

Decision 13-06-014 June 27, 2013

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

Order Instituting Rulemaking on the Commission's own motion to consider alternative-fueled vehicle tariffs, infrastructure and policies to support California's greenhouse gas emissions reduction goals.

Rulemaking 09-08-009  
(Filed August 20, 2009)

**DECISION AUTHORIZING SHORT-TERM EXTENSION OF LIMITED PROVISIONS REGARDING ELECTRIC TARIFF RULES 15 AND 16**

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**DECISION AUTHORIZING SHORT-TERM EXTENSION OF LIMITED PROVISIONS REGARDING ELECTRIC TARIFF RULES 15 AND 16**

**1. Summary**

This decision extends through June 30, 2016 the “common facility treatment” for residential Plug-In Electric Vehicle charging-related distribution costs in excess of the Rules 15 and 16 allowances, a cost allocation policy referred to as the Common Treatment for Excess Plug-in Electric Vehicles Charging Costs.

This policy was initially adopted by the Commission Decision 11-07-029 which directed that all utility distribution system upgrade costs should be treated as common facility. During 2011 and 2012, it is estimated that these costs totaled \$34,430 across all three electric investor-owned utilities.<sup>1</sup>

Today’s decision also directs Pacific Gas and Electric Company, San Diego Gas & Electric Company and Southern California Edison Company to perform certain electric vehicle-related load research to help parties and the Commission understand the distribution upgrade costs.

This proceeding remains open.

**2. Background**

The Commission initiated this rulemaking proceeding in August 2009 as part of its efforts to ready the electric infrastructure for light-duty passenger plug-in hybrid electric vehicles and battery electric vehicles (collectively “plug-in electric vehicles” or “PEV”). The Commission has adopted two decisions in the proceeding: Decision (D.) 10-07-044 and D.11-07-029. These decisions concluded phase 1 and phase 2 of this proceeding, respectively.

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<sup>1</sup> Joint PEV Load Research Reports, December 28, 2012 at 8.

In phase 3 of this proceeding, the Commission directed Pacific Gas and Electric Company (PG&E), San Diego Gas & Electric Company (SDG&E) and Southern California Edison Company (SCE) to make three joint compliance filings, including a notification assessment report, load research report and submetering protocol.

In D.11-07-029, the Commission addressed residential service facility upgrade costs triggered by home-based electric vehicle charging. The Commission found that electric vehicle load is a new and permanent load as defined under Electric Tariff Rule 15 (Distribution Line Extensions) and Rule 16 (Service Extensions).<sup>2</sup> The Commission also determined that on an interim basis facility upgrade costs associated with electric vehicle chargers at residential sites would be treated as a common facility, rather than a cost paid by the individual customer. This treatment thereby shifts these costs to all residential ratepayers.

This treatment was applied to “basic” charging arrangements, which the Decision defined as “intended, generally, to encompass Level 1 and Level 2 charging.”<sup>3</sup> In adopting this cost allocation policy, the Commission relied, in part, on Pub. Util. Code § 740.2(a), which requires that the Commission implement “infrastructure upgrades necessary for widespread use” of PEVs. The Commission also relied on the state’s efforts to reduce greenhouse gas emissions.<sup>4</sup> The Commission adopted this cost allocation policy, referred to

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<sup>2</sup> D.11-07-029 at 54.

<sup>3</sup> D.11-07-029 at 59. Level 1 and Level 2 charging standards refer to SAE standard charging voltage levels for alternating current (AC) charging (120 and 240 volts, respectively).

<sup>4</sup> D.11-07-029 at 54.

today as the Common Treatment for Excess PEV Charging Costs, on a temporary basis. As set forth in D.11-07-029, this policy is set to expire on June 30, 2013.

To assist the Commission in better understanding the costs associated with the Common Treatment for Excess PEV Charging, D.11-07-029 directed the utilities to collect data on the distribution upgrade costs associated with residential PEVs beginning in 2012. The purpose of this data was, and continues to be, to support the development of new policies to assign the upgrade costs associated with PEVs.

The utilities reported upgrade cost data to the Commission in December 2012 as part of their Joint PEV Load Research Reports.<sup>5</sup> The data collected in the load research report, which covered an estimated 17,000 vehicles in the three utilities' service territories, suggests that costs for charging rarely exceed the traditional upgrade allowance.<sup>6</sup> In particular, of 6,306 residential "infrastructure checks" completed by the three utilities, only 22 customers (0.3%) required facility upgrades and of these, only five upgrades (0.1% of total infrastructure checks) had costs exceeding the existing Electric Tariff Rules 15 and 16 allowances.<sup>7</sup>

Due to the approaching expiration date of June 30, 2013 for this temporary policy that provides Common Treatment for Excess PEV Charging Costs, the

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<sup>5</sup> Joint PEV Load Research Reports filed by Advice Letters on October 1, 2012 and December 28, 2012.

<sup>6</sup> R.09-08-009 March 25, 2013 Assigned Commissioner's Ruling at 6.

<sup>7</sup> In the March 15, 2013 assigned Commissioner's Ruling, the number of residential "infrastructure checks" was reported as 5,906. The correct number, according to the December 28, 2012 report is 6,306. The term "infrastructure check" refers, generally, to the utility's evaluation of the ability of the distribution system to support additional plug-in electric vehicle load.

assigned Commissioner sought additional information from parties in a ruling dated March 25, 2013 to consider the benefits, if any, of extending this cost allocation policy for an additional limited period of time.

In a March 25, 2013 ruling, the assigned Commissioner asked parties to address the following two questions:<sup>8</sup> (1) regarding how shared upgrade costs should be treated after June 30, 2013, should the current upgrade allowance associated with PEVs be continued, and if so, for how long and (2) what additional analysis is needed in order to better understand costs associated with residential service facility upgrades.<sup>9</sup> A summary of the responses to these questions is found below.

### **3. Summary of Comments**

On April 9, 2013, eleven parties filed comments to the assigned Commissioner's ruling including, PG&E, SCE, SDG&E, California Center for Sustainable Energy (CCSE), Division of Ratepayer Advocates (DRA), The Utility Reform Network (TURN), Electric Vehicle Service Provider Coalition (EVSP Coalition), NRG Energy, Inc. (NRG), Recurrent Energy (Recurrent), and a joint filing by Green Power Institute and Community Environmental Council (GPI & CEC). The Administrative Law Judge (ALJ) accepted late-filed comments by the Natural Resources Defense Council (NRDC) on April 15, 2013. On April 19, 2013, seven parties filed reply comments, including, PG&E, SCE, SDG&E, National Electrical Manufacturer's Association, TURN, NRDC, and GPI & CEC.

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<sup>8</sup> R.09-08-009 March 25, 2013 Assigned Commissioner's Ruling.

<sup>9</sup> R.09-08-009 March 25, 2013 Assigned Commissioner's Ruling at 7.

In these comments, the parties generally recommend one of three options on how to treat the allowance for distribution upgrade costs associated with PEVs after June 30, 2013. These options include the following:

- (1) discontinue the Common Treatment for Excess PEV Charging Costs upon expiration on June 30, 2013 because existing allowances under Rules 15 and 16 have been sufficient to cover upgrade costs;
- (2) discontinue the Common Treatment for Excess PEV Charging Costs upon expiration on June 30, 2013 because Rules 15 and 16 were not intended to accommodate PEVs; or
- (3) continue the Common Treatment for Excess PEV Charging Costs for three years while additional PEV charging behavior data is gathered because of expected and ongoing changes in the PEV market.

SCE and SDG&E recommend that the Commission discontinue the Common Treatment for Excess PEV Charging Costs on June 30, 2013 consistent with D.11-07-029. SCE and SDG&E refer to the costs described in the utilities' December 28, 2012 Joint PEV Load Research Reports to support their position which indicates a low percentage of customers requiring upgrades and the insignificant costs of upgrades due to the addition of new PEV load.

According to the Joint PEV Load Research Reports, of the 6,306 residential "infrastructure checks" completed by the three utilities, only 22 customers (0.3%) required facility upgrades. For all but five upgrades (0.1% of total infrastructure checks), the existing Electric Tariff Rules 15 and 16 allowances covered the customer's cost responsibility. As a result, SCE and SDG&E conclude that the existing Rules 15 and 16 allowances are appropriate for new PEV load in their service territories. SCE further notes that since filing the Joint PEV Load Research Reports, it has completed one upgrade and expects to soon complete

three additional upgrades which are all associated with PEV charging and none of these four upgrades are projected to exceed the current allowance. For all these reasons, SCE and SDG&E recommend that the policy of treating residential service facility upgrade costs for electric vehicle load in excess of the allowance as common facility costs end on June 30, 2013.<sup>10</sup>

DRA and TURN oppose continuing the upgrade cost allowance beyond June 30, 2013. DRA and TURN agree with SCE and SDG&E's conclusion based on the data in the Joint PEV Load Research Reports that existing allowances under Rules 15 and 16 are appropriate and insufficient evidence exists to justify continuing the Common Treatment for Excess PEV Charging Costs policy.<sup>11</sup> DRA and TURN state that the Commission's treatment of residential service facility upgrade costs in excess of the allowance as common facility costs raises class equity and environmental justice concerns.<sup>12</sup> TURN further states that the allowance policy was not intended to permanently subsidize costs in excess of allowances and recommends that the Commission acknowledge the possibility that the PEV may have been purchased even without the subsidy.<sup>13</sup> Furthermore, DRA warns of the potential for "unwarranted" and "inappropriately large" subsidies to residential PEV owners borne by general

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<sup>10</sup> SCE Opening Comments, April 9, 2013 at 8 and SDG&E Opening Comments, April 9, 2013 at 11.

<sup>11</sup> DRA Opening Comments, April 9, 2013 at 3 and TURN Opening Comments, April 9, 2013 at 2.

<sup>12</sup> DRA Opening Comments, April 9, 2013 at 5, and TURN Opening Comments, April 9, 2013 at 3.

<sup>13</sup> TURN Opening Comments, April 9, 2013 at 3.



ratepayers.<sup>14</sup> TURN and DRA state that Rules 15 and 16 are not intended to consider load associated with PEV charging and, therefore, are inappropriate for addressing upgrades related to such load.<sup>15</sup>

For these reasons, DRA and TURN recommend that the Commission replace the existing temporary policy with separate and new tariff rules for PEVs. More specifically, DRA recommends that the Commission impose a fixed monthly "service connection upgrade fee" for Level 2 charging stations instead of an allowance or to assign part of a final line transformer upgrade cost to a PEV customer's cost responsibility that is subject to an allowance.<sup>16</sup> TURN recommends that the Commission establish a separate allowance for PEV facility upgrades, which takes into account the PEV's "average load, lifespan, and transient nature" and, if necessary, is adjusted by an adder for policy reasons.<sup>17</sup>

PG&E, SDG&E, and NRDC oppose DRA and TURN's recommendation.<sup>18</sup> PG&E states it is inappropriate to examine allowance methodologies in this quasi-legislative proceeding, that such an examination is a time-intensive process, and requires as-of-yet unavailable data. SDG&E and NRDC oppose the aspect of DRA's and TURN's recommendation that would require PEV load to be treated separately from similar loads, such as an air conditioner or a hot tub. Both SDG&E and NRDC refer to the Commission's finding in D.11-07-029 that

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<sup>14</sup> DRA Opening Comments, April 9, 2013 at 3-5.

<sup>15</sup> TURN Opening Comments, April 9, 2013 at 5 and DRA Opening Comments, April 9, 2013 at 4-5.

<sup>16</sup> DRA Opening Comments, April 9, 2013 at 5-6.

<sup>17</sup> TURN Opening Comments, April 9, 2013 at 5.

<sup>18</sup> PG&E Reply Comments, April 19, 2013 at 3, SDG&E Reply Comments, April 19, 2013 at 6, NRDC Reply Comments, April 19, 2013 at 3.

PEV charging load is “new and permanent” and should be treated similarly to other load.<sup>19</sup> PG&E states that policy consistency is necessary for the benefit of customers.

Several parties suggest that the Common Treatment for Excess PEV Charging Costs should continue for several years to evaluate its significance as electric vehicle adoption changes during the next few years. PG&E recommends extending the Common Treatment for Excess PEV Charging Costs for an additional three years, even though the costs are currently de minimis. For example, during the initial period reflected in the Joint PEV Load Research Reports (the initial period of June 2011 to October 2012), only 0.2% of the 3,066 infrastructure checks within PG&E’s service territory resulted in facility upgrade costs above the allowance for a total cost of \$9,226.<sup>20</sup> From a customer perspective, PG&E states it is not appropriate to “abruptly” expose new PEV adopters to “potentially high distribution costs.”<sup>21</sup>

Likewise, CCSE supports a three year extension and points to the need to collect additional data to determine the best way to assign these costs. The EVSP Coalition also supports a three year extension and points to a “cluster” effect that is likely to impact costs for future adopters.<sup>22</sup> GPI and CEC state that the extension should be continued indefinitely with biannual reviews to determine if the subsidy is still needed.

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<sup>19</sup> D.11-07-029 at 54.

<sup>20</sup> Joint PEV Load Research Reports, December 28, 2012 at 8.

<sup>21</sup> PG&E Opening Comments, April 9, 2013 at 5.

<sup>22</sup> EVSP Coalition Opening Comments, April 9, 2013 at 10. The “cluster effect” is the tendency for PEVs to be adopted in higher concentrations in specific neighborhoods and thus potentially impact distribution infrastructure.

SCE and TURN both provide additional recommendations should the Commission continue the Common Treatment for Excess PEV Charging Costs. SCE recommends the allowance be evaluated in three years at more a mature stage in the on-going development of the PEV market.<sup>23</sup> TURN requests the Commission further clarify the allowance to reflect the limitations to the policy set forth in D.11-07-029, such as the types of charging facilities permitted under the allowance. Referencing the Joint PEV Load Research Reports, TURN agrees with SCE that the policy is not designed to cover DC Fast Charging, only Levels 1 and 2.<sup>24</sup> TURN also recommends that the Commission confirm that the exclusions to the policy in D.11-07-029 continue to apply.<sup>25</sup>

#### **4. Discussion**

Today, we consider whether the existing allowances under Rules 15 and 16 are appropriate for new PEV load. In reviewing the data presented in the December 28, 2012 Joint PEV Load Research Reports, SCE and SDG&E conclude that current allowances are sufficient for their customers and that insufficient evidence exists to require the extension of the interim policy. PG&E finds that the PEV loads and costs within the scope of the report may not be indicative of those observed under continued PEV market growth because these minimal load and cost impacts are predicated on the behaviors of early adopter PEV customers and the charging demand of only a few of the first PEV models that were available since the beginning of this proceeding.

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<sup>23</sup> SCE Opening Comments, April 9, 2013 at 8.

<sup>24</sup> TURN Opening Comments, April 9, 2013 at 3 citing to the Joint PEV Load Research Reports at fn. 4. direct current (DC) fast chargers use up to 600 volts of DC to charge electric vehicles.

<sup>25</sup> TURN Opening Comments, April 9, 2013 at 4, referring to D.11-07-029 at 59.

#### **4.1. Interim Cost Allocation Policy Extended Through June 30, 2016**

The Commission is cautious in assuming that load and cost impacts will continue to occur at a similar magnitude as occurring historically given the continually growing and evolving PEV market. We also understand that, since the beginning of the utilities' data collection reflected in the Joint PEV Load Research Reports, many more new full-battery and hybrid plug-in electric vehicle models have been introduced and the majority of these new models have higher charging capabilities.

According to CCSE, 29 models of electric vehicles exist now that are eligible for the California's Air Resources Board's (CARB) Clean Vehicle Rebate Project (CVRP) and most of these vehicles are new to the market in the past year.<sup>26</sup> These vehicles feature different ranges, charging levels and performance characteristics.<sup>27</sup> We also note that, in the Joint PEV Load Research Reports, the utilities state that the charging behaviors of the early PEV customers may not necessarily be representative of the future PEV customer as the characteristics of PEV drivers will most likely change in response to the increased diversity of PEV models available.<sup>28</sup> For instance, CCSE observes from its database of customers participating in the CVRP that PEVs are being adopted in clusters on the scales of ZIP-codes and metropolitan regions.<sup>29</sup> The EVSP Coalition suggests that their

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<sup>26</sup> CCSE Opening Comments, April 9, 2013 at 8. The CVRP is funded by CARB's Air Quality Improvement Program, which was established by AB 118, and provides a rebate to drivers that purchase an eligible PEV.

<sup>27</sup> *Ibid.*

<sup>28</sup> Joint PEV Load Research Reports, December 28, 2012 at 5.

<sup>29</sup> CCSE Opening Comments, April 9, 2013 at 8.

members have data that could help elucidate the load impacts resulting from PEV adoption clusters.<sup>30</sup>

In evaluating the merits of extending the Common Treatment for Excess PEV Charging Costs, the Commission places great weight on the impact of the policy on individual PEV customers and the promotion of PEV adoption in general. While the load research studies suggests that line upgrade costs to date are small, we share PG&E's concern regarding the impact of the imposition of upgrade costs on household PEV adoption behavior.

As discussed in the March 25, 2013 assigned Commissioner's Ruling, the likelihood of creating additional distribution costs were low, less than 0.3%. However, the actual cost for a PEV customer requiring a line extension upgrade could be over \$10,000.<sup>31</sup> The potential for high costs justify a temporary solution to prevent negative impacts on the growth of PEV adoption, consistent with the intention of Pub. Util. Code § 704.2(a) and our reasoning in D.11-07-029 when initially adopting Common Treatment for Excess PEV Charging Costs. In D.11-07-029, we stated:

While it is too early to say with any degree of certainty whether Electric Vehicles will become a mainstream feature of California's vehicle fleet or a given customer's fleet of vehicles, we want the policies we adopt today to create an environment to facilitate customers' positive initial experiences with Electric Vehicles and, as a result, greatly improve the likelihood that Electric Vehicles will become a permanent feature of California's vehicle fleet.<sup>32</sup>

It is still too early to make a determination about the PEV market.

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<sup>30</sup> EVSP Coalition Opening Comments, April 19, 2013 at 10-11.

<sup>31</sup> Joint PEV Load Research Reports, December 28, 2012 at 8.

<sup>32</sup> D.11-07-029 at 54.

We also share CCSE and PG&E's concern regarding the arbitrary nature of these distribution costs. Absent the Common Treatment for Excess PEV Charging Costs, utilities cannot promise that PEV adopters will not face thousands of dollars in line upgrade costs after they purchase their vehicle. We find this to be a potentially high impediment to reaching the state's PEV adoption goals.

Further complicating the cost assignment issue is the fact that clustering may result in the entire cost of an upgrade being assigned to one PEV driver, despite the fact that several drivers contributed to the load growth that triggered the upgrade. Absent a solution that can reasonably assign upgrade costs among the contributors; we think it is premature to discontinue the common treatment of PEV charging costs in excess of the allowances permitted in Rules 15 and 16.

In that regard and based on the comments by parties, the Commission finds that the interim policy to allow PEV charging costs in excess of the Rules 15 and 16 allowance to be treated as common facility costs should be continued for a limited period of time. Specifically, we extend this cost allocation policy for three additional years beyond the expiration of the current policy and until June 30, 2016. The policy shall remain consistent with the parameters in D.11-07-029.

SCE and TURN both provide recommendations for how to continue the Common Treatment for Excess PEV Charging Costs. SCE and TURN both argue that the upgrade allowance extension was not intended to apply to DC fast charging. We agree. Consistent with Decision 11-07-029, the Common

Treatment for Excess PEV Charging Costs will not apply to DC (direct current) fast chargers.<sup>33</sup>

NRDC also raised concerns regarding the impact of new vehicles' increasing AC (alternating current) charging levels on infrastructure costs.<sup>34</sup> TURN raised similar concerns regarding the "higher demand requirements" of new and future electric vehicles.<sup>35</sup>

Notably, in D.11-07-029, we intended for the interim cost allocation policy to only include "basic" charging arrangements. At the time, we defined basic charging arrangements as, generally, applying to Level 1 and Level 2 charging. While we acknowledge the changes in charging levels since the adoption of D.11-07-029, we believe that further study is needed to examine what is meant by "basic" charging and how to most appropriately allocate costs for distribution upgrades triggered by PEVs. In that regard, consistent with D.11-07-029, the Common Treatment for Excess PEV Charging Costs will continue to apply to Level 1 and Level 2 charging.

This extension will provide the Energy Division, utilities, and others the opportunity to share data to better understand how the changes in the PEV markets may impact upgrades to the distribution infrastructure. The additional time will also allow for a better understanding of the charging behaviors of more early market PEV adopters, the demand characteristics of new PEV models and the effect of clustering on service facility costs. The extension will also provide

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<sup>33</sup> D.11-07-029 at 59.

<sup>34</sup> NRDC Opening Comments, April 15, 2013 at 5-6.

<sup>35</sup> TURN Opening Comments, April 9, 2013 at 3.

regulatory certainty for the still nascent PEV market to ensure customers have positive experiences with PEVs.

In response to the concerns raised by TURN and DRA regarding the overall cost impacts on ratepayers in general, we emphasize that, as was the case with the initial Common Treatment for Excess PEV Charging Costs, this extension is intended to be temporary to avoid any adverse impacts of the traditional allowance policy until a long-term solution can be developed.

To protect from any unintended results on ratepayers from extending this policy for additional time, we retain the discretion to alter the policy based on evidence of a greater magnitude of costs being shifted to general ratepayers. Regarding TURN's request that the Commission develop separate tariffs to govern PEV-related upgrades, we find that separate tariff rules is a matter better addressed when more data is available.

Lastly, as discussed in more detail below, through ongoing load research conducted by the utilities, the Commission will monitor the actual distribution system upgrade costs incurred related to the addition of EV load. Furthermore, the Commission will revisit this issue in 18-months by convening a workshop to discuss the new information obtained from load research at that time and better understand how to rely on the data to inform the cost allowance policy.

#### **4.2. Need for Additional Load Research**

D.11-07-029 ordered the utilities to perform certain PEV-related load research to help parties and the Commission understand the distribution upgrade costs. This load research was valuable in understanding these costs. Today, we direct the utilities to continue this research during the next three years.



PG&E and SDG&E support coordinating the load research with the Demand Response Measurement and Evaluation Committee to prioritize the information needs and allocate resources for load research.<sup>36</sup> SCE recommends that orders for future load research be limited in scope and required when specified policies or rates are being considered, and with stakeholder input when necessary.<sup>37</sup> PG&E supports expanding the load research to understand customer PEV charging behavior and their impact on the grid, as long as additional costs are not significant or are otherwise recoverable in rates.<sup>38</sup>

We find that additional load research is justified to inform our policy related to upgrade costs and other PEV matters. The Commission recognizes the value of the early PEV load research and seeks recommendations from parties for additional information in future load research reports to improve the usefulness in informing policymaking.

The Commission also recognizes the potential use of the CVRP and EVSP Coalition data to provide the utilities information on key areas of vehicle adoption and potential infrastructure impacts. Because of these considerations, the Commission agrees with the utilities and CCSE that the existing requirements for the Joint PEV Load Research Reports set forth in D.11-07-029 should be revised so that the appropriate data is collected to determine whether

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<sup>36</sup> PG&E Opening Comments at 5 and SDG&E Reply Comments at 7. Previous Commission decisions created and authorized the Demand Response Measurement Evaluation Committee to oversee the evaluation of statewide Demand Response activities. This authority is confirmed in D.06-11-049, D.08-05-027, and D.12-04-045. It is composed of members from the Commission, CEC, and a representative from the three Investor-Owned Utilities.

<sup>37</sup> SCE Reply Comments at 6.

<sup>38</sup> PG&E Reply Comments at 3.

to continue the allowance policy and to better reflect the significant changes within the PEV market since 2011.

Toward this end, Energy Division is directed to work collaboratively with stakeholders in this proceeding to revise the load research methodology to help the Commission better understand charging behavior and its impact on the electric grid. Energy Division will provide this revised methodology to the utilities and the utilities will file with the Commission load research reports annually beginning no later than December 2013.

##### **5. Motions for Party Status**

This decision grants the motions for party status filed on April 9, 2013 by Recurrent and NRG.

Recurrent develops, owns, and operates distributed solar projects. Recurrent seeks to investigate how its solar projects could serve California's market for plug in hybrid and battery electric vehicles. As such, Recurrent is interested in the development of the submetering protocols for PEVs and the Common Treatment for Excess PEV Charging Costs. Based on this motion for party status, Recurrent meets the requirements to become a party in this proceeding.

NRG develops various types of power generation facilities and builds electric vehicle charging infrastructure in California and the United States. NRG is interested in how the development of the submetering protocols and the Common Treatment for Excess PEV Charging Costs will impact its business plan. Based on this motion for party status, NRG meets the requirements to become a party in this proceeding.

Both motions are granted.

## 6. Comments on Proposed Decision

This proposed decision of the Commissioner in this matter was mailed to the parties in accordance with Section 311 of the Public Utilities Code and comments were allowed under Rule 14.3 of the Commission's Rules of Practice and Procedure. Comments were filed on June 17, 2013, by the California Energy Storage Alliance (CESA), EVSP Coalition, GPI & CEC, NRDC, PowerTree, PG&E, Plug-In America, SCE, SDG&E, TURN, and Tesla Motors. Reply comments were filed on June 24, 2013, by EVSP Coalition, GPI & CEC, NRDC, PG&E, Plug In America, PowerTree, SCE, and SDG&E.

### *Cap on Common Treatment of Excess PEV Charging Costs*

Based on the comments and reply comments received, the proposed decision was changed to remove a limit on the Common Treatment for Excess PEV Charging Costs for vehicles charging at or below 7 kW. In comments to the proposed decision, PG&E requested that the Commission "defer its decision to exclude higher level charging from the cost allocation policy in the proposed decision."<sup>39</sup> Specifically, PG&E argues that there is currently no consensus on what should be considered "basic charging." In the other opening comments parties offered several alternative interpretations of what constitutes basic charging. CESA and PowerTree argued that the limit should be set at 18 kW per port.<sup>40</sup> The EVSP Coalition thought the limit should be set at 7.7 kW to allow for 32 amp charging configurations.<sup>41</sup> SCE thought that additional

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<sup>39</sup> PG&E Opening Comments on the Proposed Decision, June 17, 2013, at 1.

<sup>40</sup> CESA Opening Comments on the Proposed Decision, June 17, 2013, at 3, and PowerTree Opening Comments on the Proposed Decision, June 17, 2013, at 4.

<sup>41</sup> EVSP Coalition Opening Comments on the Proposed Decision, June 17, 2013, at 2.

research was needed for determining “any specific ‘basic’ charging limit on the special allowance policy.”<sup>42</sup> Plug-In America thought that basic charging should be allowed up to 25 kW.<sup>43</sup> GPI expressed support for the 7 kW limit.

PG&E was also concerned that a limit would be “operationally difficult to implement.”<sup>44</sup> NRDC stated similar concerns, arguing that the assignment of costs to large charging stations does not overcome the “sequencing” problem that this policy was originally intended to address.<sup>45</sup> Whether or not a large charging station would have to pay for the cost of upgrade would in part depend on whether other electric vehicle load or other load had already used any excess capacity on their neighborhood system, an arbitrary assignment that depends on the sequencing of new load in the neighborhood.

Finally, PG&E argued that imposing a charger limit for cost allocation purposes could have negative impacts on PEV adoption, which is still in its early stages. Tesla and Plug In America offered similar arguments. Plug In America thought the 7 kW limit would be “detrimental to the market growth.”<sup>46</sup> Tesla Motors thought that the kW on cost allocation would “stifle sales” of long-range EVs and vehicles with higher charge capacities, at a time when these technologies are just reaching the market.<sup>47</sup>

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<sup>42</sup> SCE Opening Comments on the Proposed Decision, June 17, 2013, at 2.

<sup>43</sup> Plug In America Opening Comments on the Proposed Decision, June 18, 2013, at 2.

<sup>44</sup> PG&E Opening Comments on the Proposed Decision, June 17, 2013, at 2.

<sup>45</sup> NRDC Opening Comments on the Proposed Decision, June 17, 2013, at 1.

<sup>46</sup> Plug In America, Opening Comments on the Proposed Decision, at 3.

<sup>47</sup> Tesla Motors, Opening Comments on the Proposed Decision, at 2.

In reply comments, all parties except SCE, agreed with the recommendation from PG&E to remove a cap on the interim Rule 15/16 cost allocation policy. In general, parties agreed that the risk of customer impact without a cap is low before the Commission is able to reexamine the policy in 18 months.<sup>48</sup> SCE is the only party that argued that increasing or eliminating the cap on the Rule 15/16 allowance policy “would be counterproductive and would create substantial ratepayer subsidies and preferential regulatory policy treatment.”<sup>49</sup>

*Load Research and Other Comments*

A number of other issues were addressed in comments and reply comments on the proposed decision. Regarding load research, SDG&E and PG&E recommend that utility Load Research Reports should be filed with Energy Division on an annual basis, instead of every six months. According to SDG&E, “preparing the PEV Load Research Report twice a year would be overly burdensome and will not yield significantly different results from an annual report.”<sup>50</sup> Furthermore, each of the utilities requested that they have the opportunity to work with Energy Division on the revised methodology. We agree that the utilities should be allowed to file Load Research Reports annually and that Energy Division should work with stakeholders to the proceeding in revising the load research methodology. The proposed decision has been revised accordingly. All other comments to the proposed decision have been considered and where appropriate incorporated into the discussion in the decision.

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<sup>48</sup> For example, see: SDG&E, Reply Comments on the Proposed Decision, at 2.

<sup>49</sup> SCE, Reply Comments on the Proposed Decision, at 2.

<sup>50</sup> SDG&E, Opening Comments on Proposed Decision, at 2.

## **7. Assignment of Proceeding**

Carla J. Peterman is the assigned Commissioner and Regina DeAngelis is the assigned ALJ in this proceeding.

### **Findings of Fact**

1. Electric vehicle load is a new and permanent load as defined under Electric Tariff Rule 15 (Distribution Line Extensions) and Rule 16 (Service Extensions).

2. In accordance with D.11-07-029, on an interim basis, until June 30, 2013, facility upgrade costs in excess of that covered by Rule 15 and Rule 16 associated with electric vehicle chargers at residential sites are treated as a common facility, rather than a cost paid by the individual customer.

3. In accordance with D.11-07-029, utilities collected data on the distribution upgrade costs associated with residential PEVs beginning in 2012, referred to as Joint PEV Load Research Reports.

4. The PEV loads and costs within the scope of the Joint PEV Load Research Reports may not be indicative of those observed under continued market growth.

5. Under a cautious approach, PEV load and cost impacts presumably will continue to occur at a similar magnitude as occurring historically given the continually growing and evolving PEV market.

6. In evaluating the merits of extending the Common Treatment for Excess PEV Charging, great weight is placed on the impact of the policy on individual PEV customers and the promotion of PEV adoption in general.

7. While the load research studies suggests that line upgrade costs in excess of the amounts covered under Tariff Rule 15 and 16 to date are small, concern remains regarding the impact of the upgrade costs on additional PEV adoption.

8. Revised and updated load research reports from utilities could inform policy developments related to upgrade costs and other PEV matters.

9. NRG and Recurrent filed motions for party status on April 9, 2013.

**Conclusions of Law**

1. Based on the state's efforts to remove impediments to the widespread use of PEVs and current evidence suggestions the minimal costs involved, it is reasonable to extend the Common Treatment for Excess PEV Charging Costs policy to June 30, 2016.

2. To protect from any unintended results on ratepayers from extending this policy for additional time, it is reasonable to revise the policy based on evidence of a greater magnitude of costs being shifted to general ratepayers, should such evidence become available.

3. Utilities should continue load research during the three year period, reporting results to the Energy Division annually beginning no later than December 31, 2013 to enable future review of the cost evaluation policy

4. Consistent with D.11-07-029, the Common Treatment for Excess PEV Charging Costs will not apply to DC fast chargers.

5. Additional load research is needed to better evaluate the cost allocation policy adopted today and to better reflect the changes in the PEV market.

6. NRG and Recurrent's motions for party status are granted.

**ORDER**

**IT IS ORDERED** that:

1. Pacific Gas and Electric Company, Southern California Edison Company, and San Diego Gas & Electric Company shall extend the interim policy adopted in Decision 11-07-029 to allow plug-in electric vehicle charging costs in excess of

the Electric Tariff Rules 15 and 16 allowances to be treated as common facility costs, referred to as the Common Treatment for Excess plug-in electric vehicle Charging Costs, as described in this Decision, until June 30, 2016.

2. The Commission's Energy Division is directed to review the Common Treatment for Excess plug-in electric vehicle Charging Costs after 18 months by convening a workshop to discuss any new relevant information contained in, for example, additional load research.

3. The Commission's Energy Division is directed to work collaboratively with stakeholders in this proceeding to revise the load research methodology and provide this revised methodology to Pacific Gas and Electric Company, Southern California Edison Company, and San Diego Gas & Electric Company.

4. Pacific Gas and Electric Company, Southern California Edison Company and San Diego Gas & Electric Company shall file with the Commission Load Research Reports using the revised methodology provided by Energy Division annually beginning no later than December 2013.

5. NRG Energy, Inc.'s and Recurrent Energy's April 9, 2013 motions for party status are granted.

6. Rulemaking 09-08-009 remains open.

This order is effective today.

Dated June 27, 2013, at San Francisco, California.

MICHAEL R. PEEVEY  
President  
MICHEL PETER FLORIO  
CATHERINE J.K. SANDOVAL  
MARK J. FERRON  
CARLA J. PETERMAN  
Commissioners