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| Exhibit No.: | |
| Issues: | Rate Design; Time-Differentiated Rates; Demand-Side Management Programs |
| Witness: | Martin Hyman |
| Sponsoring Party: | Missouri Department of Economic Development – Division of Energy |
| Type of Exhibit: | Rebuttal Testimony |
| Case No.: | ER-2016-0156 |

**MISSOURI PUBLIC SERVICE COMMISSION**

**KCP&L GREATER MISSOURI OPERASTIONS COMPANY**

**CASE NO. ER-2016-0156**

# REBUTTAL TESTIMONY

**OF**

**MARTIN R. HYMAN**

**ON**

**BEHALF OF**

**MISSOURI DEPARTMENT OF ECONOMIC DEVELOPMENT**

**DVISION OF ENERGY**

Jefferson City, Missouri
August 15, 2016

**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 | ) | Case No. ER-2016-0156 |
| A General Rate Increase for Electric Service | ) | |

**AFFIDAVIT OF MARTIN HYMAN**

| | | |
|---|---|---|
| **STATE OF MISSOURI** | ) | |
| | ) | **ss** |
| **COUNTY OF COLE** | ) | |

Martin R. Hyman, of lawful age, being duly sworn on his oath, deposes and states:

1. My name is Martin R. Hyman. I work in the City of Jefferson, Missouri, and I am employed by the Missouri Department of Economic Development as a Planner III, Division of Energy.
2. Attached hereto and made a part hereof for all purposes is my Rebuttal Testimony on behalf of the Missouri Department of Economic Development – Division of Energy.
3. I hereby swear and affirm that my answers contained in the attached testimony to the questions therein propounded are true and correct to the best of my knowledge.

Martin R. Hyman

Subscribed and sworn to before me this 15th day of August, 2016.

LAURIE ANN ARNOLD
Notary Public - Notary Seal
State of Missouri
Commissioned for Callaway County
My Commission Expires: April 26, 2020
Commission Number: 16808714

Notary Public

My commission expires: 4/26/20

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## I. INTRODUCTION

**Q. Please state your name and business address.**

A. My name is Martin R. Hyman. My business address is 301 West High Street, Suite 720, PO Box 1766, Jefferson City, Missouri 65102.

**Q. By whom and in what capacity are you employed?**

A. I am employed by the Missouri Department of Economic Development – Division of Energy ("DE") as a Planner III.

**Q. Have you previously filed testimony in this case before the Missouri Public Service Commission ("Commission") on behalf of DE or any other party?**

A. Yes.

## II. PURPOSE AND SUMMARY OF TESTIMONY

**Q. What is the purpose of your Rebuttal Testimony in this proceeding?**

A. The purpose of my testimony is to respond to the residential general use rate design proposals of KCP&L Greater Missouri Operations Company ("GMO" or "Company") and the Commission Staff ("Staff"); under Staff's current revenue requirement, DE supports Staff's proposed general use residential rate design. I also address the Company's proposals regarding time-differentiated rates, with recommendations to ensure the full and timely consideration of any new rate design and/or other demand response options, particularly rates for electric vehicle charging and other loads which can be shifted or otherwise controlled. DE's recommendations include that the Company's current time-differentiated rates should not be frozen, but should instead be adequately marketed and promoted, and that the Company's proposals for any new time-differentiated rates and/or other demand response measures should not be entirely

contingent on the implementation of automated metering infrastructure ("AMI") and a new billing system. However, time-differentiated rate and/or other demand response measure deployment should at least occur in those areas where both AMI and an enabling billing system are implemented. Finally, I briefly respond to the Company's discussion of costs related to demand-side management ("DSM").

To date, Staff and GMO have proposed significantly different revenue requirements. Revenue requirement is a key factor affecting the level at which rates are set and in determining the impacts of rate design and consolidation proposals. DE recommends that the Commission request scenarios illustrating the bill impacts of the rate design proposals in this case under common revenue requirement and billing unit assumptions. Such analyses would aid both intervenors and the Commission with comparisons of the different rate designs.

## III. RESIDENTIAL RATE DESIGN, EFFICIENCY, AND INCOME

**Q. How do customers adjust their consumption to electricity rates?**

A. Customers receive a "price signal" from the rates which they are charged for electricity. Higher rates per unit of consumption (i.e., kWh) signal to customers that their incremental consumption results in higher utility costs, encouraging efficiency and conservation. Lower rates per kWh convey to customers that additional electricity consumption results in lower utility costs, decreasing the incentive to engage in energy efficiency or conservation and possibly encouraging even greater consumption.

**Q. Is there an affordability aspect to rate design as well?**

A. Yes. Lower income customers – absent bill payment assistance – tend to use less electricity.[1] Consequently, rates which charge more – or a fixed amount – for low consumption volumes impact these customers the most. Lower income customers may then be forced to choose between paying for electricity and other needs, such as food, medicine, clothing, or shelter. Since higher "energy burdens" can result in delayed or skipped bill payments, lower income customers facing higher bills may contribute to arrearage amounts and uncollectibles, raising costs for all ratepayers. The increased chance of disconnection for these customers adds additional costs as usage is spread across fewer ratepayers.

**Q. How can customer charges contribute to these problems?**

A. Though customer charges are appropriate for the recovery of certain costs, customer charges can also reduce price signals by leading to lower volumetric rates. Additionally, higher customer charges disproportionately impact a significant majority of lower income customers because of their usage characteristics. Higher customer charges are also inequitable, since they force lower use customers to pay for the costs incurred by higher use customers. With these impacts in mind, customer charges should be set at the lowest level required to recover associated costs.

**Q. Why is volumetric rate design important when considering these impacts?**

A. Many utilities in Missouri use "declining block rates" in the winter for residential customers. As noted above, lower volumetric rates discourage efficiency and

[1] See: U.S. Department of Health and Human Services, Administration for Children and Families, Office of Community Services, Division of Energy Assistance. 2014. "LIHEAP Home Energy Notebook for Fiscal Year 2011." Appendix A, Table A-2, page 93. https://www.acf.hhs.gov/sites/default/files/ocs/fy2011_hen_final.pdf

conservation and may even encourage consumption; this improper price signal is exacerbated under rate structures which charge less for higher amounts of use. However, declining block rates can be important when attempting to maintain affordability, particularly for electric space heating and cooling users.

**Q. Should volumetric rate design be reconsidered in light of these issues?**

A. Yes. In my Direct Testimony, I proposed a 10 percent movement towards flat winter rates for residential general use customers, and that stakeholders work together to discuss rate designs.[2]

## IV. RESPONSE TO GENERAL USE RESIDENTIAL RATE DESIGN PROPOSALS

### A. RESPONSE TO COMPANY PROPOSAL

**Q. Have you previously addressed the Company's general use residential rate design?**

A. Yes. In my Direct Testimony, I discussed the Company's proposal and presented bill impact analyses.[3]

**Q. What did you observe from the results of your analyses?**

A. The impacts vary substantially by jurisdiction. Lower use customers in the L&P jurisdiction would often experience greater bill impacts, although this would not always be the case in the winter months. Customers with extremely high use might experience bill decreases during the winter. However, the relationship between use and bill impacts is not entirely straightforward due to the proposed rate consolidation and the accompanying shifts in rate designs.

[2] Missouri Public Service Commission Case No. ER-2016-0156, *In the Matter of KCP&L Greater Missouri Operations Company's Request for Authority to Implement A General Rate Increase for Electric Service*, Direct Testimony of Martin R. Hyman on Behalf of the Missouri Department of Economic Development – Division of Energy, July 29, 2016, pages 4 and 24, lines 7-19 and 1-8.
[3] *Ibid*, pages 5-17.

**Q. Based on these observations, does DE support GMO's rate design proposal for general use residential customers?**

A. No. The higher customer charge would significantly affect some customers with lower usage, and the addition of a lower, third winter tail block rate would not encourage efficiency.

## B. RESPONSE TO COMMISSION STAFF PROPOSAL

**Q. What is the Staff's general use residential rate design proposal in this case?**

A. Staff's proposal is shown below in Table 1.

**Table 1. Staff's proposed general use rates for all GMO residential customers.**[4]

| | | | Staff Proposed |
|---|---|---|---|
| **Customer Charge** | | | $10.71 |
| **Energy Charge** | **Summer (June through September)** | | $0.10871 |
| | **Winter (October through May)** | **Block 1 (first 600 kWh)** | $0.10871 |
| | | **Block 2 (next 400 kWh)** | $0.07724 |
| | | **Block 3 (all other kWh)** | $0.07724 |

**Q. Have you also conducted bill impact analyses of Staff's proposal?**

A. Yes. These analyses are based on the bill frequency[5] analyses and current bill calculations[6] in my Direct Testimony. The results of the analyses of Staff's proposal are shown below in Tables 2a through 2d and Figures 1a and 1b.

[4] Missouri Public Service Commission Case No. ER-2016-0156, *In the Matter of KCP&L Greater Missouri Operations Company's Request for Authority to Implement A General Rate Increase for Electric Service*, Staff Report – Rate Design, July 29, 2016, page 31, lines 3-4.
[5] Hyman Direct, pages 6-10.
[6] *Ibid*, pages 12 and 15, lines 6-7 and 1-2.

**Table 2a. Bills by month under Staff's proposed rates for MPS general use residential customer usage levels analyzed.**

| | Minimum | Average Minus 50% | Average | Average Plus 100% | Maximum |
|---|---|---|---|---|---|
| **Jun-14** | $10.93 | $63.38 | $116.06 | $221.40 | $216.06 |
| **Jul-14** | $10.82 | $77.00 | $143.30 | $275.88 | $737.55 |
| **Aug-14** | $10.82 | $79.15 | $147.60 | $284.48 | $800.27 |
| **Sep-14** | $10.82 | $79.05 | $147.39 | $284.08 | $916.05 |
| **Oct-14** | $10.82 | $50.63 | $86.32 | $143.05 | $506.55 |
| **Nov-14** | $10.82 | $46.76 | $80.81 | $132.04 | $932.91 |
| **Dec-14** | $10.82 | $57.36 | $95.88 | $162.17 | $506.55 |
| **Jan-15** | $10.82 | $63.40 | $104.47 | $179.34 | $676.01 |
| **Feb-15** | $10.82 | $56.93 | $95.27 | $160.95 | $596.61 |
| **Mar-15** | $10.82 | $56.50 | $94.66 | $159.72 | $580.24 |
| **Apr-15** | $10.82 | $45.68 | $79.28 | $128.97 | $344.58 |
| **May-15** | $10.82 | $44.31 | $77.34 | $125.09 | $426.06 |
| **Jun-15** | $10.82 | $57.42 | $104.13 | $197.55 | $692.65 |

**Table 2b. Bill impacts by month for MPS general use residential customer usage levels analyzed.**

| | Minimum | Average Minus 50% | Average | Average Plus 100% | Maximum |
|---|---|---|---|---|---|
| **Jun-14** | 2.6% | -1.7% | -3.0% | -6.3% | -6.2% |
| **Jul-14** | 2.6% | -1.9% | -4.3% | -7.0% | -8.8% |
| **Aug-14** | 2.6% | -2.0% | -4.5% | -7.1% | -8.8% |
| **Sep-14** | 2.6% | -1.9% | -4.4% | -7.1% | -9.0% |
| **Oct-14** | 2.6% | -1.4% | -1.5% | -0.5% | 0.7% |
| **Nov-14** | 2.6% | -1.4% | -1.6% | -0.6% | 0.9% |
| **Dec-14** | 2.6% | -1.6% | -1.2% | -0.3% | 0.7% |
| **Jan-15** | 2.6% | -1.7% | -1.0% | -0.2% | 0.8% |
| **Feb-15** | 2.6% | -1.6% | -1.2% | -0.3% | 0.7% |
| **Mar-15** | 2.6% | -1.6% | -1.2% | -0.3% | 0.7% |
| **Apr-15** | 2.6% | -1.3% | -1.7% | -0.6% | 0.4% |
| **May-15** | 2.6% | -1.3% | -1.8% | -0.7% | 0.6% |
| **Jun-15** | 2.6% | -1.6% | -2.8% | -5.9% | -8.7% |

**Figure 1a. Bill impacts by month for MPS general use residential customer usage levels analyzed.**

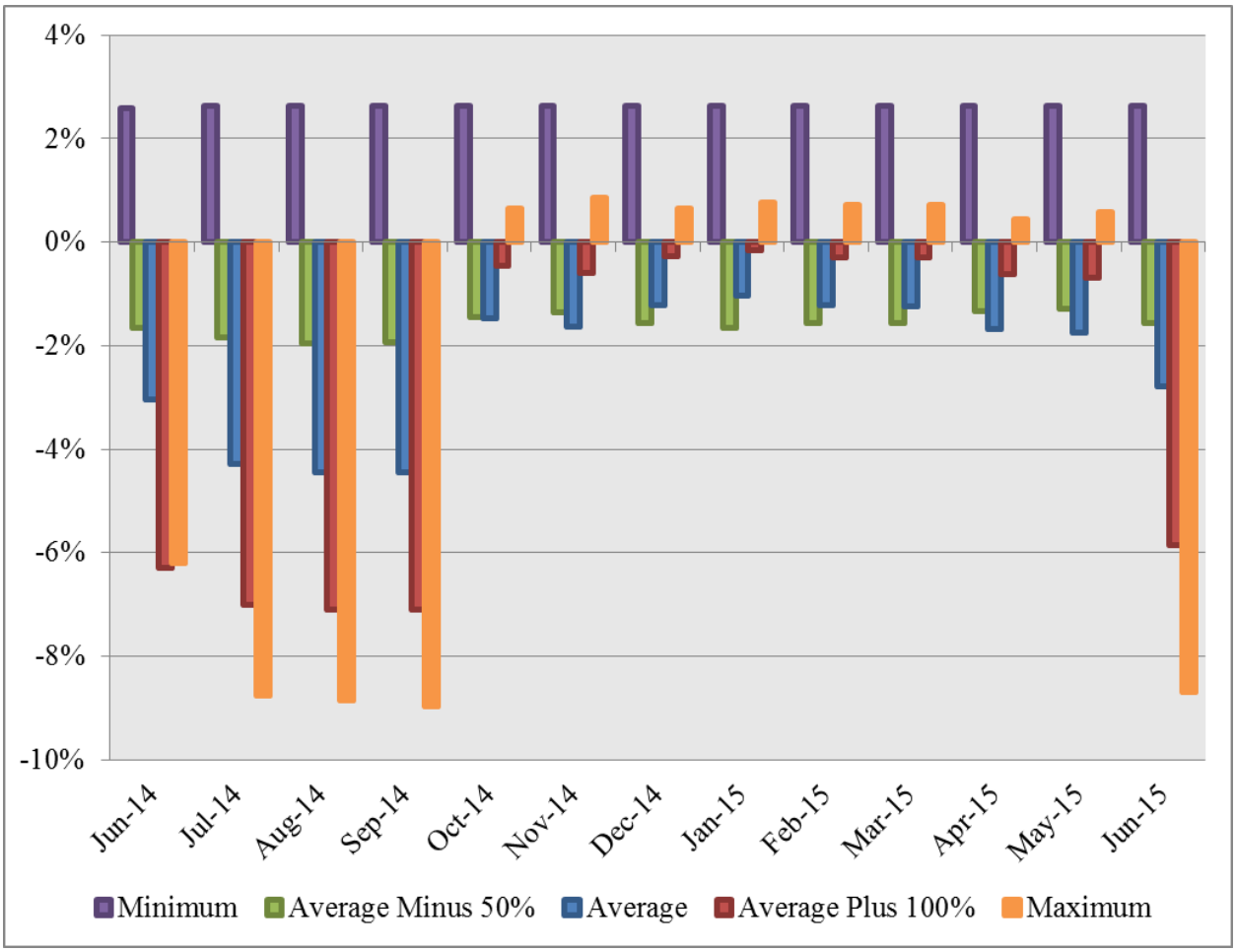


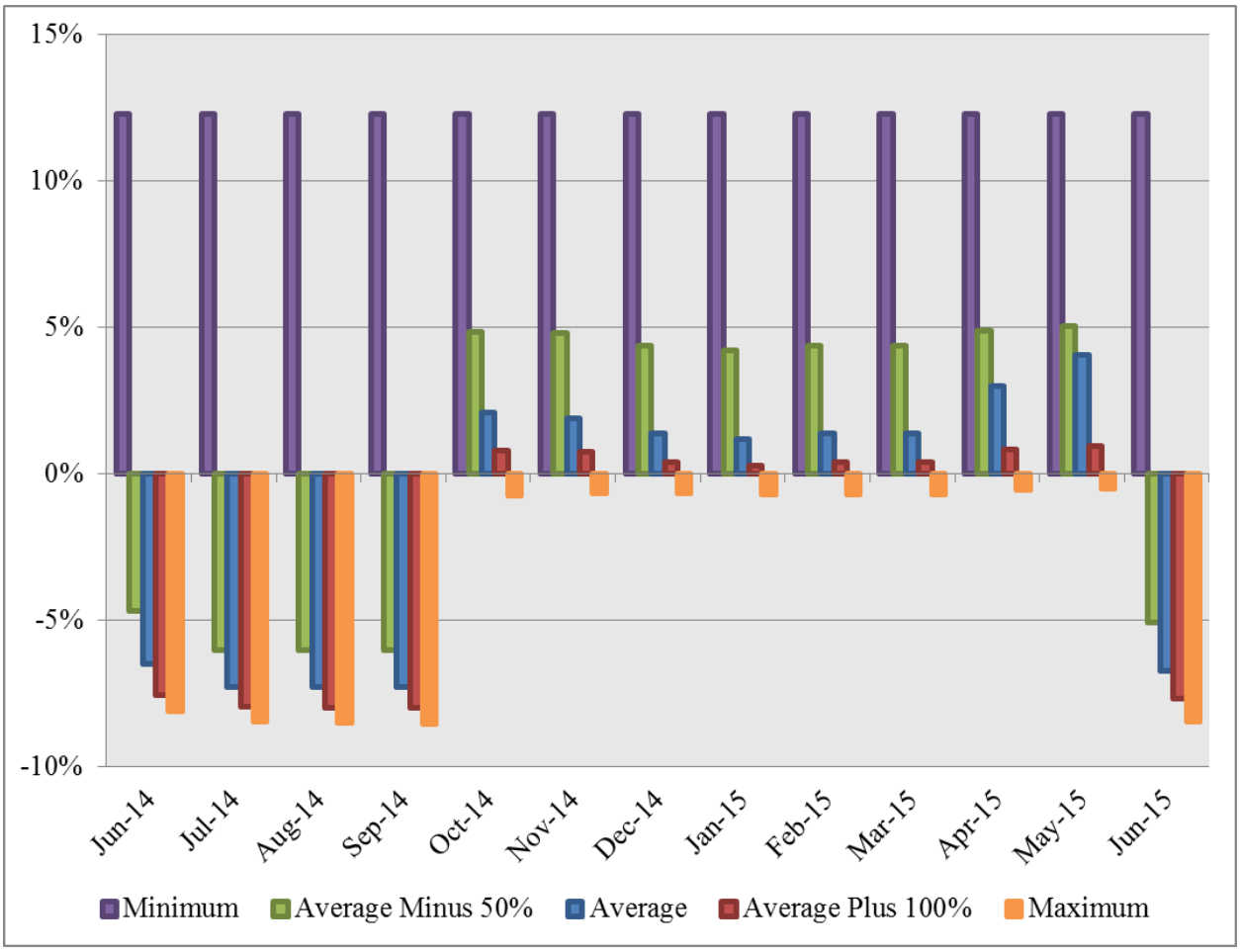
**Table 2c. Bills by month under Staff's proposed rates for L&P general use residential customer usage levels analyzed.**

| | Minimum | Average Minus 50% | Average | Average Plus 100% | Maximum |
|---|---|---|---|---|---|
| **Jun-14** | $10.71 | $47.50 | $84.29 | $157.86 | $301.94 |
| **Jul-14** | $10.71 | $69.90 | $129.09 | $247.46 | $703.52 |
| **Aug-14** | $10.71 | $70.35 | $129.98 | $249.26 | $839.30 |
| **Sep-14** | $10.71 | $70.10 | $129.49 | $248.27 | $1,124.44 |
| **Oct-14** | $10.71 | $45.77 | $79.42 | $129.24 | $975.09 |
| **Nov-14** | $10.71 | $46.58 | $80.57 | $131.55 | $761.90 |
| **Dec-14** | $10.71 | $58.63 | $97.69 | $165.80 | $797.05 |
| **Jan-15** | $10.71 | $65.08 | $106.85 | $184.10 | $809.79 |
| **Feb-15** | $10.71 | $58.22 | $97.11 | $164.63 | $905.88 |
| **Mar-15** | $10.71 | $58.12 | $96.96 | $164.32 | $841.62 |
| **Apr-15** | $10.71 | $44.60 | $77.75 | $125.91 | $565.48 |
| **May-15** | $10.71 | $41.81 | $72.90 | $117.97 | $515.59 |
| **Jun-15** | $10.71 | $52.12 | $93.53 | $176.34 | $732.33 |

**Table 2d. Bill impacts by month for L&P general use residential customer usage levels analyzed.**

| | Minimum | Average Minus 50% | Average | Average Plus 100% | Maximum |
|---|---|---|---|---|---|
| **Jun-14** | 12.3% | -4.7% | -6.5% | -7.6% | -8.1% |
| **Jul-14** | 12.3% | -6.0% | -7.3% | -8.0% | -8.5% |
| **Aug-14** | 12.3% | -6.0% | -7.3% | -8.0% | -8.5% |
| **Sep-14** | 12.3% | -6.0% | -7.3% | -8.0% | -8.6% |
| **Oct-14** | 12.3% | 4.8% | 2.1% | 0.8% | -0.7% |
| **Nov-14** | 12.3% | 4.8% | 1.9% | 0.7% | -0.7% |
| **Dec-14** | 12.3% | 4.4% | 1.4% | 0.4% | -0.7% |
| **Jan-15** | 12.3% | 4.2% | 1.2% | 0.3% | -0.7% |
| **Feb-15** | 12.3% | 4.4% | 1.4% | 0.4% | -0.7% |
| **Mar-15** | 12.3% | 4.4% | 1.4% | 0.4% | -0.7% |
| **Apr-15** | 12.3% | 4.9% | 3.0% | 0.8% | -0.6% |
| **May-15** | 12.3% | 5.0% | 4.0% | 1.0% | -0.5% |
| **Jun-15** | 12.3% | -5.1% | -6.7% | -7.7% | -8.5% |

**Figure 1b. Bill impacts by month for L&P general use residential customer usage levels analyzed.**




**Q. What do you observe from these results?**

A. Bill impacts for customers in both districts are generally lower under Staff's proposal than under the Company's proposal, except for customers using the most electricity. However, Staff's revenue requirement increase is 0.5 percent, compared to 8.17 percent as filed by GMO.[7] The disparity in bill impacts is fairly clear across various levels of usage, with lower use customers experiencing bill impacts higher than those experienced

[7] Staff Report – Rate Design, page 29, lines 13-15.

by customers with higher use. Customers using the least amount of electricity in the L&P jurisdiction would experience the highest impact.

**Q. Are these results consistent with what you would expect from the rate design proposed by Staff?**

A. Yes. The increased customer charge manifests as a bill impact most clearly for lower usage customers in both districts. For other levels of use, the two-tiered winter rate proposal is evident: MPS customers would experience an increase to their winter tail block rates, resulting in higher bill impacts for customers with higher use; L&P customers would experience a decrease to their winter tail block rate – and a downward shift in the usage volume at which the rate declined – providing additional benefits to higher usage customers with respect to bill impacts.

**Q. Based on these observations, does DE support Staff's rate design proposal for general use residential customers?**

A. Under Staff's current revenue requirement, DE supports Staff's general use residential rate design. The rate design generally results in smaller bill impacts than that proposed by the Company, and the customer charge is much lower than the $14.50 proposed by the Company.[8] Staff's rate design also effectively has two winter blocks, as compared to the Company's three blocks;[9] this results in a flatter rate design which can more easily be transitioned towards a flat or inclining block rate in order to appropriately affect price signals.

[8] Missouri Public Service Commission Case No. ER-2016-0156, *In the Matter of KCP&L Greater Missouri Operations Company's Request for Authority to Implement A General Rate Increase for Electric Service*, KCP&L Greater Missouri Operations Company, Proposed Tariff Change Schedules – Tariffs (Rates), February 23, 2016, Sheet No. 146.1.
[9] *Ibid*.

## V. TIME-DIFFERENTIATED RATES

**Q. What is the Company's proposal regarding its time-differentiated rates?**

A. GMO witness Mr. Bradley D. Lutz submitted the following testimony:

> **Q: Were there any part of the current rates that caused … concern?**
>
> A: Yes. The first concern was with the special rates such as Time of Day and Real Time Pricing. Our review revealed that these special rates are not working as intended and have little customer adoption. The Company has similarly proposed freezing these rates in other cases, and received approval to freeze these rates to new customers. The Company has been working with Electric Power Research Institute (EPRI) and other third parties to evaluate dynamic rates and explore more appropriate designs. Until that effort is completed and the infrastructure provided by the Automated Metering Infrastructure, Meter Data Management, and Customer Care & Billing systems are in place to support dynamic rates, the Company is proposing to freeze the availability of these special rates.[10]

Mr. Lutz indicates similar types of concerns and proposals for the Residential Time-of-Use rate, stating that it has no participation;[11] however, he does not state that there is an Electric Power Research Institute study underway for this specific rate.

**Q. Has GMO attempted to promote its time-differentiated rates to customers?**

A. No. In response to Data Request DED-DE 203, the Company stated that it has no record of marketing or promotional efforts, aside from posting the rates on its website. It is thus

[10] Missouri Public Service Commission Case No. ER-2016-0156, *In the Matter of KCP&L Greater Missouri Operations Company's Request for Authority to Implement A General Rate Increase for Electric Service*, Direct Testimony of Bradley D. Lutz on Behalf of KCP&L Greater Missouri Operations Company, February 23, 2016, page 26, lines 10-20.
[11] *Ibid*, page 33, lines 13-20.

unsurprising that there has been low participation in these rates; the Company should not freeze its current rates absent first attempting to adequately market them.

**Q. Why should the Company engage in developing time-differentiated rates and other demand response measures in the near term?**

A. As environmental compliance mandates come into effect, generation assets retire, and costs increase, time-differentiated rates and other demand response measures will make more sense for customers and the utility. Time-differentiated rates promote system efficiency by sending customers more accurate, detailed price signals.[12] Electric vehicle charging also presents a unique opportunity to implement time-of-use rates in order to encourage off-peak charging, shifting loads which might otherwise have occurred during peak evening hours and thereby reducing utility costs. Similarly, load control programs involving smart thermostats or other appliances have the potential for efficiency gains.[13]

**Q. Is AMI or a new billing system an absolute necessity for implementing time-differentiated rates or demand-response measures?**

A. No, though the use of such rates can benefit from AMI and an enabling billing system. The Missouri Comprehensive State Energy Plan ("CSEP") discusses how AMI and automated meter reading, "… can enhance the application of time-based rates and help better understand residential energy consumption."[14] The CSEP carefully indicates that such technologies are enhancements to, as opposed to requirements for, time-differentiated rates, with statements such as, "AMI technology is anticipated to be a critical component for **full** development and deployment of a modern grid" (emphasis

[12] Missouri Department of Economic Development – Division of Energy. 2015. "Missouri Comprehensive State Energy Plan." Page 62. https://energy.mo.gov/energy/docs/MCSEP.pdf
[13] See: *Ibid*, page 137.
[14] *Ibid*, page 141.

added).[15] While there may be a benefit to time-differentiated rate implementation from such systems, a paper by The Regulatory Assistance Project discusses rates which can be implemented in the absence of AMI-connected meters, i.e., those, "… which typically require manual reading," but might be able to record usage during specified times.[16] The paper states that a "fixed period time-of-use" rate, which involves predetermined price differentials, needs usage-reading meters "at a minimum;"[17] the Company does not have to have AMI or a new billing system to continue its implementation of time-of-use rates. There are additional applications for time-differentiated rates and other demand response measures beyond time-of-use rates, such as electric vehicle charging and smart thermostats. The CSEP notes that smart appliances, which are already commercially available, can use pricing signals (such as those provided through time-of-use rates) to determine when to run.[18] Therefore, the Company could implement time-of-use rates and other demand response measures using non-AMI technology if the rates are designed appropriately; at the least, GMO should focus on deploying time-differentiated rates in areas where AMI has already been installed and to the extent allowed by its billing system.

**Q. What is DE's position on the Company's time-differentiated rate proposal?**

A. DE encourages the Company to specifically examine residential and electric vehicle time-of-use rates as a part of the EPRI study, along with other demand response measures for end uses which could shift consumption to off-peak periods. In the interim, GMO

[15] *Ibid*.
[16] Lazar, Jim. 2013. "Rate Design Where Advanced Metering Infrastructure Has Not Been Fully Deployed." The Regulatory Assistance Project. Global Power Best Practice Series. Page 16. http://www.raponline.org/wp-content/uploads/2016/05/rap-lazar-ratedesignconventionalmeters-2013-apr-8.pdf
[17] *Ibid*, page 28.
[18] CSEP, page 137.

should not freeze its current time-differentiated rates, but should instead adequately market them to encourage participation. Additionally, the Commission should order the Company to propose any new time-differentiated rates and/or other demand response measures in the case following the conclusion of the EPRI study, and to market and promote the rates to customers. These proposals should include residential rate designs, as well as time-of-use rates and/or other demand response measures specific to electric vehicle charging and other loads which can be shifted or otherwise controlled (e.g., heating and cooling). The proposals should not be contingent on the implementation of AMI and new billing systems, though deployment of time-differentiated rates and/or other demand response measures should at least occur in areas where such technologies are in place.

Time-differentiated rates can provide customers with more precise price signals than time-insensitive alternatives, increasing the incentives to engage in efficiency, conserve, or shift load to times of lower system use and/or cost. The Commission should encourage utilities to gradually adopt these types of rate designs, with due evaluation of the associated technological, customer education, and financial considerations.

## VI. DEMAND-SIDE MANAGEMENT PROGRAMS

**Q. In his testimony, Company witness Mr. Darrin R. Ives cites DSM costs as one reason for "steadily increasing" rates.[19] Should the Commission be cognizant of the other impacts of DSM programs?**

A. Yes. As Mr. Ives himself highlights, DSM programs, "… help customers control their usage and their bills."[20] In addition to this added ability to maintain affordability in the short term, customers benefit from the deferral of supply-side investments which the Company would otherwise have to make due to higher usage. Customers also receive many non-energy benefits which should be counted in evaluations of DSM programs, such as increased comfort and safety, cleaner air, and reduced health impacts. Many non-energy benefits can be quantified; for example, the U.S. Department of Energy's recent evaluations of its Weatherization Assistance Program partly estimated total monetary benefits based on health and safety improvements,[21] and several states, including Iowa, have addressed the quantitative treatment of non-energy benefits.[22] Based on all of the benefits of DSM, the Commission should not view increased costs from DSM programs as investments with no returns, but investments with long-term public benefits.

[19] Missouri Public Service Commission Case No. ER-2016-0156, *In the Matter of KCP&L Greater Missouri Operations Company's Request for Authority to Implement A General Rate Increase for Electric Service*, Direct Testimony of Darrin R. Ives on Behalf of KCP&L Greater Missouri Operations Company, February 23, 2016, Page 15, lines 5-11.
[20] *Ibid*, page 16, lines 9-15.
[21] U.S. Department of Energy, Energy Efficiency & Renewable Energy, Weatherization Assistance Program. 2015. "National Evaluations: Summary of Results." http://weatherization.ornl.gov/WAP_NationalEvaluation_WxWorks_v14_blue_8%205%2015.pdf
[22] Skumatz, Lisa A. 2014. "Non-Energy Benefits/Non-Energy Impacts (NEBs/NEIs) and Their Role & Values in Cost-Effectiveness Tests: State of Maryland – Final Report." Skumatz Economic Research Associates. Prepared for The Natural Resources Defense Council, Inc. Pages 8-9. http://energyefficiencyforall.org/sites/default/files/2014_%20NEBs%20report%20for%20Maryland.pdf

## VII. CONCLUSIONS

**Q. Please summarize your conclusions and the positions of DE.**

A. Based on the comparison of the Company's and Staff's general use residential rate design proposals, DE supports Staff's proposed general use residential rate design under Staff's current revenue requirement. DE recommends the full and timely consideration by GMO of options for creating any new time-differentiated rates and/or other demand response measures, particularly for electric vehicle charging and other loads which can be shifted or otherwise controlled. The current time-differentiated rates should not be frozen, but should be effectively marketed and promoted. The ultimate proposals for any new time-differentiated rates and/or other demand response measures by the Company should not be contingent on the implementation of AMI and associated billing systems, though GMO should at least deploy time-differentiated rates and/or other demand response measures in areas with AMI and enabling billing systems in place. I also responded to GMO witness Mr. Ives's discussion of DSM program costs by describing the benefits received for such costs.

Due to the significantly different revenue requirements proposed by Staff and GMO, DE recommends that the Commission request scenarios illustrating the bill impacts of the rate design proposals in this case under common revenue requirement and billing unit assumptions. This will aid intervenors and the Commission with comparisons of the rate design and consolidation proposals, since revenue requirement is a key factor affecting the level at which rates are set.

**Q. Does this conclude your Rebuttal Testimony in this case?**

A. Yes.