## THE STATE CORPORATION COMMISSION OF THE STATE OF KANSAS

Before Commissioners:

Jay Scott Emler, Chairman

Shari Feist Albrecht

Pat Apple

In the Matter of Kansas City Power &	)	Docket No. 16 VODE 160 MIS
Light's Application to Deploy and Operate	)	Docket No. 16-KCPE-160-MIS
its Proposed Clean Charge Network.	)	

# ORDER DENYING KCP&L'S APPLICATION FOR APPROVAL OF ITS CLEAN CHARGE NETWORK PROJECT AND ELECTRIC VEHICLE CHARGING STATION TARIFF

This matter comes before the State Corporation Commission of the State of Kansas (Commission) for consideration and decision. Having reviewed the pleadings and record, the Commission makes the following findings:

- 1. On January 26, 2015, Kansas City Power & Light Company (KCP&L) announced its planned Clean Charge Network (CCN) to install and operate more than 1,000 electric vehicle (EV) charging stations capable of supporting more than 10,000 EVs in KCP&L's service territories. On June 17, 2015, in Docket No. 15-KCPE-116-RTS, the Parties filed a Joint Motion for Approval of Unanimous Partial Settlement Agreement on Revenue Requirement (Settlement), which included an agreement to jointly petition the Commission to investigate and evaluate the issue of EV charging stations. Accordingly, on September 24, 2015, KCP&L, Commission Staff (Staff), and the Citizens' Utility Ratepayer Board (CURB) filed a Joint Petition to Open a General Investigation Docket (Petition) requesting the Commission open a docket to investigate issues related to EV charging stations.
- 2. On February 2, 2016, the Commission issued an Order Opening Docket to address KCP&L's proposed CCN and EV charging station tariff. While KCP&L requested a general

<sup>&</sup>lt;sup>1</sup> The Settlement was approved by the Commission on September 10, 2015.

investigation, since the Commission was presented with a specific program proposed by KCP&L, the Commission limited the scope of this Docket to evaluating the CCN proposed by KCP&L.<sup>2</sup> On February 16, 2016, KCP&L filed its Application for Approval of its Clean Charge Network Project and Electric Vehicle Charging Station Tariff. KCP&L intends the tariff to take effect January 1, 2017.<sup>3</sup> The CCN will consist of EV charging stations manufactured by ChargePoint, Inc. (ChargePoint), and which will be part of ChargePoint's network of more than 20,000 charging spots in North America.<sup>4</sup> Through partnerships with companies at host locations and with Nissan Motor Company, KCP&L plans to offer free charging on every station in its CCN to all drivers for the first two years or until a tariff is in place.<sup>5</sup>

3. The CCN is expected to cost approximately \$16.6 million, of which approximately \$5.6 million would be borne by Kansas jurisdictional customers.<sup>6</sup> KCP&L is requesting Kansas ratepayers pay for the appropriately \$5.6 million in capital costs, along with the depreciation and approximately \$250,000 in annual operations and maintenance costs.<sup>7</sup> Currently 230 of the planned 315 stations are in service,<sup>8</sup> with the CCN expected to be completed by the end of the third quarter of this year.<sup>9</sup> According to Charles A. Caisley, Vice President – Marketing and Public Affairs for KCP&L, based on customer research and national studies, there is "significant customer interest in electric vehicles." KCP&L claims its proposed CCN is in the public interest "because it places Kansas in the forefront of

<sup>2</sup> Order Opening Docket, Feb. 2, 2016, ¶ 4.

<sup>&</sup>lt;sup>3</sup> Application of Kansas City Power & Light Company for Approval of Its Clean Charge Network Project and Electric Vehicle Charging Station Tariff (Application), Feb. 16, 2016, ¶ 10.

<sup>&</sup>lt;sup>4</sup> Attachment A to Application, Feb. 16, 2016, p. 1.

<sup>&</sup>lt;sup>5</sup> *Id* 

<sup>&</sup>lt;sup>6</sup> Direct Testimony of Charles A. Caisley (Caisley Direct), Feb. 16, 2016, p. 8.

<sup>&</sup>lt;sup>7</sup> Direct Testimony of Darrin Ives (Ives Direct), Feb. 16, 2016, p. 15.

<sup>&</sup>lt;sup>8</sup> Rebuttal Testimony of Darrin R. Ives (Ives Rebuttal), June 16, 2016, p. 18.

<sup>&</sup>lt;sup>9</sup> Direct Testimony of Kristin L. Riggins, Feb. 16, 2016, p. 11.

<sup>&</sup>lt;sup>10</sup> Caisley Direct, p. 10.

accommodating and promoting development of an industry that is expected to advance quickly in the near future." Specifically, Caisley explains:

The [EV] industry can only advance if there are adequate charging stations throughout the country, similar to what we now have for gasoline-powered vehicles. The lack of EV charging station infrastructure presents a barrier to market penetration at scale in the industry and the lack of a standardized financial transaction infrastructure also inhibits the industry's growth. KCP&L can help alleviate those barriers in its service territory. 12

4. As part of its Application, KCP&L filed a brief addressing the legal issues presented in this Docket. The first issue that KCP&L raises is whether providing EV charging services qualifies as a public utility function under Kansas law. After explaining offering EV charging services is a legitimate public utility function under Kansas law under K.S.A. 66-104 and K.S.A. 66-101a, <sup>13</sup> KCP&L noted:

should the Commission determine that promoting and provisioning electric service for transportation purposes is necessary for carrying out Kansas public policy with regard to promoting and expanding the use of EVs in the state, then it would become part of the services and activities a public utility should make available to Kansas customers in order to meet the legal standard of providing "efficient and sufficient service and facilities" at just and reasonable rates, as required by K.S.A. 66-101b. <sup>14</sup>

- 5. In essence, K.S.A. 66-101b requires every electric public utility to furnish reasonably efficient and sufficient service.
- 6. On June 6, 2016, Commission Staff filed their Brief on Legal Issues, explaining while "EV charging service is a public utility function, the Kansas statutes do not answer important questions pertaining to the necessity or scale of such service." Staff characterized the crux of this Docket as "what, if any, CCN property and operating expenses are reasonably

<sup>&</sup>lt;sup>11</sup> Application, ¶ 14.

<sup>&</sup>lt;sup>12</sup> Caisley Direct, pp. 10-11.

<sup>&</sup>lt;sup>13</sup> Brief of Kansas City Power & Light Company on Legal Issues, Feb. 16, 2016, p. 2.

<sup>&</sup>lt;sup>14</sup> *Id.*., p. 3.

<sup>&</sup>lt;sup>15</sup> Commission Staff's Brief on Legal Issues, June 6, 2016, ¶ 4.

necessary to maintain reasonably sufficient and efficient electric service." CURB did not brief the legal issues.

7. On June 6, 2016, Joshua P. Frantz and Robert H. Glass, Ph.D. filed direct testimony on behalf of Staff and Andrea Crane filed direct testimony on behalf of CURB. All three testified against the proposed program. Staff's main critique of the proposed program is KCP&L has not demonstrated a demand for charging stations.<sup>17</sup> Frantz characterized the proposed CCN program as a speculative investment to create demand for EVs. 18 Furthermore. Frantz opined that KCP&L is already providing reasonably sufficient and efficient service to its EV customers without the CCN. 19 Frantz concluded EV drivers typically charge their EVs at home<sup>20</sup> based on: (1) the testimony of KCP&L witness Daniel Bowermaster.<sup>21</sup> (2) Tesla recommending home charging for its vehicles, and (3) studies of EV drivers' charging habits conducted by Idaho National Laboratory. He explained EVs can easily be charged at home with a proper cord and ordinary three-prong 120-volt outlet.<sup>22</sup> Frantz also questioned whether the CCN stations would be used or useful throughout the expected lifespan of the project based on technological advances.<sup>23</sup> With improved battery life and the possibility that wireless charging could become the dominant charging method, Frantz cautions the CCN could be obsolete before  $2025.^{24}$ 

<sup>&</sup>lt;sup>16</sup> *Id.*, ¶ 6.

<sup>&</sup>lt;sup>17</sup> Direct Testimony of Robert H. Glass Ph.D. (Glass Direct), June 6, 2016, p. 7.

<sup>&</sup>lt;sup>18</sup> Direct Testimony of Joshua P. Frantz (Frantz Direct), June 6, 2016, p. 5.

<sup>&</sup>lt;sup>19</sup> *Id.*, p. 6.

<sup>&</sup>lt;sup>20</sup> *Id.*, pp. 6-7.

<sup>&</sup>lt;sup>21</sup> *Id*.

<sup>&</sup>lt;sup>22</sup> *Id.*, p. 6.

<sup>&</sup>lt;sup>23</sup> *Id.*, p. 9.

<sup>&</sup>lt;sup>24</sup> *Id.*, pp. 11, 13.

8. Dr. Glass explained Staff opposed the proposed network as a highly speculative, ratepayer-funded program to expand rate base, customer load, and customer demand.<sup>25</sup> According to Glass, "KCP&L does not present any statistical evidence of correlation between interest in EVs and a demand for commercial charging stations."<sup>26</sup> As an alternative, Glass suggested recommending the legislature amend K.S.A. 66-104 to grant an exemption to private charging stations akin to the one given to private natural gas providers, and establishing a time of use rate for home charging of EVs.<sup>27</sup>

9. Crane also urged the Commission to reject the proposed CCN program because: (1) KCP&L has not demonstrated a need for the program; (2) the program is potentially anti-competitive; and (3) the program would result in all Kansas customers cross-subsidizing EV owners.<sup>28</sup>

10. On June 16, 2016, Darrin R. Ives and Charles A. Caisley filed rebuttal testimony on behalf of KCP&L. Ives reiterated that customers have requested and are utilizing the EV stations installed as part of the CCN.<sup>29</sup> In doing so, Ives admits, "it is true that KCP&L does not have a specific forecast for the growth in EV purchases within the KCP&L service territory, the fact is that customers are demonstrating firsthand that there is a need and a demand for the charging stations." Ives also appears to acknowledge the speculative aspect of the CCN proposal by expressing a willingness to share the costs of the program between customers and shareholders "to be reassessed at the time of KCP&L's next full general rate case, when additional information and analysis will be available".<sup>31</sup>

<sup>&</sup>lt;sup>25</sup> Direct Testimony of Robert H. Glass, Ph.D., June 6, 2016, p. 3.

<sup>&</sup>lt;sup>26</sup> *Id.*, p. 6.

<sup>&</sup>lt;sup>27</sup> *Id.*, p. 26.

<sup>&</sup>lt;sup>28</sup> Direct Testimony of Andrea C. Crane, June 6, 2016, p. 5.

<sup>&</sup>lt;sup>29</sup> Ives Rebuttal, p. 2.

<sup>&</sup>lt;sup>30</sup> *Id.*, p. 12.

<sup>&</sup>lt;sup>31</sup> *Id.*, p. 25.

Caisley disputes Frantz's assertion that home charging is adequate for the 11. majority of KCP&L customers who own or are considering purchasing EVs.<sup>32</sup> He cites four factors to argue home charging is not sufficient: (1) drivers sometimes travel more miles than their average daily use; (2) EVs lose some functionality as battery life diminishes; (3) fully recharging a nearly depleted battery at home could take twelve to sixteen hours; and (4) range anxiety is more pronounced for EV drivers.<sup>33</sup> Caisley also explained that 52% of households cannot park a car within 20 feet of an electrical outlet, and thus cannot charge at home.<sup>34</sup> In addressing Frantz's concerns that CCN stations will not be useful throughout their lifetime, Caisley testified "KCP&L is unaware of any automaker, especially U.S. automakers, that has provided commercially available EVs with built-in wireless charging as Navigant predicted in early 2014. Nor is the Company aware of any U.S. automaker that plans to introduce this technology in their commercial product line within the immediate future."<sup>35</sup> But wireless charging is only one example of a technological advancement that Frantz identified that might render the CCN obsolete.<sup>36</sup> Another possibility is improved battery life. Caisley ignored his own testimony on the potential for improved battery life ("[i]n just a few, short years, we have seen the second generation of EVs nearly double their battery life and range"). 37 As Frantz points out, with continued improvements to battery life, there is less need for public charging stations, as EVs can remain charged on one night's worth of home charging.<sup>38</sup> Caisley did not rebut Frantz's testimony that improved battery life would decrease the demand for public charging stations.

<sup>&</sup>lt;sup>32</sup> Rebuttal Testimony of Charles A. Caisley, June 16, 2016, p. 2. <sup>33</sup> *Id.*, pp. 4-5.

<sup>&</sup>lt;sup>34</sup> *Id.*, p. 5. <sup>35</sup> *Id.*, p. 18.

<sup>&</sup>lt;sup>36</sup> Transcript of Evidentiary Hearing (Tr.), p. 298.

<sup>&</sup>lt;sup>37</sup> Caisley Direct, p. 21.

<sup>&</sup>lt;sup>38</sup> Frantz Direct, p. 13.

12. An evidentiary hearing was held on June 28 and June 29, 2016. KCP&L, Staff, CURB, and ChargePoint appeared by counsel, with KCP&L, Staff, and CURB having submitted prefiled testimony. The Commission heard live testimony from a total of eight witnesses, including four on behalf of KCP&L, two on behalf of Staff, one each on behalf of CURB and ChargePoint. The parties had the opportunity to cross-examine the witnesses at the evidentiary hearing as well as the opportunity to redirect their own witnesses. Following the evidentiary hearing, all of the parties submitted posthearing briefs.

13. The issue facing the Commission is not whether KCP&L can or should build and operate the CCN, but whether KCP&L should be able to recover the costs of building and operating the CCN from all of its customers, rather than its shareholders and EV owners.<sup>39</sup>

14. The threshold issue is whether the CCN network is necessary to provide sufficient and efficient service. 40 The Commission concludes it is not.

15. As the Applicant, KCP&L bears the burden of proof. It failed to meet its burden. As the Commission will explain in greater detail below, based on the evidence presented, the Commission finds KCP&L has failed to demonstrate a legitimate demand for the CCN. Admittedly, KCP&L's CCN is designed to promote EV adoption. 41 At the hearing, Caisley testified, "one of the benefits of the Clean Charge Network is to create the platform to discuss these things [cost of EVs] as part of being an enabler and catalyst for this industry."<sup>42</sup> While stimulating EV ownership and usage may be a laudable goal, it is not within the scope of KCP&L providing sufficient and efficient service. Promoting EV ownership and usage is better left to the automobile industry.

<sup>&</sup>lt;sup>39</sup> See Initial Post-Hearing Brief of Kansas City Power & Light Company, July 15, 2016, p. 13; see also Tr., pp. 25-

See Tr., p. 26.
 Tr., p. 52 (Caisley Cross).

<sup>&</sup>lt;sup>42</sup> *Id.*, p. 81.

16. Similarly, Caisley acknowledges that under KCP&L's proposal, KCP&L's ratepayers, rather than retail businesses will bear the cost of the CCN. 43 Caisley explained businesses "want to do something that will attract customers and be valuable to their customers that they don't have to outlay capital for."44 The Commission does not agree that ratepayers should be subsidizing the cost of the CCN for the benefit of businesses. Businesses have already demonstrated that they are willing to install stations to attract and retain employees, customers, or tenants. 45 As Anne Smart, Director of Government Relations and Regulatory Affairs for ChargePoint, testified 92 charging ports have already been sold outside KCP&L's program to private entities in Kansas, such as universities, cities, and Sprint. Even more to the point, Ives cited to his colleague Caisley's testimony that, "our hosts...have been signing up to participate in this. And we probably will have a waiting list when we run out of capacity for the network. And none of them are charging us for the space". 47 Therefore, the evidence suggests that rather than add a costly program to rate base, it is best left to private businesses and landlords to install stations as incentives to attract customers. Accordingly, it is not necessary for ratepayers to fund the CCN. The private sector appears willing to finance an effective EV charging network.

17. KCP&L views the CCN as part of its regulated distribution network necessary to provide efficient and sufficient service.<sup>48</sup> It follows that KCP&L believes that EV owners currently lack efficient electric service in KCP&L's service territory.<sup>49</sup> Yet the evidence does not suggest there is a legitimate demand for the CCN.

<sup>&</sup>lt;sup>43</sup> *Id.*, p. 120.

<sup>&</sup>lt;sup>44</sup> *Id.*, p. 121.

<sup>&</sup>lt;sup>45</sup> Tr., p. 161 (Riggins Cross).

<sup>&</sup>lt;sup>46</sup> Tr., p. 256-257, 271 (Smart Cross).

<sup>&</sup>lt;sup>47</sup> Tr., p. 247 (Ives Redirect).

<sup>&</sup>lt;sup>48</sup> Id.

<sup>&</sup>lt;sup>49</sup> Id.

When presented with a California Transportation Electrification study from his 18. direct testimony, which concluded most drivers of battery/electric vehicles do not need a charge outside their home on most days, Caisley acknowledged "[w]e do believe that 70, 80 percent of the charging occurs at home."50

19. When challenged on his claim that 52% of households cannot park a car within 20 feet of an electrical outlet, and thus cannot charge at home, Caisley admitted he had no statistics on EV adoption levels by residents of multi-dwelling units and that since he presumed that such residents did their due diligence, he was not making a demand claim.<sup>51</sup> Accordingly, the Commission does not believe Caisley's testimony offers any reason to believe a significant number of KCP&L customers need the CCN.

In evaluating the credibility of the witnesses on the question of the necessity of 20. the CCN program, the Commission finds KCP&L sorely lacking. KCP&L resorts to character assassination, questioning the seriousness of Glass's analysis, which KCP&L alleges arises to a lack of sincerity;<sup>52</sup> and questioning the expertise of both Frantz and Crane. Frantz is criticized for relying on online research.<sup>53</sup> Yet, KCP&L fails to support its conclusions with any studies or data. For example, during KCP&L's cross-examination of Frantz on whether the CCN is necessary for an EV driver who does not have a garage or access to an electrical outlet, Frantz testified that KCP&L did not provide any data to show any EV drivers were unable to charge their vehicles or that the vehicles were underused.<sup>54</sup> While neither KCP&L nor Staff performed any primary research or provided any data on the question of whether such customers exist or

<sup>&</sup>lt;sup>50</sup> *Id.*, p. 58. <sup>51</sup> *Id.*, pp. 63-63.

<sup>&</sup>lt;sup>52</sup> Post-Hearing Reply Brief of Kansas City Power & Light Company, Aug. 5, 2016, ¶7.

<sup>&</sup>lt;sup>54</sup> Tr., p. 292 (Frantz Cross).

have experienced difficulty in charging their EVs,<sup>55</sup> KCP&L bears the burden of proving the necessity of the program. Therefore, the lack of supporting studies or data is fatal to their claim.

21. KCP&L relies on Crane's admitted lack of familiarity with the EV network in her home state of Connecticut to question her expertise. But the Commission does not see the relevance in this line of attack. There is no evidence that Crane has consulted on Connecticut's network. Likewise, the record is devoid of any evidence on whether Connecticut has similar legislation to K.S.A. 66-101b. KCP&L tries to undermine Crane's ability to testify on the EV charging network as being outside the scope of her knowledge. Yet her testimony deals with possible rate base treatment of the CCN. Based on her numerous appearances before the Commission, where she has offered expert testimony on rate base treatment of programs, the Commission finds Crane qualified to offer her opinion on whether the CCN should be incorporated in rate base. The Commission agrees with Crane's recommendation that KCP&L's shareholders should absorb the CCN program costs since KCP&L took it upon itself to make the investment and the sheer size of the program.

22. In evaluating the evidence presented, the Commission finds KCP&L did not introduce credible evidence supporting the need for the CCN. First, KCP&L fails to provide support for its claims that there is demand for such a large EV network. As envisioned, the CCN could support 12,000 EVs with no wait time for users, and as many as 25,000 EVs with moderate wait time. But under the Electric Power Research Institute (EPRI)'s most optimistic estimate, there would still be less than 12,000 EVs in KCP&L's service territory by 2020. KCP&L relies

<sup>&</sup>lt;sup>55</sup> Id.

<sup>&</sup>lt;sup>56</sup> Post-Hearing Reply Brief of Kansas City Power & Light Company, ¶ 8.

<sup>&</sup>lt;sup>57</sup> *Id.*, ¶ 8.

<sup>&</sup>lt;sup>58</sup> Tr. p., 285 (Crane Cross).

<sup>&</sup>lt;sup>59</sup> Tr., p. 285 (Crane Cross).

<sup>&</sup>lt;sup>60</sup> Tr., p. 157 (Riggins Cross).

<sup>&</sup>lt;sup>61</sup> Tr., p. 159 (Riggins Cross).

on EPRI to demonstrate demand for the EV network. EPRI also presents a more pessimistic estimate of 2,954 EVs by 2020, and an intermediate estimate of 8,245 by 2020.62 Through February 2016, an estimated 969 EVs were sold in KCP&L's service territory. 63 Based on the few EVs sold thus far and the wildly varying estimates of future sales presented by EPRI, the Commission appreciates how speculative any demand for a charging station is and questions why ratepayers should fund a CCN scaled to EPRI's most optimistic projections.

Despite KCP&L's repeated claims of strong interest for the CCN from its 23. customers, Caisley admits KCP&L did not keep track of residential customers who called his Marketing and Public Affairs Department about charging stations.<sup>64</sup> So, KCP&L has no evidentiary support for its claims of strong consumer interest. Instead, they are forced to extrapolate territory-wide demand based on a survey of 1,169 members of their Customer Advisory Online Panel. 65 In that survey, one-third of the respondents would consider purchasing an EV.66 KCP&L attempts to use the survey of 1,169 to argue that one-third of its overall Kansas customer base would consider purchasing an EV.<sup>67</sup> It stretches credibility to think 70,000 KCP&L customers would consider purchasing an EV based on an online advisory panel survey of less than 1,200 customers. Not only is the Commission troubled that KCP&L is attempting to extrapolate system-wide demand based on its survey of its online advisory panel, the Commission notes the survey simply asks if they would "consider" purchasing an EV, not whether they were likely to purchase an EV. The distinction is critical. The same survey reveals

<sup>&</sup>lt;sup>62</sup> *Id*.

<sup>&</sup>lt;sup>63</sup> *Id.*, pp. 159-160.

<sup>&</sup>lt;sup>64</sup> Tr. p. 105 (Caisley Cross).

<sup>65</sup> Tr., pp. 162-163 (Riggins Cross).

<sup>66</sup> Tr., p. 166 (Riggins Cross).

<sup>&</sup>lt;sup>67</sup> Tr., pp. 168-169.

that 64% of KCP&L's customer advisory panel would not consider buying an EV even if KCP&L located a station in their area.<sup>68</sup>

24. If anything, the survey KCP&L relies on indicates there is little demand for the CCN. Darrin Ives, KCP&L's Vice President of Regulatory Affairs, acknowledged KCP&L could not demonstrate customer demand for the CCN when he testified, "while it is true that KCP&L does not have a specific forecast for the growth in EV purchases within the KCP&L service territory, the fact is that customers are demonstrating firsthand that there is a need and demand for the charging station." KCP&L offers no measurable evidence of customer demand for the CCN. Therefore, the Commission cannot in good conscience ask ratepayers to finance the CCN based on mere conjecture.

25. If anything, KCP&L's own witnesses make the case for home charging of EVs or allowing private businesses and landlords to install their own stations, rather than building the CCN. As Caisley testified, "obviously overnight is when a lot of charging is going to occur or when you get to your place of employment, if you can charge there." Since a significant amount of charging will take place overnight or at work, it is difficult to articulate a reason to have ratepayers fund the CCN. Caisley inadvertently advocated for in-home charging by analogizing the CCN to the internet. In his testimony, Caisley recalled going to his college library to access his email and wondering why anyone would ever go to the trouble of going to a computer lab to use email. One of the reasons internet use is so widespread is it can be and is typically accessed on smart phones or on personal computers. People no longer need to go to computer labs or public libraries to use the internet. In other words, people use the internet

<sup>&</sup>lt;sup>68</sup> Tr. p. 166 (Riggins Cross).

<sup>&</sup>lt;sup>69</sup> Tr., p. 210 (Ives Cross).

<sup>&</sup>lt;sup>70</sup> Tr., pp. 129-130 (Caisley).
<sup>71</sup> Tr., pp. 93-94 (Caisley Cross).

because it is convenient. It follows that people are more likely to purchase EVs if they can charge at home, rather than go to an EV station where there may be a wait or they have to leave their EV unattended for a lengthy period of time as the EV charges. It is far more convenient to charge a vehicle in the security of one's own garage or office parking lot. The EV industry is more likely to develop through home charging.

KCP&L has given the Commission no reason to believe the stations installed 26. prior to the CCN are inadequate to meet the needs of current and future EV owners. As Smart testified, there are already 92 stations installed at universities, municipalities, and private businesses. Those entities have demonstrated a willingness to finance those stations as an incentive for customers to use their business or rent at their apartment buildings. Similarly, Ives testified that several employers in the Kansas City metropolitan area have installed EV charging stations as a benefit to their employees, guests and customers. <sup>72</sup> In testifying that a number of entities have advised KCP&L that they are never going to charge drivers to use their stations because the entities believe it incentivizes customers to come to their locations, Caisley leads the Commission to believe the best approach is to let private industry install stations as they will be the beneficiaries of increased business.<sup>73</sup> In other words, let the private sector invest in the EV market, rather than have ratepayers finance the speculative venture.

Another reason to conclude that the CCN is not necessary to provide service is 27. that KCP&L has no plans on how to proceed if the Commission denies its Application.<sup>74</sup> If the CCN were truly necessary, KCP&L would commit to building the network and having its shareholders finance the project. If KCP&L is as confident in EPRI's projections as it claims to

<sup>&</sup>lt;sup>72</sup> Ives Rebuttal, p. 17.
<sup>73</sup> Tr., p. 92 (Caisley Cross).

<sup>&</sup>lt;sup>74</sup> Tr., p. 132 (Caisley Cross).

be, KCP&L should be willing to invest its own money in the CCN as it stands to make a handsome profit if EV usage increases tenfold.

Since KCP&L fails to demonstrate the necessity of the CCN, the Commission 28. must reject its Application. Besides there being no showing of necessity, the Commission is also troubled that the CCN might be technologically obsolete before the program expires. Frantz raised concerns that the CCN would not be "used and required to be used" throughout its expected lifespan due to wireless charging, Level 3 DC charging, and improved battery life.<sup>75</sup> Rather than provide facts to support why the CCN will remain used and useful throughout its expected ten-year lifespan, KCP&L engages in pure speculation. Caisley testified, "even if there is inductive charging that is not widespread and useable at that point, we fully expect from our conversations with auto manufacturers, we expect that the Level 2 and Level 3 plugs will still be on every vehicle and not obsolete". Again, in contrast to Frantz's research and reference to studies, KCP&L refers to its expectations, without providing any sources to support those expectations.

29. Even if the Commission were to have found there is a need for the CCN and that the program would be used and useful throughout its lifespan, there is still the issue of crosssubsidization. "One class of consumers should not be burdened with costs created by another class."<sup>77</sup> KCP&L's proposal presents three cross-subsidization concerns: (1) KCP&L customers in Leavenworth, Miami, Wyandotte, and Linn Counties may be subsidizing Johnson County EV owners since all of the stations are deployed in Johnson County;<sup>78</sup> (2) the 275,000-300,000

Frantz Direct, pp . 9, 11-13.
 Tr., p. 127 (Caisley Cross).
 Jones v. Kansas Gas & Elec., 222 Kan. 390, 401 (1977).

<sup>&</sup>lt;sup>78</sup> Post-Hearing Brief of the Citizens' Utility Ratepayer Board (CURB Brief), July 29, 2016, p. 25.

Kansas jurisdictional customers<sup>79</sup> will be subsidizing the approximately 1,000 EV owners in KCP&L's service territory; and (3) the EV owners that will benefit are generally high income earners, who will be subsidized by lower income individuals unable to afford EVs.<sup>80</sup> KCP&L's response to concerns over cross-subsidization is essentially all consumers will benefit through cleaner air and increased load, which will spread the overall fixed costs of its system over more kilowatts.<sup>81</sup>

30. The Commission is not convinced that there are benefits to non-EV owners that outweigh its concerns over cross-subsidization. Daniel Bowermaster, a Program Manager at EPRI, who testified on behalf of KCP&L, explained charging an average EV using KCP&L's generation fleet results in power plant emissions equivalent to emissions produced by a gasoline powered vehicle with a 35 mpg fuel economy rating. To conclude there is an environmental benefit, Bowermaster compared that fuel economy to a 25.3 mpg average for new vehicles. On cross-examination, Bowermaster refused to hypothesize whether EVs would replace smaller sedans with higher fuel economies or larger vehicles with lower fuel economies. Based on Bowermaster's testimony, it is far from certain the CCN would produce environmental benefits sufficient to overcome cross-subsidization concerns. Even if KCP&L could demonstrate environmental benefits from the CCN, the Commission has previously rejected societal tests, recognizing that it is too difficult to quantify indirect societal environmental and health benefits.

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<sup>&</sup>lt;sup>79</sup> Tr., p. 104 (Caisley Cross).

<sup>&</sup>lt;sup>80</sup> CURB Brief, p. 23. <sup>81</sup> Ives Rebuttal, p. 20.

<sup>82</sup> Tr., p. 150 (Bowermaster Cross).

 $<sup>^{83}</sup>$  Id

<sup>84</sup> *Id.*, pp. 150-152 (Bowermaster Cross).

<sup>85</sup> Order, Docket No. 12-GIMX-337-GIV, March 6, 2013, ¶ 15.

31. The Commission also questions whether additional off-peak electricity sales will occur. As Ives admits, KCP&L has not conducted statistical modeling or forecasting to support its assumptions of future EV load. More importantly, KCP&L's argument of additional off-peak sales is based on nighttime home charging. If anything, the CCN would compete with nighttime home charging. If the CCN deterred nighttime home charging, it might actually impair off-peak sales and cause more electricity sales during peak hours. Again, the supposed benefit of additional load does not overcome concerns related to cross-subsidization.

32. At the time of its announcement, the CCN would have been the largest EV charging network in the country. While KCP&L repeatedly characterizes the CCN as a pilot plan, its scale exceeds that of a typical pilot program. KCP&L downplays its earlier pilot program, a partnership with the United States Department of Energy (DOE), which began around 2012 with approximately 50 stations.<sup>88</sup> The Commission questioned why KCP&L seeks to expand the scale of stations from 50 to 1,000.<sup>89</sup> Essentially, KCP&L explained the pilot program was too small in scope and not supported with enough advertising to affect customer behavior.<sup>90</sup> The lesson KCP&L apparently learned from its pilot program with DOE was not that there was insufficient demand for charging stations, but that the program was not large enough to stimulate demand. The Commission reaches a far different conclusion -- the results of the pilot program do not justify rapid expansion of the build out of charging stations at the ratepayers' expense.

33. Frantz raised an additional reason to discount the utilization data – it did not account for how customers would react if they were asked to pay for the electricity at the EV

<sup>&</sup>lt;sup>86</sup> Tr., p. 194.

<sup>&</sup>lt;sup>87</sup> Post-Hearing Brief of Commission Staff, July 29, 2016, ¶ 57.

<sup>88</sup> Tr., p. 109 (Caisley Cross).

<sup>&</sup>lt;sup>89</sup> Tr., p. 111.

<sup>&</sup>lt;sup>90</sup> Tr., p. 112-113 (Caisley Cross).

stations.<sup>91</sup> Currently, EV drivers are using the charging stations without having to pay for their electricity. Frantz testified that by providing free electricity at the EV stations, KCP&L's already sparse demand data is skewed, and that once customers are required to pay for the electricity, demand for charging outside the home will decline.<sup>92</sup> The Commission finds Frantz's reasoning compelling. It is a matter of common sense that individuals may be very willing to accept something free, but scoff at having to purchase that same item. Until KCP&L actually charges its customers for using the EV stations, the data collected from its EV charging stations is suspect.

34. KCP&L claims it will take several years to gather sufficient data to draw reasonable conclusions from the CCN. Based on that timeframe, the Commission questions the timing of KCP&L's Application. Adding to the Commission's consternation is Caisley's testimony that it takes upwards of one year to plan and install a station. The Commission believes KCP&L would have been better served to gradually expand its EV network and seek approval of the CCN after it had sufficient data to establish actual demand for the program.

35. The Commission denies KCP&L's request to have ratepayers finance the CCN. The evidence demonstrates the CCN is not necessary. To the contrary, private businesses are already installing stations to incentivize customers, employees, and guests. Rather than burden the ratepayers, the Commission believes either KCP&L shareholders or private businesses should bear the costs of building and operating EV charging stations, as they are the beneficiaries of increased EV ownership. Relying on the private sector to finance an EV network also eliminates concerns of cross-subsidization.

<sup>&</sup>lt;sup>91</sup> Frantz Direct, p. 8.

<sup>&</sup>lt;sup>92</sup> *Id*.

<sup>93 1.1</sup> 

<sup>94</sup> Caisley Rebuttal., p. 8.

### THEREFORE, THE COMMISSION ORDERS:

- A. KCP&L's Application for approval of its Clean Charge Network project and electric vehicle charging station tariff is denied.
- B. The parties have 15 days from the date of electronic service of this Order to petition for reconsideration.<sup>95</sup>
- C. The Commission retains jurisdiction over the subject matter and parties for the purpose of entering such further orders as it deems necessary.

#### BY THE COMMISSION IT IS SO ORDERED.

Emler, Chairman; Albrecht, Commissioner; Apple, Commissioner

Dated:	SEP	13	2016		
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Amy L. Gilbert

Secretary to the Commission

**BGF** 

EMAILED

SEP 13 2016

<sup>95</sup> K.S.A. 66-118b; K.S.A. 77-529(a)(1).

#### **CERTIFICATE OF SERVICE**

#### 16-KCPE-160-MIS

1. t	he undersigned.	certify that t	the true copy of	the attached	Order has been	served to the	e following pa	rties by means of

Electronic Service on SEP 1 3 2016

GLENDA CAFER, ATTORNEY CAFER PEMBERTON LLC 3321SW 6TH ST TOPEKA, KS 66606 Fax: 785-233-3040 glenda@caferlaw.com

MICHAEL DUENES, LITIGATION COUNSEL KANSAS CORPORATION COMMISSION 1500 SW ARROWHEAD RD TOPEKA, KS 66604-4027 Fax: 785-271-3354 m.duenes@kcc.ks.gov

BRIAN G. FEDOTIN, DEPUTY GENERAL COUNSEL KANSAS CORPORATION COMMISSION 1500 SW ARROWHEAD RD TOPEKA, KS 66604-4027 Fax: 785-271-3314 b.fedotin@kcc.ks.gov

ANDREW FRENCH, SENIOR LITIGATION COUNSEL KANSAS CORPORATION COMMISSION 1500 SW ARROWHEAD RD TOPEKA, KS 66604-4027 Fax: 785-271-3314 a.french@kcc.ks.gov

DARRIN R. IVES, VICE PRESIDENT, REGULATORY
AFFAIRS
KANSAS CITY POWER & LIGHT COMPANY
ONE KANSAS CITY PL, 1200 MAIN ST 19th FLOOR (64105)
PO BOX 418679
KANSAS CITY, MO 641419679
Fax: 816-556-2110
darrin.ives@kcpl.com

THOMAS J. CONNORS, ATTORNEY AT LAW CITIZENS' UTILITY RATEPAYER BOARD 1500 SW ARROWHEAD RD TOPEKA, KS 66604 Fax: 785-271-3116 tj.connors@curb.kansas.gov

JAMES ELLIS CHARGEPOINT, INC. 254 EAST HACIENDA AVENUE CAMPBELL, CA 95008 james.ellis@chargepoint.com

JAMES G. FLAHERTY, ATTORNEY ANDERSON & BYRD, L.L.P. 216 S HICKORY PO BOX 17 OTTAWA, KS 66067 Fax: 785-242-1279 jflaherty@andersonbyrd.com

ROBERT J. HACK, LEAD REGULATORY COUNSEL KANSAS CITY POWER & LIGHT COMPANY ONE KANSAS CITY PL, 1200 MAIN ST 19th FLOOR (64105) PO BOX 418679 KANSAS CITY, MO 64141-9679 Fax: 816-556-2787 rob.hack@kcpl.com

DAVID W. NICKEL, CONSUMER COUNSEL CITIZENS' UTILITY RATEPAYER BOARD 1500 SW ARROWHEAD RD TOPEKA, KS 66604 Fax: 785-271-3116 d.nickel@curb.kansas.gov

#### CERTIFICATE OF SERVICE

16-KCPE-160-MIS

DAVE PACKARD
CHARGEPOINT, INC.
254 EAST HACIENDA AVENUE
CAMPBELL, CA 95008
dave.packard@chargepoint.com

ANNE SMART CHARGEPOINT, INC. 254 EAST HACIENDA AVENUE CAMPBELL, CA 95008 anne.smart@chargepoint.com

SHONDA SMITH
CITIZENS' UTILITY RATEPAYER BOARD
1500 SW ARROWHEAD RD
TOPEKA, KS 66604
Fax: 785-271-3116
sd.smith@curb.kansas.gov

MARY TURNER, DIRECTOR, REGULATORY AFFAIR KANSAS CITY POWER & LIGHT COMPANY ONE KANSAS CITY PL, 1200 MAIN ST 19th FLOOR (64105) PO BOX 418679 KANSAS CITY, MO 64141-9679 Fax: 816-556-2110 mary.turner@kcpl.com TERRI PEMBERTON, ATTORNEY CAFER PEMBERTON LLC 3321 SW 6TH ST TOPEKA, KS 66606 Fax: 785-233-3040 terri@caferlaw.com

DELLA SMITH
CITIZENS' UTILITY RATEPAYER BOARD
1500 SW ARROWHEAD RD
TOPEKA, KS 66604
Fax: 785-271-3116
d.smith@curb.kansas.gov

ROGER W. STEINER, CORPORATE COUNSEL KANSAS CITY POWER & LIGHT COMPANY ONE KANSAS CITY PL, 1200 MAIN ST 19th FLOOR (64105) PO BOX 418679 KANSAS CITY, MO 64141-9679 Fax: 816-556-2787 roger.steiner@kcpl.com

NICOLE A. WEHRY, SENIOR PARALEGAL KANSAS CITY POWER & LIGHT COMPANY ONE KANSAS CITY PL, 1200 MAIN ST 19th FLOOR (64105) PO BOX 418679 KANSAS CITY, MO 641419679 Fax: 816-556-2787 nicole.wehry@kcpl.com

/S/ DeeAnn Shupe
DeeAnn Shupe

EMAILED

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