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| Exhibit No.: | |
| Issues: | Residential Rate Design; Restoration Charge; Electric Vehicle Charging Station Rates; Renewable Energy Tariff Programs; Distributed Energy Resource Data |
| Witness: | Martin R. Hyman |
| Sponsoring Party: | Missouri Department of Economic Development – Division of Energy |
| Type of Exhibit: | Rebuttal Testimony |
| Case Nos.: | ER-2018-0145<br>ER-2018-0146 |

**MISSOURI PUBLIC SERVICE COMMISSION**

**KANSAS CITY POWER & LIGHT COMPANY**

**KCP&L GREATER MISSOURI OPERATIONS COMPANY**

**CASE NOs. ER-2018-0145 and ER-2018-0146**

# REBUTTAL TESTIMONY

**OF**

**MARTIN R. HYMAN**

**ON**

**BEHALF OF**

**MISSOURI DEPARTMENT OF ECONOMIC DEVELOPMENT**

**DIVISION OF ENERGY**

Jefferson City, Missouri
August 7, 2018

(Rate Design)

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

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| In the Matter of Kansas City Power & Light Company's Request for Authority to Implement a General Rate Increase for Electric Service | ) ) ) ) | Case No. ER-2018-0145 |
| 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-2018-0146 |

## AFFIDAVIT OF MARTIN R. 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 (Rate Design) 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

Martin R. Hyman

Subscribed and sworn to before me this 7th day of August, 2018

Laurie Ann Arnold

Notary Public

My commission expires: 4/26/20

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

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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. Have you previously filed testimony before the Missouri Public Service Commission ("Commission") on behalf of the Missouri Department of Economic Development – Division of Energy ("DE") in this case?**

A. Yes. I filed Direct Rate Design Testimony on July 6, 2018 regarding residential rate design and Rebuttal Revenue Requirement Testimony on July 27, 2018 regarding generating unit retirements.

## II. PURPOSE AND SUMMARY OF TESTIMONY

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

A. The purpose of my testimony is to respond to a number of issues raised in Direct Testimony filed by other parties, including Kansas City Power & Light Company ("KCP&L") and KCP&L Greater Missouri Operations Company ("GMO") (collectively, "Companies"), the Office of the Public Counsel ("OPC"), Commission Staff ("Staff"), Renew Missouri Advocates d/b/a Renew Missouri ("Renew Missouri"), and the Midwest Energy Consumers Group ("MECG"). The issues, along with my conclusions and recommendations, are summarized as follows:

1. Residential rate design

a. Customer charges – the Commission should reject any residential customer charge increases in this case because of concerns with efficiency-inducing price signals and equity.

b. Volumetric rates – until time-varying (or "demand response") rates are widely deployed to the residential class, DE recommends continued movement towards inclining block rates in the summer and flatter block rates in the winter for general use customers.[1]

c. Time-of-use ("TOU") rates – DE supports opt-in residential TOU pilots for both Companies and recommends expanding program participation opportunities; however, these rates should be offered starting with the effective date of the Commission's Report and Order in the current rate cases and should not be included in the Companies' Missouri Energy Efficiency Investment Act ("MEEIA") portfolios. DE does not recommend implementing Staff's proposed mandatory residential TOU rates because of concerns about gradualism and customer understanding, as well as a lack of stakeholder experience with such rates; DE recommends, at the least, a phase-in of such rates and customer protections such as "shadow billing."

d. Customer education and program evaluation – DE encourages careful consideration of appropriate and effective customer education before, during, and after TOU programs are agreed to by customers. Such

[1] I use the phrase "general use" to refer to the non-space heating rates that serve most residential customers.

education efforts should evaluate leading practices in other jurisdictions that have implemented TOU, including post-evaluation criteria to demonstrate that TOU rates resulted in changes to customer usage that provided cost savings to participants and the utility system.

e. Demand charges – although DE is not opposed to opt-in residential pilots that include demand rates based on coincident peak usage, DE recommends against widespread deployment of residential demand rates at this time.

2. Restoration Charge – DE opposes the Companies' proposed Restoration Charge because it is not based on underlying costs and could unfairly penalize certain customers.
3. Electric vehicle ("EV") charging station ("EVCS") rates – I provide recommendations to guide Staff's "make-ready" proposal related to EVCS siting. DE recommends that EVCS rates include no Session Charges and low or no demand charges, with any such demand charges limited to the recovery of site-specific infrastructure.
4. Renewable energy tariff proposals – DE supports offerings similar to the Companies' proposed Solar Subscription Pilot Rider and Renewable Energy Program ("REP") in order to meet customer demands for renewable energy. DE is not opposed to MECG's suggested program modifications and does not oppose Staff's recommendation for the Companies to separately offer these programs so long as they can jointly procure resources to take advantage of economies of scale.

5. Distributed energy resource ("DER") data – DE is not opposed to maintaining data on customer-owned DERs so long as the data is securely collected and maintained, ownership of the data remains with the applicable customers, and the data is made publicly available in an aggregated format with appropriate consumer privacy protections.

## III. RESIDENTIAL RATE DESIGN

### A. CUSTOMER CHARGES AND VOLUMETRIC RATES

**Q. What are the Companies' positions on residential rate design?**

A. KCP&L has requested to increase its customer charge for residential general use customers from $12.62 to $15.17 per month, an increase of over 20 percent; by contrast, volumetric rates for these customers would only increase between 1.17 and 1.18 percent. GMO proposes to increase its customer charge for residential general use customers by over 39 percent, with only 0.32 to 0.33 percent increases to these customers' volumetric rates. Neither of the Companies proposes to adjust substantively the structures of these rates; both Companies would continue to use declining block rates in the winter, and while KCP&L customers would still pay inclining block rates in the summer, GMO customers would pay flat rates per kWh consumed.[2]

[2] Missouri Public Service Commission Case Nos. ER-2018-0145 and ER-2018-0146, *In the Matter of Kansas City Power & Light Company's Request for Authority to Implement a General Rate Increase for Electric Service* and *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 Missouri Department of Economic Development – Division of Energy, July 6, 2018, page 11, lines 1-2.

**Q. What are Staff's proposals for residential rate design?**

A. Staff proposes moving all residential customers with Advanced Metering Infrastructure ("AMI") meters over to mandatory TOU rates.[3] I discuss DE's objections to this proposal in the next subsection of my testimony. For the remaining residential general use customers, Staff proposes to consolidate aspects of various residential rates[4] while maintaining similar rate structures with regards to the current general use rates.[5] To implement its recommended revenue requirement decrease,[6] Staff would lower residential general use volumetric rates[7] while increasing residential customer charges to match the cost of service results calculated by Staff.[8]

**Q. Did Staff provide sufficient bill impact analyses for any of its residential rate design proposals?**

A. No. Staff's testimony only provided the average rates for a non-random subset of residential customers.[9] This type of analysis is inadequate for purposes of examining overall bill impacts to customers, particularly when considering such a dramatic shift to TOU rates or evaluating changes to energy burdens.

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[3] Missouri Public Service Commission Case Nos. ER-2018-0145 and ER-2018-0146, *In the Matter of Kansas City Power & Light Company's Request for Authority to Implement a General Rate Increase for Electric Service* and *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 – Class Cost of Service ("Staff CCOS Report"), July 6, 2018, page 3, lines 20-21.
[4] *Ibid*, lines 21-25 and Appendix 2 – Other Staff Schedules, Schedule SLKL-d3.
[5] *Ibid*, Appendix 2 – Other Staff Schedules, Schedule SLKL-d3.
[6] ER-2018-0145 and ER-2018-0146, Staff CCOS Report, page 42, lines 18-19.
[7] ER-2018-0145 and ER-2018-0146, Staff CCOS Report, Appendix 2 – Other Staff Schedules, Schedule SLKL-d3.
[8] ER-2018-0145 and ER-2018-0146, Staff CCOS Report, page 42, lines 13-20.
[9] *Ibid*, pages 38-41, lines 7-16, 1-4, 1-7, and 1-6.

**Q. What does Renew Missouri recommend regarding residential rate design?**

A. Renew Missouri recommends continued movement towards inclining block rates and opposes customer charge increases.[10]

**Q. What is DE's position regarding residential rate design?**

A. DE recommends against any increases to customer charges in these cases. As discussed in my Direct Rate Design Testimony, higher customer charges send less appropriate price signals for purposes of encouraging efficient consumption; they also lead to higher bill impacts for low-use and low-income customers.[11]

In addition, DE recommends continued movement towards flat volumetric winter rates and inclining summer block rates for the Companies' residential general use customers – or, in GMO's case, the creation of inclining summer block rates. Flat block rates encourage greater efficiency than declining block rates, and inclining block rates send even better price signals for purposes of encouraging energy efficiency. These relationships also hold with regards to minimizing bill impacts on low-use and low-income customers. Movement towards these rate designs is particularly important for purposes of encouraging energy efficiency absent widespread deployment of TOU rates, but flat or inclining block rates can be combined with TOU rates as well.

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[10] Missouri Public Service Commission Case Nos. ER-2018-0145 and ER-2018-0146, *In the Matter of Kansas City Power & Light Company's Request for Authority to Implement a General Rate Increase for Electric Service* and *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 Jamie W. Scripps on Behalf of Renew Missouri, July 6, 2018, page 3, lines 15-19.

[11] ER-2018-0145 and ER-2018-0146, Hyman Direct, page 3, lines 14-21.

DE's recommendations are only strengthened by the possibility that the Companies' revenues could decrease under Staff's recommended revenue requirements; the potential for rate decreases provides an opportunity to realign rates with support for energy efficiency in a way that avoids rate shock and supports gradualism.

**Q. Are there any other reasons that the Commission should reject residential customer charge increases?**

A. Yes. In the case involving the merger of Westar Energy, Inc. and Great Plains Energy Incorporated ("GPE") – the previous parent company of KCP&L and GMO – GPE argued against a number of recommendations that would have supported clean energy development by stating that the applicants already supported clean energy.[12] Increasing residential customer charges would run counter to this claimed leadership by discouraging energy efficiency and customer-sited DERs.

**B. TIME-OF-USE RATES**

**Q. Please describe the Companies' TOU rate proposals.**

A. The Companies propose two TOU rates – one with a demand charge and one without – for implementation on a pilot basis.[13] Each of the pilots would be limited

[12] Missouri Public Service Commission Case No. EM-2018-0012, *In the Matter of the Application of Great Plains Energy Incorporated for Approval of its Merger with Westar Energy, Inc.*, Surrebuttal Testimony of Burton L. Crawford on Behalf of Great Plains Energy Incorporated, Kansas City Power & Light Company, and KCP&L Greater Missouri Operations Company, February 21, 2018, page 3, lines 1-4.

[13] Missouri Public Service Commission Case No. ER-2018-0145, *In the Matter of Kansas City Power & Light Company's Request for Authority to Implement a General Rate Increase for Electric Service*, Direct Testimony of Tim M. Rush on Behalf of Kansas City Power & Light Company, January 30, 2018, page 6, lines 5-11.
Missouri Public Service Commission Case No. ER-2018-0146, *In the Matter of KCP&L Greater Missouri Operations Company's Request for Authority to Implement a General Rate Increase for Electric Service*,

to 1,000 participants,[14] and would only be implemented as part of a new cycle of programs under MEEIA.[15]

**Q. What is Renew Missouri's testimony as to TOU rates?**

A. Renew Missouri recommends expanding TOU rate participation to 1,000 residential customers with EVs, 1,000 residential customers without EVs, and 1,000 residential customers with solar systems.[16]

**Q. What is Staff's proposal on TOU rates?**

A. Staff proposes that the Companies implement TOU rates on a mandatory basis for all residential customers with AMI metering.

**Q. Does DE support offering TOU rate pilots?**

A. Yes. However, as noted in my Direct Testimony, DE recommends expanding pilot participation in order to allow EV drivers to charge under beneficial rates that encourage off-peak charging; DE also recommends outreach to these drivers to educate them about TOU rates.[17] The Commission should consider removing all participation caps for these rates, particularly in light of Staff's interest in widespread TOU deployment (discussed below).

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Direct Testimony of Tim M. Rush on Behalf of KCP&L Greater Missouri Operations Company, January 30, 2018, page 6, lines 5-11.

[14] ER-2018-0145, Rush Direct, page 6, lines 13-14; ER-2018-0146, Rush Direct, page 6, lines 13-14.

[15] ER-2018-0145, Rush Direct, page 7, lines 15-17; ER-2018-0146, Rush Direct, page 7, lines 14-16.

[16] ER-2018-0145 and ER-2018-0146, Scripps Direct, page 21, lines 1-16.

[17] ER-2018-0145 and ER-2018-0146, Hyman Direct, pages 16-17, lines 3-22 and 1-11.

**Q. Should the Companies' TOU rates only be offered as a part of a MEEIA portfolio?**

A. No. In fact, none of the Companies' pilot rate designs should be offered under MEEIA; the Commission should order the implementation of any approved pilot rate with the effective date of rates in this case. One reason for DE's opposition to the Companies' proposed linkage of these rates with MEEIA is that if the Companies' next portfolios of MEEIA programs are not approved or are subsequently discontinued, TOU rates would not be offered. Additionally, customers will already be paying for AMI meters and a Customer Information System in base rates, providing the Companies with sufficient incentive to offer the benefits of TOU rates to customers; given that customers will already pay for technologies that enable TOU rates, they should have the benefit of being able to participate in TOU rate pilots regardless of the existence of MEEIA programs. The Commission should not relinquish its authority to order just and reasonable rates until the conclusion of a MEEIA case.

**Q. Has KCP&L attempted to argue that any other demand-side rates should be included under MEEIA?**

A. Yes. In its initial post-hearing brief in its last rate case, KCP&L suggested that inclining block rates be considered under MEEIA.[18] Nonetheless, the Commission instituted a summer inclining block rate for residential general use customers at

[18] Missouri Public Service Commission Case No. ER-2016-0285, *In the Matter of Kansas City Power & Light Company's Request for Authority to Implement a General Rate Increase for Electric Service*, Initial Post-Hearing Brief of Kansas City Power & Light Company, March 22, 2017, page 68.

the end of that rate case. The Commission should do the same in this case and not delay any TOU pilots until a new cycle of MEEIA programs takes effect.

**Q. Did the Commission order either KCP&L or GMO to propose TOU rates in MEEIA cases or to propose mandatory TOU rates in these rate cases?**

A. No. In fact, the Report and Order in KCP&L's prior rate case states, "… KCPL shall propose time-varying rate **offerings** for residential customers **in its next rate case**" (emphases added).[19] In other words, this requirement pertains to KCP&L's rate case, not to a MEEIA program. I would also note the use of the word "offering," which I interpret to mean something that is optional, as opposed to a requirement.

**Q. Does DE recommend implementing mandatory TOU rates as proposed by Staff?**

A. No, not at this time. There is limited experience with TOU rates and AMI deployment in the Companies' service territories, so it is premature to recommend that any residential customer be required to take service under TOU rates. As noted above, Staff did not provide comprehensive bill impact analyses, which prevents a reasonable assessment of Staff's proposal. Implementing Staff's proposal without such analyses means the Commission would have insufficient information about the degree of rate shock customers might experience. DE expects that a shift to TOU rates could surprise some customers, violating the principle of gradual changes to rate design – especially if the Commission orders rate increases for either of the Companies. For customers that are not able to track

[19] Missouri Public Service Commission Case No. ER-2016-0285, *In the Matter of Kansas City Power & light Company's Request for Authority to Implement a General Rate Increase for Electric Service*, Report and Order, May 3, 2017, page 57.

their usage on a real-time basis or program their appliances, the issue of rate shock could be even greater.

**Q. What is Staff's plan to educate customers about TOU rates?**

A. Staff has no concrete plans for educating customers about TOU rates; when asked about its education plans in a Data Request, Staff referred back to a general statement in its Direct Testimony, as well as the report filed in Case No. EW-2017-0245 in April of this year. Staff also stated that, "The type and level of education appropriate would be tied to the exact rate design and level of customer impacts associated with final rates, and may overlap with potential mitigation efforts such as shadow billing or intermediate rate tariffs."[20] In other words, Staff does not seem to believe that a firm education plan can be created without knowing particular rate designs, which may not even be possible until the end of these cases. This is troubling given that customers must understand their rates in order to react to them, particularly in the case of a radical shift to time-differentiated rates. The lack of a concrete education plan would only exacerbate potential rate shock – customers would have no understanding of why their monthly bills were changing. Such lack of customer understanding, in addition to potentially creating customer confusion, could increase customer call center volumes and customer complaints, requiring additional utility resources.

[20] Staff response to Data Request DED-DE No. 211.

**Q. What is "shadow billing?"**

A. My understanding of shadow billing is that – in this instance – it would provide customers with a comparison of their bills under typical, non-TOU rates versus their bills under TOU rates. Shadow billing can support customer education by indicating how TOU rates may be beneficial for them if they can change their consumption patterns.[21]

**Q. Did Staff review particular examples of mandatory TOU rates or consult with outside experts about its particular TOU proposals?**

A. No. In response to a Data Request, Staff only cited to a single Missouri cooperative as an example of mandatory TOU rates.[22]

**Q. Is Staff's proposed move to mandatory TOU rates consistent with its position in KCP&L's previous rate case?**

A. No. In the prior rate case, Staff went so far as to, "… caution[] against radical and abrupt moves to inclining block rates …,"[23] a marked contrast to a proposal for an even more "radical and abrupt move" to TOU rates. Staff's position in the present cases is also inconsistent with Staff's prior recommendation to wait on rate design changes for the outcome of KCP&L's time-differentiated rate study;[24] based on that past position, DE would have expected that Staff would recommend in these

[21] Migden- Ostrander, Janine. 2017. "Utility 'Shadow Billing' Can Shed Light on Rate Options." The Regulatory Assistance Project. [https://www.raponline.org/blog/utility-shadow-billing-can-shed-light-on-rate-options/](https://www.raponline.org/blog/utility-shadow-billing-can-shed-light-on-rate-options/).
[22] Staff response to Data Request DED-DE No. 211.
[23] Missouri Public Service Commission Case No. ER-2016-0285, *In the Matter of Kansas City Power & Light Company's Request for Authority to Implement a General Rate Increase for Electric Service*, Staff's Reply and True-Up Brief, April 4, 2017, page 33.
[24] *Ibid*, pages 35-36.

current cases to wait to implement mandatory TOU rates until results from the Companies' proposed TOU pilots are analyzed.

**Q. Would these concerns extend to the application of mandatory TOU rates on Small General Service ("SGS") customers, as proposed by Staff for non-residential rates in the event of rate increases?[25]**

A. Yes. These concerns are broadly applicable to the small businesses and others served under SGS rates. The potential impacts on businesses are particularly problematic from an economic development perspective, since businesses need certainty about critical inputs such as electricity. Such impacts would be compounded by their pairing with rate increases.

**Q. If the Commission orders mandatory TOU deployment as proposed by Staff, what does DE recommend?**

A. In the event that the Commission orders Staff's proposed mandatory TOU deployment, DE recommends, at the very least, that the Commission "phase in" such rates over a gradual period of time. Additionally, DE recommends that the Commission consider making the rates "opt-out" – i.e., that customers have the option to not participate in the rates. Such a safeguard is particularly important for customers dependent on electricity for medical needs, as well as other potentially vulnerable populations. The Commission should also order the use of "shadow billing" for one year following the rates' implementation, along with a "hold harmless" safeguard. Shadow billing would provide customers with their total bills

[25] ER-2018-0145 and ER-2018-0146, Staff CCOS Report, page 47, lines 16-18.

under both TOU rates and non-TOU rates; a hold harmless provision would result in a customer being billed the lower of the two rates. The combination of the hold harmless provision and shadow billing would educate customers about TOU rates without penalizing them for an initial lack of adjustment in usage.[26] Lastly, DE recommends robust customer education around TOU rates.

**C. DEMAND CHARGES**

**Q. Have the Companies proposed demand rate pilots?**

A. Yes. One of these pilots would only include demand charges in addition to traditional residential rate designs, while the other would combine TOU rates and demand charges.[27]

**Q. Generally, is DE opposed to demand rate pilots?**

A. DE is not opposed to such pilot programs if they are offered on an opt-in basis. However, DE cautions against the widespread deployment of demand charges for residential customers. There is little experience with such charges in the U.S.,[28] and TOU rates can be a better alternative given the increase in intermittent resources and time-dependent differences in energy prices.[29] Moreover, AMI

[26] See: Lazar, Jim, and Gonzalez, Wilson. 2015. *Smart Rate Design For a Smart Future*. The Regulatory Assistance Project. https://www.raponline.org/wp-content/uploads/2016/05/rap-lazar-gonzalez-smart-rate-design-july2015.pdf. Page 55.
See also: Migden-Ostrander, Janine. 2018. "Demand Charges for Residential Customers: Pros and Cons." The Regulatory Assistance Project. Presentation to the Southeastern Association of Regulatory Utility Commissioners (SEARUC), June 11, Columbus, Ohio. https://www.raponline.org/wp-content/uploads/2018/06/rap_migden_searuc_demand_charges_2018_jun_11.pdf. Slide 10.

[27] ER-2018-0145, Rush Direct, page 6, lines 5-11; ER-2018-0146, Rush Direct, page 6, lines 5-11.

[28] Missouri Public Service Commission Case No. EW-2017-0245, *In the Matter of a Working Case to Explore Emerging Issues in Utility Regulation*, "Comments on Staff's Report, EW 2017-0245 Submitted by Natural Resources Defense Council," May 17, 2018, page 4.

[29] See: Lazar, Jim. 2016. *Teaching the "Duck" to Fly*. 2nd ed. The Regulatory Assistance Project. https://www.raponline.org/wp-content/uploads/2016/05/rap-lazar-teachingtheduck2-2016-feb-2.pdf. Page 29.

obviates the need for demand charges, which are relatively "blunt" instruments.[30] Demand charges cannot be reduced within a billing month once they are incurred, sending a poor price signal that allows for excessive usage up to the customer's maximum monthly demand upon a demand charge's incurrence.[31] Residential demand charges would also fail to account for the diversity and timing of residential loads, may result in cost shifting, and could be difficult for customers to understand.[32]

**Q. Does DE recommend any modifications to the Companies' proposals?**

A. Yes. The Companies propose to bill customers based on their individual non-coincident peak demands.[33] This approach may not provide the appropriate price signals to customers, since their individual non-coincident peaks may not coincide with class- or system-level coincident peaks (or even local coincident peaks).[34] DE recommends that the Companies base the demand charges billed under their pilot programs on system coincident peaks.

[30] ER-2018-0145 and ER-2018-0146, Scripps Direct, page 16, lines 13-18.
[31] See Lazar, 2016, page 29.
[32] See Migden-Ostrander, 2018, slide 3.
[33] Missouri Public Service Commission Case No. ER-2018-0145, *In the Matter of Kansas City Power & Light Company's Request for Authority to Implement a General Rate Increase for Electric Service*, Minimum Filing Requirements for Utility Company General Rate Increases, Appendix 1 – Proposed Tariff Sheets, January 30, 2018, Sheet Nos. 7C and 7E.
Missouri Public Service Commission Case No. ER-2018-0146, *In the Matter of KCP&L Greater Missouri Operations Company's Request for Authority to Implement a General Rate Increase for Electric Service*, Minimum Filing Requirements for Utility Company General Rate Increases, Appendix 1 – Proposed Tariff Sheets, January 30, 2018, Sheet Nos. 146.8 and 146.10.
[34] See ER-2018-0145 and ER-2018-0146, Scripps Direct, page 16, lines 5-6.

**Q. Staff recommends the eventual use of demand charges for all residential customers.[35] Does DE agree?**

A. For the reasons stated above, DE does not support the conclusion that all residential customers should be billed using demand charges at this time. Instead, DE recommends that Staff, the Companies, and other parties examine data from the TOU and demand rate pilots – as well as inclining block rates ordered by the Commission – to determine which rate designs are most understandable for customers and best encourage efficient usage, both on- and off-peak.

## IV. RESTORATION CHARGE

**Q. What do the Companies propose for a "Restoration Charge?"**

A. The Companies propose to assess a Restoration Charge for customers that request reconnections within one year of a requested disconnection. The charge would be incurred in addition to unpaid balances and would involve the payment of customer and facilities charges not paid during the time the customer was disconnected.[36]

[35] ER-2018-0145 and ER-2018-0146, Staff CCOS Report, page 33, lines 23-24.
[36] ER-2018-0145, Minimum Filing Requirements for Utility Company General Rate Increases, Appendix 1 – Proposed Tariff Sheets, Sheet No. 1.27; ER-2018-0146, Minimum Filing Requirements for Utility Company General Rate Increases, Appendix 1 – Proposed Tariff Sheets, Sheet Nos. R-20 and R-66.

**Q. Did the Companies describe their proposed Restoration Charges in Direct Testimony?**

A. No. The charges are only described in schedules attached to KCP&L and GMO witness Ms. Marisol E. Miller's Direct Testimony filings[37] and the tariffs contained in the Companies' Minimum Filing Requirements.

**Q. What is the significance of the Companies' omissions of detailed descriptions for the Restoration Charges?**

A. The Companies have provided no evidence that the Restoration Charges are based on underlying costs. Instead, the charges are clearly based on foregone revenues related to customer and facilities charges.

**Q. Should the Commission allow the Companies to charge customers for foregone customer or facilities charges?**

A. No. Doing so would be unusual for a Missouri electric utility; to my knowledge, the only example of an electric utility charging customers for reduced revenues would be under the Demand-Side Investment Mechanism, which is statutorily authorized under the Missouri Energy Efficiency Investment Act at Section 393.1075.5, RSMo. Senate Bill 564 (2018) also authorizes electric utilities to decouple changes in residential and SGS revenues resulting from weather, conservation, or both

[37] Missouri Public Service Commission Case No. ER-2018-0145, *In the Matter of Kansas City Power & Light Company's Request for Authority to Implement a General Rate Increase for Electric Service*, Direct Testimony of Marisol E. Miller on Behalf of Kansas City Power & Light Company, January 30, 2018, Schedule MEM-4, pages 2 and 5.
Missouri Public Service Commission Case No. ER-2018-0146, *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 Marisol E. Miller on Behalf of KCP&L Greater Missouri Operations Company, January 30, 2018, Schedule MEM-7, page 6.

factors under Section 386.266.3, RSMo.,[38] but that foregone revenue recovery mechanism is not what the Companies propose.

**Q. Does DE have other concerns with the Companies' proposals?**

A. Yes. The proposed Restoration Charge would recover lost revenues to the detriment of customers who may face extraordinary circumstances. For example, a customer in the military might discontinue service while not at home for an extended period of time. That service member would face additional charges under the Companies' proposals when returning home from military service. In another case, a customer may be admitted to a hospital and choose to discontinue service. Upon returning home, that customer might not only face high medical bills, but attempts by the Companies to charge for services the customer never used. Another example would be if a landlord disconnected utility service upon a vacancy, and then a new tenant reconnected service under their own name; it is unclear whether or not KCP&L and GMO would then charge the new tenant for lost revenues from the time during which no service was provided to the property. If that were the case, then the new tenant would be charged simply because the previous tenant did not want to be billed for services that they would never have used. Yet another example is if a low-income customer chooses to disconnect to avoid paying for unneeded service; under the Companies' proposals, that customer would then face yet another obstacle to obtaining affordable electric service if they wanted to reconnect. In short, DE's opposition to the Restoration

[38] The full text of Senate Bill 564 (2018) is available on the Missouri General Assembly's website at http://www.senate.mo.gov/18info/pdf-bill/tat/SB564.pdf.

Charge is based both on the lack of cost-based justification for the charge and the effects the charge could have on consumers.

## V. ELECTRIC VEHICLE CHARGING STATION RATES

**Q. What are the Companies' recommendations as to EV charging rates for their Clean Charge Network?**

A. The Companies recommend flat volumetric rates differentiated by charging level. In addition, the Companies recommend the option for use of "Session Overstay Charges" in order to encourage customers to move their vehicles upon charge completion.[39] KCP&L and GMO state that this rate, which could be up to $6.00 per hour depending upon the EVCS, is based upon forgone revenues.[40]

**Q. What is Staff's proposal for EV charging?**

A. As part of its "make-ready" model for EVCSs, Staff recommends a number of tariff provisions to govern EVCSs that would participate in the model, in addition to providing "free" line extensions of specified lengths depending on charging configurations and locations.[41] Staff also recommends that customers who receive line extensions for EVCSs under its proposed make-ready model should be placed on a time-differentiated charging rate.[42] This rate would include demand-related charges,[43] although Staff's proposal is designed to alleviate some of the otherwise applicable demand charges as compared to GMO's SGS rate.[44]

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[39] ER-2018-0145, Rush Direct, page 16, lines 1-13; ER-2018-0146, Rush Direct, page 20, lines 1-13.
[40] ER-2018-0145, Rush Direct, pages 17-18, lines 21-23 and 1-5; ER-2018-0146, Rush Direct, pages 21-22, lines 21-23 and 1-5.
[41] ER-2018-0145 and ER-2018-0146, Staff CCOS Report, pages 49-51, lines 23-27, 1-42, and 1-2.
[42] *Ibid*, pages 52-53, lines 12-14 and 1-15.
[43] *Ibid*, page 53, lines 14-15.
[44] *Ibid*, page 51, lines 5-19 and page 52, lines 12-14.

**Q. Should the Companies' EV-related tariffs include a Session Charge?**

A. No. These charges are not based on costs incurred, but rather on foregone revenues. Additionally, the Companies have proposed a range of potential Session Charges; the Session Charges, if applied at all, should be at a fixed rate specified in the Companies' tariffs.

**Q. Do you have comments on Staff's proposed make-ready model?**

A. Generally, DE is supportive of creating a make-ready model, at least in the absence of allowing utilities to place the costs of EVCSs in rate base. DE recommends that such a model should target EVCS placement based on distribution system hosting capacity and filling the needs of unserved or underserved markets (e.g., inner cities, rural areas, low-income areas, multifamily dwellings, and highway corridors); Staff's proposal includes some targeting of public EVCS availability.[45] Additionally, such a model should be coupled with demand-side programs that enable load control in order to improve utilities' abilities to shift charging to off-peak times.

**Q. Should EVCS rate designs include demand charges?**

A. DE recommends against such charges, but, if an EVCS rate design includes a demand charge, the demand charge should be low. DE appreciates Staff's effort to reduce the burden of demand charges on customers with EVCSs; the best approach for doing so is to lower the charge and tie it to site-specific

[45] *Ibid*, page 50, lines 17-21.

infrastructure.[46] However, DE is concerned that EVCS demand charges could discourage customers from offering EV charging by raising their bills, particularly if high-speed charging is offered. The need for demand charges is questionable given the deployment of AMI and the availability of TOU rates; in fact, Staff's proposed rate for EV charging includes time-differentiated energy charges.

## VI. RENEWABLE ENERGY TARIFF PROPOSALS

### A. SOLAR SUBSCRIPTION PILOT RIDER

**Q. Please describe the Companies' proposed Solar Subscription Pilot Rider.**

A. The pilot rider allows all customers to subscribe to 500-watt "blocks" of solar resources, with subscription limited to 50 percent of their annual energy use; customers will sign up based on 10 percent increments of their usage. No customer may subscribe to more than 2.5 megawatts ("MW") of capacity, unless the program expands beyond the initial five MW cap; non-residential customer participation will be limited to half of the solar resource for three months. Participation is required for one year upon sign-up, and non-residential customers that subscribe to more than 25 percent of available blocks for a solar resource must participate for at least five years. Subscriptions may transfer within the service territory if customers move, and can be transferred to other customers for a $25 fee per transfer. The rider is designed as a "premium" program" – in other words, customers will pay more for solar energy than current residential rates. The

[46] See: Linvill, Carl, PhD. 2018. "Rate Design to Maximize Grid Benefits: Smart EV Rate Design is Smart Rate Design." The Regulatory Assistance Project. Presentation to the CPUC ZEV Rate Design Forum, June 7, San Francisco, California. https://www.raponline.org/wp-content/uploads/2018/06/rap_linvill_cpuc_zev_rate_design_2018_june_7.pdf. Slides 30-31, 33, and 38.

utilities would own the solar resources, and would not begin construction of any solar resource until it is at least 75 percent subscribed.[47]

**Q. Why should the Companies offer this type of program?**

A. Not all customers are able to own their own solar systems. There are numerous reasons why such customers may not be able to do so, including renting residences or businesses, the affordability of solar panels, having insufficient space, having roofs that cannot support solar panels or that are improperly oriented, too much shading, and homeowner's association restrictions. Some customers or may also prefer not to own their systems. Solar subscription programs can allow these underserved markets to "own" solar.

**Q. Are there other utilities that offer such programs?**

A. Yes. KCP&L and GMO witness Ms. Kimberly H. Winslow cites a number of examples of solar subscription-type programs.[48]

**Q. Has Staff proposed any modifications to this program?**

A. Yes. Staff supports offering this type of program and proposes that the program be offered separately by KCP&L and GMO.[49]

[47] ER-2018-0145, Minimum Filing Requirements for Utility Company General Rate Increases, Appendix 1 – Proposed Tariff Sheets, Sheet Nos. 39-39E; ER-2018-0146, Minimum Filing Requirements for Utility Company General Rate Increases, Appendix 1 – Proposed Tariff Sheets, Sheet Nos. 109-109.3.
[48] Missouri Public Service Commission Case No. ER-2018-0145, *In the Matter of Kansas City Power & Light Company's Request for Authority to Implement a General Rate Increase for Electric Service*, Direct Testimony of Kimberly H. Winslow on Behalf of Kansas City Power & Light Company, January 30, 2018, pages 4-6, lines 18-21, 1-22, and 1-21.
Missouri Public Service Commission Case No. ER-2018-0146, *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 Kimberly H. Winslow on Behalf of KCP&L Greater Missouri Operations Company, January 30, 2018, pages 5-7, lines 1-24, 1-22, and 1-2.
[49] ER-2018-0145 and ER-2018-0146, Staff CCOS Report, page 55, lines 2-3.

**Q. What is DE's position on the proposed Solar Subscription Pilot Rider?**

A. DE supports offering tariffs such as the Solar Subscription Pilot Rider in order to meet customer demands for renewable energy, particularly for those customers unable to own their solar resources. DE is not opposed to Staff's proposal, provided that the Companies can offer separate programs based on facilities procured for both KCP&L and GMO. Allowing joint facility procurement – as opposed to separate facilities for each utility – should result in lower program costs by taking advantage of economies of scale.

## B. RENEWABLE ENERGY PROGRAM

**Q. Please describe the proposed REP.**

A. The REP, a type of "green tariff," would allow large non-residential customers to subscribe to wind energy power purchase agreements ("PPAs") procured by the Companies. Customers would have to have an average monthly peak demand above 200 kilowatts ("kW"), an aggregate annual peak load of at least 2.5 megawatts and an average demand of 200 kW per account, or be governmental or municipal customers in order to participate. Customers would pay a subscription fee (including an administration charge) and receive revenues resulting from the sale of the wind energy into the wholesale market. The Companies' combined programs would be between 100 and 200 MW, with the potential for additional capacity based on subscriber interest. Customers could subscribe for up to 100 percent of their annual usage for five-, 10-, or 20-year terms. Renewable Energy Credits would be provided to customers annually or retired for customers.[50]

**Q. Why should the Companies offer this type of program?**

A. As discussed in my Rebuttal Revenue Requirement Testimony in these cases, there is interest on the part of corporations and local governments in obtaining renewable energy. Supporting these desires through green tariffs or other mechanisms is an important component of business attraction, retention, and expansion. Additionally, green tariffs help fulfill Missouri policy goals under Section 620.035, RSMo. and the Missouri Comprehensive State Energy Plan's overarching recommendation to increase the diversity and security of the state's energy supply.[51]

**Q. Are there other utilities that have offered, or will offer, such a program?**

A. Yes. Union Electric Company d/b/a Ameren Missouri recently received approval for a green tariff following a settlement between the company, Staff, the Office of the Public, DE, renewable energy and environmental groups, and representatives of large consumers.[52] Utilities in other states have pursued – and, in some cases, received approval of – green tariff-style arrangements. Such proposals have

[50] ER-2018-0145, Minimum Filing Requirements for Utility Company General Rate Increases, Appendix 1 – Proposed Tariff Sheets, Sheet Nos. 40-40G; ER-2018-0146, Minimum Filing Requirements for Utility Company General Rate Increases, Appendix 1 – Proposed Tariff Sheets, Sheet Nos. 139-139.5.
[51] Missouri Department of Economic Development – Division of Energy. 2015. "Missouri Comprehensive State Energy Plan." https://energy.mo.gov/sites/energy/files/MCSEP.pdf. Page 227.
[52] Missouri Public Service Commission Case No. ET-2018-0063, *In the Matter of the Application of Union Electric Company d/b/a Ameren Missouri for Approval of 2017 Green Tariff*, Order Approving Stipulation and Agreement, June 27, 2018.

occurred in states with vertically integrated, regulated electric utilities, such as North Carolina and the state of Washington.[53]

**Q. Has Staff proposed any modifications to this program?**

A. Yes. Staff supports offering a green tariff and proposes that the program be offered separately by KCP&L and GMO.[54]

**Q. Have any representatives of large consumers indicated support for the Companies' proposal?**

A. Yes. MECG witness Mr. Steve W. Chriss indicates support for the REP, subject to certain modifications.[55] In addition, Mr. Chriss notes the renewable energy goals[56] of his employer, Walmart Inc.,[57] a company that has a major economic footprint in Missouri.[58]

**Q. What modifications does MECG recommend for this program?**

A. Mr. Chriss makes a number of recommendations, including: allocating wind resources to customers based proportionally on their total interest; that customers who do not receive all of their desired share of a resource should be able to subscribe to subsequent offerings or take over terminated subscriptions; allowing subscription renewals; offering an option for 15-year subscription terms; and,

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[53] World Resources Institute. 2017. "U.S. Renewable Energy Map: A Guide for Corporate Buyers." http://www.wri.org/resources/maps/us-re-corporate-buyers-map.
[54] ER-2018-0145 and ER-2018-0146, Staff CCOS Report, page 58, lines 1-2.
[55] Missouri Public Service Commission Case Nos. ER-2018-0145 and ER-2018-0146, *In the Matter of Kansas City Power & Light Company's Request for Authority to Implement a General Rate Increase for Electric Service* and *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 and Exhibits of Steve W. Chriss on Behalf of Midwest Energy Consumers Group, July 6, 2018, page 13, lines 2-7.
[56] *Ibid*, page 3, lines 9-15.
[57] *Ibid*, page 1, lines 4-5.
[58] *Ibid*, pages 2-3, lines 19-21 and 1-2.

allowing subscription transfers between accounts held by the same customers in certain instances.[59]

**Q. What is DE's position on the proposed REP?**

A. DE supports offering tariffs such as the REP in order to meet corporate and local government demand for renewable energy. DE is not opposed to Staff's or MECG's recommendations, provided that the Companies can offer separate programs based on PPAs procured for both KCP&L and GMO. Allowing joint PPA procurement – as opposed to separate PPAs for each utility – should result in lower program costs by taking advantage of economies of scale.

## VII. DISTRIBUTED ENERGY RESOURCE DATA

**Q. What does Staff recommend as to maintaining DER-related data?**

A. Staff recommends that the Companies retain data on DERs regarding the associated distribution system characteristics and interconnection standard requirements, among other items.[60]

**Q. Does DE support this data collection?**

A. Generally, yes. However, DE recommends that this data be collected and maintained in a secure manner that avoids unauthorized disclosure of customer-specific information. In addition, DE recommends that customer-generators retain ownership of their data. Lastly, DE recommends that the Companies make such data publicly available in an aggregated format that protects the privacy of customers. Such data availability could support system planning and encourage

[59] *Ibid*, pages 13-18, lines 19-21, 1-20, 1-9, 1-14, 1-21, and 1-6.
[60] ER-2018-0145 and ER-2018-0146, Staff CCOS Report, pages 58-59, lines 4-36 and 1-4.

DER developers and customers to locate DERs at the most beneficial points on the distribution system.

## VIII. CONCLUSIONS

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

A. DE recommends no residential customer charge increases for KCP&L and GMO customers and supports continued progress towards flatter and/or inclining block rates. While DE recommends expansion of the Companies' TOU proposals beyond the low participation caps suggested by KCP&L and GMO, DE cautions against mandatory residential TOU rates for customers with AMI meters at this time and recommends, at the least, a phase-in of such rates with appropriate consumer protections. In addition, DE recommends robust education and evaluation associated with TOU rates. DE is not opposed to opt-in coincident peak demand rates for residential customers, but at this time does not support the conclusion that all residential customers should be billed demand charges. DE also opposes the Companies' proposed Restoration Charge.

In my testimony, I have provided recommendations to guide Staff's "make-ready" proposal related to EVCS siting; in addition to those recommendations, DE does not recommend the use of the Companies' proposed Session Charges for EVCSs and cautions against high demand charges for EVCSs. DE supports proposals such as the Solar Subscription Pilot Rider and REP. DE does not oppose Staff's proposal to track DERs so long as such tracking is performed in a secure manner, applicable customers maintain ownership of their data, and the data is made publicly available with appropriate privacy protections.

**Q. Does this conclude your Rebuttal Rate Design Testimony?**

A. Yes.