

**BEFORE THE STATE CORPORATION COMMISSION
OF THE STATE OF KANSAS**

DIRECT TESTIMONY OF

TIM M. RUSH

**ON BEHALF OF
KANSAS CITY POWER & LIGHT COMPANY**

**IN THE MATTER OF THE APPLICATION OF
KANSAS CITY POWER & LIGHT COMPANY
TO MAKE CERTAIN CHANGES IN
ITS CHARGES FOR ELECTRIC SERVICE**

DOCKET NO. 18-KCPE-____-RTS

DIRECT TESTIMONY

OF

TIM M. RUSH

DOCKET NO. 18-KCPE-____-RTS

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

2 A: My name is Tim M. Rush. My business address is 1200 Main Street, Kansas City,
3 Missouri 64105.

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

5 A: I am employed by Kansas City Power & Light Company (“KCP&L”) as Director,
6 Regulatory Affairs.

7 **Q: On whose behalf are you testifying?**

8 A: I am testifying on behalf of KCP&L (“KCP&L” or the “Company”).

9 **Q: What are your responsibilities?**

10 A: My general responsibilities include overseeing the preparation of the rate case, class cost
11 of service (“CCOS”) and rate design of both KCP&L and KCP&L Greater Missouri
12 Operations Company (“GMO”). I am also responsible for overseeing the regulatory
13 reporting and general activities as they relate to the State Corporation Commission of the
14 State of Kansas (“KCC”) and the Missouri Public Service Commission (“MPSC”).

15 **Q: Please describe your education, experience and employment history.**

16 A: I received a Master of Business Administration degree from Northwest Missouri State
17 University in Maryville, Missouri. I did my undergraduate study at both the University
18 of Kansas in Lawrence and the University of Missouri in Columbia. I received a

1 Bachelor of Science degree in Business Administration with a concentration in
2 Accounting from the University of Missouri in Columbia.

3 **Q: Please provide your work experience.**

4 A: I was hired by KCP&L in 2001 as the Director, Regulatory Affairs. Prior to my
5 employment with KCP&L, I was employed by St. Joseph Light & Power Company
6 (“Light & Power”) for over 24 years. At Light & Power, I was Manager of Customer
7 Operations from 1996 to 2001, where I had responsibility for the regulatory area, as well
8 as marketing, energy consultant and customer services area. Customer services included
9 the call center and collections areas. Prior to that, I held various positions in the Rates
10 and Market Research Department from 1977 until 1996. I was the Manager of that
11 department for 15 years.

12 **Q: Have you previously testified in proceedings before the KCC?**

13 A: Yes, I have testified on several occasions before the KCC on a variety of issues.

14 **Q: What is the purpose of your testimony?**

15 A: The purpose of my testimony is to:

16 I. Address the changes necessary to the Energy Cost Adjustment tariff to
17 allow for the Renewable Energy Rider.

18 II. Address the proposal of the Residential Time of Use, Residential Demand
19 Service plus Time of Use, Residential Demand Service, the Time of Use
20 rate schedules.

21 III. Address the proposed Renewable Energy Efficient Pilot Rider and how it
22 can fit as an energy program in Kansas.

23 IV. Address the Company’s proposed Electric Vehicle (EV) charging tariff.

1 **I. ENERGY COST ADJUSTMENT**

2 **Q: Does the Company currently have an approved Energy Cost Adjustment (“ECA”)?**

3 A: Yes.

4 **Q: Is the Company proposing to make any changes in the ECA tariff?**

5 A: Yes, see Exhibit TMR-1. Two riders designed to provide renewable energy opportunities
6 for customers are discussed in the Direct Testimony of Kimberly Winslow and Bradley
7 Lutz. One program is titled the Solar Subscription Pilot Rider and the second is titled the
8 Renewable Energy Rider. The Renewable Energy Rider will require modification to the
9 current ECA. The Company proposes to add language to the ECA tariff to carve out the
10 costs and revenues of the Renewable Energy Rider from the costs and revenues in the
11 ECA. The phrases to be added will be included in both revenue account 456.1 —
12 “amounts associated with portions of Power Purchase Agreements dedicated to specific
13 customers under the Renewable Energy Rider” and purchased power expense account
14 555 — “excluding (a) amounts associated with portions of Power Purchase Agreements
15 dedicated to specific customers under the Renewable Energy Rider”.

16 **Q: Will the Renewable Energy Rider and the changes to the ECA cause any problems
17 with the computation or administration of the ECA?**

18 A: No. Both the costs and revenues that will be taken out of the ECA are easily identified
19 and will not cause any problems with the ECA.

20 **Q: Does the ECA help both customers and Company?**

21 A: Yes. The ECA is a balanced recovery mechanism which provides the Company with
22 recovery of its net fuel and purchased power costs, but also provides customers assurance
23 that KCP&L is not over-recovering net fuel and purchased power costs. The ECA is

1 needed to help address volatile and uncertain net fuel and purchased power costs, and to
2 ensure the Company has an opportunity to earn a fair return in order to generally preserve
3 the financial health of the Company. The net fuel and purchased power costs contained
4 in the ECA for KCP&L represent approximately 17% of the overall costs of serving
5 customers.

6 **Q: What protections exist for customers with regard to the ECA?**

7 A: Beyond the reviews performed for each filing of the ECA changes, the ECA is also
8 audited each year through a detailed prudence review by the Staff of the KCC. To date,
9 no disallowances have occurred where the Company has been found to be imprudent in
10 any aspects of the ECA.

11 **II. RESIDENTIAL PILOT RATES**

12 **Q: What is the Company requesting in this proceeding?**

13 A: The Company is proposing three new residential pilot rate programs as described in the
14 testimony of Company witnesses Marisol Miller and Kimberly Winslow. The three rates
15 are:

- 16 1.) Residential Time of Use
- 17 2.) Residential Demand Service plus Time of Use
- 18 3.) Residential Demand Service

19 **Q: Please describe how you propose to implement these Residential Pilot Rate**
20 **programs?**

21 A: The three rates are being proposed as pilots limited to 1,000 residential customer
22 participants for each rate. Residential customers may select to be on one of the three
23 rates instead of the standard residential rate. Customers selecting one of these Residential

1 Pilot rates must have Advanced Metering Infrastructure (“AMI”) metering available at
2 their residence. The three Residential Pilot Rate programs are designed to allow the
3 residential customer to take more control of their electric bill by modifying usage patterns
4 or installing equipment that potentially results in a lower energy bill

5 For example, instead of running the clothes dryer during the peak period when
6 energy costs are high, the customer could wait until later in the evening or early in the
7 morning. By altering the time for certain tasks, a customer would be billed at a lower
8 rate when the clothes dryer is in operation than if they had run the dryer or dishwasher
9 during the peak period. It will also likely result in long-run savings to the Company and
10 non-participating customers as well. Those long-run savings include better utilization of
11 existing Company facilities and possible deferral of future generation needs.

12 The Company considers these Residential Pilot Rate programs “Demand Side
13 Management” rates. By taking advantage of the different types of rates, customers’
14 energy consumption and demand will be affected. As a result, the Company will not
15 recover the revenues previously being recovered from that customer when rates were
16 established and the Company will under-recover its anticipated rates from this case.

17 **Q: Please describe how the Company intends to educate customers about the**
18 **Residential Pilot Rate programs?**

19 **A:** In addition to being placed on rate selected by the customer, the Company proposes
20 to offer customers on the Residential Pilot Rate programs a smart thermostat and a home
21 energy report to serve as educational tools to help the customer better manage the Pilot
22 rate. Company witness Kimberly Winslow further describes the educational piece of the

1 proposed Residential Pilot Rates and the Demand Side Management (DSM) Pilot
2 Programs in her direct testimony.

3 **Q: How does the Company intend to recover the costs of the smart thermostat and the**
4 **home energy report?**

5 A: Because these programs are Energy Efficiency/DSM Programs, KCP&L intends to
6 recover the cost of these programs through its Energy Efficiency Rider (“EER”). I have
7 attached three proposed tariffs as part of my testimony. The first tariff is a modification
8 to the EER, the second is the Home Energy Report Program (“RHER”) tariff and the
9 third is the Smart Thermostat Program (“RSTP”) tariff. I have marked these exhibits as
10 Exhibit TMR-2.

11 **Q: How does the Company propose to address the “lost revenues” from customers who**
12 **switch from the standard rate to one of the “Residential Pilot Rates”?**

13 A: First, we will know or be able to determine how much the customer’s usage has been
14 over the prior 12 months and thus will be able to calculate the revenues that would have
15 been recovered under the current standard rate, excluding the ECA. Second, with the
16 AMI metering, we will be able to calculate the revenues that would be derived from
17 placing the customer on one of the pilot tariffs, excluding the ECA. The difference
18 would be the annual “Lost Revenues,” or the lost margins. We would propose to place
19 the annual lost margins in a regulatory asset and to accumulate over the period from the
20 time the customer switched rates until the next rate case when the overall revenues will
21 be re-determined and the lost margins will be accounted for at that time. We propose that
22 the regulatory asset would allow recovery over a similar period as the time-period

1 between the cases. So, if the next rate case were to occur in five years from this case,
2 then the amortization of the regulatory asset would be for five years.

3 **Q: Please explain how you anticipate these rates being implemented?**

4 A: The Company proposes that the rates be approved in this case, but not be implemented or
5 used until September 2019.

6 **Q: Why wait until September 2019 before these rates are implemented?**

7 A: The primary reason is the necessity for billing modifications to properly bill these rates.
8 We will have just installed a new Customer Information System, including a new billing
9 system. We are not planning to develop the billing functions until we have approval of
10 the rate plan. As such, we will need time after this case in order to develop the billing
11 engine. Secondly, we are proposing similar tariffs in Missouri that are directly linked to
12 the Missouri Energy Efficiency Investment Act (“MEEIA”). We are also proposing to
13 implement the Missouri pilot tariffs in the same reasonable period. Lastly, customer
14 marketing and education is necessary for customers to have the knowledge necessary to
15 participate in the different pilots.

16 **Q: You mentioned that it is anticipated that usage and demand will be modified and**
17 **that customers will save money. Likewise, you anticipate that the Company will see**
18 **some benefit from these usage changes. How do you anticipate handling the**
19 **reduced revenues and the savings to the Company?**

20 A: First, it is expected that some customers who select to go on the pilot rates will likely
21 save money initially, without any modification of the current usage or usage pattern. For
22 example, customers whose usage pattern is such that they currently use a predominant
23 amount of energy during the off-peak periods will likely save money without any change

1 in their behavior. We are proposing that those savings, “Lost Margins”, be included in
2 the regulatory asset as described above.

3 Second, it is expected that customers will change usage patterns to take advantage of
4 the rates. These customer bill reduction will not be accounted for until they are
5 measured. The Company proposes to account for these customer savings through an
6 evaluation, measurement and verification (EM&V) process, consistent with the
7 evaluations of other programs in Kansas. The recovery of EM&V costs will be split
8 between two mechanisms. The process EM&V for the two residential DSM Pilot
9 Programs will flow through the Company’s EER. The impact EM&V for the three
10 Residential Pilot Rates will be deferred to the regulatory asset account. The customer bill
11 reductions discussed above would be reflected in the regulatory asset for recovery in the
12 next case consistent with the “Lost Margins”.

13 **Q: Why isn’t the Company offering these rate programs to all customers?**

14 A: The first reason is that we do not have enough information regarding customer behavior
15 to determine if the programs will be successful. We intend to use the sample of
16 customers to help better understand the behavioral changes that may result from the pilot
17 programs. Second, we are just completing our new Customer Information System which
18 will provide the Company flexibility to bill these types of rates in the future. As a result,
19 implementing a substantial pilot will give us greater flexibility for the future.

1 **III. CLEAN CHARGE NETWORK**

2 **Q: What is the Clean Charge Network (“CCN”) program?**

3 A: KCP&L and GMO launched an initiative to install and operate more than 1,000 Electrical
4 Vehicle Charging Stations (“EVCS”) throughout their respective service territories.
5 Company witness Chuck Caisley describes the CCN program in greater detail.

6 **Q: What is the Company seeking regarding the Clean Charge Network (“CCN”)?**

7 A: The Company is requesting recovery of plant and expense in rate base and cost of
8 service associated with the electric vehicle charging stations (“EVCS”), as well as
9 approval of some modifications to the existing tariff used to charge end users of the
10 EVCS. In KCP&L’s previous Kansas rate case, the Commission allowed the Company
11 to implement an EV tariff to charge end users of the EVCS, however, the Commission
12 did not allow recovery of the investment in the EVCS.

13 **Q. Why is KCP&L requesting recovery of the EVCS?**

14 A. Utilization of the EVCS has grown such that rate recovery should be allowed. The
15 Commission did not conclude that the EVCS was not a regulated operation, but instead
16 indicated the Company did not justify recovery of the investment in the EVCS. With the
17 continued growth in utilization of the EVCS since this was last addressed by the
18 Commission, the operation of the EVCS are justified and should be included in rates by
19 this Commission. All KCP&L’s Kansas customers, both EV users and non-EV users
20 alike, will benefit from the CCN. Benefits include increased off-peak electricity usage,
21 environmental benefits from reduced CO₂ emissions and lower ozone-reducing
22 pollutants, economic impacts resulting in job creation, improved customer programs, and
23 lower costs and efficiency by having the utility install, own and operate the EVCS. The

1 increase in home-based usage to charge EVs will also provide a broader base over which
2 to spread system costs. The investment in EVCS is necessary to provide electric service
3 to our mobile customers and should be recovered like other prudent infrastructure
4 investments. Furthermore, data gathered since the conclusion of the last rate case shows
5 that the CCN is achieving its intended goals of expanding the adoption of electric
6 vehicles in the service territory relative to other markets that lack a utility-led effort.
7 Company Witness Charles Caisley describes these activities, changing market conditions
8 and developments on utility programs in other jurisdictions.

9 **Q: Are the costs for EVCS currently included in KCP&L's Kansas rates?**

10 A: No. These costs are not currently in rates. The costs to date have been treated below the
11 line and borne by the Company's shareholders.

12 **Q: What is the approximate revenue requirement impact of the EVCS?**

13 A: The overall rate impact from the EVCS is approximately \$1.1 million annually. This
14 reflects the inclusion of an investment of over \$5.6 million and anticipated annual
15 operation and maintenance expenses of a little over \$320,000.

16 **Q: What has been the growth in kWh sales since the initial installations of the EVCS?**

17 A: The growth in kWh sales at the charging stations for KCP&L in Kansas is significant.
18 Sales in 2015 were 32,842 kWh. That grew to 166,913 in 2016 and 2017 kWh sales
19 reached 393,052 kWh's. If you priced 2017 sales at \$0.20 per kWh for Level 2 and \$0.25
20 per kWh for Level 3, it would provide revenues of approximately \$82,000. However,
21 sales are expected to continue to grow as the market continues to develop. Growth at
22 customers' residences is not measured directly, but has materially grown over this same

1 period as demonstrated by the growth in the number of electric vehicles discussed in the
2 Direct Testimony of Charles Caisley.

3 **Q: Will Commission approval of the CCN and related tariff provide KCP&L the**
4 **opportunity to continue to add charging stations beyond those currently envisioned?**

5 A: No. The CCN involves just over 1,000 charging stations throughout KCP&L's service
6 territories in both states. The actual number of charging stations located in KCP&L
7 territory will be determined, in part, by host interest. KCP&L has proposed a cap in
8 Schedule CCN of 350 charging stations. Commission approval is required for additional
9 stations under the tariff.

10 **Q: Are the cost recovery mechanisms and resulting rates proposed by KCP&L in this**
11 **application are fair, just and reasonable for KCP&L's Kansas customers?**

12 A: Yes, I do.

13 **Q. You are recommending some modifications to the existing CCN tariff. Is this**
14 **correct?**

15 A. Yes. The Company believes that the current rate in Kansas should be modified to be more
16 easily understood and consistent with the rates proposed in the Missouri rate cases that
17 are currently in process. What I mean by more easily understood is to have it simple.
18 Rather than having the complexity of a base energy rate plus a number of riders
19 including the Energy Cost Adjustment ("ECA"), Tax Adjustment ("TA"), Property Tax
20 Surcharge ("PTS"), and Transmission Delivery Charge ("TDC"), the Company believes
21 it would be better if rider rate elements can take place in the back office and that a simple
22 price per kWh charge would be both easier for customers to understand and more
23 reflective of what is happening in the industry across the country.

1 **Q: Has any analysis occurred to help in guiding the development of these prices?**

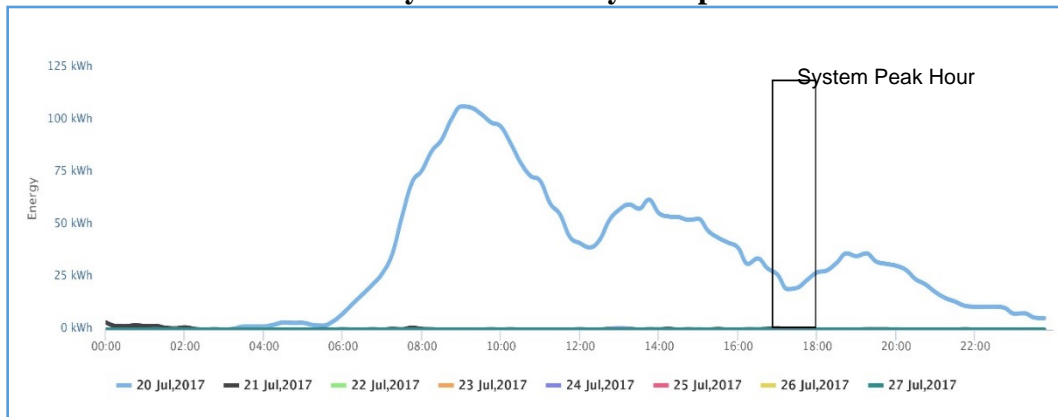
2 A: Yes. The Company developed and analyzed a composite system level, 15-minute, load
3 profile for all Level 2 and Level 3 (Fast DC) charging stations throughout the GMO and
4 KCP&L service territories.

5 **Q. What did this analysis conclude?**

6 A. The following graphs illustrate each load profiles for the 2017 system peak day,
7 July 22. For the month of July 2017, the Level 2 stations had a composite non-coincident
8 peak (NCP) of 512.4 kW with a monthly load factor 18.8%. As illustrated in the figure
9 below, the composite Level 2 station demand had little coincidence with the system peak
10 hour (5-6 p.m.), with an average of 89.7 kW (17.7% of the composite NCP) occurring
11 during the system peak hour.

12

CCN Level 2 - 2017 System Peak Day Composite Load Profile

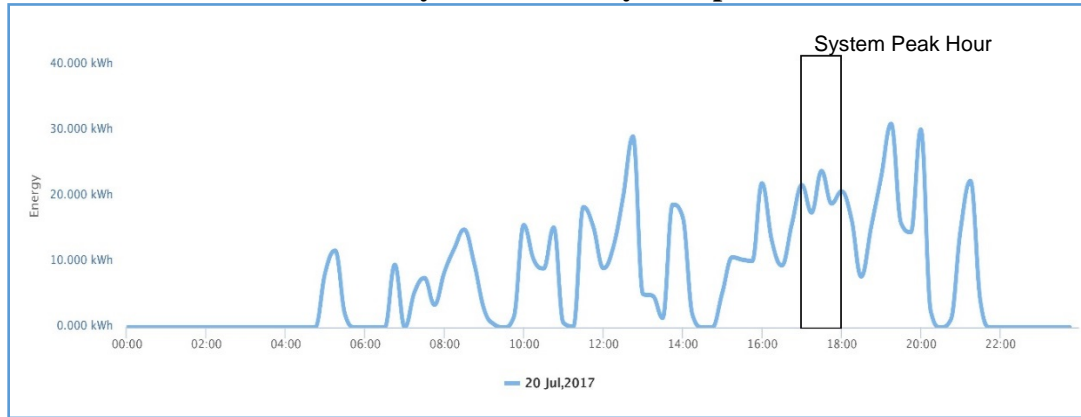


13

14 The Level 3, Fast DC, stations had a composite non-coincident peak (NCP) of 171.5 kW
15 with a monthly load factor 13.6%. As illustrated in the figure below, the composite Level
16 3 station demand had significantly more coincidence with the system peak hour (5-6
17 p.m.), with an average of 81.9 kW (47.8% of the composite NCP) occurring during the
18 system peak hour.

1

CCN Level 2 - 2017 System Peak Day Composite Load Profile



2

3 **Q. Based on this analysis, what can you conclude as the appropriate electric rate to**
 4 **charge owners of EV Charging Stations?**

5 **A.** In general, we see the Level 2 charging stations use occurring in the early daytime period
 6 when users either come to work or are doing daily activities. Level 3 charging stations
 7 have a more up and down load pattern during the day, but are more likely to have a load
 8 on the system at the peaking period.

9 Based on the data currently available, I believe the most appropriate electric rate
 10 to charge owners of EVCS for service to locations serving only EVCS is the Small
 11 General Service rate, Schedule SGS. The structure of this tariff is well suited for service
 12 to both Level 2 or Level 3 charging stations.

13 For commercial service with demands less than 25 kW, the SGS rate is comprised
 14 of a Service Charge and an Energy Charge. The 25 kW limit of the SGS rate will
 15 accommodate the majority, if not all, of the CCN Level 2 charging locations where the
 16 owner of the Station which is only serving electrical charging. The Company’s analysis
 17 also shows that the CCN Level 2 stations have minimal impact on overall system peak
 18 capacity and therefor the SGS energy only rate is appropriate.

1 The SGS rate is also appropriate for Level 3 (Fast DC) charging stations which
2 have demands greater than 25 kW. For service with demands greater than 25 kW, the
3 SGS rate is comprised of a Service Charge, an Energy Charge, and a Facilities Charge for
4 all kW in excess of 25 kW. As the Company’s analysis shows, the CCN Level 3 charge
5 station demands have a level of coincidence with the Company system peak, thereby
6 justifying the additional demand charges.

7 Again, this addresses electrical service which is connected to an EVCS. If the
8 EVCS is combined with other usages, such as a convenience stores, then the appropriate
9 rate to charge would be dependent on the overall load characteristics of the location.

10 **Q: Please describe the EVCS rates you are proposing in this case?**

11 A: Exhibit TMR-3 presents the proposed new tariff titled Public Electric Vehicle Charging
12 Station Service, Schedule CCN. It is specific to KCP&L-owned charging stations
13 available to EV drivers throughout its service territory. The proposed tariff does not
14 address charging of EVs at customer single-family residences or at privately owned and
15 operated charging stations like some businesses have provided at their sites specifically
16 for their employees and guests.

17 **Q: How is the tariff designed?**

18 A: The Schedule CCN rate tariff establishes a flat rate per kWh for both Level 2 and Level 3
19 EVCS. The tariff does not specifically identify and separate out the current riders, such
20 as the ECA, TA, PTSS, or TDC rate riders at the price “at the pump”. However, those
21 amounts would be included in the rate and backed out of the revenues to appropriately
22 include them in the Company’s reporting in its books and records. The rate is intended to
23 recover investment and expenses in the EVCS. This includes a flat rate of \$0.20 per

1 kWh for Level 2 EVCS and a flat rate of \$0.25 for Level 3, Fast DC EVCS. Taxes
2 would be applied separately.

3 In addition to the Energy Charge rates, the tariff also includes guidelines for
4 application of Session Overstay Charges, at the discretion of the Company, to incent
5 charging station users to move their vehicles promptly after charging to improve
6 utilization of the stations.

7 **Q: Does the tariff recover costs related to the charging stations from the users of the**
8 **charging stations?**

9 A: Yes. The flat rate incorporates a driver contribution to defray a portion of the costs for the
10 EVCS. As more and more electric vehicles utilize the services, the contribution would be
11 increased.

12 **Q: How did KCP&L determine the kWh rates set forth in Schedule CCN?**

13 A: First, the Company wanted to have a price that was consistent throughout the GMO and
14 KCP&L service territories. Second, the rate should be simple so that it would be easier
15 for customers to understand. Therefore, we propose not to specifically identify the
16 various riders on the price at the charging station. Third, we wanted the price to be
17 reflective of our SGS rates as best as possible. And lastly, we wanted a rate to allow
18 recovery of the cost of service as more users begin to utilize the service. The rates
19 proposed are flat kWh rates that are intended recover the investment in the facilities over
20 time as additional vehicles utilize the service. The Company is also proposing to include
21 an optional Session Overstay Fee in the tariff.

1 **Q: Can you explain the concept of the Session Overstay Fee contained in the proposed**
2 **tariff?**

3 A: Under the proposed tariff, the Company has the discretion to impose a Session Overstay
4 Fee to incent customers to move their vehicles once the charging process is completed so
5 that other customers can have access to charging station. With the Session Overstay Fee,
6 the driver would be provided a grace period after the EV has completed charging before
7 the Session Overstay Fee would be imposed. The grace period allows the EV driver to
8 receive notification (via text or e-mail) and move their vehicle to avoid these charges.

9 **Q How does the Company intend to determine if a Session Overstay Fee should be**
10 **applied?**

11 A: The Company plans to implement the Session Overstay Fee only when needed at
12 charging station locations based on the occupancy and availability of charging ports at
13 each host site location. Initially, the Company does not plan to implement the Session
14 Overstay Fee on any of the charging stations. The Company will monitor charge port
15 availability and overstay times and implement Session Overstay Fee at host locations
16 where the additional inducement is needed to get drivers to move their vehicle.

17 **Q. Will the Session Overstay Fee be the same at all Clean Charge Network locations?**

18 A. No. Schedule CCN sets a cap of \$6.00 per hour for Session Overstay Charge and care
19 must be taken to ensure they are set high enough to incent drivers to move their vehicle
20 but not so high as to discourage customers from using the stations. The Company set the
21 maximum of the range of Session Overstay Charge at \$6.00 per hour based on the
22 maximum rate of charge provided by the Level 3 charging station – the fastest charger.
23 The lost revenue potential of a Level 2 charge port is significantly less (approximately

1 \$1/hr.) and the Session Overstay Charge should reflect this differential. The Company
2 wants to establish the minimum number of Session Overstay Charges levels but
3 recognizes that higher overstay charges may be needed at some locations compared to
4 others.

5 **Q. What type of other notification can a driver receive?**

6 A: Notifications are available to make drivers aware of their EV charging status at all times.
7 Text and email notifications can be set up to notify drivers when their car is fully
8 charged, when charging is interrupted, when a Session Overstay grace period is ending,
9 and when charging stations become available for use.

10 **Q: Has KCP&L begun an analysis on EV home charging and possible rate designs that**
11 **may be beneficial?**

12 A. The majority of EV charging is at the home. With KCP&L's most recent system peak
13 occurring in the late afternoon, at home charging could have substantial system peak
14 coincidence. Typically, EV charging in the home would occur when the vehicle owner
15 arrives, which could add extra load to the peak periods of the Company.

16 **Q. Has KCP&L evaluated TOU rates for home charging?**

17 A. Yes. As described in the Direct Testimony of Marisol Miller, KCP&L contracted with
18 Burns & McDonnell (B&McD) to perform a Residential Rate Design Strategy Study, in
19 order to prepare a general long term plan for implementing Residential rate designs that
20 align with the utility's internal goals and objectives, reflect good rate making principles,
21 and align with future technologies being implemented. One of the outcomes of the study
22 was the design of a residential TOU rate that can be used by and marketed to EV owners
23 to shift EV load off-peak in a cost-efficient manner in all. This study is discussed further

1 in her testimony and the report from B&McD. The TOU rate proposed in this proceeding
2 can easily be used to incentivize EV drivers to charge their vehicles during off-peak
3 periods during the late night hours.

4 **Q: Does that conclude your testimony?**

5 A: Yes, it does.

KANSAS CITY POWER & LIGHT COMPANY

(Name of Issuing Utility)

Replacing Schedule 2 Sheet 2

Rate Areas No. 2 & 4

(Territory to which schedule is applicable)

which was filed September 10, 2015

No supplement or separate understanding shall modify the tariff as shown hereon. Sheet 2 of 4 Sheets

ENERGY COST ADJUSTMENT
Schedule ECA

TRUE_A = The annual true-up amount for an ECA year, to be calculated by March 1 of the year following the ECA year and to be applied for a twelve-month period beginning April 1 of the year following the ECA year. The true-up amount will reflect any difference between the total ECA revenue for the Retail sales during the ECA year and the actual costs incurred to achieve those Retail sales less the credits applied for Off-System Sales Revenue for the ECA year. Such true-up amount may be positive or negative. Any remaining balances from prior true-up periods will be added.

$$TRUE_A = ECAREV_A - [(F_A + P_A + E_A - BPR_A) - NABPC_A] \times \frac{S_{AK}}{S_{AT}} + OSSM_A + TRUE_{PRIOR}$$

Where:

ECAREV_A = Actual ECA revenue for Kansas Retail sales during the ECA year.

F_A = Actual total company cost of nuclear and fossil fuel consumed for the generation of electricity for the ECA year recorded in Account 501, Account 518 and Account 547, excluding any internal KCPL labor cost and all costs associated with OSSM_A.

P_A = Actual total company cost of purchased power incurred during the ECA year recorded in Account 555, and KCPL's actual charges or credits incurred due to participation in markets associated with Regional Transmission Organizations (RTOs) less all costs associated with OSSM_A excluding amounts associated with portions of purchased power agreements dedicated to specific customers under the Renewable Energy Rider tariff.

E_A = Actual total company emission allowance costs incurred during the ECA year recorded in Account 509 less all costs associated with OSSM_A.

BPR_A = Actual Revenue from asset-based Bulk Power Sales customers not included in OSSM_A, but excluding: (1) amounts associated with portions of purchased power agreements dedicated to specific customers under the Renewable Energy Rider tariff; and (2) amounts associated with generation assets dedicated to specific customers under the Renewable Energy Rider tariff.

NABPC_A = Actual total company cost for non-asset-based sales to Bulk Power customers during the ECA year, as reflected in P_A.

OSSM_A = Actual total company asset-based Off-System Sales Margin from Bulk Power Sales for the ECA but excluding: (1) amounts associated with portions of purchased power agreements dedicated to specific customers under the Renewable Energy Rider tariff; and (2) amounts associated with generation assets dedicated to specific customers under the Renewable Energy Rider tariff year multiplied by the actual Unused Energy (UE1) Allocator for Kansas.

S_{AK} = Actual kWhs delivered to KCPL's Kansas Retail customers during the ECA year.

S_{AT} = Actual kWhs delivered to all KCPL Retail and Requirements Sales for Resale customers during the ECA year.

TRUE_{PRIOR} = Remaining true-up amounts from previous ECA years (positive or negative).

Issued:	<u>May 1, 2018</u>	
	Month Day Year	
Effective:		
	Month Day Year	
By:	<u>/s/ Darrin R. Ives</u>	<u>Vice President</u>
		Title

KANSAS CITY POWER & LIGHT COMPANY

(Name of Issuing Utility)

Replacing Schedule _____ Sheet _____

Rate Areas No. 2 & 4

(Territory to which schedule is applicable)

which was filed _____

No supplement or separate understanding shall modify the tariff as shown hereon. Sheet 3 of 4 Sheets

ENERGY COST ADJUSTMENT

Schedule ECA

NOTES TO THE TARIFF:

1. On or before December 20th prior to each ECA year, KCPL will submit a report containing the projected monthly ECA factors on a \$/kWh basis for each month of the coming ECA year. Such report will set the monthly ECA factors for January, February and March of the ECA year. KCPL will publish such projected monthly ECA factors, and any updates to such monthly ECA factors to consumers.
2. On or before the 20th day of March, June, and September of each ECA year, KCPL will submit a report containing updated projected ECA factors for the remaining months of the effective ECA year. Such updated projected ECA factors will set the monthly ECA factors for the next calendar quarter of the ECA year. Such report shall also compare the original ECA revenue projections and the then-current ECA year-end projections on a total revenue basis. If the original projection and the then-current projection become significantly out of balance at any time during the ECA year, the remaining monthly ECA factors may be adjusted to address the anticipated difference.
3. On or before the 1st day of March each year beginning March 1, 2009, KCPL will file an application that provides the true-up reconciliation for the preceding ECA year, otherwise known as the Actual Cost Adjustment ("ACA"). Such reconciliation amount, if any, for a given ECA year will be applied as an adjustment to the monthly ECA factors for the 12-month period beginning April following the reconciled ECA year. The Commission may make such ACA subject to correction in whole or in part, pending final determination on the application. All revenues collected pursuant to the ECA tariff shall be deemed to be revenues subject to adjustment until the ACA review is complete, the Commission has issued a final order in the ACA matter, and all terms and conditions of such order are satisfied. The Commission shall make a final determination on the adjustment, including the reasonableness and prudence of the actual ECA costs incurred during the ECA year, within two hundred forty (240) days of the filing of the application. Prudent operation of KCPL's system will be consistent with industry standards regarding economic dispatch, reliability, maintenance and fuel procurement as such is necessary to minimize the impact of this ECA tariff on customer rates.
4. The monthly ECA factor will be expressed in dollars per kilowatt-hour rounded to five decimal places.
5. Each ECA year will be a calendar year, with the first year beginning January 1, 2008.
6. The ECA amount on each customer bill will be calculated such that the ECA factor for each calendar month within the billing period is applied to the estimated usage for the appropriate calendar month (i.e., prorated) based on the number of days of usage in each calendar month.
7. The references to Accounts within the ECA tariff are as defined in the FERC uniform system of accounts.
8. Retail Customers are customers that receive service under one of the KCPL Retail tariffs.
9. Requirements Sales for Resale Customers are wholesale customers receiving firm service for the full capacity and energy needs of the customer on a contract basis of one year or longer (Account 447).
10. Bulk Power Sales Customers are wholesale customers receiving service under Power contracts. These are Non-Requirements Sales for Resale customers (Account 447).

Issued: December 7, 2007
Month Day Year

Effective: January 1, 2008
Month Day Year

By: Chris Giles Vice President
Title

FILED

THE STATE CORPORATION COMMISSION OF
 KANSAS

By: _____
Secretary

KANSAS CITY POWER & LIGHT COMPANY

(Name of Issuing Utility)

Replacing Schedule 2 Sheet 4

Rate Areas No. 2 & 4

(Territory to which schedule is applicable)

which was filed December 7, 2007

No supplement or separate understanding shall modify the tariff as shown hereon. Sheet 4 of 4 Sheets

ENERGY COST ADJUSTMENT

Schedule ECA

NOTES TO THE TARIFF (continued):

1. The Unused Energy (UE1) Allocator for KCPL's Kansas jurisdiction is calculated by dividing the KCPL Kansas jurisdictional "Unused Energy" MWhs by the total KCPL "Unused Energy" MWhs. The "Unused Energy" MWhs for each KCPL jurisdiction (Kansas, Missouri, and FERC) is calculated by subtracting the "Energy Used" MWhs for each jurisdiction from the "Available Energy" MWhs for each jurisdiction. The "Energy Used" is based on the "Energy w/ Losses" Allocator (E1) which reflects the energy used by each jurisdiction's customers. The "Available Energy" is calculated by multiplying KCPL's total "Available Capacity" by the total hours in the subject year (8760 in non-leap years) and by the jurisdictional "Demand" Allocator (D1) which reflects the 12-CP demand from each jurisdiction's customers. The "Available Capacity" is defined as the total MWs of capacity from all sources of generation and capacity purchases that are included in the cost-of-service (revenue requirement) calculation.
2. This tariff is subject to KCPL's Rules and Regulations as approved by the State Corporation Commission of Kansas.
3. This tariff is subject to all applicable Kansas statutes and regulations regarding the filing and investigation of complaints on unreasonable, unfair or unjust rates.
4. In Docket No. 10-KCPE-422-TAR, the Commission granted KCPL a one year waiver for calendar year 2010 to calculate the OSSM component of the projected ECA factors ($OSSM_k / S_k$) in two six-month segments, January-June (which will not include projected Off-system Sales Margin (OSSM) from Iatan 2) and July-December (which will include projected OSSM from Iatan 2), rather than on a 12-month annual basis. For calendar year 2010 only, the OSSM component will be calculated and the ECA factors will be submitted in two separate six-month calculations; one for January-June 2010 filed December 18, 2009 and updated pursuant to the tariff on or before March 20, 2010 and one for July-December 2010 to be filed on or before June 20, 2010 and updated pursuant to the tariff on or before September 20, 2010.

Issued: December 30, 2009
Month Day Year

Effective: December 30, 2009
Month Day Year

By: Curtis D. Blanc Sr. Director
Title

FILED

THE STATE CORPORATION COMMISSION OF
 KANSAS

By: _____
Secretary

KANSAS CITY POWER & LIGHT COMPANY

(Name of Issuing Utility)

Replacing Schedule 15 Sheet 1

Rate Areas No. 2 & 4

(Territory to which schedule is applicable)

which was filed July 21, 2008

No supplement or separate understanding shall modify the tariff as shown hereon. Sheet 1 of 2 Sheets

**ENERGY EFFICIENCY RIDER
Schedule EE**

APPLICABILITY:

This Energy Efficiency (EE) Rider (Schedule EE) shall be applicable to all non-lighting Kansas Retail Rate Schedules for KCPL.

PURPOSE:

This EE Rider is designed to recover all costs associated with the following Commission-approved Income-Eligible, Energy Efficiency and Demand Response schedules: (1) IEW; (2) PT; (3) BOC; (4) ER; (5) CHP; (6) NH; (7) RHER; (8) RSTP; and (9) DRI. KCPL will file a new EE Rider no later than March 31 of each year to recover EE Program costs incurred during the prior calendar year for recovery over the following July through June period.

BASIS:

Program Costs will be recovered using an EE factor applied to each customer's bill. The EE factor will be applied to the customer's usage on a kilowatt-hour basis (\$/kWh). Retail customer charges for EE Program Costs are determined by multiplying the kilowatt-hours of electricity billed by the corresponding EE factor. The customer charges associated with this EE Rider will be identified and shown as a separate line on the customer's bill.

ENERGY EFFICIENCY RIDER AMOUNT CALCULATION:

A separate EE factor will be calculated for each customer class based upon the demand allocator and total kWh for each class. The EE factor (EEF) for each customer class will be calculated to recover the Program Costs for approved EE Programs from the specified period plus any applicable true up amount from the prior period by applying a class Demand Allocator and then dividing by the total kilowatt-hours (kWh) for that class as follows:

$$EEF_{(class)} = \frac{(EEC_n + TRUE_{n-1}) \times DA_{(class)}}{KWH_n_{(class)}}$$

Where:

EEC_n = All actual costs associated with Commission-approved EE Programs incurred during the applicable time-period (n). These costs are recorded in a deferred regulatory asset account established to accumulate the Kansas jurisdictional costs of all EE Programs.

Issued:	<u>May 1, 2018</u>
	Month Day Year
Effective:	
	Month Day Year
By:	<u>Darren R. Ives</u> Vice President
	Title

KANSAS CITY POWER & LIGHT COMPANY

(Name of Issuing Utility)

Replacing Schedule 15 Sheet 2

Rate Areas No. 2 & 4

(Territory to which schedule is applicable)

which was filed March 29, 2018

No supplement or separate understanding shall modify the tariff as shown hereon.

Sheet 2 of 2 Sheets

**ENERGY EFFICIENCY RIDER
Schedule EE (Continued)**

Commented [MT1]: The proposed changes are based off of the version of Schedule 15 Sheet 2 currently filed within Docket: 18-KCPE-420-TAR.

ENERGY EFFICIENCY RIDER AMOUNT CALCULATION: (Continued)

$TRUE_{n-1}$ = The annual true-up amount for an EE Rider year, to be determined prior to filing the next EE Rider and to be applied to the subsequent EE factor calculation. The true-up amount will reflect any difference between the total EE revenue collected and the actual costs (EEC_n) for the previous applicable time-period (n-1). Such true-up amount may be positive or negative. The true-up amount used to calculate the EEF for the first EE Rider equals zero.

$DA_{(class)}$ = The demand allocator for the applicable non-lighting classes. This demand allocator shall be based on the 12-CP allocator utilized by the Company for its Class Cost of Service Study in the most recent Kansas retail rate case.

$KWH_{n(class)}$ = The actual kWh electric sales for the Kansas jurisdiction for the applicable time-period (n) of the Class Cost of Service Study for the applicable class.

TERM:

This EE Rider shall remain in effect until such time the Commission-approved amount is recovered. In the event the Commission rules on, or a law is passed regarding treatment of such expenses, then KCPL shall have the right to file for Commission approval of a compliant recovery methodology to replace or revise this EE Rider. KCPL shall have the right to continue recovery under this EE Rider until such time a replacement methodology is approved and implemented or all Commission-approved amounts are recovered.

NOTES TO THE TARIFF:

1. The references to Accounts within the EE tariff are as defined in the FERC uniform system of accounts.
2. The EEC factor will be expressed in dollars per kilowatt-hour (kWh) rounded to five decimal places.

EE FACTORS FOR JULY 1, 2018 THROUGH JUNE 30, 2019 USAGE:

- | | | |
|----|------------------------|---------------|
| 1. | Residential Service | \$0.00000/kWh |
| 2. | Small General Service | \$0.00000/kWh |
| 3. | Medium General Service | \$0.00000/kWh |
| 4. | Large General Service | \$0.00000/kWh |

Issued:	<u>May 1, 2018</u>				
	<small>Month Day Year</small>				
Effective:					
	<small>Month Day Year</small>				
By:	<u>/s/ Darrin R. Ives</u>		<u>Vice President</u>		
			<small>Title</small>		

KANSAS CITY POWER & LIGHT COMPANY

(Name of Issuing Utility)

Replacing Schedule 21 Sheet 1

Rate Areas No. 2 & 4

(Territory to which schedule is applicable)

which was filed November 12, 1998

No supplement or separate understanding shall modify the tariff as shown hereon. Sheet 1 of 1 Sheets

**RESIDENTIAL HOME ENERGY REPORT PILOT PROGRAM
Schedule RHER**

PURPOSE:

The Residential Home Energy Report Pilot Program will directly support the three residential pilot schedules: (1) RTOU; (2) RD; and (3) RDTOU (Residential Pilots). Therefore, the program is directed to 3,000 residential customers who receive service under one of the three Residential Pilots. This Program is a behavioral energy efficiency and educational program that provides a comparison of the household energy usage information with similar types of customers, or "neighbors". The Home Energy Report shall be delivered in paper, and/or email format, and is composed of several modules of information to help customers understand and manage their energy use. A few examples of modules included are: (1) neighbor/similar home comparison; (2) energy comparisons over time; (3) energy efficiency tips; and (4) utility program promotional material. The Home Energy Report provides information designed to influence customers' behavior to lower energy usage.

AVAILABILITY:

Participation in this Program is limited to participants in the Residential Pilots only. This Program will operate as an opt-out only program, meaning the Company will select customers for participation in the program and will allow opt-out if desired.

PROGRAM FUNDING:

The total Program budget will be allocated between the following budget categories: (1) program delivery; (2) administration; and (3) evaluation (labor and loadings excluded from administration budget). This Program and its costs shall be eligible for recovery under the Company's Energy Efficiency Rider, Schedule EE, subject to the provisions thereof.

EVALUATION:

The Company will hire a third-party evaluator to perform an Evaluation, Measurement, and Verification (EM&V) on the Home Energy Report Pilot Program.

Issued: <u>May 1, 2018</u> Month Day Year	
Effective: _____ Month Day Year	
By: <u>/s/ Darrin R. Ives</u> Vice President Title	

KANSAS CITY POWER & LIGHT COMPANY

(Name of Issuing Utility)

Replacing Schedule 22 Sheet 1

Rate Areas No. 2 & 4

(Territory to which schedule is applicable)

which was filed November 12, 1998

No supplement or separate understanding shall modify the tariff as shown hereon. Sheet 1 of 1 Sheets

**RESIDENTIAL SMART THERMOSTAT PILOT PROGRAM
Schedule RSTP**

PURPOSE:

The Residential Smart Thermostat Pilot Program will directly support the three residential pilot schedules: (1) RTOU; (2) RD; and (3) RDTOU (Residential Pilots). Therefore, the program is directed to 3,000 residential customers who receive service under one of the three Residential Pilots. Customers participating in one of the three Residential Pilots may receive a smart thermostat. This Program is intended to support residential customers in their transition to a Residential Pilot by providing them with a smart thermostat.

The smart thermostats have several features and capabilities that can help customers decrease their energy use, which include: (1) scheduled programming/learning capability; (2) recommended eco-temperatures; and (3) auto-away settings. The Company may leverage other technologies, and programs, to advance the smart thermostat software in an effort to maximize support to customers on a Residential Pilot by managing their energy use to meet Company objectives for load shaping.

AVAILABILITY:

Customers must maintain a secure home Wi-Fi enabled internet service and have a working central air conditioning system or heat pump. Residential property owner's (owner occupant or landlord for a rental property) permission is required to receive a smart thermostat at an incentive level determined by the Company. Customers must agree to install the smart thermostat at their premise receiving service under one of the Residential Pilots within fourteen (14) days of receiving the device, and keep it installed, operational, and connected to a secure home Wi-Fi network for the duration of the program. Customers must agree to not sell the device for the duration of the program. If it is found that they do, a debit will be issued on their utility bill for the Manufacture Suggested Retail Price (MSRP) of the smart thermostat or the value of incentive provided to the customer. Payment of that debit will be the customer's responsibility.

PROGRAM FUNDING:

The total Program budget will be allocated between the following budget categories: (1) program delivery; (2) marketing; (3) administration; and (4) evaluation (labor and loadings excluded from administration budget). This Program and its costs shall be eligible for recovery under the Company's Energy Efficiency Rider, Schedule EE, subject to the provisions thereof.

EVALUATION:

The Company will hire a third-party evaluator to perform an Evaluation, Measurement, and Verification (EM&V) on this Program.

Issued: <u>May 1, 2018</u>	
Month Day Year	
Effective: _____	
Month Day Year	
By: <u>/s/ Darrin R. Ives</u> <u>Vice President</u>	
	Title

KANSAS CITY POWER & LIGHT COMPANY

(Name of Issuing Utility)

Replacing Schedule 20 Sheet 2

Rate Areas No. 2 & 4

(Territory to which schedule is applicable)

which was filed December 2, 2016

No supplement or separate understanding shall modify the tariff as shown hereon. Sheet 2 of 3 Sheets

**PUBLIC ELECTRIC VEHICLE CHARGING STATION SERVICE
Schedule CCN (Continued)**

BILLING OPTIONS: (Continued)

A Host may choose between one of two Billing Options for all EV charging stations located upon their premise(s). The Host's agreement with the Company will identify the chosen Billing Option applicable to EV charging stations located on its premise(s). The EV charging station screen, and third party vendor's customer web portal, identify the applicable Energy and Session Overstay Charges that will be the responsibility of the user at each EV charging station location.

1. Option 1: The Host pays the kWh Energy Charge plus applicable taxes and fees, and, if applicable, the EV charging station user pays the Session Overstay Charge.
2. Option 2: The EV charging station user pays the kWh Energy Charge plus taxes and fees, and, if applicable, the Session Overstay Charge.

RATES FOR SERVICE:

The EV charging station screen and third party vendor's customer web portal will identify both the: (1) per kWh rate as equal to the Energy Charge plus applicable taxes and fees; and (2) any Session Overstay Charge rate(s) applicable to that charging station.

1. Energy Charge (per kWh)
 - Level 2: \$0.20000
 - Level 3: \$0.25000
2. Session Overstay Charge (Optional) (per hour): \$0.00 - \$6.00

The Energy Charge shall be defined as a flat rate per kWh, and reflect the inclusion of the: (1) Energy Cost Adjustment (ECA); (2) Energy Efficiency Rider (EER); (3) Property Tax Surcharge (PTS); (4) Transmission Delivery Charge (TDC); and (5) Tax Adjustment (TA). A Session shall be defined as the period of time an EV is connected to the charging station. The Session Overstay Charge is an option that can be implemented at the discretion of the Host and Company to promote improved utilization of the EV charging station(s) located upon their premise.

Issued: <u>May 1, 2018</u> <div style="text-align: center; font-size: small;"> _____ Month Day Year </div>	
Effective: _____ <div style="text-align: center; font-size: small;"> _____ Month Day Year </div>	
By: <u>/s/ Darrin R. Ives</u> <u>Vice President</u> <div style="text-align: center; font-size: x-small;"> _____ Title </div>	

KANSAS CITY POWER & LIGHT COMPANY

(Name of Issuing Utility)

Replacing Schedule 20 Sheet 3

Rate Areas No. 2 & 4

(Territory to which schedule is applicable)

which was filed December 2, 2016

No supplement or separate understanding shall modify the tariff as shown hereon. Sheet 3 of 3 Sheets

**PUBLIC ELECTRIC VEHICLE CHARGING STATION SERVICE
Schedule CCN (Continued)**

RATES FOR SERVICE: (Continued)

The optional Session Overstay Charge will be configured within the following guidelines as either Charge-Based or Time-Based at the discretion of the Host.

1. Charge-Based – A Charge-Based Session Overstay Charge starts when the EV has stopped charging (but is still connected to the EV charging station) plus a defined grace period granting the user time to end the Charge Session and move the EV.
2. Time-Based – A Time-Based Session Overstay Charge starts at either the time of initial EV plug-in, or, a predefined time in an active Charge Session (e.g., two hours after initial plug-in) at the Host's discretion and may increase to a higher rate at a subsequent predefined time in an active Charge Session (e.g., four hours after initial plug-in).

Session Overstay Charges for fractional hours will be prorated. The Session Overstay Charge rate may not exceed \$6.00 per hour.

BILLING:

All users of the Company's public EV charging stations must have an account with the Company's third party vendor. Information on opening an account can be found on the Company's website at <http://kcpl.chargepoint.com/>.

All charges applicable to any user of an EV charging station under Billing Option 1 or 2 will be billed directly through the Company's third party vendor. All charges applicable to the Host under Billing Option 1 will be billed directly through the Company.

REGULATIONS:

Subject to Rules and Regulations filed with the State Regulatory Commission.

Issued: <u>May 1, 2018</u> Month Day Year	
Effective: _____ Month Day Year	
By: <u>/s/ Darrin R. Ives</u> Vice President Title	