ANY COMMENTS REGARDING KCP&L-GMO**  
4 **WITNESS RUSH’S DESCRIPTION OF THE U.S. DEPARTMENT OF**  
5 **ENERGY’S (“DOE’S”) POLICY ON FULL FUEL CYCLE**  
6 **EFFICIENCY?<sup>26</sup>**

7 A. KCP&L-GMO witness Rush’s accurately excerpts DOE’s policy statement, but  
8 his explanation of the policy statement is incomplete.<sup>27</sup> The statement explains  
9 that its “energy conservations standards should continue to be based, in large part,  
10 on the cost and savings that user’s [sic] experience.”<sup>28</sup> However, the policy  
11 statement does not dismiss full fuel cycle efficiency (“FFC”) and environmental  
12 impacts as public policy considerations.<sup>29</sup> The policy statement clearly explains  
13 the importance of consumer and government decision-maker access to information  
14 on FFC and environmental impacts of energy alternatives and commits DOE to  
15 work with other federal agencies to make this information readily available.<sup>30</sup>  
16 This is precisely my point in raising FFC and environmental issues in my direct  
17 testimony. These policy issues should be among the considerations in assessing

---

<sup>26</sup> Rush Rebuttal, page 10, line 1 - page 11, line 17.

<sup>27</sup> The date of the Federal Register citation in *Id.*, page 10, footnote 1 should read August 18, 2011.

<sup>28</sup> 76 FR 51288 (August 18, 2011).

<sup>29</sup> 76 FR 51282 (August 18, 2011). KCP&L witness Rush acknowledges that the policy statement calls for FFC considerations in “national impact analyses and environmental assessments” (Rush Rebuttal, page 10, line 4), but he does not address their policy importance in evaluating discounted Residential Space Heating services.

<sup>30</sup> 76 FR 51285, 51287 - 89 (August 18, 2011).

1 the reasonableness of promoting Residential Space Heating and the resulting  
2 increases in winter electricity usage through discounted rates.

3  
4 In other words, DOE's conservation standards are intended to directly relate to  
5 customer cost differences from choosing alternative appliance efficiencies and  
6 energy sources. Customer costs are determined by the price that they pay for  
7 various energy sources. The prices customers pay for electricity compared to  
8 other energy sources do not include FFC and environmental effects, effects that  
9 result in societal costs for electricity that exceed the market cost, i.e., the price  
10 paid by end users. The fact that electricity prices are understated based on societal  
11 costs should not be ignored as a policy issue in considering alternative electric  
12 service availability and pricing. DOE recognizes this in pointing out the  
13 importance of information on these effects for government decision makers and  
14 consumers.

15  
16 Also, in response to KCP&L witness Rush's discussion of DOE's policy statement  
17 and the statement's discussion of FFC and environmental impacts, Surrebuttal  
18 Schedule FJC-1, page 1 provides the detailed data underlying the FFC calculations  
19 that are included in my direct testimony.<sup>31</sup> The top panel on page 2 of the  
20 schedule incorporates FFC effects in Residential energy consumption data and  
21 shows that about half of the total Residential energy consumption from all sources  
22 consists of electricity losses, i.e., BTUs lost in the FFC from extraction to delivery.

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<sup>31</sup> Cummings Direct, page 22, line 15 - page 23, line 2 and footnote 15.

1 The bottom panel on page 2 of the schedule provides quantification of greenhouse  
2 gas emissions associated with alternative energy sources, data that relates to  
3 environmental impacts referenced in my direct testimony.<sup>32</sup>  
4

5 **Q. DO YOU CONSIDER DOE’S CONSERVATION STANDARDS IN YOUR**  
6 **DIRECT TESTIMONY?**

7 A. Yes. DOE’s conservation standards (that do not include FFC and environmental  
8 impacts) are reflected in my calculations demonstrating that GMO-MPS’ and  
9 GMO-L&P’s electricity prices, including their Space Heating prices, are too high  
10 to produce customer savings from the use of electric heating equipment compared  
11 to natural gas furnaces.<sup>33</sup> KCP&L-GMO witness Rush did not dispute these  
12 results in his rebuttal testimony.  
13

14 **Q. DO YOU AGREE WITH KCP&L-GMO WITNESS RUSH’S CLAIM THAT**  
15 **YOU STATE THAT “ELECTRIC HEATING IS INCONSISTENT WITH**  
16 **PUBLIC POLICY”<sup>34</sup>?**

17 A. No, I did not make this statement. I never questioned whether electricity should or  
18 should not be used for space heating purposes. Rather, as explained in detail in  
19 my direct testimony, ratemaking and policy considerations support my  
20 recommendation to eliminate the specially-priced, non-cost-based Space Heating

---

<sup>32</sup> See, for example, *Id.*, page 21, line 20 - page 22, line 2.

<sup>33</sup> *Id.*, page 17, lines 1-14 and Schedule FJC-5.

<sup>34</sup> Rush Rebuttal, page 12, line 5.

1 schedules of GMO-MPS and GMO-L&P. My testimony and recommendations do  
2 not preclude customers from choosing electricity for space heating. If my primary  
3 recommendation is adopted, Residential customers choosing electric space heat  
4 equipment would be served under the General Use schedules for GMO-MPS and  
5 GMO-L&P. With my primary or alternative recommendation, the current  
6 underpricing of GMO-MPS' and GMO-L&P's Space Heating services in the  
7 winter is corrected.

8  
9 **2.4 RECENT KCP&L KANSAS RATE CASE**

10  
11 **Q. DO YOU HAVE ANY OBSERVATIONS REGARDING KCP&L-GMO**  
12 **WITNESS RUSH'S COMMENTS ON YOUR DIRECT TESTIMONY**  
13 **CONCERNING THE RECENT KCP&L RATE CASE IN KANSAS?**<sup>35</sup>

14 **A.** Yes. KCP&L-GMO witness Rush attempts to distance himself from his own  
15 recommendation in the Kansas case by indicating that I do “not properly establish  
16 the context of the case.”<sup>36</sup> He points out that “[m]ultiple parties took the extreme  
17 position of eliminating rates” in Kansas and that Residential Space Heating rates  
18 in Kansas had some deficiencies that do not exist in Missouri.<sup>37</sup> He does not  
19 explain what these alleged deficiencies were. The fact that only one party  
20 provides a recommendation to eliminate Residential Space Heating services in this

---

<sup>35</sup> *Id.*, page 11, lines 25 - page 26, line 4.

<sup>36</sup> *Id.*, page 11, lines 25-26.

<sup>37</sup> *Id.*, page 11, lines 26-27 and page 12, lines 2-4.



1 case while many did in Kansas does not provide a basis for rejecting the analyses  
2 and recommendations of that party.<sup>38</sup> It simply may explain why KCP&L-GMO  
3 witness Rush chose to address the problem in Kansas, but not in Missouri.

4  
5 KCP&L-GMO witness Rush ignores the fact the GMO-MPS and GMO-L&P cost  
6 of service results in this case, as in the KCP&L CCOS results in the recent Kansas  
7 case and in KCP&L-GMO's last Missouri rate case, demonstrate the need to  
8 significantly reduce the differential between General Use and Space Heating rates  
9 for GMO-MPS and GMO-L&P.<sup>39</sup> Furthermore, KCP&L-GMO witness Rush does  
10 not explain whether he believes that there are context differences between the two  
11 cases regarding the other ratemaking and policy considerations that I provided in  
12 my direct testimony which support the elimination of Residential Space Heating in  
13 this case.

---

<sup>38</sup> KCP&L witness Rush provides similar, extraneous arguments elsewhere in his rebuttal in noting that no builders, developers, or HVAC dealers had intervened in this case, and there is not public outcry to eliminate rates in this case. Rush Rebuttal, page 8, lines 19-22. The proper question is: "are specially-priced Space Heating services appropriate?"

<sup>39</sup> KCP&L-GMO witness Normand explains that the approach used in the GMO-MPS and GMO-L&P CCOS in this case is the same as in the recent KCP&L Kansas case and that the Kansas Corporation Commission endorsed the approach and explained that "It allows for a detailed examination of seasonal costs and corresponding seasonal rate allocations." Rebuttal Testimony of Paul M. Normand, Case No. ER-2012-0175, page 12, lines 1-13. KCP&L-GMO witness Rush supports KCP&L-GMO witness Normand's method in this case, indicating that KCP&L used the method in its last case and "proposed the method in conjunction with the Commission's direction to address seasonal CCOS" (Rush Rebuttal, page 5, lines 20-21).

1                                   **2.5 RATE DESIGN CONSIDERATIONS**

2

3   **Q.   DO YOU HAVE OBSERVATIONS CONCERNING KCP&L-GMO**  
4       **WITNESS RUSH’S EXPLANATION OF CONSIDERATIONS HE**  
5       **SUGGESTS FOR ASSESSING RATE DESIGN PROPOSALS?<sup>40</sup>**

6   A.   Yes. KCP&L-GMO witness Rush mentions five considerations. It appears to me  
7       that even utilizing his considerations will lead the Commission back to my  
8       recommendation.

9

10   **Q.   PLEASE DESCRIBE THE FIRST THREE CONSIDERATIONS IN**  
11       **RELATION TO YOUR RECOMMENDATIONS.**

12   A.   One consideration, “Implement Cost-Based Rates,” is satisfied by my  
13       recommended revenue-neutral adjustment to current Residential rates to equalize  
14       the seasonal rates of return and the winter rates of return on the various Residential  
15       schedules based on the GMO-MPS and GMO-L&P cost of service.

16

17       KCP&L-GMO witness Rush explains that a second consideration, labeled  
18       “Simplify the Rate Structure,” requires that “The Company should seek to  
19       combine or reduce rates where possible.”<sup>41</sup> My primary recommendation satisfies  
20       this consideration by reducing the number of available rates.

---

<sup>40</sup> Rush Rebuttal, page 12, line 10 - page 13, line 22.

<sup>41</sup> *Id.*, page 13, lines 19-20.

1 A third consideration, “Consider Technology Issues,” requires that the Company  
2 must be able to measure usage and produce bills under the new rates.<sup>42</sup> My  
3 recommendations that are based on KCP&L-GMO’s current rate structure satisfy  
4 this consideration.

5  
6 **Q. WHAT IS KCP&L-GMO WITNESS RUSH’S FOURTH**  
7 **CONSIDERATION?**

8 A. A fourth consideration is labeled “Provide Revenue Stability and Risk  
9 Mitigation.” In assessing this issue, KCP&L-GMO witness Rush contends that, if  
10 Space Heating services are eliminated, “the Company would lose a considerable  
11 amount of sales which would ultimately harm all customers.”<sup>43</sup>

12  
13 **Q. DO YOU AGREE WITH KCP&L-GMO WITNESS RUSH’S**  
14 **CONTENTION AS TO THE IMPACT OF YOUR RECOMMENDATIONS?**

15 A. No. KCP&L-GMO witness Rush does not provide any quantification or analyses  
16 to support his contention nor does he explain what he means by “harm.” Perhaps  
17 he believes that as a result of a loss of “a considerable amount of sales,” the  
18 Company will experience a sizable revenue loss that would cause it to file another  
19 rate case with resulting in higher rates. However, the expected loss of “a  
20 considerable amount of sales” and resulting sizable revenue loss due to my  
21 recommendations is not supportable.

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<sup>42</sup> *Id.*, page 13, lines 21-22.

<sup>43</sup> *Id.*, page 12, lines 19-20.

1 Q. PLEASE EXPLAIN.

2 A. The possibility of such a revenue loss is assessed by considering the Residential  
3 price elasticity of demand for electricity. The price elasticity of demand for a  
4 product or service is defined as:

$$\frac{\text{Percentage change in quantity}}{\text{Percentage change in price}}$$

7 An inelastic demand has an elasticity of less than one. With an inelastic demand,  
8 an increase in price results in increased revenue to the seller because the revenue  
9 loss due to the reduction in quantity consumed is more than offset by the  
10 additional revenue at the higher price on the remaining quantity consumed.<sup>44</sup> This  
11 is the case with the demand for electricity. Various studies have demonstrated that  
12 the Residential price elasticity of demand is very inelastic.<sup>45</sup>

13  
14 The winter revenue-enhancing effect of my recommendations is illustrated by a  
15 calculations that includes the responsiveness of an average winter use Space  
16 Heating customers to the recommended price changes. Based on the range of

---

<sup>44</sup> Algebraically, this result is explained as follows, where  $e$  is the price elasticity,  $P$  is price,  $Q$  is quantity consumed,  $\Delta$  represents the change in a variable, and  $R$  is revenue. With an inelastic demand,  $e = (\Delta Q/Q)/(\Delta P/P) < 1$ , or  $P(\Delta Q) < Q(\Delta P)$ . Revenue is  $R = P \times Q$ , and the change in revenue is  $\Delta R = P(\Delta Q) + Q(\Delta P)$ . The revenue change is positive with a price increase because the second term (which is positive) is greater than the first term (which is negative) with an inelastic demand, i.e.,  $e < 1$ .

<sup>45</sup> See, for example, Mark A. Bernstein and James Griffin, Regional Differences in the Price-Elasticity of Demand for Energy, RAND Infrastructure, Safety, and Environment, Technical Report, 2005 (available at [http://www.rand.org/pubs/technical\\_reports/TR292.html](http://www.rand.org/pubs/technical_reports/TR292.html), accessed on September 5, 2005) and U.S. Energy Administration ("EIA"), "Price Responsiveness in the AEO2003 NEMS Residential and Commercial Building Sector Model" (available at <http://www.eia.gov/oiaf/analysispaper/elasticity/index>, accessed on September 5, 2012). The Rand Report provides Residential electricity price elasticity estimates of -0.24 in the short-run and -0.32 in the long-run at the national level and -0.16 in the short-run and -0.24 in the long-run for the West North Central region that includes Missouri (pages 24 and 76). The EIA study provides Residential electricity price elasticity estimates of ranging from -0.29 to -0.34 in the short-run and -0.49 in the long-run.

1 Residential electricity price elasticities reported in the cited studies and the  
2 recommended higher winter energy prices, the average winter bill of the GMO-  
3 MPS customer will increase from \$4.41 to \$6.46 in the short-run and from \$2.66  
4 to \$5.55 in the long-run if Space Heating is eliminated.<sup>46</sup> The average winter bill  
5 of the GMO-L&P customer will increase from \$7.20 to \$10.86 in the short-run  
6 and from \$4.13 to \$9.23 in the long-run if Space Heating is eliminated.<sup>47</sup> While  
7 the average use customer reduces his/her usage, the revenue consequence due to  
8 the reduced usage is more than offset by the higher price on the remaining usage.  
9 In fact, KCP&L-GMO itself expects that it will achieve additional revenue in  
10 proposing to increase current Residential rates.<sup>48</sup>

11

12 **Q. ISN'T IT POSSIBLE THAT SOME CURRENT SPACE HEAT**  
13 **CUSTOMERS MAY DISCONTINUE THEIR USE OF ELECTRIC SPACE**  
14 **HEAT EQUIPMENT CAUSING A FUTURE REVENUE LOSS?**

15 A. Yes, this is a conceptual possibility. While some customers, facing higher Space  
16 Heating prices, may choose an alternative energy source when their electric space

---

<sup>46</sup> These calculations are based on the elimination of Space Heating service, average winter Space Heating usage of 1394 kWh, current rates in Schedule FJC-1A, recommended rates in Schedule FJC-8A, and the range of elasticities reported in the cited studies. The corresponding bill increases with my alternative recommendation to freeze the availability of Space Heating service are from \$5.90 to \$7.73 in the short-run and from \$4.39 to \$6.90 in the long-run.

<sup>47</sup> These calculations are based on the elimination of Space Heating service, average winter Space Heating usage of 1795 kWh, current rates in Schedule FJC-1B, recommended rates in Schedule FJC-8B, and the range of elasticities reported in the cited studies. The corresponding bill increases with my alternative recommendation to freeze the availability of Space Heating service are from \$4.72 to \$6.69 in the short-run and from \$3.06 to \$5.87 in the long-run.

<sup>48</sup> KCP&L-GMO Application, Appendix 2 shows that KCP&L-GMO expects to increase Residential annual revenue by increasing the average GMO-MPS Residential price from \$0.10575 per kWh to \$0.11412 per kWh and the average GMO-L&P Residential price from \$0.09650 per kWh to \$0.10736 per kWh.

1 heat equipment wears out, this possibility should not be a significant factor for  
2 several reasons. First, to the extent this occurs, it would be realized only over a  
3 long period of time. The life expectancy of electric heat pumps equipment is at  
4 least 15 years, and electric furnaces typically last longer.<sup>49</sup> Electric space heating  
5 has grown rapidly in the 2000s, suggesting that much of this electric equipment is  
6 relatively new and will not be replaced for some time.<sup>50</sup>

7  
8 Second, quantification of such an effect would be difficult, at best, and would be  
9 speculative. For example, such quantification would have to somehow take into  
10 account the incidence of premises currently equipped to use alternative energy  
11 sources for space heat; the cost to retrofit other premises and the likelihood that  
12 retrofits would occur; the future prices of both electricity and alternative energy  
13 sources; and the future prices and life spans of space heat equipment that use  
14 various energy sources.

---

<sup>49</sup> National Association of Home Builders/Bank of America Home Equity, "Study of Life Expectancy of Home Components," February 2007 and KCP&L's website heat pump questions and answers at [http://www.kcplsave.com/residential/programs\\_and\\_services/heat\\_pumps/faqs.html#q15](http://www.kcplsave.com/residential/programs_and_services/heat_pumps/faqs.html#q15) (accessed on September 5, 2012).

<sup>50</sup> Between 2001 and 2009, the number of homes with space heating in the West North Central Census Division that includes Missouri grew by 0.7 million. In this period, the number of homes with electric space heating equipment grew by 1.0 million, while the number with natural gas equipment fell by 0.3 million. Between 2005 and 2009, the number of homes with space heat in the region grew by 0.2 million, while the number with electric space heat grew by 0.4 million. In 2009, Missouri had a disproportionate share of electric heated homes. Missouri had 28 percent of the region's total heated homes, but 44% of region's homes heated with electricity. Data are from U.S. Energy Information Administration, 2009 Residential Energy Consumption Survey, Table HC6.9; 2005 Residential Energy Consumption Survey, Table HC12.4; and 2001 Residential Energy Consumption Survey, Table HC3-10a, available on tabs at <http://www.eia.gov/consumption/residential/data/> (accessed on September 5, 2012). The West North Central Census Division consists of Iowa, Kansas, Minnesota, Missouri, Nebraska, North Dakota, and South Dakota.

1 Third, the long-run price elasticity estimates for Residential electricity reported in  
2 the cited studies suggest a small effect on usage due to price increases. It is not  
3 reasonable to invoke a highly speculative, long-term possibility that is likely to be  
4 small as a basis to ignore the fact that non-Space Heating customers are and have  
5 been inequitably paying a portion of the cost to serve Space Heating customers in  
6 the winter.

7  
8 **Q. WHAT IS KCP&L-GMO WITNESS RUSH'S FINAL RATE DESIGN**  
9 **ASSESSMENT CONSIDERATION?**

10 A. In explaining the final consideration, labeled "Minimize Customer  
11 Dissatisfaction," in the context of my recommendations, KCP&L-GMO witness  
12 Rush lists two points. His first point, applicable to my alternative  
13 recommendation to freeze the availability of specially-priced Space Heating  
14 services, is that "the Company should allow some time period to elapse so that  
15 customers currently committed to that rate can still get the rate to justify their  
16 investment."<sup>51</sup> KCP&L-GMO witness Rush's second point listed in "Minimize  
17 Customer Dissatisfaction" consideration is that if specially-priced Space Heating  
18 services are eliminated, "the rate impact of those customers should be  
19 considered."<sup>52</sup>

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<sup>51</sup> Rush Rebuttal, page 13, lines 12-14.

<sup>52</sup> Rush Rebuttal, page 13, lines 15-16. KCP&L-GMO witness Rush also mentions Space Heating increases on page 8, lines 9-11. In rebuttal testimony, Staff expresses concern about bill impacts in assessing my recommendation to eliminate GMO-L&P's Space Heating service. I address Staff's rebuttal testimony in the next section of this testimony.

1 **Q. DOES KCP&L WITNESS RUSH PROPOSE SPECIFIC TARIFF**  
2 **LANGUAGE TO ADDRESS SUCH CUSTOMER COMMITMENTS**  
3 **MENTIONED IN HIS FIRST POINT?**

4 A. No. Absent specific tariff conditions, KCP&L-GMO would have an open-ended  
5 invitation to add new customers to a frozen rate if a customer simply indicated that  
6 he/she was “committed” to a using space heat equipment in a home the customer  
7 planned to build or remodel when that commitment may not exist or may not be  
8 realized until some point in the distant future. Freezing a rate is a first step  
9 towards its subsequent elimination when the number of customers on the rate has  
10 declined. If customers can simply choose the specially-priced Space Heating rate  
11 because of its lower price, the freeze would be ineffective.

12  
13 **Q. HAVE YOU CALCULATED THE GMO-MPS AND GMO-L&P SPACE**  
14 **HEATING BILL IMPACTS RESULTING FROM YOUR**  
15 **RECOMMENDATIONS IN RESPONSE TO KCP&L-GMO WITNESS**  
16 **RUSH’S SECOND POINT?**

17 A. Yes. Surrebuttal Schedule FJC-2 provides the results of these calculations. The  
18 schedule shows the average winter and annual Space Heating and General Use  
19 customer bill changes for GMO-MPS and GMO-L&P if special prices for Space  
20 Heating services are eliminated and if the availability of specially-priced Space  
21 Heating services is frozen. Both of these alternatives reflect my recommended  
22 revenue shifts to remove the current inequities within the Residential class in the



1 collection of revenue seasonally and among the schedules in the winter for GMO-  
2 MPS and GMO-L&P.

3  
4 **Q. DO YOU HAVE ANY OBSERVATIONS ON THE SPACE HEATING BILL**  
5 **IMPACTS ASSOCIATED WITH YOUR RECOMMENDATIONS?**

6 A. Yes, I have several observations. First, waiting to address the fact that Space  
7 Heating is underpriced for GMO-MPS and GMO-L&P until a subsequent rate case  
8 will simply lead to larger bill impacts in the future when this pricing problem is  
9 rectified.

10  
11 Second, it is difficult to judge whether a particular impact is acceptable without a  
12 point of reference for comparison. However, it is possible that KCP&L's recent  
13 experience in Kansas may provide such a point of reference in this case.  
14 Surrebittal Schedule FJC-2 includes the winter average use bill impacts resulting  
15 from the Kansas Corporation Commission's ("KCC's") Order in KCP&L 2010  
16 rate case.<sup>53</sup> Both the average winter and annual bill impacts in Kansas were  
17 substantially larger than those resulting from my recommendations for GMO-MPS  
18 and GMO-L&P in this case.

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<sup>53</sup> Order: 1) Addressing Prudence; 2) Approving Application, in Part; & 3) Ruling on Pending Requests Docket No. 10-KCPE-415-RTS, November 22, 2010. The KCP&L-Kansas rates used in the calculations in Surrebittal Schedule FJC-2 became effective on December 1, 2010. These rates increased slightly (from \$0.00002 per kWh to \$0.0004 per kWh) on February 1, 2012 as a result of the KCC's Order on rate case expenses in this docket.

1 Third, while GMO-MPS and GMO-L&P Space Heating customers will experience  
2 higher winter bills with my recommendation, their annual bill impacts are  
3 considerably smaller.

4  
5 Finally, there are many more General Use customers than Space Heating  
6 customers, and GMO-L&P General Use customers will have lower winter and  
7 annual bills.<sup>54</sup> And, GMO-MPS General Use customers will experience modest  
8 increases in their winter and annual bills if Space Heating service is eliminated  
9 and decreases in their winter and annual bills if Space Heating service availability  
10 is frozen.

### 11 12 3. STAFF REBUTTAL TESTIMONY

13  
14 **Q. WHAT POSITION DID STAFF WITNESS SCHEPERLE EXPRESS ON**  
15 **THESE RESIDENTIAL RATE DESIGN ISSUES IN HIS REBUTTAL**  
16 **TESTIMONY?**

17 **A.** Staff witness Scheperle states his position as follows:

18 **Q.** Does Staff agree with MGE's rate design recommendation to eliminate  
19 certain residential rate schedules?

20 **A.** Not entirely. MGE recommends revenue-neutral adjustments in current  
21 rates on the residential schedules for both MPS and L&P. MGE also  
22 recommends that the separate Residential Electric Space Heating  
23 schedules be eliminated and the customers served under these rate  
24 schedules be transferred to the Consolidated General Use schedules.  
25 Staff recommends the Commission not go so far and, instead, make  
26 winter rate adjustments for L&P of an additional 6% for the MO 920

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<sup>54</sup> KCP&L Application, Appendix 2 shows an average of 139,836 General Use customers and 74,478 Space Heating customers for GMO-MPS and an average of 35,519 General Use customers and 19,400 Space Heating customers for GMO-L&P.

1 and MO 922 winter energy block rate element. These adjustments will  
2 bring the winter season rates closer to GMO's cost to serve this class in  
3 the winter season. At this time, Staff does not support MGE's  
4 recommendation to eliminate the residential rate schedules mentioned  
5 above due to some customers receiving a large increase. For example,  
6 Staff computed an L&P residential customer with Space heating using  
7 1,000 kWh per month in the summer and 1,500 kWh per month in the  
8 winter. Eliminating the L&P residential rate for space heating and  
9 transferring his usage to the residential General Use rate schedule  
10 would increase his annual bill by approximately 19%. Staff does not  
11 oppose retaining the all-electric residential rates, but recommends that  
12 customers on such rate schedule(s) be moved toward GMO's cost to  
13 serve them.<sup>55</sup>  
14

15 **Q. DO YOU HAVE ANY OBSERVATIONS ON STAFF WITNESS**  
16 **SCHEPERLE'S POSITION?**

17 A. Yes. I have several observations. First, while Staff witness Scheperle recognizes  
18 that GMO-L&P's Residential Space Heating service is underpriced, I explain in  
19 my rebuttal testimony that his recommendation does not go far enough in  
20 correcting the inequities in the collection of current Residential revenue from  
21 customers taking service on the various rate schedules.<sup>56</sup>  
22

23 Second, Staff witness Scheperle does not recommend a corresponding current  
24 revenue shift for GMO-MPS' Residential Space Heating service even though the  
25 service is underpriced in the winter.<sup>57</sup>

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<sup>55</sup> Rebuttal Testimony of Michael S. Scheperle, Case No. ER-2012-0175, page 7, line 18 - page 8, line 11.

<sup>56</sup> Rebuttal Testimony of F. Jay Cummings (hereafter, "Cummings Rebuttal"), Case No. ER-2012-0175, page 3, line 8 - page 4, line 3.

<sup>57</sup> Cummings Rebuttal, page 4, line 5 - page 6, line 12.

1 Third, I do not agree with Staff witness Scheperle's calculation of the annual  
2 Space Heating bill impact associated with my recommended current revenue shift  
3 for GMO-L&P. Contrary to Staff's calculated 19 percent impact, my  
4 recommendation results in a 5 percent annual bill impact at Staff's kWh usage  
5 levels.<sup>58</sup> The details of the bill calculations are provided on Surrebuttal Schedule  
6 FJC-3.<sup>59</sup> Other bill impact calculations are provided on Surrebuttal Schedule FJC-  
7 2, explained in the previous section of this testimony.

8  
9 Fourth, Staff witness Scheperle provides no assessment of my explanation of the  
10 ratemaking and policy considerations that support my recommendation to  
11 eliminate GMO-MPS' and GMO-L&P's Space Heating services.<sup>60</sup>

12  
13 Finally, Staff witness Scheperle does not express an opinion on my alternative to  
14 freeze these service offerings for GMO-MPS and GMO-L&P.<sup>61</sup>

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<sup>58</sup> With the illustrative revenue increase provided in Schedule FJC-9B, the annual bill based on Staff's kWh usage levels would increase almost 11 percent over current rates.

<sup>59</sup> If the Staff's billing determinants provided in Staff's Response to Data Request MGE 271 were used in the calculations in Surrebuttal Schedule FJC-3, there would be only a small changes in the calculated annual bill impact. The impact would be 5.3 percent rather than 5.2 percent.

On June 25, 2011, GMO-L&P's rates were increased as result of the first phase of the revenue increase approved in Case No. ER-2010-356. The second phase of the revenue increase resulted in revised rates that became effective on June 25, 2012. The annual bill impacts calculated in Surrebuttal Schedule FJC-3 are based on current rates that became effective on June 25, 2012. Even if Staff had based its bill impact on "current" rates that became effective on June 25, 2011, the annual bill impact would be 7.8 percent.

<sup>60</sup> Cummings Direct, especially page 10, line 18 - page 18, line 19 and page 21, line 1 - page 23, line 2.

<sup>61</sup> *Id.*, page 23, line 4 - page 24, line 17.

1 **4. CONCLUSIONS**

2

3 **Q. DO YOU HAVE CHANGES IN THE RECOMMENDATIONS THAT YOU**  
4 **MADE IN YOUR DIRECT TESTIMONY AS A RESULT OF THE**  
5 **PARTIES' REBUTTAL TESTIMONY PERTAINING TO RATE DESIGN?**

6 **A. No.**

7

8 **Q. DOES THIS CONCLUDE YOUR SURREBUTTAL TESTIMONY?**

9 **A. Yes.**

**BEFORE THE PUBLIC SERVICE COMMISSION  
OF THE STATE OF MISSOURI**

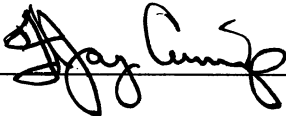
In the Matter of )  
KCP&L Greater Missouri Operations Company's )  
Request for Authority to Implement )  
A General Rate Increase for Electric Service )

File No. ER-2012-0175


**AFFIDAVIT**

STATE OF TEXAS            )  
  )  
COUNTY OF DALLAS        )            ss

I, F. Jay Cummings, state that I am employed by Ruhter & Reynolds, Inc., Consulting Economists as a Senior Economist; that the Surrebuttal Testimony and schedules attached hereto have been prepared by me or under my direction and supervision on behalf of Southern Union Company, d/b/a Missouri Gas Energy; and, that the answers to the questions posed therein are true to the best of my knowledge, information and belief.

  
\_\_\_\_\_

Subscribed and sworn to before me this 10<sup>th</sup> day of October, 2012.

  
\_\_\_\_\_  
Notary Public

My Commission Expires:

7/29/2015  
(SEAL)

