

**COMMONWEALTH OF KENTUCKY  
BEFORE THE PUBLIC SERVICE COMMISSION**

**In the Matter of:**

**Application of Louisville Gas & Electric Company And )  
Kentucky Utilities Company To Install And Operate )  
Electric Charging Stations In Their Certified Territories, )  
For Approval Of An Electric Vehicle Supply Equipment ) Case No. 2015-00355  
Rider, An Electric Vehicle Supply Equipment Rate, An )  
Electric Vehicle Charging Rate, Depreciation Rate, And )  
For A Deviation From The Requirements Of Certain )  
Commission Regulations )**

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**Direct Testimony of  
Nachy Kanfer  
Deputy Director, Beyond Coal Campaign  
Sierra Club**

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Filed: February 12, 2016

1 **Q. Please state your name, position, and business address.**

2 A. My name is Nachy Kanfer. I am employed by the Sierra Club as Deputy Director for the  
3 East Region of the Beyond Coal Campaign. My business address is 131 N. High St.,  
4 Suite 605, Columbus, OH 43215.

5 **Q. On whose behalf are you testifying?**

6 A. I am testifying on behalf of the Sierra Club, which has a motion for leave to intervene  
7 currently pending before this Commission.

8 **Q. What are your duties and responsibilities in your position?**

9 A. My primary responsibility is to implement the goals, policies, and programs of the Sierra  
10 Club's Beyond Coal Campaign within the East Region, which includes thirteen states  
11 including Indiana, Ohio and Kentucky. I supervise a staff of six Campaign  
12 Representatives in those states and an overall project team of several dozen staff, several  
13 of whom are based here in Kentucky. My duties also include establishing  
14 communication and, where appropriate, coordination and cooperation with other  
15 organizations whose activities relate to the goals, policies, and programs of the Sierra  
16 Club within the Central Region, including electric utilities, alternative energy providers,  
17 state and local governments, the federal government, other environmental organizations,  
18 and consumer and other citizens groups.

19 **Q. Please describe the Sierra Club.**

20 A. The Sierra Club is one of the oldest, largest, and most influential grassroots  
21 environmental organizations in the United States. It was founded on May 28, 1892, in  
22 San Francisco, California, by a group of citizens led by John Muir, who became its first  
23 president. The Sierra Club has hundreds of thousands of members in state-based  
24 chapters located throughout the United States. The Sierra Club chapter in Kentucky,  
25 known as the Cumberland Chapter, has over 5,000 members. The Sierra Club's

1 founders, initial volunteers, and original staff were more commonly known as  
2 “conservationists” or “preservationists” rather than “environmentalists”—they were  
3 committed to conserving or preserving our natural resources as a legacy that each  
4 generation of Americans inherits from its parents and passes on to its children. More  
5 recently, while the Sierra Club has continued its focus on preserving land and  
6 wilderness, the organization has pivoted to devote considerable resources toward  
7 combating climate change. The Club’s Mission Statement reads: “To explore, enjoy, and  
8 protect the wild places of the earth; to practice and promote the responsible use of the  
9 earth’s ecosystems and resources; to educate and enlist humanity to protect and restore  
10 the quality of the natural and human environment; and to use all lawful means to carry  
11 out these objectives.”

12 **Q. Please briefly describe your educational and professional background.**

13 A. I graduated from Yale University in 2006 with a Bachelor of Arts degree, with honors.  
14 My course concentrations were in environmental engineering and policy, international  
15 relations, and Middle Eastern studies. My professional life was originally focused on  
16 international development, particularly in the Middle East. I helped administer a small-  
17 grants program based in Damascus, Syria, supported by the Global Environment Facility  
18 and housed within the United Nations Development Programme, designed to combat  
19 environmental degradation by facilitating and encouraging civic action and investment  
20 at the local level. This was partially supported by a U.S. Fulbright Scholarship. I also did  
21 some advocacy work within the Palestinian Territories related to water quality and  
22 access. In 2008, I returned to the United States to work with the Sierra Club, initially as  
23 an Associate Regional Representative for the state of Ohio and, beginning in 2010, in  
24 my current role. I assumed the title of Deputy Director for the Central Region in 2011,  
25 and recently assumed the title of Deputy Director for the new “East Region” in late

1 2015. As part of my professional development I have spent significant time researching  
2 the implications of increasing the number of electric vehicles in the nation’s vehicle  
3 fleet, as well as the policies that can effectively advance electric vehicle penetration. I  
4 am also an MBA candidate; I am currently enrolled in the Executive MBA program at  
5 the University of Michigan Ross School of Business.

6 **Q. Have you ever previously testified before the Commission?**

7 A. No.

8 **Q. What is the purpose of your testimony in this proceeding?**

9 A. I am offering testimony in this proceeding for three purposes. First, to state Sierra Club’s  
10 support for the Companies’ goal of improving access to charging infrastructure, and to  
11 applaud the Companies for working to accelerate vehicle electrification in the  
12 Commonwealth of Kentucky. Second, to describe the numerous environmental, utility  
13 customer and electricity system benefits of plug-in electric vehicles (“EVs”), and the  
14 policy and design elements necessary to maximize EV adoption and its associated  
15 benefits. Finally, to describe Sierra Club’s position with respect to each of the three  
16 electric vehicle rates proposed by the Companies in their Application.<sup>1</sup> Sierra Club urges  
17 the Commission to carefully consider the Companies’ proposed programs in light of the  
18 benefits we describe, as well as our proposed recommendations. We further encourage  
19 the Commission, should it approve any of these three programs, to require data  
20 collection and data sharing that will allow the benefits of future utility programs to be  
21 maximized and provide for meaningful collaboration with other stakeholders.

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<sup>1</sup> Application of Louisville Gas & Electric Company and Kentucky Utilities Company to Install and Operate Electric Charging Stations In Their Certified Territories, For Approval Of An Electric Vehicle Supply Equipment Rider, An Electric Vehicle Supply Equipment Rate, An Electric Vehicle Charging Rate, Depreciation Rate, And For A Deviation From the Requirements Of Certain Commission Regulations (“Application”).

1 **Q. What other EV infrastructure proceedings has Sierra Club participated in**  
2 **recently?**

3 A. Sierra Club has jointly or individually intervened and/or provided briefing or comments  
4 on these and similar issues in proceedings in a number of states including Missouri, New  
5 York, California, and Connecticut. In California, Sierra Club actively participated in the  
6 proceedings that resulted in approval by the California Public Utilities Commission of  
7 the two largest utility program investments in EV charging infrastructure in the country.<sup>2</sup>

8 **Q. In general, why does the Sierra Club support vehicle electrification and efforts by**  
9 **electric utilities to lower barriers to EV adoption?**

10 A. Sierra Club views widespread transportation electrification as a critical means for the  
11 United States to reduce its reliance on oil, improve air quality, and control the emissions  
12 of greenhouse gases (“GHGs”).<sup>3</sup> Electrification also has the potential to grow the local  
13 economy, reduce electricity rates by increasing grid efficiency and reliability, facilitate  
14 the integration of renewable energy onto the grid, and respond to consumer demand.<sup>4</sup>  
15 Finally, utility companies are uniquely situated to engage in large-scale, strategic and  
16 equitable siting of EV charging infrastructure, to provide outreach and education, and to  
17 engage with all relevant stakeholders in program design, that, if done properly, can  
18 achieve the potential benefits described above.<sup>5</sup>

19 **Can you please elaborate on the necessity of vehicle electrification to achieving air**  
20 **quality and greenhouse gas benefits?**

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<sup>2</sup> See California Public Utilities Commission, Decisions 16-01-045 (Decision Regarding Underlying Vehicle Grid Integration Application and Motion to Adopt Settlement Agreement) and 16-01-023 (Decision Regarding Southern California Edison Company’s Application For Charge Ready and Market Education Programs), available at <http://docs.cpuc.ca.gov/DecisionsSearchForm.aspx>

<sup>3</sup> ICF International and Energy+Environmental Economics, *California Transportation Electrification Assessment, Phase I* at 2, 14, 75 (2014) [hereinafter CalTEA I].

<sup>4</sup> CalTEA I at 38; ICF International and Energy+Environmental Economics, *California Transportation Electrification Assessment, Phase II* at 55-70 (2014) [hereinafter CalTEA II]; Regulatory Assistance Project, *In the Drivers Seat: How Utilities and Consumers Can Benefit From the Shift to Electric Vehicles* (April 2015) at 4-7.

<sup>5</sup> CalTEA I at 49.

1 Yes. Sierra Club’s position is informed by several studies that report on the necessity of  
2 electrification to meet air quality and GHG targets.<sup>6</sup> In the context of California’s GHG  
3 goals, a *Science* article concluded, “after other emission reduction measures were  
4 employed to the maximum extent feasible, there was no alternative to widespread  
5 switching of direct fuel uses (e.g., gasoline in cars) to electricity in order to achieve  
6 (California’s GHG) reduction target.”<sup>7</sup> Similarly, analysis conducted by the Air  
7 Resources Board (ARB), the South Coast Air Quality Management District, and the San  
8 Joaquin Valley Air Pollution Control District demonstrates there is no alternative to the  
9 widespread use of electricity as a transportation fuel if California is to comply with 2023  
10 and 2032 federal air quality standards.<sup>8</sup>

11 Here in Kentucky, since the passage of the Clean Air Act, Jefferson County has  
12 fluctuated between attainment and non-attainment status under the National Ambient Air  
13 Quality Standards for ozone and particulate matter (“PM”).<sup>9</sup> While one major source of  
14 ozone and PM pollution is a fleet of coal-fired power plants that either lack modern  
15 controls for nitrogen oxides (or fail to run them continuously), Jefferson County’s ozone  
16 and PM problem derives primarily from non-point sources – i.e., the internal combustion  
17 engines fueled by gasoline and diesel in conventional cars and trucks. Oscillating  
18 between attainment and non-attainment is a source of uncertainty for businesses. Any  
19 non-attainment designation imposes significant economic costs on the state, the county  
20 and its residents. And of course, a non-attainment status represents an unfortunate reality

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<sup>6</sup> See, e.g., Williams et al., *The Technology Path to Deep Greenhouse Gas Emission Cuts by 2050: The Pivotal Role of Electricity*, *Science* (January 2012); California Council on Science and Technology, *California’s Energy Future* (May 2011).

<sup>7</sup> Williams et al., *The Technology Path to Deep Greenhouse Gas Emission Cuts by 2050: The Pivotal Role of Electricity*, *Science* at 54 (January 2012).

<sup>8</sup> *Vision for Clean Air: A Framework for Air Quality and Climate Planning*, June 27, 2012.

<sup>9</sup> See Current NAAQs status in Louisville, available at <https://louisvilleky.gov/government/air-pollution-control-district/current-naaqs-status-louisville>; James Bruggers, *Louisville on ozone ‘bubble’ with new rules*, *Courier Journal* (October 2015).

1 that the ambient air is not safe to breathe – which imposes additional indirect economic  
2 costs in the form of medical bills, lost work days, and decreased productivity.

3 **Q. Please describe the potential benefits for utility customers and the electricity grid**  
4 **that can result from added EV charging load.**

5 A. As numerous studies make clear, EVs present utilities with a relatively flexible and  
6 manageable load.<sup>10</sup> If charging is managed to occur during off-peak periods, this new  
7 load can be served by existing and often underutilized infrastructure.<sup>11</sup> Similarly, EV  
8 load can be shifted to facilitate the integration of variable generation from renewable  
9 sources.<sup>12</sup> By increasing usage of standing assets, smoothing and shifting loads, and  
10 improving reliability, EV-charging can lower the marginal cost of electricity for all  
11 customers.<sup>13</sup> In short, it can lead to lower bills for participants and non-participants  
12 alike. Analysis performed by the Pacific Northwest National Laboratory shows that  
13 large numbers of EVs charging during off-peak hours could significantly lower the  
14 marginal cost of energy.<sup>14</sup> The same analysis found that there is sufficient spare  
15 generation capacity in the nation’s electric grid to power nearly the entire light-duty  
16 passenger fleet if vehicle load is integrated during off-peak hours and at lower power  
17 levels.<sup>15</sup> However, poorly integrated EV load can undermine these potential benefits. At  
18 high levels of EV penetration, unmanaged demand could strain the existing system,  
19 undermining reliability and driving the need for new generating resources as well as

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<sup>10</sup> See, e.g., Regulatory Assistance Project, *In the Drivers Seat: How Utilities and Consumers Can Benefit From the Shift to Electric Vehicles* at 4-7 (April 2015); CAISO, *California Vehicle-Grid Integration (VGI) Roadmap: Enabling Vehicle-Based Grid Services* (2014); CalTEA I at 19-20.

<sup>11</sup> CalTEA I at 38; CalTEA II at 17.

<sup>12</sup> Regulatory Assistance Project, *In the Drivers Seat: How Utilities and Consumers Can Benefit From the Shift to Electric Vehicles* at 5, 13 (April 2015); CAISO, *California Vehicle-Grid Integration (VGI) Roadmap: Enabling Vehicle-Based Grid Services* at 5. (2014); CalTEA II at 68.

<sup>13</sup> CalTEA II at 65.

<sup>14</sup> Michael Kintner-Meyer, Kevin Schneider, & Robert Pratt, *Impacts Assessment of Plug-in Hybrid Vehicles on Electric Utilities and Regional U.S. Power Grids*, November, 2007.

<sup>15</sup> *Id.*

1 upgraded substations, distribution lines, and transformers, thereby potentially risking  
2 increasing costs for all ratepayers.<sup>16</sup>

3 **Q. How can electric utilities and regulators properly manage and integrate EV load to**  
4 **maximize benefits for utility customers and the electricity grid?**

5 A. Particularly as electric vehicle penetration increases in Kentucky, Sierra Club  
6 recommends a focus on time-variant pricing, outreach and education, and “smart” or  
7 controlled charging. First, there is broad consensus that time-variant pricing is crucial to  
8 incentivizing EV owners to charge their cars at times when demand on the grid is low.<sup>17</sup>  
9 The Department of Energy’s EV Project, which has tracked the charging behavior of  
10 thousands of EVs since 2011, has shown that in areas with time-of-use (“TOU”) rates  
11 and effective utility education and outreach, the majority of EV charging occurs during  
12 off-peak hours.<sup>18</sup> This was not the case in areas without TOU rates, where EV demand  
13 generally peaked in the early evening, exacerbating early-evening system-wide peak  
14 demand.<sup>19</sup> Another option is for the utility to implement technology that allows it to  
15 control the charge to an EV.<sup>20</sup> By modulating electricity levels in real-time or switching  
16 off load completely through the use of advanced Electric Vehicle Support Equipment  
17 (“EVSE”) technology and enhanced utility metering, utilities can prevent EV charging  
18 from worsening peak distribution loads while still meeting EV drivers’ needs.<sup>21</sup>

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<sup>16</sup> See California Public Utilities Commission, Decision 95-11-035 (Utility Involvement in the Market for Low-Emission Vehicles); see generally CalTEA II.

<sup>17</sup> See, e.g., CalTEA II at 19-20; Regulatory Assistance Project, *In the Drivers Seat: How Utilities and Consumers Can Benefit From the Shift to Electric Vehicles* at 4-7 (April 2015); Glazner, *Electric Mobility and Smart Grids: Cost Effective Integration of Electric Vehicles with the Power Grid*, Symposium Energieinnovation (February 2012); Michael Kintner-Meyer, Kevin Schneider, & Robert Pratt, *Impacts Assessment of Plug-in Hybrid Vehicles on Electric Utilities and Regional U.S. Power Grids* (November, 2007).

<sup>18</sup> Schey, et al, *A First Look at the Impact of Electric Vehicle Charging on the Electric Grid*, The EV Project at EVS26 (May 2012).

<sup>19</sup> *Id.*

<sup>20</sup> Regulatory Assistance Project, *In the Drivers Seat: How Utilities and Consumers Can Benefit From the Shift to Electric Vehicles* at 4-7 (April 2015).

<sup>21</sup> *Id.*



1 **Q. How should utility EV programs be structured in order to reduce barriers to EV**  
2 **ownership and accelerate transportation electrification?**

3 A. Several program design elements are necessary for utility EV programs to best serve  
4 current and potential EV drivers, as well as non-participant customers. First, in large-  
5 scale deployments, charging equipment should be located at “long-dwell time”  
6 locations, such as multi-unit dwellings or workplaces.<sup>22</sup> The National Research Council  
7 of the National Academy of Sciences characterizes home charging as a “virtual  
8 necessity” for all EV drivers, and that residences without access to electric vehicle  
9 charging “clearly [have] challenges to overcome to make PEV ownership practical.”<sup>23</sup>  
10 Drivers are very unlikely to purchase an EV if they cannot charge at home.<sup>24</sup> The  
11 National Research Council study also reports that charging at workplaces offers an  
12 important opportunity to increase EV adoption and to increase electric miles driven.<sup>25</sup>  
13 Access to electricity fuel at workplaces reduces “range anxiety,” improves the EV value  
14 proposition, and can facilitate renewable integration.<sup>26</sup> Lack of information is a  
15 significant barrier to greater ownership, and utilities are uniquely poised to inform  
16 customers about the benefits of EV ownership.<sup>27</sup> As such, they should be incentivized to  
17 provide the information. In both siting EVSE and education and outreach, utilities  
18 should seek to serve disadvantaged communities, which, as noted in a 2011 report by  
19 The Greenlining Institute, given their greater concern over air pollution, are a natural but  
20 largely untapped market for EVs.<sup>28</sup> Finally, the use of time-variant pricing to encourage

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<sup>22</sup> CalTEA I at 46-48.

<sup>23</sup> National Research Council of the National Academies of Sciences, *Overcoming Barriers to the Deployment of Plug-in Electric Vehicles*, the National Academies Press at 9 (2015).

<sup>24</sup> See Adam Langton and Noel Crisotomo, *Vehicle-Grid Integration*, California Public Utilities Commission at 5 (October 2013).

<sup>25</sup> National Research Council of the National Academies of Sciences, *Overcoming Barriers to the Deployment of Plug-in Electric Vehicles*, the National Academies Press at 9 (2015).

<sup>26</sup> *Id.*

<sup>27</sup> CalTEA I at 49, 59.

<sup>28</sup> C.C. Song, *Electric Vehicles; Who’s Left Stranded?*, The Greenlining Institute at 4 (August, 2011).

1 charging during off-peak, low-cost periods can lower EV drivers' fuel costs.<sup>29</sup> A survey  
2 of over 16,000 California PEV drivers reveals that "saving money on fuel costs" is the  
3 single most important decision factor driving PEV purchases.<sup>30</sup>

4 **Q. You have identified several ways in which utility-driven deployment of**  
5 **infrastructure can be beneficial. Are there any potential drawbacks to utility**  
6 **involvement in the EV charging and service provider market?**

7 A. As monopolies and regulated entities with a guaranteed rate of return on many  
8 investments, utilities have incumbent advantages as a participant in the EV service  
9 provider market. In California, Massachusetts, Oregon and elsewhere, this potential for  
10 unfair competition has been well-documented before the public utility commissions.<sup>31</sup> In  
11 each, utilities must demonstrate that ownership will not negatively impact the private  
12 market and hamper innovation.<sup>32</sup> Sierra Club does not take a position here on the  
13 appropriate nature and level of EV charging infrastructure ownership, but notes that  
14 innovation and market competition can be protected through several means, including  
15 for example: restrictions on which EV charging infrastructure components the utility is  
16 permitted to own as regulated assets, limitations on utility cost recovery for EVSE, and  
17 restrictions on the number of charging stations a utility may own in a given territory.  
18 Market competition may be further protected through equipment procurement policies  
19 that ensure a market for multiple EV service providers, close Commission oversight of  
20 the interconnection process to ensure neutrality between utility and private projects, and

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<sup>29</sup> CalTEA II at 19.

<sup>30</sup> Center for Sustainable Energy, *California Plug-in Electric Vehicle Owner Survey Dashboard*, available at <https://cleanvehiclerebate.org/eng/survey-dashboard>.

<sup>31</sup> See, e.g., *California Public Utilities Commission, Decision 14-12-079* (Phase 1 Decision Establishing Policy to Expand the Utilities' Role in Development of Electric Vehicle Charging Infrastructure); Massachusetts Department of Utilities, Decision 13-182-A (Order on Department Jurisdiction over Electric Vehicles, The Role of Distribution Companies in Electric Vehicle Charging and Other Matters).

<sup>32</sup> *Id.*

1 requiring site hosts to pay for part of the cost of EVSE, whether or not it is utility-  
2 owned.<sup>33</sup>

3 **Q. Please describe Sierra Club’s position with respect to the Rate Electric Vehicle**  
4 **Charging (“EV-C”) program.**

5 A. Sierra Club generally supports the Companies’ proposed plans to deploy, own, operate  
6 and maintain up to 10 charging stations in each of their service territories. The total  
7 number of chargers is relatively small, and should allow the Companies and  
8 Commission to gain experience and gather data relating to infrastructure deployment,  
9 siting, station utilization, and load profile, all without risking adverse impact to the  
10 electricity grid and market for electric vehicle service providers. However, in order to  
11 secure the benefits of EVs for all customers, and to ensure the benefits of a competitive,  
12 innovative EV charging market for all customers, a larger program, particularly one with  
13 end-to-end utility ownership as with EV-C, needs to be carefully structured as identified  
14 above in order to deliver and maximize benefits for utility customers, EV drivers, the  
15 grid, and environment. Sierra Club also has recommendations to improve the EV-C  
16 program. In data responses, the Companies note that the EV-C rate will not be posted on  
17 stations.<sup>34</sup> We note that, in the case of gasoline sales, there is near-perfect price  
18 transparency—the price of fuel is clearly displayed and easily translated into added  
19 vehicle range. We suggest that the stations clearly state the hourly pricing, and kWh  
20 added, with a conversion to miles. In order for the Companies, Commission, and  
21 stakeholders to “learn by doing,” we suggest the Companies collect data for filing with  
22 the Commission on the utilization of EVSE, strategic placement of EVSE, surveys on  
23 customer reasons for EV adoption, and, should the Commission approve the Companies’

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<sup>33</sup> California Public Utilities Commission, Decisions 16-01-045 (Decision Regarding Underlying Vehicle Grid Integration Application and Motion to Adopt Settlement Agreement).

<sup>34</sup> Case No. 2015-0035, Response to Commission Staff’s First Request for Information, Witness David Huff, Question No. 4. (Filed December 9, 2015); Case No. 2015-0035, Response to Commission Staff’s Second Request for Information, Witness David Huff, Question No. 4. (Filed January 25, 2016).

1 other proposed programs—Rate Electric Vehicle Supply Equipment Rider and Rate  
2 Electric Vehicle Charging—a comparison of utilization and pricing between them. At  
3 present, there is limited data currently available to understand consumer willingness to  
4 pay for charging away from home.<sup>35</sup>

5 **Q. Please explain Sierra Club’s position with respect to the Rate Electric Vehicle**  
6 **Supply Equipment Rider (“EVSE-R”) and Rate Electric Vehicle Supply**  
7 **Equipment (“EVSE”).**

8 A. Sierra Club recommends the Commission undertake a close analysis of the EVSE-R and  
9 EVSE with respect to the elements outlined above. The goal of these programs,  
10 according to the Companies, is to provide a “turnkey” solution for commercial site hosts  
11 that wish to install EVSE, but lack the technical expertise to install it.<sup>36</sup> The Companies  
12 state that site hosts will be able to install equipment “without the burden of selecting  
13 equipment, negotiating contracts, or addressing other logistical concerns.”<sup>37</sup>  
14 Additionally, the Companies note that “given the wide variety of reasons for requesting  
15 the installation of a charging station, the Companies are unable to estimate the number  
16 of charging station hosts.”<sup>38</sup> Thus, the EVSE-R and EVSE programs appear to provide  
17 for cost-competitive utility deployment and ownership of EVSE, with at least a partial  
18 rate of return, without stated limitation as to number.<sup>39</sup> In addition, site hosts may take  
19 electricity on a variety of commercial rates, and also may charge additional fees for  
20 service, resulting in a lack of price transparency and uniformity that may frustrate EV  
21 drivers. We therefore urge the Commission to carefully consider the potential impacts

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<sup>35</sup> CalTEA I at 53.

<sup>36</sup> Case No. 2015-0035, Response to Commission Staff’s Second Request for Information, Witness David Huff, Question No. 2. (Filed January 25, 2016).

<sup>37</sup> *Id.*

<sup>38</sup> Case No. 2015-0035, Direct Testimony of Witness David Huff, page 5, lines 13-14 (Filed November 13, 2015).

<sup>39</sup> We recognize that the EVSE-R and EVSE are limited, however, “to non-residential customers.” Case No. 2015-0035, Direct Testimony of Witness Richard Lovekamp, page 2, line 14 (Filed November 13, 2015).

1 on the private EV service provider market, on incentivizing EV adoption, and on the  
2 importance of price signals that we have identified above. We also note that because the  
3 equipment deployments at EVSE and EVSE-R installations will not be separately  
4 metered, the utility's stated goal of collecting information to "better gauge and  
5 understand customer preferences, and to assess the potential market for broader  
6 deployment of charging stations," may be difficult to achieve.<sup>40</sup>

7 **Q. Does this conclude your testimony?**

8 A. Yes.

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<sup>40</sup> Case No. 2015-0035, Direct Testimony of Witness David Huff, page 3, lines 8-12 (Filed November 13, 2015).