

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

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**DIRECT TESTIMONY OF**

**DARRIN R. IVES**

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

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**IN THE MATTER OF THE APPLICATION OF KANSAS CITY POWER & LIGHT  
COMPANY FOR APPROVAL OF ITS CLEAN CHARGE NETWORK PROJECT AND  
ELECTRIC VEHICLE CHARGING STATION TARIFF**

**DOCKET NO. 16-KCPE-160-MIS**

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

2 A: My name is Darrin R. Ives. My business address is 1200 Main, Kansas City, Missouri  
3 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” or “Company”) as  
6 Vice President – Regulatory Affairs.

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

8 A: I am testifying on behalf of KCP&L.

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

10 A: My responsibilities include oversight of the Company’s Regulatory Affairs Department,  
11 as well as all aspects of regulatory activities including cost of service, rate design,  
12 revenue requirements, regulatory reporting and tariff administration.

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

2 A: I graduated from Kansas State University in 1992 with a Bachelor of Science in Business  
3 Administration with majors in Accounting and Marketing. I received my Master of  
4 Business Administration degree from the University of Missouri-Kansas City in 2001. I  
5 am a Certified Public Accountant. From 1992 to 1996, I performed audit services for the  
6 public accounting firm Coopers & Lybrand L.L.P. I was first employed by KCP&L in  
7 1996 and held positions of progressive responsibility in Accounting Services and was  
8 named Assistant Controller in 2007. I served as Assistant Controller until I was named  
9 Senior Director – Regulatory Affairs in April 2011. I have held my current position as  
10 Vice President – Regulatory Affairs since August 2013.

11 **Q: Have you previously testified in a proceeding before the Kansas Corporation**  
12 **Commission (“Commission” or “KCC”) or before any other utility regulatory**  
13 **agency?**

14 A: Yes, I have testified before both this Commission and the Missouri Public Service  
15 Commission on several occasions. I have also provided written testimony in a  
16 proceeding before the Federal Energy Regulatory Commission.

17 **Q: What is the purpose of your Testimony?**

18 A: I will (a) explain the Company’s proposed new tariff for electric vehicle (“EV”) charging  
19 stations resulting from KCP&L’s Clean Charge Network (“CCN”) program; (b) discuss  
20 the Company’s request regarding cost recovery methods for this program; (c) address the  
21 ratemaking questions posed by the Commission in its order opening this docket  
22 (“February 2 Order”); and (d) address the regulatory policy issues related to KCP&L’s

1 CCN program including the threshold policy questions presented by the Commission in  
2 its February 2 Order.

3 **Q: Before you explain the proposed tariff, what is the CCN program?**

4 A: KCP&L and KCP&L Greater Missouri Operations Company (“GMO”) have launched an  
5 initiative to install and operate more than 1,000 EV charging stations throughout the  
6 Greater Kansas City region within the KCP&L and GMO service territories. This  
7 initiative is described in detail in the testimony of Company witness, Mr. Charles A.  
8 Caisley and the status of the project is presented in the testimony of Company witness  
9 Ms. Kristin L. Riggins, and I will refer to and rely on their testimony as the foundation  
10 for my testimony rather than repeat what is already fully addressed by Mr. Caisley and  
11 Ms. Riggins.

12 **I. PROPOSED TARIFF**

13 **Q: Did the settlement agreement in KCP&L’s last rate case, Docket No. 15-KCPE-116-**  
14 **RTS (“15-116 Docket”), address KCP&L’s CCN program?**

15 A: To some extent. The settlement agreement in the 15-116 Docket laid out a time line for  
16 Staff, the Citizens’ Utility Ratepayer Board (“CURB”) and KCP&L to petition the  
17 Commission to open a general investigative docket on EV charging stations with the  
18 result being the opportunity to address the issue of these stations in the proposed 2016  
19 abbreviated rate case filing if the Commission’s order in the generic docket allowed the  
20 Company to do so. Specifically, the Unanimous Partial Settlement Agreement on  
21 Revenue Requirement included the following provision regarding EV charging stations.

22 N. **Electric Vehicle Charging Stations:**

23 20. Without providing precedent for any party’s position or  
24 hindering any party’s future position on the issue of electric vehicle (EV)  
25 charging stations and KCP&L’s Clean Charge Network, KCP&L, Staff

1 and CURB agree to jointly petition the Commission to open a generic  
2 docket to work collaboratively with the Company to investigate and  
3 evaluate the issue of EV charging stations. Such petition filing shall be  
4 filed as soon as possible, but no later than October 1, 2015, and will  
5 include a proposed procedural schedule that, if approved, *would ensure*  
6 *completion of the docket within one year so that KCP&L will have*  
7 *sufficient time to address the issue of EV charging stations in the*  
8 *abbreviated rate proceeding in accordance with the resulting final order*  
9 *of the Commission in the generic docket. The Signatory Parties further*  
10 *agree that KCP&L may request revenue requirement and tariffs related*  
11 *to the EV charging stations in the abbreviated rate case in accordance*  
12 *with the Commission's final order in the generic docket.*

13 In addition, the settlement agreement included in the list of items to be addressed in the  
14 2016 abbreviated rate case the costs and tariffs related to EV charging stations pursuant  
15 to the provision quoted above.

16 **Q: Is KCP&L requesting approval of its Public Electric Vehicle Charging Station tariff**  
17 **as part of the Commission order in this current docket or will KCP&L be**  
18 **presenting that tariff for approval as part of the abbreviated rate case to be filed**  
19 **later this year?**

20 A: KCP&L is asking for Commission approval of its proposed Schedule CCN tariff as part  
21 of the Commission's Order in this current docket. Following the Commission's Order  
22 approving the settlement agreement noted above in the 15-116 Docket, Staff, CURB and  
23 KCP&L developed and filed a Joint Motion to Open Generic EV Docket as required by  
24 the agreement. Such petition included the requisite procedural schedule and followed the  
25 intent of the parties to first address the issue of charging stations on a generic basis and  
26 then address the question of a specific charging station tariff, only after Commission  
27 approval of utility sponsored charging stations. However, the Commission determined  
28 that it wanted to follow a KCP&L-specific docket rather than a broader utility generic  
29 docket as envisioned by the Commission-approved settlement agreement. As such,

1 KCP&L was asked to file an application for its program including all of the particulars of  
2 the program including how the costs of such a program would be recovered which  
3 necessarily includes the customer tariff. It does not make sense to address EV charging  
4 stations as a Company-specific issue otherwise.

5 **Q: Please describe the purpose of the tariff?**

6 A: Schedule DRI-1 presents the new tariff titled Public Electric Vehicle Charging Station  
7 Service, also referred to as Schedule CCN or Schedule 20. The tariff is designed to  
8 address the new mobile customer electric needs within our service territory. It is specific  
9 to KCP&L-owned charging stations available to the public throughout its Kansas service  
10 territory. The proposed tariff does not address charging of EVs at customer single-family  
11 residences or at privately owned and operated charging stations like some businesses  
12 have provided at their sites specifically for their employees and guests. While a user of  
13 the charging stations does not necessarily have to be someone who is otherwise a  
14 KCP&L customer because they have a home or business within the Company's Kansas  
15 service territory, the CCN is designed to address range anxiety in and around the  
16 Company's service territories and to service KCP&L's mobile customers when they are  
17 in KCP&L's certificated territory.

18 **Q: How is the CCN system designed to accommodate multiple users of the charging**  
19 **stations?**

20 A: Company witness Ms. Riggins describes how customers use the charging stations in more  
21 detail; however, for purposes of understanding application of the tariff, the following  
22 information is important.

1           The charging stations are designed with internal meters to allow measurement of  
2 usage for each EV charging session. The user must set up an account with ChargePoint,  
3 the Company's third party vendor, and ChargePoint will provide them with a unique  
4 access card to use at any of the KCP&L charging stations. The ChargePoint system  
5 works similar to the Kansas K-TAG wherein the card holder uses a prepaid account for  
6 EV charging sessions.

7 **Q: Does a customer need to sign up with KCP&L to qualify for the charging station**  
8 **tariff?**

9 A: As explained more fully in the Direct Testimony of Ms. Riggins, customers must sign up  
10 for an account through KCP&L's third party vendor, ChargePoint, to be able to access  
11 the charging stations.

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

13 A: Schedule CCN is designed a bit differently than KCP&L's other tariffs so as to simplify  
14 billing given the multiple users of the charging stations; however, the proposed rates  
15 contained in Schedule CCN are based upon KCP&L's existing Residential General Use  
16 ("RESA") and Small General Service Secondary ("SGSS") tariffs. The difference is that  
17 all of the rates represented in those tariffs – customer charge, energy charge and facility  
18 charge – are all combined into an Energy Charge rate applied on a dollar per kilowatt-  
19 hour (\$/kWh) basis under Schedule CCN. As with KCP&L's other retail rate schedules,  
20 all applicable riders – Energy Cost Adjustment (ECA), Property Tax Surcharge (PTS),  
21 Transmission Delivery Charge (TDC) and Energy Efficiency (EER) – will also apply to  
22 kWh sold through the charging stations at the rate applicable at the time of sale. The  
23 applicable \$/kWh factors for each of these riders will be added to the applicable Energy

1 Charge from Schedule CCN and will be shown as a single all-in \$/kWh rate on the  
2 charging station screen. Taxes and fees are applied separately. As will be explained later  
3 in my testimony, two energy charge rates were developed – one for the Level 2 charging  
4 stations based on KCP&L’s RESA tariff rates and one for the much faster Level 3  
5 charging stations based on KCP&L’s SGSS tariff rates. The Energy Charge rates are  
6 designed to capture the costs of providing service to the charging station users.

7 In addition to the Energy Charge rates, the tariff also includes guidelines for  
8 application of Session Charges, at the discretion of the host, to incent charging station  
9 users to move their vehicles promptly after charging to improve utilization of the stations.

10 **Q: Does the tariff recover all costs related to the charging stations solely from the users**  
11 **of the charging stations?**

12 A: No. As I will discuss later in my testimony, just as distribution system capital costs are  
13 assigned to KCP&L’s service territories based on situs (physical location within Kansas  
14 or Missouri), the capital costs associated with implementation of the charging stations  
15 will be assigned on a situs basis allocation and included in rate base for the specific state  
16 in which the EV charging station is located. The operations and maintenance (“O&M”)  
17 expenses will also be allocated on situs based allocators across the entire customer base  
18 for that service territory. As such, all customers, including users of the charging stations,  
19 will pay a portion of the capital and O&M costs for the stations.

20 **Q: What is the expected cost per kWh for a customer to charge their vehicle?**

21 A: That depends on several things: (a) which payment option the host chooses for the  
22 charging stations at its site; (b) which type of charging station the customer uses; and  
23 (c) the city/county location of the charging station. I will discuss each of these in turn.

1 First, the host may choose one of two payment options for charging stations  
2 located on their site. The first option provides for the host to pay the electricity costs  
3 associated with customer usage, the Energy Charges plus riders and taxes, while the  
4 customer pays any Session Charges. KCP&L has had a number of hosts indicate that  
5 they plan to continue to pay for the station usage even after their two-year commitment  
6 expires. The second option provides for the customer to pay both the Energy Charges,  
7 plus riders, surcharges and taxes, and any Session Charges. So, the payment option  
8 chosen by the host will affect what the customer will pay to use the charging stations at  
9 each site.

10 Second, as noted earlier, there are two levels of chargers being installed – Level 2  
11 and Level 3. The Level 3 charging stations allow for quicker charging than the Level 2  
12 charging stations. The cost per kWh will depend on the type of charging station the  
13 customer uses to charge their vehicle as discussed in more detail below. Generally  
14 speaking, the cost per kWh is greater for the Level 3 charging station.

15 Finally, as taxes and fees, including franchise fees, sales tax, etc. apply to the  
16 charges for using a charging station, the location of the charging station will determine  
17 which fees and taxes apply.

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

19 A: As stated above, the kWh rates set forth in Schedule CCN are based on KCP&L's RESA  
20 and SGSS tariffs. For the Level 2 charging stations, KCP&L consolidated the RESA  
21 rates into a single kWh rate using the RESA billing determinants, including kWh, and  
22 Commission-approved RESA rates from the 15-116 Docket rate case to calculate a rate  
23 of \$0.1088 per kWh. For the Level 3 charging stations, KCP&L consolidated the SGSS



1 rates into a single kWh rate using the SGSS billing determinants and Commission-  
2 approved SGSS rates from the 15-116 Docket rate case to calculate a rate of \$0.1180 per  
3 kWh. Applicable rider factors will be added to these rates resulting in current all-in rates  
4 to the charging station user. For example, using the proposed Schedule CCN rates and  
5 rider factors applicable as of February 2016, the all-in rate before taxes and any Session  
6 Charges for Level 2 charging stations would be \$0.1347/kWh and the all-in rate before  
7 taxes and any Session Charges for Level 3 charging stations would be \$0.1428/kWh. As  
8 rider factors change periodically – some monthly and some less frequently – the all-in  
9 rate to the user will vary by month. Taxes, franchise fees and similar charges are applied  
10 to the total amount of charges for each session. Schedule DRI-2 attached hereto shows  
11 the calculations for each rate.

12 **Q: Why did KCP&L propose a different rate for Level 2 and Level 3 Charging**  
13 **Stations?**

14 **A:** The differing charging abilities of Level 2 and Level 3 charging stations present different  
15 challenges to the KCP&L system. Specifically, the more energy a charging station is  
16 able to provide in a given period, the more demand that the charging station puts on the  
17 local distribution infrastructure.

18 Based on charging capabilities, the Level 2 charging stations have approximately  
19 the same effect on the local infrastructure as a RESA customer. Therefore, the Company  
20 based the Level 2 charging station rate on its RESA tariff. Similarly, the Level 3  
21 charging stations have a larger draw on the local infrastructure and could be compared to  
22 a SGSS customer. Therefore, the Company based the Level 3 charging station rate on its  
23 SGSS rate.

1 **Q: How does this compare to the cost of filling up a gasoline-powered car with gas at a**  
2 **gas station?**

3 A: Mr. Daniel Bowermaster of the Electric Power Research Institute (“EPRI”) sponsors a  
4 study entitled *Preliminary Scoping Analysis of the Effects of Transportation*  
5 *Electrification in the KCP&L Service Territory*, (“EPRI Study”). The EPRI Study  
6 addresses the comparison between EV charging and gasoline-powered vehicles.  
7 However, assuming an EV travels 3.3 miles per kWh of energy consumed, the cost to  
8 charge an EV at a KCP&L charging station using the proposed rates would equate to  
9 filling up a traditional gasoline-powered vehicle rated at 33 MPG with gas priced from  
10 \$1.34 to \$1.42 per gallon.

11 **Q: Does the host receive compensation for locating a charging station(s) on its premise?**

12 A: No. The host does not receive any monetary compensation for hosting a charging  
13 station(s). Generally, the host uses the EV charging facility as a draw to get customers to  
14 visit its place of business, or cater to existing customers, and does not expect additional  
15 revenues related directly to the operation of the charging station. Some hosts may choose  
16 to continue to pay the costs associated with customer usage of the charging station to  
17 increase the incentive for customers to visit their business or property.

18 **Q: Does the Session Charge under Schedule CCN applicable at the discretion of the**  
19 **host provide revenue to the host?**

20 A: No. Any Session Charges collected are recovered by the Company and, as will be  
21 discussed later, are applied to reduce the undepreciated rate base associated with the  
22 charging stations.

1 **Q: Why would a host impose Session Charges on users of the charging stations at its**  
2 **site?**

3 A: The host has the discretion under Schedule CCN to impose a Session Charge to incent  
4 customers to move their vehicles once the charging process is completed so that other  
5 customers can have access to the facilities. This charge is at the discretion of the host,  
6 within parameters set by KCP&L and the tariff. The Session Charges may be tiered to  
7 apply differently to the first part of a charging session and increased at a later point in the  
8 charging session. For example, a host may choose to apply no Session Charge for the  
9 first two hours of a charging session but apply a \$2.00 per hour Session Charge for each  
10 hour of the session that exceeds two hours. A host may also choose to apply no Session  
11 Charges at all or to apply Session Charges for the entire charging session.

12 **Q: How does KCP&L intend to control the level of Session Charges a host may apply?**

13 A: Schedule CCN sets a cap of \$6.00 per hour for Session Charges to ensure they are not set  
14 so high that they discourage customers from using the stations. A host may not exceed  
15 this rate. Additionally, a host may not apply more than two tiers of Session Charges to a  
16 charging station.

17 **Q: How did KCP&L determine the range of Session Charges set forth in Schedule**  
18 **CCN?**

19 A: KCP&L set the maximum of the range of Session Charges, \$6.00 per hour, based on the  
20 maximum rate of charge provided by the Level 3 charging station – the fastest charger.  
21 A Level 3 charging station can charge at a rate of up to 40 kW per hour. At an all-in rate  
22 of \$0.1428/kWh, a full hour of charging on a Level 3 station would cost \$5.71. We  
23 rounded this up to \$6.00 to arrive at the maximum Session Charge.

1 **Q: If the Energy Charge is designed to recover the cost of service for the charging**  
2 **stations, why should the Commission approve these additional Session Charges?**

3 A: All revenues from the Session Charges will be separated out and booked into a separate  
4 regulatory liability account. The regulatory liability account will be used in KCP&L's  
5 subsequent rate cases to reduce the undepreciated portion of the rate base related to the  
6 investment in the CCN program until the investment is fully recovered. This will allow  
7 quicker recovery for the investment and target the users of the facilities for a greater  
8 portion of such recovery. Once the investment is fully recovered the Session Charges  
9 will be recorded as regulated revenue.

10 **Q: Please explain how KCP&L's arrangement with ChargePoint for billing and**  
11 **collection will work.**

12 A: Company witness Ms. Riggins explains this in her Direct Testimony. Of note, however,  
13 is that where the host chooses to pay the Energy Charges for the charging stations on  
14 their site, those costs are billed to the host directly by the Company. Only charges  
15 payable by the charging station user are billed through ChargePoint.

16 **Q: When does KCP&L propose the tariff, Schedule CCN, become effective?**

17 A: The tariff is designed to take effect January 1, 2017. This is consistent with the  
18 completion of the first two years of the first host agreement executed for installation of an  
19 EV CCN site. Recall that hosts agree to pay for the electricity usage for charging stations  
20 at the host's site for the first two years of the agreement. KCP&L anticipates that all host  
21 sites would move to the tariff effective January 1, 2017 regardless of when the agreement  
22 was executed to allow for a full and consistent transfer to the Schedule CCN rates.

1 **Q: Does KCP&L propose any reporting related to the Schedule CCN tariff?**

2 A: Yes. Schedule CCN includes provisions for KCP&L to provide a report to Commission  
3 Staff by April 30<sup>th</sup> following each full calendar year that Schedule CCN is in place.  
4 KCP&L proposes that such report would include information on charging station usage  
5 and revenue.

6 **II. COST AND COST RECOVERY**

7 **Q: What is the expected cost for the CCN deployment planned by KCP&L?**

8 A: Mr. Caisley explains the program costs in more detail and outlines the total budgeted  
9 capital cost for the project as \$16.6 million of which, based upon the service territory  
10 deployment plan, approximately \$5.6 million would represent the budgeted investment in  
11 the Company's Kansas jurisdiction as the result of situs based allocators. In addition to  
12 these costs, KCP&L anticipates total Company annual operations and maintenance  
13 ("O&M") expense of roughly \$250,000 which will be allocated to the Company's Kansas  
14 jurisdiction based on situs based allocators.

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

18 A: No. The CCN project involves just over 1,000 charging stations throughout KCP&L's  
19 service territories. As noted in Ms. Riggins' Direct Testimony, approximately  
20 315 charging stations are planned for KCP&L's Kansas jurisdiction. The actual number  
21 of charging stations located in Kansas will be determined, in part, by host interest.  
22 KCP&L included a cap in Schedule CCN of 350 charging stations with Commission  
23 approval required for additional stations under the tariff.

1 **Q: Are these costs currently included in KCP&L's rates?**

2 A: No. The costs for the charging stations and associated O&M were removed from  
3 KCP&L's most recent rate case pending this investigation.

4 **Q: Is KCP&L requesting these costs be included in base rates as part of the Company's**  
5 **abbreviated rate case scheduled to be filed later this year?**

6 A: Yes. Consistent with the settlement agreement and Order in the 15-116 Docket, KCP&L  
7 is asking for Commission approval to include the Kansas jurisdictional share of the costs,  
8 both capital and O&M, of its CCN program in base rates as part of the upcoming  
9 abbreviated rate case. These costs would then be reflected in KCP&L's base rates as of  
10 the effective date of rates resulting from the abbreviated rate case docket.

11 **Q: Please explain how KCP&L is proposing these costs be recovered.**

12 A: Infrastructure costs or capital costs would be included in rate base the same as KCP&L's  
13 other capital costs incurred to provide electric service. The O&M costs related to the  
14 charging stations would also be recovered through base rates as any other Company  
15 O&M costs are recovered – through the normal rate case process. These facilities are  
16 part of KCP&L's distribution system and it is appropriate to treat them accordingly.

17 **Q: Please continue.**

18 A: KCP&L proposes to include in its 2016 abbreviated rate case application the Kansas  
19 jurisdictional share of the actual capital, depreciation and O&M costs incurred through  
20 August 31, 2016 in its case to be subsequently updated through the typical process used  
21 by Commission Staff during the course of the proceeding. These capital, depreciation  
22 and O&M costs will be assigned to the Kansas jurisdiction using updated situs basis  
23 allocation factors determined at the time of the 2016 abbreviated case. In addition, the

1 Company proposes to include the accumulated deferred income taxes related to the  
2 capital costs and amortize the Kansas jurisdictional share of the alternative refueling  
3 property tax credit associated with these costs as an offset to the revenue requirement.

4 **Q: Why is it necessary to amortize the tax credit?**

5 A: Unlike typical investment or production tax credits that generally are applied over time,  
6 *e.g.*, the production tax credit for wind generation that is applied on the basis of annual  
7 MWh generation for an identified period of years, the alternative refueling property tax  
8 credit for EV charging stations is only available for EV charging stations installed and  
9 placed in service in calendar years 2015 and 2016, unless the credit is extended, and the  
10 credit is applied fully in each of those years. In order, to align the recovery of the capital  
11 costs with the application of the tax credit, the credit must be spread over the expected  
12 useful life of the asset. Otherwise, the revenue requirement will be understated if  
13 determined in the year the tax credit is applied, or overstated if determined in 2017 or  
14 later.

15 **Q: Would these costs be paid only by the users of the charging stations?**

16 A: No. The Kansas jurisdictional portion of the capital, depreciation and O&M costs would  
17 be allocated among all KCP&L Kansas customers similar to other distribution costs.  
18 However, as discussed below, KCP&L is proposing that certain charges applied to  
19 customers under the Public Electric Vehicle Charging Station Tariff, Schedule CCN,  
20 attached to my testimony as Schedule DRI-1, would be tracked and, at each subsequent  
21 rate case, would be applied against the remaining undepreciated rate base amount for the  
22 charging stations. In this manner, KCP&L's customers using the EV charging station  
23 would pay a greater share of the associated capital costs.

1 **Q: Do you believe that the cost recovery mechanisms and resulting rates proposed by**  
2 **KCP&L in this application are fair, just and reasonable for KCP&L's Kansas**  
3 **customers?**

4 A: Yes, I do.

5 **Q: What about customers who do not own an EV and will never use the charging**  
6 **stations?**

7 A: All of KCP&L's customers, both EV users and non-EV users alike, will benefit from the  
8 Company's EV CCN project. As discussed in the Direct Testimony of Mr. Caisley,  
9 benefits include increased off-peak electricity usage, environmental benefits from  
10 reduced CO<sub>2</sub> emissions and lower ozone-reducing pollutants, economic impacts resulting  
11 in job creation, improved customer programs, and lower costs and efficiency by having  
12 the utility install, own and operate the EV charging stations. The increase in home-based  
13 usage to charge EVs will also provide a broader base over which to spread system costs.  
14 Additionally, as discussed in the EPRI Study sponsored by Mr. Bowermaster, EPRI  
15 performed a benefits study that shows the environmental and economic benefits of the  
16 CCN for KCP&L's customers. EPRI analyzed the effects of investments in public EV  
17 charging infrastructure to both EV drivers, using the Total Resource Cost (TRC) test, and  
18 utility customers as a whole, using the Ratepayer Impact Measurement (RIM) test. The  
19 EPRI study shows a net benefit to all KCP&L customers projected to be \$6.3 million.

20 **Q: Why is it fair to place 100% of the risk for this project on KCP&L's customers?**

21 A: First, aside from the electricity used at the EV charging stations (paid for by either the  
22 host sites, in the case of Level 2 charging stations, or Nissan, in the case of Level 3  
23 charging stations), it needs to be remembered that KCP&L shareholders have borne



1 100% of the costs of the CCN program to date as no costs associated with CCN have  
2 been included in rates paid by the Company's Kansas customers. We are asking for the  
3 ability to recover all of the costs of the project from customers, but that does not shift  
4 100% of the risk of this program onto customers. KCP&L must construct and operate the  
5 facilities prudently or risk disallowances, just like other investments by the Company in  
6 generation and distribution facilities. It is the obligation of KCP&L to market and  
7 promote the facilities to help achieve their acceptance and growth. KCP&L has risk, and  
8 we have incentive to make this program successful.

9 There is no basis for treating this investment different from other investments  
10 incurred to allow the Company to provide sufficient and efficient service to our  
11 customers. These facilities are part of our system; they are infrastructure, not an end-use  
12 product. The investment is necessary to provide electric energy to our mobile customers  
13 and should be recovered as other prudent investments are recovered.

14 **Q: What pricing alternatives should the Commission consider for this program?**

15 A: KCP&L has proposed in its Schedule CCN tariff a pricing structure that is fair and  
16 equitable to all parties involved. It is based upon current Commission-approved rates for  
17 comparable electric service as discussed earlier in my testimony and provides a  
18 mechanism to offset a greater proportion of the capital costs by the EV charging station  
19 users. KCP&L believes the pricing structure it has proposed in its tariff is the most  
20 effective, efficient and equitable pricing structure.

1 **III. RATEMAKING QUESTIONS**

2 **Q: What is the impact of the charging stations on KCP&L's retail customers?**

3 A: Before consideration of the alternative refueling property tax credit and deferred taxes, a  
4 simple look at the capital, depreciation and O&M costs, without consideration of the  
5 other CCN benefits mentioned above, would result in an annual revenue requirement of  
6 approximately \$1,227,000, which would be an expected revenue requirement increase of  
7 approximately 0.21%.

8 **Q: What is the impact of the EV charging stations on the Company's distribution**  
9 **system?**

10 A: The EPRI Study also addresses this question. Please refer to Mr. Bowermaster's Direct  
11 Testimony and the EPRI Study for a detailed analysis of the impacts of the CCN project  
12 on KCP&L's distribution system. Generally speaking, EPRI found that the Company's  
13 system is robust enough to handle the increased usage anticipated from the CCN project.  
14 Additionally, in his Direct Testimony, Mr. Caisley speaks to the benefits of the CCN  
15 being designed and installed by KCP&L where the stations can be efficiently and cost-  
16 effectively integrated into the Company's infrastructure.

17 **IV. REGULATORY POLICY QUESTIONS**

18 **Q: How does KCP&L's EV CCN program fit into the regulatory framework of a**  
19 **regulated public utility in Kansas?**

20 A: KCP&L's EV CCN project is a function of providing electric service under KCP&L's  
21 Certificate of Convenience and Necessity. KCP&L is able to integrate the charging  
22 stations into its distribution system grid. It allows KCP&L to provide electric service to  
23 its mobile customers.

1           Furthermore, the CCN program is consistent with the programs and goals of the  
2 Commission’s Energy Office. The Energy Division’s mission is “to promote energy  
3 conservation and efficiency in Kansas and to serve as a clearinghouse for information on  
4 alternative energy and other energy topics.” The Commission has long been involved in  
5 activities related to EVs. Certainly, the CCN program falls under this umbrella of  
6 regulatory interest.

7 **Q: Does the CCN program and the manner used by KCP&L for cost recovery result in**  
8 **cross-subsidization leading to rates that are unreasonably discriminatory or unduly**  
9 **preferential?**

10 A: I do not necessarily agree with how this question is phrased because there is no definition  
11 of “cross-subsidy”. If by “cross-subsidization” the Commission is asking whether there  
12 are some customers who will be paying in their rates for the facilities who will not be  
13 using the facilities, the answer to that is “yes”, but that is true of all KCP&L rates as well  
14 as other utility rates across the State of Kansas. This phenomenon is inherent in utility  
15 ratemaking, which is why the statutes only prohibit *unreasonably* discriminatory or  
16 *unduly* preferential rates.

17           To the extent there is some level of “cross-subsidization” resulting from  
18 KCP&L’s proposed tariff and cost recovery, it is offset by the benefits derived by all  
19 KCP&L Kansas customers from having the CCN charging stations in our service territory  
20 as discussed by Mr. Caisley including the effect of the increased kWh sales from the  
21 CCN helping to offset the fixed costs of the system. Additionally, as discussed earlier,  
22 any Session Charges collected from the users of the charging stations will be applied to  
23 reduce the undepreciated rate base balance associated with the charging stations.

1 Although I am not an attorney and am not presenting an opinion on any legal standard for  
2 “unreasonably discriminatory and unduly preferential”, I feel comfortable representing  
3 that rates will not be unreasonably discriminatory or unduly preferential, even if there  
4 were some subsidy involved in the provisioning of this service at the rates proposed.

5 **Q: Please explain.**

6 A: The cost of providing a service is only the starting point for determining a just and  
7 reasonable rate. Other considerations are appropriate as well, including policy goals such  
8 as promoting a movement or change within the industry that benefits the public interest.  
9 Costs that are found to benefit the public interest as a whole are oftentimes socialized  
10 among all customers without making the resulting rates unreasonably discriminatory or  
11 unduly preferential. A good example of this is some demand-side management or energy  
12 efficiency programs.

13 **Q: Do any general conflicts exist between current Kansas policy and utility  
14 implementation of EV charging stations?**

15 A: KCP&L’s Legal Brief attached to the Application addresses a similar question regarding  
16 whether conflicts exist between current Kansas law and utility implementation of EV  
17 charging stations. The conclusion in the Legal Brief is that there are no legal conflicts.  
18 As for conflicts with current Kansas policy and KCP&L’s proposed CCN project, policy  
19 follows the law. KCP&L is not aware of any existing Kansas policy that would conflict  
20 with KCP&L’s implementation of the CCN. In fact, Kansas Governor Sam Brownback  
21 has endorsed KCP&L’s CCN program as being positive for the State. He has stated,

22 This program is an example of the strong partnerships that improve our  
23 communities and benefit our citizens. I congratulate KCP&L and their  
24 community partners on this effort that will help make our region more  
25 attractive to businesses.

1 **Q: Should a regulated electric utility be allowed to enter a potentially competitive**  
2 **marketplace?**

3 A: KCP&L’s Legal Brief discussed the question of whether non-utility entities or other  
4 utilities can legally operate EV charging stations and supply power to end-users within  
5 KCP&L’s certificated Kansas service territory for public use. The answer reached in the  
6 Legal Brief was “No”.<sup>1</sup> Again, I am not a lawyer, but even if non-utilities are able to  
7 own a charging station under Kansas law, it appears the power must still be furnished by  
8 KCP&L. As such, charging stations operated in the manner proposed by KCP&L can  
9 only be offered by the certified public utility.

10 **Q: Do utility-provided EV charging stations serve the public interest?**

11 A: Yes. First, the benefits identified in the EPRI Study and the testimony of  
12 Mr. Bowermaster show that the program is in the public interest. Additionally, as noted  
13 in our Application, KCP&L’s Clean Charge Network is in the public interest in Kansas  
14 because it places Kansas in the forefront of accommodating and promoting development  
15 of an industry that is expected to advance quickly in the near future, it proposes a plan  
16 that brings the network to Kansas in an efficient and effective manner, and it provides  
17 benefits to KCP&L’s Kansas customers and to Kansas citizens overall. Approval of  
18 KCP&L’s Application and tariff allows KCP&L to evolve in its service offerings to meet  
19 the demands of mobile customers in its certificated territory, ensuring continued  
20 provisioning of sufficient and efficient electric service at just and reasonable rates.  
21 Finally, as noted in the Direct Testimony of Mr. Caisley, the CCN provides benefits to all  
22 KCP&L customers including increased off-peak electricity usage, environmental benefits

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<sup>1</sup> The exception identified in the Legal Brief was where the non-utility only provides the charging stations and the power is still supplied to the end-user by KCP&L.

1 from reduced CO<sub>2</sub> emissions and lower ozone-reducing pollutants, economic impacts  
2 resulting in job creation, improved customer programs, and lower costs and efficiency by  
3 having the utility install, own and operate the EV charging stations. The increase in  
4 home-based usage to charge EVs will also provide a broader base over which to spread  
5 system costs.

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

7 A: Yes, it does.



**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 1 of 3 Sheets

**PUBLIC ELECTRIC VEHICLE CHARGING STATION SERVICE**

**Schedule CCN**

**PURPOSE:**

The Company owns electric vehicle (EV) charging stations throughout its Kansas service territory that are available to the public to charge their EVs. Such stations may be used by EV owners who reside either within the Company's Kansas service territory or outside the Company's Kansas service territory.

**AVAILABILITY:**

This rate schedule applies to all energy provided to charge EVs at the Company's public EV charging stations. EV charging service will be available at Company-owned charging stations installed at Company and Host locations. The EV charging stations are accessed by using a card provided to users with an established account from the Company's third party vendor.

**HOST PARTICIPATION:**

EV charging stations are located at Company and Host sites. A Host is an entity within the Company's Kansas service territory that applies for and agrees to locate one or more Company charging stations on its premises. Host applications will be evaluated for acceptance based on each individual site and application. Hosts must execute an agreement with the Company covering the terms and provisions applicable to the charging station(s) on their property if their application is approved. Hosts do not receive any compensation for locating charging stations at their premises.

The maximum number of charging stations identified by the Company for its Kansas service territory under this Schedule CCN is 350. The Company may not exceed 350 charging stations under this tariff without approval of the Commission.

**PROGRAM ADMINISTRATION:**

Charges under this Schedule CCN will be administered and billed through either the Company's third party vendor on behalf of the Company or directly by the Company depending upon the Payment Option chosen by the Host.

**PAYMENT OPTIONS:**

The charges applicable to any EV charging station session will include a combination of an Energy Charge for each kWh provided to charge an EV plus all applicable riders, surcharges, taxes and fees, plus an optional time-based Session Charge depending on the payment option chosen by the Host.

Issued: <u>February 16, 2016</u> <small style="display: flex; justify-content: space-around; width: 100%;"> <span>Month</span> <span>Day</span> <span>Year</span> </small>	
Effective: <u>January 1, 2017</u> <small style="display: flex; justify-content: space-around; width: 100%;"> <span>Month</span> <span>Day</span> <span>Year</span> </small>	
By: <u>/s/ Darrin R. Ives</u> <span style="float: right;"><u>Vice President</u></span> <small style="display: flex; justify-content: space-between; width: 100%;"> <span></span> <span>Title</span> </small>	



**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 2 of 3 Sheets

There are two alternative payment options a Host may choose for EV charging stations. The Host agreement will identify the chosen payment option applicable to EV charging stations located on its premise. The EV charging station screen and third party vendor's customer web portal will identify the applicable Energy and Session Charges that will be the responsibility of the user at each EV charging station location.

Option 1: The Host pays the kilowatt-hour (kWh) Energy Charge including applicable riders, surcharges, taxes and fees, and the EV charging station user pays the Session Charge, if applicable.

Option 2: The EV charging station user pays the kilowatt-hour (kWh) Energy Charge including applicable riders, surcharges, taxes and fees, and, if applicable, the Session Charge.

**RATES FOR SERVICE:**

The EV charging station screen and third party vendor's customer web portal will identify the per kWh rate (Energy Charge plus applicable riders and surcharges) and Session Charge rate(s) applicable to that charging station and that will be the responsibility of the EV charging station user for that location.

**A. Energy Charge**

Per kWh as measured by the EV charging station meter or Company billing meter:

Level 2 Charging Station Energy Charge (Per kWh): \$0.1088

Level 3 Charging Station Energy Charge (Per kWh): \$0.1180

**B. Session Charge (Optional)**

EV Charging Station Session Charge (Per hour): \$0.00 - \$6.00

A Session shall be defined as the period of time an EV is connected to the charging station.

The Session Charge is an option that can be implemented at the discretion of the Host and Company within the following guidelines to promote improved utilization of the EV charging station(s) on its premise.

The optional Session Charge will be configured as either Charge-Based or Time-Based, at the discretion of the Host.

Charge-Based – A charge-based Session Charge would start when the EV has stopped charging (but is still connected to the charging station) plus a defined grace period. The grace period allows the user time to end the Charge Session and move the EV.

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**KANSAS CITY POWER & LIGHT COMPANY**

(Name of Issuing Utility)

Replacing Schedule \_\_\_\_\_ Sheet \_\_\_\_\_

Rate Areas No. 2 & 4

(Territory to which schedule is applicable)

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

Time-Based – A time-based Session Charge would start at either the time of initial plug-in of the EV or a predefined time in an active Charge Session (e.g., two hours after initial plug-in) at the Host’s discretion. Also, at the discretion of the Host, the Session Charge rate 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 Charges for fractional hours will be prorated. The Session Charge rate may not exceed \$6.00 per hour.

**ADJUSTMENTS AND SURCHARGES:**

The rates hereunder are subject to adjustment as provided in the following schedules:

- Energy Cost Adjustment (ECA)
- Energy Efficiency Rider (EER)
- Property Tax Surcharge (PTS)
- Transmission Delivery Charge (TDC)
- Tax Adjustment (TA)

ECA, EER, PTS and TDC adjustments are included in the \$/kWh All-In Energy Charge rates. The All-In Energy Charge rates will be adjusted as appropriate for changes in these adjustment mechanisms.

The rates above do not include tax adjustments pursuant to KCP&L’s Schedule TA (also referred to as Schedule 1). Tax adjustments will be added separately to the customer’s bill.

**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/>.

Any charges applicable to the EV charging station user under Payment Option 1 or 2 will be billed through the Company’s third party vendor. Any charge applicable to the Host under Payment Option 1 will be billed directly through the Company.

**REPORTING:**

The Company will provide the Commission with an annual report including EV charging station usage and revenue received on or before April 30 following each full calendar year Schedule CCN is in effect.

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# Calculation of Small General Service Secondary Rate \$/kWh

## KS SMALL GENERAL SECONDARY VOLTAGE - SGSS

### SUMMER

kWh		118,274,460
revenue	\$	14,875,842
Total Summer SGSS base rate \$/kWh	\$	0.1258

*plus (for illustrative purpose)*

ECA \$/kWh	\$	0.01869
TDC \$/kWh	\$	0.00511
PTS \$/kWh	\$	0.00098
EER \$/kWh	\$	-
Total Summer SGSS \$/kWh w/riders	\$	0.1506

### WINTER

kwh		191,479,822
revenue	\$	21,676,074
Total Winter SGSS base rate \$/kWh	\$	0.1132

*plus (for illustrative purpose)*

ECA \$/kWh	\$	0.01869
TDC \$/kWh	\$	0.00511
PTS \$/kWh	\$	0.00098
EER \$/kWh	\$	-
Total Winter SGSS \$/kWh w/riders	\$	0.1380

### ANNUAL

kwh		309,754,282
revenue	\$	36,551,915
Total Annual SGSS base rate \$/kWh	\$	0.1180

*plus (for illustrative purpose)*

ECA \$/kWh	\$	0.01869
TDC \$/kWh	\$	0.00511
PTS \$/kWh	\$	0.00098
EER \$/kWh	\$	-
Total Annual SGSS \$/kWh w/riders	\$	0.1428

### NOTES:

- 1) kWh amounts reflect the Settlement Billing Units in 15-KCPE-116-RTS
- 2) revenue amounts reflect the approved rates multiplied times the Settlement Billing Units in 15-KCPE-116-RTS
- 3) ECA, TDC, PTS, and EER rider rates reflect rates in effect 2-16-2016

# Calculation of Residential General Use Service Rate \$/kWh

## KS RESIDENTIAL GENERAL USE - RESA

### SUMMER

kWh		859,499,853
revenue	\$	99,524,905
Total Summer RESA base rate \$/kWh	\$	0.1158

*plus (for illustrative purpose)*

ECA \$/kWh	\$	0.01869
TDC \$/kWh	\$	0.00624
PTS \$/kWh	\$	0.00098
EER \$/kWh	\$	-
Total Summer RESA \$/kWh w/riders	\$	0.1417

### WINTER

kwh		1,010,363,330
revenue	\$	103,826,544
Total Winter RESA base rate \$/kWh	\$	0.1028

*plus (for illustrative purpose)*

ECA \$/kWh	\$	0.01869
TDC \$/kWh	\$	0.00624
PTS \$/kWh	\$	0.00098
EER \$/kWh	\$	-
Total Winter RESA \$/kWh w/riders	\$	0.1287

### ANNUAL

kwh		1,869,863,183
revenue	\$	203,351,449
Total Annual RESA base rate \$/kWh	\$	0.1088

*plus (for illustrative purpose)*

ECA \$/kWh	\$	0.01869
TDC \$/kWh	\$	0.00624
PTS \$/kWh	\$	0.00098
EER \$/kWh	\$	-
Total Annual RESA \$/kWh w/riders	\$	0.1347

### NOTES:

- 1) kWh amounts reflect the Settlement Billing Units in 15-KCPE-116-RTS
- 2) revenue amounts reflect the approved rates multiplied times the Settlement Billing Units in 15-KCPE-116-RTS
- 3) ECA, TDC, PTS, and EER rider rates reflect rates in effect 2-16-2016