## BEFORE THE PUBLIC UTILITIES COMMISSION OF THE STATE OF CALIFORNIA



08/09/18 04:59 PM

Application of Southern California Edison Company (U338E) for Approval of its Charge Ready 2 Infrastructure and Market Education Programs.

Application 18-06-015

## PROTEST OF THE OFFICE OF RATEPAYER ADVOCATES TO THE APPLICATION OF SOUTHERN CALIFORNIA EDISON COMPANY (U 338-E) FOR APPROVAL OF ITS CHARGE READY 2 INFRASTRUCTURE AND MARKET EDUCATION PROGRAMS

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August 9, 2018

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## I. INTRODUCTION

Pursuant to Rule 2.6 of the California Public Utilities Commission's (Commission) Rules of Practice and Procedure, the Office of Ratepayer Advocates (ORA) protests Southern California Edison Company's (SCE) Application (A.) 18-06-015 (Application), which seeks Commission authorization to establish and implement Phase 2 of its Charge Ready Program pursuant to Decision (D.) 16-01-023. In its Phase 2 Program, SCE requests to own, install, and maintain the make-ready infrastructure for 32,000 Level 1 and 2 electric vehicle supply equipment (EVSE) ports. Of the 32,000 ports SCE proposes to own, install, maintain, and operate the EVSE for up to 4,230 ports at multi-unit dwellings (MUDs) and "government locations".<sup>1</sup> SCE also proposes to provide New Construction Rebates for up to 16,000 EVSE ports installed in newly constructed MUDs. SCE also requests funding to implement a marketing, education and outreach (ME&O) program. SCE requests a total of \$760 million for the Phase 2 Charge Ready and ME&O programs.

#### II. BACKGROUND

On January 14, 2016, the Commission approved SCE's Charge Ready Phase 1 Pilot Program (A.14-10-014) in D.16-01-023 ("Phase 1 Decision").<sup>2</sup> SCE was authorized \$22

<sup>&</sup>lt;sup>1</sup> SCE does not provide a definition for the term "government locations", but also uses the term "government entities" in the Application. SCE should define these terms to set clear eligibility criteria for these participants and for evaluation by the Commission and parties as to their appropriateness.

<sup>&</sup>lt;sup>2</sup> D.16-01-023, p. 2.

million to deploy 1,500 EVSEs at workplaces, fleets, MUDs, and destination centers.<sup>3</sup> The Phase 1 Decision directed SCE to "file and serve a pilot report to provide Phase 1 data, and recommend any necessary changes to Phase 2,<sup>4</sup> after at least 12 months of program implementation and at least 1,000 charging station installations, but in any event, within 24 months of program implementation."<sup>5</sup> On April 2, 2018, SCE submitted its Charge Ready Pilot Program Report (Pilot Report), after meeting both the requirements of "at least 12 months of program implementation, and at least 1,000 charging station installations."<sup>6</sup> An amended version of the Pilot Report was submitted on July 13, 2018.

Prior to submitting the Pilot Report, on March 5, 2018, SCE submitted a Petition for Modification (PFM) of its Phase 1 Pilot. In the PFM, SCE requested an additional \$22 million to bridge the gap between SCE's Phase 1 Pilot and approval of the proposed Phase 2 Program.<sup>7</sup> In ORA's response to the PFM, ORA recommended that if the Commission approves the bridge funding, the amount authorized would be reduced from SCE's Phase 2 Program budget.<sup>8</sup> The Commission has not issued a decision on the PFM as of the date of this filing.

#### III. SUMMARY OF ORA'S PROTEST

ORA identified twelve preliminary issues regarding SCE's proposed Phase 2 Program. This list is not exhaustive and ORA may identify additional issues that require further discovery and analysis as the proceeding develops. The preliminary issues are as follows:

- Whether SCE's proposed number of minimum ports per site would hinder the program's vehicle electrification goals.
- Whether SCE ownership of EVSE is necessary to increase participation by MUDs and government agencies.
- Whether SCE's ME&O program budget is too large for a successful Phase 2 program and whether the scope of the ME&O activities is relevant to promote the goals of the Phase 2 Program.

<sup>&</sup>lt;sup>3</sup> D.16-01-023, p. 5.

<sup>&</sup>lt;sup>4</sup> D.16-01-023, p. 2.

<sup>&</sup>lt;sup>5</sup> D.16-01-023, p. 60, Ordering Paragraph 6.

<sup>&</sup>lt;sup>6</sup> D.16-01-023, p. 60, Ordering Paragraph 6.

<sup>&</sup>lt;sup>7</sup> PFM, p. 2.

<sup>&</sup>lt;sup>8</sup> Id.

- Whether SCE should prioritize "traditional" MUD installations.
- Whether the Phase 2 Program size is too large and inconsistent with the Commission's direction in D.16-01-023.
- Whether SCE's cost estimates are reasonable and incorporate cost saving strategies learned from Phase 1.
- Whether SCE's proposed disadvantaged communities installation goal of 30% is too low.
- Whether SCE's proposed 5-year maintenance requirement is adequate to avoid stranded assets.
- Whether SCE appropriately incorporates lessons learned from the Phase 1 Pilot to address customer withdrawals.
- Whether SCE's proposal to include direct current fast charger ports as part of the rebate program is appropriate.
- Whether SCE adequately addresses the potential grid impacts from the Phase 2 program.
- Whether SCE included sufficient information on how emissions benefits were quantified.

## **IV. DISCUSSION**

#### A. SCE's Program-Wide Reduction in the Minimum Ports per Site May Hinder, Rather than Help, the Program's Vehicle Electrification Goals and Make the Program More Costly

The Phase 1 Pilot had a minimum port requirement of 5 ports per site in disadvantaged communities (DACs) and 10 ports per site in non-DACs.<sup>9</sup> For Phase 2, SCE proposes to reduce this requirement because SCE claims Phase 1 data shows that "for some customers, the ten-charge-port minimum requirement coupled with the maximum percentage of parking lots that could be converted was a significant barrier to program participation."<sup>10</sup> SCE proposes to reduce the minimum port requirements for both DACs and non-DACs to 2 ports.<sup>11</sup>

<sup>&</sup>lt;sup>9</sup> Amended Final Charge Ready Pilot Program Report, pp. 16, 31.

<sup>&</sup>lt;sup>10</sup> SCE Prepared Testimony, p. 39.

<sup>&</sup>lt;sup>11</sup> SCE Prepared testimony, p. 15.

Sites with fewer ports incur higher per port costs due to lack of economies of scale for fixed costs.<sup>12</sup> For example, SCE reported that sites with 10-18 ports have an average cost per port of \$15,354, while sites with only 5 ports have an average cost per port of \$23,722 (2014 dollars), a cost increase of over 50%.<sup>13</sup> Reducing the minimum port requirement to 2 may further increase the cost per port. In addition, reducing the minimum number of ports results in fewer electric vehicles (EVs) being able to charge at a particular site, therefore, potentially limiting the program's vehicle electrification goals of 48,000 EVs.<sup>14</sup> As more EVs are placed on California roads, this could create the need for additional and costly sites that serve only a limited number of EVs. In light of this, the Commission should further evaluate whether SCE's proposed minimum number of ports should be greater than 2 ports per site.

#### B. SCE Has Not Shown How Utility Ownership Achieves Greater Participation by MUDs and Government Agencies Compared to the Make-Ready Model That Has Less Ratepayer Burden

As proposed, Phase 2 provides MUDs and governmental agencies the option to have SCE own the charging ports(s).<sup>15</sup> SCE ownership at these locations would be capped at 4,230 ports.<sup>16</sup> SCE cites unwillingness of MUD owners to pay for site upgrades and delays in the government procurement as reasons to target these two sectors with utility ownership.<sup>17</sup> SCE also expects utility ownership to allow SCE to more easily deploy charging ports at street-side parking spaces close to MUDs.<sup>18</sup>

SCE's Phase 2 Program already provides large-scale incentives for charging ports in MUDs by proposing 16,000 "New Construction Rebates" for recently constructed MUDs, which is one third of the entire Phase 2 Program.<sup>19</sup> There is nothing to suggest that additional support is needed through utility ownership to encourage participation at new MUDs. In addition, the Commission should evaluate further whether utility ownership at older MUDs is needed to increase participation

<sup>&</sup>lt;sup>12</sup> Amended Final Charge Ready Pilot Program Report, p. 35.

<sup>&</sup>lt;sup>13</sup> See SCE's February 28<sup>th</sup> Charge Ready Advisory Board Meeting Presentation, Slide 8.

<sup>&</sup>lt;sup>14</sup> SCE Prepared Testimony, p. 10.

<sup>&</sup>lt;sup>15</sup> SCE Prepared Testimony, p. 50.

<sup>&</sup>lt;sup>16</sup> Id.

<sup>&</sup>lt;sup>17</sup> SCE Prepared Testimony, p. 51.

<sup>&</sup>lt;sup>18</sup> SCE Prepared Testimony, pp. 9, 52.

<sup>&</sup>lt;sup>19</sup> SCE Prepared Testimony, p. 32.

or whether there are less costly options. Moreover, the problem of low participation among government agencies due to alleged delays may be irrelevant in Phase 2. The longer 4-year Phase 2 program length may be sufficient to allow participation from government agencies whose procurement processes might have prevented these agencies from participating in the shorter Phase 1 pilot.<sup>20</sup> The Commission should evaluate whether utility ownership is needed to increase participation by MUDs and government agencies.

## C. SCE's ME&O Program Budget May Be Too Large For A Successful Phase 2 Program And The Scope Of The ME&O Activities May Not Be Relevant to Promote The Goals Of The Phase 2 Program

SCE requests \$41.5 million to support a ME&O program to promote its Phase 2 Program.<sup>21</sup> It is unclear whether the \$41.5 million ME&O budget is warranted, and whether certain portions of the ME&O program are relevant to the program goals. For example, the ME&O budget would help customers learn about and apply for EV program grants, including grants to acquire medium- and heavy-duty EVs.<sup>22</sup> However, the Phase 2 program is aimed at installing L1, L2, and direct current fast chargers (DCFC) chargers for light-duty vehicles.

In addition, the ME&O budget would support online self-service tools in order to provide more in depth education on EVs.<sup>23</sup> However, highly detailed third-party tools already exist that allow customers to compare their existing vehicle with an equivalent EV, and learn the pros and cons of electrifying.<sup>24</sup> The Commission should determine whether the ME&O budget should be reduced to ensure the activities it supports are relevant and necessary to promote a successful Phase 2 program.

<sup>&</sup>lt;sup>20</sup> SCE Response to ALJ Ruling for Additional Information for SCE's PFM Question 1a states that Phase 1 began accepting applications on May 27, 2016. SCE submitted its PFM on March 5, 2018, after exhausting nearly all of its Phase 1 funding. Therefore, SCE's Phase 1 lasted approximately 2 years, compared to the planned 4 years for Phase 2.

<sup>&</sup>lt;sup>21</sup> SCE Prepared Testimony, p. 74, Table III-4.

<sup>&</sup>lt;sup>22</sup> SCE Prepared Testimony, pp. 69-70.

<sup>&</sup>lt;sup>23</sup> Id.

<sup>&</sup>lt;sup>24</sup> For example, Lawrence Berkeley National Lab's My Green Car app tracks every mile a potential customer drives, and indicates points along the customer's normal driving pattern where different EV models may face range anxiety.

#### D. SCE Has Not Demonstrated That "Traditional" MUD Installations Should Be Prioritized

SCE's Phase 1 Pilot experienced low participation from MUDs, with only 35 MUD ports installed (3% of total ports installed in the Phase 1 Pilot).<sup>25</sup> However, it is unclear whether traditional MUD installations (i.e., charging port installations for existing MUDs that are not required to install infrastructure to partially support public charging) should be prioritized because residential EV charging is expected to decline from approximately 88%<sup>26</sup> to 83% in 2020, and 75% by 2030.<sup>27</sup> This shift away from residential charging may lead to stranded assets. The Commission should evaluate the appropriate level of traditional MUD installations to avoid or mitigate stranded assets.

## E. More Information Is Needed To Determine Whether The Phase 2 Program Is Adequately Sized

SCE requests ratepayer funds to support up to 48,000 ports.<sup>28</sup> SCE does not provide adequate justification for the program size. For example, it is not clear how the number of ports was derived,<sup>29</sup> what data supports the proposed program size, or why SCE is proposing 18,000 more ports than it originally proposed for Phase 2 in its Phase 1 application.<sup>30</sup> Further, SCE's finding that more than 7 million EVs are needed on the road by 2030 to meet the state's GHG goals is inconsistent with the Governor's Executive Order B-48-18, which targeted 5 million zeroemission vehicles on the road by 2030.<sup>31</sup> SCE does not provide a detailed analysis to explain this discrepancy and does not clearly describe a correlation between the proposed program size with the study's determined EV needs in SCE's service territory. SCE's program should be further analyzed to determine an appropriate program size.

<sup>&</sup>lt;sup>25</sup> Amended Final Charge Ready Pilot Program Report, p. 14.

<sup>&</sup>lt;sup>26</sup> As assumed in SCE's Electric Vehicle Charging Infrastructure Needs Assessment, p. C-3.

<sup>&</sup>lt;sup>27</sup> SCE Electric Vehicle Charging Infrastructure Needs Assessment, p. C-2.

<sup>&</sup>lt;sup>28</sup> SCE Prepared Testimony, pp. 10-11.

<sup>&</sup>lt;sup>29</sup> SCE describes that it used "internal modeling and a series of census data points to scale the total forecasted infrastructure need to an achievable target for Charge Ready 2." SCE Prepared Testimony Appendix D, p. D-1.

<sup>&</sup>lt;sup>30</sup> Decision 16-01-023 in describing SCE Phase 1 Application 14-01-014, p. 2.

<sup>&</sup>lt;sup>31</sup> SCE Prepared Testimony, pp. 17-18.

#### F. SCE's Phase 2 Program Cost Estimates Should Be Further Evaluated To Determine If They Are Reasonable and If SCE Incorporates Cost Saving Strategies From Phase 1 into the Phase 2 Program

SCE proposes a significant budget of \$760 million and does not appear to incorporate cost savings strategies learned from Phase 1.<sup>32</sup> Specifically, SCE does not provide information to determine whether per site costs remain the same from Phase 1. Further, in some cases costs are higher per site due to the reduced port minimum from 10 to 2 ports.<sup>33</sup> SCE discusses the benefits of transportation electrification but does not weight those benefits against the costs of this particular infrastructure program.<sup>34</sup> The Commission should evaluate whether SCE's program costs are excessive and unreasonable.

## G. The Proposed DAC Target May Be Too Low

SCE proposes a Phase 2 commitment of 30% for EVSE installations in DACs.<sup>35</sup> However, SCE states in its Application that it made 50% of all its Phase 1 EVSE installations in DACs despite having a target of only 10%.<sup>36</sup> If SCE was able to make 50% of all installations in DACs, while only targeting 10%, a 30% target for Phase 2 may be too low.

# H. SCE's Reduction of the Maintenance Requirement From 10 To 5 Years May Not Be Adequate To Mitigate Stranded Assets

In its Application, SCE states that customers participating in Phase 2 will be responsible for "procuring, installing, and maintaining its charging stations in good working order five years after the initial installation."<sup>37</sup> This is a change from Phase 1 where customers were required to maintain the EVSE for 10 years.<sup>38</sup> SCE appears to base this modification solely on feedback from participating customers, but provides no details regarding the number of customers providing this feedback, whether the 10-year requirement was a barrier to participation, or other necessary details to evaluation to reasonableness of this modification.<sup>39</sup> Furthermore, the useful life of EVSE is

<sup>&</sup>lt;sup>32</sup> SCE Prepared Testimony, p. 93.

<sup>&</sup>lt;sup>33</sup> SCE Prepared Testimony, p. 15.

<sup>&</sup>lt;sup>34</sup> SCE Prepared Testimony, p. 87.

<sup>&</sup>lt;sup>35</sup> SCE Charge Ready 2 Application, p. 10.

<sup>&</sup>lt;sup>36</sup> SCE Charge Ready 2 Application, p. 13.

<sup>&</sup>lt;sup>37</sup> SCE Charge Ready 2 Testimony, p. 34

<sup>&</sup>lt;sup>38</sup> SCE Charge Ready 2 Testimony, p. 34

<sup>&</sup>lt;sup>39</sup> SCE Charge Ready 2 Testimony, p. 34

typically cited to be at least 10 years with the potential for systems to last much longer with consistent maintenance.<sup>40</sup> Since ratepayers are paying for the EVSE via rebates, there is a risk of stranded assets if the participant does not maintain the EVSE for the reasonably expected life of the equipment. The Commission should evaluate whether a 5-year maintenance agreement is reasonable and whether it adequately mitigates the risk for stranded assets.

#### I. SCE's Proposal May Not Appropriately Incorporate Lessons Learned from the Phase 1 Pilot to Address Customer Withdrawals

In its Phase 1 Pilot Report, SCE identified the problem of customers withdrawing from the Phase 1 Pilot after SCE had already incurred ratepayer funded costs for their projects.<sup>41</sup> To address this issue, SCE recommended requiring a deposit from customers and focusing on communicating termination fees in order to mitigate this problem.<sup>42</sup> However, SCE did not incorporate this recommendation or propose another solution in its Phase 2 application. The Commission should explore whether a deposit or other solution should be required for Phase 2 to address this issue.

# J. Rebates For DCFC May Be Inappropriate

In its Application, SCE proposes to install DCFC ports at select sites if the following criteria are satisfied: (1) the installation is at a site already undergoing construction for L1 and/or L2 installations and (2) the station is open to the public.<sup>43</sup> SCE proposes to offer larger rebates on qualified DCFC stations than it will offer for L1/L2 stations.<sup>44</sup> Whether DCFC should be part of this program and, if so, what the appropriate rebate amount should be, requires further evaluation.

# K. The Commission Should Ensure SCE's Program Addresses Potential Grid Impacts

While SCE mentions potential grid management techniques related to EV charging in its application, it does not explain the potential impacts to grid resiliency due to increased electric load from vehicle charging. Specifically, SCE discusses potential benefits from EV charging (e.g., load-shifting, and fixed cost recovery), but includes no further information on the potential grid impacts in the face of large increases in load demand that could result from the Phase 2

<sup>&</sup>lt;sup>40</sup> U.S. Dept. of Energy, Costs Associated with Electric Vehicle Supply Equipment, (Nov. 2015), *available at* https://www.afdc.energy.gov/uploads/publication/evse\_cost\_report\_2015.pdf.

<sup>&</sup>lt;sup>41</sup> SCE Charge Ready 2 Testimony, p. A-17.

<sup>&</sup>lt;sup>42</sup> SCE Charge Ready 2 Testimony, p. A-17.

<sup>&</sup>lt;sup>43</sup> SCE Charge Ready 2 Testimony, p. 41.

<sup>&</sup>lt;sup>44</sup> SCE Charge Ready 2 Testimony, p. 33.

Program. This information should be part of the record and evaluated by the Commission and other parties.

#### L. SCE Should Explain How Its Estimated Emissions Abatements Were Quantified

While SCE emphasizes that the Phase 2 Program will help California achieve its GHG emissions goals, it is less clear how the emission abatement methodology was quantified. For instance, SCE cites data from the California Air Resource Board that the total GHG emissions must be reduced more than 3 times their annual average rate (taken over 2004-2015) by 2050 to meet the state's climate goals. However, SCE provides little substantive detail on which specific vehicles are contributing to GHG emissions or how they should be differently targeted. Moreover, while SCE considered marginal costs, feasibility, and abatement potential per technology, it is unclear how those costs and feasibilities were quantified.<sup>45</sup> Since the 7 million vehicles proposed by SCE is more than the 5 million set by the governor, it is critical to understand SCE's reasoning and methodology for setting this higher vehicle target.

# V. PROCEDURAL ISSUES

# A. CATEGORY

ORA agrees with SCE that this proceeding should be categorized as ratesetting.

## **B. NEED FOR HEARINGS**

ORA agrees with SCE that the need for hearings will be in part based on parties' protests. ORA anticipates that hearings may be necessary to address the issues ORA raises in this protest or to address the issues raised in other parties' protests.

# C. PROPOSED SCHEDULE

SCE provides a proposed schedule in its Application, with significant dates including intervenor testimony due September 17<sup>th</sup>, 2018 and a Proposed Decision issued by April of 2019. SCE proposes an extensive budget of over \$760 million dollars with potentially immense consequences for ratepayers. To ensure adequate time for parties to conduct discovery and develop testimony, ORA proposes an alternative schedule as set forth below.

Procedural Event	ORA Proposed Date	SCE proposed Date <sup>46</sup>
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<sup>&</sup>lt;sup>45</sup> SCE Charge Ready 2 Testimony, p. B-17.

<sup>&</sup>lt;sup>46</sup> SCE Charge Ready 2 Application, pp. 15-16.

Application Filed	June 26, 2018	June 26, 2018
Protest Due	August 9, 2018	Approximately July 27, 2018
Reply to Protest	August 20, 2018	Approximately August 6, 2018
Prehearing Conference	September 10 2018	August 13, 2018
Intervenor Testimony	November 9, 2018	September 17, 2018
		October 15, 2018
Rebuttal Testimony	December 14, 2018	000000115,2010
Evidentiary Hearings	January 21-25, 2018	November 13 through 16, 2018
Concurrent Opening	Junuary 21 23, 2010	December 2018
Briefs	6 weeks from end of hearings	
Concurrent Reply	4 weeks from opening briefs	January 2019
Proposed Decision	July 2019	April 2019

# V. CONCLUSION

ORA recommends that:

- 1. The scope of this proceeding includes, but not be limited to, the issues identified in this protest;
- 2. The Commission establish a reasonable schedule for this proceeding that includes adequate time for discovery, testimony preparation, evidentiary hearings, and briefing; and
- 3. This proceeding be categorized as ratesetting.

Respectfully submitted,

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